AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed: 12/11/2024 10:52 AM

APD ID:	10400085291	Well Status:	AAPD
APD Received Date:	05/23/2022 05:08 AM	Well Name:	JRU APACHE FEDERAL COM
Operator:	XTO PERMIAN OPERATING LLC	Well Number:	901H

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 1 file(s)
  -- Casing Spec Documents: 3 file(s)
  -- Casing Taperd String Specs: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 4 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 5 file(s)
  -- Other Variances: 3 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 3 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Well Site Layout Diagram: 2 file(s)
  -- Recontouring attachment: 6 file(s)
  -- Other SUPO Attachment: 4 file(s)

- PWD Report
- PWD Attachments

-- None

- Bond Report
- Bond Attachments
  -- None

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM89051

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☑ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: JRU APACHE FEDERAL COM 901H

2. Name of Operator: XTO PERMIAN OPERATING LLC

9. API Well No.: 30-015-55834

3a. Address: 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND, TX 7970

3b. Phone No. *(include area code)*: (432) 683-2277

10. Field and Pool, or Exploratory: LOS MEDANOS/BONE SPRING

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NESE / 2545 FSL / 817 FEL / LAT 32.391844 / LONG -103.828229

At proposed prod. zone: NWNW / 990 FNL / 50 FWL / LAT 32.396686 / LONG -103.860082

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 13/T22S/R30E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 817 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 10839 feet / 21832 feet

20. BLM/BIA Bond No. in file: FED: COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3349 feet

22. Approximate date work will start*: 01/31/2022

23. Estimated duration: 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	STEPHANIE RABADUE / Ph: (432) 682-8873	05/23/2022

Title: Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	10/28/2024

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/28/2024

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

Approval Date: 10/28/2024

Additional Operator Remarks

Location of Well

0. SHL: NESE / 2545 FSL / 817 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.391844 / LONG: -103.828229 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 987 FNL / 2673 FWL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.39666 / LONG: -103.834246 (TVD: 10912 feet, MD: 14200 feet)

PPP: NENE / 990 FNL / 330 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.396652 / LONG: -103.82665 (TVD: 10937 feet, MD: 11600 feet)

BHL: NWNW / 990 FNL / 50 FWL / TWSP: 22S / RANGE: 30E / SECTION: 14 / LAT: 32.396686 / LONG: -103.860082 (TVD: 10839 feet, MD: 21832 feet)

BLM Point of Contact

Name: PRISCILLA PEREZ

Title: Legal Instruments Examiner

Phone: (575) 234-5934

Email: PPEREZ@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024
		Submittal Type: ☒ Initial Submittal / ☐ Amended Report / ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-55834	40295	Los Medanos; Bone Spring

Property Code	Property Name	Well Number
336414	JRU APACHE FEDERAL COM	901H

OGRID No.	Operator Name	Ground Level Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,349'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	13	22S	30E		2,545 FSL	817 FEL	32.391844	-103.828229	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	14	22S	30E		990 FNL	50 FWL	32.396686	-103.860082	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
160.00	Infill		N	P

Order Numbers.	Well Setbacks are under Common Ownership:
R-279-C	☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	13	22S	30E		2,545 FSL	817 FEL	32.391844	-103.828229	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	13	22S	30E		990 FNL	330 FEL	32.396652	-103.826650	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	14	22S	30E		990 FNL	100 FWL	32.396686	-103.859920	EDDY

Unitized Area or Area of Interest	Spacing Unit Type : ☒ Horizontal ☐ Vertical	Ground Elevation
NMNM-070965X		3,349'

OPERATOR CERTIFICATIONS

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

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

Jena Austin — 11/11/24

Signature — Date

Jena Austin

Printed Name

Jena.N.Austin@ExxonMobil.com

Email Address

SURVEYOR CERTIFICATIONS

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

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786 — Certificate Number

11/7/2024 — Date of Survey

DN

618.013002.10-44

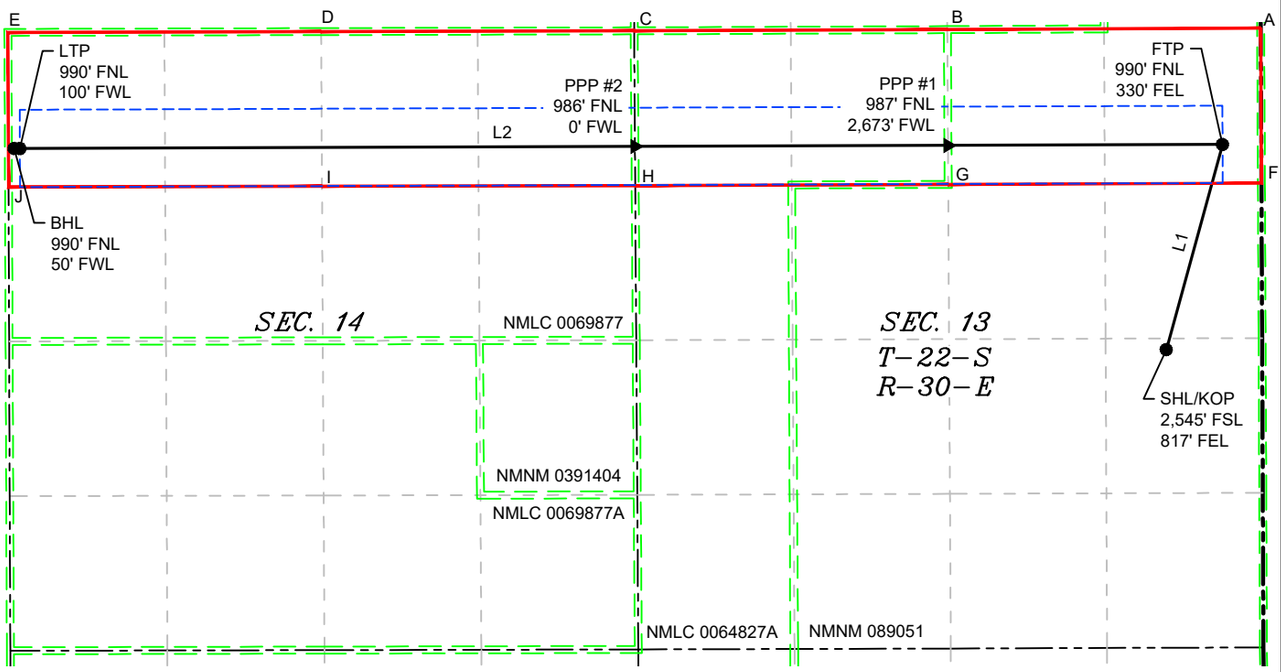
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\002 James Ranch Unit\.10 - APACHE DI - EDDY\Wells\-44 - 901H\DWG\TO-CLIENT\APACHE 901H 03-14-2022.dwg

ACREAGE DEDICATION PLATS

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

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



LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	015°18'14"	1,815.58'
L2	269°48'28"	10,318.76'

LEGEND

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

COORDINATE TABLE					
SHL/KOP (NAD 83 NME)			SHL/KOP (NAD 27 NME)		
Y =	506,652.5	N	Y =	506,591.8	N
X =	697,245.0	E	X =	656,063.5	E
LAT. =	32.391844	°N	LAT. =	32.391721	°N
LONG. =	103.828229	°W	LONG. =	103.827736	°W
FTP (NAD 83 NME)			FTP (NAD 27 NME)		
Y =	508,403.7	N	Y =	508,343.0	N
X =	697,724.2	E	X =	656,542.8	E
LAT. =	32.396652	°N	LAT. =	32.396529	°N
LONG. =	103.826650	°W	LONG. =	103.826156	°W
PPP #1 (NAD 83 NME)			PPP #1 (NAD 27 NME)		
Y =	508,395.8	N	Y =	508,335.1	N
X =	695,379.8	E	X =	654,198.4	E
LAT. =	32.396660	°N	LAT. =	32.396537	°N
LONG. =	103.834246	°W	LONG. =	103.833751	°W
PPP #2 (NAD 83 NME)			PPP #2 (NAD 27 NME)		
Y =	508,386.8	N	Y =	508,326.1	N
X =	692,706.9	E	X =	651,525.6	E
LAT. =	32.396669	°N	LAT. =	32.396547	°N
LONG. =	103.842905	°W	LONG. =	103.842411	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	508,369.2	N	Y =	508,308.5	N
X =	687,455.5	E	X =	646,274.2	E
LAT. =	32.396686	°N	LAT. =	32.396563	°N
LONG. =	103.859920	°W	LONG. =	103.859424	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	508,369.1	N	Y =	508,308.4	N
X =	687,405.5	E	X =	646,224.2	E
LAT. =	32.396686	°N	LAT. =	32.396564	°N
LONG. =	103.860082	°W	LONG. =	103.859586	°W

CORNER COORDINATES (NAD 83 NME)					
A - Y =	509,395.5	N	A - X =	698,049.7	E
B - Y =	509,382.9	N	B - X =	695,374.2	E
C - Y =	509,372.8	N	C - X =	692,700.3	E
D - Y =	509,366.4	N	D - X =	690,027.8	E
E - Y =	509,359.9	N	E - X =	687,353.5	E
F - Y =	508,072.9	N	F - X =	698,055.8	E
G - Y =	508,062.1	N	G - X =	695,381.7	E
H - Y =	508,052.6	N	H - X =	692,709.2	E
I - Y =	508,046.7	N	I - X =	690,034.9	E
J - Y =	508,040.4	N	J - X =	687,358.6	E
CORNER COORDINATES (NAD 27 NME)					
A - Y =	509,334.8	N	A - X =	656,868.3	E
B - Y =	509,322.2	N	B - X =	654,192.9	E
C - Y =	509,312.1	N	C - X =	651,519.0	E
D - Y =	509,305.6	N	D - X =	648,846.5	E
E - Y =	509,299.2	N	E - X =	646,172.2	E
F - Y =	508,012.2	N	F - X =	656,874.3	E
G - Y =	508,001.4	N	G - X =	654,200.3	E
H - Y =	507,991.9	N	H - X =	651,527.8	E
I - Y =	507,986.0	N	I - X =	648,853.5	E
J - Y =	507,979.7	N	J - X =	646,177.3	E

DN 618.013002.10-44

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-55834	97905	Wildcat G-07 S223021G; Bone Spring
Property Code	**Property Name**	**Well Number**
336414	JRU APACHE FEDERAL COM	901H
OGRID No.	**Operator Name**	**Ground Level Elevation**
373075	XTO PERMIAN OPERATING, LLC.	3,349'

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Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
160.00	Infill		N	P

Order Numbers. R-279-C

Well Setbacks are under Common Ownership: ☒ Yes ☐ No

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Jena Austin — 11/11/24

Signature — Date

Jena Austin

Printed Name

Jena.N.Austin@ExxonMobil.com

Email Address

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MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

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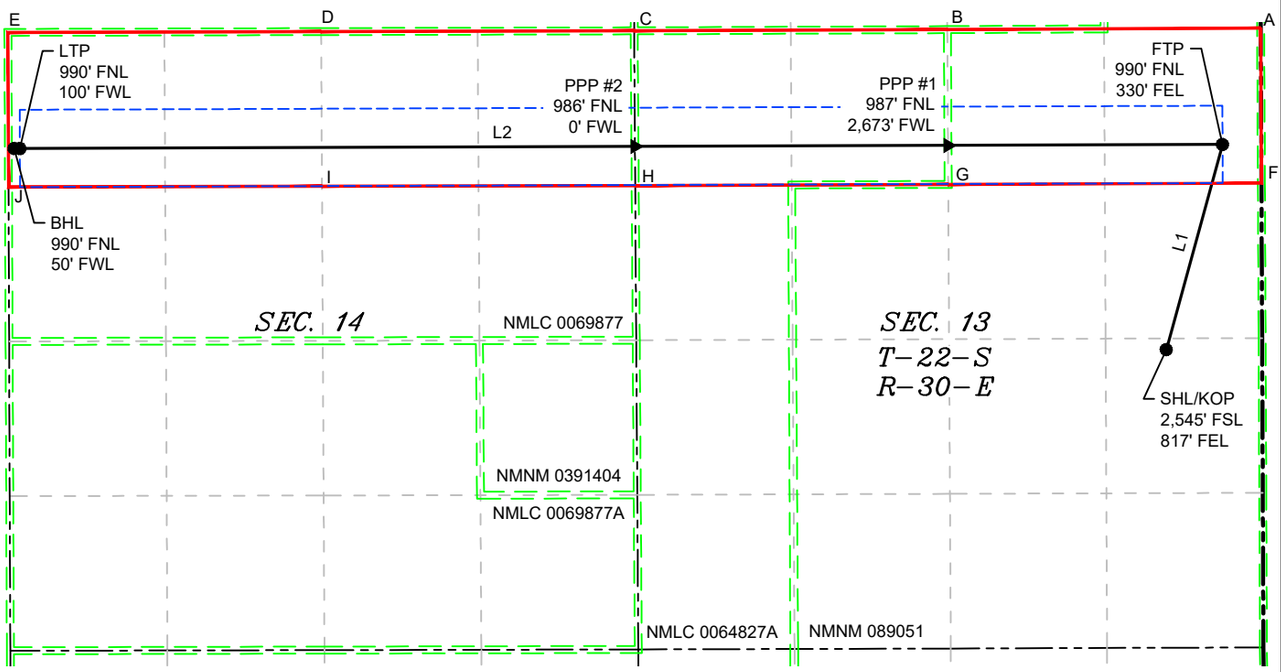

LINE TABLE		
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L2	269°48'28"	10,318.76'

