

Form 3160-3  
(June 2015)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM030452
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. NMNM071016X/POKER LAKE UNIT
2. Name of Operator XTO PERMIAN OPERATING LLC		8. Lease Name and Well No. POKER LAKE UNIT 23 DTD 542H
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND, TX 7970	3b. Phone No. (include area code) (432) 683-2277	9. API Well No. 30-015-55912
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE / 645 FSL / 607 FEL / LAT 32.212412 / LONG -103.844924 At proposed prod. zone SWNE / 2627 FNL / 1385 FEL / LAT 32.174403 / LONG -103.847431		10. Field and Pool, or Exploratory PURPLE SAGE/WOLFCAMP (GAS)
11. Sec., T. R. M. or Blk. and Survey or Area SEC 14/T24S/R30E/NMP		
14. Distance in miles and direction from nearest town or post office* 9.3 miles		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) 607 feet	16. No of acres in lease 1600.0	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 11532 feet / 24472 feet	20. BLM/BIA Bond No. in file FED: COB000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3443 feet	22. Approximate date work will start* 07/06/2025	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.                                                                                               | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.                                                                                                                            | 5. Operator certification.                                                                      |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) RICHARD REDUS / Ph: (432) 682-8873	Date 04/16/2024
Title Permitting Manager		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 11/22/2024
Title Assistant Field Manager Lands & Minerals		
Office 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.

(Continued on page 2)

\*(Instructions on page 2)





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

*Application for Permit to Drill*

**APD Package Report**

Date Printed: 11/26/2024 12:24 PM

APD ID: 10400098058

Well Status: AAPD

APD Received Date: 04/16/2024 10:21 AM

Well Name: POKER LAKE UNIT 23 DTD

Operator: XTO PERMIAN OPERATING LLC

Well Number: 542H

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: 2 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: 6 file(s)
  - Other Variances: 4 file(s)
- SUPO Report
- SUPO Attachments
  - Existing Road Map: 1 file(s)
  - Attach Well map: 1 file(s)
  - Water source and transportation map: 1 file(s)
  - Well Site Layout Diagram: 2 file(s)
  - Recontouring attachment: 4 file(s)
  - Other SUPO Attachment: 1 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, 2018UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address	3b. Phone No. (include area code)	9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
17. Spacing Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		
19. Proposed Depth		
20. BLM/BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		
22. Approximate date work will start*		
23. Estimated duration		
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
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
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.		

(Continued on page 2)

\*(Instructions on page 2)



## 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 well, 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 directionally 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 well 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 will 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 connects this information to a new 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

0. SHL: SESE / 645 FSL / 607 FEL / TWSP: 24S / RANGE: 30E / SECTION: 14 / LAT: 32.212412 / LONG: -103.844924 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNE / 100 FNL / 1399 FEL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.210362 / LONG: -103.847494 ( TVD: 11532 feet, MD: 12200 feet )

PPP: NWNE / 0 FSL / 1374 FEL / TWSP: 24S / RANGE: 30E / SECTION: 26 / LAT: 32.196141 / LONG: -103.84747 ( TVD: 11532 feet, MD: 17500 feet )

BHL: SWNE / 2627 FNL / 1385 FEL / TWSP: 24S / RANGE: 30E / SECTION: 35 / LAT: 32.174403 / LONG: -103.847431 ( TVD: 11532 feet, MD: 24472 feet )

### BLM Point of Contact

Name: MARIAH HUGHES

Title: Land Law Examiner

Phone: (575) 234-5972

Email: mhughes@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  Submit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024
	Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
		<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled

## WELL LOCATION INFORMATION

API Number <b>30-015-55912</b>	Pool Code <b>98220</b>	Pool Name <b>PURPLE SAGE; WOLFCAMP (GAS)</b>
Property Code <b>325598</b>	Property Name <b>POKER LAKE UNIT 23 DTD</b>	Well Number <b>542H</b>
OGRID No. <b>373075</b>	Operator Name <b>XTO PERMIAN OPERATING, LLC</b>	Ground Level Elevation <b>3,443'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

## Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>14</b>	<b>24S</b>	<b>30E</b>		<b>645 FSL</b>	<b>607 FEL</b>	<b>32.212412</b>	<b>-103.844924</b>	<b>EDDY</b>

## Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>G</b>	<b>35</b>	<b>24S</b>	<b>30E</b>		<b>2,627 FNL</b>	<b>1,385 FEL</b>	<b>32.174403</b>	<b>-103.847431</b>	<b>EDDY</b>

Dedicated Acres <b>1,600.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>U</b>
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>14</b>	<b>24S</b>	<b>30E</b>		<b>645 FSL</b>	<b>607 FEL</b>	<b>32.212412</b>	<b>-103.844924</b>	<b>EDDY</b>

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>B</b>	<b>23</b>	<b>24S</b>	<b>30E</b>		<b>100 FNL</b>	<b>1,399 FEL</b>	<b>32.210362</b>	<b>-103.847494</b>	<b>EDDY</b>

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>G</b>	<b>35</b>	<b>24S</b>	<b>30E</b>		<b>2,537 FNL</b>	<b>1,386 FEL</b>	<b>32.174650</b>	<b>-103.847434</b>	<b>EDDY</b>

Unitized Area or Area of Interest <b>NMNM105422429</b>	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,443'</b>
-----------------------------------------------------------	------------------------------------------------------------------------------------------------------	-----------------------------------

## 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.

Terra Sebastian  
Signature

10/29/2024  
Date

Terra Sebastian  
Printed Name

terra.b.sebastian@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

  
Signature and Seal of Professional Surveyor



MARK DILLON HARP 23786  
Certificate Number

10/28/2024  
Date of Survey

DN

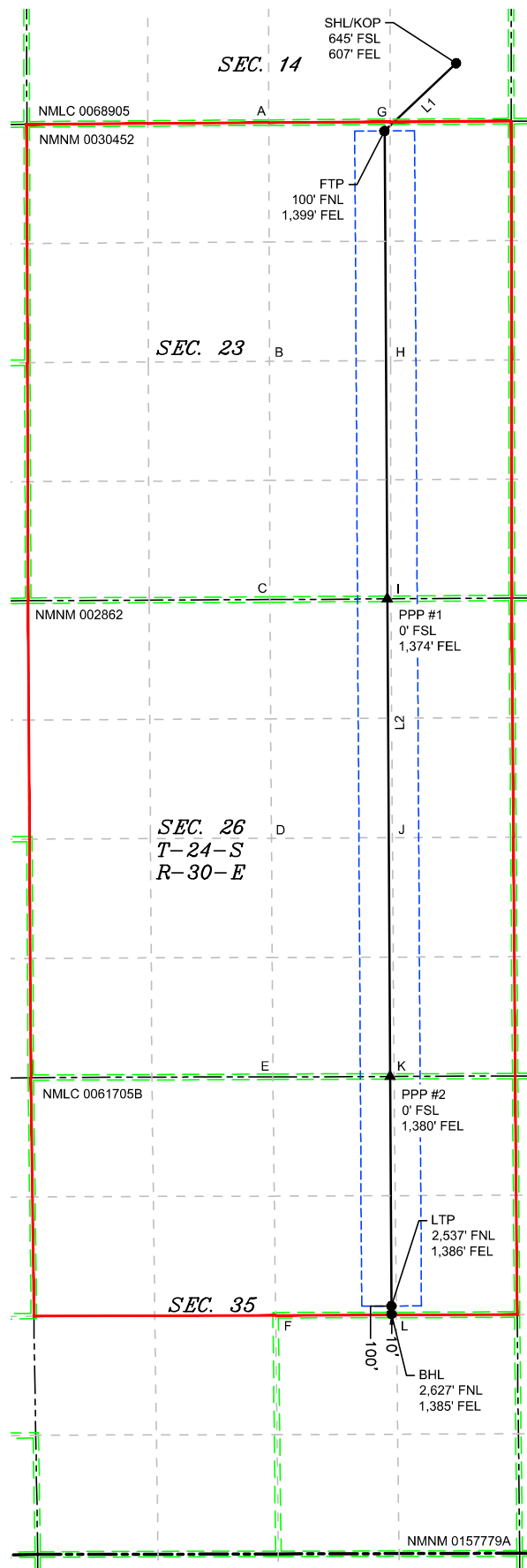
618.013003.09-68

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.

