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

# Sundry Print Report

06/03/2024

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Location:** T23S / R31E / SEC 6 / LOT 4 / 32.340052 / -103.822053

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

**Well Number:** 705H

**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM02953C

**Unit or CA Name:** JAMES RANCH UNIT

**Unit or CA Number:** NMNM70965X

**US Well Number:** 3001554876

**Operator:** XTO PERMIAN OPERATING LLC

## Notice of Intent

**Sundry ID:** 2785647

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 04/17/2024

**Time Sundry Submitted:** 02:09

**Date proposed operation will begin:** 05/15/2024

**Procedure Description:** XTO Permian Operating, LLC. respectfully requests approval to make changes to the approved APD as follows: SHL, FTP, LTP, BHL, proposed total depth, formation and pool. FROM: TO: SHL: 260' FNL & 1099' FWL of Section 6-T23S-R31E 260' FNL & 1009' FWL of Section 6-T23S-R31E FTP: 700' FSL & 2310' FEL of Section 31-T22S-R31E 330' FNL & 550' FWL of Section 6-T23S-R31E PPP 1-2: 2636' FNL & 2313' FEL of Section 6-T23S-R31E 2637' FNL & 550' FWL of Section 6-T23S-R31E PPP 1-3: 0' FNL & 2313' FEL of Section 7-T23S-R31E 0' FNL & 550' FWL of Section 7-T23S-R31E LTP: 2541' FNL & 2310' FEL of Section 18-T23S-R31E 2529' FNL & 550' FWL of Section 18-T23S-R31E BHL: 2591' FNL & 2310' FEL of Section 18-T23S-R31E 2579' FNL & 550' FWL of Section 18-T23S-R31E Proposed total depth will change from 24446’ MD; 9977’ TVD (Bone Spring) to 23719’ MD; 11182’ TVD (Wolfcamp). Pool will be changing from Los Medanos; Bone Spring to Los Medanos; Wolfcamp, South. Casing and cement program is being updated and is shown in the attached drilling plan. ATTACHMENTS: C-102, Drilling Plan, Directional Plan, MBS, Casing Spec Sheets

## NOI Attachments

**Procedure Description**

Wedge_441__5.500_0.361_P110_CY_12142023_20240417140824.pdf

Talon_HTQ_RD_5.5000_20.0000_0.3610__P110_RY_20240417140824.pdf

Wedge_461__5.500_0.361_P110_CY_01292024_20240417140824.pdf

4_String_Slimhole_SDT_3301_1_20240417140809.pdf

JRU_DI_7_Sawtooth_705H_Directional_Plan_8_29_2023_20240417140755.pdf

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Location:** T23S / R31E / SEC 6 / LOT 4 / 32.340052 / -103.822053

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

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**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

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**Unit or CA Name:** JAMES RANCH UNIT

**Unit or CA Number:** NMNM70965X

**US Well Number:** 3001554876

**Operator:** XTO PERMIAN OPERATING LLC

JRU_DI7_Sawtooth_705H_Drilling_Plan_20240417140743.pdf

JRU_DI_7_SAWTOOTH_705H_C_102_signed_4_3_2024_20240417140730.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:** RANELL (RUSTY) KLEIN

**Signed on:** MAY 10, 2024 09:04 AM

**Name:** XTO PERMIAN OPERATING LLC

**Title:** Regulatory Analyst

**Street Address:** 6401 HOLIDAY HILL ROAD BLDG 5

**City:** MIDLAND **State:** TX

**Phone:** (432) 620-6700

**Email address:** RANELL.KLEIN@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:** 05/30/2024

**Signature:** Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

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

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

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

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

## Additional Information

### Additional Remarks

from Los Medanos; Bone Spring to Los Medanos; Wolfcamp, South.

Casing and cement program is being updated and is shown in the attached drilling plan.

ATTACHMENTS: C-102, Drilling Plan, Directional Plan, MBS, Casing Spec Sheets

### Location of Well

0. SHL: LOT 4 / 260 FNL / 1099 FWL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.340052 / LONG: -103.822053 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSE / 700 FSL / 2310 FEL / TWSP: 22S / RANGE: 31E / SECTION: 31 / LAT: 32.342678 / LONG: -103.81594 ( TVD: 9883 feet, MD: 10600 feet )

PPP: LOT 2 / 330 FNL / 2310 FEL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.34267 / LONG: -103.815936 ( TVD: 9893 feet, MD: 12000 feet )

PPP: NWSE / 2636 FNL / 2313 FEL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.333508 / LONG: -103.815921 ( TVD: 9910 feet, MD: 14600 feet )

PPP: NWNE / 0 FNL / 2313 FEL / TWSP: 23S / RANGE: 31E / SECTION: 7 / LAT: 32.326248 / LONG: -103.815907 ( TVD: 9928 feet, MD: 17200 feet )

BHL: SENW / 2591 FNL / 2310 FEL / TWSP: 23S / RANGE: 31E / SECTION: 18 / LAT: 32.304611 / LONG: -103.815864 ( TVD: 9977 feet, MD: 24446 feet )

Tenaris

# TenarisHydril Wedge 441®

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

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

## Pipe Body Data

| Geometry | | | | Performance | |
|---|---|---|---|---|---|
| **Nominal OD** | 5.500 in. | **Wall Thickness** | 0.361 in. | **Body Yield Strength** | 641 x1000 lb |
| **Nominal Weight** | 20.00 lb/ft | **Plain End Weight** | 19.83 lb/ft | **Min. Internal Yield Pressure** | 12,640 psi |
| **Drift** | 4.653 in. | **OD Tolerance** | API | **SMYS** | 110,000 psi |
| **Nominal ID** | 4.778 in. | | | **Collapse Pressure** | 11,100 psi |

## Connection Data

| Geometry | | Performance | | Make-Up Torques | |
|---|---|---|---|---|---|
| **Connection OD** | 5.852 in. | **Tension Efficiency** | 81.50 % | **Minimum** | 15,000 ft-lb |
| **Coupling Length** | 8.714 in. | **Joint Yield Strength** | 522 x1000 lb | **Optimum** | 16,000 ft-lb |
| **Connection ID** | 4.778 in. | **Internal Pressure Capacity** | 12,640 psi | **Maximum** | 19,200 ft-lb |
| **Make-up Loss** | 3.780 in. | **Compression Efficiency** | 81.50 % | | |
| **Threads per inch** | 3.40 | **Compression Strength** | 522 x1000 lb | **Operation Limit Torques** | |
| **Connection OD Option** | Regular | **Max. Allowable Bending** | 72.59 °/100 ft | **Operating Torque** | 32,000 ft-lb |
| | | **External Pressure Capacity** | 11,100 psi | **Yield Torque** | 38,000 ft-lb |
| | | | | **Buck-On** | |
| | | | | **Minimum** | 19,200 ft-lb |
| | | | | **Maximum** | 20,700 ft-lb |

