

U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

**Well Name:** PRECIOUS 30-18  
FEDERAL COM

**Well Location:** T23S / R31E / SEC 31 /  
NENE / 32.266749 / -103.812348

**County or Parish/State:** EDDY /  
NM

**Well Number:** 45H

**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM21640

**Unit or CA Name:**

**Unit or CA Number:**

**US Well Number:**

**Operator:** OXY USA INCORPORATED

### Notice of Intent

**Sundry ID:** 2806303

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 08/11/2024

**Time Sundry Submitted:** 09:49

**Date proposed operation will begin:** 08/12/2024

**Procedure Description:** OXY USA Inc. requests a change to the subject APD. The details for the changes are noted in the APD Change Sundry attachment.

### NOI Attachments

**Procedure Description**

PRECIOUS\_30\_18\_FED\_COM\_45H\_\_\_\_OXY\_APD\_CHANGE\_SUNDRY\_LIST\_8.8.24\_20240811214605.pdf

PRECIOUS30\_18FedCom45H\_DirectPlan\_20240811214605.pdf

PRECIOUS30\_18FedCom45H\_DrillPlan\_20240811214605.pdf

Well Name: PRECIOUS 30-18  
FEDERAL COM

Well Location: T23S / R31E / SEC 31 /  
NENE / 32.266749 / -103.812348

County or Parish/State: EDDY /  
NM

Well Number: 45H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM21640

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: OXY USA INCORPORATED

### Conditions of Approval

#### Additional

PRECIOUS\_30\_18\_FEDERAL\_COM\_45H\_\_\_SUNDRY\_COA\_20240812132234.pdf

### Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: RONI MATHEW

Signed on: AUG 11, 2024 09:48 PM

Name: OXY USA INCORPORATED

Title: REGULATORY SPECIALIST

Street Address: 5 Greenway Plaza, Suite 110

City: Houston

State: TX

Phone: (713) 215-7827

Email address: RONI\_MATHEW@OXY.COM

### Field

Representative Name: JIM WILSON

Street Address: 6001 DEAUVILLE BLVD.

City: MIDLAND

State: TX

Zip: 79710

Phone: (575)631-2442

Email address: JIM\_WILSON@OXY.COM

### BLM Point of Contact

BLM POC Name: KEITH P IMMATTY

BLM POC Title: ENGINEER

BLM POC Phone: 5759884722

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition: Approved

Disposition Date: 08/12/2024

Signature: Keith Immatty

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021

**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.**

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** - Other instructions on page 2

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. (include area code)

10. Field and Pool or Exploratory Area

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input 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 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 recomplete 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 recompletion 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.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

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

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)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Location of Well

0. SHL: NENE / 519 FNL / 1235 FEL / TWSP: 23S / RANGE: 31E / SECTION: 31 / LAT: 32.266749 / LONG: -103.812348 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNE / 1319 FNL / 1599 FEL / TWSP: 23S / RANGE: 31E / SECTION: 19 / LAT: 32.293583 / LONG: -103.813555 ( TVD: 11820 feet, MD: 21186 feet )

PPP: SWNE / 2642 FSL / 1600 FEL / TWSP: 23S / RANGE: 31E / SECTION: 30 / LAT: 32.275436 / LONG: -103.813538 ( TVD: 11820 feet, MD: 14582 feet )

PPP: SWSE / 100 FSL / 1600 FEL / TWSP: 23S / RANGE: 31E / SECTION: 30 / LAT: 32.26845 / LONG: -103.813532 ( TVD: 11820 feet, MD: 12174 feet )

PPP: NWSE / 1321 FSL / 1601 FEL / TWSP: 23S / RANGE: 31E / SECTION: 19 / LAT: 32.286328 / LONG: -103.813548 ( TVD: 11820 feet, MD: 18546 feet )

BHL: NWSE / 2623 FSL / 1600 FEL / TWSP: 23S / RANGE: 31E / SECTION: 18 / LAT: 32.304417 / LONG: -103.813564 ( TVD: 11820 feet, MD: 25124 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b> OXY USA INC.
<b>WELL NAME &amp; NO.:</b> PRECIOUS 30-18 FEDERAL COM 45H
<b>LOCATION:</b> Sec31, T23S, R31E
<b>COUNTY:</b> <span style="border: 1px solid black; padding: 2px;">Eddy County, New Mexico</span> ▼

COA

H <sub>2</sub> S	<input type="radio"/> No	<input checked="" type="radio"/> Yes		
<b>Potash / WIPP</b>	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-Q	<input checked="" type="checkbox"/> Open Annulus
	<i>4-String Design: Open 1st Int x 2nd Annulus (ICP 2 below Relief Zone)</i>			<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input checked="" type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

**All previous COAs still apply. Sundry updates the set depths for Intermediate 2 and Production intervals. Surface and salt intermediate set depths remain the same.**

*APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.*

### A. CASING

*Set points in COA reflects requirements from BLM Geology. Please review.*

1. The **13-3/8** inch surface casing shall be set at approximately **435** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after

bringing cement to surface or 500 pounds compressive strength, whichever is greater.  
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **10-3/4** inch intermediate salt protection casing shall be set at approximately **4,050** feet TVD. *BLM Geology Note: The operator proposes to set intermediate casing at 4157 feet, which will be in the Bell canyon formation this is not an acceptable set point. BLM suggests to set the first intermediate casing in the Lamar Limestone at a depth of 4050'.* The minimum required fill of cement behind the **10-3/4** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
3. The **7-5/8** inch second intermediate casing shall be set at approximately **11,767** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

**NOTE: CEMENT PROGRAM LISTED IN THE ATTACHED DRILL PLAN IS INADEQUATE TO COVER THE DEPTHS ON BOTH PRIMARY AND BRADENHEAD. PLEASE REVIEW VOLUMES PRIOR TO CEMENTING THE INTERVAL.**

**Option 1 (Primary + Post Frac Bradenhead):**

- Cement should tie-back **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
- ❖ **A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing 1 x Intermediate Casing 2 annulus un-cemented and monitored inside the Intermediate String.** Operator must follow monitoring requirements listed within R-111-Q. Tieback requirements shall be met within **180 days**.

Operator has proposed to pump down **intermediate 1 x intermediate 2** annulus post completion. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the intermediate 2 casing to surface after the second stage BH to verify TOC.** Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry during second stage bradenhead when running Echo-meter if cement is required to surface. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM. Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.**

**In the event of a casing failure during completion, the operator must contact the BLM at (575-706-2779) and (575-361-2822 Eddy County).**

4. The 5-1/2 inch production casing shall be set at approximately 25,304 feet. The minimum required fill of cement behind the 5-1/2 inch production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back 500 feet into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

## GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;  
**[BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**; (575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.

- iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### **A. CASING**

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

- v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
    - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
    - iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
    - v. The results of the test shall be reported to the appropriate BLM office.

- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

### **C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

### **D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**KPI -7/15/2024**

# **OXY**

**PRD NM DIRECTIONAL PLANS (NAD 1983)**

**Precious 30\_18**

**Precious 30\_18 Fed Com 45H**

**Wellbore #1**

**Plan: Permitting Plan**

## **Standard Planning Report**

**06 August, 2024**

## OXY Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

<b>Project</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		Using geodetic scale factor

<b>Site</b>	Precious 30_18		
<b>Site Position:</b>		<b>Northing:</b>	461,098.38 usft
<b>From:</b>	Map	<b>Easting:</b>	698,809.83 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	32.266607
		<b>Longitude:</b>	-103.823862

<b>Well</b>	Precious 30_18 Fed Com 45H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b> 461,167.08 usf
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b> 702,368.31 usf
<b>Position Uncertainty</b>		0.89 ft	<b>Wellhead Elevation:</b> 0.00 ft
<b>Grid Convergence:</b>		0.28 °	<b>Ground Level:</b> 3,348.60 ft
			<b>Latitude:</b> 32.266749
			<b>Longitude:</b> -103.812349

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	8/23/2019	6.78	59.97	47,935.20000000

<b>Design</b>	Permitting Plan			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	358.15

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/6/2024		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	25,303.70	Permitting Plan (Wellbore #1)	B001Mc_MWD+HRGM_R5 MWD+HRGM

## OXY Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,999.84	10.00	292.29	4,994.77	33.00	-80.52	1.00	1.00	0.00	292.29	
6,275.67	10.00	292.29	6,251.23	117.00	-285.48	0.00	0.00	0.00	0.00	
7,275.51	0.00	0.00	7,246.00	150.00	-366.00	1.00	-1.00	0.00	180.00	
11,017.51	0.00	0.00	10,988.00	150.00	-366.00	0.00	0.00	0.00	0.00	
11,467.51	18.00	359.68	11,430.63	220.11	-366.39	4.00	4.00	0.00	359.68	
11,767.51	18.00	359.68	11,715.95	312.81	-366.91	0.00	0.00	0.00	0.00	
12,370.84	90.40	359.68	12,045.86	770.22	-369.48	12.00	12.00	0.00	0.00	
25,303.70	90.40	359.68	11,955.79	13,702.57	-442.32	0.00	0.00	0.00	0.00	PBHL (Precious)

