Sundry Print Report

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

Well Name: JAMES RANCH UNIT DI 7 Well Location: T23S / R31E / SEC 6 / County or Parish/State: EDDY /

SAWTOOTH LOT 4 / 32.340053 / -103.822247

Well Number: 703H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM02953C Unit or CA Name: JAMES RANCH UNIT Unit or CA Number:

NMNM70965X

LLC

Notice of Intent

Sundry ID: 2785641

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 04/17/2024 Time Sundry Submitted: 01:49

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 (measured) and TVD and casing and cement program will be updated. FROM: TO: SHL: 260' FNL & 1039' FWL of Section 6-T23S-R31E 260' FNL & 979' FWL of Section 6-T23S-R31E FTP: 700' FSL & 1650' FWL of Section 31-T22S-R31E 330' FNL & 330' FWL of Section 6-T23S-R31E PPP-1-2: 2636' FNL & 1650' FWL of Section 6-T23S-R31E 2638' FNL & 330' FWL of Section 6-T23S-R31E PPP 1-3: 0' FNL & 1650' FWL of Section 7-T23S-R31E 0' FNL & 330' FWL of Section 7-T23S-R31E LTP: 2535' FNL & 1650' FWL of Section 18-T23S-R31E 2528' FNL & 330' FWL of Section 18-T23S-R31E BHL:2585' FNL & 1650' FWL of Section 18-T23S-R31E 2578' FNL & 330' FWL of Section 18-T23S-R31E Proposed total depth will change from 24245' MD; 9977' (Bone Spring) to 23104' MD; 10454' TVD (Bone Spring). Casing and cement will be 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_461__5.500_0.361_P110_CY_01292024_20240417134850.pdf

Wedge_441__5.500_0.361_P110_CY_12142023_20240417134850.pdf

 $Talon_HTQ_RD_5.5000_20.0000_0.3610__P110_RY_20240417134850.pdf$

Freedom_5.5000_20.0000_0.3610__P110_RY_20240417134830.pdf

4_String_Slimhole_SDT_3301_1_20240417134801.pdf

JRU_DI_7_SAWTOOTH_703H_Directional_Plan_8_29_2023_20240417134745.pdf

Well Name: JAMES RANCH UNIT DI 7 Well Location: T23S / R31E / SEC 6 / County or Parish/State: EDBY 7 of

SAWTOOTH LOT 4 / 32.340053 / -103.822247

Well Number: 703H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM02953C Unit or CA Name: JAMES RANCH UNIT Unit or CA Number:

NMNM70965X

LLC

JRU_DI7_Sawtooth_703H_Drilling_Plan_20240417134730.pdf

 ${\sf JRU_DI_7_SAWTOOTH_703H_C_102_signed_4_3_2024_20240417134716.pdf}$

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 09:09 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

Page 2 of 2

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVEI)
OMB No. 1004-013	7
Expires: October 31, 2	02

EAU OF LAND MANAGEMENT	5. Lease Seri
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BUREAU OF LAND MANAGEMENT			5. Lease Serial No.	5. Lease Serial No.	
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	o re-enter an	6. If Indian, Allottee of	r Tribe	Name
	TRIPLICATE - Other instructions on pag	ne 2	7. If Unit of CA/Agre	ement,	Name and/or No.
1. Type of Well	7.11. Dod		8. Well Name and No		
Oil Well Gas W	/ell Other		9. API Well No.		
	21 N N	<i>(: 1.1</i>		Evelor	otowy A roo
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or	Ехрюга	nory Area
4. Location of Well (Footage, Sec., T.,R	2.,M., or Survey Description)		11. Country or Parish,	State	
12. CHE	CK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF N	OTICE, REPORT OR OTI	HER D	ATA
TYPE OF SUBMISSION		TYPE OF A	ACTION		
Notice of Intent	Acidize Deep	oen P	roduction (Start/Resume)		Water Shut-Off
	Alter Casing Hydr	raulic Fracturing R	teclamation		Well Integrity
Subsequent Report	Casing Repair New		tecomplete		Other
			emporarily Abandon		
Final Abandonment Notice	Convert to Injection Plug peration: Clearly state all pertinent details, i		Vater Disposal		
completed. Final Abandonment Not is ready for final inspection.)	ons. If the operation results in a multiple contices must be filed only after all requirement of the filed only after all requ				
4. I hereby certify that the foregoing is	true and correct. Ivanic (17timea/1ypea)	Title			
Signature		Date			
	THE SPACE FOR FED	ERAL OR STATE	OFICE USE		
Approved by					
•		Title		Date	
	ned. Approval of this notice does not warran equitable title to those rights in the subject led duct operations thereon.	t or			
	3 U.S.C Section 1212, make it a crime for an		willfully to make to any de	partme	ent or agency of the United States

any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

(Form 3160-5, page 2)

Additional Information

Additional Remarks

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 / 1039 FWL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.340053 / LONG: -103.822247 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 700 FSL / 1650 FWL / TWSP: 22S / RANGE: 31E / SECTION: 31 / LAT: 32.342687 / LONG: -103.820269 (TVD: 9883 feet, MD: 10400 feet)

PPP: NESW / 2636 FNL / 1650 FWL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.330515 / LONG: -103.820274 (TVD: 9910 feet, MD: 14400 feet)

PPP: NENW / 0 FNL / 1650 FWL / TWSP: 23S / RANGE: 31E / SECTION: 7 / LAT: 32.326252 / LONG: -103.820278 (TVD: 9928 feet, MD: 17000 feet)