LEGEND

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

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PPP #2 (NAD 83 NME)			PPP #2 (NAD 27 NME)		
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LONG. =	103.842905	°W	LONG. =	103.842411	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	508,369.2	N	Y =	508,308.5	N
X =	687,455.5	E	X =	646,274.2	E
LAT. =	32.396686	°N	LAT. =	32.396563	°N
LONG. =	103.859920	°W	LONG. =	103.859424	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	508,369.1	N	Y =	508,308.4	N
X =	687,405.5	E	X =	646,224.2	E
LAT. =	32.396686	°N	LAT. =	32.396564	°N
LONG. =	103.860082	°W	LONG. =	103.859586	°W

CORNER COORDINATES (NAD 83 NME)					
A - Y =	509,395.5	N	A - X =	698,049.7	E
B - Y =	509,382.9	N	B - X =	695,374.2	E
C - Y =	509,372.8	N	C - X =	692,700.3	E
D - Y =	509,366.4	N	D - X =	690,027.8	E
E - Y =	509,359.9	N	E - X =	687,353.5	E
F - Y =	508,072.9	N	F - X =	698,055.8	E
G - Y =	508,062.1	N	G - X =	695,381.7	E
H - Y =	508,052.6	N	H - X =	692,709.2	E
I - Y =	508,046.7	N	I - X =	690,034.9	E
J - Y =	508,040.4	N	J - X =	687,358.6	E
CORNER COORDINATES (NAD 27 NME)					
A - Y =	509,334.8	N	A - X =	656,868.3	E
B - Y =	509,322.2	N	B - X =	654,192.9	E
C - Y =	509,312.1	N	C - X =	651,519.0	E
D - Y =	509,305.6	N	D - X =	648,846.5	E
E - Y =	509,299.2	N	E - X =	646,172.2	E
F - Y =	508,012.2	N	F - X =	656,874.3	E
G - Y =	508,001.4	N	G - X =	654,200.3	E
H - Y =	507,991.9	N	H - X =	651,527.8	E
I - Y =	507,986.0	N	I - X =	648,853.5	E
J - Y =	507,979.7	N	J - X =	646,177.3	E

DN 618.013002.10-44

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: XTO PERMIAN OPERATING, LLC **OGRID:** 373075 **Date:** 08/19/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	3 yr Anticipated decline Oil BBL/D	Anticipated Gas MCF/D	3 yr anticipated decline Gas MCF/D	Anticipated Produced Water BBL/D	3 yr anticipated decline Water BBL/D
James Ranch Unit Apache 149H	TBD	13 22S 30E	507 FSL, 864 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 150H	TBD	13 22S 30E	477 FSL, 863 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 142H	TBD	24 22S 30E	1524 FNL, 829 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 135H	TBD	24 22S 30E	2228 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 136H	TBD	24 22S 30E	2227 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 137H	TBD	24 22S 30E	2257 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 138H	TBD	24 22S 30E	2167 FSL, 971 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 139H	TBD	24 22S 30E	2258 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 140H	TBD	24 22S 30E	2288 FSL, 871 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 141H	TBD	24 22S 30E	2197 FSL, 971 FEL	600	100	2500	1500	5000	200

James Ranch Unit Apache 131H	TBD	24 22S 30E	419 FSL, 890 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 132H	TBD	24 22S 30E	389 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 133H	TBD	24 22S 30E	359 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 134H	TBD	24 22S 30E	329 FSL, 889 FEL	600	100	2500	1500	5000	200
James Ranch Unit Apache 111H	TBD	13 22S 30E	2576 FSL, 867 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 112H	TBD	13 22S 30E	2516 FSL, 868 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 113H	TBD	13 22S 30E	416 FSL, 962 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 114H	TBD	24 22S 30E	350 FNL, 949 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 115H	TBD	24 22S 30E	408 FNL, 848 FEL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 701H	TBD	13 22S 30E	2577 FSL, 967 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 702H	TBD	13 22S 30E	2517 FSL, 968 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 703H	TBD	13 22S 30E	2486 FSL, 868 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 704H	TBD	13 22S 30E	2547 FSL, 967 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 705H	TBD	13 22S 30E	2487 FSL, 968 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 706H	TBD	13 22S 30E	2456 FSL, 869 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 707H	TBD	24 22S 30E	320 FNL, 950 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 708H	TBD	24 22S 30E	380 FNL, 949 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 709H	TBD	24 22S 30E	348 FNL, 849 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 710H	TBD	24 22S 30E	410 FNL, 948 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 711H	TBD	24 22S 30E	318 FNL, 850 FEL	1000	100	2000	1300	4500	400
James Ranch Unit Apache 801H	TBD	13 22S 30E	2546 FSL, 867 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 802H	TBD	13 22S 30E	446 FSL, 963 FEL	2000	100	6000	1000	7000	300

James Ranch Unit Apache 803H	TBD	13 22S 30E	476 FSL, 963 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 804H	TBD	24 22S 30E	378 FNL, 849 FEL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 901H	TBD	13 22S 30E	2457 FSL, 969 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 902H	TBD	13 22S 30E	506 FSL, 964 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 903H	TBD	13 22S 30E	386 FSL, 962 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 904H	TBD	24 22S 30E	440 FNL, 948 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 906H	TBD	24 22S 30E	2287 FSL, 971 FEL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 805H	TBD	24 22S 30E	909 FEL, 1526 FNL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 116H	TBD	24 22S 30E	909 FEL, 1556 FNL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 905H	TBD	24 22S 30E	908 FEL, 1616 FNL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 806H	TBD	24 22S 30E	906 FEL, 1646 FNL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 117H	TBD	24 22S 30E	907 FEL, 1676 FNL	2000	200	5000	1400	7000	400
James Ranch Unit Apache 907H	TBD	24 22S 30E	930 FEL, 389 FSL	2000	200	5000	1100	8000	500
James Ranch Unit Apache 807H	TBD	24 22S 30E	929 FEL, 359 FSL	2000	100	6000	1000	7000	300
James Ranch Unit Apache 808H	TBD	24 22S 30E	929 FEL, 329 FSL	2000	100	6000	1000	7000	300

IV. Central Delivery Point Name: Longhorn Compressor Station [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
James Ranch Unit Apache 149H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 150H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 142H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 135H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 136H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 137H	TBD	TBD	TBD	TBD	TBD	TBD

James Ranch Unit Apache 138H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 139H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 140H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 141H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 131H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 132H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 133H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 134H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 111H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 112H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 113H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 114H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 115H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 701H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 702H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 703H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 704H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 705H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 706H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 707H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 708H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 709H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 710H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 711H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 801H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 802H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 803H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 804H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 901H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 902H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 903H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 904H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 906H	TBD	TBD	TBD	TBD	TBD	TBD

James Ranch Unit Apache 805H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 116H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 905H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 806H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 117H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 907H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 807H	TBD	TBD	TBD	TBD	TBD	TBD
James Ranch Unit Apache 808H	TBD	TBD	TBD	TBD	TBD	TBD

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

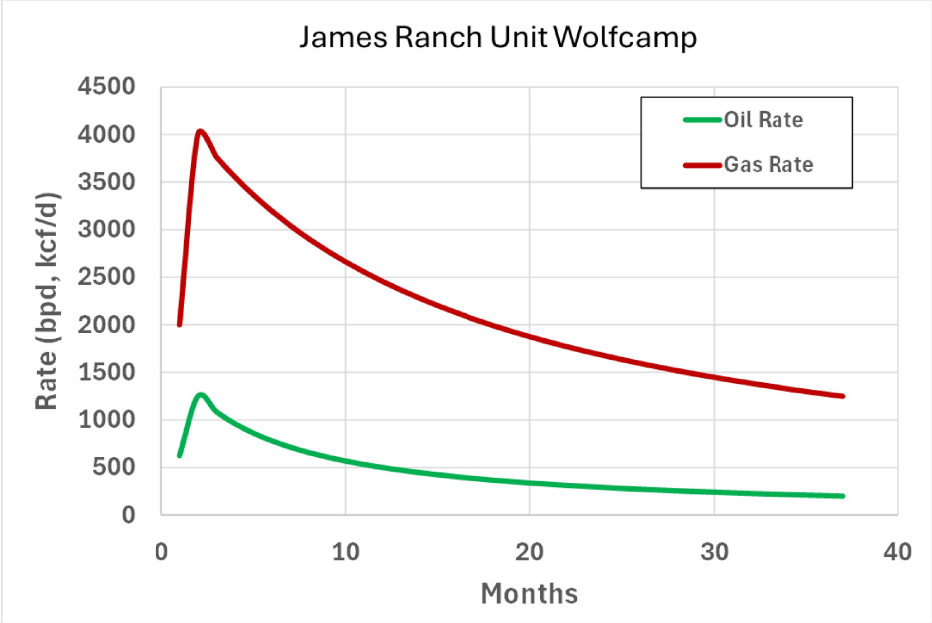
Signature:	
Printed Name:	Adrian Baker
Title:	Environmental and Regulatory Advisor
E-mail Address:	adrian.baker@exxonmobil.com
Date:	9/26/24
Phone:	4322363808

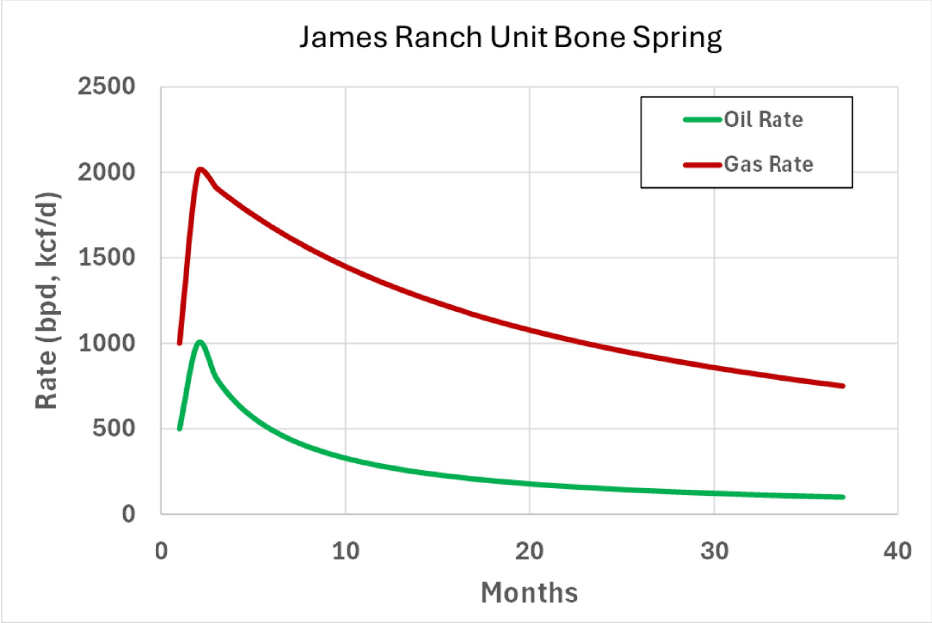
OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

JRU Decline Curves – Wolfcamp and Bone Spring





VI. Separation Equipment:

XTO Permian Operating LLC. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. XTO utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.

VII. Operational Practices

XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.

- During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLCwill turn operations to onsite separation vessels and flow to the gathering pipeline.

- During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:

    - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
    - Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
    - Flaring in lieu of venting, where technically feasible
    - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
    - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
    - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
    - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

- Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible.

VIII. Best Management Practices during Maintenance

XTO Permian Operating LLC. will utilize best management practices to minimize venting during active and planned maintenance activities. XTO is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high-pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. XTO will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

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

Drilling Plan Data Report
11/07/2024

APD ID: 10400085291 **Submission Date:** 05/23/2022

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14396176	QUATERNARY	3349	0	0	ALLUVIUM	USEABLE WATER	N
14396183	RUSTLER	2894	455	455	SANDSTONE, SILTSTONE	USEABLE WATER	N
14396178	SALADO	2602	747	747	SALT	POTASH	N
14396179	BASE OF SALT	-253	3602	3602	SALT	POTASH	N
14396180	DELAWARE	-512	3861	3861	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14396187	BRUSHY CANYON	-3254	6603	6603	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14396181	BONE SPRING	-4412	7761	7761	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
14396185	BONE SPRING 1ST	-5452	8801	8801	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
14396186	BONE SPRING 2ND	-6182	9531	9531	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
14396188	BONE SPRING 3RD	-7532	10881	10881	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 10839

Equipment: Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril and a 5M Double Ram BOP. XTO will use a Multi-Bowl system which is attached.

Requesting Variance? YES

Variance request: 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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

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. 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 does not penetrate into the Wolfcamp

Testing Procedure: All BOP testing will be done by an independent service company. Operator will test as per BLM 43 CFR 3172

Choke Diagram Attachment:

5MCM_20240723195435.pdf

BOP Diagram Attachment:

Apache_5MBOP_20211110052936.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	722	0	722	3349	2627	722	J-55	54.5	BUTT	3.46	2.31	DRY	21.68	DRY	21.68
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3702	0	3667	3344	-318	3702	J-55	40	BUTT	2.14	1.39	DRY	4.25	DRY	4.25
3	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	10015	0	9802	0	-6453	10015	L-80	29.7	FJ	2.66	1.93	DRY	2.2	DRY	2.2
4	PRODUCTION	6.75	5.0	NEW	NON API	Y	0	21832	0	10839	3344	-7490	21832	P-110	18	OTHER - Freedom HTQ/Talon HTQ	2.26	1.16	DRY	7.63	DRY	7.63

Casing Attachments

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Apache_901H_Csg_20220511215418.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Apache_901H_Csg_20220511215233.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Apache_901H_Csg_20220511215446.pdf

Casing Design Assumptions and Worksheet(s):

Apache_901H_Csg_20220511215500.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Freedom_semi_premium_5.5_production_casing_20240723195531.pdf

Talon___semiflush_5.5_production_casing_20240723195531.pdf

USS_Freedom_Production_Casing_5_inch_spec_sheet_20240801072313.pdf

Tapered String Spec:

Apache_901H_Csg_20220511215303.pdf

Casing Design Assumptions and Worksheet(s):

Apache_901H_Csg_20220511215331.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	722	310	1.87	12.9	579.7	100	EconoCem-HLTRRC	None
SURFACE	Tail		0	722	300	1.35	14.8	405	100	Class C	2% CaCL
INTERMEDIATE	Lead		0	3702	1530	1.39	12.9	2126.7	100	C	None
INTERMEDIATE	Tail		0	3702	130	1.35	14.8	175.5	100	C	2% CaCl
INTERMEDIATE	Lead		3502	6603	310	1.35	14.8	418.5	100	Class C	None
INTERMEDIATE	Tail		6603	10015	390	1.33	14.8	518.7	100	Class C	None
PRODUCTION	Lead		9515	10700	40	2.69	11.5	107.6	30	NeoCem	None
PRODUCTION	Tail		10700	21832	1060	1.51	13.2	1600.6	30	VersaCem	None

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: Spud with fresh water/native mud. Drill out from under the surface casing with Saturated Salt solution. Saturated Salt 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.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	722	WATER-BASED MUD	8.7	9.2							
722	3861	SALT SATURATED	10.5	11							
3861	10015	OTHER : BDE/OBM	9	9.5							
10015	21832	OIL-BASED MUD	10.5	11							

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.Open hole logging will not be done on this well.

