

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

Sundry Print Reports

Well Name: RIGHT POPULAR 20 FED Well Location: T25S / R29E / SEC 20 / County or Parish/State: EDDY /

NWNW / 32.122226 / -104.013748 NM

Well Number: 103H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

Lease Number: NMNM102031 Unit or CA Name: Unit or CA Number:

INCORPORATED

#### **Notice of Intent**

**Sundry ID: 2844105** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/27/2025 Time Sundry Submitted: 06:00

Date proposed operation will begin: 04/30/2025

**Procedure Description:** XTO Energy Inc. respectfully requests approval to make the following changes to the approved APD. Changes to include KOP, FTP, LTP, BHL, proposed total depth, and dedicated acreage. APD ID: 10400094983 FROM: TO: KOP: 255' FNL & 434' FWL OF SECTION 20-T25S-R29E 616' FSL & 541' FWL OF SECTION 17-T25S-R29E FTP: 330' FNL & 330' FWL OF SECTION 20-T25S-R29E 100' FNL & 540' FWL OF SECTION 20-T25S-R29E LTP: 330' FSL & 330' FWL OF SECTION 32-T25S-R29E 330' FSL & 540' FWL OF SECTION 32-T25S-R29E BHL: 280' FSL & 330' FWL OF SECTION 32-T25S-R29E 50' FSL & 540' FWL OF SECTION 32-T25S-R29E The proposed total depth is changing from 25643' MD; 9907' TVD to 27194' MD; 10788' TVD. Dedicated acreage is changing from 960.00 to 1920.00. There is no new surface disturbance.

### **NOI Attachments**

### **Procedure Description**

 $Right\_Popular\_20\_Fed\_103H\_Sundry\_change\_attachments\_20250424172718.pdf$ 

Page 1 of 2

eceived by OCD: 5/15/2025 5:11:32 PM.
Well Name: RIGHT POPULAR 20 FED

Well Location: T25S / R29E / SEC 20 /

NWNW / 32.122226 / -104.013748

County or Parish/State: Page 2 of

**Allottee or Tribe Name:** 

**Unit or CA Number:** 

NM

Well Number: 103H

r: 103H

Type of Well: CONVENTIONAL GAS

**VELL** 

Zip:

**US Well Number:** 3001556314

Lease Number: NMNM102031

Operator: XTO ENERGY

**INCORPORATED** 

**Unit or CA Name:** 

## **Conditions of Approval**

#### **Additional**

252920\_Right\_Popular\_20\_Fed\_103H\_04\_30\_2025\_JAM\_COAs\_20250501113205.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: VISHAL RAJAN Signed on: APR 24, 2025 05:27 PM

Name: XTO ENERGY INCORPORATED

Title: Regulatory Clerk

Street Address: 6401 HOLIDAY HILL ROAD BLDG 5

City: MIDLAND State: TX

Phone: (432) 620-6704

Email address: VISHAL.RAJAN@EXXONMOBIL.COM

#### **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Phone:

**Email address:** 

### **BLM Point of Contact**

Signature: Chris Walls

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234 BLM POC Email Address: cwalls@blm.gov

**Disposition:** Approved **Disposition Date:** 05/02/2025

Disposition: Approved

Page 2 of 2

Form 3160-5 (June 2019)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR

| FORM APPROVED            |
|--------------------------|
| OMB No. 1004-0137        |
| Expires: October 31, 202 |

| BUR  | EAU OF LAND MANAGEME  | 5. Lease Serial No.   | 6. If Indian, Allottee or Tribe Name |  |  |
|--|---|-----------------------|--------------------------------------|--|--|
| Do not use this t  | IOTICES AND REPORTS Of<br>Form for proposals to drill of<br>Form 3160-3 (APD) for | nn                    |                                      |  |  |
| SUBMIT IN  | TRIPLICATE - Other instructions or  | page 2                | 7. If Unit of CA/Agreemer            | nt, Name and/or No.                          |  |
| 1. Type of Well  |   |                       | 8. Well Name and No.                 |  |  |
| Oil Well Gas V  2. Name of Operator  | Vell Other  |                       | 9. API Well No.                      |  |  |
|  | [   |                       |                                      |  |  |
| 3a. Address  | 3b. Phone   | e No. (include area c | ode) 10. Field and Pool or Expl      | oratory Area                                 |  |
| 4. Location of Well (Footage, Sec., T., K  | R.,M., or Survey Description)   |                       | 11. Country or Parish, State         | e  |  |
| 12. CHE  | CK THE APPROPRIATE BOX(ES) TO   | O INDICATE NATU       | RE OF NOTICE, REPORT OR O            | OTHER DATA                                   |  |
| TYPE OF SUBMISSION   |   |                       | TYPE OF ACTION                       |  |  |
| Notice of Intent   | Acidize   | Deepen                | Production (Start/Resun              | ne) Water Shut-Off                           |  |
|  | Alter Casing  | Hydraulic Fracturing  | g Reclamation                        | Well Integrity                               |  |
| Subsequent Report  | Casing Repair   | New Construction      | Recomplete                           | Other  |  |
|  |   | Plug and Abandon      | Temporarily Abandon                  |  |  |
| Final Abandonment Notice   | Convert to Injection  | Plug Back             | Water Disposal                       |  |  |
| is ready for final inspection.)  |   |                       |                                      | nd the operator has detennined that the site |  |
| 14. I hereby certify that the foregoing is   | true and correct. Name (Printed/Typed   |                       |                                      |  |  |
|  |   | Title                 |                                      |  |  |
| Signature  |   | Date                  |                                      |  |  |
|  | THE SPACE FOR F   | EDERAL OR S           | STATE OFICE USE                      |  |  |
| Approved by  |   |                       |                                      |  |  |
| **   |   | Title                 |                                      | Date   |  |
| Conditions of approval, if any, are attackertify that the applicant holds legal or ewhich would entitle the applicant to con | equitable title to those rights in the subj                                       | arrant or             |                                      |  |  |
| Γitle 18 U.S.C Section 1001 and Title 4  | 3 U.S.C Section 1212, make it a crime   | for any person know   | ingly and willfully to make to an    | y 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, 3162.3-4.

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

(Form 3160-5, page 2)

#### **Additional Information**

#### **Additional Remarks**

There is no new surface disturbance.

#### **Location of Well**

0. SHL: NWNW / 255 FNL / 434 FWL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.122226 / LONG: -104.013748 ( TVD: 0 feet, MD: 0 feet ) PPP: NWNW / 330 FNL / 330 FWL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.122024 / LONG: -104.014087 ( TVD: 9907 feet, MD: 10300 feet ) PPP: NWSW / 2673 FSL / 323 FWL / TWSP: 25S / RANGE: 29E / SECTION: 29 / LAT: 32.100994 / LONG: -104.014028 ( TVD: 9907 feet, MD: 17900 feet ) BHL: SWSW / 280 FSL / 330 FWL / TWSP: 25S / RANGE: 29E / SECTION: 32 / LAT: 32.079714 / LONG: -104.013971 ( TVD: 9907 feet, MD: 25643 feet )

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Energy, Inc.
WELL NAME & NO.: Right Popular 20 Fed 103H
LOCATION: Section 20, T.25S., R.29E.
COUNTY: Eddy County

COA

| H2S                  | Yes              | C No                        |                  |
|----------------------|------------------|-----------------------------|------------------|
| Potash               | None             | Secretary                   | © R-111-P        |
| Cave/Karst Potential | C Low            | • Medium                    | C High           |
| Cave/Karst Potential | Critical         |                             |                  |
| Variance             | O None           | • Flex Hose                 | Other            |
| Wellhead             | Conventional     | <ul><li>Multibowl</li></ul> | © Both           |
| Wellhead Variance    | O Diverter       |                             |                  |
| Other                | □4 String        | ☐ Capitan Reef              | □WIPP            |
| Other                | ☐Fluid Filled    | ☐ Pilot Hole                | ☐ Open Annulus   |
| Cementing            | ▼ Contingency    | ☐ EchoMeter                 | ☐ Primary Cement |
| _                    | Cement Squeeze   |                             | Squeeze          |
| Special Requirements | ☐ Water Disposal | □ СОМ                       | □ Unit           |
| Special Requirements | ☐ Batch Sundry   |                             |                  |
| Special Requirements | ✓ Break Testing  | ✓ Offline                   | □ Casing         |
| Variance             |                  | Cementing                   | Clearance        |

#### **Medium Cave/Karst**

Possibility of water flows in the Salado Possibility of lost circulation in the Rustler, Salado, and Delaware Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### **B. CASING**

- 1. The **9-5/8** inch surface casing shall be set at approximately **477** 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. The surface hole shall be **12-1/4** inch in diameter.
  - 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 minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
  - 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.
  - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 7-5/8" 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 between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least 200 feet into previous casing string.
     Operator shall provide method of verification. Excess cement calculates to 22% additional cement may be needed.

#### C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 9-5/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. 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.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. 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.
  - e. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR 3172** i must be followed.

#### D. SPECIAL REQUIREMENT (S)

#### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

#### **Offline Cementing**

Contact the BLM prior to the commencement of any offline cementing procedure.

## **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)
  - Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220.

**BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV** (575) 361-2822

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 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.

JS 4/30/2025

Phone: (505) 476-3441 General Information Phone: (505) 629-6116

Online Phone Directory Visit:

https://www.emnrd.nm.gov/ocd/contact-us/

## State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

<u>C-</u>102 Revised July 9, 2024 Submit Electronically via OCD Permitting ☐ Initial Submittal Submittal ■ Amended Report Type: ☐ As Drilled

| λ | VEI | Ι. | LO | CAT | ION | INFO | )RM | ATION |
|---|-----|----|----|-----|-----|------|-----|-------|

| API Number                     | Pool Code        | Pool Name                                   |                        |
|--------------------------------|------------------|---|------------------------|
| 30-015-                        | 98220            | PURPLE SAGE; WOLFC                          | AMP (GAS)              |
| Property Code                  | Property Name    |   | Well Number            |
|                                | RIGHT            | POPULAR 20 FED                              | 103H                   |
| OGRID No.                      | Operator Name    |   | Ground Level Elevation |
| 005380                         | хто              | ENERGY, INC.                                | 2959'                  |
| Surface Owner: □ State □ Fee □ | Tribal 🗷 Federal | Mineral Owner: XI State ☐ Fee ☐ Tribal XI F | ederal                 |

|          |          |                |            |         | Surfa        | ce Location          |              |                 |         |        |
|----------|----------|----------------|------------|---------|--------------|----------------------|--------------|-----------------|---------|--------|
| UL       | Section  | Township       | Range      | Lot     | Ft. from N/S | Ft. from E/W         | Latitude     | Long            | itude   | County |
| D        | 20       | 25S            | 29E        |         | 255 FNL      | 434 FWL              | 32.122       | 2226 -104       | .013748 | EDDY   |
|          |          |                |            |         | Bottom       | Hole Location        |              |                 |         |        |
| UL       | Section  | Township       | Range      | Lot     | Ft. from N/S | Ft. from E/W         | Latitude     | Long            | gitude  | County |
| M        | 32       | 25S            | 29E        |         | 50 FSL       | 540 FWL              | 32.079       | -104            | .013297 | EDDY   |
|          | •        |                | -          |         |              |                      |              | ,               |         | •      |
| Dedicate | ed Acres | Infill or Defi | ining Well | Definin | g Well API   | Overlapping Spacin   | g Unit (Y/N) | Consolidation C | Code    |        |
| 1,9      | 20.00    | INF            | FILL       |         |              | Y                    |              |                 | С       |        |
| Order N  | umbers:  | •              |            |         |              | Well setbacks are ur | der Common   | Ownership:      | Yes □No |        |

|    | Kick Off Point (KOP)   |          |       |     |              |               |           |             |        |  |  |  |  |
|----|------------------------|----------|-------|-----|--------------|---------------|-----------|-------------|--------|--|--|--|--|
| UL | Section                | Township | Range | Lot | Ft. from N/S | Ft. from E/W  | Latitude  | Longitude   | County |  |  |  |  |
| М  | 17                     | 25\$     | 29E   |     | 616 FSL      | 541 FWL       | 32.124616 | -104.013403 | EDDY   |  |  |  |  |
|    | First Take Point (FTP) |          |       |     |              |               |           |             |        |  |  |  |  |
| UL | Section                | Township | Range | Lot | Ft. from N/S | Ft. from E/W  | Latitude  | Longitude   | County |  |  |  |  |
| D  | 20                     | 25S      | 29E   |     | 100 FNL      | 540 FWL       | 32.122649 | -104.013399 | EDDY   |  |  |  |  |
|    |                        | 230      |       |     | 1001112      | 0.01.112      |           |             |        |  |  |  |  |
|    |                        | 230      |       |     |              | e Point (LTP) |           |             |        |  |  |  |  |
| UL | Section                | Township | Range | Lot |              |               | Latitude  | Longitude   | County |  |  |  |  |

| Unitized Area or Area of Uniform Interest | Spacing Unit Type | <b>X</b> Horizontal □ Vertical | Ground Floor Elevation: 2959' |
|---|-------------------|--------------------------------|-------------------------------|
|   |                   |                                | 2333                          |

#### OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

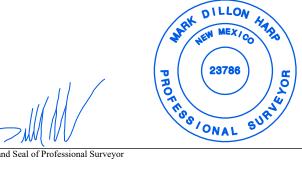
If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Jena Austin