## Notes

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

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

# U. S. Steel Tubular Products

11/29/2021 4:16:04 PM

## 5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-TALON HTQ™ RD

| MECHANICAL PROPERTIES | Pipe | USS-TALON HTQ™ RD | | [6] |
|---|---|---|---|---|
| Minimum Yield Strength | 110,000 | -- | psi | -- |
| Maximum Yield Strength | 125,000 | -- | psi | -- |
| Minimum Tensile Strength | 125,000 | -- | psi | -- |
| **DIMENSIONS** | **Pipe** | **USS-TALON HTQ™ RD** | | **--** |
| Outside Diameter | 5.500 | 5.900 | in. | -- |
| Wall Thickness | 0.361 | -- | in. | -- |
| Inside Diameter | 4.778 | 4.778 | in. | -- |
| Standard Drift | 4.653 | 4.653 | in. | -- |
| Alternate Drift | -- | -- | in. | -- |
| Nominal Linear Weight, T&C | 20.00 | -- | lb/ft | -- |
| Plain End Weight | 19.83 | -- | lb/ft | -- |
| **SECTION AREA** | **Pipe** | **USS-TALON HTQ™ RD** | | **--** |
| Critical Area | 5.828 | 5.828 | sq. in. | -- |
| Joint Efficiency | -- | 100.0 | % | [2] |
| **PERFORMANCE** | **Pipe** | **USS-TALON HTQ™ RD** | | **--** |
| Minimum Collapse Pressure | 11,100 | 11,100 | psi | -- |
| Minimum Internal Yield Pressure | 12,640 | 12,640 | psi | -- |
| Minimum Pipe Body Yield Strength | 641,000 | -- | lb | -- |
| Joint Strength | -- | 641,000 | lb | -- |
| Compression Rating | -- | 641,000 | lb | -- |
| Reference Length | -- | 21,370 | ft | [5] |
| Maximum Uniaxial Bend Rating | -- | 91.7 | deg/100 ft | [3] |
| **MAKE-UP DATA** | **Pipe** | **USS-TALON HTQ™ RD** | | **--** |
| Make-Up Loss | -- | 5.58 | in. | -- |
| Minimum Make-Up Torque | -- | 17,000 | ft-lb | [4] |
| Maximum Make-Up Torque | -- | 20,000 | ft-lb | [4] |
| Maximum Operating Torque | -- | 39,500 | ft-lb | [4] |



## Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bend rating shown is structural only.
4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
6. Coupling must meet minimum mechanical properties of the pipe.



U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

Tenaris

# TenarisHydril Wedge 461®

| 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 | **Type** | Casing |
| **Connection OD Option** | REGULAR | | | | |

## Pipe Body Data

| Geometry | | | | Performance | |
|---|---|---|---|---|---|
| **Nominal OD** | 5.500 in. | **Wall Thickness** | 0.361 in. | **Body Yield Strength** | 641 x1000 lb |
| **Nominal Weight** | 20.00 lb/ft | **Plain End Weight** | 19.83 lb/ft | **Min. Internal Yield Pressure** | 12,640 psi |
| **Drift** | 4.653 in. | **OD Tolerance** | API | **SMYS** | 110,000 psi |
| **Nominal ID** | 4.778 in. | | | **Collapse Pressure** | 11,100 psi |

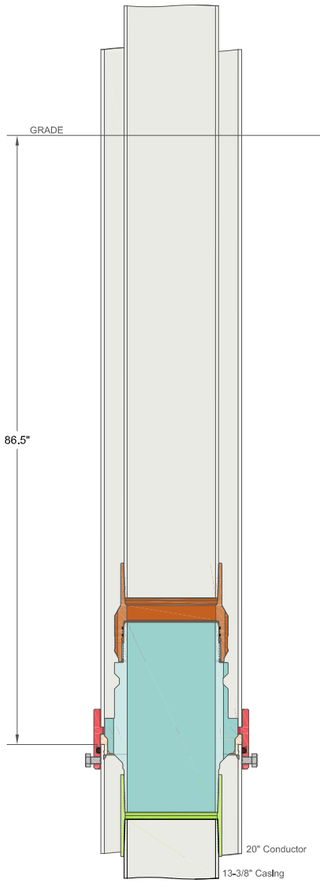
## Connection Data

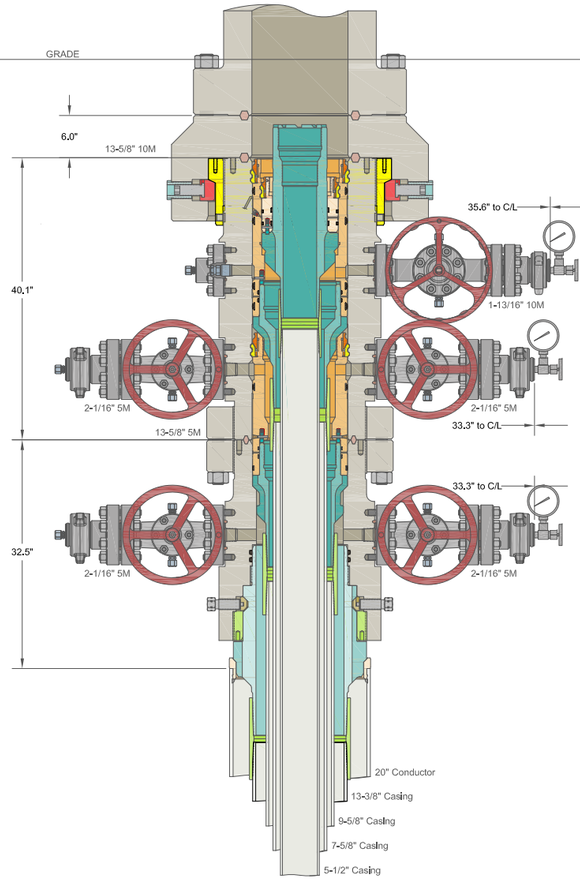
| Geometry | | Performance | | Make-Up Torques | |
|---|---|---|---|---|---|
| **Connection OD** | 6.300 in. | **Tension Efficiency** | 100 % | **Minimum** | 17,000 ft-lb |
| **Coupling Length** | 7.714 in. | **Joint Yield Strength** | 641 x1000 lb | **Optimum** | 18,000 ft-lb |
| **Connection ID** | 4.778 in. | **Internal Pressure Capacity** | 12,640 psi | **Maximum** | 21,600 ft-lb |
| **Make-up Loss** | 3.775 in. | **Compression Efficiency** | 100 % | | |
| **Threads per inch** | 3.40 | **Compression Strength** | 641 x1000 lb | **Operation Limit Torques** | |
| **Connection OD Option** | Regular | **Max. Allowable Bending** | 92 °/100 ft | **Operating Torque** | 39,000 ft-lb |
| | | **External Pressure Capacity** | 11,100 psi | **Yield Torque** | 46,000 ft-lb |
| | | **Coupling Face Load** | 290,000 lb | **Buck-On** | |
| | | | | **Minimum** | 21,600 ft-lb |
| | | | | **Maximum** | 23,100 ft-lb |

