

Sundry Print Reports

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

Well Name: CORRAL 22-34 FED COM Well Location: T25S / R29E / SEC 22 / County or Parish/State: EDDY /

NWNW / 32.120848 / -103.979251 NM

Well Number: 107H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

Lease Number: NMNM14778 Unit or CA Name: Unit or CA Number:

INCORPORATED

### **Notice of Intent**

**Sundry ID: 2853350** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/20/2025 Time Sundry Submitted: 12:34

Date proposed operation will begin: 05/26/2025

**Procedure Description:** XTO Energy Inc. respectfully requests approval to make the following changes to the approved APD. Changes include KOP, FTP, LTP, BHL, Proposed total depth, Formation TVD, Casing Design, Cementing Program, Mud Program. APD ID 10400098659; Well API: 30-015-56558 FROM: TO: KOP: 690' FNL & 496' FWL OF SECTION 22-T25S-R29E 616' FSL & 366' FWL OF SECTION 15-T25S-R29E FTP: 100' FNL & 330' FWL OF SECTION 22-T25S-R29E 100' FNL & 365' FWL OF SECTION 22-T25S-R29E LTP: 330' FSL & 330' FWL OF SECTION 34-T25S-R29E 330' FSL & 365' FWL OF SECTION 34-T25S-R29E BHL: 50' FSL & 330' FWL OF SECTION 34-T25S-R29E 280' FSL & 365' FWL OF SECTION 34-T25S-R29E The proposed total depth is changing from 26846' MD; 10411' TVD to 26561' MD; 10395' TVD. There is no new surface disturbance. See attached drilling program for Primary & Contingency design with Updated formation, casing design, cement program and the mud circulation system.

## **NOI Attachments**

## **Procedure Description**

Corral\_22\_34\_Fed\_Com\_107H\_Sundry\_Change\_attachment\_20250517212908.pdf

Page 1 of 2

eived by OCD: 6/3/2025 1:10:38 PM Well Name: CORRAL 22-34 FED COM

Well Location: T25S / R29E / SEC 22 /

NWNW / 32.120848 / -103.979251

County or Parish/State: Page 2 of

Well Number: 107H

Type of Well: CONVENTIONAL GAS

**Allottee or Tribe Name:** 

Lease Number: NMNM14778

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number:** 3001556558

**Operator: XTO ENERGY INCORPORATED** 

## **Conditions of Approval**

## **Additional**

Corral\_22\_34\_Fed\_Com\_107H\_COA\_20250529123455.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: MAY 20, 2025 12:34 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: Zip:

Phone:

**Email address:** 

## **BLM Point of Contact**

**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: 06/02/2025

Signature: Chris Walls

Page 2 of 2

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

DLI	MINIMIENT OF THE I	MILKIOK			-F			
BUR	EAU OF LAND MAN	AGEMENT		5. Lease Serial No. NMNM14778				
Do not use this t	NOTICES AND REPO form for proposals t Use Form 3160-3 (A	o drill or to re-	enter an	6. If Indian, Allottee or Tribe Name				
SUBMIT IN	TRIPLICATE - Other instru	uctions on page 2		7. If Unit of CA/Agreement,	Name an	d/or No.		
1. Type of Well				8. Well Name and No.				
Oil Well Gas V	<del></del>	CORRAL 22-34 FED COM/107H						
2. Name of Operator XTO ENERGY	INCORPORATED		9. API Well No. 300155655	58				
3a. Address 15948 US HWY 77, AR	:DMORE, OK 73401	10. Field and Pool or Explor	-	a				
4. Location of Well (Footage, Sec., T.,I SEC 22/T25S/R29E/NMP	R.,M., or Survey Description)		11. Country or Parish, State EDDY/NM					
12. CHE	CK THE APPROPRIATE BO	OX(ES) TO INDICA	ΓE NATURE C	OF NOTICE, REPORT OR OT	THER DA	NTA		
TYPE OF SUBMISSION			TYPE	E OF ACTION				
✓ Notice of Intent	Acidize Alter Casing	Deepen Hydraulic	Fracturing [	Production (Start/Resume Reclamation		Water Shut-Off Well Integrity		
Subsequent Report	Casing Repair	New Const		Recomplete		Other		
Final Abandonment Notice	Change Plans Convert to Injection	Plug and A Plug Back		Temporarily Abandon Water Disposal				
XTO Energy Inc. respectfully r Proposed total depth, Formati APD ID 10400098659; Well A FROM: TO: KOP: 690' FNL & 496' FWL O FTP: 100' FNL & 330' FWL OF LTP: 330' FSL & 330' FWL OF BHL: 50' FSL & 330' FWL OF	on TVD, Casing Design, C PI: 30-015-56558 F SECTION 22-T25S-R29 F SECTION 24-T25S-R29 F SECTION 34-T25S-R29	Dementing Program, DE 616' FSL & 366' I E 100' FNL & 365' F E 330' FSL & 365' F	, Mud Progran FWL OF SEC FWL OF SEC	m. TION 15-T25S-R29E TION 22-T25S-R29E TION 34-T25S-R29E	ide KOP,	FTP, LTP, BHL,		
The proposed total depth is che Continued on page 3 additionation	al information		MD; 10395 T	ΓVD.				
14. I hereby certify that the foregoing is VISHAL RAJAN / Ph: (432) 620-67	,	inted/Typed) Title	Regulatory	Clerk				
Signature (Electronic Submission	on)	Date	;	05/20/	2025			
	THE SPACE	FOR FEDERA	L OR STA	TE OFICE USE				
Approved by								
CHRISTOPHER WALLS / Ph: (57	5) 234-2234 / Approved		Petrole Title	eum Engineer	Date	06/02/2025		
Conditions of approval, if any, are attac certify that the applicant holds legal or o which would entitle the applicant to cor	equitable title to those rights		Office CAR	LSBAD				
Title 18 U.S.C Section 1001 and Title 4	3 U.S.C Section 1212, make	it a crime for any per	son knowingly	and willfully to make to any	departme	nt or agency of the United States		

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

(Instructions on page 2)

### **GENERAL INSTRUCTIONS**

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

### **SPECIFIC INSTRUCTIONS**

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

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

### **NOTICES**

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

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

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

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

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

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.

See attached drilling program for Primary & Contingency design with Updated formation, casing design, cement program and the mud circulation system.

### **Location of Well**

0. SHL: NWNW / 690 FNL / 496 FWL / TWSP: 25S / RANGE: 29E / SECTION: 22 / LAT: 32.120848 / LONG: -103.979251 ( TVD: 0 feet, MD: 0 feet ) PPP: NWNW / 100 FNL / 330 FWL / TWSP: 25S / RANGE: 29E / SECTION: 22 / LAT: 32.122468 / LONG: -103.979791 ( TVD: 10411 feet, MD: 11100 feet ) BHL: SWSW / 50 FSL / 330 FWL / TWSP: 25S / RANGE: 29E / SECTION: 34 / LAT: 32.079101 / LONG: -103.979676 ( TVD: 10411 feet, MD: 26846 feet )

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** XTO

WELL NAME & NO.: Corral 22-34 Fed Com 107H

LOCATION: 22-25S-29E-NMP

**COUNTY:** Eddy County, New Mexico

Changes approved through engineering via **Sundry 2853350** on 5/29/2025. Any previous COAs not addressed within the updated COAs still apply.

**Create COAs** 

$\underline{\hspace{1cm}}$ H <sub>2</sub> S	Cave / Karst	W:	aste Prevention Rule
Not Reported	Low	W	Vaste Minimization Plan
Potash		R-111-Q Design	
None			
Wellhead Multibowl	□ Liner <b>▽</b> F	Casing  3-String Well  Fluid Filled	Casing Clearance
<ul><li>✓ Flex Hose</li><li>✓ Break Testing</li></ul>	☐ DV Tool ☑ Offline Cement	Cementing  ✓ Bradenhead  ☐ Open Annulus	<ul><li>✓ Echometer</li><li>☐ Pilot Hole</li></ul>
☐ Capitan Reef	Special Requi	rements  COM	☐ Unit

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### **B.** CASING

- 1. The **9-5/8** inch surface casing shall be set at approximately **811** feet (a minimum of **70 feet** (**Eddy County**) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic-type temperature survey with surface

- log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater (including 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.

## Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **7-5/8** inch 1st intermediate casing is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.

**Bradenhead Squeeze:** Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon**.
- b. **Second stage:** Operator to squeeze and top-out. Cement to meet requirements listed for this casing string. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down **Surface X Intermediate 1** annulus. Submit results to the BLM. If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified. *If cement does not reach surface, the next casing string must come to surface.* 

- Operator shall run a CBL from TD of the **Surface** casing to tieback requirements listed above after the second stage BH to verify TOC.
- Operator shall run Echo-meter to verify Cement Slurry/Fluid top in the annulus. 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.
  - o Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.
  - No displacement fluid/wash out shall be utilized at the top of the cement slurry during second stage bradenhead when running Echo-meter if cement is required to surface.
  - Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is at least 200 feet into previous casing string. Operator shall provide method of verification.

## Operator is approved to use contingency plan.

### C. PRESSURE CONTROL

a. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000** (**5M**) psi.

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 must be followed.
- 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. Break testing has been approved for this well ONLY on those intervals utilizing a 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.) If in the event break testing is not utilized, then a full BOPE test would be conducted.
  - a. Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation. **BOPE Break Testing is NOT permitted to drilling the production hole section.**
  - b. While in transfer between wells, BOPE shall be secured by the hydraulic carrier or cradle.
  - c. 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).
  - d. As a minimum, a full BOPE test shall be performed at 21-day intervals.
  - e. In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**. 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.

## **D. SPECIAL REQUIREMENT(S)**

### **Communitization Agreement:**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

## **Offline Cementing**

Offline cementing has been approved for Choose an item. Contact the BLM prior to the commencement of any offline cementing procedure.

## **Casing Clearance**

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Choose an item. casing tieback. Operator may contact approving engineer to discuss changing easing set depth or grade to meet clearance requirement.

## GENERAL REQUIREMENTS

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

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

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

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**; (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

## A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or

- if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43** CFR 3172.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible

hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve

open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

## C. DRILLING MUD

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

## D. WASTE MATERIAL AND FLUIDS

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

**Approved by Zota Stevens on 5/29/2025** 575-234-5998 / zstevens@blm.gov

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.

Vishal Rajan 5/9/2025 Vishal Rajan vishal.rajan@exxonmobil.com Email Address



Signature and Seal of Professional Surveyor

23786 04-15-2025

Date of Survey

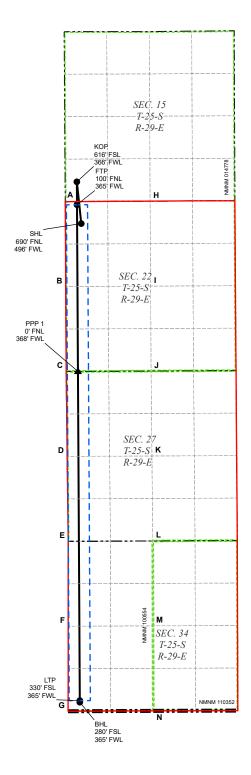
DB 618.013013.05-07

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	650,954.8	407,880.8	32.120848	-103.979251	609,770.6	407,822.3	32.120723	-103.978764				
KOP	650,816.8	409,185.8	32.124437	-103.979683	609,632.6	409,127.3	32.124312	-103.979196				
FTP	650,820.8	408,469.7	32.122468	-103.979678	609,636.6	408,411.2	32.122344	-103.979191				
LTP	650,909.1	392,974.0	32.079871	-103.979557	609,724.5	392,916.0	32.079746	-103.979071				
BHL	650,909.0	392,924.0	32.079734	-103.979558	609,724.4	392,866.0	32.079609	-103.979072				
PPP 1	650,850.5	403,261.6	32.108151	-103.979637	609,666.1	403,203.2	32.108027	-103.979151				

CORNER COORDINATE TABLE									
CORNER	NAD 83 NME X	NAD 83 NME Y	NAD 27 NME X	NAD 27 NME Y					
Α	650,455.3	408,567.8	609,271.1	408,509.3					
В	650,469.1	405,912.6	609,284.9	405,854.2					
С	650,482.6	403,259.7	609,298.3	403,201.4					
D	650,515.4	400,605.8	609,331.0	400,547.5					
E	650,548.1	397,951.9	609,363.6	397,893.7					
F	650,546.3	395,298.2	609,361.8	395,240.0					
G	650,543.7	392,642.6	609,359.1	392,584.6					
Н	653,106.0	408,581.6	611,921.7	408,523.2					
1	653,121.7	405,926.6	611,937.4	405,868.2					
J	653,137.4	403,272.9	611,953.0	403,214.6					
K	653,163.4	400,618.1	611,979.0	400,559.8					
L	653,189.5	397,962.4	612,005.0	397,904.2					
М	653,196.9	395,309.8	612,012.2	395,251.7					
N	653,204.2	392,652.8	612,019.5	392,594.7					