# OXY

## Planning Report

<b>Database:</b>	HOSPSP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	1.00	292.29	4,100.00	0.33	-0.81	0.36	1.00	1.00	0.00
4,200.00	2.00	292.29	4,199.96	1.32	-3.23	1.43	1.00	1.00	0.00
4,300.00	3.00	292.29	4,299.86	2.98	-7.27	3.21	1.00	1.00	0.00
4,400.00	4.00	292.29	4,399.68	5.29	-12.91	5.71	1.00	1.00	0.00
4,500.00	5.00	292.29	4,499.37	8.27	-20.17	8.91	1.00	1.00	0.00
4,600.00	6.00	292.29	4,598.90	11.90	-29.04	12.83	1.00	1.00	0.00
4,700.00	7.00	292.29	4,698.26	16.20	-39.52	17.46	1.00	1.00	0.00
4,800.00	8.00	292.29	4,797.40	21.15	-51.59	22.80	1.00	1.00	0.00
4,900.00	9.00	292.29	4,896.30	26.75	-65.27	28.84	1.00	1.00	0.00
4,999.84	10.00	292.29	4,994.77	33.00	-80.52	35.58	1.00	1.00	0.00
5,000.00	10.00	292.29	4,994.93	33.01	-80.54	35.59	0.00	0.00	0.00
5,100.00	10.00	292.29	5,093.41	39.59	-96.61	42.69	0.00	0.00	0.00
5,200.00	10.00	292.29	5,191.89	46.18	-112.67	49.79	0.00	0.00	0.00
5,300.00	10.00	292.29	5,290.37	52.76	-128.74	56.89	0.00	0.00	0.00

# OXY

## Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,400.00	10.00	292.29	5,388.86	59.35	-144.80	63.99	0.00	0.00	0.00	
5,500.00	10.00	292.29	5,487.34	65.93	-160.87	71.09	0.00	0.00	0.00	
5,600.00	10.00	292.29	5,585.82	72.51	-176.93	78.18	0.00	0.00	0.00	
5,700.00	10.00	292.29	5,684.30	79.10	-193.00	85.28	0.00	0.00	0.00	
5,800.00	10.00	292.29	5,782.78	85.68	-209.06	92.38	0.00	0.00	0.00	
5,900.00	10.00	292.29	5,881.26	92.27	-225.13	99.48	0.00	0.00	0.00	
6,000.00	10.00	292.29	5,979.74	98.85	-241.20	106.58	0.00	0.00	0.00	
6,100.00	10.00	292.29	6,078.22	105.43	-257.26	113.68	0.00	0.00	0.00	
6,200.00	10.00	292.29	6,176.71	112.02	-273.33	120.78	0.00	0.00	0.00	
6,275.67	10.00	292.29	6,251.23	117.00	-285.48	126.15	0.00	0.00	0.00	
6,300.00	9.76	292.29	6,275.20	118.58	-289.34	127.86	1.00	-1.00	0.00	
6,400.00	8.76	292.29	6,373.89	124.68	-304.23	134.43	1.00	-1.00	0.00	
6,500.00	7.76	292.29	6,472.86	130.13	-317.51	140.30	1.00	-1.00	0.00	
6,600.00	6.76	292.29	6,572.05	134.92	-329.20	145.47	1.00	-1.00	0.00	
6,700.00	5.76	292.29	6,671.46	139.05	-339.28	149.92	1.00	-1.00	0.00	
6,800.00	4.76	292.29	6,771.04	142.52	-347.75	153.67	1.00	-1.00	0.00	
6,900.00	3.76	292.29	6,870.76	145.34	-354.62	156.70	1.00	-1.00	0.00	
7,000.00	2.76	292.29	6,970.60	147.49	-359.87	159.02	1.00	-1.00	0.00	
7,100.00	1.76	292.29	7,070.52	148.98	-363.51	160.63	1.00	-1.00	0.00	
7,200.00	0.76	292.29	7,170.49	149.81	-365.54	161.53	1.00	-1.00	0.00	
7,275.51	0.00	0.00	7,246.00	150.00	-366.00	161.73	1.00	-1.00	0.00	
7,300.00	0.00	0.00	7,270.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,370.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,470.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,570.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,670.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,770.49	150.00	-366.00	161.73	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,870.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,970.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,070.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,170.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,270.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,370.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,470.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,570.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,670.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,770.49	150.00	-366.00	161.73	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,870.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,970.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,070.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,170.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,270.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,370.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,470.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,570.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,670.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,770.49	150.00	-366.00	161.73	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,870.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,970.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,070.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,170.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,270.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,370.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,470.49	150.00	-366.00	161.73	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,570.49	150.00	-366.00	161.73	0.00	0.00	0.00	