List of open and cased hole logs run in the well:

CEMENT BOND LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No Coring Operations for Well

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5972 **Anticipated Surface Pressure:** 3565

Anticipated Bottom Hole Temperature(F): 195

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

XTO_Energy_H2S_Plan_Updated_20240801072601.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Apache_901H_DD_20220511215711.pdf

Other proposed operations facets description:

XTO Permian Operating LLC will abide by R-111-Q and monitor separation Distance to offsets and maintain a Separation Factor greater than 1.0 while drilling through the salt intervals. For blind or inclination only wells, XTO Permian Operating LLC will maintain greater than 300 center-to-center separation.

Other proposed operations facets attachment:

Apache_901H_Cmt_20240515144701.pdf

Apache_H2S_Dia_20240723200046.pdf

Apache_MBS_20240723200048.pdf

Apache_Rig_Layout_901H_20240801072624.pdf

4_String_Wellbore_diagram_with_pop_valve_and_engineered_weak_point_20240821114131.pdf

Other Variance attachment:

Offline_Cement_Variance_Surf___Interm_Csg_20240723200211.pdf

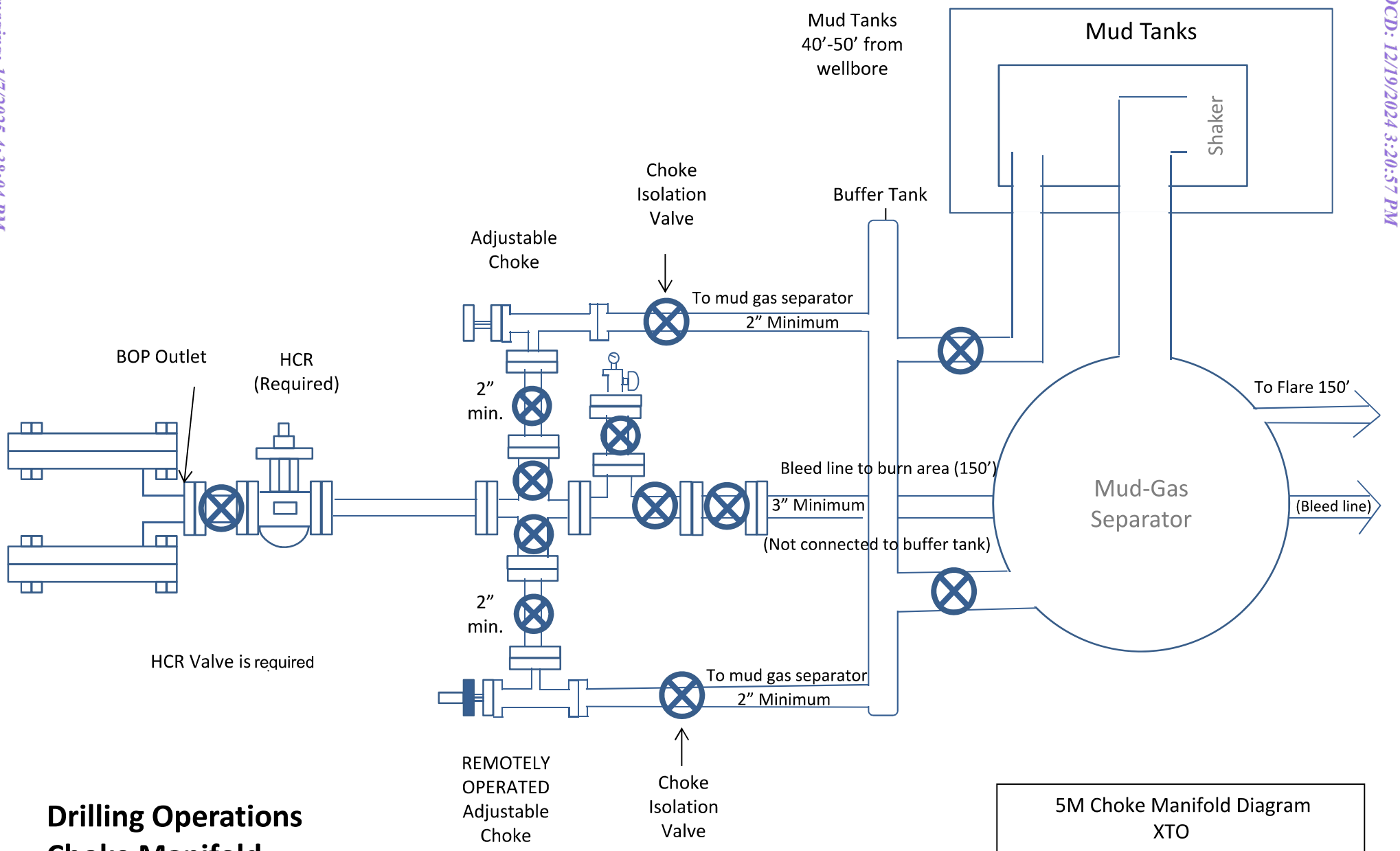
Spudder_Rig_Request_20240801072638.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

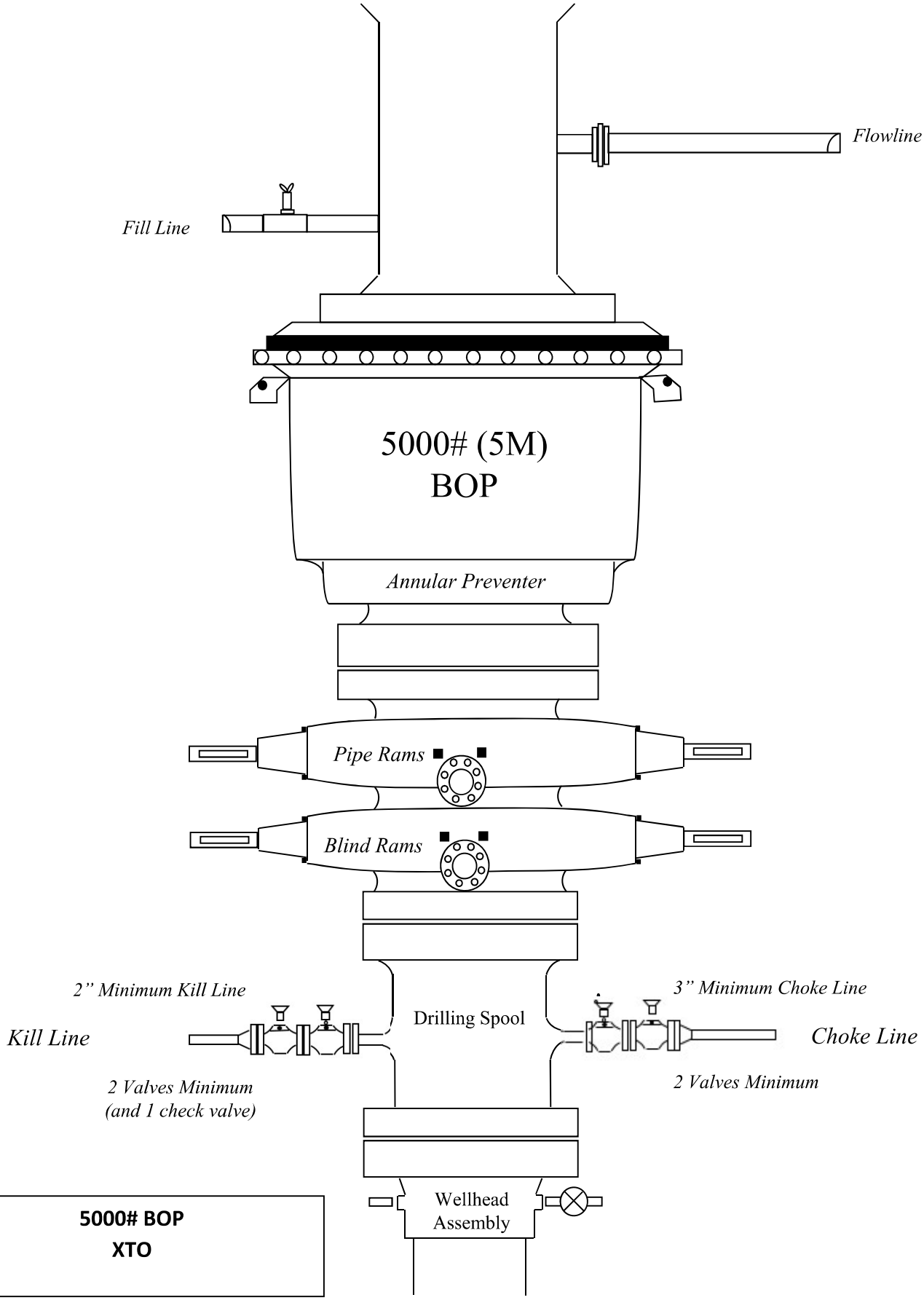
Updated_Flex_Hose_20240801072638.pdf

Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



Drilling Operations
Choke Manifold
5M Service

5M Choke Manifold Diagram
XTO


Flowline
Fill Line
5000# (5M)
BOP
Annular Preventer
Pipe Rams
Blind Rams
2" Minimum Kill Line
3" Minimum Choke Line
Kill Line
Drilling Spool
Choke Line
2 Valves Minimum
(and 1 check valve)
2 Valves Minimum
Wellhead
Assembly

5000# BOP
XTO

Casing Assumptions

Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 722'	13.375	54.5	J-55	BTC	New	2.31	3.46	21.68
12.25	0' – 3702'	9.625	40	J-55	BTC	New	1.39	2.14	4.25
8.75	0' – 3802'	7.625	29.7	RY P-110	Flush Joint	New	2.65	2.79	1.88
8.75	3802' – 10015'	7.625	29.7	HC L-80	Flush Joint	New	1.93	2.66	2.20
6.75	0' – 9915'	5.5	23	RY P-110	Semi-Premium	New	1.21	2.69	2.23
6.75	9915' - 10900'	5.5	23	RY P-110	Semi-Flush	New	1.21	2.44	6.14
6.75	10900' - 21832'	5	18	RY P-110	Semi-Premium	New	1.16	2.26	7.63

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H_2S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	2 ppm	N/A	1000 ppm

Contacting Authorities

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

CARLSBAD OFFICE – EDDY & LEA COUNTIES

3104 E. Greene St., Carlsbad, NM 88220
Carlsbad, NM 575-887-7329

XTO PERSONNEL:

Will Dacus, Drilling Manager	832-948-5021
Brian Dunn, Drilling Supervisor	832-653-0490
Robert Bartels, Construction Execution Planner	406-478-3617
Andy Owens, EH & S Manager	903-245-2602
Frank Fuentes, Production Foreman	575-689-3363

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE: 575-392-5588

FIRE DEPARTMENTS: 911

Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

HOSPITALS: 911

Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

AGENT NOTIFICATIONS:

For Lea County:

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283

XTO Energy

Eddy County, NM (NAD-27)
JRU APACHE FEDERAL COM
901H

Wellbore #1

Plan: PERMIT

Standard Planning Report

19 March, 2022

XTO ENERGY

Project: Eddy County, NM (NAD-27)
Site: JRU APACHE FEDERAL COM
Well: 901H
Wellbore: Wellbore #1
Design: PERMIT

WELL DETAILS: 901H

Rig Name: TBD
RKB = 32' @ 3381.00usft (TBD)
Ground Level: 3349.00

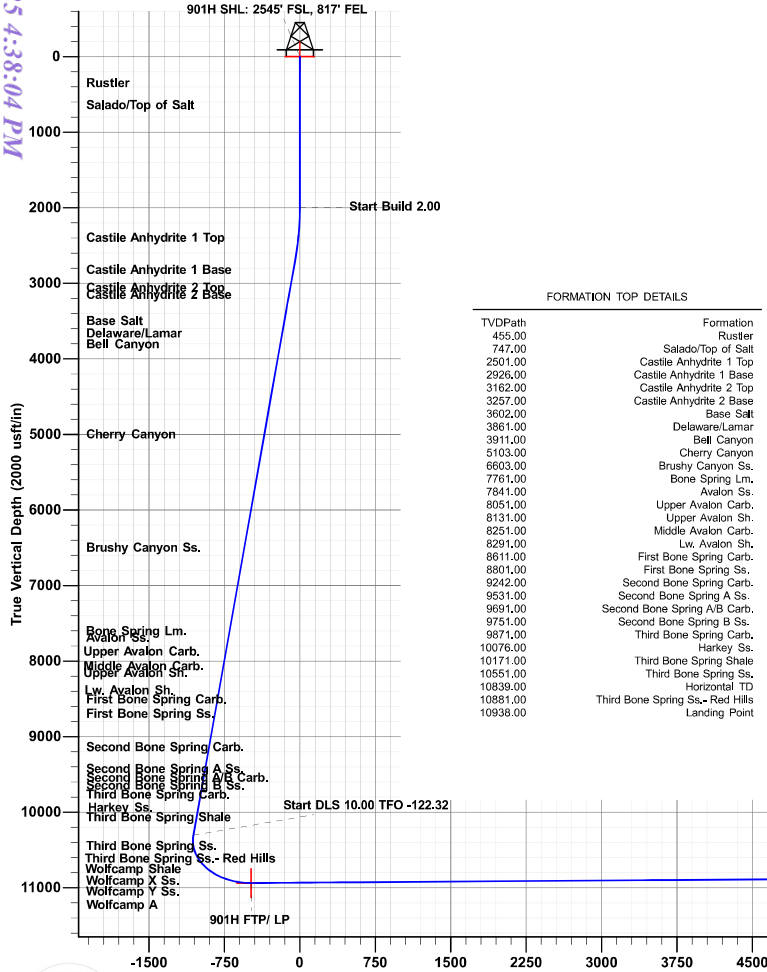
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	506591.90	656063.60	32.3917216	-103.8277353