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

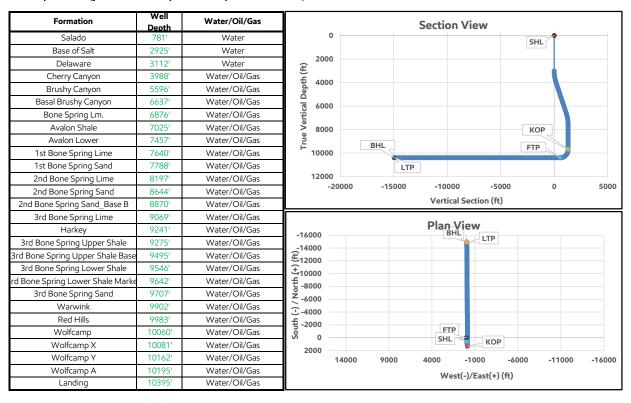
#### ExxonMobil

Corral 22-34 Fed Com 107H Projected TD: 26561 MD / 10395' TVD SHL: 690' FNL & 496' FWL , Section 22, T25S, R29E BHL: 280' FSL & 365' FWL , Section 34, T25S, R29E Eddy County, NM

### 1. Geologic Name of Surface Formation

Quaternary

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



	Inclinat ion (°)	Azimuth (°)	True Vertical Depth (ft)	Y Offset (ft)	X Offset (ft)
SHL	0	0	0	0	0
КОР	0	0	9679	1305	-138
LP	90	180	10395	589	-134
FTP	90	180	10395	590	-134
LTP	90	180	10395	-14906	-46
BHL	90	180	10395	-14956	-46

### 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 756' and circulating cement back to surface.

## 3. Primary Casing Design Primary Design:

Hole Size (in.)	MD	Casing TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25"	0' – 756'	756'	9-5/8"	40	J55	втс	New	17.03	15.70	5.60
8.75"	0' - 4000'	3979'	7-5/8"	29.7	P110-ICY	Tenaris Wedge 511	New	6.00	8.54	3.17
8.75"	4000' – 9741'	9529'	7-5/8"	29.7	L80-IC	Tenaris Wedge 511	New	2.08	4.93	2.26
6.75"	0' - 9641'	9429'	5-1/2"	20	P110-CY	TPN	New	1.18	2.72	2.37
6.75"	9641' – 26561'	10395'	5-1/2"	20	P110-ICY	Tenaris Wedge 441	New	1.18	2.73	2.54
		·								

### Section 3 Summary:

XTO will keep casing fluid filled to meet BLM's collapse requirement. The planned kick off point is located at: 9891' MD / 9679' 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	Density (ppg)	Yield (ft3/sack)	TOC (ft)	Setting Depth	Excess (%)	Slurry Description
Surface 1	Lead	135	12.4	2.11	0	756	100%	Surface 1 Class C Lead Cement
Surface 1	Tail	141	14.8	1.33	456	756	100%	Surface 1 Class C Tail Cement
ntermediate 1	Lead							
ntermediate 1	Tail	388	14.8	1.45	5596	9,741	35%	Intermediate 1 Class C Tail Cement
Production 1	Lead							
Production 1	Tail	1227	13.2	1.44	9241	26,561	25%	Production 1 Class C Tail Cement
			Re	emedial Cement	ing			
Casing	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	Cement	Cemented Interval		Slurry Description
ntermediate 1	Bradenhead Squeeze	524	14.8	1.45	0 -	5596'	35%	Intermediate Class C Bradenhead Squeeze Cement

Section	4	Sum	marv:

*Bradenhead Squeeze 2nd Sta	ge Offline			

## 3B. Contingency Casing Design Primary Design:

Hole Size	MD	Casing	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF	SF Tension
17.5	0' - 756'	756'	13-3/8"	54.5	J55	BTC	New	11.81	6.90	6.28
12.25	0' - 4000'	3979'	9-5/8"	40	P110-IC	BTC	New	4.28	4.93	3.71
12.25	4000' - 9741'	9529'	9-5/8"	40	L80-IC	BTC	New	2.38	3.55	3.71
8.75 / 8.5	0' - 26561'	10395'	5-1/2"	20	P110-CY	TPN	New	1.18	2.47	2.34

XTO will keep casing fluid filled to meet BLM's collapse requirement. The planned kick off point is located at: 9891' MD / 9679' TVD.

Wellhead:

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

Wellhead will be installed by manufacturer's representatives.

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

### 4B. Contingency Cement Program

			P	rimary Cementi	ng			
Casing	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	TOC (ft)	Setting Depth (MD)	Excess (%)	Slurry Description
Surface 1	Lead	300	12.4	2.11	0	756	100%	Surface 1 Class C Lead Cement
Surface 1	Tail	313	14.8	1.33	456	756	100%	Surface 1 Class C Tail Cement
Intermediate 1	Lead							
Intermediate 1	Tail	1209	14.8	1.45	5596	9,741	35%	Intermediate 1 Class C Tail Cement
Production 1 Late	Lead					,		
Production 1 Late	Tail	3798	13.2	1.44	9241	26,561	25%	Production 1 Lateral Class C Tail Cer
				medial Cement				
	Slurry Type	No. Sacks		Yield (ft3/sack)		ed Interval	Excess (%)	
Intermediate 1	Bradenhead	1632	14.8	1.45	0 -	5596'	35%	Intermediate Class C Bradenhead

Section	4	Summary:
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Section 4 Sammary
*Bradenhead Squeeze 2nd Stage Offline

### 5. Pressure Control Equipment

Section 5 Summary	Section	5	Summary	•
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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 csg 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) Break Test Variance
A break testing variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead for the intermediate hole
sections which is in compliance with API Standard 53. The maximum anticipated surface pressure is less than 4800psi and the deepest intermediate casing point does
not penetrate the Wolfcamp Formation.
5B) 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.
Open note 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.
completed, North Will begin a manife the production made an each of the manife

### 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Comments
0' – 756'	12.25"	FW/Native	8.3 - 8.7	35-40	NC	Fresh Water or Native Water
756' – 9741'	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.
9741' – 26561'	6.75"	ОВМ	9.5 - 12	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

#### Section 7 Summary:

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 169F to 189F. 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.

## Long Lead\_Well Planning

Corral Canyon 22-27-34 Fed Com Corral 22-34 Fed Com 107H Corral 22-34 Fed Com 107H

OH

Plan: Plan 1

# **Standard Planning Report**

02 April, 2025

Wellbore:

Map Zone:

Design:

### Planning Report

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Corral 22-34 Fed Com 1 OH Plan 1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Corral 22-34 Fed Com 107H

RKB (+32) @ 3086.0usft RKB (+32) @ 3086.0usft

Grid

Minimum Curvature

Project Corral Canyon 22-27-34 Fed Com

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

New Mexico East 3001

System Datum:

Mean Sea Level

Site Corral 22-34 Fed Com 107H

 Site Position:
 Northing:
 407,822.30 usft
 Latitude:
 32° 7' 14.604 N

 From:
 Map
 Easting:
 609,770.60 usft
 Longitude:
 103° 58' 43.551 W

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

Well Corral 22-34 Fed Com 107H **Well Position** +N/-S 0.0 usft 407,822.30 usft Latitude: 32° 7' 14.604 N Northing: +E/-W 0.0 usft Easting: 609,770.60 usft Longitude: 103° 58' 43.551 W **Position Uncertainty** 0.0 usft Wellhead Elevation: usft **Ground Level:** 3,054.0 usft 0.19° **Grid Convergence:** 

Wellbore ОН Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) 47,001.77467111 IGRF2020 3/25/2025 6.28 59.62

Plan 1 Design **Audit Notes:** PLAN Tie On Depth: 0.0 Version: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 179.67 0.0 0.0 0.0

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Wellbore: OH
Design: Plan 1

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

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,005.6	20.11	353.96	3,985.1	173.7	-18.4	2.00	2.00	0.00	353.96	
6,806.2	20.11	353.96	6,614.9	1,131.4	-119.7	0.00	0.00	0.00	0.00	
7,811.8	0.00	0.00	7,600.0	1,305.1	-138.1	2.00	-2.00	0.00	180.00	
9,890.6	0.00	0.00	9,678.8	1,305.1	-138.1	0.00	0.00	0.00	0.00	
11,015.6	90.00	179.67	10,395.0	588.9	-134.0	8.00	8.00	0.00	179.67	107H_FTP
26,511.1	90.00	179.67	10,395.0	-14,906.3	-46.1	0.00	0.00	0.00	0.00	107H_LTP
26,561.1	90.00	179.67	10,395.0	-14,956.3	-45.8	0.00	0.00	0.00	0.00	107H_BHL

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Wellbore: OH
Design: Plan 1

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

Survey Calculation Method:

Well Corral 22-34 Fed Com 107H

RKB (+32) @ 3086.0usft RKB (+32) @ 3086.0usft

Grid

Minimum Curvature

Measure   Depth   De	11.	FIAITT								
Depth   Inclination   Azimuth   Cusht   (usht)	ed Survey									
Description	Depth			Depth			Section	Rate	Rate	Rate
107H_SHL   7810	, ,				` '		, ,	,	, ,	,
\$\frac{7}{810}\$         0.00         0.00         \$\frac{7}{800}\$         0.00 <th< td=""><td></td><td>0.00</td><td>0.00</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></th<>		0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado	_	0.00	0.00	781.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Salt         3,000.0         0.00         3.30.00         6.00         353.96         3.199.8         6.9         -0.7         -6.8         2.00         2.00         0.00         3.40.00         8.00         353.96         3.299.5         15.6         -1.7         -15.6         2.00         2.00         0.00         3.300.00         6.00         353.96         3.497.5         43.3         -4.6         -43.3         2.00         2.00         0.00         3.500.00         1.00         353.96         3.498.1         84.6         -90         -84.7         2.00         2.00         0.00         3.00         8.00         3.500.00         3.500.00		0.00	0.00		0.0	0.0	0.0	0.00	0.00	0.00
Sano   Color   Color		0.00	0.00	2,925.0	0.0	0.0	0.0	0.00	0.00	0.00
\$\frac{3}{100} \( \) 2 \( 0 \) 353.96 \\ 3,100.0 \\ 1.7 \\ 0.2 \\ 0.7 \\ 2.7 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\ 0.00 \\ \)   \$\frac{\text{Delaw re}}{2} \\   3,200.0 \\ 4.00 \\ 353.96 \\ 3.199.8 \\ 6.9 \\ -0.7 \\ -6.9 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,300.0 \\ 6.00 \\ 353.96 \\ 3.199.8 \\ 6.9 \\ -1.7 \\ -1.56 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,400.0 \\ 8.00 \\ 353.96 \\ 3.399.5 \\ 3.898.7 \\ 7.77 \\ -2.9 \\ -2.77 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,500.0 \\ 10.00 \\ 353.96 \\ 3.395.6 \\ 3.395.6 \\ 3.395.6 \\ 4.33 \\ 4.6 \\ -4.33 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,500.0 \\ 12.00 \\ 353.96 \\ 3.385.8 \\ 3.683.1 \\ 3.685.6 \\ 6.23 \\ -6.6 \\ -6.43 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,700.0 \\ 14.00 \\ 353.96 \\ 3.885.3 \\ 3.895.6 \\ 6.23 \\ 4.6 \\ -9.0 \\ -84.7 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,800.0 \\ 16.00 \\ 353.96 \\ 3.885.3 \\ 3.895.6 \\ 10.23 \\ -6.6 \\ -9.0 \\ -84.7 \\ 2.00 \\ 2.00 \\ 2.00 \\ 0.00 \\   3,800.0 \\ 16.00 \\ 353.96 \\ 3.885.3 \\ 3.895.6 \\ 10.4 \\ 11.1 \\ 11.1 \\ 11.1 \\ 11.1 \\ 1.10.4 \\ 2.00 \\ 2.00 \\ 0.00 \\   4,008.7 \\ 20.11 \\ 353.96 \\ 3.885.3 \\ 3.985.1 \\ 173.7 \\ -18.4 \\ 1.135.2 \\ 1.74.9 \\ 0.00 \\ 0.00 \\ 2.00 \\   4,008.7 \\ 20.11 \\ 353.96 \\ 4.073.7 \\ 206.0 \\ 2.218 \\ 2.00 \\ 2.206 \\ 0.00 \\   4,200.0 \\ 20.11 \\ 353.96 \\ 4.167.3 \\ 2.00 \\ 2.25 \\ 4.00 \\ 2.25 \\ 0.00 \\ 0.00 \\   4,200.0 \\ 20.11 \\ 353.96 \\ 4.167.3 \\ 2.00 \\ 2.25 \\ 4.00 \\ 2.25 \\ 0.00 \\ 0.00 \\   4,200.0 \\ 20.11 \\ 353.96 \\ 4.167.3 \\ 2.00 \\ 2.25 \\ 4.00 \\ 2.218 \\ 2.00 \\ 2.20 \\ 0.00 \\ 4.300.0 \\ 20.11 \\ 353.96 \\ 4.167.3 \\ 3.306.0 \\ 2.11 \\ 353.96 \\ 3.985.1 \\ 173.7 \\ 2.14 \\ 2.90 \\ 2.25 \\ 4.00 \\ 0.00 \\ 3.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 3.00 \\ 0.00 \\ 0.00 \\ 0.00 \\		lt								
Delaware	3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200	3,100.0	2.00	353.96	3,100.0	1.7	-0.2	-1.7	2.00	2.00	0.00
3,200	3,112.0	2.24	353.96	3,112.0	2.2	-0.2	-2.2	2.00	2.00	0.00
3,300.0 6.00 353.96 3,299.5 15.6 1.17 1.16 2.00 2.00 0.00 3,400.0 8.00 353.96 3,398.7 27.7 2.9 2.27.7 2.00 2.00 0.00 3,500.0 10.00 353.96 3,398.7 27.7 2.9 2.27.7 2.00 2.00 0.00 3,500.0 10.00 353.96 3,497.5 43.3 4.6 4.3 2.00 2.00 2.00 0.00 3,700.0 14.00 353.96 3,693.1 84.6 9.0 84.7 2.00 2.00 0.00 3,700.0 14.00 353.96 3,789.6 110.4 11.7 110.4 2.00 2.00 0.00 3,900.0 18.00 353.96 3,789.6 110.4 11.7 110.4 2.00 2.00 0.00 4,006.6 20.11 353.96 3,885.3 139.4 14.8 139.5 2.00 2.00 0.00 4,006.6 20.11 353.96 3,885.3 139.4 14.8 139.5 2.00 2.00 0.00 0.00 4,008.7 20.11 353.96 3,885.3 139.4 14.8 139.5 2.00 2.00 0.00 0.00 4,008.7 20.11 353.96 4,073.7 206.0 2.18 2.06.1 0.00 0.00 0.00 4,000 20.11 353.96 4,167.6 240.2 2.54 2.40.3 0.00 0.00 0.00 0.00 4,400.0 20.11 353.96 4,167.6 240.2 2.54 2.26.4 2.40.3 0.00 0.00 0.00 4,400.0 20.11 353.96 4,167.6 240.2 2.54 2.24.4 2.20.0 0.00 0.00 4,400.0 20.11 353.96 4,461.5 274.4 2.20.0 2.74.5 0.00 0.00 0.00 4,400.0 20.11 353.96 4,461.5 274.4 2.20.0 2.74.5 0.00 0.00 0.00 0.00 4,400.0 20.11 353.96 4,355.4 308.6 -32.6 308.8 0.00 0.00 0.00 0.00 4,400.0 20.11 353.96 4,451.5 274.4 2.90 2.74.5 0.00 0.00 0.00 0.00 4,500.0 2.011 353.96 4,451.3 237.7 39.9 377.2 0.00 0.00 0.00 0.00 4,000 2.011 353.96 4,451.3 237.7 39.9 377.2 0.00 0.00 0.00 0.00 4,000 2.011 353.96 4,543.2 377.0 39.9 377.2 0.00 0.00 0.00 0.00 4,000 2.011 353.96 4,543.2 377.0 39.9 377.2 0.00 0.00 0.00 0.00 4,000 2.011 353.96 4,551.4 411.2 43.5 411.4 0.00 0.00 0.00 0.00 4,000 2.011 353.96 5,553.6 4,532.3 377.0 39.9 377.2 0.00 0.00 0.00 0.00 5,500.0 2.011 353.96 5,562	Delaware									
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3,700.0 14.00 353.96 3,893.1 84.6 -9.0 -84.7 2.00 2.00 0.00 3,300.0 16.00 353.96 3,789.6 110.4 -11.7 -110.4 2.00 2.00 0.00 3,900.0 18.00 353.96 3,885.3 139.4 -14.8 -139.5 2.00 2.00 0.00 0.00 4,008.7 20.11 353.96 3,988.1 173.7 -18.4 -173.8 2.00 0.00 0.00 0.00 4,008.7 20.11 353.96 3,988.1 173.7 -18.4 -173.8 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	3,500.0	10.00	353.96	3,497.5	43.3	-4.6	-43.3	2.00	2.00	0.00
3,700.0 14.00 353.96 3,893.1 84.6 -9.0 -84.7 2.00 2.00 0.00 3,800.0 16.00 353.96 3,789.6 110.4 -11.7 110.4 2.00 2.00 0.00 0.3,900.0 18.00 353.96 3,885.3 139.4 -14.8 -139.5 2.00 2.00 0.00 4,005.6 20.11 353.96 3,985.1 173.7 -18.4 -173.8 2.00 2.00 0.00 0.00 4,005.7 20.11 353.96 3,985.1 173.7 -18.4 -173.8 2.00 2.00 0.00 0.00 0.00 0.00 0.00 0.	3,600.0	12.00	353.96	3,595.6	62.3	-6.6	-62.3	2.00	2.00	0.00
3,800.0 16.00 353.96 3,789.6 110.4 -11.7 -110.4 2.00 2.00 0.00 0.39.00.0 18.00 353.96 3,885.3 139.4 -14.8 1-193.5 2.00 2.00 0.00 0.00 4,005.6 20.11 353.96 3,985.1 173.7 -18.4 -173.8 2.00 2.00 0.00 0.00 0.00 0.00 0.00 0.										
4,005.6   20.11   353.96   3,985.1   173.7   -18.4   -173.8   2.00   2.00   0.00     4,008.7   20.11   353.96   3,988.0   174.8   -18.5   -174.9   0.00   0.00   0.00     Cherry Caryon   4,100.0   20.11   353.96   4,073.7   206.0   -21.8   -206.1   0.00   0.00   0.00     4,200.0   20.11   353.96   4,167.6   240.2   -25.4   -240.3   0.00   0.00   0.00     4,300.0   20.11   353.96   4,365.4   308.6   -32.6   -308.8   0.00   0.00   0.00     4,400.0   20.11   353.96   4,449.3   342.8   -36.3   -343.0   0.00   0.00   0.00     4,500.0   20.11   353.96   4,449.3   342.8   -36.3   -343.0   0.00   0.00   0.00     4,600.0   20.11   353.96   4,643.2   377.0   -39.9   -377.2   0.00   0.00   0.00     4,700.0   20.11   353.96   4,637.1   411.2   -43.5   -411.4   0.00   0.00   0.00     4,800.0   20.11   353.96   4,837.1   441.2   -43.5   -411.4   0.00   0.00   0.00     4,900.0   20.11   353.96   4,824.9   479.6   -50.7   -479.8   0.00   0.00   0.00     5,000.0   20.11   353.96   4,918.8   513.7   -54.3   -514.1   0.00   0.00   0.00     5,000.0   20.11   353.96   5,106.6   582.1   -816   -582.5   0.00   0.00   0.00     5,200.0   20.11   353.96   5,294.5   650.5   68.8   -650.9   0.00   0.00   0.00     5,600.0   20.11   353.96   5,482.3   718.9   -76.1   -719.3   0.00   0.00   0.00     5,600.0   20.11   353.96   5,482.3   718.9   -76.1   -719.3   0.00   0.00   0.00     5,600.0   20.11   353.96   5,576.2   753.1   -79.7   -753.6   0.00   0.00   0.00     5,600.0   20.11   353.96   5,576.2   753.1   -79.7   -753.6   0.00   0.00   0.00     5,000.0   20.11   353.96   5,576.2   753.1   -79.7   -753.6   0.00   0.00   0.00     5,000.0   20.11   353.96   5,576.2   753.1   -79.7   -753.6   0.00   0.00   0.00     6,000.0   20.11   353.96   5,670.1   787.3   -83.3   -787.8   0.00   0.00   0.00     6,000.0   20.11   353.96   5,676.1   787.3   -83.3   -787.8   0.00   0.00   0.00     6,000.0   20.11   353.96   6,637.4   1,026.7   -106.6   -1,027.3   0.00   0.00   0.00     6,000.0   20.11   353.96   6,637.4   1,026.7   -106.6   -1,027.3   0.0										
4,008,7         20.11         353.96         3,988.0         174.8         -18.5         -174.9         0.00         0.00         0.00           Cherry Canyon           4,100.0         20.11         353.96         4,167.6         240.2         -25.4         -240.3         0.00         0.00         0.00           4,200.0         20.11         353.96         4,261.5         274.4         -29.0         -274.5         0.00         0.00         0.00           4,400.0         20.11         353.96         4,355.4         308.6         -32.6         -308.8         0.00         0.00         0.00           4,500.0         20.11         353.96         4,355.4         308.6         -36.3         -343.0         0.00         0.00         0.00           4,600.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,700.0         20.11         353.96         4,637.1         411.2         43.5         411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         477.1         445.6         0.00         0.00	3,900.0	18.00	353.96		139.4	-14.8	-139.5	2.00	2.00	0.00
Cherry Canyon           4,100.0         20.11         353.96         4,073.7         206.0         -21.8         -206.1         0.00         0.00         0.00           4,200.0         20.11         353.96         4,167.6         240.2         -25.4         -240.3         0.00         0.00         0.00           4,300.0         20.11         353.96         4,261.5         274.4         -29.0         -274.5         0.00         0.00         0.00           4,400.0         20.11         353.96         4,355.4         308.6         -32.6         -308.8         0.00         0.00         0.00           4,500.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,600.0         20.11         353.96         4,637.1         411.2         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           5,000.0         20.11         353.96         5,918.8         513.7         -54.3         -514.1         0.00         0.00 <td>4,005.6</td> <td>20.11</td> <td>353.96</td> <td>3,985.1</td> <td>173.7</td> <td>-18.4</td> <td>-173.8</td> <td>2.00</td> <td>2.00</td> <td>0.00</td>	4,005.6	20.11	353.96	3,985.1	173.7	-18.4	-173.8	2.00	2.00	0.00
4,100.0         20.11         353.96         4,073.7         206.0         -21.8         -206.1         0.00         0.00         0.00           4,200.0         20.11         353.96         4,167.6         240.2         -25.4         -240.3         0.00         0.00         0.00           4,300.0         20.11         353.96         4,261.5         274.4         -29.0         -274.5         0.00         0.00         0.00           4,500.0         20.11         353.96         4,355.4         308.6         -32.6         -308.8         0.00         0.00         0.00           4,500.0         20.11         353.96         4,454.3         342.8         -36.3         -343.0         0.00         0.00         0.00           4,700.0         20.11         353.96         4,637.1         411.2         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           5,000.0         20.11         353.96         5,101.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,000.0	4,008.7	20.11	353.96	3,988.0	174.8	-18.5	-174.9	0.00	0.00	0.00
4,200.0         20.11         353.96         4,167.6         240.2         -25.4         -240.3         0.00         0.00         0.00           4,300.0         20.11         353.96         4,261.5         274.4         -29.0         -274.5         0.00         0.00         0.00           4,400.0         20.11         353.96         4,355.4         308.6         -308.8         0.00         0.00         0.00           4,600.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,700.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,800.0         20.11         353.96         4,513.0         445.4         -47.1         -445.6         0.00         0.00         0.00           4,900.0         20.11         353.96         4,818.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,102.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11										
4,300.0         20.11         353.96         4,261.5         274.4         -29.0         -274.5         0.00         0.00         0.00           4,400.0         20.11         353.96         4,355.4         308.6         -32.6         -308.8         0.00         0.00         0.00           4,500.0         20.11         353.96         4,449.3         342.8         -36.3         -347.2         0.00         0.00         0.00           4,600.0         20.11         353.96         4,637.1         411.2         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,824.9         479.6         -50.7         -479.8         0.00         0.00         0.00           4,900.0         20.11         353.96         4,918.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,000.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,200.0	,									
4,400.0         20.11         353.96         4,355.4         308.6         -32.6         -308.8         0.00         0.00         0.00           4,500.0         20.11         353.96         4,449.3         342.8         -36.3         -343.0         0.00         0.00         0.00           4,600.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           4,900.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           5,000.0         20.11         353.96         4,918.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,400.0										
4,500.0         20.11         353.96         4,449.3         342.8         -36.3         -343.0         0.00         0.00         0.00           4,600.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,700.0         20.11         353.96         4,637.1         411.2         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           5,000.0         20.11         353.96         4,818.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,012.7         547.9         -58.0         -582.5         0.00         0.00         0.00           5,000.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,200.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,400.0										
4,800.0         20.11         353.96         4,543.2         377.0         -39.9         -377.2         0.00         0.00         0.00           4,700.0         20.11         353.96         4,637.1         441.4         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,824.9         479.6         -50.7         -479.8         0.00         0.00         0.00           5,000.0         20.11         353.96         4,824.9         479.6         -50.7         -479.8         0.00         0.00         0.00           5,000.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,500.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0	4,400.0	20.11	353.96	4,355.4			-308.8	0.00	0.00	0.00
4,700.0         20.11         353.96         4,637.1         411.2         -43.5         -411.4         0.00         0.00         0.00           4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           4,900.0         20.11         353.96         4,918.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,204.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,400.0         20.11         353.96         5,284.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0										
4,800.0         20.11         353.96         4,731.0         445.4         -47.1         -445.6         0.00         0.00         0.00           4,900.0         20.11         353.96         4,824.9         479.6         -50.7         -479.8         0.00         0.00         0.00           5,000.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,400.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,000.0         20.11         353.96         5,288.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,000.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,701.0										
4,900.0         20.11         353.96         4,824.9         479.6         -50.7         -479.8         0.00         0.00         0.00           5,000.0         20.11         353.96         4,918.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,200.0         20.11         353.96         5,102.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,204.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,600.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,586.0         760.3         -80.4         -760.8         0.00         0.00         0.00           5,720.1										
5,000.0         20.11         353.96         4,918.8         513.7         -54.3         -514.1         0.00         0.00         0.00           5,100.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,400.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,700.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,702.1										
5,100.0         20.11         353.96         5,012.7         547.9         -58.0         -548.3         0.00         0.00         0.00           5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,294.5         650.5         -616.7         0.00         0.00         0.00           5,400.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,596.0         760.3         80.4         -760.8         0.00         0.00         0.00           5,721.1         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,800.0         20.11<		20.11		4,824.9		-50.7	-479.8	0.00	0.00	0.00
5,200.0         20.11         353.96         5,106.6         582.1         -61.6         -582.5         0.00         0.00         0.00           5,300.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,400.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           6,900.0				,						
5,300.0         20.11         353.96         5,200.5         616.3         -65.2         -616.7         0.00         0.00         0.00           5,400.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,700.0         20.11         353.96         5,676.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyon           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00 <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				,						
5,400.0         20.11         353.96         5,294.5         650.5         -68.8         -650.9         0.00         0.00         0.00           5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyor           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00 <td></td>										
5,500.0         20.11         353.96         5,388.4         684.7         -72.4         -685.1         0.00         0.00         0.00           5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyon           5,800.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,200.0         20.11         353.96         6,951.8         889.9         -94.1         -890.4         0.00         0.00 <td></td>										
5,600.0         20.11         353.96         5,482.3         718.9         -76.1         -719.3         0.00         0.00         0.00           5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyon           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00 <td></td>										
5,700.0         20.11         353.96         5,576.2         753.1         -79.7         -753.6         0.00         0.00         0.00           5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyon           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00				,						
5,721.1         20.11         353.96         5,596.0         760.3         -80.4         -760.8         0.00         0.00         0.00           Brushy Canyon           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00 </td <td></td>										
Brushy Canyon           5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0	5 704 4			F 500 0						
5,800.0         20.11         353.96         5,670.1         787.3         -83.3         -787.8         0.00         0.00         0.00           5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0.00         0.00			353.96	5,596.0	760.3	-80.4	-/60.8	0.00	0.00	0.00
5,900.0         20.11         353.96         5,764.0         821.5         -86.9         -822.0         0.00         0.00         0.00           6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0.00         0.00           6,600.0         20.11         353.96         6,421.3         1,060.9         -112.2         -1,061.5         0.00         0.00         0.00		-	353 96	5,670 1	787 3	-83.3	-787 8	0.00	0.00	0.00
6,000.0         20.11         353.96         5,857.9         855.7         -90.5         -856.2         0.00         0.00         0.00           6,100.0         20.11         353.96         5,951.8         889.9         -94.1         -890.4         0.00         0.00         0.00           6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0.00         0.00           6,600.0         20.11         353.96         6,421.3         1,060.9         -112.2         -1,061.5         0.00         0.00         0.00           6,700.0         20.11         353.96         6,515.2         1,095.0         -115.8         -1,095.7         0.00         0.00         0.00	-,									
6,100.0       20.11       353.96       5,951.8       889.9       -94.1       -890.4       0.00       0.00       0.00         6,200.0       20.11       353.96       6,045.7       924.1       -97.8       -924.6       0.00       0.00       0.00         6,300.0       20.11       353.96       6,139.6       958.3       -101.4       -958.8       0.00       0.00       0.00         6,400.0       20.11       353.96       6,233.5       992.5       -105.0       -993.1       0.00       0.00       0.00         6,500.0       20.11       353.96       6,327.4       1,026.7       -108.6       -1,027.3       0.00       0.00       0.00         6,600.0       20.11       353.96       6,421.3       1,060.9       -112.2       -1,061.5       0.00       0.00       0.00         6,700.0       20.11       353.96       6,515.2       1,095.0       -115.8       -1,095.7       0.00       0.00       0.00         6,806.2       20.11       353.96       6,614.9       1,131.4       -119.7       -1,132.0       0.00       -2.00       0.00         6,829.7       19.64       353.96       6,637.0       1,139.3       -120.5       -1										
6,200.0         20.11         353.96         6,045.7         924.1         -97.8         -924.6         0.00         0.00         0.00           6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0.00         0.00           6,600.0         20.11         353.96         6,421.3         1,060.9         -112.2         -1,061.5         0.00         0.00         0.00           6,700.0         20.11         353.96         6,515.2         1,095.0         -115.8         -1,095.7         0.00         0.00         0.00           6,806.2         20.11         353.96         6,614.9         1,131.4         -119.7         -1,132.0         0.00         0.00         0.00           6,829.7         19.64         353.96         6,637.0         1,139.3         -120.5         -1,140.0         2.00         -2.00         0.00										
6,300.0         20.11         353.96         6,139.6         958.3         -101.4         -958.8         0.00         0.00         0.00           6,400.0         20.11         353.96         6,233.5         992.5         -105.0         -993.1         0.00         0.00         0.00           6,500.0         20.11         353.96         6,327.4         1,026.7         -108.6         -1,027.3         0.00         0.00         0.00           6,600.0         20.11         353.96         6,421.3         1,060.9         -112.2         -1,061.5         0.00         0.00         0.00           6,700.0         20.11         353.96         6,515.2         1,095.0         -115.8         -1,095.7         0.00         0.00         0.00           6,806.2         20.11         353.96         6,614.9         1,131.4         -119.7         -1,132.0         0.00         0.00         0.00           6,829.7         19.64         353.96         6,637.0         1,139.3         -120.5         -1,140.0         2.00         -2.00         0.00										
6,400.0       20.11       353.96       6,233.5       992.5       -105.0       -993.1       0.00       0.00       0.00         6,500.0       20.11       353.96       6,327.4       1,026.7       -108.6       -1,027.3       0.00       0.00       0.00         6,600.0       20.11       353.96       6,421.3       1,060.9       -112.2       -1,061.5       0.00       0.00       0.00         6,700.0       20.11       353.96       6,515.2       1,095.0       -115.8       -1,095.7       0.00       0.00       0.00         6,806.2       20.11       353.96       6,614.9       1,131.4       -119.7       -1,132.0       0.00       0.00       0.00         6,829.7       19.64       353.96       6,637.0       1,139.3       -120.5       -1,140.0       2.00       -2.00       0.00										
6,500.0       20.11       353.96       6,327.4       1,026.7       -108.6       -1,027.3       0.00       0.00       0.00         6,600.0       20.11       353.96       6,421.3       1,060.9       -112.2       -1,061.5       0.00       0.00       0.00         6,700.0       20.11       353.96       6,515.2       1,095.0       -115.8       -1,095.7       0.00       0.00       0.00         6,806.2       20.11       353.96       6,614.9       1,131.4       -119.7       -1,132.0       0.00       0.00       0.00         6,829.7       19.64       353.96       6,637.0       1,139.3       -120.5       -1,140.0       2.00       -2.00       0.00										
6,600.0       20.11       353.96       6,421.3       1,060.9       -112.2       -1,061.5       0.00       0.00       0.00         6,700.0       20.11       353.96       6,515.2       1,095.0       -115.8       -1,095.7       0.00       0.00       0.00         6,806.2       20.11       353.96       6,614.9       1,131.4       -119.7       -1,132.0       0.00       0.00       0.00         6,829.7       19.64       353.96       6,637.0       1,139.3       -120.5       -1,140.0       2.00       -2.00       0.00										
6,700.0       20.11       353.96       6,515.2       1,095.0       -115.8       -1,095.7       0.00       0.00       0.00         6,806.2       20.11       353.96       6,614.9       1,131.4       -119.7       -1,132.0       0.00       0.00       0.00         6,829.7       19.64       353.96       6,637.0       1,139.3       -120.5       -1,140.0       2.00       -2.00       0.00										
6,806.2     20.11     353.96     6,614.9     1,131.4     -119.7     -1,132.0     0.00     0.00     0.00       6,829.7     19.64     353.96     6,637.0     1,139.3     -120.5     -1,140.0     2.00     -2.00     0.00										
6,829.7 19.64 353.96 6,637.0 1,139.3 -120.5 -1,140.0 2.00 -2.00 0.00										
Basal Brushy Canyon			353.96	6,637.0	1,139.3	-120.5	-1,140.0	2.00	-2.00	0.00