Jena.N.Austin@ExxonMobil.com

#### SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.



Signature and Seal of Professional Surveyor

23786 03-05-2025 Date of Survey

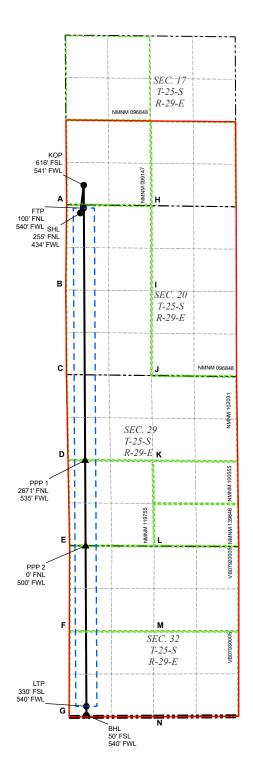
DB 618.013013.02-03

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

#### ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



### LEGEND



|       | WELL COORDINATE TABLE |              |            |             |              |              |            |             |  |  |  |
|-------|-----------------------|--------------|------------|-------------|--------------|--------------|------------|-------------|--|--|--|
| WELL  | NAD 83 NME X          | NAD 83 NME Y | NAD 83 LAT | NAD 83 LON  | NAD 27 NME X | NAD 27 NME Y | NAD 27 LAT | NAD 27 LON  |  |  |  |
| SHL   | 640,273.9             | 408,348.5    | 32.122226  | -104.013748 | 599,089.9    | 408,290.1    | 32.122101  | -104.013259 |  |  |  |
| KOP   | 640,377.9             | 409,218.5    | 32.124616  | -104.013403 | 599,193.9    | 409,160.1    | 32.124492  | -104.012915 |  |  |  |
| FTP   | 640,381.2             | 408,502.6    | 32.122649  | -104.013399 | 599,197.2    | 408,444.2    | 32.122524  | -104.012911 |  |  |  |
| LTP   | 640,460.9             | 392,934.3    | 32.079852  | -104.013291 | 599,276.5    | 392,876.3    | 32.079727  | -104.012804 |  |  |  |
| BHL   | 640,460.0             | 392,654.3    | 32.079082  | -104.013297 | 599,275.7    | 392,596.3    | 32.078957  | -104.012810 |  |  |  |
| PPP 1 | 640,421.5             | 400,623.5    | 32.100989  | -104.013345 | 599,237.3    | 400,565.2    | 32.100864  | -104.012857 |  |  |  |
| PPP 2 | 640,435.2             | 397,950.3    | 32.093641  | -104.013326 | 599,251.0    | 397,892.1    | 32.093516  | -104.012838 |  |  |  |

|        | CORNER COORDINATE TABLE |              |              |              |  |  |  |  |  |  |  |
|--------|-------------------------|--------------|--------------|--------------|--|--|--|--|--|--|--|
| CORNER | NAD 83 NME X            | NAD 83 NME Y | NAD 27 NME X | NAD 27 NME Y |  |  |  |  |  |  |  |
| Α      | 639,842.1               | 408,609.0    | 598,658.2    | 408,550.5    |  |  |  |  |  |  |  |
| В      | 639,817.4               | 405,945.2    | 598,633.4    | 405,886.8    |  |  |  |  |  |  |  |
| С      | 639,837.2               | 403,301.7    | 598,653.2    | 403,243.4    |  |  |  |  |  |  |  |
| D      | 639,886.4               | 400,627.8    | 598,702.3    | 400,569.6    |  |  |  |  |  |  |  |
| Е      | 639,935.3               | 397,952.6    | 598,751.1    | 397,894.4    |  |  |  |  |  |  |  |
| F      | 639,928.1               | 395,277.9    | 598,743.8    | 395,219.8    |  |  |  |  |  |  |  |
| G      | 639,919.8               | 392,602.7    | 598,735.5    | 392,544.7    |  |  |  |  |  |  |  |
| Н      | 642,492.6               | 408,577.9    | 601,308.6    | 408,519.5    |  |  |  |  |  |  |  |
| - 1    | 642,494.3               | 405,917.9    | 601,310.2    | 405,859.6    |  |  |  |  |  |  |  |
| J      | 642,495.9               | 403,270.2    | 601,311.8    | 403,211.9    |  |  |  |  |  |  |  |
| K      | 642,538.1               | 400,606.2    | 601,353.9    | 400,547.9    |  |  |  |  |  |  |  |
| L      | 642,580.3               | 397,940.2    | 601,396.0    | 397,882.0    |  |  |  |  |  |  |  |
| М      | 642,568.1               | 395,277.1    | 601,383.8    | 395,219.0    |  |  |  |  |  |  |  |
| N      | 642,556.0               | 392,610.7    | 601,371.6    | 392,552.7    |  |  |  |  |  |  |  |

#### DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

## ExxonMobil RIGHT POPULAR 20 FED - 103H Projected TD: 27194' MD / 10788' TVD SHL: 255' FNL & 434' FWL , Section 20, T25S, R29E BHL: 50' FSL & 540' FWL , Section 32, T25S, R29E Eddy County, NM

## 1. Geologic Name of Surface Formation A. Quaternary

#### 2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

| Formation                   | Well<br>Depth | Water/Oil/Gas | Section View   |
|-----------------------------|---------------|---------------|--|
| Salado                      | 548'          | Water         | 0 SHL  |
| Base of Salt                | 2672'         | Water         |  |
| Delaware                    | 2862'         | Water         | € 2000   |
| Cherry Canyon               | 3744'         | Water/Oil/Gas | (#) 4000 KOP KOP TIN |
| Brushy Canyon               | 5355'         | Water/Oil/Gas | g 4000   |
| Basal Brushy Canyon         | 6340'         | Water/Oil/Gas | - 6000<br>- 6000   |
| Bone Spring Lm.             | 6594'         | Water/Oil/Gas | · 변 · · · · · · · · · · · · · · · · · ·                  |
| Avalon Shale                | 6756'         | Water/Oil/Gas | > 8000   |
| Avalon Lower                | 7185'         | Water/Oil/Gas | KOP  |
| 1st Bone Spring Lime        | 7355'         | Water/Oil/Gas | FTP FTP  |
| 1st Bone Spring Sand        | 7551'         | Water/Oil/Gas | LTP  |
| 2nd Bone Spring Lime        | 7960'         | Water/Oil/Gas | 12000  |
| 2nd Bone Spring Sand        | 8373'         | Water/Oil/Gas | -20000 -15000 -10000 -5000 0 5000                        |
| 2nd Bone Spring Sand_Base B | 8596'         | Water/Oil/Gas | Vertical Section (ft)                                    |
| 3rd Bone Spring Lime        | 8836'         | Water/Oil/Gas | DI VI  |
| Harkey                      | 8955'         | Water/Oil/Gas | Plan View  |
| 3rd Bone Spring Upper Shale | 8988'         | Water/Oil/Gas | -16000 BHL LTP   |
| Wolfcamp                    | 9806'         | Water/Oil/Gas | €14000   |
| Wolfcamp X                  | 9828'         | Water/Oil/Gas | €12000   |
| Wolfcamp Y                  | 9904'         | Water/Oil/Gas | <b>₽</b> 10000   |
| Wolfcamp A                  | 9944'         | Water/Oil/Gas | £10000<br>2-8000   |
| Wolfcamp B                  | 10250'        | Water/Oil/Gas | -6000  |
| Wolfcamp C                  | 10469'        | Water/Oil/Gas | <u>-4000</u>   |
| Wolfcamp D                  | 10688'        | Water/Oil/Gas | 5-2000 FTP<br>0 0 SHL KOP                                |
| Landing                     | 10788'        | Water/Oil/Gas | Ŭ 0 SHL № КОР  |
|                             |               |               | 14000 9000 4000 -1000 -6000 -11000 -16000                |
|                             |               |               | West(-)/East(+) (ft)                                     |

|     | Inclinat<br>ion (°) | Azimuth (°) | True Vertical<br>Depth (ft) | Y Offset (ft) | X Offset (ft) |
|-----|---------------------|-------------|-----------------------------|---------------|---------------|
| SHL | 0                   | 0           | 0                           | 0             | 0             |
| КОР | 0                   | 0           | 10072                       | 870           | 104           |
| LP  | 90                  | 180         | 10788                       | 154           | 107           |
| FTP | 90                  | 180         | 10788                       | 154           | 107           |
| LTP | 90                  | 180         | 10788                       | -15413        | 187           |
| BHL | 90                  | 180         | 10788                       | -15694        | 188           |

#### Section 2 Summary:

\*\*\* Deepest Expected Groundwater Depth: 40' (per NM State Engineers Office).

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9-5/8" inch casing at 523' and circulating cement back to surface.

#### 3. Primary Casing Design Primary Design:

| Hole Size (in.) | MD             | Casing<br>TVD | OD Csg | Weight | Grade    | Collar            | New/Used | SF Burst | SF Collapse | SF Tension |
|-----------------|----------------|---------------|--------|--------|----------|-------------------|----------|----------|-------------|------------|
| 12.25"          | 0' – 523'      | 523'          | 9-5/8" | 40     | J55      | втс               | New      | 24.61    | 22.69       | 6.03       |
| 8.75"           | 0' – 4000'     | 3957'         | 7-5/8" | 29.7   | P110-ICY | Tenaris Wedge 511 | New      | 6.00     | 8.59        | 3.08       |
| 8.75"           | 4000' – 10071' | 9922'         | 7-5/8" | 29.7   | L80-IC   | Tenaris Wedge 511 | New      | 1.89     | 4.60        | 2.20       |
| 6.75"           | 0' – 9971'     | 9822'         | 5-1/2" | 20     | P110-CY  | TPN               | New      | 1.18     | 2.61        | 2.31       |
| 6.75"           | 9971' – 27194' | 10788'        | 5-1/2" | 20     | P110-CY  | Tenaris Wedge 441 | New      | 1.18     | 2.38        | 2.46       |
|                 |                | ·             |        |        |          |                   |          |          |             |            |
|                 |                | ·             |        |        |          |                   |          |          |             |            |

#### Section 3 Summary:

XTO will keep casing fluid filled to meet BLM's collapse requirement. The planned kick off point is located at: 10221' MD / 10072' TVD.

### Wellhead:

A multi-bowl wellhead system will be utilized.The well design chosen is: 3-String Slim Non-Potash

Wellhead will be installed by manufacturer's representatives.

Manufacturer will monitor welding process to ensure appropriate temperature of seal.

#### 4. Cement Program

|               |                       |           | P             | rimary Cementi   | ng    |                                 |            |   |
|---------------|-----------------------|-----------|---------------|------------------|-------|---------------------------------|------------|---|
| Hole Section  | Slurry Type           | No. Sacks |               | Yield (ft3/sack) |       | Casing<br>Setting<br>Depth (MD) | Excess (%) | Slurry Description                                |
| Surface 1     | Lead                  | 66        | 12.4          | 2.11             | 0     | 523                             | 100%       | Surface 1 Class C Lead Cement                     |
| Surface 1     | Tail                  | 141       | 14.8          | 1.33             | 223   | 523                             | 100%       | Surface 1 Class C Tail Cement                     |
| ntermediate 1 | Lead                  |           |               |                  |       |                                 |            |   |
| ntermediate 1 | Tail                  | 441       | 14.8          | 1.45             | 5355  | 10,071                          | 35%        | Intermediate 1 Class C Tail Cement                |
| Production 1  | Lead                  |           |               |                  |       |                                 |            |   |
| Production 1  | Tail                  | 1249      | 13.2          | 1.44             | 9571  | 27,194                          | 25%        | Production 1 Class C Tail Cement                  |
|               |                       |           |               |                  |       |                                 |            |   |
|               |                       |           | Re            | emedial Cement   | ing   |                                 |            |   |
| Casing        | Slurry Type           | No. Sacks | Density (ppg) | Yield (ft3/sack) | Cemen | ted Interval                    | Excess (%) | - ' '   |
| ntermediate 1 | Bradenhead<br>Squeeze | 501       | 14.8          | 1.45             | 0 -   | - 5355'                         | 35%        | Intermediate Class C Bradenhead<br>Squeeze Cement |
|               | - 4-0020              | 301       | 11.0          | 1.13             |       |                                 | 3370       |   |

| Section | 1 | Sum | ma | ~ |
|---------|---|-----|----|---|

| *Bradenhead Squeeze 2nd Stage Of | fline |  |   |
|----------------------------------|-------|--|---|
|                                  |       |  |   |
|                                  |       |  | ŀ |
|                                  |       |  |   |
|                                  |       |  |   |
|                                  |       |  |   |

#### 5. Pressure Control Equipment

| Section 5 Summary:   |
|--|
| Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of a minimum 5M Hydril and a minimum 10M triple Ram BOP.   |
| All BOP testing will be done by an independent service company. Operator will Test as per 43CFR-3172   |
|  |
|  |
|  |
|  |
|  |
|  |
| Requested Variances  |
| 4A) Offline Cementing Variance   |
| XOM requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XOM will ensure well is static with no pressure on the csq annulus, as with all other casing strings where batch drilling operations occur before               |
| moving off the rig. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence. The TA cap will   |
| also be installed when applicable per wellhead manufacturer's procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.   |
|  |
| 5A) Flex Hose Variance A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification  |
| and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.   |
| 8A) Open Hole Logging Variance   |
| Open hole logging will not be done on this well.   |
| 10A) Spudder Rig Variance  |
| XOM requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing.  |
| 10B) Batch Drilling Variance   |
| XOM requests a variance to be able to batch drill this well. In doing so, XOM will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. XOM will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and intermediate strings are all |
| completed, XOM will begin drilling the production hole on each of the wells.   |
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6. Proposed Mud Circulation System

| INTERVAL        | Hole Size | Mud Type            | MW<br>(ppg) | Viscosity<br>(sec/qt) | Fluid Loss<br>(cc) | Comments  |
|-----------------|-----------|---------------------|-------------|-----------------------|--------------------|---|
| 0' – 523'       | 12.25"    | FW/Native           | 8.3 - 8.7   | 35-40                 | NC                 | Fresh Water or Native Water   |
| 523' – 10071'   | 8.75"     | BDE/OBM or FW/Brine | 9.5 - 10    | 30-32                 | NC                 | Fluid type will be based upon on well conditions. A fully saturated system will be used across the salt interval. |
| 10071' – 27194' | 6.75"     | ОВМ                 | 9.5 - 12.5  | 50-60                 | NC - 20            | OBM or Cut Brine depending on Well Conditions   |
|                 |           |                     |             |                       |                    |   |
|                 |           |                     |             |                       |                    |   |
|                 |           |                     |             |                       |                    |   |
|                 |           |                     |             |                       |                    |   |

#### Section 6 Summary:

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. An EDR (Electronic Drilling Recorder) will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

#### 7. Auxiliary Well Control and Monitoring Equipment

A Kelly cock will be in the drill string at all times.

A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.

H2S monitors will be on location when drilling below the 9-5/8" casing.

#### 8. Logging, Coring and Testing Program

#### Section 8 Summary:

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

#### Section 9 Summary:

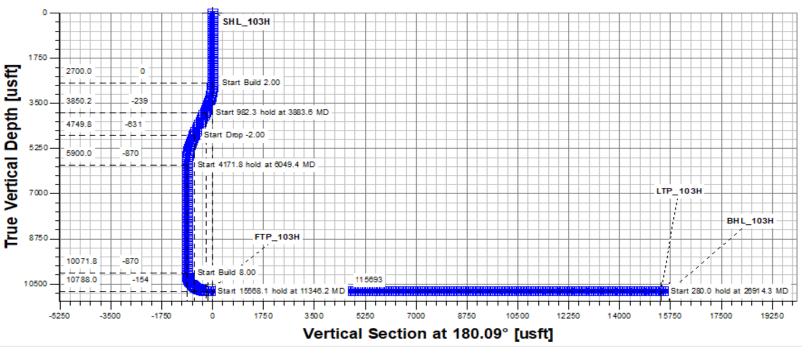
The estimated bottom hole temperature of 172F to 192F. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation is possible throughout the well.