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2682.93	13.66	32.98	2676.48	67.96	44.10	2.00	32.98	44.33	
4	10532.71	13.66	32.98	10304.27	1622.84	1053.17	0.00	0.00	1058.55	
5	11512.34	90.55	269.81	10938.00	1751.10	479.20	10.00	-122.32	485.00	901H FTP/ LP
6	21781.57	90.55	269.81	10839.48	1716.57	-9789.50	0.00	0.00	9783.75	901H LTP
7	21831.57	90.55	269.81	10839.00	1716.40	-9839.50	0.00	0.00	9833.75	901H BHL: 990' FNL, 50' FWL

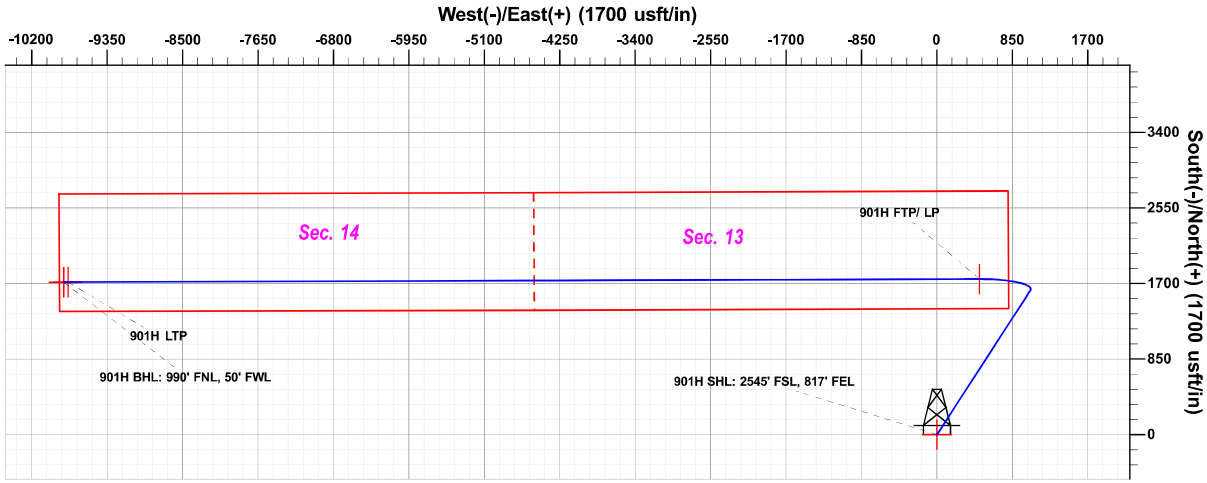
DESIGN TARGET DETAILS

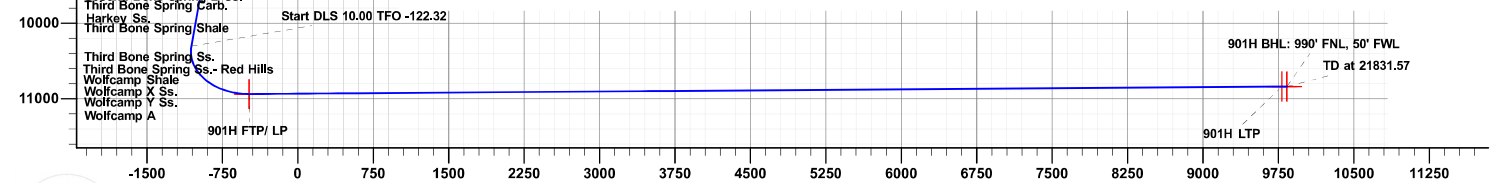
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
901H SHL: 2545' FSL, 817' FEL	0.00	0.00	0.00	506591.90	656063.60	32.3917216	-103.8277353	Point
901H BHL: 990' FNL, 50' FWL	10839.00	1716.40	-9839.50	508308.30	646224.10	32.3965635	-103.8595866	Point
901H LTP	10839.48	1716.60	-9789.50	508308.50	646274.10	32.3965635	-103.8594246	Point
901H FTP/ LP	10938.00	1751.10	479.20	508343.00	656542.80	32.3965288	-103.8261560	Point



FORMATION TOP DETAILS

TVDPath	Formation
455.00	Rustler
747.00	Salado/Top of Salt
2501.00	Castile Anhydrite 1 Top
2926.00	Castile Anhydrite 1 Base
3162.00	Castile Anhydrite 2 Top
3257.00	Castile Anhydrite 2 Base
3602.00	Base Salt
3861.00	Delaware/Lamar
3911.00	Bell Canyon
5103.00	Cherry Canyon
6603.00	Brushy Canyon Ss.
7761.00	Bone Spring Lm.
7841.00	Avalon Ss.
8051.00	Upper Avalon Carb.
8131.00	Upper Avalon Sh.
8251.00	Middle Avalon Carb.
8291.00	Lw. Avalon Sh.
8611.00	First Bone Spring Carb.
8801.00	First Bone Spring Ss.
9242.00	Second Bone Spring Carb.
9531.00	Second Bone Spring A Ss.
9691.00	Second Bone Spring A/B Carb.
9751.00	Second Bone Spring B Ss.
9871.00	Third Bone Spring Carb.
10076.00	Harkey Ss.
10171.00	Third Bone Spring Shale
10551.00	Third Bone Spring Ss.
10839.00	Horizontal TD
10881.00	Third Bone Spring Ss.- Red Hills
10938.00	Landing Point





Vertical Section at 269.81° (1500 usft/in)

PROJECT DETAILS: Eddy County, NM (NAD-27)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Plan: PERMIT (901H/Wellbore #1)
Created By: Matthew May Date: 11:26, March 19 2022

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 901H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Project Eddy County, NM (NAD-27)

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 APACHE FEDERAL COM

Site Position:		**Northing:**	506,623.30 usft	**Latitude:**	32.3918094
From:	Map	**Easting:**	655,954.00 usft	**Longitude:**	-103.8280898
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.27 °

Well 901H

Well Position	**+N/-S**	-31.40 usft	**Northing:**	506,591.90 usft	**Latitude:**	32.3917217
	+E/-W	109.60 usft	**Easting:**	656,063.60 usft	**Longitude:**	-103.8277353
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,349.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	03/19/22	6.59	59.99	47,488

Design PERMIT

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.81

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,682.93	13.66	32.98	2,676.48	67.96	44.10	2.00	2.00	0.00	32.98	
10,532.71	13.66	32.98	10,304.27	1,622.84	1,053.17	0.00	0.00	0.00	0.00	
11,512.34	90.55	269.81	10,938.00	1,751.10	479.20	10.00	7.85	-12.57	-122.32	901H FTP/ LP
21,781.57	90.55	269.81	10,839.48	1,716.57	-9,789.50	0.00	0.00	0.00	0.00	901H LTP
21,831.57	90.55	269.81	10,839.00	1,716.40	-9,839.50	0.00	0.00	0.00	0.00	901H BHL: 990' FN

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 901H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
455.00	0.00	0.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
747.00	0.00	0.00	747.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado/Top of Salt									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	32.98	2,099.98	1.46	0.95	-0.95	2.00	2.00	0.00
2,200.00	4.00	32.98	2,199.84	5.85	3.80	-3.82	2.00	2.00	0.00
2,300.00	6.00	32.98	2,299.45	13.16	8.54	-8.59	2.00	2.00	0.00
2,400.00	8.00	32.98	2,398.70	23.39	15.18	-15.25	2.00	2.00	0.00
2,500.00	10.00	32.98	2,497.47	36.51	23.69	-23.81	2.00	2.00	0.00
2,503.59	10.07	32.98	2,501.00	37.03	24.03	-24.16	2.00	2.00	0.00
Castile Anhydrite 1 Top									
2,600.00	12.00	32.98	2,595.62	52.51	34.08	-34.25	2.00	2.00	0.00
2,682.93	13.66	32.98	2,676.48	67.96	44.10	-44.33	2.00	2.00	0.00
2,700.00	13.66	32.98	2,693.07	71.34	46.30	-46.53	0.00	0.00	0.00
2,800.00	13.66	32.98	2,790.24	91.15	59.15	-59.45	0.00	0.00	0.00
2,900.00	13.66	32.98	2,887.41	110.96	72.01	-72.38	0.00	0.00	0.00
2,939.71	13.66	32.98	2,926.00	118.82	77.11	-77.51	0.00	0.00	0.00
Castile Anhydrite 1 Base									
3,000.00	13.66	32.98	2,984.58	130.76	84.86	-85.30	0.00	0.00	0.00
3,100.00	13.66	32.98	3,081.76	150.57	97.72	-98.22	0.00	0.00	0.00
3,182.58	13.66	32.98	3,162.00	166.93	108.33	-108.89	0.00	0.00	0.00
Castile Anhydrite 2 Top									
3,200.00	13.66	32.98	3,178.93	170.38	110.57	-111.14	0.00	0.00	0.00
3,280.34	13.66	32.98	3,257.00	186.30	120.90	-121.52	0.00	0.00	0.00
Castile Anhydrite 2 Base									
3,300.00	13.66	32.98	3,276.10	190.19	123.43	-124.06	0.00	0.00	0.00
3,400.00	13.66	32.98	3,373.27	210.00	136.28	-136.98	0.00	0.00	0.00
3,500.00	13.66	32.98	3,470.44	229.80	149.14	-149.90	0.00	0.00	0.00
3,600.00	13.66	32.98	3,567.62	249.61	161.99	-162.82	0.00	0.00	0.00
3,635.39	13.66	32.98	3,602.00	256.62	166.54	-167.39	0.00	0.00	0.00
Base Salt									
3,700.00	13.66	32.98	3,664.79	269.42	174.85	-175.74	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 901H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
3,800.00	13.66	32.98	3,761.96	289.23	187.70	-188.66	0.00	0.00	0.00
3,900.00	13.66	32.98	3,859.13	309.04	200.56	-201.58	0.00	0.00	0.00
3,901.92	13.66	32.98	3,861.00	309.42	200.80	-201.83	0.00	0.00	0.00
Delaware/Lamar									
3,953.38	13.66	32.98	3,911.00	319.61	207.42	-208.48	0.00	0.00	0.00
Bell Canyon									
4,000.00	13.66	32.98	3,956.30	328.84	213.41	-214.50	0.00	0.00	0.00
4,100.00	13.66	32.98	4,053.48	348.65	226.26	-227.42	0.00	0.00	0.00
4,200.00	13.66	32.98	4,150.65	368.46	239.12	-240.34	0.00	0.00	0.00
4,300.00	13.66	32.98	4,247.82	388.27	251.97	-253.26	0.00	0.00	0.00
4,400.00	13.66	32.98	4,344.99	408.08	264.83	-266.18	0.00	0.00	0.00
4,500.00	13.66	32.98	4,442.16	427.88	277.68	-279.10	0.00	0.00	0.00
4,600.00	13.66	32.98	4,539.34	447.69	290.54	-292.02	0.00	0.00	0.00
4,700.00	13.66	32.98	4,636.51	467.50	303.39	-304.94	0.00	0.00	0.00
4,800.00	13.66	32.98	4,733.68	487.31	316.25	-317.86	0.00	0.00	0.00
4,900.00	13.66	32.98	4,830.85	507.12	329.10	-330.78	0.00	0.00	0.00
5,000.00	13.66	32.98	4,928.02	526.92	341.96	-343.70	0.00	0.00	0.00
5,100.00	13.66	32.98	5,025.20	546.73	354.81	-356.62	0.00	0.00	0.00
5,180.07	13.66	32.98	5,103.00	562.59	365.11	-366.97	0.00	0.00	0.00
Cherry Canyon									
5,200.00	13.66	32.98	5,122.37	566.54	367.67	-369.54	0.00	0.00	0.00
5,300.00	13.66	32.98	5,219.54	586.35	380.52	-382.46	0.00	0.00	0.00
5,400.00	13.66	32.98	5,316.71	606.16	393.38	-395.38	0.00	0.00	0.00
5,500.00	13.66	32.98	5,413.88	625.96	406.23	-408.30	0.00	0.00	0.00
5,600.00	13.66	32.98	5,511.06	645.77	419.09	-421.23	0.00	0.00	0.00
5,700.00	13.66	32.98	5,608.23	665.58	431.94	-434.15	0.00	0.00	0.00
5,800.00	13.66	32.98	5,705.40	685.39	444.80	-447.07	0.00	0.00	0.00
5,900.00	13.66	32.98	5,802.57	705.20	457.65	-459.99	0.00	0.00	0.00
6,000.00	13.66	32.98	5,899.74	725.00	470.51	-472.91	0.00	0.00	0.00
6,100.00	13.66	32.98	5,996.92	744.81	483.36	-485.83	0.00	0.00	0.00
6,200.00	13.66	32.98	6,094.09	764.62	496.21	-498.75	0.00	0.00	0.00
6,300.00	13.66	32.98	6,191.26	784.43	509.07	-511.67	0.00	0.00	0.00
6,400.00	13.66	32.98	6,288.43	804.24	521.92	-524.59	0.00	0.00	0.00
6,500.00	13.66	32.98	6,385.60	824.04	534.78	-537.51	0.00	0.00	0.00
6,600.00	13.66	32.98	6,482.78	843.85	547.63	-550.43	0.00	0.00	0.00
6,700.00	13.66	32.98	6,579.95	863.66	560.49	-563.35	0.00	0.00	0.00
6,723.72	13.66	32.98	6,603.00	868.36	563.54	-566.41	0.00	0.00	0.00
Brushy Canyon Ss.									
6,800.00	13.66	32.98	6,677.12	883.47	573.34	-576.27	0.00	0.00	0.00
6,900.00	13.66	32.98	6,774.29	903.28	586.20	-589.19	0.00	0.00	0.00
7,000.00	13.66	32.98	6,871.46	923.08	599.05	-602.11	0.00	0.00	0.00
7,100.00	13.66	32.98	6,968.64	942.89	611.91	-615.03	0.00	0.00	0.00
7,200.00	13.66	32.98	7,065.81	962.70	624.76	-627.95	0.00	0.00	0.00
7,300.00	13.66	32.98	7,162.98	982.51	637.62	-640.87	0.00	0.00	0.00
7,400.00	13.66	32.98	7,260.15	1,002.32	650.47	-653.79	0.00	0.00	0.00
7,500.00	13.66	32.98	7,357.32	1,022.12	663.33	-666.71	0.00	0.00	0.00
7,600.00	13.66	32.98	7,454.50	1,041.93	676.18	-679.63	0.00	0.00	0.00
7,700.00	13.66	32.98	7,551.67	1,061.74	689.04	-692.55	0.00	0.00	0.00
7,800.00	13.66	32.98	7,648.84	1,081.55	701.89	-705.47	0.00	0.00	0.00
7,900.00	13.66	32.98	7,746.01	1,101.36	714.75	-718.39	0.00	0.00	0.00
7,915.42	13.66	32.98	7,761.00	1,104.41	716.73	-720.39	0.00	0.00	0.00
Bone Spring Lm.									
7,997.75	13.66	32.98	7,841.00	1,120.72	727.31	-731.02	0.00	0.00	0.00