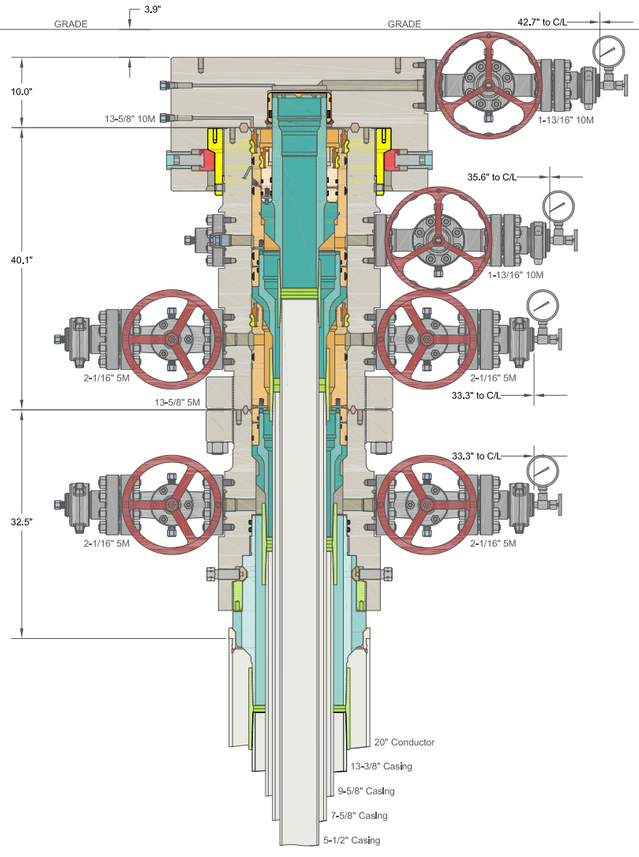
## Notes

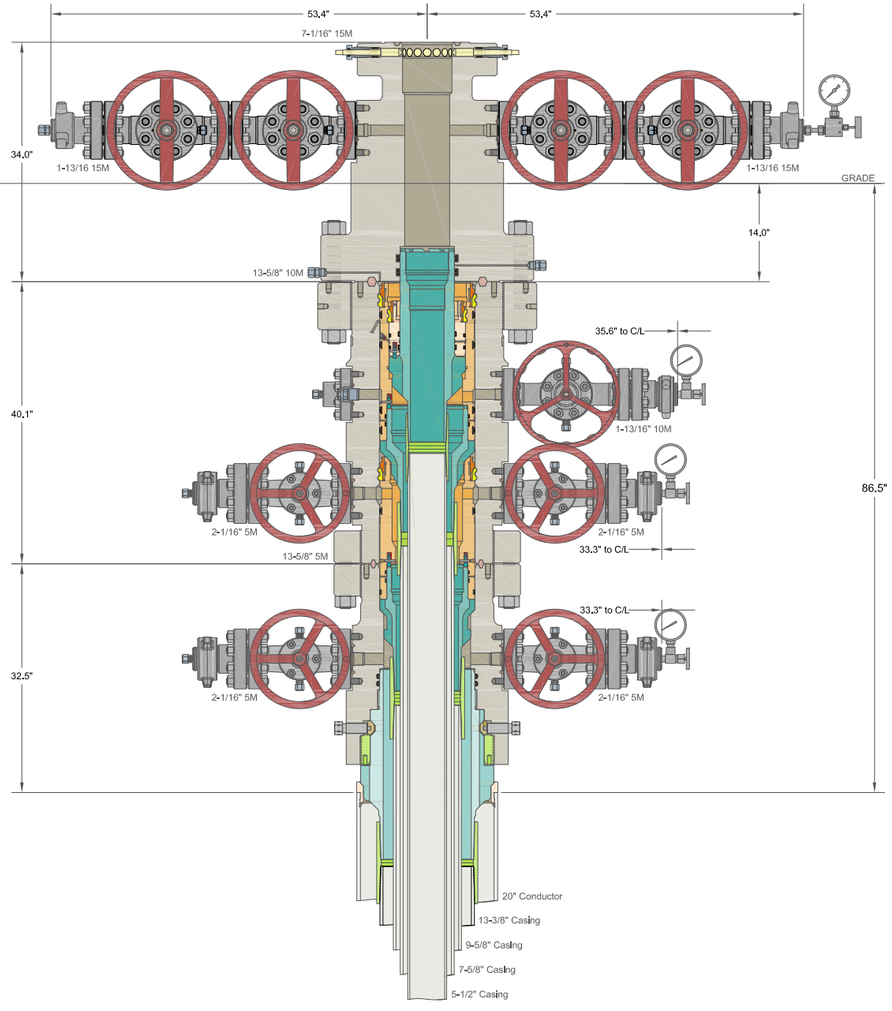
This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) in. (lb/ft)
Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.415 (23.00) / 0.476 (26.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable

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




ALL DIMENSIONS APPROXIMA

# CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And Drilling & Skid Configurations

| | | |
|---|---|---|
| DRAWN | VJK | 31MAR22 |
| APPRV | | |
| DRAWING NO. | SDT-3301 | |

# Long Lead_Well Planning

**EDDY**
**JRU DI 7 Pad A**
**JRU DI 7 Sawtooth 705H - Slot JRU DI 7 Sawtooth 705H**

**JRU DI 7 Sawtooth 705H**

**Plan: JRU DI 7 Sawtooth 705H**

# Standard Planning Report

**29 August, 2023**

# ExxonMobil

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

| **Project** | EDDY | | |
|---|---|---|---|
| **Map System:** | US State Plane 1927 (Exact solution) | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | NAD 1927 (NADCON CONUS) | | |
| **Map Zone:** | New Mexico East 3001 | | |

| **Site** | JRU DI 7 Pad A | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 487,864.80 usft | **Latitude:** | 32° 20' 24.785 N |
| **From:** | Map | **Easting:** | 658,059.20 usft | **Longitude:** | 103° 49' 17.618 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | | |

| **Well** | JRU DI 7 Sawtooth 705H - Slot JRU DI 7 Sawtooth 705H | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -104.9 usft | **Northing:** | 487,759.50 usft | **Latitude:** | 32° 20' 23.747 N |
| | **+E/-W** | -90.6 usft | **Easting:** | 657,969.10 usft | **Longitude:** | 103° 49' 18.674 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 3,315.0 usft |
| **Grid Convergence:** | | 0.27 ° | | | | |

| **Wellbore** | JRU DI 7 Sawtooth 705H | | | | |
|---|---|---|---|---|---|
| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
| | IGRF2020 | 8/11/2023 | 6.42 | 59.90 | 47,313.32926674 |

| **Design** | JRU DI 7 Sawtooth 705H | | | |
|---|---|---|---|---|
| **Audit Notes:** | | | | |
| **Version:** | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |

| **Vertical Section:** | **Depth From (TVD) (usft)** | **+N/-S (usft)** | **+E/-W (usft)** | **Direction (°)** |
|---|---|---|---|---|
| | 0.0 | -104.9 | -90.6 | 180.03 |

**Plan Survey Tool Program** **Date** 8/29/2023

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 23,719.2 | JRU DI 7 Sawtooth 705H (JRU D | XOM_R2OWSG MWD+IFR1+ OWSG MWD + IFR1 + Multi-St | |

# ExxonMobil

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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 | -104.9 | -90.6 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | -104.9 | -90.6 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 1,468.9 | 5.38 | 261.50 | 1,468.5 | -106.7 | -103.1 | 2.00 | 2.00 | 0.00 | 261.50 | | |
| 6,152.5 | 5.38 | 261.50 | 6,131.5 | -171.6 | -537.3 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 6,421.4 | 0.00 | 0.00 | 6,400.0 | -173.5 | -549.7 | 2.00 | -2.00 | 0.00 | 180.00 | | |
| 10,486.4 | 0.00 | 0.00 | 10,465.0 | -173.5 | -549.7 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 11,611.4 | 90.00 | 180.03 | 11,181.2 | -889.6 | -550.1 | 8.00 | 8.00 | -16.00 | 180.03 | | |
| 23,669.2 | 90.00 | 180.03 | 11,182.0 | -12,947.5 | -555.8 | 0.00 | 0.00 | 0.00 | 0.00 | LTP | 2-1 |
| 23,719.2 | 90.00 | 180.03 | 11,182.0 | -12,997.5 | -555.8 | 0.00 | 0.00 | 0.00 | 0.00 | BHL | 2-1 |