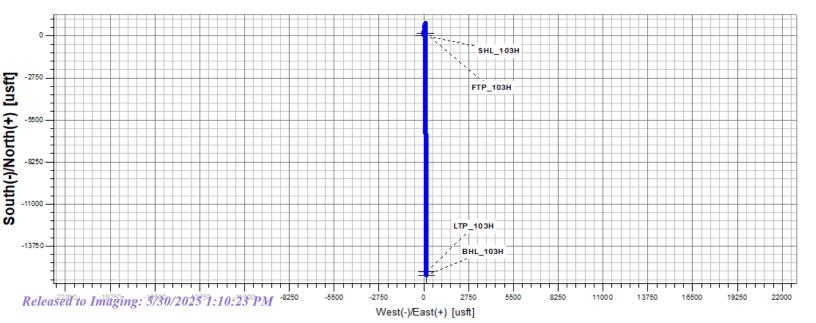
#### 10. Anticipated Starting Date and Duration of Operations

#### Section 10 Summary:

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

## Right Popular 201 Fed 103H





| <u>Formation</u>                   | TVDSS (feet) | TVD (feet) |
|------------------------------------|--------------|------------|
| Salado                             | 2,443'       | 548'       |
| Base of Salt                       | 319'         | 2,672'     |
| Delaware                           | 129'         | 2,862'     |
| Cherry Canyon                      | -753'        | 3,744'     |
| Brushy Canyon                      | -2,364'      | 5,355'     |
| Basal Brushy Canyon                | -3,349'      | 6,340'     |
| Bone Spring Lm.                    | -3,603'      | 6,594'     |
| Avalon Shale                       | -3,765'      | 6,756'     |
| Avalon Lower                       | -4,194'      | 7,185'     |
| 1st Bone Spring Lime               | -4,364'      | 7,355'     |
| 1st Bone Spring Sand               | -4,560'      | 7,551'     |
| 2nd Bone Spring Lime               | -4,969'      | 7,960'     |
| 2nd Bone Spring Sand               | -5,382'      | 8,373'     |
| 2nd Bone Spring Sand_Base B        | -5,605'      | 8,596'     |
| 3rd Bone Spring Lime               | -5,845'      | 8,836'     |
| Harkey                             | -5,964'      | 8,955'     |
| 3rd Bone Spring Upper Shale        | -5,997'      | 8,988'     |
| 3rd Bone Spring Upper Shale Base   | -6,225'      | 9,216'     |
| 3rd Bone Spring Lower Shale        | -6,275'      | 9,266'     |
| 3rd Bone Spring Lower Shale Marker | -6,374'      | 9,365'     |
| 3rd Bone Spring Sand               | -6,435'      | 9,426'     |
| Warwink                            | -6,646'      | 9,637'     |
| Red Hills                          | -6,738'      | 9,729'     |
| Wolfcamp                           | -6,815'      | 9,806'     |
| Wolfcamp X                         | -6,837'      | 9,828'     |
| Wolfcamp Y                         | -6,913'      | 9,904'     |
| Wolfcamp A                         | -6,953'      | 9,944'     |
| Wolfcamp B                         | -7,259'      | 10,250'    |
| Wolfcamp C                         | -7,478'      | 10,469'    |
| Wolfcamp D                         | -7,697'      | 10,688'    |
| Landing                            | -7,797'      | 10,788'    |

## Long Lead\_Well Planning

Right Popular 20 Fed Right Popular 20 Fed 103H Right Popular 20 Fed 103H

OH

Plan: Plan 1

## **Standard Planning Report**

24 February, 2025

EDM 5000.18 Single User Db Database: Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Right Popular 20 Fed 103H Site: Well:

Plan 1

Right Popular 20 Fed 103H ОН

**Local Co-ordinate Reference:** TVD Reference: MD Reference: North Reference: **Survey Calculation Method:** 

Well Right Popular 20 Fed 103H RKB (+32) @ 2991.0usft RKB (+32) @ 2991.0usft Grid

Minimum Curvature

Project Right Popular 20 Fed

Wellbore:

Map Zone:

Design:

US State Plane 1927 (Exact solution) Map System: NAD 1927 (NADCON CONUS) Geo Datum:

New Mexico East 3001

System Datum: Mean Sea Level

Right Popular 20 Fed 103H Site

Northing: 408,290.10 usft Site Position: Latitude: 32° 7' 19.565 N From: Мар Easting: 599,089.90 usft Longitude: 104° 0' 47.732 W

**Position Uncertainty:** 3.0 usft Slot Radius: 13-3/16 "

Well Right Popular 20 Fed 103H **Well Position** +N/-S 0.0 usft Northing: 408,290.10 usft Latitude: 32° 7' 19.565 N +E/-W 0.0 usft Easting: 599,089.90 usft Longitude: 104° 0' 47.732 W **Position Uncertainty** 0.0 usft Wellhead Elevation: usft **Ground Level:** 2,959.0 usft 0.17 **Grid Convergence:** 

ОН Wellbore Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) 47,008.89850643 IGRF2020 2/21/2025 6.31 59.62

Design Plan 1 **Audit Notes:** PLAN Tie On Depth: 0.0 Version: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 180.09 0.0 0.0 0.0

**Plan Survey Tool Program** Date 2/24/2025 **Depth From** Depth To (usft) (usft) Survey (Wellbore) **Tool Name** Remarks 27,194.3 0.0 Plan 1 (OH) XOM\_R2OWSG MWD+IFR1+ OWSG MWD + IFR1 + Multi-St

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Right Popular 20 Fed
Site: Right Popular 20 Fed 103H
Well: Right Popular 20 Fed 103H

Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:

| Plan Sections               |                    |                |                             |                 |                 |                               |                              |                             |            |        |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|--------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target |
| 0.0                         | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |        |
| 2,700.0                     | 0.00               | 0.00           | 2,700.0                     | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |        |
| 3,883.6                     | 23.67              | 6.79           | 3,850.2                     | 239.3           | 28.5            | 2.00                          | 2.00                         | 0.00                        | 6.79       |        |
| 4,865.9                     | 23.67              | 6.79           | 4,749.8                     | 630.9           | 75.1            | 0.00                          | 0.00                         | 0.00                        | 0.00       |        |
| 6,049.4                     | 0.00               | 0.00           | 5,900.0                     | 870.3           | 103.7           | 2.00                          | -2.00                        | 0.00                        | 180.00     |        |
| 10,221.2                    | 0.00               | 0.00           | 10,071.8                    | 870.3           | 103.7           | 0.00                          | 0.00                         | 0.00                        | 0.00       |        |
| 11,346.2                    | 90.00              | 179.71         | 10,788.0                    | 154.1           | 107.3           | 8.00                          | 8.00                         | 0.00                        | 179.71 FTI | P_103H |
| 26,914.3                    | 90.00              | 179.71         | 10,788.0                    | -15,413.8       | 186.6           | 0.00                          | 0.00                         | 0.00                        | 0.00 LTF   |        |
| 27,194.3                    | 90.00              | 179.71         | 10,788.0                    | -15,693.8       | 188.0           | 0.00                          | 0.00                         | 0.00                        | 0.00 BH    | L_103H |

EDM 5000.18 Single User Db Database: Long Lead\_Well Planning Company: Project: Right Popular 20 Fed Right Popular 20 Fed 103H Site: Well:

Right Popular 20 Fed 103H

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: **Survey Calculation Method:** 

Well Right Popular 20 Fed 103H RKB (+32) @ 2991.0usft RKB (+32) @ 2991.0usft Grid

Minimum Curvature

ОН Wellbore: Design: Plan 1

| nned Survey                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 0.0                         |                    | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| SHL_103H<br>100.0           |                    | 0.00           | 100.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 200.0                       |                    | 0.00           | 200.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 300.0                       |                    | 0.00           | 300.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 400.0                       | 0.00               | 0.00           | 400.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 500.0                       | 0.00               | 0.00           | 500.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 548.0                       | 0.00               | 0.00           | 548.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| Salado                      |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 600.0                       |                    | 0.00           | 600.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 700.0<br>800.0              |                    | 0.00<br>0.00   | 700.0<br>800.0              | 0.0<br>0.0      | 0.0<br>0.0      | 0.0<br>0.0                    | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
|                             |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 900.0                       |                    | 0.00           | 900.0                       | 0.0<br>0.0      | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,000.0<br>1,100.0          |                    | 0.00<br>0.00   | 1,000.0<br>1,100.0          | 0.0             | 0.0<br>0.0      | 0.0<br>0.0                    | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 1,200.0                     |                    | 0.00           | 1,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,300.0                     |                    | 0.00           | 1,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,400.0                     | 0.00               | 0.00           | 1,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,500.0                     |                    | 0.00           | 1,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,600.0                     |                    | 0.00           | 1,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,700.0                     |                    | 0.00           | 1,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,800.0                     | 0.00               | 0.00           | 1,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,900.0                     | 0.00               | 0.00           | 1,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,000.0                     |                    | 0.00           | 2,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,100.0                     |                    | 0.00           | 2,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,200.0                     |                    | 0.00           | 2,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,300.0                     |                    | 0.00           | 2,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,400.0                     |                    | 0.00           | 2,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,500.0<br>2,600.0          |                    | 0.00<br>0.00   | 2,500.0<br>2,600.0          | 0.0<br>0.0      | 0.0<br>0.0      | 0.0<br>0.0                    | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 2,672.0                     |                    | 0.00           | 2,672.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| Base of Sa                  |                    | 0.00           | 2,012.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,700.0                     |                    | 0.00           | 2,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,800.0                     | 2.00               | 6.79           | 2,800.0                     | 1.7             | 0.2             | -1.7                          | 2.00                          | 2.00                         | 0.00                        |
| 2,862.1                     | 3.24               | 6.79           | 2,862.0                     | 4.6             | 0.5             | -4.6                          | 2.00                          | 2.00                         | 0.00                        |
| Delaware                    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 2,900.0                     |                    | 6.79           | 2,899.8                     | 6.9             | 0.8             | -6.9                          | 2.00                          | 2.00                         | 0.00                        |
| 3,000.0<br>3,100.0          |                    | 6.79<br>6.79   | 2,999.5<br>3,098.7          | 15.6<br>27.7    | 1.9<br>3.3      | -15.6<br>-27.7                | 2.00<br>2.00                  | 2.00<br>2.00                 | 0.00<br>0.00                |
|                             |                    |                | ,                           |                 |                 |                               |                               |                              |                             |
| 3,200.0                     |                    | 6.79           | 3,197.5                     | 43.2            | 5.1             | -43.2                         | 2.00                          | 2.00                         | 0.00                        |
| 3,300.0<br>3,400.0          |                    | 6.79<br>6.79   | 3,295.6<br>3,393.1          | 62.2<br>84.5    | 7.4<br>10.1     | -62.2<br>-84.5                | 2.00<br>2.00                  | 2.00<br>2.00                 | 0.00<br>0.00                |
| 3,500.0                     |                    | 6.79           | 3,489.6                     | 110.2           | 13.1            | -04.5<br>-110.2               | 2.00                          | 2.00                         | 0.00                        |
| 3,600.0                     |                    | 6.79           | 3,585.3                     | 139.2           | 16.6            | -139.3                        | 2.00                          | 2.00                         | 0.00                        |
| 3,700.0                     |                    | 6.79           | 3,679.8                     | 171.6           | 20.4            | -171.6                        | 2.00                          | 2.00                         | 0.00                        |
| 3,768.6                     |                    | 6.79           | 3,744.0                     | 195.6           | 23.3            | -171.0                        | 2.00                          | 2.00                         | 0.00                        |
| Cherry Ca                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 3,800.0                     | 22.00              | 6.79           | 3,773.2                     | 207.1           | 24.7            | -207.2                        | 2.00                          | 2.00                         | 0.00                        |
| 3,883.6                     |                    | 6.79           | 3,850.2                     | 239.3           | 28.5            | -239.4                        | 2.00                          | 2.00                         | 0.00                        |
| 3,900.0                     | 23.67              | 6.79           | 3,865.2                     | 245.9           | 29.3            | -245.9                        | 0.00                          | 0.00                         | 0.00                        |
| 4,000.0                     |                    | 6.79           | 3,956.8                     | 285.8           | 34.0            | -285.8                        | 0.00                          | 0.00                         | 0.00                        |
| 4,100.0                     |                    | 6.79           | 4,048.4                     | 325.6           | 38.8            | -325.7                        | 0.00                          | 0.00                         | 0.00                        |
| 4,200.0                     |                    | 6.79           | 4,140.0                     | 365.5           | 43.5            | -365.6                        | 0.00                          | 0.00                         | 0.00                        |
| 4,300.0                     | 23.67              | 6.79           | 4,231.6                     | 405.4           | 48.3            | -405.4                        | 0.00                          | 0.00                         | 0.00                        |

Database: EDM 5000.18 Single User Db Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Site: Right Popular 20 Fed 103H Well: Right Popular 20 Fed 103H

Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

| ned Survey                  |                    |                |                             |                 |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 4,400.0                     | 23.67              | 6.79           | 4,323.2                     | 445.2           | 53.0            | -445.3                        | 0.00                          | 0.00                         | 0.00                        |
| 4,500.0                     | 23.67              | 6.79           | 4,414.8                     | 485.1           | 57.8            | -485.2                        | 0.00                          | 0.00                         | 0.00                        |
| 4,600.0                     | 23.67              | 6.79           | 4,506.3                     | 525.0           | 62.5            | -525.1                        | 0.00                          | 0.00                         | 0.00                        |
| 4,700.0                     |                    | 6.79           | 4,597.9                     | 564.8           | 67.3            | -564.9                        | 0.00                          | 0.00                         | 0.00                        |
| 4,800.0                     |                    | 6.79           | 4,689.5                     | 604.7           | 72.0            | -604.8                        | 0.00                          | 0.00                         | 0.00                        |
| 4,865.9                     | 23.67              | 6.79           | 4,749.8                     | 630.9           | 75.1            | -631.1                        | 0.00                          | 0.00                         | 0.00                        |
| 4,900.0                     |                    | 6.79           | 4,781.2                     | 644.4           | 76.7            | -644.5                        | 2.00                          | -2.00                        | 0.00                        |
| 5,000.0                     |                    | 6.79           | 4,873.9                     | 681.6           | 81.2            | -681.7                        | 2.00                          | -2.00                        | 0.00                        |
| 5,100.0                     |                    | 6.79           | 4,967.9                     | 715.5           | 85.2            | -715.6                        | 2.00                          | -2.00                        | 0.00                        |
| 5,200.0                     |                    | 6.79           | 5,063.0                     | 746.2           | 88.9            | -746.3                        | 2.00                          | -2.00                        | 0.00                        |
| 5,300.0                     | 14.99              | 6.79           | 5,159.1                     | 773.5           | 92.1            | -773.6                        | 2.00                          | -2.00                        | 0.00                        |
| 5,400.0                     | 12.99              | 6.79           | 5,256.1                     | 797.5           | 95.0            | -797.7                        | 2.00                          | -2.00                        | 0.00                        |
| 5,500.0                     |                    | 6.79           | 5,353.9                     | 818.1           | 97.4            | -818.3                        | 2.00                          | -2.00                        | 0.00                        |
| 5,501.1                     |                    | 6.79           | 5,355.0                     | 818.3           | 97.5            | -818.5                        | 2.00                          | -2.00                        | 0.00                        |
| Brushy Ca                   | -                  |                |                             |                 |                 |                               |                               |                              |                             |
| 5,600.0                     |                    | 6.79           | 5,452.4<br>5,551.5          | 835.4           | 99.5            | -835.5                        | 2.00                          | -2.00                        | 0.00                        |
| 5,700.0                     | 6.99               | 6.79           | 5,551.5                     | 849.2           | 101.1           | -849.3                        | 2.00                          | -2.00                        | 0.00                        |
| 5,800.0                     |                    | 6.79           | 5,650.9                     | 859.5           | 102.4           | -859.7                        | 2.00                          | -2.00                        | 0.00                        |
| 5,900.0                     |                    | 6.79           | 5,750.7                     | 866.4           | 103.2           | -866.6                        | 2.00                          | -2.00                        | 0.00                        |
| 6,000.0                     |                    | 6.79           | 5,850.6                     | 869.9           | 103.6           | -870.0                        | 2.00                          | -2.00                        | 0.00                        |
| 6,049.4                     |                    | 0.00           | 5,900.0                     | 870.3           | 103.7           | -870.4                        | 2.00                          | -2.00                        | 0.00                        |
| 6,100.0                     | 0.00               | 0.00           | 5,950.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,200.0                     |                    | 0.00           | 6,050.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,300.0                     |                    | 0.00           | 6,150.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,400.0                     |                    | 0.00           | 6,250.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,489.4                     |                    | 0.00           | 6,340.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
|                             | shy Canyon         | 0.00           | 0.050.0                     | 070.0           | 400.7           | 070.4                         | 0.00                          | 0.00                         | 0.00                        |
| 6,500.0                     | 0.00               | 0.00           | 6,350.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,600.0                     |                    | 0.00           | 6,450.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,700.0                     |                    | 0.00           | 6,550.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,743.4                     |                    | 0.00           | 6,594.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| Bone Spri                   |                    | 0.00           | 0.050.0                     | 070.0           | 100 7           | 070.4                         | 2.22                          | 0.00                         | 0.00                        |
| 6,800.0                     |                    | 0.00           | 6,650.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,900.0                     |                    | 0.00           | 6,750.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 6,905.4                     |                    | 0.00           | 6,756.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| Avalon Sh                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,000.0                     |                    | 0.00           | 6,850.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,100.0                     |                    | 0.00           | 6,950.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,200.0                     |                    | 0.00           | 7,050.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,300.0                     |                    | 0.00           | 7,150.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,334.4                     |                    | 0.00           | 7,185.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| Avalon Lo                   |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 7,400.0                     |                    | 0.00           | 7,250.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,500.0                     |                    | 0.00           | 7,350.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,504.4                     |                    | 0.00           | 7,355.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
|                             | Spring Lime        | 0.00           | 7.450.0                     | 070.0           | 400.7           | 070.4                         | 0.00                          | 0.00                         | 0.00                        |
| 7,600.0                     | 0.00               | 0.00           | 7,450.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,700.0                     |                    | 0.00           | 7,550.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,700.4                     |                    | 0.00           | 7,551.0                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
|                             | Spring Sand        |                |                             |                 |                 |                               |                               |                              |                             |
| 7,800.0                     |                    | 0.00           | 7,650.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 7,900.0                     |                    | 0.00           | 7,750.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 8,000.0                     | 0.00               | 0.00           | 7,850.6                     | 870.3           | 103.7           | -870.4                        | 0.00                          | 0.00                         | 0.00                        |