XTO ENERGY

Planning Report

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Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
Avalon Ss.									
8,000.00	13.66	32.98	7,843.18	1,121.16	727.60	-731.31	0.00	0.00	0.00
8,100.00	13.66	32.98	7,940.36	1,140.97	740.46	-744.23	0.00	0.00	0.00
8,200.00	13.66	32.98	8,037.53	1,160.78	753.31	-757.16	0.00	0.00	0.00
8,213.86	13.66	32.98	8,051.00	1,163.53	755.09	-758.95	0.00	0.00	0.00
Upper Avalon Carb.									
8,296.19	13.66	32.98	8,131.00	1,179.83	765.68	-769.58	0.00	0.00	0.00
Upper Avalon Sh.									
8,300.00	13.66	32.98	8,134.70	1,180.59	766.16	-770.08	0.00	0.00	0.00
8,400.00	13.66	32.98	8,231.87	1,200.40	779.02	-783.00	0.00	0.00	0.00
8,419.69	13.66	32.98	8,251.00	1,204.30	781.55	-785.54	0.00	0.00	0.00
Middle Avalon Carb.									
8,460.85	13.66	32.98	8,291.00	1,212.45	786.84	-790.86	0.00	0.00	0.00
Lw. Avalon Sh.									
8,500.00	13.66	32.98	8,329.04	1,220.20	791.87	-795.92	0.00	0.00	0.00
8,600.00	13.66	32.98	8,426.22	1,240.01	804.73	-808.84	0.00	0.00	0.00
8,700.00	13.66	32.98	8,523.39	1,259.82	817.58	-821.76	0.00	0.00	0.00
8,790.16	13.66	32.98	8,611.00	1,277.68	829.17	-833.41	0.00	0.00	0.00
First Bone Spring Carb.									
8,800.00	13.66	32.98	8,620.56	1,279.63	830.44	-834.68	0.00	0.00	0.00
8,900.00	13.66	32.98	8,717.73	1,299.44	843.29	-847.60	0.00	0.00	0.00
8,985.69	13.66	32.98	8,801.00	1,316.41	854.31	-858.67	0.00	0.00	0.00
First Bone Spring Ss.									
9,000.00	13.66	32.98	8,814.90	1,319.24	856.15	-860.52	0.00	0.00	0.00
9,100.00	13.66	32.98	8,912.08	1,339.05	869.00	-873.44	0.00	0.00	0.00
9,200.00	13.66	32.98	9,009.25	1,358.86	881.86	-886.36	0.00	0.00	0.00
9,300.00	13.66	32.98	9,106.42	1,378.67	894.71	-899.28	0.00	0.00	0.00
9,400.00	13.66	32.98	9,203.59	1,398.48	907.57	-912.20	0.00	0.00	0.00
9,439.53	13.66	32.98	9,242.00	1,406.31	912.65	-917.31	0.00	0.00	0.00
Second Bone Spring Carb.									
9,500.00	13.66	32.98	9,300.76	1,418.28	920.42	-925.12	0.00	0.00	0.00
9,600.00	13.66	32.98	9,397.94	1,438.09	933.28	-938.04	0.00	0.00	0.00
9,700.00	13.66	32.98	9,495.11	1,457.90	946.13	-950.96	0.00	0.00	0.00
9,736.94	13.66	32.98	9,531.00	1,465.22	950.88	-955.73	0.00	0.00	0.00
Second Bone Spring A Ss.									
9,800.00	13.66	32.98	9,592.28	1,477.71	958.99	-963.88	0.00	0.00	0.00
9,900.00	13.66	32.98	9,689.45	1,497.52	971.84	-976.80	0.00	0.00	0.00
9,901.59	13.66	32.98	9,691.00	1,497.83	972.05	-977.01	0.00	0.00	0.00
Second Bone Spring A/B Carb.									
9,963.34	13.66	32.98	9,751.00	1,510.06	979.98	-984.99	0.00	0.00	0.00
Second Bone Spring B Ss.									
10,000.00	13.66	32.98	9,786.62	1,517.32	984.70	-989.72	0.00	0.00	0.00
10,086.83	13.66	32.98	9,871.00	1,534.52	995.86	-1,000.94	0.00	0.00	0.00
Third Bone Spring Carb.									
10,100.00	13.66	32.98	9,883.80	1,537.13	997.55	-1,002.64	0.00	0.00	0.00
10,200.00	13.66	32.98	9,980.97	1,556.94	1,010.41	-1,015.56	0.00	0.00	0.00
10,297.80	13.66	32.98	10,076.00	1,576.31	1,022.98	-1,028.20	0.00	0.00	0.00
Harkey Ss.									
10,300.00	13.66	32.98	10,078.14	1,576.75	1,023.26	-1,028.48	0.00	0.00	0.00
10,395.56	13.66	32.98	10,171.00	1,595.68	1,035.54	-1,040.83	0.00	0.00	0.00
Third Bone Spring Shale									
10,400.00	13.66	32.98	10,175.31	1,596.56	1,036.12	-1,041.40	0.00	0.00	0.00