# OXY

## Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,700.00	0.00	0.00	10,670.49	150.00	-366.00	161.73	0.00	0.00	0.00
10,800.00	0.00	0.00	10,770.49	150.00	-366.00	161.73	0.00	0.00	0.00
10,900.00	0.00	0.00	10,870.49	150.00	-366.00	161.73	0.00	0.00	0.00
11,000.00	0.00	0.00	10,970.49	150.00	-366.00	161.73	0.00	0.00	0.00
11,017.51	0.00	0.00	10,988.00	150.00	-366.00	161.73	0.00	0.00	0.00
11,100.00	3.30	359.68	11,070.44	152.37	-366.01	164.10	4.00	4.00	0.00
11,200.00	7.30	359.68	11,170.00	161.61	-366.06	173.34	4.00	4.00	0.00
11,300.00	11.30	359.68	11,268.66	177.77	-366.16	189.49	4.00	4.00	0.00
11,400.00	15.30	359.68	11,365.96	200.76	-366.28	212.48	4.00	4.00	0.00
11,467.51	18.00	359.68	11,430.63	220.11	-366.39	231.81	4.00	4.00	0.00
11,500.00	18.00	359.68	11,461.53	230.15	-366.45	241.85	0.00	0.00	0.00
11,600.00	18.00	359.68	11,556.64	261.05	-366.62	272.74	0.00	0.00	0.00
11,700.00	18.00	359.68	11,651.75	291.95	-366.79	303.63	0.00	0.00	0.00
11,767.51	18.00	359.68	11,715.95	312.81	-366.91	324.48	0.00	0.00	0.00
11,800.00	21.90	359.68	11,746.49	323.89	-366.97	335.56	12.00	12.00	0.00
11,900.00	33.90	359.68	11,834.70	370.60	-367.23	382.25	12.00	12.00	0.00
12,000.00	45.90	359.68	11,911.28	434.62	-367.59	446.26	12.00	12.00	0.00
12,100.00	57.90	359.68	11,972.87	513.17	-368.03	524.78	12.00	12.00	0.00
12,200.00	69.90	359.68	12,016.79	602.81	-368.54	614.38	12.00	12.00	0.00
12,300.00	81.90	359.68	12,041.11	699.61	-369.08	711.16	12.00	12.00	0.00
12,370.84	90.40	359.68	12,045.86	770.22	-369.48	781.74	12.00	12.00	0.00
12,400.00	90.40	359.68	12,045.66	799.39	-369.64	810.90	0.00	0.00	0.00
12,500.00	90.40	359.68	12,044.96	899.38	-370.21	910.86	0.00	0.00	0.00
12,600.00	90.40	359.68	12,044.26	999.38	-370.77	1,010.82	0.00	0.00	0.00
12,700.00	90.40	359.68	12,043.57	1,099.37	-371.33	1,110.78	0.00	0.00	0.00
12,800.00	90.40	359.68	12,042.87	1,199.37	-371.90	1,210.74	0.00	0.00	0.00
12,900.00	90.40	359.68	12,042.17	1,299.37	-372.46	1,310.71	0.00	0.00	0.00
13,000.00	90.40	359.68	12,041.48	1,399.36	-373.02	1,410.67	0.00	0.00	0.00
13,100.00	90.40	359.68	12,040.78	1,499.36	-373.59	1,510.63	0.00	0.00	0.00
13,200.00	90.40	359.68	12,040.09	1,599.35	-374.15	1,610.59	0.00	0.00	0.00
13,300.00	90.40	359.68	12,039.39	1,699.35	-374.71	1,710.56	0.00	0.00	0.00
13,400.00	90.40	359.68	12,038.69	1,799.35	-375.28	1,810.52	0.00	0.00	0.00
13,500.00	90.40	359.68	12,038.00	1,899.34	-375.84	1,910.48	0.00	0.00	0.00
13,600.00	90.40	359.68	12,037.30	1,999.34	-376.40	2,010.44	0.00	0.00	0.00
13,700.00	90.40	359.68	12,036.60	2,099.33	-376.97	2,110.40	0.00	0.00	0.00
13,800.00	90.40	359.68	12,035.91	2,199.33	-377.53	2,210.37	0.00	0.00	0.00
13,900.00	90.40	359.68	12,035.21	2,299.33	-378.09	2,310.33	0.00	0.00	0.00
14,000.00	90.40	359.68	12,034.51	2,399.32	-378.66	2,410.29	0.00	0.00	0.00
14,100.00	90.40	359.68	12,033.82	2,499.32	-379.22	2,510.25	0.00	0.00	0.00
14,200.00	90.40	359.68	12,033.12	2,599.31	-379.78	2,610.21	0.00	0.00	0.00
14,300.00	90.40	359.68	12,032.42	2,699.31	-380.35	2,710.18	0.00	0.00	0.00
14,400.00	90.40	359.68	12,031.73	2,799.31	-380.91	2,810.14	0.00	0.00	0.00
14,500.00	90.40	359.68	12,031.03	2,899.30	-381.47	2,910.10	0.00	0.00	0.00
14,600.00	90.40	359.68	12,030.33	2,999.30	-382.04	3,010.06	0.00	0.00	0.00
14,700.00	90.40	359.68	12,029.64	3,099.29	-382.60	3,110.02	0.00	0.00	0.00
14,800.00	90.40	359.68	12,028.94	3,199.29	-383.16	3,209.99	0.00	0.00	0.00
14,900.00	90.40	359.68	12,028.25	3,299.29	-383.72	3,309.95	0.00	0.00	0.00
15,000.00	90.40	359.68	12,027.55	3,399.28	-384.29	3,409.91	0.00	0.00	0.00
15,100.00	90.40	359.68	12,026.85	3,499.28	-384.85	3,509.87	0.00	0.00	0.00
15,200.00	90.40	359.68	12,026.16	3,599.27	-385.41	3,609.84	0.00	0.00	0.00
15,300.00	90.40	359.68	12,025.46	3,699.27	-385.98	3,709.80	0.00	0.00	0.00
15,400.00	90.40	359.68	12,024.76	3,799.27	-386.54	3,809.76	0.00	0.00	0.00
15,500.00	90.40	359.68	12,024.07	3,899.26	-387.10	3,909.72	0.00	0.00	0.00
15,600.00	90.40	359.68	12,023.37	3,999.26	-387.67	4,009.68	0.00	0.00	0.00
15,700.00	90.40	359.68	12,022.67	4,099.25	-388.23	4,109.65	0.00	0.00	0.00