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 than 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 is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



LEGEND

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

LINE TABLE

LINE	AZIMUTH	LENGTH
L1	226°33'09"	1,090.05'
L2	179°39'24"	13,081.37'

COORDINATE TABLE

SHL/KOP (NAD 83 NME)		SHL/KOP (NAD 27 NME)	
Y =	441,352.9 N	Y =	441,293.8 N
X =	692,389.3 E	X =	651,205.5 E
LAT. =	32.212412 °N	LAT. =	32.212288 °N
LONG. =	103.844924 °W	LONG. =	103.844438 °W
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	440,603.2 N	Y =	440,544.2 N
X =	691,597.9 E	X =	650,414.1 E
LAT. =	32.210362 °N	LAT. =	32.210238 °N
LONG. =	103.847494 °W	LONG. =	103.847008 °W
PPP #1 (NAD 83 NME)		PPP #1 (NAD 27 NME)	
Y =	435,430.1 N	Y =	435,371.2 N
X =	691,628.6 E	X =	650,444.7 E
LAT. =	32.196141 °N	LAT. =	32.196017 °N
LONG. =	103.847470 °W	LONG. =	103.846985 °W
PPP #2 (NAD 83 NME)		PPP #2 (NAD 27 NME)	
Y =	430,149.6 N	Y =	430,090.9 N
X =	691,660.0 E	X =	650,475.8 E
LAT. =	32.181626 °N	LAT. =	32.181502 °N
LONG. =	103.847446 °W	LONG. =	103.846961 °W
LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	427,612.1 N	Y =	427,553.4 N
X =	691,675.0 E	X =	650,490.8 E
LAT. =	32.174650 °N	LAT. =	32.174526 °N
LONG. =	103.847434 °W	LONG. =	103.846950 °W
BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	427,522.1 N	Y =	427,463.4 N
X =	691,676.3 E	X =	650,492.1 E
LAT. =	32.174403 °N	LAT. =	32.174279 °N
LONG. =	103.847431 °W	LONG. =	103.846947 °W
CORNER COORDINATES (NAD 83 NME)			
A - Y =	440,695.8 N	A - X =	690,318.7 E
B - Y =	438,055.8 N	B - X =	690,325.0 E
C - Y =	435,421.3 N	C - X =	690,331.2 E
D - Y =	432,784.0 N	D - X =	690,347.4 E
E - Y =	430,145.2 N	E - X =	690,363.6 E
F - Y =	427,508.2 N	F - X =	690,393.8 E
G - Y =	440,703.6 N	G - X =	691,657.9 E
H - Y =	438,063.2 N	H - X =	691,663.1 E
I - Y =	435,430.3 N	I - X =	691,666.7 E
J - Y =	432,788.9 N	J - X =	691,684.1 E
K - Y =	430,149.6 N	K - X =	691,701.7 E
L - Y =	427,512.3 N	L - X =	691,727.9 E
CORNER COORDINATES (NAD 27 NME)			
A - Y =	440,636.8 N	A - X =	649,135.0 E
B - Y =	437,996.8 N	B - X =	649,141.1 E
C - Y =	435,362.4 N	C - X =	649,147.3 E
D - Y =	432,725.2 N	D - X =	649,163.4 E
E - Y =	430,086.5 N	E - X =	649,179.4 E
F - Y =	427,449.5 N	F - X =	649,209.6 E
G - Y =	440,644.6 N	G - X =	650,474.1 E
H - Y =	438,004.2 N	H - X =	650,479.3 E
I - Y =	435,371.5 N	I - X =	650,482.8 E
J - Y =	432,730.1 N	J - X =	650,500.1 E
K - Y =	430,090.8 N	K - X =	650,517.5 E
L - Y =	427,453.6 N	L - X =	650,543.6 E