BHL: SENW / 2585 FNL / 1650 FWL / TWSP: 23S / RANGE: 31E / SECTION: 18 / LAT: 32.304612 / LONG: -103.820289 (TVD: 9977 feet, MD: 24245 feet)



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	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

6.300 in.
7.714 in.
4.778 in.
3.775 in.
3.40
Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	641 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	100 %
Compression Strength	641 x1000 lb
Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	11,100 psi
Coupling Face Load	290,000 lb

Make-Up Torques	
Minimum	17,000 ft-lb
Optimum	18,000 ft-lb
Maximum	21,600 ft-lb
Operation Limit Torques	
Operating Torque	39,000 ft-lb
Yield Torque	46,000 ft-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

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TenarisHydril Wedge 441®



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

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

Pipe Body Data

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

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

Connection Data

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

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

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

Notes

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

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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[4]



U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall)

11/29/2021 4:16:04 PM

P110 RY USS-TALON HTQ™ RD

MECHANICAL PROPERTIES Pipe USS-TALON HTQ™ RD [6] 110,000 Minimum Yield Strength psi Maximum Yield Strength 125,000 psi Minimum Tensile Strength 125,000 psi USS-TALON HTQ™ RD **DIMENSIONS** Pipe 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 5.828 5.828 Critical Area sq. in. Joint Efficiency 100.0 [2] % **PERFORMANCE USS-TALON HTQ™ RD Pipe** 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 641,000 Joint Strength lb Compression Rating 641,000 lb Reference Length 21,370 ft [5] deg/100 ft Maximum Uniaxial Bend Rating 917 [3] USS-TALON HTQ™ RD **MAKE-UP DATA** Pipe Make-Up Loss 5.58 in. Minimum Make-Up Torque 17,000 ft-lb [4] Maximum Make-Up Torque 20.000 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).

39,500

- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bend rating shown is structural only

Maximum Operating Torque

- 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.

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

ft-lb

U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-FREEDOM HTQ®

11/8/2023 1:08:50 PM

MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ [®]	
Minimum Yield Strength	110,000		psi
Maximum Yield Strength	125,000		psi
Minimum Tensile Strength	125,000		psi
IMENSIONS	Pipe	USS-FREEDOM HTQ [®]	
Outside Diameter	5.500	6.300	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
ECTION AREA	Pipe	USS-FREEDOM HTQ [®]	
Critical Area	5.828	5.828	sq. in.
Joint Efficiency		100.0	%
ERFORMANCE	Pipe	USS-FREEDOM HTQ [®]	
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 [4]		21,370	ft
Maximum Uniaxial Bend Rating [2]		91.7	deg/100 ft
AKE-UP DATA	Pipe	USS-FREEDOM HTQ [®]	
Make-Up Loss		4.13	in.
Minimum Make-Up Torque [3]		15,000	ft-lb
Maximum Make-Up Torque [3]		21,000	ft-lb
Maximum Operating Torque[3]		29,500	ft-lb

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).
- Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3. 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.).
- 4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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> U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S

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

ALL DIMENSIONS APPROXIMA

CACTUS WELLHEAD LLC

(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

XTO ENERGY INC **DELAWARE BASIN** VJK 31MAR22 DRAWN APPRV

DRAWING NO.

SDT-3301

FORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, ISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY SUTHORIZED BY CACTUS WELLHEAD, LLC.

Long Lead_Well Planning

EDDY
JRU DI 7 Pad A
JRU DI 7 Sawtooth 703H - Slot JRU DI 7 Sawtooth 703H

JRU DI 7 Sawtooth 703H

Plan: JRU DI 7 Sawtooth 703H

Standard Planning Report

29 August, 2023

32° 20' 24.785 N 103° 49' 17.618 W

ExxonMobil

Planning Report

MD Reference:

Database: LMRKPROD3

Long Lead_Well Planning

JRU DI 7 Sawtooth 703H

JRU DI 7 Sawtooth 703H

JRU DI 7 Sawtooth 703H

Local Co-ordinate Reference: Well JRU

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

TVD Reference: JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

North Reference: True

Survey Calculation Method:

od: Minimum Curvature

Design:

Wellbore:

Company:

Project:

Site:

Well:

EDDY

EDDY

JRU DI 7 Pad A

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

atum: NAD 1927 (NADCON CONOS

Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site JRU DI 7 Pad A

 Site Position:
 Northing:
 487,864.80 usft
 Latitude:

 From:
 Map
 Easting:
 658,059.20 usft
 Longitude:

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7 Sawtooth 703H

 Well Position
 +N/-S
 0.0 usft
 Northing:
 487,759.40 usft
 Latitude:
 32° 20' 23.748 N

 +E/-W
 0.0 usft
 Easting:
 657,939.50 usft
 Longitude:
 103° 49' 19.019 W

 +E/-W
 0.0 usft
 Easting:
 657,939.50 usft
 Longitude:
 103° 49' 19.019 W

 Position Uncertainty
 0.0 usft
 Wellhead Elevation:
 usft
 Ground Level:
 3,315.0 usft

Grid Convergence: 0.27 $^{\circ}$

Wellbore JRU DI 7 Sawtooth 703H

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2020
 8/11/2023
 6.42
 59.90
 47,313.31964253

 Design
 JRU DI 7 Sawtooth 703H

 Audit Notes:
 Phase:
 PLAN
 Tie On Depth:
 0.0

 Vertical Section:
 Depth From (TVD) (usft)
 +N/-S +E/-W (usft)
 Direction (usft)