## OXY Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,800.00	90.40	359.68	12,021.98	4,199.25	-388.79	4,209.61	0.00	0.00	0.00
15,900.00	90.40	359.68	12,021.28	4,299.25	-389.36	4,309.57	0.00	0.00	0.00
16,000.00	90.40	359.68	12,020.58	4,399.24	-389.92	4,409.53	0.00	0.00	0.00
16,100.00	90.40	359.68	12,019.89	4,499.24	-390.48	4,509.49	0.00	0.00	0.00
16,200.00	90.40	359.68	12,019.19	4,599.23	-391.05	4,609.46	0.00	0.00	0.00
16,300.00	90.40	359.68	12,018.49	4,699.23	-391.61	4,709.42	0.00	0.00	0.00
16,400.00	90.40	359.68	12,017.80	4,799.23	-392.17	4,809.38	0.00	0.00	0.00
16,500.00	90.40	359.68	12,017.10	4,899.22	-392.74	4,909.34	0.00	0.00	0.00
16,600.00	90.40	359.68	12,016.41	4,999.22	-393.30	5,009.30	0.00	0.00	0.00
16,700.00	90.40	359.68	12,015.71	5,099.21	-393.86	5,109.27	0.00	0.00	0.00
16,800.00	90.40	359.68	12,015.01	5,199.21	-394.43	5,209.23	0.00	0.00	0.00
16,900.00	90.40	359.68	12,014.32	5,299.21	-394.99	5,309.19	0.00	0.00	0.00
17,000.00	90.40	359.68	12,013.62	5,399.20	-395.55	5,409.15	0.00	0.00	0.00
17,100.00	90.40	359.68	12,012.92	5,499.20	-396.11	5,509.12	0.00	0.00	0.00
17,200.00	90.40	359.68	12,012.23	5,599.19	-396.68	5,609.08	0.00	0.00	0.00
17,300.00	90.40	359.68	12,011.53	5,699.19	-397.24	5,709.04	0.00	0.00	0.00
17,400.00	90.40	359.68	12,010.83	5,799.19	-397.80	5,809.00	0.00	0.00	0.00
17,500.00	90.40	359.68	12,010.14	5,899.18	-398.37	5,908.96	0.00	0.00	0.00
17,600.00	90.40	359.68	12,009.44	5,999.18	-398.93	6,008.93	0.00	0.00	0.00
17,700.00	90.40	359.68	12,008.74	6,099.17	-399.49	6,108.89	0.00	0.00	0.00
17,800.00	90.40	359.68	12,008.05	6,199.17	-400.06	6,208.85	0.00	0.00	0.00
17,900.00	90.40	359.68	12,007.35	6,299.17	-400.62	6,308.81	0.00	0.00	0.00
18,000.00	90.40	359.68	12,006.65	6,399.16	-401.18	6,408.77	0.00	0.00	0.00
18,100.00	90.40	359.68	12,005.96	6,499.16	-401.75	6,508.74	0.00	0.00	0.00
18,200.00	90.40	359.68	12,005.26	6,599.15	-402.31	6,608.70	0.00	0.00	0.00
18,300.00	90.40	359.68	12,004.57	6,699.15	-402.87	6,708.66	0.00	0.00	0.00
18,400.00	90.40	359.68	12,003.87	6,799.15	-403.44	6,808.62	0.00	0.00	0.00