XTO ENERGY

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Wellbore:	Wellbore #1		
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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)
10,500.00	13.66	32.98	10,272.48	1,616.36	1,048.97	-1,054.32	0.00	0.00	0.00
10,532.71	13.66	32.98	10,304.27	1,622.84	1,053.17	-1,058.55	0.00	0.00	0.00
10,550.00	12.82	26.38	10,321.10	1,626.27	1,055.14	-1,060.53	10.00	-4.87	-38.18
10,600.00	11.53	3.29	10,370.00	1,636.24	1,057.89	-1,063.31	10.00	-2.57	-46.19
10,650.00	12.29	339.15	10,418.96	1,646.21	1,056.28	-1,061.74	10.00	1.51	-48.27
10,700.00	14.78	320.46	10,467.59	1,656.10	1,050.33	-1,055.81	10.00	4.98	-37.38
10,750.00	18.30	307.92	10,515.53	1,665.85	1,040.07	-1,045.59	10.00	7.05	-25.08
10,787.71	21.34	301.33	10,551.00	1,673.06	1,029.53	-1,035.07	10.00	8.07	-17.48
Third Bone Spring Ss.									
10,800.00	22.38	299.56	10,562.41	1,675.38	1,025.58	-1,031.13	10.00	8.44	-14.40
10,850.00	26.76	293.74	10,607.88	1,684.61	1,006.99	-1,012.57	10.00	8.76	-11.64
10,900.00	31.32	289.48	10,651.58	1,693.48	984.42	-990.03	10.00	9.11	-8.52
10,950.00	35.98	286.21	10,693.20	1,701.92	958.04	-963.68	10.00	9.33	-6.53
11,000.00	40.71	283.61	10,732.40	1,709.86	928.07	-933.74	10.00	9.47	-5.20
11,050.00	45.50	281.47	10,768.90	1,717.25	894.73	-900.42	10.00	9.56	-4.29
11,100.00	50.31	279.65	10,802.41	1,724.02	858.27	-863.98	10.00	9.63	-3.63
11,150.00	55.15	278.07	10,832.68	1,730.13	818.96	-824.69	10.00	9.68	-3.16
11,161.21	56.24	277.74	10,839.00	1,731.40	809.79	-815.53	10.00	9.70	-2.92
Horizontal TD									
11,200.00	60.01	276.67	10,859.48	1,735.53	777.12	-782.87	10.00	9.72	-2.77
11,246.25	64.51	275.49	10,881.00	1,739.85	736.43	-742.19	10.00	9.74	-2.55
Third Bone Spring Ss.- Red Hills									
11,250.00	64.88	275.40	10,882.60	1,740.18	733.05	-738.81	10.00	9.75	-2.44
11,300.00	69.76	274.23	10,901.88	1,744.04	687.09	-692.87	10.00	9.76	-2.35
11,350.00	74.65	273.12	10,917.15	1,747.08	639.59	-645.38	10.00	9.78	-2.20
11,400.00	79.54	272.07	10,928.32	1,749.29	590.92	-596.72	10.00	9.79	-2.10
11,450.00	84.44	271.05	10,935.28	1,750.63	541.44	-547.25	10.00	9.79	-2.04
11,500.00	89.34	270.05	10,937.99	1,751.12	491.54	-497.34	10.00	9.80	-2.00
11,512.34	90.55	269.81	10,938.00	1,751.10	479.20	-485.00	10.00	9.80	-2.00
Landing Point									
11,600.00	90.55	269.81	10,937.16	1,750.81	391.54	-397.34	0.00	0.00	0.00
11,700.00	90.55	269.81	10,936.20	1,750.47	291.55	-297.35	0.00	0.00	0.00
11,800.00	90.55	269.81	10,935.24	1,750.13	191.55	-197.35	0.00	0.00	0.00
11,900.00	90.55	269.81	10,934.28	1,749.80	91.56	-97.36	0.00	0.00	0.00
12,000.00	90.55	269.81	10,933.32	1,749.46	-8.44	2.64	0.00	0.00	0.00
12,100.00	90.55	269.81	10,932.36	1,749.12	-108.43	102.63	0.00	0.00	0.00
12,200.00	90.55	269.81	10,931.40	1,748.79	-208.43	202.63	0.00	0.00	0.00
12,300.00	90.55	269.81	10,930.44	1,748.45	-308.42	302.62	0.00	0.00	0.00
12,400.00	90.55	269.81	10,929.48	1,748.12	-408.42	402.62	0.00	0.00	0.00
12,500.00	90.55	269.81	10,928.52	1,747.78	-508.41	502.61	0.00	0.00	0.00
12,600.00	90.55	269.81	10,927.57	1,747.44	-608.41	602.61	0.00	0.00	0.00
12,700.00	90.55	269.81	10,926.61	1,747.11	-708.40	702.61	0.00	0.00	0.00
12,800.00	90.55	269.81	10,925.65	1,746.77	-808.40	802.60	0.00	0.00	0.00
12,900.00	90.55	269.81	10,924.69	1,746.43	-908.39	902.60	0.00	0.00	0.00
13,000.00	90.55	269.81	10,923.73	1,746.10	-1,008.39	1,002.59	0.00	0.00	0.00
13,100.00	90.55	269.81	10,922.77	1,745.76	-1,108.38	1,102.59	0.00	0.00	0.00
13,200.00	90.55	269.81	10,921.81	1,745.43	-1,208.38	1,202.58	0.00	0.00	0.00
13,300.00	90.55	269.81	10,920.85	1,745.09	-1,308.37	1,302.58	0.00	0.00	0.00
13,400.00	90.55	269.81	10,919.89	1,744.75	-1,408.37	1,402.57	0.00	0.00	0.00
13,500.00	90.55	269.81	10,918.93	1,744.42	-1,508.36	1,502.57	0.00	0.00	0.00
13,600.00	90.55	269.81	10,917.97	1,744.08	-1,608.36	1,602.56	0.00	0.00	0.00
13,700.00	90.55	269.81	10,917.01	1,743.74	-1,708.35	1,702.56	0.00	0.00	0.00
13,800.00	90.55	269.81	10,916.05	1,743.41	-1,808.35	1,802.55	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 901H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
13,900.00	90.55	269.81	10,915.09	1,743.07	-1,908.34	1,902.55	0.00	0.00	0.00
14,000.00	90.55	269.81	10,914.13	1,742.73	-2,008.34	2,002.55	0.00	0.00	0.00
14,100.00	90.55	269.81	10,913.17	1,742.40	-2,108.33	2,102.54	0.00	0.00	0.00
14,200.00	90.55	269.81	10,912.22	1,742.06	-2,208.33	2,202.54	0.00	0.00	0.00
14,300.00	90.55	269.81	10,911.26	1,741.73	-2,308.32	2,302.53	0.00	0.00	0.00
14,400.00	90.55	269.81	10,910.30	1,741.39	-2,408.32	2,402.53	0.00	0.00	0.00
14,500.00	90.55	269.81	10,909.34	1,741.05	-2,508.31	2,502.52	0.00	0.00	0.00
14,600.00	90.55	269.81	10,908.38	1,740.72	-2,608.30	2,602.52	0.00	0.00	0.00
14,700.00	90.55	269.81	10,907.42	1,740.38	-2,708.30	2,702.51	0.00	0.00	0.00
14,800.00	90.55	269.81	10,906.46	1,740.04	-2,808.29	2,802.51	0.00	0.00	0.00
14,900.00	90.55	269.81	10,905.50	1,739.71	-2,908.29	2,902.50	0.00	0.00	0.00
15,000.00	90.55	269.81	10,904.54	1,739.37	-3,008.28	3,002.50	0.00	0.00	0.00
15,100.00	90.55	269.81	10,903.58	1,739.04	-3,108.28	3,102.50	0.00	0.00	0.00
15,200.00	90.55	269.81	10,902.62	1,738.70	-3,208.27	3,202.49	0.00	0.00	0.00
15,300.00	90.55	269.81	10,901.66	1,738.36	-3,308.27	3,302.49	0.00	0.00	0.00
15,400.00	90.55	269.81	10,900.70	1,738.03	-3,408.26	3,402.48	0.00	0.00	0.00
15,500.00	90.55	269.81	10,899.74	1,737.69	-3,508.26	3,502.48	0.00	0.00	0.00
15,600.00	90.55	269.81	10,898.78	1,737.35	-3,608.25	3,602.47	0.00	0.00	0.00
15,700.00	90.55	269.81	10,897.82	1,737.02	-3,708.25	3,702.47	0.00	0.00	0.00
15,800.00	90.55	269.81	10,896.87	1,736.68	-3,808.24	3,802.46	0.00	0.00	0.00
15,900.00	90.55	269.81	10,895.91	1,736.35	-3,908.24	3,902.46	0.00	0.00	0.00
16,000.00	90.55	269.81	10,894.95	1,736.01	-4,008.23	4,002.45	0.00	0.00	0.00
16,100.00	90.55	269.81	10,893.99	1,735.67	-4,108.23	4,102.45	0.00	0.00	0.00
16,200.00	90.55	269.81	10,893.03	1,735.34	-4,208.22	4,202.44	0.00	0.00	0.00
16,300.00	90.55	269.81	10,892.07	1,735.00	-4,308.22	4,302.44	0.00	0.00	0.00
16,400.00	90.55	269.81	10,891.11	1,734.66	-4,408.21	4,402.44	0.00	0.00	0.00
16,500.00	90.55	269.81	10,890.15	1,734.33	-4,508.21	4,502.43	0.00	0.00	0.00
16,600.00	90.55	269.81	10,889.19	1,733.99	-4,608.20	4,602.43	0.00	0.00	0.00
16,700.00	90.55	269.81	10,888.23	1,733.66	-4,708.20	4,702.42	0.00	0.00	0.00
16,800.00	90.55	269.81	10,887.27	1,733.32	-4,808.19	4,802.42	0.00	0.00	0.00
16,900.00	90.55	269.81	10,886.31	1,732.98	-4,908.19	4,902.41	0.00	0.00	0.00
17,000.00	90.55	269.81	10,885.35	1,732.65	-5,008.18	5,002.41	0.00	0.00	0.00
17,100.00	90.55	269.81	10,884.39	1,732.31	-5,108.18	5,102.40	0.00	0.00	0.00
17,200.00	90.55	269.81	10,883.43	1,731.97	-5,208.17	5,202.40	0.00	0.00	0.00
17,300.00	90.55	269.81	10,882.47	1,731.64	-5,308.17	5,302.39	0.00	0.00	0.00
17,400.00	90.55	269.81	10,881.52	1,731.30	-5,408.16	5,402.39	0.00	0.00	0.00
17,500.00	90.55	269.81	10,880.56	1,730.97	-5,508.16	5,502.38	0.00	0.00	0.00
17,600.00	90.55	269.81	10,879.60	1,730.63	-5,608.15	5,602.38	0.00	0.00	0.00
17,700.00	90.55	269.81	10,878.64	1,730.29	-5,708.14	5,702.38	0.00	0.00	0.00
17,800.00	90.55	269.81	10,877.68	1,729.96	-5,808.14	5,802.37	0.00	0.00	0.00
17,900.00	90.55	269.81	10,876.72	1,729.62	-5,908.13	5,902.37	0.00	0.00	0.00
18,000.00	90.55	269.81	10,875.76	1,729.28	-6,008.13	6,002.36	0.00	0.00	0.00
18,100.00	90.55	269.81	10,874.80	1,728.95	-6,108.12	6,102.36	0.00	0.00	0.00
18,200.00	90.55	269.81	10,873.84	1,728.61	-6,208.12	6,202.35	0.00	0.00	0.00
18,300.00	90.55	269.81	10,872.88	1,728.28	-6,308.11	6,302.35	0.00	0.00	0.00
18,400.00	90.55	269.81	10,871.92	1,727.94	-6,408.11	6,402.34	0.00	0.00	0.00
18,500.00	90.55	269.81	10,870.96	1,727.60	-6,508.10	6,502.34	0.00	0.00	0.00
18,600.00	90.55	269.81	10,870.00	1,727.27	-6,608.10	6,602.33	0.00	0.00	0.00
18,700.00	90.55	269.81	10,869.04	1,726.93	-6,708.09	6,702.33	0.00	0.00	0.00
18,800.00	90.55	269.81	10,868.08	1,726.59	-6,808.09	6,802.32	0.00	0.00	0.00
18,900.00	90.55	269.81	10,867.12	1,726.26	-6,908.08	6,902.32	0.00	0.00	0.00
19,000.00	90.55	269.81	10,866.17	1,725.92	-7,008.08	7,002.32	0.00	0.00	0.00
19,100.00	90.55	269.81	10,865.21	1,725.59	-7,108.07	7,102.31	0.00	0.00	0.00
19,200.00	90.55	269.81	10,864.25	1,725.25	-7,208.07	7,202.31	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 901H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
19,300.00	90.55	269.81	10,863.29	1,724.91	-7,308.06	7,302.30	0.00	0.00	0.00
19,400.00	90.55	269.81	10,862.33	1,724.58	-7,408.06	7,402.30	0.00	0.00	0.00
19,500.00	90.55	269.81	10,861.37	1,724.24	-7,508.05	7,502.29	0.00	0.00	0.00
19,600.00	90.55	269.81	10,860.41	1,723.90	-7,608.05	7,602.29	0.00	0.00	0.00
19,700.00	90.55	269.81	10,859.45	1,723.57	-7,708.04	7,702.28	0.00	0.00	0.00
19,800.00	90.55	269.81	10,858.49	1,723.23	-7,808.04	7,802.28	0.00	0.00	0.00
19,900.00	90.55	269.81	10,857.53	1,722.90	-7,908.03	7,902.27	0.00	0.00	0.00
20,000.00	90.55	269.81	10,856.57	1,722.56	-8,008.03	8,002.27	0.00	0.00	0.00
20,100.00	90.55	269.81	10,855.61	1,722.22	-8,108.02	8,102.27	0.00	0.00	0.00
20,200.00	90.55	269.81	10,854.65	1,721.89	-8,208.02	8,202.26	0.00	0.00	0.00
20,300.00	90.55	269.81	10,853.69	1,721.55	-8,308.01	8,302.26	0.00	0.00	0.00
20,400.00	90.55	269.81	10,852.73	1,721.21	-8,408.01	8,402.25	0.00	0.00	0.00
20,500.00	90.55	269.81	10,851.77	1,720.88	-8,508.00	8,502.25	0.00	0.00	0.00
20,600.00	90.55	269.81	10,850.82	1,720.54	-8,607.99	8,602.24	0.00	0.00	0.00
20,700.00	90.55	269.81	10,849.86	1,720.21	-8,707.99	8,702.24	0.00	0.00	0.00
20,800.00	90.55	269.81	10,848.90	1,719.87	-8,807.98	8,802.23	0.00	0.00	0.00
20,900.00	90.55	269.81	10,847.94	1,719.53	-8,907.98	8,902.23	0.00	0.00	0.00
21,000.00	90.55	269.81	10,846.98	1,719.20	-9,007.97	9,002.22	0.00	0.00	0.00
21,100.00	90.55	269.81	10,846.02	1,718.86	-9,107.97	9,102.22	0.00	0.00	0.00
21,200.00	90.55	269.81	10,845.06	1,718.52	-9,207.96	9,202.21	0.00	0.00	0.00
21,300.00	90.55	269.81	10,844.10	1,718.19	-9,307.96	9,302.21	0.00	0.00	0.00
21,400.00	90.55	269.81	10,843.14	1,717.85	-9,407.95	9,402.21	0.00	0.00	0.00
21,500.00	90.55	269.81	10,842.18	1,717.51	-9,507.95	9,502.20	0.00	0.00	0.00
21,600.00	90.55	269.81	10,841.22	1,717.18	-9,607.94	9,602.20	0.00	0.00	0.00
21,700.00	90.55	269.81	10,840.26	1,716.84	-9,707.94	9,702.19	0.00	0.00	0.00
21,781.57	90.55	269.81	10,839.48	1,716.57	-9,789.50	9,783.75	0.00	0.00	0.00
21,800.00	90.55	269.81	10,839.30	1,716.51	-9,807.93	9,802.19	0.00	0.00	0.00
21,831.57	90.55	269.81	10,839.00	1,716.40	-9,839.50	9,833.75	0.00	0.00	0.00

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
901H SHL: 2545' FSL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	506,591.90	656,063.60	32.3917217	-103.8277353
901H BHL: 990' FNL, - plan hits target center - Point	0.00	0.00	10,839.00	1,716.40	-9,839.50	508,308.30	646,224.10	32.3965636	-103.8595866
901H LTP - plan misses target center by 0.03usft at 21781.57usft MD (10839.48 TVD, 1716.57 N, -9789.50 E) - Point	0.00	0.00	10,839.48	1,716.60	-9,789.50	508,308.50	646,274.10	32.3965635	-103.8594246
901H FTP/ LP - plan hits target center - Point	0.00	0.00	10,938.00	1,751.10	479.20	508,343.00	656,542.80	32.3965289	-103.8261560

XTO ENERGY

Planning Report

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Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3381.00usft (TBD)
Site:	JRU APACHE FEDERAL COM	**North Reference:**	Grid
Well:	901H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
455.00	455.00	Rustler			
747.00	747.00	Salado/Top of Salt			
2,503.59	2,501.00	Castile Anhydrite 1 Top			
2,939.71	2,926.00	Castile Anhydrite 1 Base			
3,182.58	3,162.00	Castile Anhydrite 2 Top			
3,280.34	3,257.00	Castile Anhydrite 2 Base			
3,635.39	3,602.00	Base Salt			
3,901.92	3,861.00	Delaware/Lamar			
3,953.38	3,911.00	Bell Canyon			
5,180.07	5,103.00	Cherry Canyon			
6,723.72	6,603.00	Brushy Canyon Ss.			
7,915.42	7,761.00	Bone Spring Lm.			
7,997.75	7,841.00	Avalon Ss.			
8,213.86	8,051.00	Upper Avalon Carb.			
8,296.19	8,131.00	Upper Avalon Sh.			
8,419.69	8,251.00	Middle Avalon Carb.			
8,460.85	8,291.00	Lw. Avalon Sh.			
8,790.16	8,611.00	First Bone Spring Carb.			
8,985.69	8,801.00	First Bone Spring Ss.			
9,439.53	9,242.00	Second Bone Spring Carb.			
9,736.94	9,531.00	Second Bone Spring A Ss.			
9,901.59	9,691.00	Second Bone Spring A/B Carb.			
9,963.34	9,751.00	Second Bone Spring B Ss.			
10,086.83	9,871.00	Third Bone Spring Carb.			
10,297.80	10,076.00	Harkey Ss.			
10,395.56	10,171.00	Third Bone Spring Shale			
10,787.71	10,551.00	Third Bone Spring Ss.			
11,161.21	10,839.00	Horizontal TD			
11,246.25	10,881.00	Third Bone Spring Ss.- Red Hills			
11,512.34	10,938.00	Landing Point			

Cement Variance Request

Intermediate Casing :

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 (6603') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to 3502'. 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.