 0.0
 0.0
 0.0
 180.03

Plan Survey Tool Program Date 8/29/2023

Depth From Depth To
(usft) (usft) Survey (Wellbore) Tool Name Remarks

1 0.0 23,014.2 JRU DI 7 Sawtooth 703H (JRU D XOM_R2OWSG MWD+IFR1+

OWSG MWD + IFR1 + Multi-St

Planning Report

TVD Reference:

MD Reference:

Database: LMRKPROD3

Company: Long Lead_Well Planning

Project: EDDY

Site: JRU DI 7 Pad A

Well: JRU DI 7 Sawtooth 703H
Wellbore: JRU DI 7 Sawtooth 703H
Design: JRU DI 7 Sawtooth 703H

Local Co-ordinate Reference:

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

North Reference: True

Survey Calculation Method: Minimum Curvature

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,586.5	7.73	264.03	1,585.3	-2.7	-25.9	2.00	2.00	0.00	264.03	
6,056.5	7.73	264.03	6,014.7	-65.3	-623.8	0.00	0.00	0.00	0.00	
6,443.0	0.00	0.00	6,400.0	-68.0	-649.7	2.00	-2.00	0.00	180.00	
9,780.8	0.00	0.00	9,737.8	-68.0	-649.7	0.00	0.00	0.00	0.00	
10,905.8	90.00	180.03	10,454.0	-784.2	-650.1	8.00	8.00	-16.00	180.03	
22,964.2	90.00	180.03	10,454.0	-12,842.6	-655.5	0.00	0.00	0.00	0.00 LTP	7-1
23,014.2	90.00	180.03	10,454.0	-12,892.6	-655.6	0.00	0.00	0.00	0.00 BHL	7-1

Planning Report

TVD Reference:

MD Reference:

North Reference:

LMRKPROD3 Database:

Company: Long Lead_Well Planning

EDDY Project:

JRU DI 7 Pad A Site:

JRU DI 7 Sawtooth 703H Well: Wellbore: JRU DI 7 Sawtooth 703H JRU DI 7 Sawtooth 703H Design:

Local Co-ordinate Reference:

Survey Calculation Method:

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

True

Design:	JRU DI 7 Saw	10011110011							
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	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	264.03	1,300.0	-0.2	-1.7	0.2	2.00	2.00	0.00
1,400.0	4.00	264.03	1,399.8	-0.7	-6.9	0.7	2.00	2.00	0.00
1,500.0	6.00	264.03	1,499.5	-1.6	-15.6	1.6	2.00	2.00	0.00
1,586.5	7.73	264.03	1,585.3	-2.7	-25.9	2.7	2.00	2.00	0.00
1,600.0	7.73	264.03	1,598.7	-2.9	-27.7	2.9	0.00	0.00	0.00
1,700.0	7.73	264.03	1,697.8	-4.3	-41.1	4.3	0.00	0.00	0.00
1,800.0	7.73	264.03	1,796.9	-5.7	-54.5	5.7	0.00	0.00	0.00
1,900.0	7.73	264.03	1,896.0	-7.1	-67.8	7.1	0.00	0.00	0.00
2,000.0	7.73	264.03	1,995.1	-8.5	-81.2	8.5	0.00	0.00	0.00
2,100.0	7.73	264.03	2,094.2	-9.9	-94.6	9.9	0.00	0.00	0.00
2,200.0	7.73	264.03	2,193.3	-11.3	-108.0	11.4	0.00	0.00	0.00
2,300.0	7.73	264.03	2,292.3	-12.7	-121.3	12.8	0.00	0.00	0.00