18,500.00	90.40	359.68	12,003.17	6,899.14	-404.00	6,908.58	0.00	0.00	0.00
18,600.00	90.40	359.68	12,002.48	6,999.14	-404.56	7,008.55	0.00	0.00	0.00
18,700.00	90.40	359.68	12,001.78	7,099.13	-405.13	7,108.51	0.00	0.00	0.00
18,800.00	90.40	359.68	12,001.08	7,199.13	-405.69	7,208.47	0.00	0.00	0.00
18,900.00	90.40	359.68	12,000.39	7,299.13	-406.25	7,308.43	0.00	0.00	0.00
19,000.00	90.40	359.68	11,999.69	7,399.12	-406.82	7,408.40	0.00	0.00	0.00
19,100.00	90.40	359.68	11,998.99	7,499.12	-407.38	7,508.36	0.00	0.00	0.00
19,200.00	90.40	359.68	11,998.30	7,599.11	-407.94	7,608.32	0.00	0.00	0.00
19,300.00	90.40	359.68	11,997.60	7,699.11	-408.51	7,708.28	0.00	0.00	0.00
19,400.00	90.40	359.68	11,996.90	7,799.11	-409.07	7,808.24	0.00	0.00	0.00
19,500.00	90.40	359.68	11,996.21	7,899.10	-409.63	7,908.21	0.00	0.00	0.00
19,600.00	90.40	359.68	11,995.51	7,999.10	-410.19	8,008.17	0.00	0.00	0.00
19,700.00	90.40	359.68	11,994.81	8,099.09	-410.76	8,108.13	0.00	0.00	0.00
19,800.00	90.40	359.68	11,994.12	8,199.09	-411.32	8,208.09	0.00	0.00	0.00
19,900.00	90.40	359.68	11,993.42	8,299.09	-411.88	8,308.05	0.00	0.00	0.00
20,000.00	90.40	359.68	11,992.73	8,399.08	-412.45	8,408.02	0.00	0.00	0.00
20,100.00	90.40	359.68	11,992.03	8,499.08	-413.01	8,507.98	0.00	0.00	0.00
20,200.00	90.40	359.68	11,991.33	8,599.07	-413.57	8,607.94	0.00	0.00	0.00
20,300.00	90.40	359.68	11,990.64	8,699.07	-414.14	8,707.90	0.00	0.00	0.00
20,400.00	90.40	359.68	11,989.94	8,799.07	-414.70	8,807.86	0.00	0.00	0.00
20,500.00	90.40	359.68	11,989.24	8,899.06	-415.26	8,907.83	0.00	0.00	0.00
20,600.00	90.40	359.68	11,988.55	8,999.06	-415.83	9,007.79	0.00	0.00	0.00
20,700.00	90.40	359.68	11,987.85	9,099.05	-416.39	9,107.75	0.00	0.00	0.00
20,800.00	90.40	359.68	11,987.15	9,199.05	-416.95	9,207.71	0.00	0.00	0.00
20,900.00	90.40	359.68	11,986.46	9,299.05	-417.52	9,307.68	0.00	0.00	0.00
21,000.00	90.40	359.68	11,985.76	9,399.04	-418.08	9,407.64	0.00	0.00	0.00
21,100.00	90.40	359.68	11,985.06	9,499.04	-418.64	9,507.60	0.00	0.00	0.00
21,200.00	90.40	359.68	11,984.37	9,599.03	-419.21	9,607.56	0.00	0.00	0.00