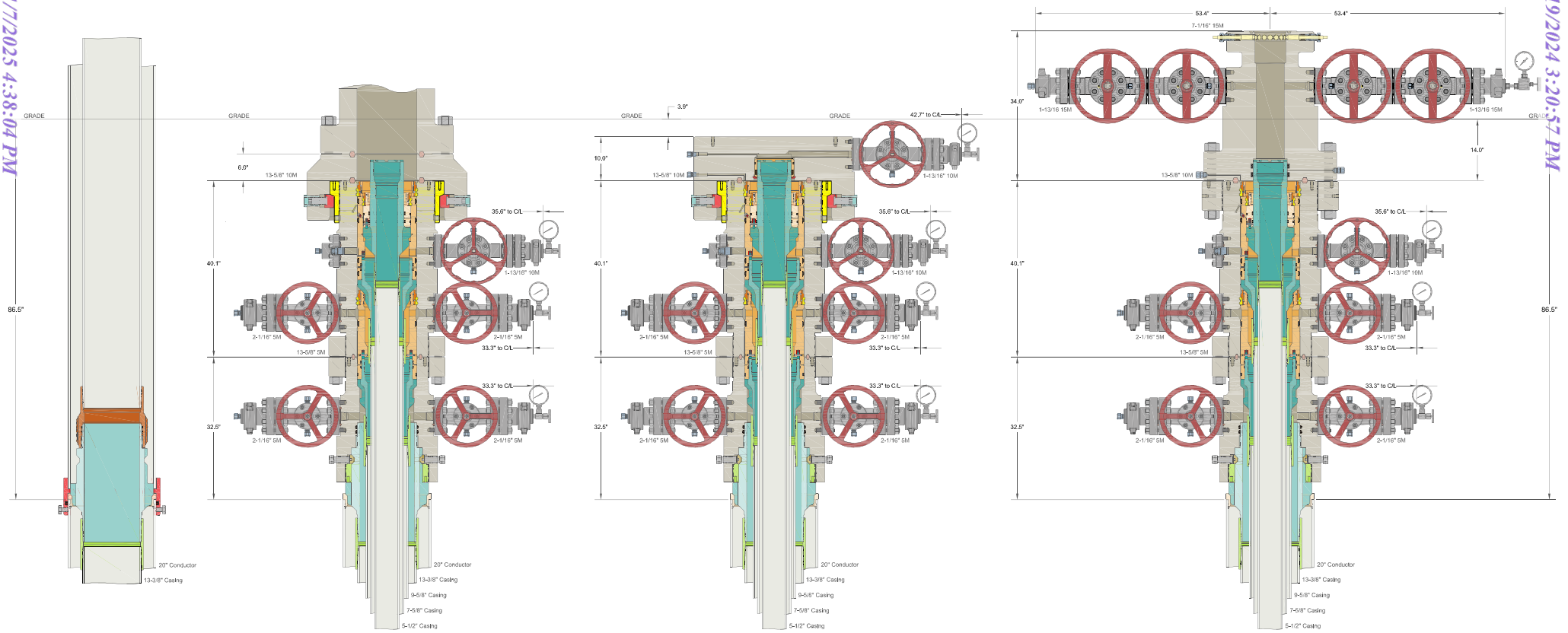
XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. 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.

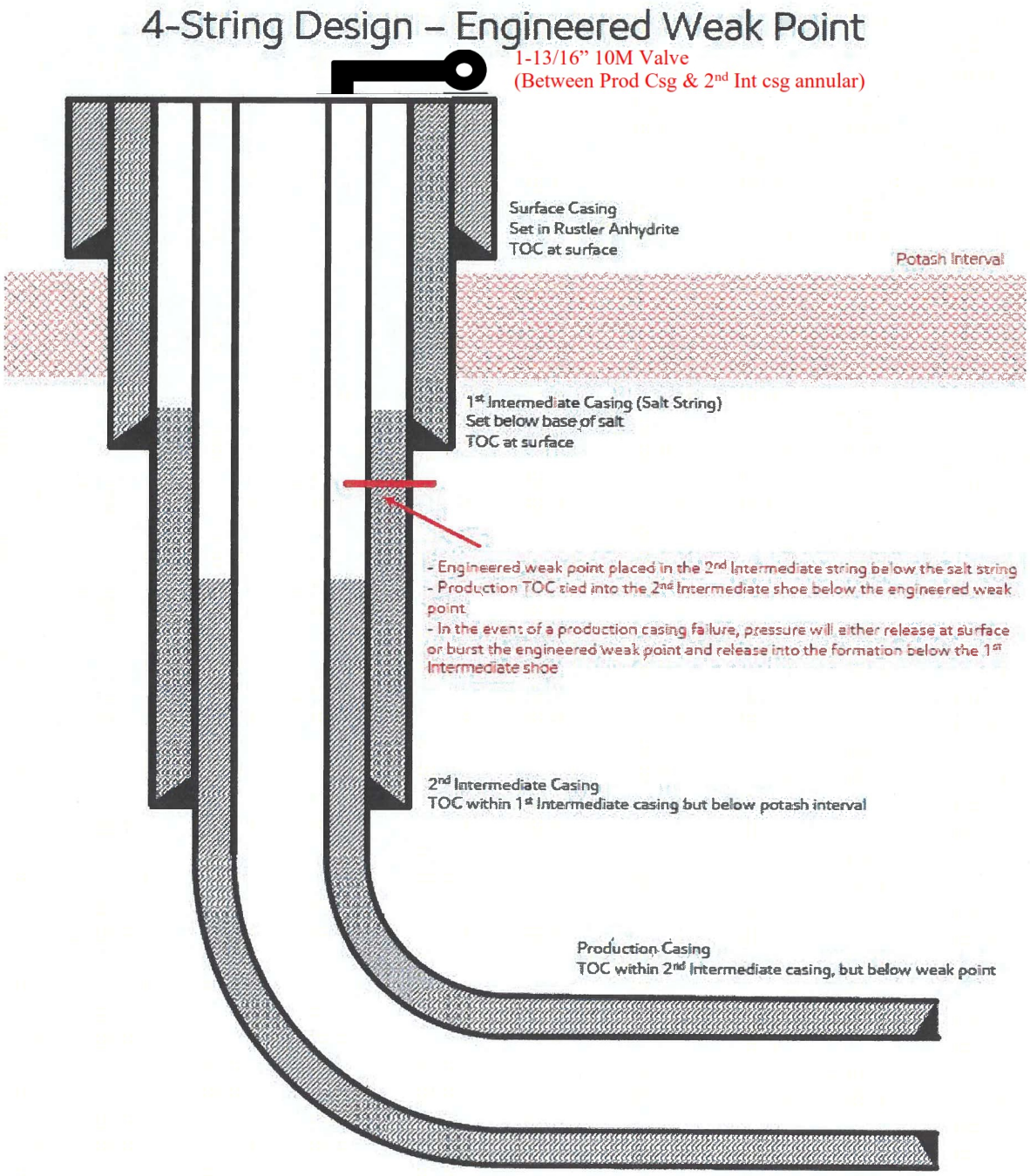
Production Casing :

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.



ALL DIMENSIONS APPROXIMATE

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	



[Figure F] 4 String – 2nd Intermediate casing engineered weak point

31592723_v1

Update May 2024:
XTO is aware of the R111-Q update and will comply with these requirements including (but not limited to):
1) Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
2) Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
3) Bradenhead squeeze to be completed within 180days to tie back TOC to salt string at least 500ft but with top below Marker Bed 126
4) Production cement to be tied back no less than 500ft inside previous casing shoe

XTO Permian Operating, LLC Offline Cementing Variance Request

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

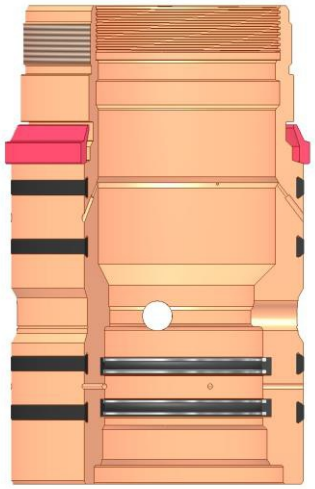
1. Cement Program

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

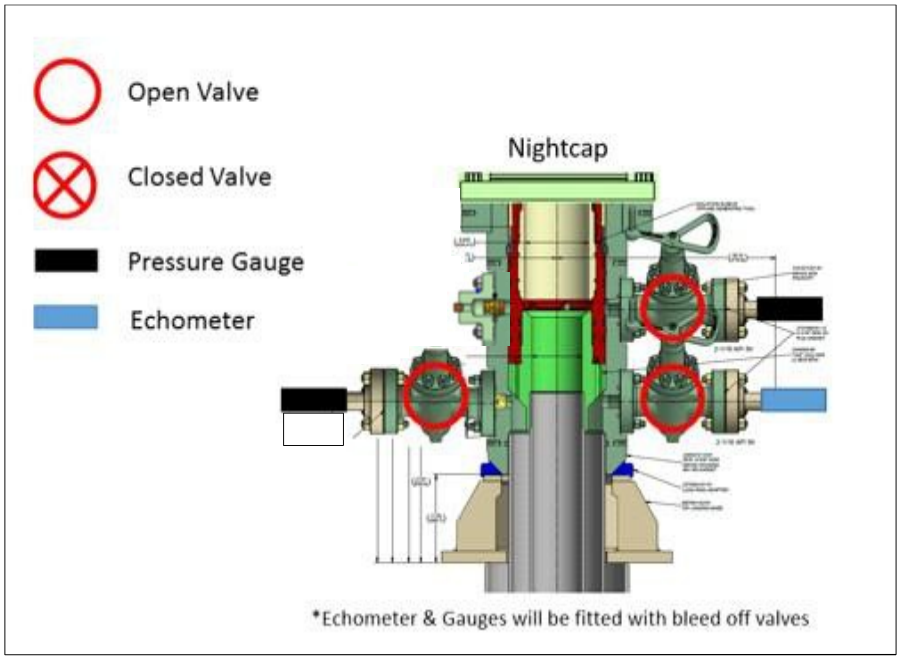
2. Offline Cementing Procedure

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

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



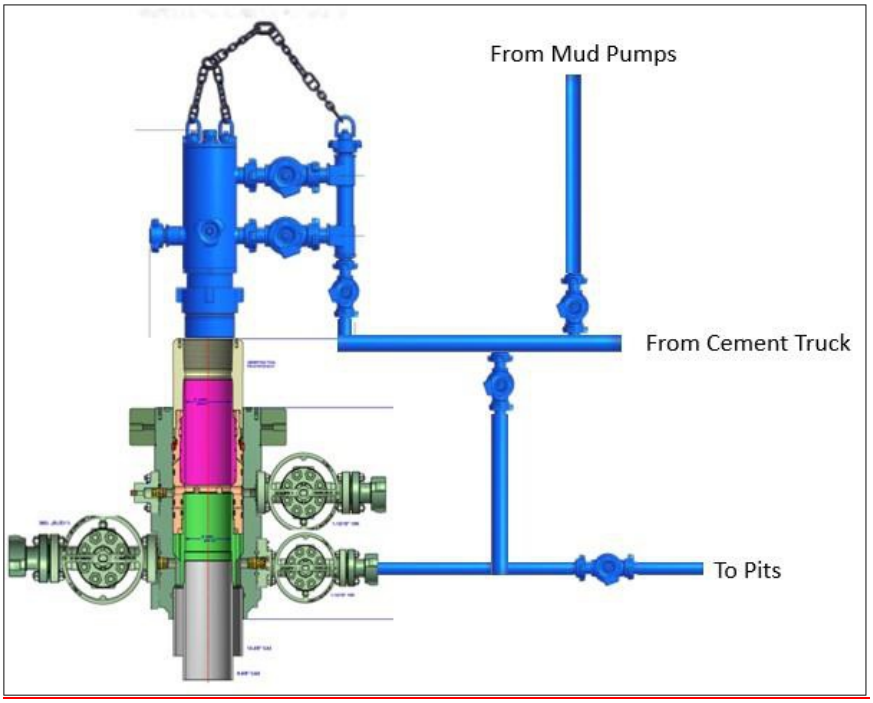
Annular packoff with both external and internal seals



Wellhead diagram during skidding operations

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

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during offline cementing operations

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

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

Description of Operations:

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

BLACK GOLD®

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WEB: www.gates.com/oilandgas

NEW CHOKE HOSE
INSTALLED 02-10-2024

CERTIFICATE OF CONFORMANCE

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

CUSTOMER:	NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA
CUSTOMER P.O.#:	15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)
CUSTOMER P/N:	IMR RETEST SN 74621 ASSET #66-1531
PART DESCRIPTION:	RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES
SALES ORDER #:	529480
QUANTITY:	1
SERIAL #:	74621 H3-012524-1

SIGNATURE: F. OSPINOS

TITLE: QUALITY ASSURANCE

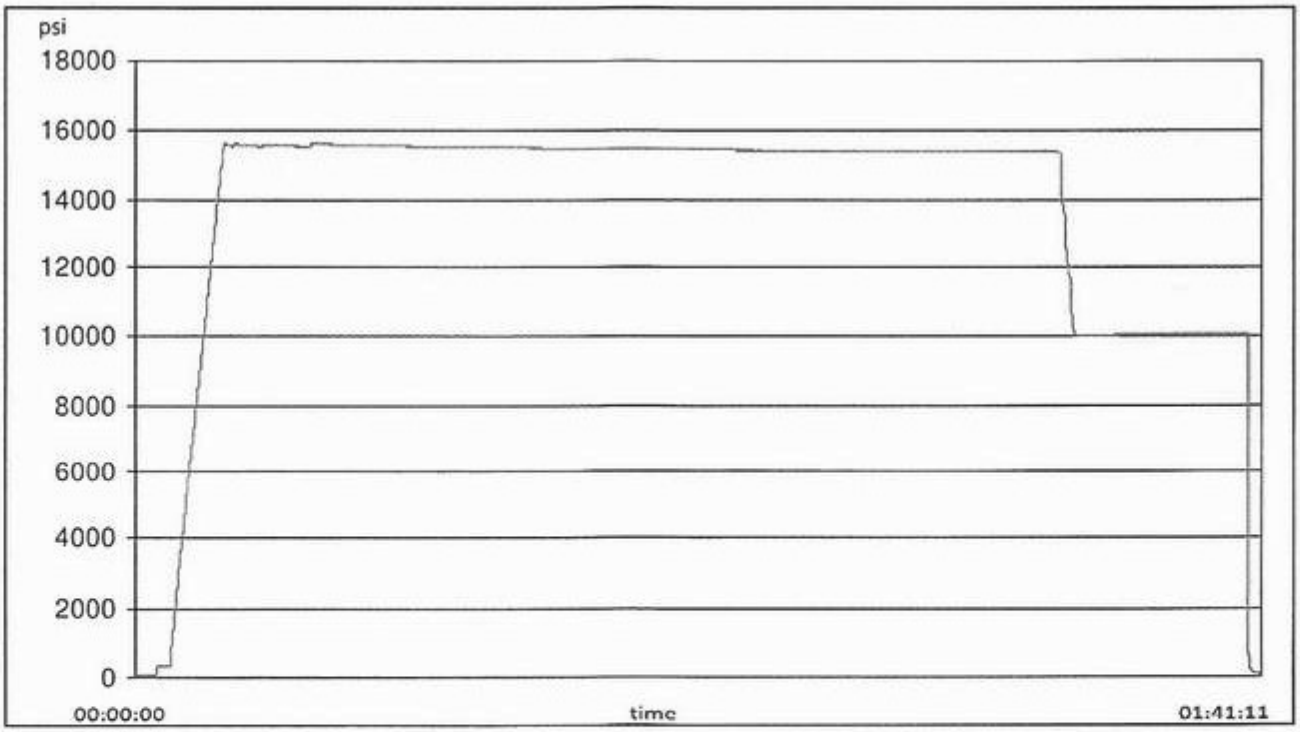
DATE: 1/25/2024

H3-15716

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER			TEST OBJECT		
Company:	Nabors Industries Inc.		Serial number:	H3-012524-1	
			Lot number:		
Production description:	74621/66-1531		Description:	74621/66-1531	
Sales order #:	529480				
Customer reference:	FG1213		Hose ID:	3" 16C CK	
			Part number:		
TEST INFORMATION					
Test procedure:	GTS-04-053		Fitting 1:	3.0 x 4-1/16 10K	
Test pressure:	15000.00	psi	Part number:		
Test pressure hold:	3600.00	sec	Description:		
Work pressure:	10000.00	psi			
Work pressure hold:	900.00	sec	Fitting 2:	3.0 x 4-1/16 10K	
Length difference:	0.00	%	Part number:		
Length difference:	0.00	inch	Description:		
Visual check:			Length:	45	feet
Pressure test result:	PASS				
Length measurement result:					
Test operator:	Travis				