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:** \_\_11\_\_/\_4\_\_/\_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	Anticipat ed Oil BBL/D	3 yr Anticipat ed Decline oil BBL/D	Anticipat ed Gas MCF/D	3 yr anticipated decline Gas MCF/D	Anticipated Produced Water BBL/D	3 yr anticipated decline Water BBL/D
Poker Lake Unit 23 DTD 104H		14 T24S R30E	556 FSL 310 FWL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 193H		14 T24S R30E	556 FSL 280 FWL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 441H		23 T24S R30E	1152 FNL 1771 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 442H		23 T24S R30E	1152 FNL 1741 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 443H		23 T24S R30E	1152 FNL 1711 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 444H		23 T24S R30E	1152 FNL 1681 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 445H		23 T24S R30E	1152 FNL 1651 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 451H		23 T24S R30E	1247 FNL 1771 FEL	1,900	200	3,250	900	3,750	400

Poker Lake Unit 23 DTD 452H		23 T24S R30E	1247 FNL 1741 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 453H		23 T24S R30E	1247 FNL 1711 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 454H		23 T24S R30E	1247 FNL 1681 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 455H		23 T24S R30E	1247 FNL 1651 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 456H		23 T24S R30E	1247 FNL 1621 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 541H		14 T24S R30E	645 FSL 637 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 542H		14 T24S R30E	645 FSL 607 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 543H		14 T24S R30E	645 FSL 577 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 544H		14 T24S R30E	645 FSL 547 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 545H		14 T24S R30E	645 FSL 517 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 546H		14 T24S R30E	645 FSL 487 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 705H		14 T24S R30E	556 FSL 340 FWL	1,800	200	7,500	1,200	7,000	800

**IV. Central Delivery Point Name:** PLU 23 DTD CVB [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
Poker Lake Unit 23 DTD 104H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 193H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 441H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 442H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 443H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>

Poker Lake Unit 23 DTD 444H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 445H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 451H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 452H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 453H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 454H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 455H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 456H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 541H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 542H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 543H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 544H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 545H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 546H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>
Poker Lake Unit 23 DTD 705H	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>

**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: <i>Samantha Weis</i>
Printed Name: Samantha Weis
Title: Permitting Advisor
E-mail Address: samantha.r.bartnik@exxonmobil.com
Date: 11/4/2024
Phone: +1-832-625-7361
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## 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