## OXY Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,300.00	90.40	359.68	11,983.67	9,699.03	-419.77	9,707.52	0.00	0.00	0.00
21,400.00	90.40	359.68	11,982.97	9,799.03	-420.33	9,807.49	0.00	0.00	0.00
21,500.00	90.40	359.68	11,982.28	9,899.02	-420.90	9,907.45	0.00	0.00	0.00
21,600.00	90.40	359.68	11,981.58	9,999.02	-421.46	10,007.41	0.00	0.00	0.00
21,700.00	90.40	359.68	11,980.89	10,099.01	-422.02	10,107.37	0.00	0.00	0.00
21,800.00	90.40	359.68	11,980.19	10,199.01	-422.59	10,207.33	0.00	0.00	0.00
21,900.00	90.40	359.68	11,979.49	10,299.01	-423.15	10,307.30	0.00	0.00	0.00
22,000.00	90.40	359.68	11,978.80	10,399.00	-423.71	10,407.26	0.00	0.00	0.00
22,100.00	90.40	359.68	11,978.10	10,499.00	-424.27	10,507.22	0.00	0.00	0.00
22,200.00	90.40	359.68	11,977.40	10,598.99	-424.84	10,607.18	0.00	0.00	0.00
22,300.00	90.40	359.68	11,976.71	10,698.99	-425.40	10,707.14	0.00	0.00	0.00
22,400.00	90.40	359.68	11,976.01	10,798.99	-425.96	10,807.11	0.00	0.00	0.00
22,500.00	90.40	359.68	11,975.31	10,898.98	-426.53	10,907.07	0.00	0.00	0.00
22,600.00	90.40	359.68	11,974.62	10,998.98	-427.09	11,007.03	0.00	0.00	0.00
22,700.00	90.40	359.68	11,973.92	11,098.97	-427.65	11,106.99	0.00	0.00	0.00
22,800.00	90.40	359.68	11,973.22	11,198.97	-428.22	11,206.95	0.00	0.00	0.00
22,900.00	90.40	359.68	11,972.53	11,298.97	-428.78	11,306.92	0.00	0.00	0.00
23,000.00	90.40	359.68	11,971.83	11,398.96	-429.34	11,406.88	0.00	0.00	0.00
23,100.00	90.40	359.68	11,971.13	11,498.96	-429.91	11,506.84	0.00	0.00	0.00
23,200.00	90.40	359.68	11,970.44	11,598.95	-430.47	11,606.80	0.00	0.00	0.00
23,300.00	90.40	359.68	11,969.74	11,698.95	-431.03	11,706.77	0.00	0.00	0.00
23,400.00	90.40	359.68	11,969.05	11,798.95	-431.60	11,806.73	0.00	0.00	0.00
23,500.00	90.40	359.68	11,968.35	11,898.94	-432.16	11,906.69	0.00	0.00	0.00
23,600.00	90.40	359.68	11,967.65	11,998.94	-432.72	12,006.65	0.00	0.00	0.00
23,700.00	90.40	359.68	11,966.96	12,098.93	-433.29	12,106.61	0.00	0.00	0.00
23,800.00	90.40	359.68	11,966.26	12,198.93	-433.85	12,206.58	0.00	0.00	0.00
23,900.00	90.40	359.68	11,965.56	12,298.93	-434.41	12,306.54	0.00	0.00	0.00
24,000.00	90.40	359.68	11,964.87	12,398.92	-434.98	12,406.50	0.00	0.00	0.00
24,100.00	90.40	359.68	11,964.17	12,498.92	-435.54	12,506.46	0.00	0.00	0.00
24,200.00	90.40	359.68	11,963.47	12,598.91	-436.10	12,606.42	0.00	0.00	0.00
24,300.00	90.40	359.68	11,962.78	12,698.91	-436.67	12,706.39	0.00	0.00	0.00
24,400.00	90.40	359.68	11,962.08	12,798.91	-437.23	12,806.35	0.00	0.00	0.00
24,500.00	90.40	359.68	11,961.38	12,898.90	-437.79	12,906.31	0.00	0.00	0.00
24,600.00	90.40	359.68	11,960.69	12,998.90	-438.35	13,006.27	0.00	0.00	0.00
24,700.00	90.40	359.68	11,959.99	13,098.89	-438.92	13,106.23	0.00	0.00	0.00
24,800.00	90.40	359.68	11,959.30	13,198.89	-439.48	13,206.20	0.00	0.00	0.00
24,900.00	90.40	359.68	11,958.60	13,298.89	-440.04	13,306.16	0.00	0.00	0.00
25,000.00	90.40	359.68	11,957.90	13,398.88	-440.61	13,406.12	0.00	0.00	0.00
25,100.00	90.40	359.68	11,957.21	13,498.88	-441.17	13,506.08	0.00	0.00	0.00
25,200.00	90.40	359.68	11,956.51	13,598.87	-441.73	13,606.05	0.00	0.00	0.00
25,300.00	90.40	359.68	11,955.81	13,698.87	-442.30	13,706.01	0.00	0.00	0.00
25,303.70	90.40	359.68	11,955.79	13,702.57	-442.32	13,709.70	0.00	0.00	0.00