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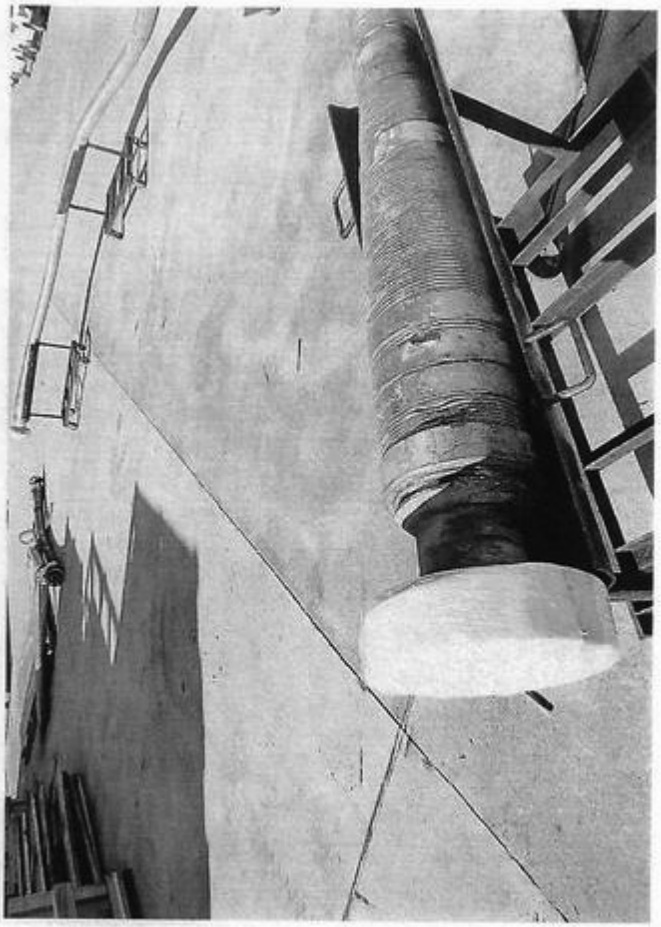
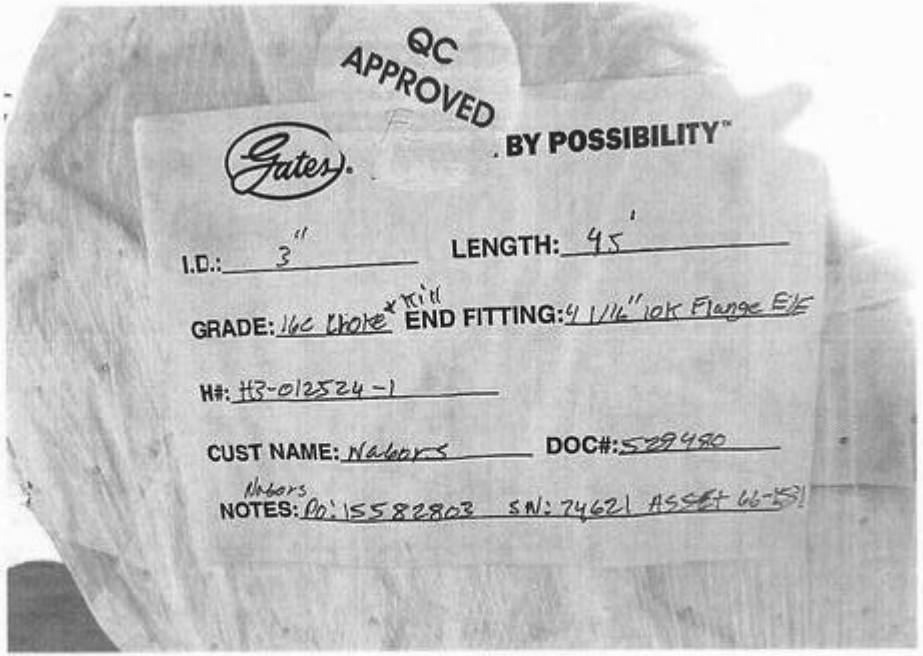
TEST REPORT

GAUGE TRACEABILITY

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

Comment





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

SUPO Data Report
11/07/2024

APD ID: 10400085291
Submission Date: 05/23/2022
Operator Name: XTO PERMIAN OPERATING LLC
Well Name: JRU APACHE FEDERAL COM
Well Number: 901H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Apache_901H_Road_20220511215832.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Apache_Road_20211110051658.pdf

New road type: LOCAL

Length: 4897.61 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 3

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.
New road access plan or profile prepared? N

New road access plan

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" Rolled & Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.

Access other construction information: A. The JRU Apache development area is accessed from the intersection of Hwy 128 (Jal Hwy) and Cimarron Ro go North on Cimarron Road approximately 2.2 miles. Turn right (east) on leas road approximately 1.3 miles then turn right (southeast) on lease road for approximately .2miles. Then turn left (east) on lease road for approximately .8 miles, then turn left (north) on lease road for approximately .6 miles then turn left (North) on lease road for approximately .9 miles. Then turn right (East) for approximately .1 miles. Then turn left (north0 for .8 miles arriving at proposed road. Location is to the West. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, Vicinity Map.

Access miscellaneous information: After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Battery is completed. Upon completion of the Central Tank Battery, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Battery only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: LOW WATER

Drainage Control comments: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.
Road Drainage Control Structures (DCS) description: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Apache_1Mile_20211110051954.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. One (1) 600x600 pad was staked with the BLM for construction and use as a Central Tank Battery (JRU Apache CTB). The proposed pad is located in the SWSW, Section 24-T22S-R30E (Centerpoint: 1715FEL & 955FSL). Only the area necessary to maintain facilities will be disturbed. A 3160-5 sundry notification will be submitted after construction possessing a site-security diagram and layout of the facility with associated equipment. Buried & Surface Flowlines. In the event the JRU Apache wells are found productive, two-hundred and sixty-two (262) 10in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the JRU Apache CTB. If XTO decides to run surface lines, one-hundred and thirty-one (131) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the JRU Apache facility. The proposed corridor for flowlines: 17997.82ft long, 100ft. wide and 6417.82ft long, 30ft wide. Total Length of Flowlines: 24415.64ft. Total Acreage Associated with Flowlines: 45.73 Acres. Gas & Oil Pipeline. No additional oil or gas pipeline will be required for this project. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. A flare independent of the proposed CTB location is not necessary for this project. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 times the capacity of the largest tank and away from cut or fill areas. Electrical. All lines will be primary 25kv to properly run expected production equipment. 18,218.31ft of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

Production Facilities map:

Apache_CTB_20211110052053.pdf

Apache_FL_20211110052102.pdf

Apache_OHE_20211110052114.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Water source type: OTHER

Describe type: Fresh Water; Section27-25S-30E

Water source use type: DUST CONTROL
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING
PIPELINE

Source land ownership: COMMERCIAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 4000000 **Source volume (acre-feet):** 515.57238532

Source volume (gal): 168000000

Water source type: OTHER

Describe type: Fresh Water; Section 6-25S-29E

Water source use type: DUST CONTROL
SURFACE CASING
INTERMEDIATE/PRODUCTION CASING
STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE
TRUCKING

Source land ownership: COMMERCIAL

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Source transportation land ownership: FEDERAL

Water source volume (barrels): 4000000 **Source volume (acre-feet):** 515.57238532

Source volume (gal): 168000000

Water source and transportation

Apache_901H_Wtr_20220511220117.pdf

Water source comments: Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO Permian Operating, LLC. from Section 27, T25S-R30E, Eddy County, New Mexico. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO Permian Operating, LLC. at time of drilling and completion, then XTO Permian Operating, LLC. water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico. Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Section 6 - Construction Materials

Using any construction materials: NO

Construction Materials description:

Construction Materials source location

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel mud pits

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

Safe containment description: The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

Safe containmant attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A licensed 3rd Party contractor will be used to haul and dispose of human waste.

Waste type: GARBAGE

Waste content description: Garbage

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

Safe containment description: All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location. Debris. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose of human waste.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Cuttings. The well will be drilled utilizing a closed-loop mud system. Drill cutting will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site. Drilling fluids. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced fluids. water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. oil produced during operations will be stored in tanks until sold.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Apache_901H_Well_20220511220031.pdf

Apache_WSL_Pad_A_20240801072814.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** JRU APACHE

Multiple Well Pad Number: 2

Recontouring

Apache_IR_1_20221102102801.pdf

Apache_IR_2_20221102102807.pdf

Apache_IR_3_20221102102825.pdf

Apache_IR_4_20221102102857.pdf

Apache_IR_5_20221102102905.pdf

Apache_IR_6_20221102102912.pdf

Drainage/Erosion control construction: All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches.

Drainage/Erosion control reclamation: XTO Permian Operating, LLC. requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Reseeding of the topsoil stockpile in place will occur to maintain topsoil vitality until interim reclamation ensues. Once activities are completed, XTO Permian Operating, LLC. will coordinate interim reclamation with the appropriate BLM personnel.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Well pad proposed disturbance (acres): 69.78	**Well pad interim reclamation (acres):** 0	**Well pad long term disturbance (acres):** 69.78
Road proposed disturbance (acres): 3.37	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 3.37
Powerline proposed disturbance (acres): 12.55	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 12.55
Pipeline proposed disturbance (acres): 45.73	**Pipeline interim reclamation (acres):** 45.73	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 8.26	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 8.26
Total proposed disturbance: 139.69	**Total interim reclamation:** 45.73	**Total long term disturbance:** 93.96000000000001

Disturbance Comments:

Reconstruction method: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Topsoil redistribution: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Soil treatment: A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.
Existing Vegetation at the well pad: Environmental Setting. Soils are classified of Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and cresoste. The current vegetative community: none. The pad is caliche. No additional disturbance is necessary.
Existing Vegetation at the well pad

Existing Vegetation Community at the road: Environmental Setting. Soils are classified of Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and cresoste. The current vegetative community: none. The pad is caliche. No additional disturbance is necessary.
Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: Environmental Setting. Soils are classified of Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and cresoste. The current vegetative community: none. The pad is caliche. No additional disturbance is necessary.
Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: Environmental Setting. Soils are classified of Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and cresoste. The current vegetative community: none. The pad is caliche. No additional disturbance is necessary.
Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: James **Last Name:** Scott

Phone: (432)488-9955 **Email:** james_scott@xtoenergy.com

Seedbed prep: Seedbed Preparation: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

Seed BMP: If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Seed method: Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: Weed control for all phases will be through the use of approved pesticides and herbicides according to applicable State, Federal and local laws.
Weed treatment plan

Monitoring plan description: Monitoring of invasive and noxious weeds will be visual and as-needed. If it is determined additional methods are required to monitor invasive and noxious weeds, appropriate BLM authorities will be contacted with a plan of action for approval prior to implementation.
Monitoring plan

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Success standards: 100% compliance with applicable regulations.

Pit closure description: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: TRANSMISSION LINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Disturbance type: OTHER

Describe: Central Tank Battery

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: OTHER

Describe: Drill Island

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Disturbance type: OTHER

Describe: Flowline

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other

Right of Way needed? Y **Use APD as ROW?** Y

ROW Type(s): 281001 ROW - ROADS,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW- O&G Well Pad,FLPMA (Powerline)

ROW

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: 02/19/2020: Onsited with Jeff Robertson (NRS), Jim Rutley (BLM Geo), and WIPP in attendance

Other SUPO

Apache_DI_20211110052511.pdf

Apache_OL_20211110052517.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JRU APACHE FEDERAL COM **Well Number:** 901H

Apache_SUPO_20211110052600.pdf

Apache_Well_List_20211110052524.pdf

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator:	OGRID:
XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	373075
	Action Number: 414086
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
slaghuvarapu	Cement is required to circulate on both surface and intermediate1 strings of casing.	12/19/2024
slaghuvarapu	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	12/19/2024
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	1/7/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	1/7/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	1/7/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	1/7/2025
ward.rikala	Operator must comply with all of the R-111-Q requirements.	1/7/2025