# ExxonMobil

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | -104.9 | -90.6 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | -104.9 | -90.6 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 2.00 | 261.50 | 1,300.0 | -105.1 | -92.3 | 0.3 | 2.00 | 2.00 | 0.00 |
| 1,400.0 | 4.00 | 261.50 | 1,399.8 | -105.9 | -97.5 | 1.0 | 2.00 | 2.00 | 0.00 |
| 1,468.9 | 5.38 | 261.50 | 1,468.5 | -106.7 | -103.1 | 1.9 | 2.00 | 2.00 | 0.00 |
| 1,500.0 | 5.38 | 261.50 | 1,499.5 | -107.2 | -106.0 | 2.3 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 5.38 | 261.50 | 1,599.0 | -108.5 | -115.2 | 3.7 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 5.38 | 261.50 | 1,698.6 | -109.9 | -124.5 | 5.1 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 5.38 | 261.50 | 1,798.1 | -111.3 | -133.8 | 6.5 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 5.38 | 261.50 | 1,897.7 | -112.7 | -143.0 | 7.9 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 5.38 | 261.50 | 1,997.3 | -114.1 | -152.3 | 9.3 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 5.38 | 261.50 | 2,096.8 | -115.5 | -161.6 | 10.6 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 5.38 | 261.50 | 2,196.4 | -116.9 | -170.9 | 12.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 5.38 | 261.50 | 2,295.9 | -118.2 | -180.1 | 13.4 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 5.38 | 261.50 | 2,395.5 | -119.6 | -189.4 | 14.8 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 5.38 | 261.50 | 2,495.1 | -121.0 | -198.7 | 16.2 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 5.38 | 261.50 | 2,594.6 | -122.4 | -207.9 | 17.6 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 5.38 | 261.50 | 2,694.2 | -123.8 | -217.2 | 19.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 5.38 | 261.50 | 2,793.7 | -125.2 | -226.5 | 20.4 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 5.38 | 261.50 | 2,893.3 | -126.6 | -235.7 | 21.8 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 5.38 | 261.50 | 2,992.9 | -127.9 | -245.0 | 23.2 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 5.38 | 261.50 | 3,092.4 | -129.3 | -254.3 | 24.5 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 5.38 | 261.50 | 3,192.0 | -130.7 | -263.6 | 25.9 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 5.38 | 261.50 | 3,291.5 | -132.1 | -272.8 | 27.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 5.38 | 261.50 | 3,391.1 | -133.5 | -282.1 | 28.7 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 5.38 | 261.50 | 3,490.7 | -134.9 | -291.4 | 30.1 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 5.38 | 261.50 | 3,590.2 | -136.3 | -300.6 | 31.5 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 5.38 | 261.50 | 3,689.8 | -137.6 | -309.9 | 32.9 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 5.38 | 261.50 | 3,789.3 | -139.0 | -319.2 | 34.3 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 5.38 | 261.50 | 3,888.9 | -140.4 | -328.4 | 35.7 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 5.38 | 261.50 | 3,988.5 | -141.8 | -337.7 | 37.1 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 5.38 | 261.50 | 4,088.0 | -143.2 | -347.0 | 38.4 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 5.38 | 261.50 | 4,187.6 | -144.6 | -356.3 | 39.8 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 5.38 | 261.50 | 4,287.1 | -145.9 | -365.5 | 41.2 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 5.38 | 261.50 | 4,386.7 | -147.3 | -374.8 | 42.6 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 5.38 | 261.50 | 4,486.3 | -148.7 | -384.1 | 44.0 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 5.38 | 261.50 | 4,585.8 | -150.1 | -393.3 | 45.4 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 5.38 | 261.50 | 4,685.4 | -151.5 | -402.6 | 46.8 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 5.38 | 261.50 | 4,784.9 | -152.9 | -411.9 | 48.2 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 5.38 | 261.50 | 4,884.5 | -154.3 | -421.2 | 49.6 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 5.38 | 261.50 | 4,984.1 | -155.6 | -430.4 | 51.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 5.38 | 261.50 | 5,083.6 | -157.0 | -439.7 | 52.3 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 5.38 | 261.50 | 5,183.2 | -158.4 | -449.0 | 53.7 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 5.38 | 261.50 | 5,282.7 | -159.8 | -458.2 | 55.1 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 5.38 | 261.50 | 5,382.3 | -161.2 | -467.5 | 56.5 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 5.38 | 261.50 | 5,481.9 | -162.6 | -476.8 | 57.9 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 5.38 | 261.50 | 5,581.4 | -164.0 | -486.0 | 59.3 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 5.38 | 261.50 | 5,681.0 | -165.3 | -495.3 | 60.7 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 5.38 | 261.50 | 5,780.5 | -166.7 | -504.6 | 62.1 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 5.38 | 261.50 | 5,880.1 | -168.1 | -513.9 | 63.5 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 5.38 | 261.50 | 5,979.7 | -169.5 | -523.1 | 64.9 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 5.38 | 261.50 | 6,079.2 | -170.9 | -532.4 | 66.2 | 0.00 | 0.00 | 0.00 |

# ExxonMobil

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 6,152.5 | 5.38 | 261.50 | 6,131.5 | -171.6 | -537.3 | 67.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 4.43 | 261.50 | 6,178.8 | -172.2 | -541.3 | 67.6 | 2.00 | -2.00 | 0.00 |
| 6,300.0 | 2.43 | 261.50 | 6,278.6 | -173.1 | -547.2 | 68.5 | 2.00 | -2.00 | 0.00 |
| 6,400.0 | 0.43 | 261.50 | 6,378.6 | -173.5 | -549.7 | 68.8 | 2.00 | -2.00 | 0.00 |
| 6,421.4 | 0.00 | 0.00 | 6,400.0 | -173.5 | -549.7 | 68.8 | 2.00 | -2.00 | 0.00 |
| 10,486.4 | 0.00 | 0.00 | 10,465.0 | -173.5 | -549.7 | 68.8 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 1.09 | 180.03 | 10,478.6 | -173.6 | -549.7 | 69.0 | 8.00 | 8.00 | 0.00 |
| 10,600.0 | 9.09 | 180.03 | 10,578.1 | -182.5 | -549.7 | 77.8 | 8.00 | 8.00 | 0.00 |
| 10,700.0 | 17.09 | 180.03 | 10,675.4 | -205.1 | -549.8 | 100.5 | 8.00 | 8.00 | 0.00 |
| 10,800.0 | 25.09 | 180.03 | 10,768.7 | -241.0 | -549.8 | 136.4 | 8.00 | 8.00 | 0.00 |
| 10,900.0 | 33.09 | 180.03 | 10,856.0 | -289.6 | -549.8 | 185.0 | 8.00 | 8.00 | 0.00 |
| 11,000.0 | 41.09 | 180.03 | 10,935.7 | -349.9 | -549.8 | 245.2 | 8.00 | 8.00 | 0.00 |
| 11,049.0 | 45.01 | 180.03 | 10,971.5 | -383.3 | -549.8 | 278.7 | 8.00 | 8.00 | 0.00 |
| **FTP 2-1** | | | | | | | | | |
| 11,100.0 | 49.09 | 180.03 | 11,006.2 | -420.6 | -549.9 | 316.0 | 8.00 | 8.00 | 0.00 |
| 11,200.0 | 57.09 | 180.03 | 11,066.2 | -500.5 | -549.9 | 395.9 | 8.00 | 8.00 | 0.00 |
| 11,300.0 | 65.09 | 180.03 | 11,114.6 | -588.0 | -549.9 | 483.4 | 8.00 | 8.00 | 0.00 |
| 11,400.0 | 73.09 | 180.03 | 11,150.2 | -681.3 | -550.0 | 576.7 | 8.00 | 8.00 | 0.00 |
| 11,500.0 | 81.09 | 180.03 | 11,172.5 | -778.7 | -550.0 | 674.1 | 8.00 | 8.00 | 0.00 |
| 11,600.0 | 89.09 | 180.03 | 11,181.1 | -878.3 | -550.1 | 773.6 | 8.00 | 8.00 | 0.00 |
| 11,611.4 | 90.00 | 180.03 | 11,181.2 | -889.6 | -550.1 | 785.0 | 8.00 | 8.00 | 0.00 |
| 11,700.0 | 90.00 | 180.03 | 11,181.2 | -978.3 | -550.1 | 873.6 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 180.03 | 11,181.2 | -1,078.3 | -550.2 | 973.6 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 180.03 | 11,181.2 | -1,178.3 | -550.2 | 1,073.6 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 180.03 | 11,181.2 | -1,278.3 | -550.3 | 1,173.6 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 180.03 | 11,181.2 | -1,378.3 | -550.3 | 1,273.6 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 180.03 | 11,181.2 | -1,478.3 | -550.4 | 1,373.6 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 180.03 | 11,181.2 | -1,578.3 | -550.4 | 1,473.6 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 180.03 | 11,181.2 | -1,678.3 | -550.4 | 1,573.6 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 180.03 | 11,181.3 | -1,778.3 | -550.5 | 1,673.6 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 180.03 | 11,181.3 | -1,878.3 | -550.5 | 1,773.6 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 180.03 | 11,181.3 | -1,978.3 | -550.6 | 1,873.6 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 180.03 | 11,181.3 | -2,078.3 | -550.6 | 1,973.6 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 180.03 | 11,181.3 | -2,178.3 | -550.7 | 2,073.6 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 180.03 | 11,181.3 | -2,278.3 | -550.7 | 2,173.6 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 180.03 | 11,181.3 | -2,378.3 | -550.8 | 2,273.6 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 180.03 | 11,181.3 | -2,478.3 | -550.8 | 2,373.6 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 180.03 | 11,181.3 | -2,578.3 | -550.9 | 2,473.6 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 180.03 | 11,181.3 | -2,678.3 | -550.9 | 2,573.6 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 180.03 | 11,181.3 | -2,778.3 | -551.0 | 2,673.6 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 180.03 | 11,181.3 | -2,878.3 | -551.0 | 2,773.6 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 180.03 | 11,181.3 | -2,978.3 | -551.1 | 2,873.6 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 180.03 | 11,181.3 | -3,078.3 | -551.1 | 2,973.6 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 180.03 | 11,181.3 | -3,178.3 | -551.2 | 3,073.6 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 180.03 | 11,181.4 | -3,278.3 | -551.2 | 3,173.6 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 180.03 | 11,181.4 | -3,378.3 | -551.3 | 3,273.6 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 180.03 | 11,181.4 | -3,478.3 | -551.3 | 3,373.6 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 180.03 | 11,181.4 | -3,578.3 | -551.3 | 3,473.6 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 180.03 | 11,181.4 | -3,678.3 | -551.4 | 3,573.6 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 180.03 | 11,181.4 | -3,778.3 | -551.4 | 3,673.6 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 180.03 | 11,181.4 | -3,878.3 | -551.5 | 3,773.6 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 180.03 | 11,181.4 | -3,978.3 | -551.5 | 3,873.6 | 0.00 | 0.00 | 0.00 |