## OXY Planning Report

<b>Database:</b>	HOPSPP	<b>Local Co-ordinate Reference:</b>	Well Precious 30_18 Fed Com 45H
<b>Company:</b>	ENGINEERING DESIGNS	<b>TVD Reference:</b>	25' RKB @ 3373.60ft
<b>Project:</b>	PRD NM DIRECTIONAL PLANS (NAD 1983)	<b>MD Reference:</b>	25' RKB @ 3373.60ft
<b>Site:</b>	Precious 30_18	<b>North Reference:</b>	Grid
<b>Well:</b>	Precious 30_18 Fed Com 45H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permitting Plan		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Precious 30_18 - plan misses target center by 676.47ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	567.26	-368.55	461,734.30	701,999.78	32.268313	-103.813532
PBHL (Precious 30_18 - plan hits target center - Point	0.00	0.00	11,955.79	13,702.57	-442.32	474,868.78	701,926.02	32.304417	-103.813565
FTP (Precious 30_18 - plan misses target center by 24.13ft at 12221.44ft MD (12023.70 TVD, 623.09 N, -368.65 E) - Point	0.00	0.00	12,047.11	617.25	-368.82	461,784.29	701,999.51	32.268450	-103.813532

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
374.60	374.60	RUSTLER				
695.60	695.60	SALADO				
2,606.60	2,606.60	CASTILE				
4,065.60	4,065.60	DELAWARE				
4,105.61	4,105.60	BELL CANYON				
4,994.59	4,989.60	CHERRY CANYON				
6,299.40	6,274.60	BRUSHY CANYON				
7,989.11	7,959.60	BONE SPRING				
9,022.11	8,992.60	BONE SPRING 1ST				
9,663.11	9,633.60	BONE SPRING 2ND				
10,854.11	10,824.60	BONE SPRING 3RD				
11,331.62	11,299.60	WOLFCAMP				
11,487.45	11,449.60	WOLFCAMP A				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
11,767.51	11,715.95	312.81	-366.91	KOP	
12,370.84	12,045.86	770.23	-369.48	Landing Point	
25,303.70	11,955.79	13,702.57	-442.32	TD at 25303.70	

# Oxy USA Inc. - PRECIOUS 30\_18 Fed Com 45H Drill Plan

## 1. Geologic Formations

TVD of Target (ft):	12046	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	25304	Deepest Expected Fresh Water (ft):	375

### Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	375	375	
Salado	696	696	Salt
Castile	2607	2607	Salt
Delaware	4066	4066	Oil/Gas/Brine
Bell Canyon	4106	4106	Oil/Gas/Brine
Cherry Canyon	4995	4990	Oil/Gas/Brine
Brushy Canyon	6299	6275	Losses
Bone Spring	7989	7960	Oil/Gas
Bone Spring 1st	9022	8993	Oil/Gas
Bone Spring 2nd	9663	9634	Oil/Gas
Bone Spring 3rd	10854	10825	Oil/Gas
Wolfcamp	11332	11300	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## 2. Casing Program

Section	Hole Size (in)	MD		TVD		Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
		From (ft)	To (ft)	From (ft)	To (ft)				
Surface	17.5	0	435	0	435	13.375	54.5	J-55	BTC
Salt	12.25	0	4166	0	4166	10.75	45.5	L-80 HC	BTC-SC
Intermediate	9.875	0	11767	0	11715	7.625	29.7	L-80 HC	BTC
Production	6.75	0	25304	0	12046	5.5	23	P-110	Sprint-SF

All casing strings will be tested in accordance with 43 CFR part 3170 Subpart 3172

<i>All Casing SF Values will meet or exceed those below</i>			
<b>SF Collapse</b>	<b>SF Burst</b>	<b>Body SF Tension</b>	<b>Joint SF Tension</b>
1.00	1.100	1.4	1.4

	Y or N
Is casing new? If used, attach certification as required in 43 CFR 3160	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

### 3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft <sup>3</sup> /ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	454	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	85	1.33	14.8	20%	3,666	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	587	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	328	1.68	13.2	5%	6,549	Circulate	Class C+Ret., Disper.
Int. 2	2	Intermediate 2S - Tail BH	240	1.71	13.3	25%	3,666	Bradenhead Post-Frac	Class C+Accel.
Prod.	1	Production - Tail	793	1.84	13.3	25%	11,267	Circulate	Class C+Ret.

#### Offline Cementing Request

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365. Please see Offline Cementing Variance attachment for further details.

#### Bradenhead CBL Request

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see Bradenhead CBL Variance attachment for further details.

### 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:	TVD Depth (ft) per Section:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	4166
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
Other*						
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	11715
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
Other*						
6.75" Hole	13-5/8"	5M	Annular	✓	100% of working pressure	12046
		10M	Blind Ram	✓	250 psi / 10000 psi	
			Pipe Ram			
			Double Ram	✓		
Other*						

\*Specify if additional ram is utilized

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke

**5M Annular BOP Request**

Per BLM’s Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see Annular BOP Variance attachment for further details.

	<p>Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.</p> <p>On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR part 3170 Subpart 3172.</p>
	<p>A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.</p>
Y	<p>Are anchors required by manufacturer?</p>
	<p>A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per 43 CFR part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.</p> <p>See attached schematics.</p>

**BOP Break Testing Request**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see BOP Break Testing Variance attachment for further details.

**Oxy will use Cameron ADAPT wellhead system that uses an OEC top flange connection. This connection has been fully vetted and verified by API to Spec 6A and carries an API monogram.**

### 5. Mud Program

Section	Depth		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	435	0	435	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	435	4166	435	4166	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	4166	11767	4166	11715	Water-Based or Oil-Based Mud	8.0 - 10.0	38-50	N/C
Production	11767	25304	11715	12046	Water-Based or Oil-Based Mud	9.5 - 13.5	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls,

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
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### 6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain
Additional logs planned	Interval
No	Resistivity
No	Density
Yes	CBL Production string
Yes	Mud log Bone Spring – TD
No	PEX

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8457 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	177°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR part 3170 Subpart 3172. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

### 8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 2 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

**Total Estimated Cuttings Volume:** 1993 bbls

**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  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**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 372893

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 372893
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required. Operator must comply with all R-111-Q requirements.	9/25/2024