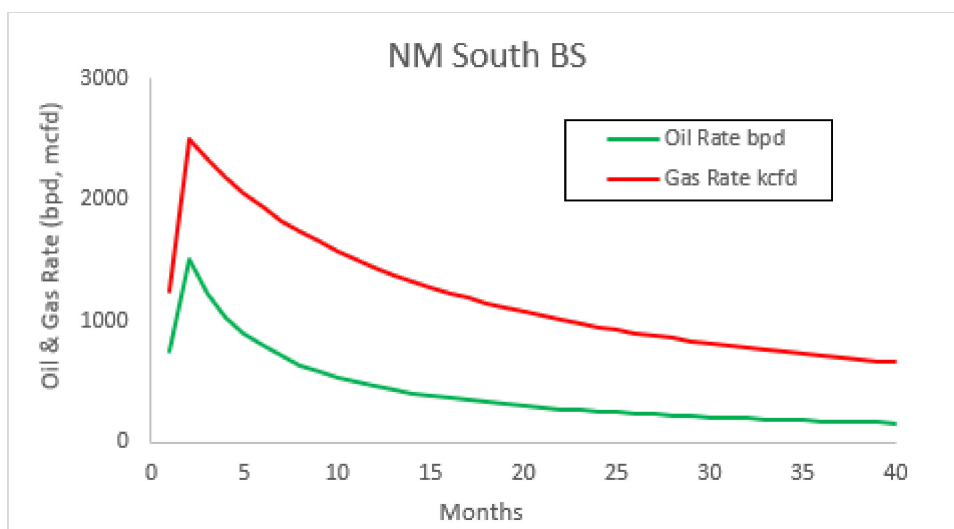
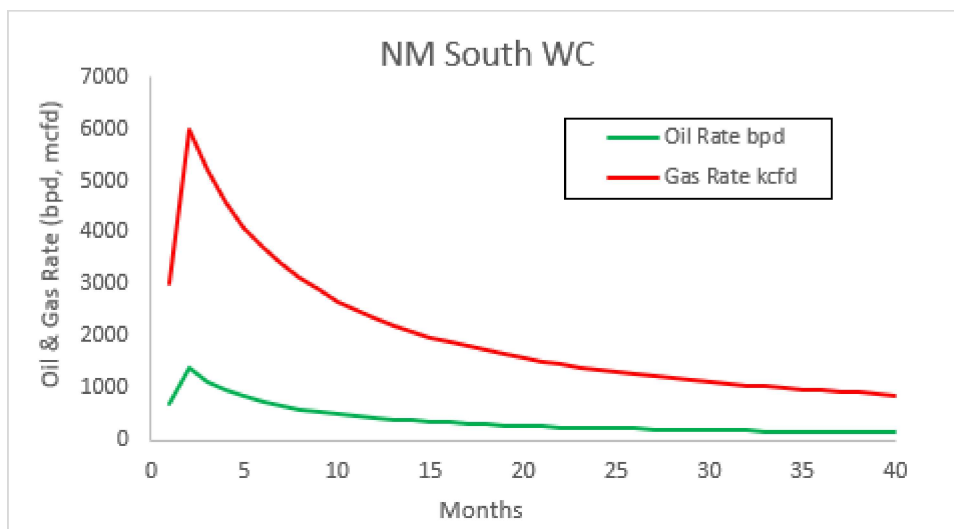
XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- 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 LLC will 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.





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

# Drilling Plan Data Report

11/26/2024

APD ID: 10400098058

Submission Date: 04/16/2024

Highlighted data  
reflects the most  
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 542H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14549548	QUATERNARY	3443	0	0	ALLUVIUM	USEABLE WATER	N
14549549	RUSTLER	2090	1353	1353	ANHYDRITE	USEABLE WATER	N
14549550	SALADO	1687	1756	1756	POTASH, SALT	POTASH	N
14549551	BASE OF SALT	-506	3949	3949	ANHYDRITE, DOLOMITE, POTASH	POTASH	N
14549552	DELAWARE	-700	4143	4143	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549553	BRUSHY CANYON	-3206	6649	6649	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549554	BONE SPRING	-4495	7938	7938	LIMESTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549555	BONE SPRING 1ST	-5266	8709	8709	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549556	BONE SPRING 2ND	-5868	9311	9311	LIMESTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549557	BONE SPRING 3RD	-6635	10078	10078	LIMESTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549558	WOLFCAMP	-7969	11412	11412	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	Y

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 11532

**Equipment:** Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril Annular and a 10M Triple Ram BOP. XTO will use a 4 string Slim Hole Multi-Bowl system which is attached.

**Requesting Variance?** YES

**Variance request:** A variance is requested to allow use of a flex hose: See Attached. XTO requests a variance to be able batch drill this well if necessary. XTO request a break test variance: See Attached. XTO requests a variance to utilize a spudder rig: See Attached.