# ExxonMobil

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 14,800.0 | 90.00 | 180.03 | 11,181.4 | -4,078.3 | -551.6 | 3,973.6 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 180.03 | 11,181.4 | -4,178.3 | -551.6 | 4,073.6 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 180.03 | 11,181.4 | -4,278.3 | -551.7 | 4,173.6 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 180.03 | 11,181.4 | -4,378.3 | -551.7 | 4,273.6 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 180.03 | 11,181.4 | -4,478.3 | -551.8 | 4,373.6 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 180.03 | 11,181.4 | -4,578.3 | -551.8 | 4,473.6 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 180.03 | 11,181.4 | -4,678.3 | -551.9 | 4,573.6 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 180.03 | 11,181.5 | -4,778.3 | -551.9 | 4,673.6 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 180.03 | 11,181.5 | -4,878.3 | -552.0 | 4,773.6 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 180.03 | 11,181.5 | -4,978.3 | -552.0 | 4,873.6 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 180.03 | 11,181.5 | -5,078.3 | -552.1 | 4,973.6 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 180.03 | 11,181.5 | -5,178.3 | -552.1 | 5,073.6 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 180.03 | 11,181.5 | -5,278.3 | -552.2 | 5,173.6 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 180.03 | 11,181.5 | -5,378.3 | -552.2 | 5,273.6 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 180.03 | 11,181.5 | -5,478.3 | -552.2 | 5,373.6 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 180.03 | 11,181.5 | -5,578.3 | -552.3 | 5,473.6 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 180.03 | 11,181.5 | -5,678.3 | -552.3 | 5,573.6 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 180.03 | 11,181.5 | -5,778.3 | -552.4 | 5,673.6 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 180.03 | 11,181.5 | -5,878.3 | -552.4 | 5,773.6 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 180.03 | 11,181.5 | -5,978.3 | -552.5 | 5,873.6 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 90.00 | 180.03 | 11,181.5 | -6,078.3 | -552.5 | 5,973.6 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 180.03 | 11,181.5 | -6,178.3 | -552.6 | 6,073.6 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 180.03 | 11,181.6 | -6,278.3 | -552.6 | 6,173.6 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 180.03 | 11,181.6 | -6,378.3 | -552.7 | 6,273.6 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 180.03 | 11,181.6 | -6,478.3 | -552.7 | 6,373.6 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 90.00 | 180.03 | 11,181.6 | -6,578.3 | -552.8 | 6,473.6 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 180.03 | 11,181.6 | -6,678.3 | -552.8 | 6,573.6 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 180.03 | 11,181.6 | -6,778.3 | -552.9 | 6,673.6 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 180.03 | 11,181.6 | -6,878.3 | -552.9 | 6,773.6 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 90.00 | 180.03 | 11,181.6 | -6,978.3 | -553.0 | 6,873.6 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 90.00 | 180.03 | 11,181.6 | -7,078.3 | -553.0 | 6,973.6 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 90.00 | 180.03 | 11,181.6 | -7,178.3 | -553.0 | 7,073.6 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 90.00 | 180.03 | 11,181.6 | -7,278.3 | -553.1 | 7,173.6 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 90.00 | 180.03 | 11,181.6 | -7,378.3 | -553.1 | 7,273.6 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 90.00 | 180.03 | 11,181.6 | -7,478.3 | -553.2 | 7,373.6 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 90.00 | 180.03 | 11,181.6 | -7,578.3 | -553.2 | 7,473.6 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 90.00 | 180.03 | 11,181.6 | -7,678.3 | -553.3 | 7,573.6 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 90.00 | 180.03 | 11,181.7 | -7,778.3 | -553.3 | 7,673.6 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 90.00 | 180.03 | 11,181.7 | -7,878.3 | -553.4 | 7,773.6 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 90.00 | 180.03 | 11,181.7 | -7,978.3 | -553.4 | 7,873.6 | 0.00 | 0.00 | 0.00 |
| 18,800.0 | 90.00 | 180.03 | 11,181.7 | -8,078.3 | -553.5 | 7,973.6 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 90.00 | 180.03 | 11,181.7 | -8,178.3 | -553.5 | 8,073.6 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 90.00 | 180.03 | 11,181.7 | -8,278.3 | -553.6 | 8,173.6 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 90.00 | 180.03 | 11,181.7 | -8,378.3 | -553.6 | 8,273.6 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 90.00 | 180.03 | 11,181.7 | -8,478.3 | -553.7 | 8,373.6 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 90.00 | 180.03 | 11,181.7 | -8,578.3 | -553.7 | 8,473.6 | 0.00 | 0.00 | 0.00 |
| 19,400.0 | 90.00 | 180.03 | 11,181.7 | -8,678.3 | -553.8 | 8,573.6 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 90.00 | 180.03 | 11,181.7 | -8,778.3 | -553.8 | 8,673.6 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 90.00 | 180.03 | 11,181.7 | -8,878.3 | -553.9 | 8,773.6 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 90.00 | 180.03 | 11,181.7 | -8,978.3 | -553.9 | 8,873.6 | 0.00 | 0.00 | 0.00 |
| 19,800.0 | 90.00 | 180.03 | 11,181.7 | -9,078.3 | -553.9 | 8,973.6 | 0.00 | 0.00 | 0.00 |
| 19,900.0 | 90.00 | 180.03 | 11,181.7 | -9,178.3 | -554.0 | 9,073.6 | 0.00 | 0.00 | 0.00 |