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Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

| d Survey   |                      |                         |                               |                         |                         |                               |                               |                              |                             |
|--|----------------------|-------------------------|-------------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft)                      | Inclination<br>(°)   | Azimuth<br>(°)          | Vertical<br>Depth<br>(usft)   | +N/-S<br>(usft)         | +E/-W<br>(usft)         | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 8,100.0<br>8,109.4                               | 0.00<br>0.00         | 0.00<br>0.00            | 7,950.6<br>7,960.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 2nd Bone Sp                                      |                      |                         |                               |                         |                         |                               |                               |                              |                             |
| 8,200.0<br>8,300.0<br>8,400.0                    | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00    | 8,050.6<br>8,150.6<br>8,250.6 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 8,500.0  | 0.00                 | 0.00<br>0.00            | 8,350.6                       | 870.3                   | 103.7<br>103.7          | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 8,522.4<br>2nd Bone Sp                           | 0.00                 | 0.00                    | 8,373.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 8,600.0<br>8,700.0<br>8,745.4                    | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00    | 8,450.6<br>8,550.6<br>8,596.0 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 2nd Bone Sp                                      | oring Sand_Base      | B B                     |                               |                         |                         |                               |                               |                              |                             |
| 8,800.0<br>8,900.0<br>8,985.4                    | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00    | 8,650.6<br>8,750.6<br>8,836.0 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 3rd Bone Sp                                      | •                    |                         |                               |                         |                         |                               |                               |                              |                             |
| 9,000.0<br>9,100.0                               | 0.00<br>0.00         | 0.00<br>0.00            | 8,850.6<br>8,950.6            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 9,104.4  | 0.00                 | 0.00                    | 8,955.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| <b>Harkey</b> 9,137.4                            | 0.00                 | 0.00                    | 8,988.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 3rd Bone Sp<br>9,200.0                           | ring Upper Shal      | e<br>0.00               | 9,050.6                       | 970.2                   | 102.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 9,300.0<br>9,365.4                               | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00    | 9,030.6<br>9,150.6<br>9,216.0 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 3rd Bone Sp                                      | ring Upper Shal      | e Base                  |                               |                         |                         |                               |                               |                              |                             |
| 9,400.0<br>9,415.4                               | 0.00<br>0.00         | 0.00<br>0.00            | 9,250.6<br>9,266.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 3rd Bone Sp                                      | ring Lower Shal      | е                       |                               |                         |                         |                               |                               |                              |                             |
| 9,500.0<br>9,514.4                               | 0.00<br>0.00         | 0.00<br>0.00            | 9,350.6<br>9,365.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 9,575.4  | ring Lower Shal      | <b>e Marker</b><br>0.00 | 9,426.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| 3rd Bone Sp                                      | -                    |                         |                               |                         |                         |                               |                               |                              |                             |
| 9,600.0<br>9,700.0<br>9,786.4<br><b>Warwink</b>  | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00    | 9,450.6<br>9,550.6<br>9,637.0 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 9,800.0<br>9,878.4                               | 0.00<br>0.00         | 0.00<br>0.00            | 9,650.6<br>9,729.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| Red Hills  |                      |                         |                               |                         |                         |                               |                               |                              |                             |
| 9,900.0<br>9,955.4<br><b>Wolfcamp</b>            | 0.00<br>0.00         | 0.00<br>0.00            | 9,750.6<br>9,806.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 9,977.4  | 0.00                 | 0.00                    | 9,828.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |
| Wolfcamp X<br>10,000.0<br>10,053.4<br>Wolfcamp Y | 0.00<br>0.00         | 0.00<br>0.00            | 9,850.6<br>9,904.0            | 870.3<br>870.3          | 103.7<br>103.7          | -870.4<br>-870.4              | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 10,093.4<br><b>Wolfcamp A</b>                    | 0.00                 | 0.00                    | 9,944.0                       | 870.3                   | 103.7                   | -870.4                        | 0.00                          | 0.00                         | 0.00                        |

Database: EDM 5000.18 Single User Db Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Site: Right Popular 20 Fed 103H Well: Right Popular 20 Fed 103H

Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Right Popular 20 Fed 103H RKB (+32) @ 2991.0usft

Grid

Minimum Curvature

RKB (+32) @ 2991.0usft

| ned Survey                       |                      |                      |                                 |                         |                         |                               |                               |                              |                             |
|----------------------------------|----------------------|----------------------|---------------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft)      | Inclination<br>(°)   | Azimuth<br>(°)       | Vertical<br>Depth<br>(usft)     | +N/-S<br>(usft)         | +E/-W<br>(usft)         | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 10,100.0<br>10,200.0<br>10,221.2 | 0.00<br>0.00<br>0.00 | 0.00<br>0.00<br>0.00 | 9,950.6<br>10,050.6<br>10,071.8 | 870.3<br>870.3<br>870.3 | 103.7<br>103.7<br>103.7 | -870.4<br>-870.4<br>-870.4    | 0.00<br>0.00<br>0.00          | 0.00<br>0.00<br>0.00         | 0.00<br>0.00<br>0.00        |
| 10,300.0                         | 6.30                 | 179.71               | 10,071.8                        | 866.0                   | 103.7                   | -866.1                        | 8.00                          | 8.00                         | 0.00                        |
| 10,400.0<br>10,401.3             | 14.30<br>14.41       | 179.71<br>179.71     | 10,248.7<br>10,250.0            | 848.1<br>847.8          | 103.8<br>103.8          | -848.2<br>-847.9              | 8.00<br>8.00                  | 8.00<br>8.00                 | 0.00<br>0.00                |
| Wolfcamp B<br>10,500.0           | 22.30                | 179.71               | 10,343.6                        | 816.7                   | 103.9                   | -816.9                        | 8.00                          | 8.00                         | 0.00                        |
| 10,600.0<br>10,642.2             | 30.30<br>33.68       | 179.71<br>179.71     | 10,433.2<br>10,469.0            | 772.4<br>750.1          | 104.2<br>104.3          | -772.6<br>-750.2              | 8.00<br>8.00                  | 8.00<br>8.00                 | 0.00<br>0.00                |
| Wolfcamp C                       |                      |                      |                                 |                         |                         |                               |                               |                              |                             |
| 10,700.0                         | 38.30                | 179.71               | 10,515.7                        | 716.1                   | 104.4                   | -716.3                        | 8.00                          | 8.00                         | 0.00                        |
| 10,800.0<br>10,900.0             | 46.30<br>54.30       | 179.71<br>179.71     | 10,589.6<br>10,653.4            | 648.9<br>572.0          | 104.8<br>105.2          | -649.0<br>-572.2              | 8.00<br>8.00                  | 8.00<br>8.00                 | 0.00<br>0.00                |
| 10,963.2                         | 59.36                | 179.71               | 10,688.0                        | 519.1                   | 105.4                   | -519.3                        | 8.00                          | 8.00                         | 0.00                        |
| Wolfcamp D                       |                      |                      |                                 |                         |                         |                               |                               |                              |                             |
| 11,000.0                         | 62.30                | 179.71               | 10,705.9                        | 487.0                   | 105.6                   | -487.1                        | 8.00                          | 8.00                         | 0.00                        |
| 11,100.0<br>11,200.0             | 70.30<br>78.30       | 179.71<br>179.71     | 10,746.1<br>10,773.1            | 395.5<br>299.3          | 106.1<br>106.6          | -395.7<br>-299.5              | 8.00<br>8.00                  | 8.00<br>8.00                 | 0.00<br>0.00                |
| 11,300.0                         | 86.30                | 179.71               | 10,7786.5                       | 200.3                   | 100.0                   | -299.5                        | 8.00                          | 8.00                         | 0.00                        |
| 11,346.2                         | 90.00                | 179.71               | 10,788.0                        | 154.1                   | 107.3                   | -154.3                        | 8.00                          | 8.00                         | 0.00                        |
| Landing - F                      | _                    |                      |                                 |                         |                         |                               |                               |                              |                             |
| 11,400.0                         | 90.00                | 179.71               | 10,788.0                        | 100.3                   | 107.6                   | -100.5                        | 0.00                          | 0.00                         | 0.00                        |
| 11,500.0                         | 90.00                | 179.71               | 10,788.0                        | 0.3                     | 108.1                   | -0.5                          | 0.00                          | 0.00                         | 0.00                        |
| 11,600.0<br>11,700.0             | 90.00<br>90.00       | 179.71<br>179.71     | 10,788.0<br>10,788.0            | -99.7<br>-199.7         | 108.6<br>109.1          | 99.5<br>199.5                 | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 11,800.0                         | 90.00                | 179.71               | 10,788.0                        | -299.7                  | 109.1                   | 299.5                         | 0.00                          | 0.00                         | 0.00                        |
| 11,900.0                         | 90.00                | 179.71               | 10,788.0                        | -399.7                  | 110.1                   | 399.5                         | 0.00                          | 0.00                         | 0.00                        |
| 12,000.0                         | 90.00                | 179.71               | 10,788.0                        | -499.7                  | 110.6                   | 499.5                         | 0.00                          | 0.00                         | 0.00                        |
| 12,100.0                         | 90.00                | 179.71               | 10,788.0                        | -599.7                  | 111.1                   | 599.5                         | 0.00                          | 0.00                         | 0.00                        |
| 12,200.0<br>12,300.0             | 90.00<br>90.00       | 179.71<br>179.71     | 10,788.0<br>10,788.0            | -699.7<br>-799.7        | 111.6<br>112.2          | 699.5<br>799.5                | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 12,400.0                         | 90.00                | 179.71               | 10,788.0                        | -899.7                  | 112.7                   | 899.5                         | 0.00                          | 0.00                         | 0.00                        |
| 12,500.0                         | 90.00                | 179.71               | 10,788.0                        | -999.7                  | 113.2                   | 999.5                         | 0.00                          | 0.00                         | 0.00                        |
| 12,600.0                         | 90.00                | 179.71               | 10,788.0                        | -1,099.7                | 113.7                   | 1,099.5                       | 0.00                          | 0.00                         | 0.00                        |
| 12,700.0                         | 90.00                | 179.71               | 10,788.0                        | -1,199.7                | 114.2                   | 1,199.5                       | 0.00                          | 0.00                         | 0.00                        |
| 12,800.0<br>12,900.0             | 90.00<br>90.00       | 179.71<br>179.71     | 10,788.0<br>10,788.0            | -1,299.7<br>-1,399.7    | 114.7<br>115.2          | 1,299.5<br>1,399.5            | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 13,000.0                         | 90.00                | 179.71               | 10,788.0                        | -1,499.7                | 115.7                   | 1,499.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,100.0                         | 90.00                | 179.71               | 10,788.0                        | -1,599.7                | 116.2                   | 1,599.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,200.0                         | 90.00                | 179.71               | 10,788.0                        | -1,699.7                | 116.7                   | 1,699.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,300.0<br>13,400.0             | 90.00<br>90.00       | 179.71<br>179.71     | 10,788.0<br>10,788.0            | -1,799.7<br>-1,899.7    | 117.3<br>117.8          | 1,799.5<br>1,899.5            | 0.00<br>0.00                  | 0.00<br>0.00                 | 0.00<br>0.00                |
| 13,500.0                         | 90.00                | 179.71               | 10,788.0                        | -1,999.7                | 118.3                   | 1,999.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,600.0                         | 90.00                | 179.71               | 10,788.0                        | -1,999.7<br>-2,099.7    | 118.3                   | 2,099.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,700.0                         | 90.00                | 179.71               | 10,788.0                        | -2,199.7                | 119.3                   | 2,199.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,800.0                         | 90.00                | 179.71               | 10,788.0                        | -2,299.7                | 119.8                   | 2,299.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,900.0                         | 90.00                | 179.71               | 10,788.0                        | -2,399.7                | 120.3                   | 2,399.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,000.0                         | 90.00                | 179.71               | 10,788.0                        | -2,499.7                | 120.8                   | 2,499.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,100.0<br>14,200.0             | 90.00<br>90.00       | 179.71<br>179.71     | 10,788.0<br>10,788.0            | -2,599.6<br>-2,699.6    | 121.3<br>121.8          | 2,599.5<br>2,699.5            | 0.00                          | 0.00<br>0.00                 | 0.00<br>0.00                |
| 14,200.0                         | 90.00                | 179.71               | 10,788.0                        | -2,699.6<br>-2,799.6    | 121.8                   | 2,699.5                       | 0.00<br>0.00                  | 0.00                         | 0.00                        |
| 14,400.0                         | 90.00                | 179.71               | 10,788.0                        | -2,899.6                | 122.9                   | 2,899.5                       | 0.00                          | 0.00                         | 0.00                        |

EDM 5000.18 Single User Db Database: Long Lead\_Well Planning Company: Project: Right Popular 20 Fed Right Popular 20 Fed 103H Site: Well:

Right Popular 20 Fed 103H

ОН Wellbore: Design: Plan 1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Right Popular 20 Fed 103H