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

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H**Choke Diagram Attachment:**

PLU\_23\_DTD\_5MCM\_20240410151726.pdf

**BOP Diagram Attachment:**

PLU\_23\_DTD\_5M10MBOP\_20240410151418.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	1731	0	1731	3443	1712	1731	J-55	54.5	BUTT	1.49	2.85	DRY	9.64	DRY	9.64
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4049	0	4049	3446	-606	4049	J-55	40	BUTT	2.81	1.57	DRY	3.89	DRY	3.89
3	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	10616	0	10450	3446	-7007	10616	L-80	29.7	FJ	3.21	1.58	DRY	2.11	DRY	2.11
4	PRODUCTION	6.75	5.5	NEW	NON API	Y	0	24472	0	11532	3446	-8089	24472	P-110	20	OTHER - Freedom HTQ/Talon HTQ	1.61	1.05	DRY	5.41	DRY	5.41

**Casing Attachments****Casing ID:** 1      **String** SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

PLU\_23\_DTD\_542H\_Csg\_20241011135237.pdf

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H**Casing Attachments**

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**Casing ID:** 2      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**PLU\_23\_DTD\_542H\_Csg\_20241011135157.pdf

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**Casing ID:** 3      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:**

PLU\_23\_DTD\_542H\_Csg\_20241011135225.pdf

**Casing Design Assumptions and Worksheet(s):**PLU\_23\_DTD\_542H\_Csg\_20241011135230.pdf

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**Casing ID:** 4      **String**      PRODUCTION**Inspection Document:****Spec Document:**

Freedom\_semi\_premium\_5.5\_production\_casing\_20240928081239.pdf

Talon\_\_\_semiflush\_5.5\_production\_casing\_20240928081250.pdf

**Tapered String Spec:**

PLU\_23\_DTD\_542H\_Csg\_20241011135204.pdf

**Casing Design Assumptions and Worksheet(s):**PLU\_23\_DTD\_542H\_Csg\_20241011135209.pdf

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**Section 4 - Cement**

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1731	1490	1.33	12.8	1981.7	100	EconoCem-HLTRRC	NA
SURFACE	Tail		0	1731	310	1.33	14.8	412.3	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	4049	850	2.06	14.8	1751	100	Class C	NA
INTERMEDIATE	Tail		0	4049	60	2.06	15.6	123.6	100	Class C	2% CaCl
INTERMEDIATE	Lead		3749	6649	420	1.27	14.8	533.4	100	Class C	NA
INTERMEDIATE	Tail		6649	10616	130	2.77	14.8	360.1	100	Class C	NA
PRODUCTION	Lead		10316	10982	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		10982	24472	850	1.51	13.2	1283.5	30	VersaCem	NA

### 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 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

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H

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
1061 6	2447 2	OIL-BASED MUD	11.5	12							
4049	1061 6	OTHER : BDE/OBM	8.8	9.3							
0	1731	WATER-BASED MUD	8.4	8.9							
1731	4049	SALT SATURATED	10.5	11							

### Section 6 - Test, Logging, Coring

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

Open hole logging will not be done on this well.

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

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

**Coring operation description for the well:**

No coring is planned for the well.