# ExxonMobil

## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 20,000.0 | 90.00 | 180.03 | 11,181.8 | -9,278.3 | -554.0 | 9,173.6 | 0.00 | 0.00 | 0.00 |
| 20,100.0 | 90.00 | 180.03 | 11,181.8 | -9,378.3 | -554.1 | 9,273.6 | 0.00 | 0.00 | 0.00 |
| 20,200.0 | 90.00 | 180.03 | 11,181.8 | -9,478.3 | -554.1 | 9,373.6 | 0.00 | 0.00 | 0.00 |
| 20,300.0 | 90.00 | 180.03 | 11,181.8 | -9,578.3 | -554.2 | 9,473.6 | 0.00 | 0.00 | 0.00 |
| 20,400.0 | 90.00 | 180.03 | 11,181.8 | -9,678.3 | -554.2 | 9,573.6 | 0.00 | 0.00 | 0.00 |
| 20,500.0 | 90.00 | 180.03 | 11,181.8 | -9,778.3 | -554.3 | 9,673.6 | 0.00 | 0.00 | 0.00 |
| 20,600.0 | 90.00 | 180.03 | 11,181.8 | -9,878.3 | -554.3 | 9,773.6 | 0.00 | 0.00 | 0.00 |
| 20,700.0 | 90.00 | 180.03 | 11,181.8 | -9,978.3 | -554.4 | 9,873.6 | 0.00 | 0.00 | 0.00 |
| 20,800.0 | 90.00 | 180.03 | 11,181.8 | -10,078.3 | -554.4 | 9,973.6 | 0.00 | 0.00 | 0.00 |
| 20,900.0 | 90.00 | 180.03 | 11,181.8 | -10,178.3 | -554.5 | 10,073.6 | 0.00 | 0.00 | 0.00 |
| 21,000.0 | 90.00 | 180.03 | 11,181.8 | -10,278.3 | -554.5 | 10,173.6 | 0.00 | 0.00 | 0.00 |
| 21,100.0 | 90.00 | 180.03 | 11,181.8 | -10,378.3 | -554.6 | 10,273.6 | 0.00 | 0.00 | 0.00 |
| 21,200.0 | 90.00 | 180.03 | 11,181.8 | -10,478.3 | -554.6 | 10,373.6 | 0.00 | 0.00 | 0.00 |
| 21,300.0 | 90.00 | 180.03 | 11,181.8 | -10,578.3 | -554.7 | 10,473.6 | 0.00 | 0.00 | 0.00 |
| 21,400.0 | 90.00 | 180.03 | 11,181.8 | -10,678.3 | -554.7 | 10,573.6 | 0.00 | 0.00 | 0.00 |
| 21,500.0 | 90.00 | 180.03 | 11,181.9 | -10,778.3 | -554.8 | 10,673.6 | 0.00 | 0.00 | 0.00 |
| 21,600.0 | 90.00 | 180.03 | 11,181.9 | -10,878.3 | -554.8 | 10,773.6 | 0.00 | 0.00 | 0.00 |
| 21,700.0 | 90.00 | 180.03 | 11,181.9 | -10,978.3 | -554.8 | 10,873.6 | 0.00 | 0.00 | 0.00 |
| 21,800.0 | 90.00 | 180.03 | 11,181.9 | -11,078.3 | -554.9 | 10,973.6 | 0.00 | 0.00 | 0.00 |
| 21,900.0 | 90.00 | 180.03 | 11,181.9 | -11,178.3 | -554.9 | 11,073.6 | 0.00 | 0.00 | 0.00 |
| 22,000.0 | 90.00 | 180.03 | 11,181.9 | -11,278.3 | -555.0 | 11,173.6 | 0.00 | 0.00 | 0.00 |
| 22,100.0 | 90.00 | 180.03 | 11,181.9 | -11,378.3 | -555.0 | 11,273.6 | 0.00 | 0.00 | 0.00 |
| 22,200.0 | 90.00 | 180.03 | 11,181.9 | -11,478.3 | -555.1 | 11,373.6 | 0.00 | 0.00 | 0.00 |
| 22,300.0 | 90.00 | 180.03 | 11,181.9 | -11,578.3 | -555.1 | 11,473.6 | 0.00 | 0.00 | 0.00 |
| 22,400.0 | 90.00 | 180.03 | 11,181.9 | -11,678.3 | -555.2 | 11,573.6 | 0.00 | 0.00 | 0.00 |
| 22,500.0 | 90.00 | 180.03 | 11,181.9 | -11,778.3 | -555.2 | 11,673.6 | 0.00 | 0.00 | 0.00 |
| 22,600.0 | 90.00 | 180.03 | 11,181.9 | -11,878.3 | -555.3 | 11,773.6 | 0.00 | 0.00 | 0.00 |
| 22,700.0 | 90.00 | 180.03 | 11,181.9 | -11,978.3 | -555.3 | 11,873.6 | 0.00 | 0.00 | 0.00 |
| 22,800.0 | 90.00 | 180.03 | 11,181.9 | -12,078.3 | -555.4 | 11,973.6 | 0.00 | 0.00 | 0.00 |
| 22,900.0 | 90.00 | 180.03 | 11,181.9 | -12,178.3 | -555.4 | 12,073.6 | 0.00 | 0.00 | 0.00 |
| 23,000.0 | 90.00 | 180.03 | 11,182.0 | -12,278.3 | -555.5 | 12,173.6 | 0.00 | 0.00 | 0.00 |
| 23,100.0 | 90.00 | 180.03 | 11,182.0 | -12,378.3 | -555.5 | 12,273.6 | 0.00 | 0.00 | 0.00 |
| 23,200.0 | 90.00 | 180.03 | 11,182.0 | -12,478.3 | -555.6 | 12,373.6 | 0.00 | 0.00 | 0.00 |
| 23,300.0 | 90.00 | 180.03 | 11,182.0 | -12,578.3 | -555.6 | 12,473.6 | 0.00 | 0.00 | 0.00 |
| 23,400.0 | 90.00 | 180.03 | 11,182.0 | -12,678.3 | -555.7 | 12,573.6 | 0.00 | 0.00 | 0.00 |
| 23,500.0 | 90.00 | 180.03 | 11,182.0 | -12,778.3 | -555.7 | 12,673.6 | 0.00 | 0.00 | 0.00 |
| 23,600.0 | 90.00 | 180.03 | 11,182.0 | -12,878.3 | -555.7 | 12,773.6 | 0.00 | 0.00 | 0.00 |
| 23,669.2 | 90.00 | 180.03 | 11,182.0 | -12,947.5 | -555.8 | 12,842.9 | 0.00 | 0.00 | 0.00 |
| **LTP 2-1** | | | | | | | | | |
| 23,700.0 | 90.00 | 180.03 | 11,182.0 | -12,978.3 | -555.8 | 12,873.6 | 0.00 | 0.00 | 0.00 |
| 23,719.2 | 90.00 | 180.03 | 11,182.0 | -12,997.5 | -555.8 | 12,892.9 | 0.00 | 0.00 | 0.00 |
| **BHL 2-1** | | | | | | | | | |