RKB (+32) @ 2991.0usft RKB (+32) @ 2991.0usft

Grid

Minimum Curvature

| anned Survey                |                    |                |                             |                      |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|----------------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft)      | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 14,500.0                    | 90.00              | 179.71         | 10,788.0                    | -2,999.6             | 123.4           | 2,999.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,600.0                    | 90.00              | 179.71         | 10,788.0                    | -3,099.6             | 123.9           | 3,099.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,700.0                    | 90.00              | 179.71         | 10,788.0                    | -3,199.6             | 123.9           | 3,199.4                       | 0.00                          | 0.00                         | 0.00                        |
| 14,800.0                    | 90.00              | 179.71         | 10,788.0                    | -3,299.6             | 124.4           | 3,299.4                       | 0.00                          | 0.00                         | 0.00                        |
|                             | 90.00              | 179.71         | 10,788.0                    | -3,299.6<br>-3,399.6 | 124.9           |                               | 0.00                          | 0.00                         | 0.00                        |
| 14,900.0                    | 90.00              | 179.71         | 10,700.0                    | -3,399.0             | 125.4           | 3,399.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,000.0                    | 90.00              | 179.71         | 10,788.0                    | -3,499.6             | 125.9           | 3,499.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,100.0                    | 90.00              | 179.71         | 10,788.0                    | -3,599.6             | 126.4           | 3,599.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,200.0                    | 90.00              | 179.71         | 10,788.0                    | -3,699.6             | 126.9           | 3,699.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,300.0                    | 90.00              | 179.71         | 10,788.0                    | -3,799.6             | 127.4           | 3,799.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,400.0                    | 90.00              | 179.71         | 10,788.0                    | -3,899.6             | 127.9           | 3,899.4                       | 0.00                          | 0.00                         | 0.00                        |
| 45 500 0                    | 00.00              | 470.74         | 40.700.0                    | 0.000.0              | 400.5           | 0.000.4                       |                               | 0.00                         | 0.00                        |
| 15,500.0                    | 90.00              | 179.71         | 10,788.0                    | -3,999.6             | 128.5           | 3,999.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,600.0                    | 90.00              | 179.71         | 10,788.0                    | -4,099.6             | 129.0           | 4,099.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,700.0                    | 90.00              | 179.71         | 10,788.0                    | -4,199.6             | 129.5           | 4,199.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,800.0                    | 90.00              | 179.71         | 10,788.0                    | -4,299.6             | 130.0           | 4,299.4                       | 0.00                          | 0.00                         | 0.00                        |
| 15,900.0                    | 90.00              | 179.71         | 10,788.0                    | -4,399.6             | 130.5           | 4,399.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,000.0                    | 90.00              | 179.71         | 10,788.0                    | -4,499.6             | 131.0           | 4,499.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,100.0                    | 90.00              | 179.71         | 10,788.0                    | -4,599.6             | 131.5           | 4,599.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,200.0                    | 90.00              | 179.71         | 10,788.0                    | -4,699.6             | 132.0           | 4,699.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,300.0                    | 90.00              | 179.71         | 10,788.0                    | -4,799.6             | 132.5           | 4,799.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,400.0                    | 90.00              | 179.71         | 10,788.0                    | -4,799.6<br>-4,899.6 | 133.0           | 4,799.4                       | 0.00                          | 0.00                         | 0.00                        |
| 10,400.0                    | 90.00              | 179.71         | 10,700.0                    | -4,099.0             | 133.0           | 4,099.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,500.0                    | 90.00              | 179.71         | 10,788.0                    | -4,999.6             | 133.6           | 4,999.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,600.0                    | 90.00              | 179.71         | 10,788.0                    | -5,099.6             | 134.1           | 5,099.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,700.0                    | 90.00              | 179.71         | 10,788.0                    | -5,199.6             | 134.6           | 5,199.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,800.0                    | 90.00              | 179.71         | 10,788.0                    | -5,299.6             | 135.1           | 5,299.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,900.0                    | 90.00              | 179.71         | 10,788.0                    | -5,399.6             | 135.6           | 5,399.4                       | 0.00                          | 0.00                         | 0.00                        |
|                             |                    |                |                             |                      |                 |                               |                               |                              |                             |
| 17,000.0                    | 90.00              | 179.71         | 10,788.0                    | -5,499.6             | 136.1           | 5,499.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,100.0                    | 90.00              | 179.71         | 10,788.0                    | -5,599.6             | 136.6           | 5,599.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,200.0                    | 90.00              | 179.71         | 10,788.0                    | -5,699.6             | 137.1           | 5,699.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,300.0                    | 90.00              | 179.71         | 10,788.0                    | -5,799.6             | 137.6           | 5,799.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,400.0                    | 90.00              | 179.71         | 10,788.0                    | -5,899.6             | 138.1           | 5,899.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,500.0                    | 90.00              | 179.71         | 10,788.0                    | -5,999.6             | 138.6           | 5,999.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,600.0                    | 90.00              | 179.71         | 10,788.0                    | -6,099.6             | 139.2           | 6,099.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,700.0                    | 90.00              | 179.71         | 10,788.0                    | -6,199.6             | 139.7           | 6,199.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,800.0                    | 90.00              | 179.71         | 10,788.0                    | -6,299.6             | 140.2           | 6,299.4                       | 0.00                          | 0.00                         | 0.00                        |
| 17,800.0                    | 90.00              | 179.71         | 10,788.0                    | -6,399.6             | 140.2           | 6,399.4                       | 0.00                          | 0.00                         | 0.00                        |
|                             |                    |                | ,                           |                      |                 |                               |                               |                              |                             |
| 18,000.0                    | 90.00              | 179.71         | 10,788.0                    | -6,499.6             | 141.2           | 6,499.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,100.0                    | 90.00              | 179.71         | 10,788.0                    | -6,599.6             | 141.7           | 6,599.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,200.0                    | 90.00              | 179.71         | 10,788.0                    | -6,699.6             | 142.2           | 6,699.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,300.0                    | 90.00              | 179.71         | 10,788.0                    | -6,799.6             | 142.7           | 6,799.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,400.0                    | 90.00              | 179.71         | 10,788.0                    | -6,899.6             | 143.2           | 6,899.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,500.0                    | 90.00              | 179.71         | 10,788.0                    | -6,999.6             | 143.7           | 6,999.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,600.0                    | 90.00              | 179.71         | 10,788.0                    | -6,999.6<br>-7,099.6 | 143.7           | 7,099.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,700.0                    |                    | 179.71         | 10,788.0                    |                      |                 |                               |                               |                              | 0.00                        |
|                             | 90.00              |                |                             | -7,199.6             | 144.8           | 7,199.4                       | 0.00                          | 0.00                         |                             |
| 18,800.0                    | 90.00              | 179.71         | 10,788.0                    | -7,299.6             | 145.3           | 7,299.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,900.0                    | 90.00              | 179.71         | 10,788.0                    | -7,399.6             | 145.8           | 7,399.4                       | 0.00                          | 0.00                         | 0.00                        |
| 19,000.0                    | 90.00              | 179.71         | 10,788.0                    | -7,499.6             | 146.3           | 7,499.4                       | 0.00                          | 0.00                         | 0.00                        |
| 19,100.0                    | 90.00              | 179.71         | 10,788.0                    | -7,599.6             | 146.8           | 7,599.4                       | 0.00                          | 0.00                         | 0.00                        |
| 19,200.0                    | 90.00              | 179.71         | 10,788.0                    | -7,699.6             | 147.3           | 7,699.3                       | 0.00                          | 0.00                         | 0.00                        |
| 19,300.0                    | 90.00              | 179.71         | 10,788.0                    | -7,799.6             | 147.8           | 7,799.3                       | 0.00                          | 0.00                         | 0.00                        |
| 19,400.0                    | 90.00              | 179.71         | 10,788.0                    | -7,899.6             | 148.3           | 7,899.3                       | 0.00                          | 0.00                         | 0.00                        |
|                             |                    |                |                             |                      |                 |                               |                               |                              |                             |
| 19,500.0                    | 90.00              | 179.71         | 10,788.0                    | -7,999.6             | 148.8           | 7,999.3                       | 0.00                          | 0.00                         | 0.00                        |
| 19,600.0                    | 90.00              | 179.71         | 10,788.0                    | -8,099.6             | 149.3           | 8,099.3                       | 0.00                          | 0.00                         | 0.00                        |
| 19,700.0                    | 90.00              | 179.71         | 10,788.0                    | -8,199.6             | 149.9           | 8,199.3                       | 0.00                          | 0.00                         | 0.00                        |
| 19,800.0                    | 90.00              | 179.71         | 10,788.0                    | -8,299.6             | 150.4           | 8,299.3                       | 0.00                          | 0.00                         | 0.00                        |

Database: EDM 5000.18 Single User Db Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Site: Right Popular 20 Fed 103H Well: Right Popular 20 Fed 103H

Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

| Design:               | Plan 1             |                  |                             |                                     |                 |                                  |                               |                              |                             |  |  |  |
|-----------------------|--------------------|------------------|-----------------------------|-------------------------------------|-----------------|----------------------------------|-------------------------------|------------------------------|-----------------------------|--|--|--|
| Planned Survey        |                    |                  |                             |                                     |                 |                                  |                               |                              |                             |  |  |  |
| Measured Depth (usft) | Inclination<br>(°) | Azimuth<br>(°)   | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft)                     | +E/-W<br>(usft) | Vertical<br>Section<br>(usft)    | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |  |  |  |
| 19,900.0              | 90.00              | 179.71           | 10,788.0                    | -8,399.6                            | 150.9           | 8,399.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,000.0              | 90.00              | 179.71           | 10,788.0                    | -8,499.6                            | 151.4           | 8,499.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,100.0              | 90.00              | 179.71           | 10,788.0                    | -8,599.6                            | 151.9           | 8,599.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,200.0              | 90.00              | 179.71           | 10,788.0                    | -8,699.6                            | 152.4           | 8,699.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,300.0              | 90.00              | 179.71           | 10,788.0                    | -8,799.6                            | 152.9           | 8,799.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,400.0              | 90.00              | 179.71           | 10,788.0                    | -8,899.6                            | 153.4           | 8,899.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,500.0              | 90.00              | 179.71           | 10,788.0                    | -8,999.6                            | 153.9           | 8,999.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,600.0              | 90.00              | 179.71           | 10,788.0                    | -9,099.6                            | 154.4           | 9,099.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,700.0              | 90.00              | 179.71           | 10,788.0                    | -9,199.6                            | 154.9           | 9,199.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,800.0              | 90.00              | 179.71           | 10,788.0                    | -9,299.6                            | 155.5           | 9,299.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 20,900.0              | 90.00              | 179.71           | 10,788.0                    | -9,399.6                            | 156.0           | 9,399.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,000.0              | 90.00              | 179.71           | 10,788.0                    | -9,499.6                            | 156.5           | 9,499.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,100.0              | 90.00              | 179.71           | 10,788.0                    | -9,599.6                            | 157.0           | 9,599.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,200.0              | 90.00              | 179.71           | 10,788.0                    | -9,699.6                            | 157.5           | 9,699.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,300.0              | 90.00              | 179.71           | 10,788.0                    | -9,799.6                            | 158.0           | 9,799.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,400.0              | 90.00              | 179.71           | 10,788.0                    | -9,899.6                            | 158.5           | 9,899.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,500.0              | 90.00              | 179.71           | 10,788.0                    | -9,999.6                            | 159.0           | 9,999.3                          | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,600.0              | 90.00              | 179.71           | 10,788.0                    | -10,099.6                           | 159.5           | 10,099.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,700.0              | 90.00              | 179.71           | 10,788.0                    | -10,199.6                           | 160.0           | 10,199.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,800.0              | 90.00              | 179.71           | 10,788.0                    | -10,299.5                           | 160.5           | 10,299.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 21,900.0              | 90.00              | 179.71           | 10,788.0                    | -10,399.5                           | 161.1           | 10,399.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,000.0              | 90.00              | 179.71           | 10,788.0                    | -10,499.5                           | 161.6           | 10,499.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,100.0              | 90.00              | 179.71           | 10,788.0                    | -10,599.5                           | 162.1           | 10,599.3                         | 0.00                          | 0.00                         |                             |  |  |  |
| 22,200.0              | 90.00              | 179.71           | 10,788.0                    | -10,699.5                           | 162.6           | 10,699.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,300.0              | 90.00              | 179.71           | 10,788.0                    | -10,799.5                           | 163.1           | 10,799.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,400.0              | 90.00              | 179.71           | 10,788.0                    | -10,899.5                           | 163.6           | 10,899.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,500.0              | 90.00              | 179.71           | 10,788.0                    | -10,999.5                           | 164.1           | 10,999.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,600.0              | 90.00              | 179.71           | 10,788.0                    | -11,099.5                           | 164.6           | 11,099.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,700.0              | 90.00              | 179.71           | 10,788.0                    | -11,199.5                           | 165.1           | 11,199.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,800.0              | 90.00              | 179.71           | 10,788.0                    | -11,299.5                           | 165.6           | 11,299.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 22,900.0              | 90.00              | 179.71           | 10,788.0                    | -11,399.5                           | 166.2           | 11,399.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,000.0              | 90.00              | 179.71           | 10,788.0                    | -11,499.5                           | 166.7           | 11,499.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,100.0              | 90.00              | 179.71           | 10,788.0                    | -11,599.5                           | 167.2           | 11,599.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,200.0              | 90.00              | 179.71           | 10,788.0                    | -11,699.5                           | 167.7           | 11,699.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,300.0              | 90.00              | 179.71           | 10,788.0                    | -11,799.5                           | 168.2           | 11,799.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,400.0              | 90.00              | 179.71           | 10,788.0                    | -11,899.5                           | 168.7           | 11,899.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,500.0              | 90.00              | 179.71           | 10,788.0                    | -11,999.5                           | 169.2           | 11,999.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,600.0              | 90.00              | 179.71           | 10,788.0                    | -12,099.5                           | 169.7           | 12,099.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,700.0              | 90.00              | 179.71           | 10,788.0                    | -12,199.5                           | 170.2           | 12,199.3                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,800.0              | 90.00              | 179.71           | 10,788.0                    | -12,299.5                           | 170.7           | 12,299.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 23,900.0<br>24,000.0  | 90.00<br>90.00     | 179.71<br>179.71 | 10,788.0<br>10,788.0        | -12,399.5<br>-12,499.5              | 171.2<br>171.8  | 12,399.2<br>12,499.2             | 0.00                          | 0.00                         | 0.00<br>0.00                |  |  |  |
| 24,100.0              | 90.00              | 179.71           | 10,788.0                    | -12,599.5                           | 172.3           | 12,599.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,200.0              | 90.00              | 179.71           | 10,788.0                    | -12,699.5                           | 172.8           | 12,699.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,300.0              | 90.00              | 179.71           | 10,788.0                    | -12,799.5                           | 173.3           | 12,799.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,400.0<br>24,500.0  | 90.00              | 179.71<br>179.71 | 10,788.0                    | -12,799.5<br>-12,899.5<br>-12,999.5 | 173.8<br>174.3  | 12,799.2<br>12,899.2<br>12,999.2 | 0.00                          | 0.00                         | 0.00<br>0.00<br>0.00        |  |  |  |
| 24,600.0              | 90.00              | 179.71           | 10,788.0                    | -13,099.5                           | 174.8           | 13,099.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,700.0              | 90.00              | 179.71           | 10,788.0                    | -13,199.5                           | 175.3           | 13,199.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,800.0              | 90.00              | 179.71           | 10,788.0                    | -13,299.5                           | 175.8           | 13,299.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 24,900.0              | 90.00              | 179.71           | 10,788.0                    | -13,399.5                           | 176.3           | 13,399.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 25,000.0              | 90.00              | 179.71           | 10,788.0                    | -13,499.5                           | 176.8           | 13,499.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 25,100.0              | 90.00              | 179.71           | 10,788.0                    | -13,599.5                           | 177.4           | 13,599.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |
| 25,200.0              | 90.00              | 179.71           | 10,788.0                    | -13,699.5                           | 177.9           | 13,699.2                         | 0.00                          | 0.00                         | 0.00                        |  |  |  |

Database: EDM 5000.18 Single User Db Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Site: Right Popular 20 Fed 103H Well: Right Popular 20 Fed 103H