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Wellbore: OH
Design: Plan 1

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

Survey Calculation Method:

Well Corral 22-34 Fed Com 107H

RKB (+32) @ 3086.0usft RKB (+32) @ 3086.0usft

Grid

Minimum Curvature

lanne	d Survey									
	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	6,900.0 7,000.0 7,079.9	18.24 16.24 14.64	353.96 353.96 353.96	6,703.5 6,799.0 6,876.0	1,162.0 1,191.5 1,212.6	-122.9 -126.0 -128.3	-1,162.7 -1,192.2 -1,213.3	2.00 2.00 2.00	-2.00 -2.00 -2.00	0.00 0.00 0.00
	Bone Spring									
	7,100.0	14.24	353.96	6,895.5	1,217.6	-128.8	-1,218.3	2.00	-2.00	0.00
	7,200.0 7,232.9	12.24 11.58	353.96 353.96	6,992.8 7,025.0	1,240.4 1,247.1	-131.2 -131.9	-1,241.1 -1,247.9	2.00 2.00	-2.00 -2.00	0.00 0.00
	Avalon Shale 7,300.0	10.24	353.96	7,090.9	1,259.7	-133.3	-1,260.5	2.00	-2.00	0.00
	7,400.0 7,500.0	8.24 6.24	353.96 353.96	7,189.6 7,288.8	1,275.7 1,288.2	-135.0 -136.3	-1,276.5 -1,289.0	2.00 2.00	-2.00 -2.00	0.00 0.00
	7,600.0 7,668.8	4.24 2.86	353.96 353.96	7,388.4 7,457.0	1,297.3 1,301.5	-137.2 -137.7	-1,298.1 -1,302.3	2.00 2.00	-2.00 -2.00	0.00 0.00
	Avalon Lowe									
	7,700.0 7,800.0 7,811.8	2.24 0.24 0.00	353.96 353.96 0.00	7,488.2 7,588.2 7,600.0	1,302.9 1,305.1 1,305.1	-137.8 -138.1 -138.1	-1,303.7 -1,305.8 -1,305.9	2.00 2.00 2.00	-2.00 -2.00 -2.00	0.00 0.00 0.00
	7,851.8	0.00	0.00	7,640.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	1st Bone Spi			,	,,,,,,		,,,,,,,			
	7,900.0 7,999.8	0.00 0.00	0.00 0.00	7,688.2 7,788.0	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00
	1st Bone Spi		0.00	7 700 0	4 205 4	400.4	4 205 0	0.00	0.00	0.00
	8,000.0 8,100.0	0.00 0.00	0.00 0.00	7,788.2 7,888.2	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00
	8,200.0	0.00	0.00	7,988.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	8,300.0	0.00	0.00	8,088.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	8,400.0 8,408.8	0.00 0.00	0.00 0.00	8,188.2 8,197.0	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00
	2nd Bone Sp			-, -	,,,,,,		,,,,,,,			
	8,500.0	0.00	0.00	8,288.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	8,600.0	0.00	0.00	8,388.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	8,700.0 8,800.0	0.00 0.00	0.00 0.00	8,488.2 8,588.2	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1.305.9	0.00 0.00	0.00 0.00	0.00 0.00
	8,855.8	0.00	0.00	8,644.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	2nd Bone Sp									
	8,900.0	0.00	0.00	8,688.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,000.0 9,081.8	0.00 0.00	0.00 0.00	8,788.2 8,870.0	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00
		o.oo oring Sand_Base	_	0,070.0	1,300.1	-130.1	-1,303.9	0.00	0.00	0.00
	9,100.0	0.00	0.00	8,888.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,200.0	0.00	0.00	8,988.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,280.8	0.00	0.00	9,069.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	3rd Bone Sp	_								
	9,300.0	0.00	0.00	9,088.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,400.0 9,452.8	0.00 0.00	0.00 0.00	9,188.2 9,241.0	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00
	Harkey	0.00	0.00	5,271.0	1,000.1	100.1	1,000.0	0.00	0.00	0.00
	9,486.8	0.00	0.00	9,275.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	•	ring Upper Shal								
	9,500.0	0.00	0.00	9,288.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,600.0	0.00	0.00	9,388.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	9,700.0 9,706.8	0.00 0.00	0.00 0.00	9,488.2 9,495.0	1,305.1 1,305.1	-138.1 -138.1	-1,305.9 -1,305.9	0.00 0.00	0.00 0.00	0.00 0.00