# ExxonMobil
Planning Report

| | | | |
|---|---|---|---|
| **Database:** | LMRKPROD3 | **Local Co-ordinate Reference:** | Site JRU DI 7 Pad A |
| **Company:** | Long Lead_Well Planning | **TVD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Project:** | EDDY | **MD Reference:** | JRU DI 7 Sawtooth 705H Default @ 3347.0usft |
| **Site:** | JRU DI 7 Pad A | **North Reference:** | True |
| **Well:** | JRU DI 7 Sawtooth 705H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | JRU DI 7 Sawtooth 705H | | |
| **Design:** | JRU DI 7 Sawtooth 705H | | |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| BHL 2-1<br>- plan hits target center<br>- Rectangle (sides W5.0 H5.0 D0.0) | 0.00 | 0.00 | 11,182.0 | -12,997.5 | -555.8 | 474,864.80 | 657,565.50 | 32° 18' 16.162 N | 103° 49' 24.093 W |
| LTP 2-1<br>- plan hits target center<br>- Rectangle (sides W5.0 H5.0 D0.0) | 0.00 | 0.00 | 11,182.0 | -12,947.5 | -555.8 | 474,914.80 | 657,565.30 | 32° 18' 16.657 N | 103° 49' 24.093 W |
| FTP 2-1<br>- plan misses target center by 297.2usft at 11049.0usft MD (10971.5 TVD, -383.3 N, -549.8 E)<br>- Rectangle (sides W5.0 H5.0 D0.0) | 0.00 | 0.00 | 11,182.0 | -173.5 | -549.7 | 487,688.70 | 657,510.30 | 32° 20' 23.068 N | 103° 49' 24.025 W |

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

XTO Energy Inc.
JRU DI 7 Sawtooth FED COM 705H
Projected TD: 23719.23' MD / 11182' TVD
SHL: 260' FNL & 1009' FWL , Section 6, T23S, R31E
BHL: 2579' FNL & 550' FWL , Section 18, T23S, R31E
Eddy County, NM

**1. Geologic Name of Surface Formation**

A. Quaternary

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

| Formation | Well Depth (TVD) | Water/Oil/Gas |
|---|---|---|
| Rustler | 230' | Water |
| Top of Salt | 577' | Water |
| Base of Salt | 3684' | Water |
| Delaware | 3917' | Water |
| Brushy Canyon | 6452' | Water/Oil/Gas |
| Bone Spring | 7745' | Water |
| 1st Bone Spring Ss | 8787' | Water/Oil/Gas |
| 2nd Bone Spring Ss | 9625' | Water/Oil/Gas |
| 3rd Bone Spring Sh | 10187' | Water/Oil/Gas |
| Wolfcamp | 11047' | Water/Oil/Gas |
| Wolfcamp X | 11062' | Water/Oil/Gas |
| Wolfcamp Y | 11128' | Water/Oil/Gas |
| Target/Land Curve | 11182' | Water/Oil/Gas |
| | | |

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 552' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 3784' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 7.625 inch casing at 10286' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 23719.23 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 9786 feet) per Potash regulations.

**3. Casing Design**

| Hole Size | MD | TVD | OD Csg | Weight | Grade | Collar | New/Used | SF Burst | SF Collapse | SF Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| 17.5 | 0' – 552' | 571' | 13.375 | 54.5 | J-55 | BTC | New | 2.41 | 4.63 | 30.22 |
| 12.25 | 0' – 3784' | 3688' | 9.625 | 40 | J-55 | BTC | New | 1.69 | 2.39 | 4.16 |
| 8.75 | 0' – 3884' | 3788' | 7.625 | 29.7 | RY P-110 | Flush Joint | New | 2.24 | 3.08 | 1.83 |
| 8.75 | 3884' – 10286' | 9502' | 7.625 | 29.7 | HC L-80 | Flush Joint | New | 1.63 | 3.52 | 2.14 |
| 6.75 | 0' – 10186' | 9409' | 5.5 | 20 | RY P-110 | Semi-Premium | New | 1.05 | 1.82 | 2.02 |
| 6.75 | 10186' - 23719.23' | 11182' | 5.5 | 20 | RY P-110 | Semi-Flush | New | 1.05 | 1.66 | 5.66 |

· Production casing meets the clearance requiremenets as tapered string crosses over before encountering the intermediate shoe, per Onshore Order 2.3.B.1
· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry
· 13.375 Collapse analyzed using 50% evacuation based on regional experience.
· 7.625 Collapse analyzed using 50% evacuation based on regional experience.
· 7.625 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

**Wellhead:**

*Permanent Wellhead – Multibowl System*
A. Starting Head: 13-5/8" 10M top flange x 13-3/8" bottom
B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange
· Wellhead will be installed by manufacturer's representatives.
· Manufacturer will monitor welding process to ensure appropriate temperature of seal.

**4. Cement Program**

***Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 552***

Lead: 180 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 250 psi 24 hr = 500 psi

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.

***1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3784***

Lead: 1570 sxs Class C (mixed at 12.9 ppg, 1.39 ft3/sx, 10.13 gal/sx water)
Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

***2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 10286***
*1st Stage*
Optional Lead: 150 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: 3584
Tail: 350 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6452
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

*2nd Stage*
Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)
Tail: 400 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: 0
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6452') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

***Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 23719.23***

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 9786 feet
Tail: 950 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10486 feet
Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO 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. XTO 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. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

**5. Pressure Control Equipment**

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4227 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13.375, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

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. Based on discussions with the BLM on February 27th 2020, 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. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

**6. Proposed Mud Circulation System**

| INTERVAL | Hole Size | Mud Type | MW (ppg) | Viscosity (sec/qt) | Fluid Loss (cc) |
|---|---|---|---|---|---|
| 0' - 552' | 17.5 | FW/Native | 8.5-9 | 35-40 | NC |
| 552' - 3784' | 12.25 | Brine | 10-10.5 | 30-32 | NC |
| 3784' to 10286' | 8.75 | BDE/OBM or FW/Brine | 8.6-9.1 | 30-32 | NC |
| 10286' to 23719.23' | 6.75 | OBM | 11.5-12 | 50-60 | NC - 20 |

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

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. Brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

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

A. A Kelly cock will be in the drill string at all times.
B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
C. H2S monitors will be on location when drilling below the 13.375 casing.

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

Open hole logging will not be done on this well.

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

None Anticipated. BHT of 175 to 195 F is anticipated. 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 could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6687 psi.

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

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

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District II
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District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☑ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| 30-015- 54876 | 96336 | LOS MEDANOS (WOLFCAMP) SOUTH |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| 333473 | JRU DI 7 SAWTOOTH | 705H |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 373075 | XTO PERMIAN OPERATING, LLC | 3,315' |