Wellbore: Design: Right Popular 20 Fe
OH
Plan 1

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:

| Planned Survey              |                    |                |                             |                 |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 25,300.0                    | 90.00              | 179.71         | 10,788.0                    | -13,799.5       | 178.4           | 13,799.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,400.0                    | 90.00              | 179.71         | 10,788.0                    | -13,899.5       | 178.9           | 13,899.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,500.0                    | 90.00              | 179.71         | 10,788.0                    | -13,999.5       | 179.4           | 13,999.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,600.0                    | 90.00              | 179.71         | 10,788.0                    | -14,099.5       | 179.9           | 14,099.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,700.0                    | 90.00              | 179.71         | 10,788.0                    | -14,199.5       | 180.4           | 14,199.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,800.0                    | 90.00              | 179.71         | 10,788.0                    | -14,299.5       | 180.9           | 14,299.2                      | 0.00                          | 0.00                         | 0.00                        |
| 25,900.0                    | 90.00              | 179.71         | 10,788.0                    | -14,399.5       | 181.4           | 14,399.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,000.0                    | 90.00              | 179.71         | 10,788.0                    | -14,499.5       | 181.9           | 14,499.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,100.0                    | 90.00              | 179.71         | 10,788.0                    | -14,599.5       | 182.5           | 14,599.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,200.0                    | 90.00              | 179.71         | 10,788.0                    | -14,699.5       | 183.0           | 14,699.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,300.0                    | 90.00              | 179.71         | 10,788.0                    | -14,799.5       | 183.5           | 14,799.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,400.0                    | 90.00              | 179.71         | 10,788.0                    | -14,899.5       | 184.0           | 14,899.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,500.0                    | 90.00              | 179.71         | 10,788.0                    | -14,999.5       | 184.5           | 14,999.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,600.0                    | 90.00              | 179.71         | 10,788.0                    | -15,099.5       | 185.0           | 15,099.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,700.0                    | 90.00              | 179.71         | 10,788.0                    | -15,199.5       | 185.5           | 15,199.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,800.0                    | 90.00              | 179.71         | 10,788.0                    | -15,299.5       | 186.0           | 15,299.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,900.0                    | 90.00              | 179.71         | 10,788.0                    | -15,399.5       | 186.5           | 15,399.2                      | 0.00                          | 0.00                         | 0.00                        |
| 26,914.3                    | 90.00              | 179.71         | 10,788.0                    | -15,413.8       | 186.6           | 15,413.5                      | 0.00                          | 0.00                         | 0.00                        |
| 27,000.0                    | 90.00              | 179.71         | 10,788.0                    | -15,499.5       | 187.0           | 15,499.2                      | 0.00                          | 0.00                         | 0.00                        |
| 27,100.0                    | 90.00              | 179.71         | 10,788.0                    | -15,599.5       | 187.5           | 15,599.2                      | 0.00                          | 0.00                         | 0.00                        |
| 27,194.3                    | 90.00              | 179.71         | 10,788.0                    | -15,693.8       | 188.0           | 15,693.5                      | 0.00                          | 0.00                         | 0.00                        |
| BHL_103H                    |                    |                |                             |                 |                 |                               |                               |                              |                             |

| Design Targets                                 |                        |                       |                          |                            |                        |                      |                   |                 |                  |
|--|------------------------|-----------------------|--------------------------|----------------------------|------------------------|----------------------|-------------------|-----------------|------------------|
| Target Name - hit/miss target - Shape          | Dip Angle<br>(°)       | Dip Dir.<br>(°)       | TVD<br>(usft)            | +N/-S<br>(usft)            | +E/-W<br>(usft)        | Northing<br>(usft)   | Easting<br>(usft) | Latitude        | Longitude        |
| SHL_103H - plan hits target cent - Point       | 0.00<br>ter            | 0.00                  | 0.0                      | 0.0                        | 0.0                    | 408,290.10           | 599,089.90        | 32° 7′ 19.565 N | 104° 0' 47.732 W |
| LTP_103H<br>- plan hits target cent<br>- Point | 0.00<br>ter            | 0.00                  | 10,788.0                 | -15,413.8                  | 186.6                  | 392,876.30           | 599,276.50        | 32° 4' 47.018 N | 104° 0' 46.095 W |
| BHL_103H<br>- plan misses target of<br>- Point | 0.00<br>center by 2.2u | 0.00<br>usft at 27194 | 10,788.0<br>.3usft MD (1 | -15,693.8<br>0788.0 TVD, - | 185.8<br>15693.8 N, 18 | 392,596.30<br>8.0 E) | 599,275.70        | 32° 4' 44.247 N | 104° 0' 46.114 W |
| FTP_103H - plan hits target cent - Point       | 0.00<br>ter            | 0.00                  | 10,788.0                 | 154.1                      | 107.3                  | 408,444.20           | 599,197.20        | 32° 7' 21.087 N | 104° 0' 46.479 W |

Database: EDM 5000.18 Single User Db Company: Long Lead\_Well Planning Project: Right Popular 20 Fed Site: Right Popular 20 Fed 103H Well: Right Popular 20 Fed 103H

Wellbore: OH
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

| nations |                             |                             |                                    |           |            |                         |
|---------|-----------------------------|-----------------------------|------------------------------------|-----------|------------|-------------------------|
|         | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                               | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|         | 548.0                       | 548.0                       | Salado                             |           |            |                         |
|         | 2,672.0                     | 2,672.0                     | Base of Salt                       |           |            |                         |
|         | 2,862.1                     | 2,862.0                     | Delaware                           |           |            |                         |
|         | 3,768.6                     | 3,744.0                     | Cherry Canyon                      |           |            |                         |
|         | 5,501.1                     | 5,355.0                     | Brushy Canyon                      |           |            |                         |
|         | 6,489.4                     | 6,340.0                     | Basal Brushy Canyon                |           |            |                         |
|         | 6,743.4                     | 6,594.0                     | Bone Spring Lm.                    |           |            |                         |
|         | 6,905.4                     | 6,756.0                     | Avalon Shale                       |           |            |                         |
|         | 7,334.4                     | 7,185.0                     | Avalon Lower                       |           |            |                         |
|         | 7,504.4                     | 7,355.0                     | 1st Bone Spring Lime               |           |            |                         |
|         | 7,700.4                     | 7,551.0                     | 1st Bone Spring Sand               |           |            |                         |
|         | 8,109.4                     | 7,960.0                     | 2nd Bone Spring Lime               |           |            |                         |
|         | 8,522.4                     | 8,373.0                     | 2nd Bone Spring Sand               |           |            |                         |
|         | 8,745.4                     | 8,596.0                     | 2nd Bone Spring Sand_Base B        |           |            |                         |
|         | 8,985.4                     | 8,836.0                     | 3rd Bone Spring Lime               |           |            |                         |
|         | 9,104.4                     | 8,955.0                     | Harkey                             |           |            |                         |
|         | 9,137.4                     | 8,988.0                     | 3rd Bone Spring Upper Shale        |           |            |                         |
|         | 9,365.4                     | 9,216.0                     | 3rd Bone Spring Upper Shale Base   |           |            |                         |
|         | 9,415.4                     | 9,266.0                     | 3rd Bone Spring Lower Shale        |           |            |                         |
|         | 9,514.4                     | 9,365.0                     | 3rd Bone Spring Lower Shale Marker |           |            |                         |
|         | 9,575.4                     | 9,426.0                     | 3rd Bone Spring Sand               |           |            |                         |
|         | 9,786.4                     | 9,637.0                     | Warwink                            |           |            |                         |
|         | 9,878.4                     | 9,729.0                     | Red Hills                          |           |            |                         |
|         | 9,955.4                     | 9,806.0                     | Wolfcamp                           |           |            |                         |
|         | 9,977.4                     | 9,828.0                     | Wolfcamp X                         |           |            |                         |
|         | 10,053.4                    | 9,904.0                     | Wolfcamp Y                         |           |            |                         |
|         | 10,093.4                    | 9,944.0                     | Wolfcamp A                         |           |            |                         |
|         | 10,401.3                    | 10,250.0                    | Wolfcamp B                         |           |            |                         |
|         | 10,642.2                    | 10,469.0                    | Wolfcamp C                         |           |            |                         |
|         | 10,963.2                    | 10,688.0                    | Wolfcamp D                         |           |            |                         |
|         | 11,346.2                    | 10,788.0                    | Landing                            |           |            |                         |

ALL DIMENSIONS APPROXIMA

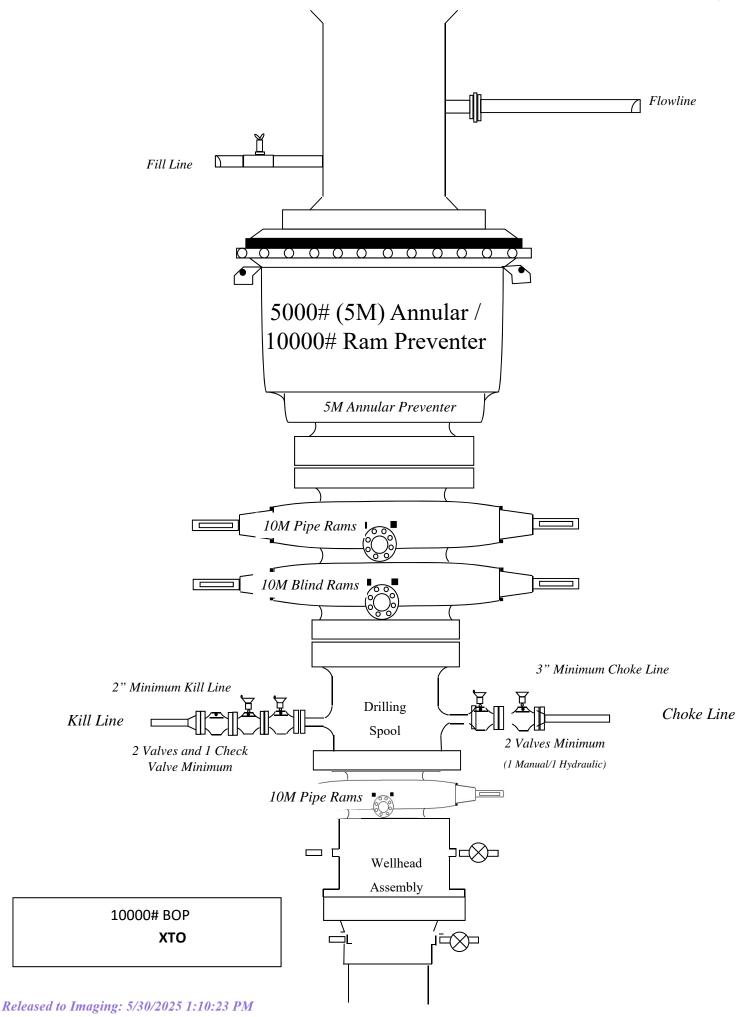
## CACTUS WELLHEAD LLC

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers

| DELAWARE BASIN |     |       |  |  |  |  |  |
|----------------|-----|-------|--|--|--|--|--|
| DRAWN          | VJK | 31MAR |  |  |  |  |  |
| APPRV          |     |       |  |  |  |  |  |
|                |     |       |  |  |  |  |  |

DRAWING NO. HBE0000479

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#### **XTO Permian Operating, LLC Offline Cementing Variance Request**

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

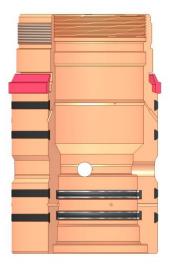
#### 1. Cement Program

No changes to the cement program will take place for offline cementing.

#### 2. Offline Cementing Procedure

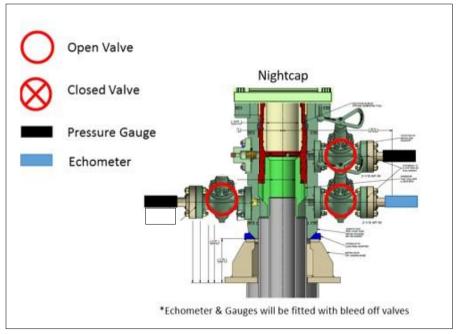
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
- 2. Land casing with mandrel
- 3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
- 4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



Annular packoff with both external and internal seals

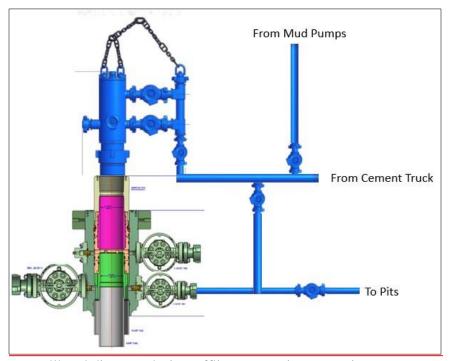
## **XTO Permian Operating, LLC Offline Cementing Variance Request**



Wellhead diagram during skidding operations

- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a 3<sup>rd</sup> party pump will be tied into the upper casing valve to pump down the casing ID
    - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
    - v. Well will be confirmed static
    - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
- 8. Install offline cement tool
- 9. Rig up cement equipment

# **XTO Permian Operating, LLC Offline Cementing Variance Request**



Wellhead diagram during offline cementing operations

- 10. Circulate bottoms up with cement truck
  - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
  - b. Max anticipated time before circulating with cement truck is 6 hrs
- 11. Perform cement job taking returns from the annulus wellhead valve
- 12. Confirm well is static and floats are holding after cement job
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

# Description of Operations:

- Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
- 2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
- 3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
  - a. A means for intervention will be maintained while the drilling rig is not over the well.
- 4. Spudder rig operations are expected to take 2-3 days per well on the pad.
- 5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
- 7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- 8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.



**GATES ENGINEERING & SERVICES NORTH AMERICA** 

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Houston, TX. 77086

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FAX: +1 (281) 602-4147

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WEB: www.gates.com/oilandgas

NEW CHOKE HOSE

INSTAUED 02-10-2024

# CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

| CI | IST | ON  | IER:  |  |
|----|-----|-----|-------|--|
|    | 21  | CIA | ILIV. |  |

NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA

CUSTOMER P.O.#:

15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)

CUSTOMER P/N:

IMR RETEST SN 74621 ASSET #66-1531

PART DESCRIPTION:

RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K

FLANGES

SALES ORDER #:

529480

QUANTITY:

1

SERIAL #:

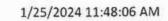
74621 H3-012524-1

SIGNATURE: F. CUSTUSE

TITLE: QUALITY ASSURANCE

DATE: 1/25/2024

# H3-15/16





# **TEST REPORT**

CUSTOMER

Company:

Nabors Industries Inc.