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Wellbore: OH
Design: Plan 1

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

ed Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3rd Bone S	pring Upper Shale								
9,757.8	0.00	0.00	9,546.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
	pring Lower Shal								
9,800.0	0.00	0.00	9,588.2	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
9,853.8	0.00	0.00	9,642.0	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
3rd Bone S	pring Lower Shal	e Marker							
9,890.6	0.00	0.00	9,678.8	1,305.1	-138.1	-1,305.9	0.00	0.00	0.00
9,900.0	0.75	179.67	9,688.2	1,305.0	-138.1	-1,305.8	8.00	8.00	0.00
9,918.8	2.26	179.67	9,707.0	1,304.5	-138.1	-1,305.3	8.00	8.00	0.00
3rd Bone S <sub>1</sub> 9,950.0	4.75	179.67	9,738.1	1,302.6	-138.0	-1,303.4	8.00	8.00	0.00
10,000.0 10,050.0	8.75 12.75	179.67 179.67	9,787.8 9,836.9	1,296.7 1,287.4	-138.0 -138.0	-1,297.5 -1,288.2	8.00 8.00	8.00 8.00	0.00 0.00
10,050.0	16.75	179.67	9,885.2	1,207.4	-136.0	-1,200.2 -1,275.5	8.00	8.00	0.00
10,117.6	18.16	179.67	9,902.0	1,269.4	-137.9	-1,270.2	8.00	8.00	0.00
Warwink									
10,150.0	20.75	179.67	9,932.6	1,258.6	-137.8	-1,259.4	8.00	8.00	0.00
10,200.0	24.75	179.67	9.978.7	1,239.3	-137.7	-1,240.1	8.00	8.00	0.00
10,204.8	25.13	179.67	9,983.0	1,237.3	-137.7	-1,238.0	8.00	8.00	0.00
Red Hills									
10,250.0	28.75	179.67	10,023.3	1,216.8	-137.6	-1,217.6	8.00	8.00	0.00
10,292.6	32.16	179.67	10,060.0	1,195.2	-137.4	-1,196.0	8.00	8.00	0.00
Wolfcamp	20.75	470.07	40.000.0	4 404 0	407.4	4 400 0	2.22	2.22	0.00
10,300.0	32.75	179.67	10,066.3	1,191.2	-137.4	-1,192.0	8.00	8.00	0.00
10,317.7	34.16	179.67	10,081.0	1,181.5	-137.4	-1,182.3	8.00	8.00	0.00
Wolfcamp X									
10,350.0	36.75 40.75	179.67	10,107.3 10,146.3	1,162.7 1,131.5	-137.3 -137.1	-1,163.5 -1,132.2	8.00	8.00 8.00	0.00
10,400.0 10,421.0	42.43	179.67 179.67	10,146.3	1,131.5	-137.1	-1,132.2 -1,118.3	8.00 8.00	8.00	0.00 0.00
Wolfcamp Y		170.01	10,102.0	1,117.0	107.0	1,110.0	0.00	0.00	0.00
10,450.0	44.75	179.67	10,183.0	1,097.5	-136.9	-1,098.3	8.00	8.00	0.00
10,467.1	46.12	179.67	10,195.0	1,085.4	-136.8	-1,086.1	8.00	8.00	0.00
Wolfcamp A		179.07	10, 193.0	1,005.4	-130.0	-1,000.1	0.00	0.00	0.00
10,500.0	48.75	179.67	10,217.3	1,061.1	-136.7	-1,061.9	8.00	8.00	0.00
10,550.0	52.75	179.67	10,248.9	1,022.4	-136.5	-1,023.2	8.00	8.00	0.00
10,600.0	56.75	179.67	10,277.8	981.6	-136.2	-982.3	8.00	8.00	0.00
10,650.0	60.75	179.67	10,303.7	938.8	-136.0	-939.6	8.00	8.00	0.00
10,700.0	64.75	179.67	10,326.6	894.4	-135.7	-895.2	8.00	8.00	0.00
10,750.0	68.75	179.67	10,346.3	848.5	-135.5	-849.2	8.00	8.00	0.00
10,800.0	72.75	179.67	10,362.8	801.3	-135.2	-802.0	8.00	8.00	0.00
10,850.0 10,900.0	76.75 80.75	179.67 179.67	10,375.9 10,385.7	753.0 704.0	-134.9 -134.7	-753.8 -704.8	8.00 8.00	8.00 8.00	0.00 0.00
10,950.0 11,000.0	84.75 88.75	179.67 179.67	10,392.0 10,394.8	654.4 604.5	-134.4 -134.1	-655.2 -605.3	8.00 8.00	8.00 8.00	0.00 0.00
11,000.0	90.00	179.67	10,394.6	588.9	-134.1 -134.0	-605.3 -589.7	8.00	8.00	0.00
Landing - 1			12,000.0	300.0		300	5.55	0.00	0.00
11,100.0	90.00	179.67	10,395.0	504.5	-133.5	-505.3	0.00	0.00	0.00
11,200.0	90.00	179.67	10,395.0	404.5	-133.0	-405.3	0.00	0.00	0.00
11,300.0	90.00	179.67	10,395.0	304.5	-132.4	-305.3	0.00	0.00	0.00
11,400.0	90.00	179.67	10,395.0	204.5	-131.8	-205.3	0.00	0.00	0.00
11,500.0	90.00	179.67	10,395.0	104.5	-131.3	-105.3	0.00	0.00	0.00
11,600.0 11,700.0	90.00 90.00	179.67 179.67	10,395.0 10,395.0	4.5 -95.5	-130.7 -130.1	-5.3 94.7	0.00 0.00	0.00 0.00	0.00 0.00

Database: EDM 5000.18 Single User Db
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Wellbore: OH
Design: Plan 1

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

esign:	Plan 1								
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,800.0	90.00	179.67	10,395.0	-195.5	-129.6	194.7	0.00	0.00	0.00
11,900.0	90.00	179.67	10,395.0	-295.5	-129.0	294.7	0.00	0.00	0.00
12,000.0	90.00	179.67	10,395.0	-395.5	-128.4	394.7	0.00	0.00	0.00
12,100.0	90.00	179.67	10,395.0	-495.5	-127.8	494.7	0.00	0.00	0.00
12,200.0	90.00	179.67	10,395.0	-595.5	-127.3	594.7	0.00	0.00	0.00
12,300.0	90.00	179.67	10,395.0	-695.5	-126.7	694.7	0.00	0.00	0.00
12,400.0	90.00	179.67	10,395.0	-795.5	-126.1	794.7	0.00	0.00	0.00
12,500.0	90.00	179.67	10,395.0	-895.5	-125.6	894.7	0.00	0.00	0.00
12,600.0	90.00	179.67	10,395.0	-995.5	-125.0	994.7	0.00	0.00	0.00
12,700.0	90.00	179.67	10,395.0	-1,095.5	-124.4	1,094.7	0.00	0.00	0.00
12,800.0	90.00	179.67	10,395.0				0.00	0.00	0.00
				-1,195.5	-123.9	1,194.7			
12,900.0	90.00	179.67	10,395.0	-1,295.5	-123.3	1,294.7	0.00	0.00	0.00
13,000.0	90.00	179.67	10,395.0	-1,395.4	-122.7	1,394.7	0.00	0.00	0.00
13,100.0	90.00	179.67	10,395.0	-1,495.4	-122.2	1,494.7	0.00	0.00	0.00
13,200.0	90.00	179.67	10,395.0	-1,595.4	-121.6	1,594.7	0.00	0.00	0.00
13,300.0	90.00	179.67	10,395.0	-1,695.4	-121.0	1,694.7	0.00	0.00	0.00
13,400.0	90.00	179.67	10,395.0	-1,795.4	-120.5	1,794.7	0.00	0.00	0.00
13,500.0	90.00	179.67	10,395.0	-1,795.4	-119.9	1,794.7	0.00	0.00	0.00
						,			
13,600.0	90.00	179.67	10,395.0	-1,995.4	-119.3	1,994.7	0.00	0.00	0.00
13,700.0	90.00	179.67	10,395.0	-2,095.4	-118.8	2,094.7	0.00	0.00	0.00
13,800.0	90.00	179.67	10,395.0	-2,195.4	-118.2	2,194.7	0.00	0.00	0.00
13,900.0	90.00	179.67	10,395.0	-2,295.4	-117.6	2,294.7	0.00	0.00	0.00
14,000.0	90.00	179.67	10,395.0	-2,395.4	-117.1	2,394.7	0.00	0.00	0.00
14,100.0	90.00	179.67	10,395.0	-2,495.4	-116.5	2,494.7	0.00	0.00	0.00
14,200.0	90.00	179.67	10,395.0	-2,595.4	-115.9	2,594.7	0.00	0.00	0.00
14,300.0	90.00	179.67	10,395.0	-2,695.4	-115.4	2,694.7	0.00	0.00	0.00
14,400.0	90.00	179.67	10,395.0	-2,795.4	-114.8	2,794.7	0.00	0.00	0.00
14,500.0	90.00	179.67	10,395.0	-2,895.4	-114.2	2,894.7	0.00	0.00	0.00
14,600.0	90.00	179.67	10,395.0	-2,995.4	-113.7	2,994.7	0.00	0.00	0.00
14,700.0	90.00	179.67	10,395.0	-3,095.4	-113.1	3,094.7	0.00	0.00	0.00
14,800.0	90.00	179.67	10,395.0	-3,195.4	-112.5	3,194.7	0.00	0.00	0.00
14,900.0	90.00	179.67	10,395.0	-3,295.4	-112.0	3,294.7	0.00	0.00	0.00
15,000.0	90.00	179.67	10,395.0	-3,395.4	-111.4	3,394.7	0.00	0.00	0.00
15,100.0	90.00	179.67	10,395.0	-3,495.4	-110.8	3,494.7	0.00	0.00	0.00
15,200.0	90.00	179.67	10,395.0	-3,595.4	-110.3	3,594.7	0.00	0.00	0.00
15,300.0	90.00	179.67	10,395.0	-3,695.4	-109.7	3,694.7	0.00	0.00	0.00
15,400.0	90.00	179.67	10,395.0	-3,795.4	-109.1	3,794.7	0.00	0.00	0.00
15,500.0	90.00	179.67	10,395.0	-3,895.4	-108.6	3,894.7	0.00	0.00	0.00
15,600.0 15,700.0	90.00 90.00	179.67 179.67	10,395.0 10,395.0	-3,995.4 -4,095.4	-108.0 -107.4	3,994.7 4,094.7	0.00 0.00	0.00 0.00	0.00 0.00
15,800.0	90.00	179.67	10,395.0	-4,195.4	-106.9	4,194.7	0.00	0.00	0.00
15,900.0	90.00	179.67	10,395.0	-4,295.4	-106.3	4,294.7	0.00	0.00	0.00
16,000.0	90.00	179.67	10,395.0	-4,395.4	-105.7	4,394.7	0.00	0.00	0.00
16,100.0	90.00	179.67	10,395.0	-4,495.4	-105.2	4,494.7	0.00	0.00	0.00
16,200.0	90.00	179.67	10,395.0	-4,595.4	-104.6	4,594.7	0.00	0.00	0.00
16,300.0	90.00	179.67	10,395.0	-4,695.4	-104.0	4,694.7	0.00	0.00	0.00
16,400.0	90.00	179.67	10,395.0	-4,795.4 -4,795.4	-104.0	4,094.7	0.00	0.00	0.00
16,500.0	90.00	179.67	10,395.0	-4,895.4	-102.9	4,894.7	0.00	0.00	0.00
16,600.0	90.00	179.67	10,395.0	-4,995.4	-102.3	4,994.7	0.00	0.00	0.00
16,700.0	90.00	179.67	10,395.0	-5,095.4	-101.8	5,094.7	0.00	0.00	0.00
16,800.0	90.00	179.67	10,395.0	-5,195.4	-101.2	5,194.7	0.00	0.00	0.00
16,900.0	90.00	179.67	10,395.0	-5,295.4	-100.6	5,294.7	0.00	0.00	0.00
17,000.0	90.00	179.67	10,395.0	-5,395.4	-100.1	5,394.7	0.00	0.00	0.00
17,100.0	90.00	179.67	10,395.0	-5,495.4	-99.5	5,494.7	0.00	0.00	0.00