## [10] Surface Location

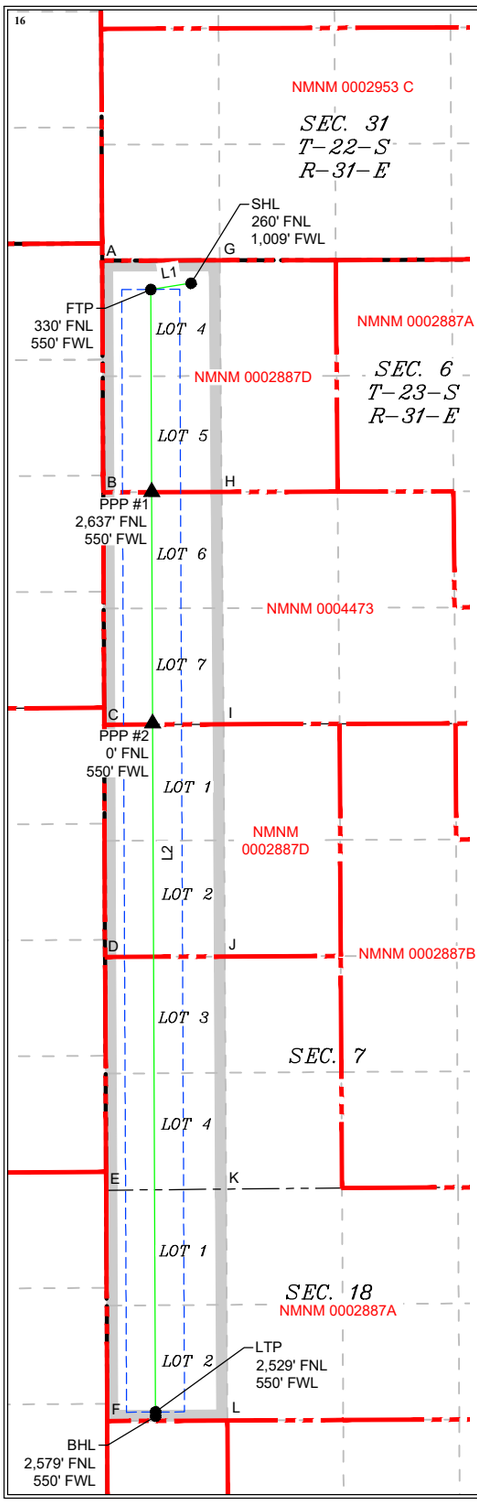
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 6 | 23 S | 31 E | | 260 | NORTH | 1,009 | WEST | EDDY |

## [11] Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| E | 18 | 23 S | 31 E | | 2,579 | NORTH | 550 | WEST | EDDY |

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| 411.44 | | | |

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.




| LINE TABLE | | |
|---|---|---|
| LINE | AZUMITH | LENGTH |
| L1 | 261°13'27" | 464.28' |
| L2 | 179°45'05" | 12,824.33' |

LOT ACREAGE TABLE

SECTION 6, T-23-S, R-31-E
LOT 4 = 40.45 ACRES
LOT 5 = 40.79 ACRES
LOT 6 = 40.96 ACRES
LOT 7 = 41.13 ACRES

SECTION 7, T-23-S, R-31-E
LOT 1 = 41.24 ACRES
LOT 2 = 41.29 ACRES
LOT 3 = 41.33 ACRES
LOT 4 = 41.38 ACRES

SECTION 18, T-23-S, R-31-E
LOT 1 = 41.42 ACRES
LOT 2 = 41.45 ACRES

LEGEND

- SECTION LINE
- WELL BORE
- NEW MEXICO MINERAL LEASE
- 330' BUFFER
- ALLOCATION AREA

COORDINATE TABLE

| SHL (NAD 83 NME) | FTP (NAD 83 NME) | PPP #1 (NAD 83 NME) |
|---|---|---|
| Y = 487,819.7 N | Y = 487,748.9 N | Y = 485,441.5 N |
| X = 699,151.3 E | X = 698,692.4 E | X = 698,702.4 E |
| LAT. = 32.340053 °N | LAT. = 32.339864 °N | LAT. = 32.333522 °N |
| LONG. = 103.822345 °W | LONG. = 103.823832 °W | LONG. = 103.823835 °W |
| **PPP #2 (NAD 83 NME)** | **LTP (NAD 83 NME)** | **BHL (NAD 83 NME)** |
| Y = 482,798.1 N | Y = 474,974.7 N | Y = 474,924.7 N |
| X = 698,713.9 E | X = 698,747.8 E | X = 698,748.1 E |
| LAT. = 32.326256 °N | LAT. = 32.304750 °N | LAT. = 32.304613 °N |
| LONG. = 103.823838 °W | LONG. = 103.823849 °W | LONG. = 103.823849 °W |
| **SHL (NAD 27 NME)** | **FTP (NAD 27 NME)** | **PPP #1 (NAD 27 NME)** |
| Y = 487,759.5 N | Y = 487,688.7 N | Y = 485,381.3 N |
| X = 657,969.1 E | X = 657,510.3 E | X = 657,520.2 E |
| LAT. = 32.339930 °N | LAT. = 32.339741 °N | LAT. = 32.333398 °N |
| LONG. = 103.821854 °W | LONG. = 103.823340 °W | LONG. = 103.823344 °W |
| **PPP #2 (NAD 27 NME)** | **LTP (NAD 27 NME)** | **BHL (NAD 27 NME)** |
| Y = 482,738.0 N | Y = 474,914.8 N | Y = 474,864.8 N |
| X = 657,531.6 E | X = 657,565.3 E | X = 657,565.5 E |
| LAT. = 32.326132 °N | LAT. = 32.304627 °N | LAT. = 32.304490 °N |
| LONG. = 103.823348 °W | LONG. = 103.823359 °W | LONG. = 103.823359 °W |

| CORNER COORDINATES (NAD 83 NME) | | CORNER COORDINATES (NAD 27 NME) | |
|---|---|---|---|
| A - Y = 488,077.9 N | A - X = 698,141.0 E | A - Y = 488,017.7 N | A - X = 656,958.9 E |
| B - Y = 485,439.9 N | B - X = 698,152.5 E | B - Y = 485,379.8 N | B - X = 656,970.3 E |
| C - Y = 482,796.1 N | C - X = 698,163.6 E | C - Y = 482,736.0 N | C - X = 656,981.4 E |
| D - Y = 480,152.5 N | D - X = 698,173.3 E | D - Y = 480,092.5 N | D - X = 656,990.9 E |
| E - Y = 477,498.8 N | E - X = 698,186.6 E | E - Y = 477,438.8 N | E - X = 657,004.1 E |
| F - Y = 474,872.2 N | F - X = 698,198.3 E | F - Y = 474,812.3 N | F - X = 657,015.7 E |
| G - Y = 488,080.3 N | G - X = 699,478.5 E | G - Y = 488,020.1 N | G - X = 658,296.4 E |
| H - Y = 485,443.7 N | H - X = 699,500.8 E | H - Y = 485,383.5 N | H - X = 658,318.6 E |
| I - Y = 482,801.1 N | I - X = 699,522.9 E | I - Y = 482,741.1 N | I - X = 658,340.6 E |
| J - Y = 480,158.2 N | J - X = 699,536.4 E | J - Y = 480,098.2 N | J - X = 658,354.0 E |
| K - Y = 477,512.1 N | K - X = 699,551.6 E | K - Y = 477,452.2 N | K - X = 658,369.2 E |
| L - Y = 474,878.3 N | L - X = 699,565.5 E | L - Y = 474,818.4 N | L - X = 658,382.9 E |

## [17] OPERATOR CERTIFICATION

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

Rusty Klein 4-3-2024
Signature Date

RUSTY KLEIN
Printed Name

ranell.klein@exxonmobil.com
E-mail Address

## [18] SURVEYOR CERTIFICATION

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

**08-02-2023**
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

RP 618.013002.06-31

P:\618.013 XTO Energy - NM\002 James Ranch Unit\.06 - DI 7 - EDDY\Wells\-31 - 705H\DWG\SAWTOOTH 705H C-102.dwg

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

CONDITIONS

Action 350250

## CONDITIONS

| | |
|---|---|
| Operator:<br>XTO PERMIAN OPERATING LLC.<br>6401 HOLIDAY HILL ROAD<br>MIDLAND, TX 79707 | OGRID:<br>373075 |
| | Action Number:<br>350250 |
| | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| ward.rikala | All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required. | 6/11/2024 |