**TEST OBJECT** 

Serial number: H3-012524-1

Lot number:

Production description:

74621/66-1531

Description:

74621/66-1531

Sales order #: Customer reference: 529480 FG1213

Hose ID:

3" 16C CK

Part number:

**TEST INFORMATION** 

Test procedure:

GTS-04-053

Fitting 1:

3.0 x 4-1/16 10K

3.0 x 4-1/16 10K

Test pressure: Test pressure hold: 15000.00 3600.00

Description:

Part number:

Work pressure:

10000.00

Fitting 2:

Work pressure hold:

900.00

sec %

psi

sec

psi

Part number:

45

Length difference: Length difference: 0.00

inch

Description:

Length:

feet

n . . . . /n

Visual check:

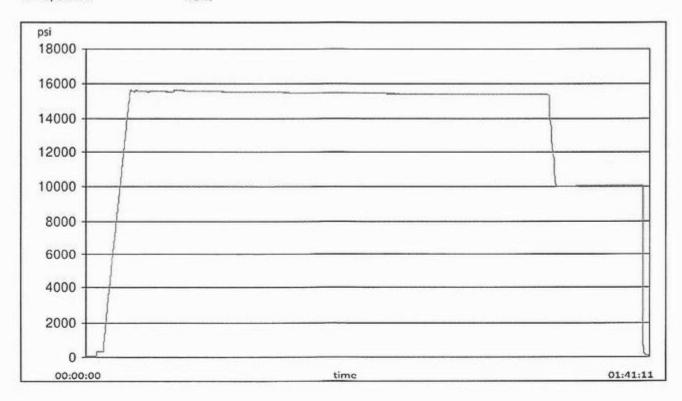
Pressure test result:

PASS

Length measurement result:

Test operator:

Travis





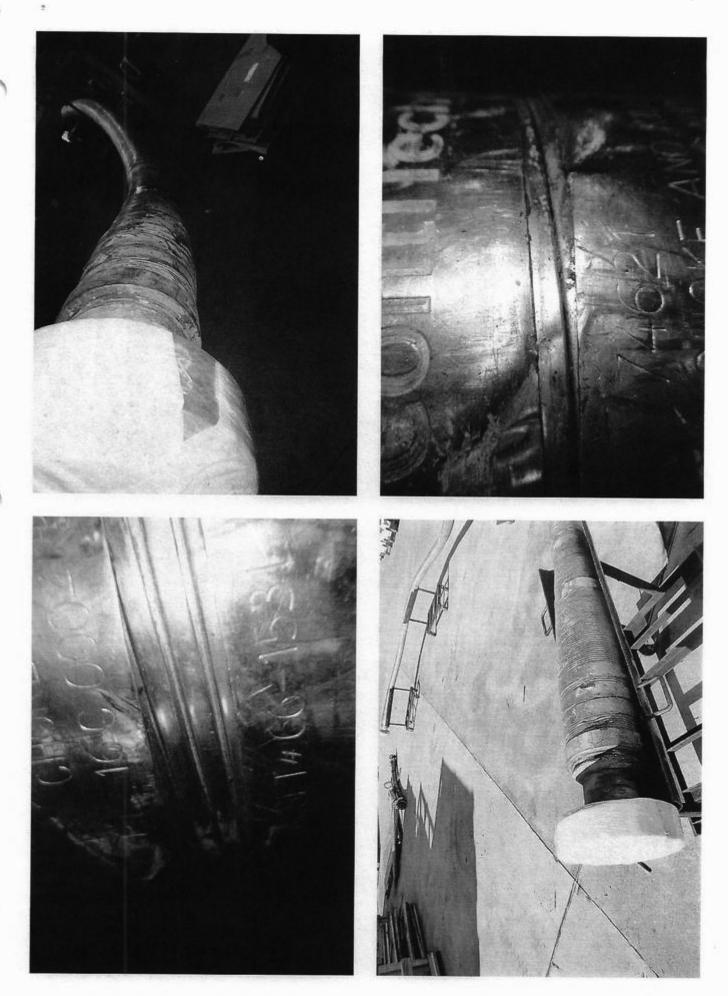
H3-15/16

1/25/2024 11:48:06 AM

# **TEST REPORT**

# **GAUGE TRACEABILITY**

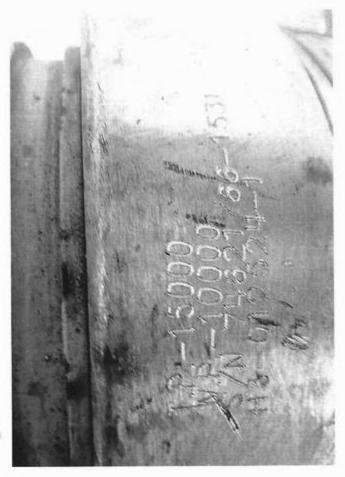
| Description | Serial number | Calibration date | Calibration due date |  |
|-------------|---------------|------------------|----------------------|--|
| S-25-A-W    | 110D3PHO      | 2023-06-06       | 2024-06-06           |  |
| S-25-A-W    | 110IQWDG      | 2023-05-16       | 2024-05-16           |  |
| Comment     |               |                  |                      |  |
|             |               |                  |                      |  |
|             |               |                  |                      |  |
|             |               |                  |                      |  |
|             |               |                  |                      |  |
|             |               |                  |                      |  |

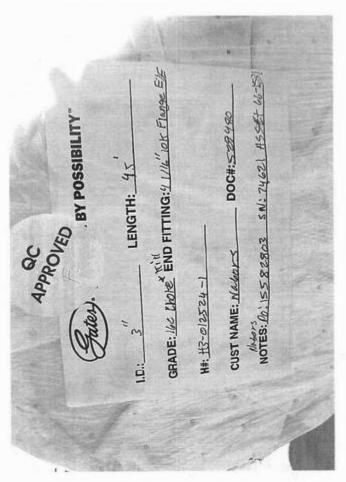


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Released to Imaging: 5/30/2025 1:10:23 PM





| Coupling       | Pipe Body       |
|----------------|-----------------|
| Grade: P110-CY | Grade: P110-CY  |
| Body: White    | 1st Band: White |
| 1st Band: Grey | 2nd Band: Grey  |
| 2nd Band: -    | 3rd Band: -     |
| 3rd Band: -    | 4th Band: -     |
|                | 5th Band: -     |
|                | 6th Band: -     |
|                |                 |

| Outside Diameter     | 5.500 in. | Wall Thickness  | 0.361 in.    | Grade | P110-CY |
|----------------------|-----------|-----------------|--------------|-------|---------|
| Min. Wall Thickness  | 87.50 %   | Pipe Body Drift | API Standard | Туре  | Casing  |
| Connection OD Option | REGULAR   |                 |              |       |         |

#### Pipe Body Data

| Geometry       |             |                  |             |
|----------------|-------------|------------------|-------------|
| Nominal OD     | 5.500 in.   | Wall Thickness   | 0.361 in.   |
| Nominal Weight | 20.00 lb/ft | Plain End Weight | 19.83 lb/ft |
| Drift          | 4.653 in.   | OD Tolerance     | API         |
| Nominal ID     | 4.778 in.   |                  |             |

| Performance                  |              |
|------------------------------|--------------|
| Body Yield Strength          | 641 x1000 lb |
| Min. Internal Yield Pressure | 12,640 psi   |
| SMYS                         | 110,000 psi  |
| Collapse Pressure            | 11,100 psi   |

#### **Connection Data**

| Geometry             |           |
|----------------------|-----------|
| Connection OD        | 6.300 in. |
| Coupling Length      | 8.408 in. |
| Connection ID        | 4.778 in. |
| Make-up Loss         | 4.204 in. |
| Threads per inch     | 5         |
| Connection OD Option | Regular   |
|                      |           |

| Performance                |              |
|----------------------------|--------------|
| Tension Efficiency         | 100 %        |
| Joint Yield Strength       | 641 x1000 lb |
| Internal Pressure Capacity | 12,640 psi   |
| Compression Efficiency     | 100 %        |
| Compression Strength       | 641 x1000 lb |
| Max. Allowable Bending     | 92 °/100 ft  |
| External Pressure Capacity | 11,100 psi   |
|                            |              |

| Make-Up Torques         |              |
|-------------------------|--------------|
| Minimum                 | 13,860 ft-lb |
| Optimum                 | 15,400 ft-lb |
| Maximum                 | 16,940 ft-lb |
|                         |              |
| Operation Limit Torques |              |
| Operating Torque        | 26,350 ft-lb |
| Yield Torque            | 29,300 ft-lb |
|                         |              |

# Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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# TenarisHydril Wedge 441®



| Coupling       | Pipe Body       |
|----------------|-----------------|
| Grade: P110-CY | Grade: P110-CY  |
| Body: White    | 1st Band: White |
| 1st Band: Grey | 2nd Band: Grey  |
| 2nd Band: -    | 3rd Band: -     |
| 3rd Band: -    | 4th Band: -     |
|                | 5th Band: -     |
|                | 6th Band: -     |

| Outside Diameter     | 5.500 in. | Wall Thickness  | 0.361 in.    | Grade | P110-CY |
|----------------------|-----------|-----------------|--------------|-------|---------|
| Min. Wall Thickness  | 87.50 %   | Pipe Body Drift | API Standard | Туре  | Casing  |
| Connection OD Option | REGULAR   |                 |              |       |         |

#### Pipe Body Data

| Geometry       |             |                  |             |
|----------------|-------------|------------------|-------------|
| Nominal OD     | 5.500 in.   | Wall Thickness   | 0.361 in.   |
| Nominal Weight | 20.00 lb/ft | Plain End Weight | 19.83 lb/ft |
| Drift          | 4.653 in.   | OD Tolerance     | API         |
| Nominal ID     | 4.778 in.   |                  |             |

| Performance                  |              |
|------------------------------|--------------|
| Body Yield Strength          | 641 x1000 lb |
| Min. Internal Yield Pressure | 12,640 psi   |
| SMYS                         | 110,000 psi  |
| Collapse Pressure            | 11,100 psi   |

#### **Connection Data**

| Geometry             |           |
|----------------------|-----------|
| Connection OD        | 5.852 in. |
| Coupling Length      | 8.714 in. |
| Connection ID        | 4.778 in. |
| Make-up Loss         | 3.780 in. |
| Threads per inch     | 3.40      |
| Connection OD Option | Regular   |

| Performance                |                |
|----------------------------|----------------|
| Tension Efficiency         | 81.50 %        |
| Joint Yield Strength       | 522 x1000 lb   |
| Internal Pressure Capacity | 12,640 psi     |
| Compression Efficiency     | 81.50 %        |
| Compression Strength       | 522 x1000 lb   |
| Max. Allowable Bending     | 72.59 °/100 ft |
| External Pressure Capacity | 11,100 psi     |

| Make-Up Torques         |              |
|-------------------------|--------------|
| Minimum                 | 15,000 ft-lb |
| Optimum                 | 16,000 ft-lb |
| Maximum                 | 19,200 ft-lb |
| Operation Limit Torques |              |
| Operating Torque        | 32,000 ft-lb |
| Yield Torque            | 38,000 ft-lb |
| Buck-On                 |              |
| Minimum                 | 19,200 ft-lb |
| Maximum                 | 20,700 ft-lb |

# Notes

This connection is fully interchangeable with: Wedge 441® - 5.5 in. - 0.304 (17.00) in. (lb/ft) Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) / 0.415 (23.00) in. (lb/ft) Connections with Dopeless® Technology are fully compatible with the same connection in its doped version

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# TenarisHydril Wedge 511



| Coupling        | Pipe Body            |
|-----------------|----------------------|
| Grade: L80-IC   | Grade: L80-IC        |
| Body: Red       | 1st Band: Red        |
| 1st Band: Brown | 2nd Band: Brown      |
| 2nd Band: -     | 3rd Band: Pale Green |
| 3rd Band: -     | 4th Band: -          |
|                 | 5th Band: -          |
|                 | 6th Band: -          |
|                 |                      |

| Outside Diameter     | 7.625 in. | Wall Thickness  | 0.375 in.    | Grade | L80-IC |
|----------------------|-----------|-----------------|--------------|-------|--------|
| Min. Wall Thickness  | 87.50 %   | Pipe Body Drift | API Standard | Туре  | Casing |
| Connection OD Option | REGULAR   |                 |              |       |        |

## Pipe Body Data

| Geometry       |             |                  |             |
|----------------|-------------|------------------|-------------|
| Nominal OD     | 7.625 in.   | Wall Thickness   | 0.375 in.   |
| Nominal Weight | 29.70 lb/ft | Plain End Weight | 29.06 lb/ft |
| Drift          | 6.750 in.   | OD Tolerance     | API         |
| Nominal ID     | 6.875 in.   |                  |             |

| Performance                  |              |
|------------------------------|--------------|
| Body Yield Strength          | 683 x1000 lb |
| Min. Internal Yield Pressure | 6890 psi     |
| SMYS                         | 80,000 psi   |
| Collapse Pressure            | 5900 psi     |

#### **Connection Data**

| 7.625 in. |
|-----------|
| 6.787 in. |
| 3.704 in. |
| 3.28      |
| Regular   |
|           |

| Performance                |                |
|----------------------------|----------------|
| Tension Efficiency         | 61.10 %        |
| Joint Yield Strength       | 417 x1000 lb   |
| Internal Pressure Capacity | 6890 psi       |
| Compression Efficiency     | 73.80 %        |
| Compression Strength       | 504 x1000 lb   |
| Max. Allowable Bending     | 29.33 °/100 ft |
| External Pressure Capacity | 5900 psi       |
|                            |                |

| Make-Up Torques         |              |
|-------------------------|--------------|
| Minimum                 | 5900 ft-lb   |
| Optimum                 | 7100 ft-lb   |
| Maximum                 | 10,300 ft-lb |
| Operation Limit Torques |              |
| Operating Torque        | 35,000 ft-lb |
| Yield Torque            | 52,000 ft-lb |
|                         |              |

# Notes

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# TenarisHydril Wedge 511



 Coupling
 Pipe Body

 Grade: P110-ICY
 Grade: P110-ICY

 Body: White
 1st Band: White

 1st Band: Pale Green
 2nd Band: Pale Green

 2nd Band: 3rd Band: Pale Green

 3rd Band: 4th Band: 

 5th Band: 6th Band:

| Outside Diameter     | 7.625 in. | Wall Thickness  | 0.375 in.    | Grade | P110-ICY |
|----------------------|-----------|-----------------|--------------|-------|----------|
| Min. Wall Thickness  | 90.00 %   | Pipe Body Drift | API Standard | Туре  | Casing   |
| Connection OD Option | REGULAR   |                 |              |       |          |

#### Pipe Body Data

| Geometry       |             |                  |             |
|----------------|-------------|------------------|-------------|
| Nominal OD     | 7.625 in.   | Wall Thickness   | 0.375 in.   |
| Nominal Weight | 29.70 lb/ft | Plain End Weight | 29.06 lb/ft |
| Drift          | 6.750 in.   | OD Tolerance     | API         |
| Nominal ID     | 6.875 in.   |                  |             |

| Performance                  |               |
|------------------------------|---------------|
| Body Yield Strength          | 1068 x1000 lb |
| Min. Internal Yield Pressure | 11,070 psi    |
| SMYS                         | 125,000 psi   |
| Collapse Pressure            | 7360 psi      |

#### **Connection Data**

| Geometry             |           |
|----------------------|-----------|
| Connection OD        | 7.625 in. |
| Connection ID        | 6.787 in. |
| Make-up Loss         | 3.704 in. |
| Threads per inch     | 3.28      |
| Connection OD Option | Regular   |
| ·                    |           |

| Performance                |                |
|----------------------------|----------------|
| Tension Efficiency         | 61.10 %        |
| Joint Yield Strength       | 653 x1000 lb   |
| Internal Pressure Capacity | 11,070 psi     |
| Compression Efficiency     | 73.80 %        |
| Compression Strength       | 788 x1000 lb   |
| Max. Allowable Bending     | 45.83 °/100 ft |
| External Pressure Capacity | 7360 psi       |

| Make-Up Torques         |              |
|-------------------------|--------------|
| Minimum                 | 5900 ft-lb   |
| Optimum                 | 7100 ft-lb   |
| Maximum                 | 10,300 ft-lb |
| Operation Limit Torques |              |
| Operating Torque        | 55,000 ft-lb |
| Yield Torque            | 82,000 ft-lb |
|                         |              |

# Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Reports
05/15/2025

Well Name: RIGHT POPULAR 20 FED Well Location: T25S / R29E / SEC 20 / County or Parish/State: EDDY /

NWNW / 32.122226 / -104.013748 N

Well Number: 103H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

Lease Number: NMNM102031 Unit or CA Name: Unit or CA Number:

INCORPORATED

# **Notice of Intent**

**Sundry ID: 2850805** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/02/2025 Time Sundry Submitted: 03:11

Date proposed operation will begin: 05/09/2025

**Procedure Description:** XTO ENERGY INCORPORATED respectfully requests approval to make the following changes to the approved APD. Changes to include well name. The proposed well name is changing from RIGHT POPULAR 20 FED 103H to Corral 20-32 Fed State Com 102H The API number for this well is 30-015-56314

# **NOI Attachments**

# **Procedure Description**

 $CORRAL\_20\_32\_FED\_102H\_C102\_FINAL\_04\_22\_2025\_20250502151114.pdf$ 

Page 1 of 2

well Name: RIGHT POPULAR 20 FED

Well Location: T25S / R29E / SEC 20 /

NWNW / 32.122226 / -104.013748

County or Parish/State: Page 50 of

NM

Zip:

Well Number: 103H

Type of Well: CONVENTIONAL GAS

WĖLL

Allottee or Tribe Name:

Lease Number: NMNM102031

INM102031 Unit or CA Name:

**Unit or CA Number:** 

**US Well Number: 3001556314** 

Operator: XTO ENERGY INCORPORATED

# **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: JENA AUSTIN Signed on: MAY 02, 2025 03:11 PM

Name: XTO ENERGY INCORPORATED

Title: Regulatory Analyst

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING State: TX

Phone: (346) 335-5295

Email address: JENA.N.AUSTIN@EXXONMOBIL.COM

# **Field**

**Representative Name:** 

**Street Address:** 

City: State:

Phone:

Email address:

# **BLM Point of Contact**

BLM POC Name: MARIAH HUGHES BLM POC Title: Land Law Examiner

BLM POC Phone: 5752345972 BLM POC Email Address: mhughes@blm.gov

**Disposition:** Approved **Disposition Date:** 05/15/2025

Signature: Cody Layton Assistant Field Manager

Page 2 of 2

Form 3160-5 (June 2019)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR

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

| 11111111111 |
|-------------|
|             |

| DE   | AKTIVILINI OF THE INTER  | IOK                               |                 |  | -F       |                                    |
|--|--|-----------------------------------|-----------------|--|----------|------------------------------------|
| BUR  | EAU OF LAND MANAGEM  | 5. Lease Serial No. NMNM102031    |                 |  |          |                                    |
| Do not use this  | NOTICES AND REPORTS (<br>form for proposals to drill<br>Use Form 3160-3 (APD) fo     | or to re-                         | enter an        | 6. If Indian, Allottee or Tribe                        | Name     |                                    |
| SUBMIT IN  | TRIPLICATE - Other instructions of   | on page 2                         |                 | 7. If Unit of CA/Agreement,                            | Name a   | nd/or No.                          |
| 1. Type of Well  |  |                                   |                 | 8. Well Name and No.                                   |          |                                    |
| Oil Well Gas V   | <del></del>  |                                   |                 | RIGHT POPULAR 20 FED/103H                              |          |                                    |
| 2. Name of Operator XTO ENERGY   | INCORPORATED   |                                   |                 | 9. API Well No. 300155631                              | 14       |                                    |
| 3a. Address 15948 US HWY 77, AF  |  | ne No. <i>(includ</i><br>338-8339 | de area code)   | 10. Field and Pool or Explore PURPLE SAGE/WOLFCAMP (G/ | -        | ea                                 |
| 4. Location of Well (Footage, Sec., T.,, SEC 20/T25S/R29E/NMP  | R.,M., or Survey Description)  |                                   |                 | 11. Country or Parish, State EDDY/NM                   |          |                                    |
| 12. CHE  | ECK THE APPROPRIATE BOX(ES)  | TO INDICAT                        | E NATURE (      | OF NOTICE, REPORT OR OT                                | THER D.  | ATA                                |
| TYPE OF SUBMISSION   |  |                                   | ТҮРГ            | E OF ACTION  |          |                                    |
| ✓ Notice of Intent   | Acidize Alter Casing   | Deepen Hydraulic F                | Fracturing [    | Production (Start/Resume) Reclamation                  |          | Water Shut-Off Well Integrity      |
| Subsequent Report  | Casing Repair  Change Plans  | New Constr                        |                 | Recomplete Temporarily Abandon                         |          | Other                              |
| Final Abandonment Notice   | Convert to Injection   | Plug Back                         | [               | Water Disposal   |          |                                    |
| name.  | TED respectfully requests approva<br>nanging from RIGHT POPULAR 20<br>s 30-015-56314 |                                   |                 |  | D. Char  | nges to include well               |
| 14. I hereby certify that the foregoing is JENA AUSTIN / Ph: (346) 335-529   | , , , , ,  | ped) Title                        | Regulatory      | Analyst  |          |                                    |
| (Electronic Submission)  |  |                                   |                 | 05/02/   | 2025     |                                    |
|  | THE SPACE FOR  | FEDERA                            | L OR STA        | TE OFICE USE   |          |                                    |
| Approved by  |  |                                   |                 |  |          |                                    |
| MARIAH HUGHES / Ph: (575) 23   | 4-5972 / Approved  |                                   | Land L<br>Title | aw Examiner  | Date     | 05/15/2025                         |
| Conditions of approval, if any, are attac<br>certify that the applicant holds legal or<br>which would entitle the applicant to con | equitable title to those rights in the su  |                                   | Office CAR      | LSBAD  |          |                                    |
| Title 18 U.S.C Section 1001 and Title 4  | 3 U.S.C Section 1212, make it a crim   | e for any pers                    | on knowingly    | and willfully to make to any o                         | departme | ent 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: NWNW / 255 FNL / 434 FWL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.122226 / LONG: -104.013748 ( TVD: 0 feet, MD: 0 feet ) PPP: NWNW / 330 FNL / 540 FWL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.122024 / LONG: -104.014087 ( TVD: 9907 feet, MD: 10300 feet ) PPP: NWSW / 2673 FSL / 540 FWL / TWSP: 25S / RANGE: 29E / SECTION: 29 / LAT: 32.100994 / LONG: -104.014028 ( TVD: 9907 feet, MD: 17900 feet ) BHL: SWSW / 50 FSL / 540 FWL / TWSP: 25S / RANGE: 29E / SECTION: 32 / LAT: 32.079714 / LONG: -104.013971 ( TVD: 9907 feet, MD: 25643 feet )

Phone: (505) 476-3441 General Information Phone: (505) 629-6116

Online Phone Directory Visit:

https://www.emnrd.nm.gov/ocd/contact-us/

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

| <u>C-102</u>          |
|-----------------------|
| Revised July 9, 2024  |
| Submit Electronically |
| via OCD Permitting    |
|                       |

☐ Initial Submittal Submittal ■ Amended Report

Type: ☐ As Drilled

## WELL LOCATION INFORMATION

| API Number                     | Pool Code        | Pool Name                                 |                        |  |
|--------------------------------|------------------|---|------------------------|--|
| 30-015-                        | 98220            | PURPLE SAGE; WOLFCAMP (GAS)               |                        |  |
| Property Code                  | Property Name    | Well Number                               |                        |  |
|                                | CORRA            | 102H                                      |                        |  |
| OGRID No.                      | Operator Name    |   | Ground Level Elevation |  |
| 005380                         | хто              | 2959'                                     |                        |  |
| Surface Owner: □ State □ Fee □ | Tribal X Federal | Mineral Owner: 🏿 State ☐ Fee ☐ Tribal 🛣 F | ederal                 |  |

| Surface Location  |         |                    |                 |                   |              |              |                              |             |        |
|---|---------|--------------------|-----------------|-------------------|--------------|--------------|------------------------------|-------------|--------|
| UL  | Section | Township           | Range           | Lot               | Ft. from N/S | Ft. from E/W | /W Latitude Longitude County |             | County |
| D   | 20      | <b>25S</b>         | 29E             |                   | 255 FNL      | 434 FWL      | 32.12222                     | -104.013748 | EDDY   |
| Bottom Hole Location  |         |                    |                 |                   |              |              |                              |             |        |
| UL  | Section | Township           | Range           | Lot               | Ft. from N/S | Ft. from E/W | Latitude Longitude County    |             | County |
| M   | 32      | 25S                | 29E             |                   | 50 FSL       | 540 FWL      | 32.07908                     | -104.013297 | EDDY   |
|   |         |                    |                 |                   |              |              |                              |             |        |
| Dedicated Acres Infill or Defining Well Defining Well API Overl |         | Overlapping Spacin | g Unit (Y/N) Co | onsolidation Code |              |              |                              |             |        |

|                 | Dedicated Acres | Infill or Defining Well | Defining Well API | Overlapping Spacing Unit (Y/N) | Consolidation Code          |
|-----------------|-----------------|-------------------------|-------------------|--------------------------------|-----------------------------|
| 1,920.00 INFILL |                 | Y                       | С                 |                                |                             |
| Order Numbers:  |                 |                         |                   | Well setbacks are under Common | Ownership: <b>⊠</b> Yes □No |

# Kick Off Point (KOP)

| UL                     | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude  | Longitude   | County |
|------------------------|---------|----------|-------|-----|--------------|--------------|-----------|-------------|--------|
| М                      | 17      | 258      | 29E   |     | 616 FSL      | 541 FWL      | 32.124616 | -104.013403 | EDDY   |
|                        |         |          |       |     |              |              |           |             |        |
| First Take Point (FTP) |         |          |       |     |              |              |           |             |        |
| UL                     | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude  | Longitude   | County |
| D                      | 20      | 258      | 29E   |     | 100 FNL      | 540 FWL      | 32.122649 | -104.013399 | EDDY   |
| T. (T.L. D.: (TTD)     |         |          |       |     |              |              |           |             |        |
| Last Take Point (LTP)  |         |          |       |     |              |              |           |             |        |
| UL                     | Section | Township | Range | Lot | Ft. from N/S | Ft. from E/W | Latitude  | Longitude   | County |
| М                      | 32      | 25S      | 29E   | l   | 330 FSL      | 540 FWL      | 32.079852 | -104.013291 | EDDY   |

| Unitized Area or Area of Uniform Interest | Spacing Unit Type | <b>⊠</b> Horizontal □ Vertical | Ground Floor Elevation: 2959' |
|---|-------------------|--------------------------------|-------------------------------|
|   |                   |                                | 2333                          |

# OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

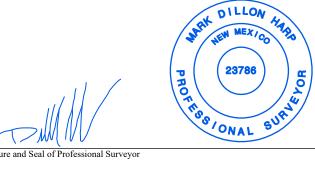
If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Jena Austin

Jena.N.Austin@ExxonMobil.com

# SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.



Signature and Seal of Professional Surveyor

23786

04-22-2025

Certificate Number

Date of Survey

DB

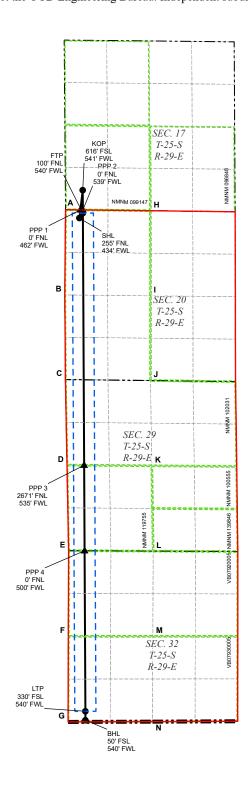
618.013013.02-03

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

# ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



# LEGEND



|       | WELL COORDINATE TABLE |              |            |             |              |              |            |             |
|-------|-----------------------|--------------|------------|-------------|--------------|--------------|------------|-------------|
| WELL  | NAD 83 NME X          | NAD 83 NME Y | NAD 83 LAT | NAD 83 LON  | NAD 27 NME X | NAD 27 NME Y | NAD 27 LAT | NAD 27 LON  |
| SHL   | 640,273.9             | 408,348.5    | 32.122226  | -104.013748 | 599,089.9    | 408,290.1    | 32.122101  | -104.013259 |
| KOP   | 640,377.9             | 409,218.5    | 32.124616  | -104.013403 | 599,193.9    | 409,160.1    | 32.124492  | -104.012915 |
| FTP   | 640,381.2             | 408,502.6    | 32.122649  | -104.013399 | 599,197.2    | 408,444.2    | 32.122524  | -104.012911 |
| LTP   | 640,460.9             | 392,934.3    | 32.079852  | -104.013291 | 599,276.5    | 392,876.3    | 32.079727  | -104.012804 |
| BHL   | 640,460.0             | 392,654.3    | 32.079082  | -104.013297 | 599,275.7    | 392,596.3    | 32.078957  | -104.012810 |
| PPP 1 | 640,304.4             | 408,603.6    | 32.122927  | -104.013647 | 599,120.4    | 408,545.1    | 32.122802  | -104.013158 |
| PPP 2 | 640,380.7             | 408,602.7    | 32.122924  | -104.013400 | 599,196.7    | 408,544.2    | 32.122799  | -104.012911 |
| PPP 3 | 640,421.5             | 400,623.5    | 32.100989  | -104.013345 | 599,237.3    | 400,565.2    | 32.100864  | -104.012857 |
| PPP 4 | 640,435.2             | 397,950.3    | 32.093641  | -104.013326 | 599,251.0    | 397,892.1    | 32.093516  | -104.012838 |

| CORNER COORDINATE TABLE |              |              |              |              |  |  |  |
|-------------------------|--------------|--------------|--------------|--------------|--|--|--|
| CORNER                  | NAD 83 NME X | NAD 83 NME Y | NAD 27 NME X | NAD 27 NME Y |  |  |  |
| Α                       | 639,842.1    | 408,609.0    | 598,658.2    | 408,550.5    |  |  |  |
| В                       | 639,817.4    | 405,945.2    | 598,633.4    | 405,886.8    |  |  |  |
| С                       | 639,837.2    | 403,301.7    | 598,653.2    | 403,243.4    |  |  |  |
| D                       | 639,886.4    | 400,627.8    | 598,702.3    | 400,569.6    |  |  |  |
| E                       | 639,935.3    | 397,952.6    | 598,751.1    | 397,894.4    |  |  |  |
| F                       | 639,928.1    | 395,277.9    | 598,743.8    | 395,219.8    |  |  |  |
| G                       | 639,919.8    | 392,602.7    | 598,735.5    | 392,544.7    |  |  |  |
| Н                       | 642,492.6    | 408,577.9    | 601,308.6    | 408,519.5    |  |  |  |
| 1                       | 642,494.3    | 405,917.9    | 601,310.2    | 405,859.6    |  |  |  |
| J                       | 642,495.9    | 403,270.2    | 601,311.8    | 403,211.9    |  |  |  |
| K                       | 642,538.1    | 400,606.2    | 601,353.9    | 400,547.9    |  |  |  |
| L                       | 642,580.3    | 397,940.2    | 601,396.0    | 397,882.0    |  |  |  |
| М                       | 642,568.1    | 395,277.1    | 601,383.8    | 395,219.0    |  |  |  |
| N                       | 642,556.0    | 392,610.7    | 601,371.6    | 392,552.7    |  |  |  |

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 463962

#### **CONDITIONS**

| Operator:              | OGRID:                               |
|------------------------|--------------------------------------|
| XTO ENERGY, INC        | 5380                                 |
| 6401 Holiday Hill Road | Action Number:                       |
| Midland, TX 79707      | 463962                               |
|                        | Action Type:                         |
|                        | [C-103] NOI Change of Plans (C-103A) |

## CONDITIONS

|   | Created By  | Condition  | Condition<br>Date |
|---|-------------|--|-------------------|
| Ī | ward.rikala | Any previous COA's not addressed within the updated COA's still apply. | 5/30/2025         |