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

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 (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,200.0	90.00	179.67	10,395.0	-5,595.4	-98.9	5,594.7	0.00	0.00	0.00
17,300.0	90.00	179.67	10,395.0	-5,695.4	-98.4	5,694.7	0.00	0.00	0.00
17,400.0	90.00	179.67	10,395.0	-5,795.4	-97.8	5,794.7	0.00	0.00	0.00
17,500.0	90.00	179.67	10,395.0	-5,895.4	-97.2	5,894.7	0.00	0.00	0.00
17,600.0	90.00	179.67	10,395.0	-5,995.4	-96.6	5,994.7	0.00	0.00	0.00
17,700.0	90.00	179.67	10,395.0	-6,095.4	-96.1	6,094.7	0.00	0.00	0.00
17,800.0	90.00	179.67	10,395.0	-6,195.4	-95.5	6,194.7	0.00	0.00	0.00
17,900.0	90.00	179.67	10,395.0	-6,295.4	-94.9	6,294.7	0.00	0.00	0.00
18,000.0	90.00	179.67	10,395.0	-6,395.4	-94.4	6,394.7	0.00	0.00	0.00
18,100.0	90.00	179.67	10,395.0	-6,495.4	-93.8	6,494.7	0.00	0.00	0.00
18,200.0 18,300.0	90.00	179.67 179.67	10,395.0 10,395.0	-6,595.4 -6,695.4	-93.2 -92.7	6,594.7 6,694.7	0.00	0.00	0.00 0.00
18,400.0	90.00	179.67	10,395.0	-6,795.4	-92.1	6,794.7	0.00	0.00	0.00
18,500.0	90.00	179.67	10,395.0	-6,895.4	-91.5	6,894.7	0.00	0.00	0.00
18,600.0	90.00	179.67	10,395.0	-6,995.4	-91.0	6,994.7	0.00	0.00	0.00
18,700.0	90.00	179.67	10,395.0	-7,095.4	-90.4	7,094.7	0.00	0.00	0.00
18,800.0	90.00	179.67	10,395.0	-7,195.4	-89.8	7,194.7	0.00	0.00	0.00
18,900.0	90.00	179.67	10,395.0	-7,295.4	-89.3	7,294.7	0.00	0.00	0.00
19,000.0 19,100.0 19,200.0	90.00 90.00 90.00	179.67 179.67 179.67 179.67	10,395.0 10,395.0 10,395.0 10,395.0	-7,295.4 -7,395.4 -7,495.4 -7,595.3	-88.7 -88.1 -87.6	7,294.7 7,394.7 7,494.7 7,594.7	0.00 0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00
19,300.0	90.00	179.67	10,395.0	-7,695.3	-87.0	7,694.7	0.00	0.00	0.00
19,400.0	90.00	179.67	10,395.0	-7,795.3	-86.4	7,794.7	0.00	0.00	0.00
19,500.0	90.00	179.67	10,395.0	-7,895.3	-85.9	7,894.7	0.00	0.00	0.00
19,600.0	90.00	179.67	10,395.0	-7,995.3	-85.3	7,994.7	0.00	0.00	0.00
19,700.0	90.00	179.67	10,395.0	-8,095.3	-84.7	8,094.7	0.00	0.00	0.00
19,800.0	90.00	179.67	10,395.0	-8,195.3	-84.2	8,194.7	0.00	0.00	0.00
19,900.0	90.00	179.67	10,395.0	-8,295.3	-83.6	8,294.7	0.00	0.00	0.00
20,000.0	90.00	179.67	10,395.0	-8,395.3	-83.0	8,394.7	0.00	0.00	0.00
20,100.0	90.00	179.67	10,395.0	-8,495.3	-82.5	8,494.7	0.00	0.00	0.00
20,200.0	90.00	179.67	10,395.0	-8,595.3	-81.9	8,594.7	0.00	0.00	0.00
20,300.0	90.00	179.67	10,395.0	-8,695.3	-81.3	8,694.7	0.00	0.00	0.00
20,400.0	90.00	179.67	10,395.0	-8,795.3	-80.8	8,794.7	0.00	0.00	0.00
20,500.0	90.00	179.67	10,395.0	-8,895.3	-80.2	8,894.7	0.00	0.00	0.00
20,600.0	90.00	179.67	10,395.0	-8,995.3	-79.6	8,994.7	0.00	0.00	0.00
20,700.0	90.00	179.67	10,395.0	-9,095.3	-79.1	9,094.7	0.00	0.00	0.00
20,800.0	90.00	179.67	10,395.0	-9,195.3	-78.5	9,194.7	0.00	0.00	0.00
20,900.0	90.00	179.67	10,395.0	-9,295.3	-77.9	9,294.7	0.00	0.00	0.00
21,000.0	90.00	179.67	10,395.0	-9,395.3	-77.4	9,394.7	0.00	0.00	0.00
21,100.0	90.00	179.67	10,395.0	-9,495.3	-76.8	9,494.7	0.00	0.00	0.00
21,200.0	90.00	179.67	10,395.0	-9,595.3	-76.2	9,594.7	0.00	0.00	0.00
21,300.0	90.00	179.67	10,395.0	-9,695.3	-75.7	9,694.7	0.00	0.00	0.00
21,400.0	90.00	179.67	10,395.0	-9,795.3	-75.1	9,794.7	0.00	0.00	0.00
21,500.0	90.00	179.67	10,395.0	-9,895.3	-74.5	9,894.7	0.00	0.00	0.00
21,600.0	90.00	179.67	10,395.0	-9,995.3	-74.0	9,994.7	0.00	0.00	0.00
21,700.0	90.00	179.67	10,395.0	-10,095.3	-73.4	10,094.7	0.00	0.00	0.00
21,800.0	90.00	179.67	10,395.0	-10,195.3	-72.8	10,194.7	0.00	0.00	0.00
21,900.0	90.00	179.67	10,395.0	-10,295.3	-72.3	10,294.7	0.00	0.00	0.00
22,000.0	90.00	179.67	10,395.0	-10,395.3	-71.7	10,394.7	0.00	0.00	0.00
22,100.0	90.00	179.67	10,395.0	-10,495.3	-71.1	10,494.7	0.00	0.00	0.00
22,200.0	90.00	179.67	10,395.0	-10,595.3	-70.6	10,594.7	0.00	0.00	0.00
22,300.0	90.00	179.67	10,395.0	-10,695.3	-70.0	10,694.7	0.00	0.00	0.00
22,400.0	90.00	179.67	10,395.0	-10,795.3	-69.4	10,794.7	0.00	0.00	0.00
22,500.0	90.00	179.67	10,395.0	-10,895.3	-68.9	10,894.7	0.00	0.00	0.00

Database: EDM 5000.18 Single User Db
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Wellbore: OH
Design: Plan 1

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

nned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
22,600.0 22,700.0	90.00 90.00	179.67 179.67	10,395.0 10,395.0	-10,995.3 -11,095.3	-68.3 -67.7	10,994.7 11,094.7	0.00 0.00	0.00 0.00	0.00 0.00
22,800.0	90.00	179.67	10,395.0	-11,195.3	-67.2	11,194.7	0.00	0.00	0.00
22,900.0	90.00	179.67	10,395.0	-11,295.3	-66.6	11,294.7	0.00	0.00	0.00
23,000.0	90.00	179.67	10,395.0	-11,395.3	-66.0	11,394.7	0.00	0.00	0.00
23,100.0	90.00	179.67	10,395.0	-11,495.3	-65.4	11,494.7	0.00	0.00	0.00
23,200.0	90.00	179.67	10,395.0	-11,595.3	-64.9	11,594.7	0.00	0.00	0.00
23,300.0	90.00	179.67	10,395.0	-11,695.3	-64.3	11,694.7	0.00	0.00	0.00
23,400.0	90.00	179.67	10,395.0	-11,795.3	-63.7	11,794.7	0.00	0.00	0.00
23,500.0	90.00	179.67	10,395.0	-11,895.3	-63.2	11,894.7	0.00	0.00	0.00
23,600.0	90.00	179.67	10,395.0	-11,995.3	-62.6	11,994.7	0.00	0.00	0.00
23,700.0	90.00	179.67	10,395.0	-12,095.3	-62.0	12,094.7	0.00	0.00	0.00
23,800.0	90.00	179.67	10,395.0	-12,195.3	-61.5	12,194.7	0.00	0.00	0.00
23,900.0	90.00	179.67	10,395.0	-12,295.3	-60.9	12,294.7	0.00	0.00	0.00
24,000.0	90.00	179.67	10,395.0	-12,395.3	-60.3	12,394.7	0.00	0.00	0.00
24,100.0	90.00	179.67	10,395.0	-12,495.3	-59.8	12,494.7	0.00	0.00	0.00
24,200.0	90.00	179.67	10,395.0	-12,595.3	-59.2	12,594.7	0.00	0.00	0.00
24,300.0	90.00	179.67	10,395.0	-12,695.3	-58.6	12,694.7	0.00	0.00	0.00
24,400.0	90.00	179.67	10,395.0	-12,795.3	-58.1	12,794.7	0.00	0.00	0.00
24.500.0	90.00	179.67	10.395.0	-12.895.3	-57.5	12.894.7	0.00	0.00	0.00
24,600.0	90.00	179.67	10,395.0	-12,995.3	-56.9	12,994.7	0.00	0.00	0.00
24,700.0	90.00	179.67	10,395.0	-13,095.3	-56.4	13,094.7	0.00	0.00	0.00
24,800.0	90.00	179.67	10,395.0	-13,195.3	-55.8	13,194.7	0.00	0.00	0.00
24,900.0	90.00	179.67	10.395.0	-13.295.3	-55.2	13.294.7	0.00	0.00	0.00
25,000.0	90.00	179.67	10,395.0	-13,395.3	-54.7	13,394.7	0.00	0.00	0.00
25,100.0	90.00	179.67	10,395.0	-13,495.3	-54.1	13,494.7	0.00	0.00	0.00
25,200.0	90.00	179.67	10,395.0	-13,595.3	-53.5	13,594.7	0.00	0.00	0.00
25,300.0	90.00	179.67	10,395.0	-13,695.3	-53.0	13,694.7	0.00	0.00	0.00
25,400.0	90.00	179.67	10.395.0	-13,795.2	-52.4	13,794.7	0.00	0.00	0.00
25,500.0	90.00	179.67	10,395.0	-13.895.2	-51.8	13,894.7	0.00	0.00	0.00
25,600.0	90.00	179.67	10,395.0	-13,995.2	-51.3	13,994.7	0.00	0.00	0.00
25,700.0	90.00	179.67	10,395.0	-14,095.2	-50.7	14,094.7	0.00	0.00	0.00
25,800.0	90.00	179.67	10,395.0	-14,195.2	-50.1	14,194.7	0.00	0.00	0.00
25,900.0	90.00	179.67	10,395.0	-14,195.2	-49.6	14,194.7	0.00	0.00	0.00
26,000.0	90.00	179.67	10,395.0	-14,395.2	-49.0	14,394.7	0.00	0.00	0.00
26,100.0	90.00	179.67	10,395.0	-14,495.2	-48.4	14,494.7	0.00	0.00	0.00
26,200.0	90.00	179.67	10,395.0	-14,595.2	-47.9	14,594.7	0.00	0.00	0.00
26,300.0	90.00	179.67	10,395.0	-14,695.2	-47.3	14,694.7	0.00	0.00	0.00
26,400.0	90.00	179.67	10,395.0	-14,095.2 -14,795.2	-47.3 -46.7	14,094.7	0.00	0.00	0.00
26,500.0	90.00	179.67	10,395.0	-14,795.2 -14,895.2	-46.7 -46.2	14,794.7	0.00	0.00	0.00
26,511.1	90.00	179.67	10,395.0	-14,095.2	-46.2 -46.1	14,994.7	0.00	0.00	0.00
107H LTP	33.00	110.01	10,000.0	11,000.0	10.1	11,000.0	0.50	3.30	0.00
26,561.1	90.00	179.67	10,395.0	-14,956.3	-45.8	14,955.8	0.00	0.00	0.00
107H_BHL			-,	,,,,,,,,		,			
14.11_DITE									

Database: EDM 5000.18 Single User Db
Company: Long Lead\_Well Planning
Project: Corral Canyon 22-27-34 Fed Com
Site: Corral 22-34 Fed Com 107H
Well: Corral 22-34 Fed Com 107H

Wellbore: OH
Design: Plan 1

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

Survey Calculation Method:

Well Corral 22-34 Fed Com 107H RKB (+32) @ 3086.0usft

Grid

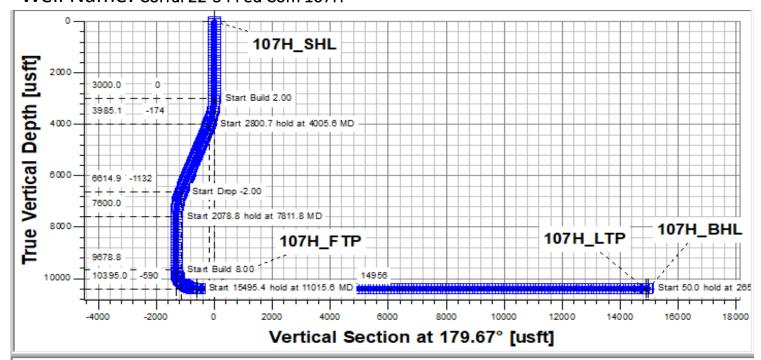
Minimum Curvature

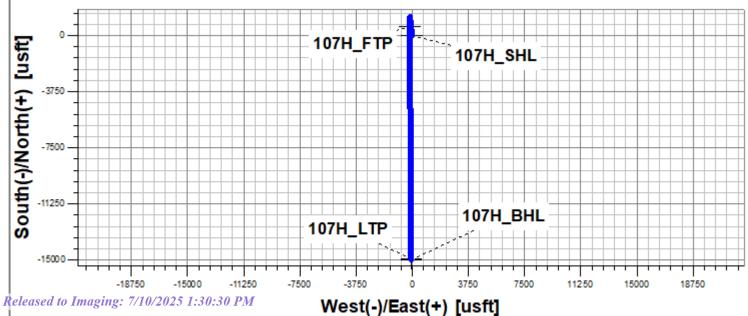
RKB (+32) @ 3086.0usft

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
107H_SHL - plan hits target cen - Point	0.00 ter	0.00	0.0	0.0	0.0	407,822.30	609,770.60	32° 7' 14.604 N	103° 58' 43.551 W
107H_FTP - plan hits target cen - Point	0.00 ter	0.00	10,395.0	588.9	-134.0	408,411.20	609,636.60	32° 7' 20.437 N	103° 58' 45.087 W
107H_BHL - plan misses target - Point	0.00 center by 0.4u	0.00 sft at 26561	10,395.0 .1usft MD (1	-14,956.3 0395.0 TVD, -	-46.2 -14956.3 N, -4	392,866.00 5.8 E)	609,724.40	32° 4' 46.593 N	103° 58' 44.660 W
107H_LTP - plan hits target cen - Point	0.00 ter	0.00	10,395.0	-14,906.3	-46.1	392,916.00	609,724.50	32° 4' 47.087 N	103° 58' 44.657 W

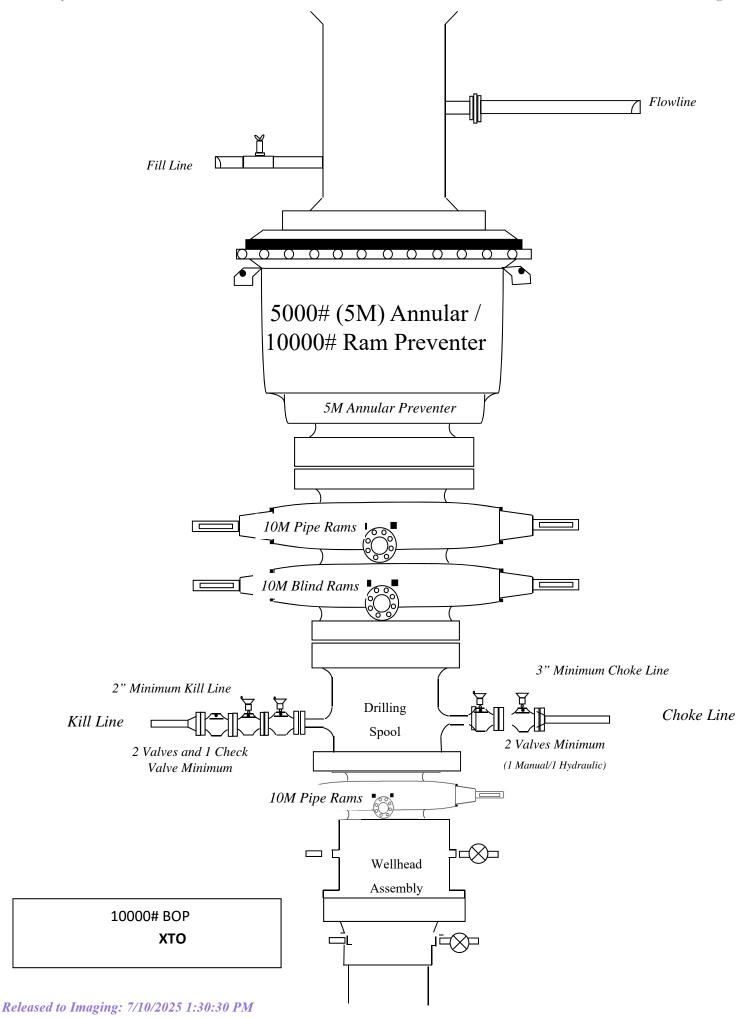
ormations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	781.0	781.0	Salado			
	2,925.0	2,925.0	Base of Salt			
	3,112.0	3,112.0	Delaware			
	4,008.7	3,988.0	Cherry Canyon			
	5,721.1	5,596.0	Brushy Canyon			
	6,829.7	6,637.0	Basal Brushy Canyon			
	7,079.9	6,876.0	Bone Spring Lm.			
	7,232.9	7,025.0	Avalon Shale			
	7,668.8	7,457.0	Avalon Lower			
	7,851.8	7,640.0	1st Bone Spring Lime			
	7,999.8	7,788.0	1st Bone Spring Sand			
	8,408.8	8,197.0	2nd Bone Spring Lime			
	8,855.8	8,644.0	2nd Bone Spring Sand			
	9,081.8	8,870.0	2nd Bone Spring Sand_Base B			
	9,280.8	9,069.0	3rd Bone Spring Lime			
	9,452.8	9,241.0	Harkey			
	9,486.8	9,275.0	3rd Bone Spring Upper Shale			
	9,706.8	9,495.0	3rd Bone Spring Upper Shale Base			
	9,757.8	9,546.0	3rd Bone Spring Lower Shale			
	9,853.8	9,642.0	3rd Bone Spring Lower Shale Marker			
	9,918.8	9,707.0	3rd Bone Spring Sand			
	10,117.6	9,902.0				
	10,204.8	9,983.0	Red Hills			
	10,292.6	10,060.0	Wolfcamp			
	10,317.7	10,081.0	Wolfcamp X			
	10,421.0	10,162.0	Wolfcamp Y			
	10,467.1	10,195.0	•			
	11,015.6	10,395.0	Landing			

Received by QCD: 6/3/2025 1:10:38 PM VVOII Name: Corral 22-34 Fed Com 107H





<u>Formation</u>	TVDSS (feet)	TVD (feet)
Salado	2,305'	781'
Base of Salt	161'	2,925'
Delaware	-26'	3,112'
Cherry Canyon	-902'	3,988'
Brushy Canyon	-2,510'	5,596'
Basal Brushy Canyon	-3,551'	6,637'
Bone Spring Lm.	-3,790'	6,876'
Avalon Shale	-3,939'	7,025'
Avalon Lower	-4,371'	7,457'
1st Bone Spring Lime	-4,554'	7,640'
1st Bone Spring Sand	-4,702'	7,788'
2nd Bone Spring Lime	-5,111'	8,197'
2nd Bone Spring Sand	-5,558'	8,644'
2nd Bone Spring Sand_Base B	-5,784'	8,870'
3rd Bone Spring Lime	-5,983'	9,069'
Harkey	-6,155'	9,241'
3rd Bone Spring Upper Shale	-6,189'	9,275'
3rd Bone Spring Upper Shale Base	-6,409'	9,495'
3rd Bone Spring Lower Shale	-6,460'	9,546'
3rd Bone Spring Lower Shale Marker	-6,556'	9,642'
3rd Bone Spring Sand	-6,621'	9,707'
Warwink	-6,816'	9,902'
Red Hills	-6,897'	9,983'
Wolfcamp	-6,974'	10,060'
Wolfcamp X	-6,995'	10,081'
Wolfcamp Y	-7,076'	10,162'
Wolfcamp A	-7,109'	10,195'
Landing	-7,309'	10,395'
Wolfcamp B	-7,439'	10,525'



ALL DIMENSIONS APPROXIMA

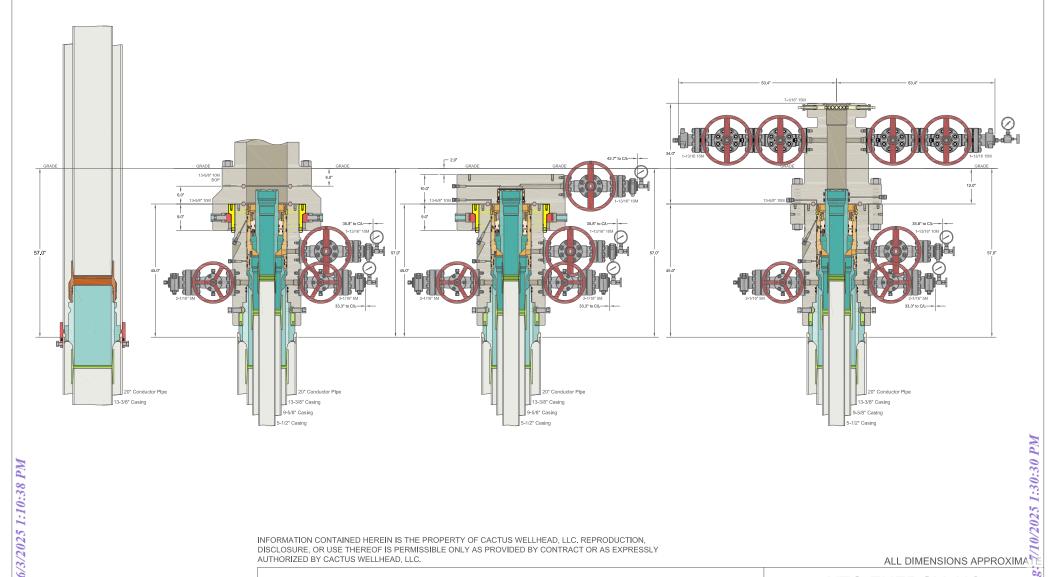
# CACTUS WELLHEAD LLC

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

	XTO ENERGY INC DELAWARE BASIN					
DRAWN	VJK	31MAR2				
APPRV						

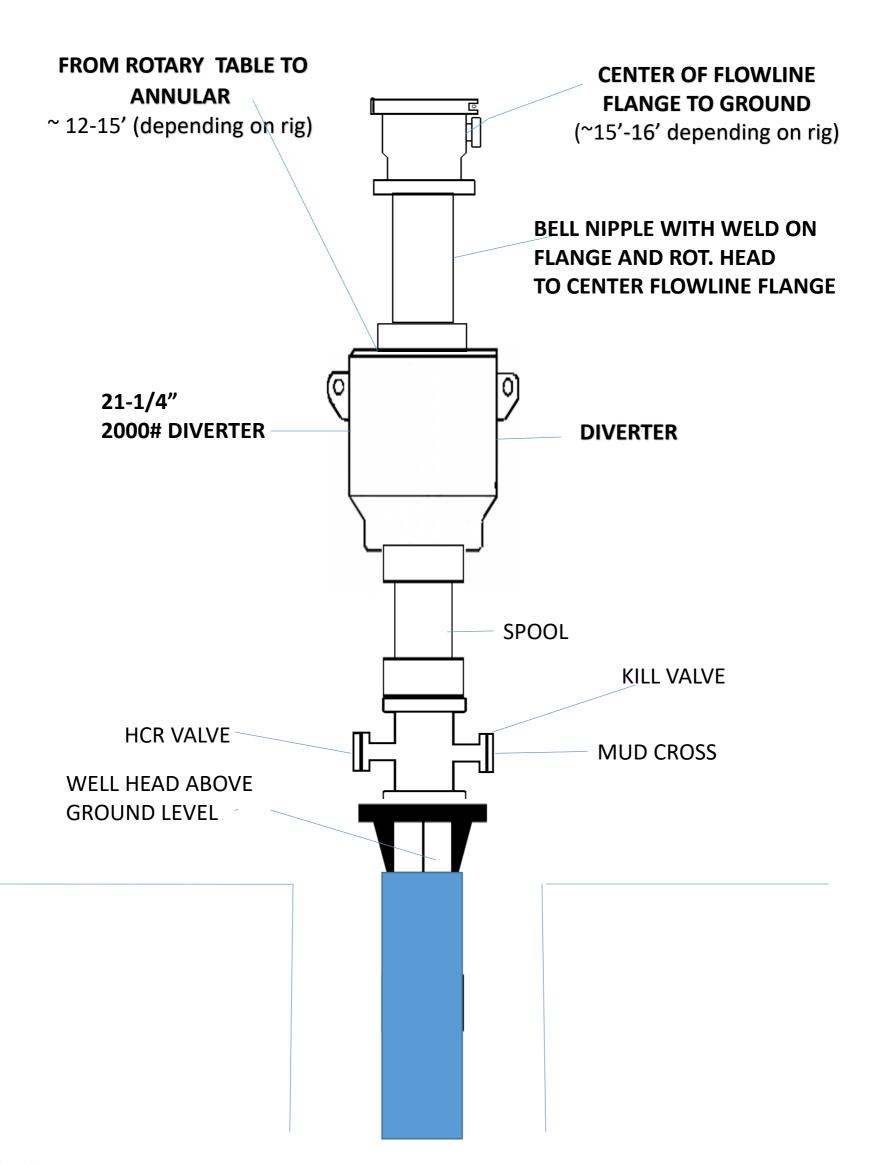
DRAWING NO. HBE0000479

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CACTUS WELLHEAD LLC	XTO ENERGY INC DELAWARE BASIN			
(20") x 13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead	DRAWN	VJK	31MAR22	
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head	APPRV		sea	
		ODT 00		
And Drilling & Skid Configurations	DRAWING N	o. <b>SDT-2</b>	856	



Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

### **Background**

Onshore Oil and Gas Order CFR Title 43 Part 3170, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. CFR Title 43 Part 3170 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

### **Supporting Documentation**

CFR Title 43 Part 3170 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since CFR Title 43 Part 3170 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. CFR Title 43 Part 3170recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

lac	l C.4—Initial Pressure 16	esting, Surface BOP Stacks	-High Pressure <sup>ac</sup>
Component to be Pressure Tested	Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventerb	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>bd</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokese	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or M whichever is lower	MASP for the well program,
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	
Annular(s) and VBR(s) shall be pre For pad drilling operations, moving	during the evaluation period. The passure tested on the largest and sm	oressure shall not decrease below the allest OD drill pipe to be used in well n the 21 days, pressure testing is req	program.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 Oand often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

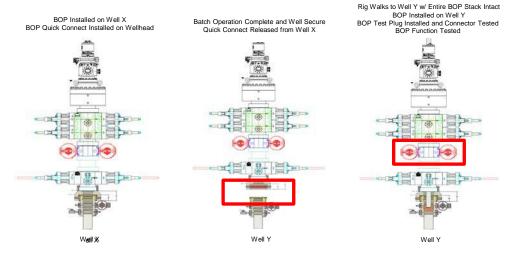
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

### **Procedures**

- 1. XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
- 2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
  - a. A full BOP test will be conducted on the first well on the pad.
  - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
    - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
    - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
  - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
  - d. A full BOP test will be required prior to drilling any production hole.
- 3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
  - a. Between the HCV valve and choke line connection
  - b. Between the BOP quick connect and the wellhead
- 4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
- 5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
- 6. The connections mentioned in 3a and 3b will then be reconnected.
- 7. Install test plug into the wellhead using test joint or drill pipe.
- 8. A shell test is performed against the upper pipe rams testing the two breaks.
- 9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
- 10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

- 11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
- 12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



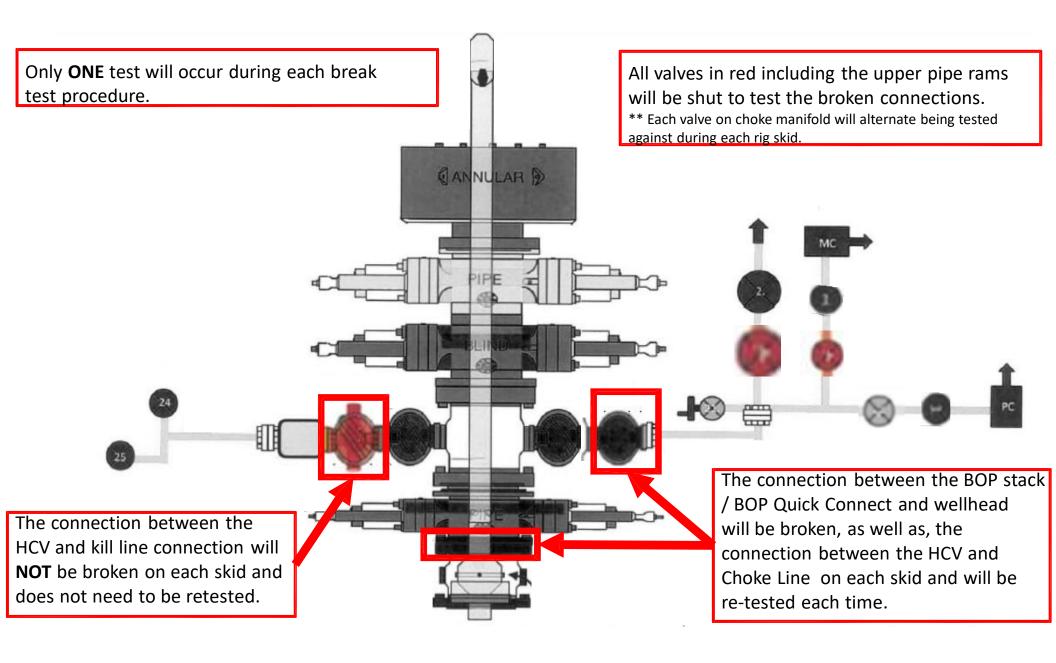
### **Summary**

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

- 1. After a full BOP test is conducted on the first well on the pad.
- 2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
- 3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
- 4. Full BOP test will be required prior to drilling the production hole.



### **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

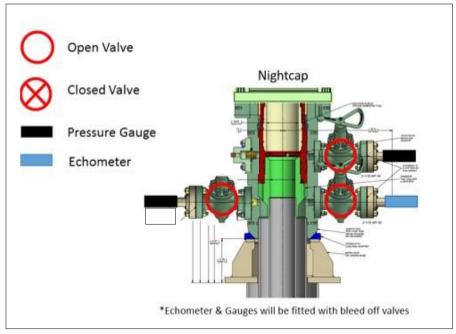
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

- 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

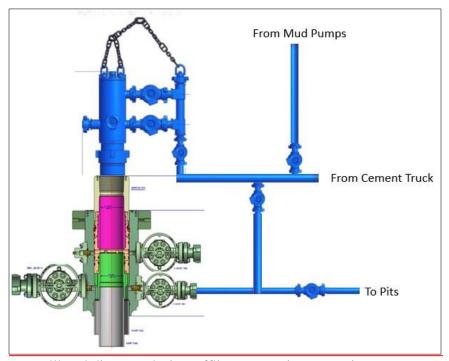
### **XTO Permian Operating, LLC Offline Cementing Variance Request**



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.



**GATES ENGINEERING & SERVICES NORTH AMERICA** 

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EMAIL: gesna.quality@gates.com

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	ICT	ON	AF	D.	
C	131	OI	AIL	n.	

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 #:

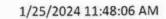
74621 H3-012524-1

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:

Part number:

74621/66-1531

Sales order #:

529480 FG1213

Hose ID:

3" 16C CK

**TEST INFORMATION** 

Customer reference:

Test procedure:

GTS-04-053

Fitting 1:

Test pressure:

15000.00 3600.00

Part number:

3.0 x 4-1/16 10K

Test pressure hold: Work pressure:

Description:

sec 10000.00 psi

Fitting 2:

3.0 x 4-1/16 10K

Work pressure hold: Length difference:

Length difference:

Pressure test result:

900.00 0.00

sec % inch

psi

Part number: Description:

Visual check:

PASS

0.00

Length measurement result:

Length:

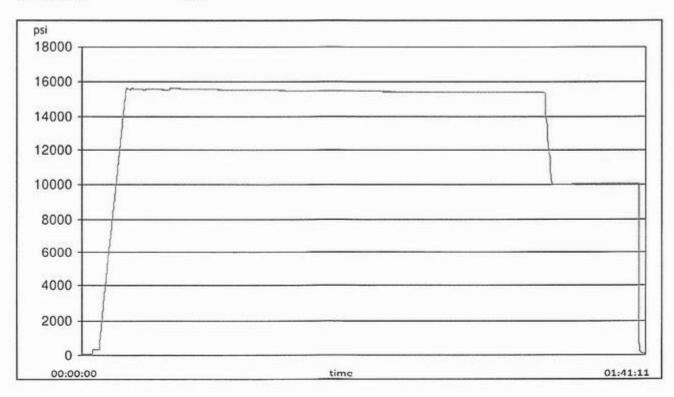
45

feet

n . . . . /n

Test operator:

Travis





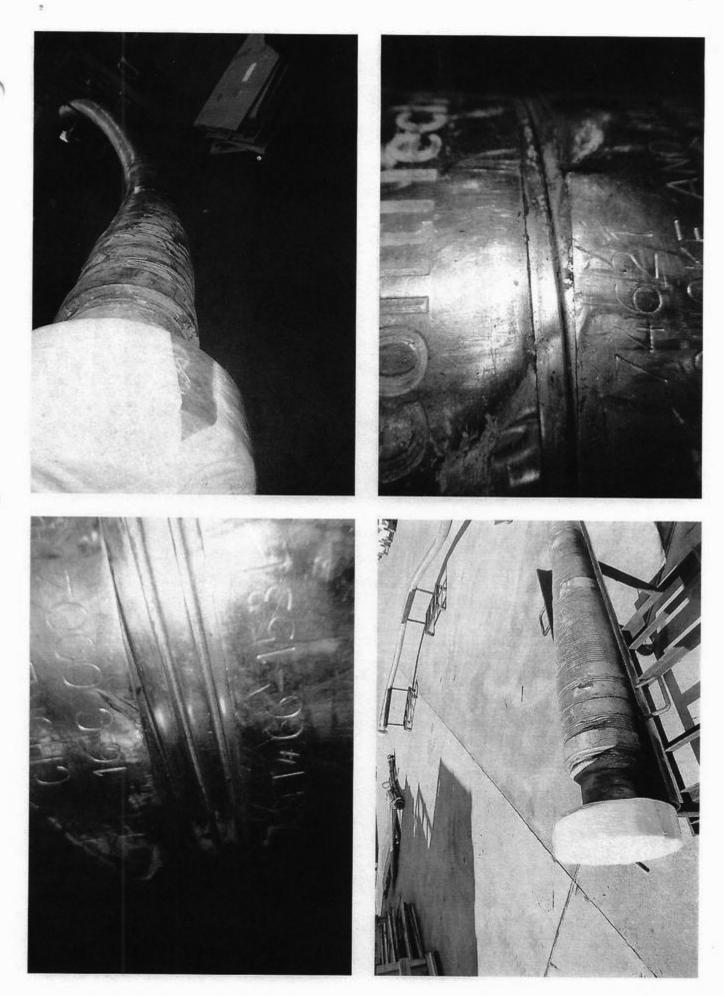
H3-15/16

1/25/2024 11:48:06 AM

### **TEST REPORT**

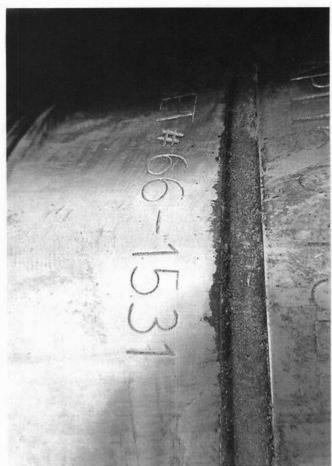
### **GAUGE TRACEABILITY**

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			

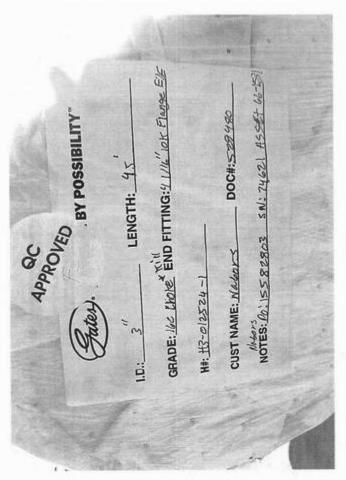


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Released to Imaging: 7/10/2025 1:30:30 PM

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

### Description of Operations:

- 1. 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.

**Tenaris** 

 $\mathsf{TPN}^{^{\mathsf{TM}}}$ 



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

100 %
641 x1000 lb
12,640 psi
100 %
641 x1000 lb
92 °/100 ft
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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PI/CII

# TenarisHydril Wedge 441®



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

4th Band: 
5th Band: 
6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-ICY
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	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 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	594 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	81.50 %
Compression Strength	594 x1000 lb
Max. Allowable Bending	84.76 °/100 ft
External Pressure Capacity	12,300 psi

Make-Up Torques	
Minimum	15,000 ft-lb
Optimum	16,000 ft-lb
Maximum	19,200 ft-lb
Operation Limit Torques	
Operating Torque	36,000 ft-lb
Yield Torque	42,000 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

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 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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# 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

61.10 %
417 x1000 lb
6890 psi
73.80 %
504 x1000 lb
29.33 °/100 ft
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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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 470358

### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	470358
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

### CONDITIONS

	Created By	Condition	Condition Date
Ī	ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	7/10/2025