2,400.0	7.73	264.03	2,391.4	-14.1	-134.7	14.2	0.00	0.00	0.00
2,500.0	7.73	264.03	2,490.5	-15.5	-148.1	15.6	0.00	0.00	0.00
2,600.0	7.73	264.03	2,589.6	-16.9	-161.5	17.0	0.00	0.00	0.00
2,700.0	7.73	264.03	2,688.7	-18.3	-174.8	18.4	0.00	0.00	0.00
2,800.0	7.73	264.03	2,787.8	-19.7	-188.2	19.8	0.00	0.00	0.00
2,900.0	7.73	264.03	2,886.9	-21.1	-201.6	21.2	0.00	0.00	0.00
3,000.0	7.73	264.03	2,986.0	-22.5	-215.0	22.6	0.00	0.00	0.00
3,100.0	7.73	264.03	3,085.1	-23.9	-228.4	24.0	0.00	0.00	0.00
3,200.0	7.73	264.03	3,184.2	-25.3	-241.7	25.4	0.00	0.00	0.00
3,300.0	7.73	264.03	3,283.3	-26.7	-255.1	26.8	0.00	0.00	0.00
3,400.0	7.73	264.03	3,382.3	-28.1	-268.5	28.2	0.00	0.00	0.00
3,500.0	7.73	264.03	3,481.4	-29.5	-281.9	29.6	0.00	0.00	0.00
3,600.0	7.73	264.03	3,580.5	-30.9	-295.2	31.1	0.00	0.00	0.00
3,700.0	7.73	264.03	3,679.6	-32.3	-308.6	32.5	0.00	0.00	0.00
3,800.0	7.73	264.03	3,778.7	-33.7	-322.0	33.9	0.00	0.00	0.00
3,900.0	7.73	264.03	3,877.8	-35.1	-335.4	35.3	0.00	0.00	0.00
4,000.0	7.73	264.03	3,976.9	-36.5	-348.7	36.7	0.00	0.00	0.00
4,100.0	7.73	264.03	4,076.0	-37.9	-362.1	38.1	0.00	0.00	0.00
4,200.0	7.73	264.03	4,175.1	-39.3	-375.5	39.5	0.00	0.00	0.00
4,300.0	7.73	264.03	4,274.2	-40.7	-388.9	40.9	0.00	0.00	0.00
4,400.0	7.73	264.03	4,373.3	-42.1	-402.3	42.3	0.00	0.00	0.00
4,500.0	7.73	264.03	4,472.4	-43.5	-415.6	43.7	0.00	0.00	0.00
4,600.0	7.73	264.03	4,571.4	-44.9	-429.0	45.1	0.00	0.00	0.00
4,700.0	7.73	264.03	4,670.5	-46.3	-442.4	46.5	0.00	0.00	0.00
4,800.0	7.73	264.03	4,769.6	-47.7	-455.8	47.9	0.00	0.00	0.00
4,900.0	7.73	264.03	4,868.7	-49.1	-469.1	49.3	0.00	0.00	0.00
5,000.0	7.73	264.03	4,967.8	-50.5	-482.5	50.8	0.00	0.00	0.00
5,100.0	7.73	264.03	5,066.9	-50.5 -51.9	-462.5 -495.9	52.2	0.00	0.00	0.00
5,200.0	7.73	264.03	5,166.0	-53.3	-495.9	53.6	0.00	0.00	0.00
5,300.0	7.73 7.73	264.03	5,166.0	-53.5 -54.7	-509.5 -522.6	55.0	0.00	0.00	0.00
5,400.0	7.73 7.73	264.03	5,364.2	-54.7 -56.1	-522.6 -536.0	56.4	0.00	0.00	0.00
5,500.0	7.73	264.03	5,463.3	-57.5	-549.4	57.8	0.00	0.00	0.00
5,600.0	7.73 7.73	264.03	5,562.4	-57.5 -58.9	-549.4 -562.8	57.6 59.2	0.00	0.00	0.00
5,700.0	7.73 7.73	264.03	5,661.5	-56.9 -60.3	-502.6 -576.2	60.6	0.00	0.00	0.00
5,700.0 5,800.0		264.03 264.03			-576.2 -589.5				
	7.73		5,760.5	-61.7		62.0	0.00	0.00	0.00
5,900.0	7.73	264.03	5,859.6	-63.1	-602.9	63.4	0.00	0.00	0.00
6,000.0	7.73	264.03	5,958.7	-64.5	-616.3	64.8	0.00	0.00	0.00

Planning Report

TVD Reference:

MD Reference:

North Reference:

LMRKPROD3 Database:

Long Lead_Well Planning

EDDY Project:

Company:

JRU DI 7 Pad A Site:

JRU DI 7 Sawtooth 703H Well: Wellbore: JRU DI 7 Sawtooth 703H JRU DI 7 Sawtooth 703H Design:

Local Co-ordinate Reference:

Survey Calculation Method:

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

True

esign:	JRU DI 7 Saw	100111 70311							
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)
6,056.5	7.73	264.03	6,014.7	-65.3	-623.8	65.6	0.00	0.00	0.00
6,100.0	6.86	264.03	6,057.9	-65.9	-629.3	66.2	2.00	-2.00	0.00
6,200.0	4.86	264.03	6,157.3	-66.9	-639.5	67.3	2.00	-2.00	0.00
6,300.0	2.86	264.03	6,257.1	-67.6	-646.2	68.0	2.00	-2.00	0.00
6,400.0	0.86	264.03	6,357.0	-68.0	-649.4	68.3	2.00	-2.00	0.00
6,443.0	0.00	0.00	6,400.0	-68.0	-649.7	68.3	2.00	-2.00	0.00
9,780.8	0.00	0.00	9,737.8	-68.0	-649.7	68.3	0.00	0.00	0.00
9,800.0	1.54	180.03	9,757.0	-68.3	-649.7	68.6	8.00	8.00	0.00
9,900.0	9.54	180.03	9,856.5	-77.9	-649.7	78.2	8.00	8.00	0.00
10,000.0	17.54	180.03	9,953.6	-101.3	-649.7	101.6	8.00	8.00	0.00
10,100.0	25.54	180.03	10,046.6	-138.0	-649.8	138.3	8.00	8.00	0.00
10,200.0	33.54	180.03	10,133.5	-187.2	-649.8	187.6	8.00	8.00	0.00
10,300.0	41.54	180.03	10,212.7	-248.1	-649.8	248.5	8.00	8.00	0.00
10,340.5	44.78	180.03	10,242.2	-275.8	-649.8	276.1	8.00	8.00	0.00
FTP 7-1									
10,400.0	49.54	180.03	10,282.7	-319.4	-649.8	319.8	8.00	8.00	0.00
10,500.0	57.54	180.03	10,342.1	-399.8	-649.9	400.1	8.00	8.00	0.00
10,600.0	65.54	180.03	10,389.7	-487.6	-649.9	488.0	8.00	8.00	0.00
10,700.0	73.54	180.03	10,424.6	-581.3	-650.0	581.6	8.00	8.00	0.00
10,800.0	81.54	180.03	10,446.2	-678.8	-650.0	679.2	8.00	8.00	0.00
10,900.0	89.54	180.03	10,454.0	-778.4	-650.1	778.8	8.00	8.00	0.00
10,905.8	90.00	180.03	10,454.0	-784.2	-650.1	784.5	8.00	8.00	0.00
11,000.0	90.00	180.03	10,454.0	-878.4	-650.1	878.8	0.00	0.00	0.00
11,100.0 11,200.0	90.00 90.00	180.03 180.03	10,454.0 10,454.0	-978.4 -1,078.4	-650.1 -650.2	978.8 1,078.8	0.00 0.00	0.00 0.00	0.00 0.00
11,300.0	90.00	180.03	10,454.0	-1,178.4	-650.2	1,178.8	0.00	0.00	0.00
11,400.0	90.00	180.03 180.03	10,454.0	-1,278.4	-650.3	1,278.8 1,378.8	0.00	0.00	0.00
11,500.0 11,600.0	90.00 90.00	180.03	10,454.0 10,454.0	-1,378.4 -1,478.4	-650.3 -650.4	1,376.6	0.00 0.00	0.00 0.00	0.00 0.00
11,700.0	90.00	180.03	10,454.0	-1,578.4	-650.4	1,578.8	0.00	0.00	0.00
11,800.0	90.00	180.03	10,454.0	-1,678.4	-650.5	1,678.8	0.00	0.00	0.00
11,900.0	90.00	180.03	10,454.0	-1,778.4	-650.5	1,778.8	0.00	0.00	0.00
12,000.0	90.00	180.03	10,454.0	-1,878.4	-650.6	1,878.8	0.00	0.00	0.00
12,100.0 12,200.0	90.00 90.00	180.03 180.03	10,454.0 10,454.0	-1,978.4 2,078.4	-650.6 -650.6	1,978.8 2,078.8	0.00 0.00	0.00 0.00	0.00 0.00
				-2,078.4					
12,300.0	90.00	180.03	10,454.0	-2,178.4	-650.7	2,178.8	0.00	0.00	0.00
12,400.0	90.00	180.03	10,454.0	-2,278.4	-650.7	2,278.8	0.00	0.00	0.00
12,500.0	90.00	180.03	10,454.0	-2,378.4	-650.8	2,378.8	0.00	0.00	0.00
12,600.0	90.00	180.03	10,454.0	-2,478.4	-650.8	2,478.8	0.00	0.00	0.00
12,700.0	90.00	180.03	10,454.0	-2,578.4	-650.9	2,578.8	0.00	0.00	0.00
12,800.0	90.00	180.03	10,454.0	-2,678.4	-650.9	2,678.8	0.00	0.00	0.00
12,900.0	90.00	180.03	10,454.0	-2,778.4	-651.0	2,778.8	0.00	0.00	0.00
13,000.0	90.00	180.03	10,454.0	-2,878.4	-651.0	2,878.8	0.00	0.00	0.00
13,100.0	90.00	180.03	10,454.0	-2,978.4	-651.1	2,978.8	0.00	0.00	0.00
13,200.0	90.00	180.03	10,454.0	-3,078.4	-651.1	3,078.8	0.00	0.00	0.00
13,300.0	90.00	180.03	10,454.0	-3,178.4	-651.1	3,178.8	0.00	0.00	0.00
13,400.0	90.00	180.03	10,454.0	-3,278.4	-651.2	3,278.8	0.00	0.00	0.00
13,500.0	90.00	180.03	10,454.0	-3,378.4	-651.2	3,378.8	0.00	0.00	0.00
13,600.0	90.00	180.03	10,454.0	-3,478.4	-651.3	3,478.8	0.00	0.00	0.00
13,700.0	90.00	180.03	10,454.0	-3,578.4	-651.3	3,578.8	0.00	0.00	0.00
13,800.0	90.00	180.03	10,454.0	-3,678.4	-651.4	3,678.8	0.00	0.00	0.00

Planning Report

TVD Reference:

MD Reference:

North Reference:

Database: LMRKPROD3

Company: Long Lead_Well Planning

Project: EDDY

Site: JRU DI 7 Pad A

Well: JRU DI 7 Sawtooth 703H
Wellbore: JRU DI 7 Sawtooth 703H
Design: JRU DI 7 Sawtooth 703H

Local Co-ordinate Reference:

Survey Calculation Method:

rence: Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

True

lanned 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)
13,900.0	90.00	180.03	10,454.0	-3,778.4	-651.4	3,778.8	0.00	0.00	0.00
14,000.0	90.00	180.03	10,454.0	-3,878.4	-651.5	3,878.8	0.00	0.00	0.00
14,100.0	90.00	180.03	10,454.0	-3,978.4	-651.5	3,978.8	0.00	0.00	0.00
14,200.0	90.00	180.03	10,454.0	-4,078.4	-651.6	4,078.8	0.00	0.00	0.00
14,300.0	90.00	180.03	10,454.0	-4,178.4	-651.6	4,178.8	0.00	0.00	0.00
14,400.0	90.00	180.03	10,454.0	-4,278.4	-651.6	4,278.8	0.00	0.00	0.00
14,500.0	90.00	180.03	10,454.0	-4,378.4	-651.7	4,378.8	0.00	0.00	0.00
14,600.0	90.00	180.03	10,454.0	-4,478.4	-651.7	4,478.8	0.00	0.00	0.00
14,700.0	90.00	180.03	10,454.0	-4,578.4	-651.8	4,578.8	0.00	0.00	0.00
14,800.0	90.00	180.03	10,454.0	-4,678.4	-651.8	4,678.8	0.00	0.00	0.00
14,900.0	90.00	180.03	10,454.0	-4,778.4	-651.9	4,778.8	0.00	0.00	0.00
15,000.0	90.00	180.03	10,454.0	-4,878.4	-651.9	4,878.8	0.00	0.00	0.00
15,100.0	90.00	180.03	10,454.0	-4,978.4	-652.0	4,978.8	0.00	0.00	0.00
15,200.0	90.00	180.03	10,454.0	-5,078.4	-652.0	5,078.8	0.00	0.00	0.00
15,300.0	90.00	180.03	10.454.0	-5,178.4	-652.1	5,178.8	0.00	0.00	0.00
15,400.0	90.00	180.03	10,454.0	,		5,278.8	0.00	0.00	0.00
				-5,278.4	-652.1				
15,500.0	90.00	180.03	10,454.0	-5,378.4	-652.1	5,378.8	0.00	0.00	0.00
15,600.0	90.00	180.03	10,454.0	-5,478.4	-652.2	5,478.8	0.00	0.00	0.00
15,700.0	90.00	180.03	10,454.0	-5,578.4	-652.2	5,578.8	0.00	0.00	0.00
15,800.0	90.00	180.03	10,454.0	-5,678.4	-652.3	5,678.8	0.00	0.00	0.00
15,900.0	90.00	180.03	10,454.0	-5,778.4	-652.3	5,778.8	0.00	0.00	0.00
16,000.0	90.00	180.03	10,454.0	-5,878.4	-652.4	5,878.8	0.00	0.00	0.00
16,100.0	90.00	180.03	10,454.0	-5,978.4	-652.4	5,978.8	0.00	0.00	0.00
16,200.0	90.00	180.03	10,454.0	-6,078.4	-652.5	6,078.8	0.00	0.00	0.00
16,300.0	90.00	180.03	10,454.0	-6,178.4	-652.5	6,178.8	0.00	0.00	0.00
16,400.0	90.00	180.03	10,454.0	-6,278.4	-652.6	6,278.8	0.00	0.00	0.00
16,500.0		180.03	10,454.0			6,378.8	0.00		
	90.00			-6,378.4	-652.6			0.00	0.00
16,600.0	90.00	180.03	10,454.0	-6,478.4	-652.6	6,478.8	0.00	0.00	0.00
16,700.0	90.00	180.03	10,454.0	-6,578.4	-652.7	6,578.8	0.00	0.00	0.00
16,800.0	90.00	180.03	10,454.0	-6,678.4	-652.7	6,678.8	0.00	0.00	0.00
16,900.0	90.00	180.03	10,454.0	-6,778.4	-652.8	6,778.8	0.00	0.00	0.00
17,000.0	90.00	180.03	10,454.0	-6,878.4	-652.8	6,878.8	0.00	0.00	0.00
17,100.0	90.00	180.03	10,454.0	-6,978.4	-652.9	6,978.8	0.00	0.00	0.00
17,200.0	90.00	180.03	10,454.0	-7,078.4	-652.9	7,078.8	0.00	0.00	0.00
17,300.0	90.00	180.03	10,454.0	-7,178.4	-653.0	7,178.8	0.00	0.00	0.00
17,400.0	90.00	180.03	10,454.0	-7,278.4	-653.0	7,278.8	0.00	0.00	0.00
17,500.0	90.00	180.03	10,454.0	-7,378.4	-653.1	7,378.8	0.00	0.00	0.00
			,						
17,600.0 17,700.0	90.00 90.00	180.03 180.03	10,454.0 10,454.0	-7,478.4 -7,578.4	-653.1 -653.1	7,478.8 7,578.8	0.00 0.00	0.00 0.00	0.00 0.00
17,800.0	90.00	180.03	10,454.0	-7,678.4	-653.2	7,678.8	0.00	0.00	0.00
17,900.0	90.00	180.03	10,454.0	-7,778.4	-653.2	7,778.8	0.00	0.00	0.00
18,000.0	90.00	180.03	10,454.0	-7,878.4	-653.3	7,878.8	0.00	0.00	0.00
18,100.0	90.00	180.03	10,454.0	-7,978.4	-653.3	7,978.8	0.00	0.00	0.00
18,200.0	90.00	180.03	10,454.0	-8,078.4	-653.4	8,078.8	0.00	0.00	0.00
18,300.0	90.00	180.03	10,454.0	-8,178.4	-653.4	8,178.8	0.00	0.00	0.00
18,400.0	90.00	180.03	10,454.0	-8,278.4	-653.5	8,278.8	0.00	0.00	0.00
18,500.0	90.00	180.03	10,454.0	-8,378.4	-653.5	8,378.8	0.00	0.00	0.00
18,600.0	90.00	180.03	10,454.0	-8,478.4	-653.5	8,478.8	0.00	0.00	0.00
18,700.0	90.00	180.03	10,454.0	-0,476.4 -8,578.4	-653.6	6,476.6 8,578.8	0.00	0.00	0.00
18,800.0	90.00	180.03	10,454.0	-8,678.4	-653.6	8,678.8	0.00	0.00	0.00
18,900.0	90.00	180.03	10,454.0	-8,778.4	-653.7	8,778.8	0.00	0.00	0.00

Planning Report

TVD Reference:

MD Reference:

North Reference:

LMRKPROD3 Database:

Long Lead_Well Planning Company:

EDDY Project:

JRU DI 7 Pad A Site:

JRU DI 7 Sawtooth 703H Well: Wellbore: JRU DI 7 Sawtooth 703H

Local Co-ordinate Reference:

Survey Calculation Method:

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

JRU DI 7 Sawtooth 703H Default @

3347.0usft

JRU DI 7 Sawtooth 703H Default @

3347.0usft

True

gn:	JRU DI 7 Saw	rtooth 703H							
ned 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)
19,000.0	90.00	180.03	10,454.0	-8,878.4	-653.7	8,878.8	0.00	0.00	0.00
19,100.0	90.00	180.03	10,454.0	-8,978.4	-653.8	8,978.8	0.00	0.00	0.00
19,200.0	90.00	180.03	10,454.0	-9,078.4	-653.8	9,078.8	0.00	0.00	0.00
19,300.0	90.00	180.03	10,454.0	-9,178.4	-653.9	9,178.8	0.00	0.00	0.00
19,400.0	90.00	180.03	10.454.0	-9,278.4	-653.9	9,278.8	0.00	0.00	0.00
19,500.0	90.00	180.03	10,454.0	-9,378.4	-654.0	9,378.8	0.00	0.00	0.00
19,600.0	90.00	180.03	10,454.0	-9,478.4	-654.0	9,478.8	0.00	0.00	0.00
19,700.0	90.00	180.03	10,454.0	-9,578.4	-654.0	9,578.8	0.00	0.00	0.00
19,800.0	90.00	180.03	10,454.0	-9,678.4	-654.1	9,678.8	0.00	0.00	0.00
19,900.0	90.00	180.03	10,454.0	-9,778.4	-654.1	9,778.8	0.00	0.00	0.00
20,000.0	90.00	180.03	10,454.0	-9,878.4	-654.2	9,878.8	0.00	0.00	0.00
20,100.0	90.00	180.03	10,454.0	-9,978.4	-654.2	9,978.8	0.00	0.00	0.00
20,200.0	90.00	180.03	10,454.0	-10,078.4	-654.3	10,078.8	0.00	0.00	0.00
20,300.0	90.00	180.03	10,454.0	-10,178.4	-654.3	10,178.8	0.00	0.00	0.00
20,400.0	90.00	180.03	10,454.0	-10,278.4	-654.4	10,278.8	0.00	0.00	0.00
20,500.0	90.00	180.03	10,454.0	-10,378.4	-654.4	10,378.8	0.00	0.00	0.00
20,600.0	90.00	180.03	10,454.0	-10,478.4	-654.5	10,478.8	0.00	0.00	0.00
20,700.0	90.00	180.03	10,454.0	-10,578.4	-654.5	10,578.8	0.00	0.00	0.00
		400.00	10.454.0					0.00	
20,800.0	90.00	180.03	10,454.0	-10,678.4	-654.5	10,678.8	0.00	0.00	0.00
20,900.0	90.00	180.03	-, -	-10,778.4	-654.6	10,778.8	0.00	0.00	0.00
21,000.0	90.00 90.00	180.03 180.03	10,454.0 10,454.0	-10,878.4 -10,978.4	-654.6 -654.7	10,878.8	0.00 0.00	0.00 0.00	0.00 0.00
21,100.0 21,200.0	90.00	180.03	10,454.0	-11,078.4	-654.7	10,978.8 11,078.8	0.00	0.00	0.00
21,300.0	90.00	180.03	10,454.0	-11,178.4	-654.8	11,178.8	0.00	0.00	0.00
21,400.0	90.00	180.03	10,454.0	-11,278.4	-654.8	11,278.8	0.00	0.00	0.00
21,500.0	90.00	180.03	10,454.0	-11,378.4	-654.9	11,378.8	0.00	0.00	0.00
21,600.0	90.00	180.03	10,454.0	-11,478.4	-654.9	11,478.8	0.00	0.00	0.00
21,700.0	90.00	180.03	10,454.0	-11,578.4	-655.0	11,578.8	0.00	0.00	0.00
21,800.0	90.00	180.03	10,454.0	-11,678.4	-655.0	11,678.8	0.00	0.00	0.00
21,900.0	90.00	180.03	10,454.0	-11,778.4	-655.0	11,778.8	0.00	0.00	0.00
22,000.0	90.00	180.03	10,454.0	-11,878.4	-655.1	11,878.8	0.00	0.00	0.00
22,100.0	90.00	180.03	10,454.0	-11,978.4	-655.1	11,978.8	0.00	0.00	0.00
22,200.0	90.00	180.03	10,454.0	-12,078.4	-655.2	12,078.8	0.00	0.00	0.00
22,300.0	90.00	180.03	10,454.0	-12,178.4	-655.2	12,178.8	0.00	0.00	0.00
22,400.0	90.00	180.03	10,454.0	-12,178.4	-655.3	12,176.8	0.00	0.00	0.00
22,500.0	90.00	180.03	10,454.0	-12,378.4	-655.3	12,378.8	0.00	0.00	0.00
22,600.0	90.00	180.03	10,454.0	-12,478.4	-655.4	12,478.8	0.00	0.00	0.00
22,700.0	90.00	180.03	10,454.0	-12,578.4	-655.4	12,476.6	0.00	0.00	0.00
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22,800.0	90.00	180.03	10,454.0	-12,678.4	-655.5	12,678.8	0.00	0.00	0.00
22,900.0	90.00	180.03	10,454.0	-12,778.4	-655.5	12,778.8	0.00	0.00	0.00
22,964.2	90.00	180.03	10,454.0	-12,842.6	-655.5	12,843.0	0.00	0.00	0.00
LTP 7-1									
23,000.0	90.00	180.03	10,454.0	-12,878.4	-655.5	12,878.8	0.00	0.00	0.00
23,014.2	90.00	180.03	10,454.0	-12,892.6	-655.6	12,893.0	0.00	0.00	0.00
BHL 7-1									

Planning Report

LMRKPROD3 Database:

Local Co-ordinate Reference:

Well JRU DI 7 Sawtooth 703H - Slot JRU DI 7

Sawtooth 703H

Company: Long Lead_Well Planning

TVD Reference: JRU DI 7 Sawtooth 703H Default @

3347.0usft

EDDY Project:

JRU DI 7 Sawtooth 703H Default @

MD Reference:

3347.0usft

JRU DI 7 Pad A Site: JRU DI 7 Sawtooth 703H Well:

North Reference: True

JRU DI 7 Sawtooth 703H Wellbore: JRU DI 7 Sawtooth 703H Design:

Minimum Curvature **Survey Calculation Method:**

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
LTP 7-1 - plan hits target o - Rectangle (sides		0.00	10,454.0	-12,842.6	-655.5	474,913.80	657,345.30	32° 18′ 16.658 N	103° 49' 26.656 W
FTP 7-1 - plan misses targ - Rectangle (sides			10,454.0 40.5usft MD	-68.0 (10242.2 TVD	-649.7), -275.8 N, -6	487,688.30 49.8 E)	657,290.10	32° 20' 23.075 N	103° 49' 26.592 W
BHL 7-1 - plan hits target of Rectangle (sides		0.00	10,454.0	-12,892.6	-655.6	474,863.80	657,345.50	32° 18' 16.163 N	103° 49' 26.657 W

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

XTO Energy Inc.
JRU DI 7 Sawtooth FED COM 703H
Projected TD: 23014.2' MD / 10454' TVD SHL: 260' FNL & 979' FWL , Section 6, T23S, R31E BHL: 2578' FNL & 330' FWL , Section 18, T23S, R31E Eddy County, NM

1. Geologic Name of Surface Formation

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
Target/Land Curve	10454'	Water/Oil/Gas

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 9580.76' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 23014.2 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 9080.76 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	1.81	2.39	4.16
8.75	0' – 3884'	3788'	7.625	29.7	RY P-110	Flush Joint	New	3.02	3.08	1.96
8.75	3884' – 9580.76'	9502'	7.625	29.7	HC L-80	Flush Joint	New	2.19	3.78	2.40
6.75	0' - 9480.76'	9409'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.25	2.12
6.75	9480.76' - 23014.2'	10454'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.04	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

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.

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

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

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

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 +/- 9580.76

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: 290 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water

TOC: Brushy Canyon @ 6452

12-hr = 900 psi 24 hr = 1150 psi Compressives:

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

12-hr = 900 psi 24 hr = 1150 psi Compressives:

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

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

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 +/- 23014.2

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: Tail: 950 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9080.76 feet 24 hr = 2285 psi 12-hr = 1375 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 50M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 3136 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	Viscosity	Fluid Loss
	Hole Size	Mud Type	(ppg)	(sec/qt)	(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 9580.76'	8.75	BDE/OBM or FW/Brine	8.6-9.1	30-32	NC
9580.76' to 23014.2'	6.75	ОВМ	10-10.5	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 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 13.375 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

 Abnormal Pressures and Temperatures / Potential Hazards
 None Anticipated. BHT of 170 to 190 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 5436 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.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

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

C-102.dwg

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EDDY\Wells\-29

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Energy

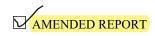
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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

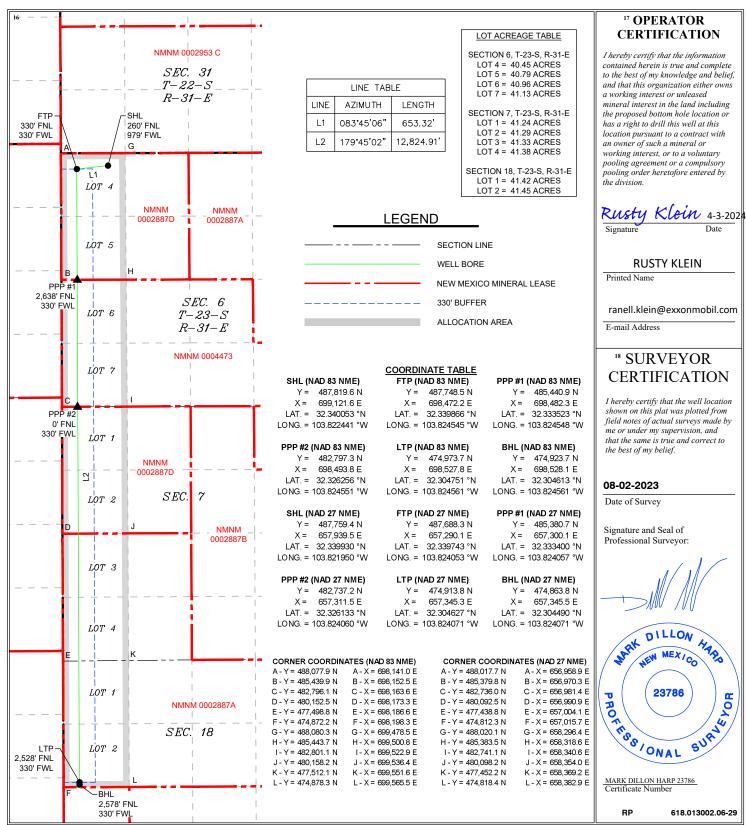


WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code ³ Pool Name			
30-015-		40295 LOS MEDANOS; BONE SP		RING	
⁴ Property Code 333473		⁵ P JRU DI	⁶ Well Number 703H		
OGRID No.		*0	⁹ Elevation		
373075		XTO PERMIA	3,315'		

					¹⁰ Surface L	ocation			
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	979	WEST	EDDY
	"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		2,578	NORTH	330	WEST	EDDY
12 Dedicated Acres	13 Joint or	Infill 14Co	onsolidation (Code 15 Oro	ler No.			<u> </u>	
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.



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 350249

CONDITIONS

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	350249
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rika	a 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