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7196

**Anticipated Surface Pressure:** 4658

**Anticipated Bottom Hole Temperature(F):** 195

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations**

XTO\_Energy\_H2S\_Plan\_Updated\_20240928080959.pdf

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

PLU\_23\_DTD\_542H\_DD\_20240413172245.pdf

**Other proposed operations facets description:****Other proposed operations facets attachment:**

PLU\_23\_DTD\_542H\_Cmt\_20240414123620.pdf

13.375\_9.625\_7.625\_5.5\_4\_String\_Slimhole\_SDT\_3301\_1\_20240928081731.pdf

PLU\_23\_DTD\_H2S\_DiaA\_20241011135325.pdf

PLU\_23\_DTD\_H2S\_DiaC\_20241011135325.pdf

PLU\_23\_DTD\_H2S\_DiaD\_20241011135325.pdf

PLU\_23\_DTD\_GCP\_20241021093934.pdf

**Other Variance attachment:**

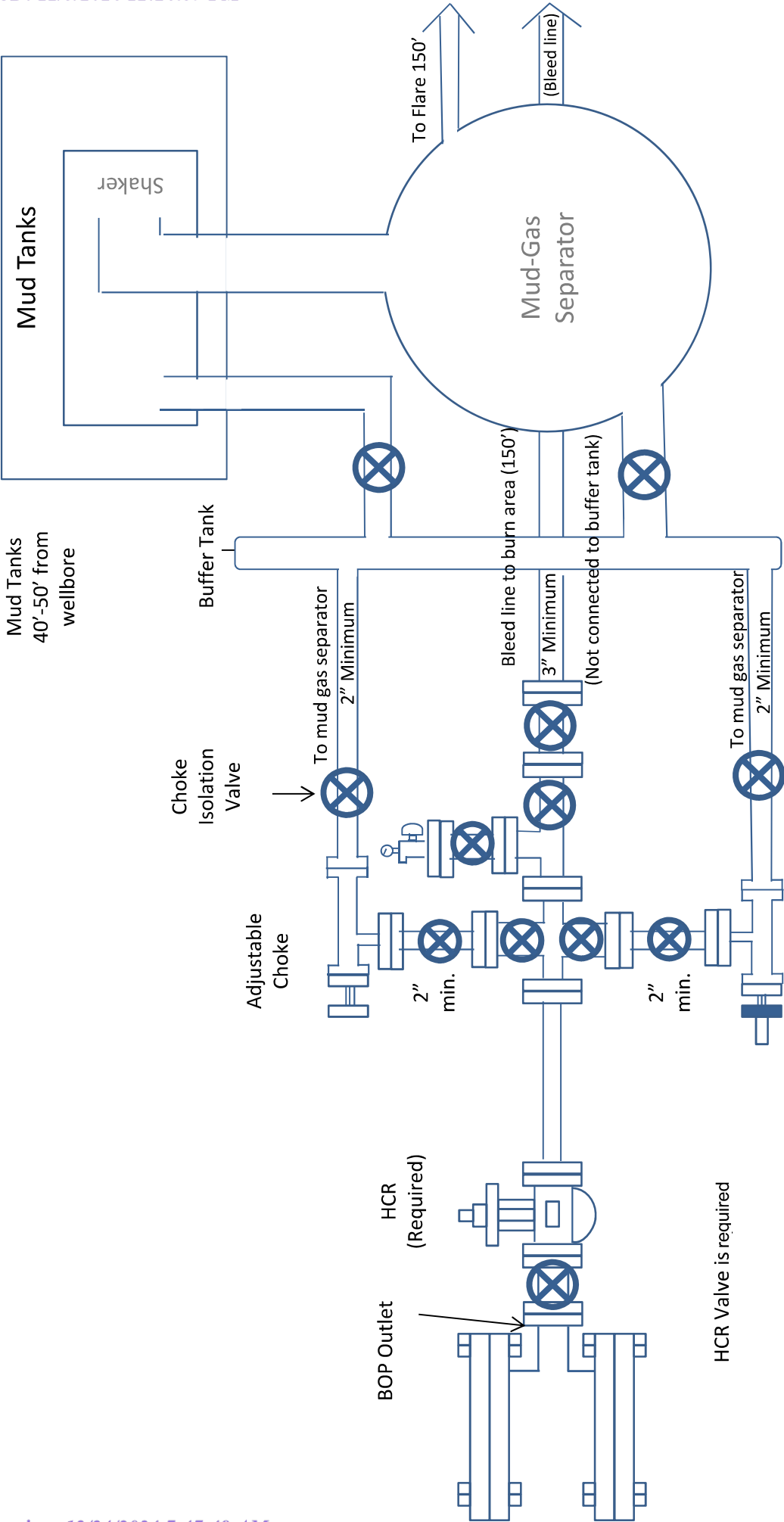
PLU\_23\_DTD\_BOP\_BTV\_20240410160813.pdf

Updated\_Flex\_Hose\_20240928081800.pdf

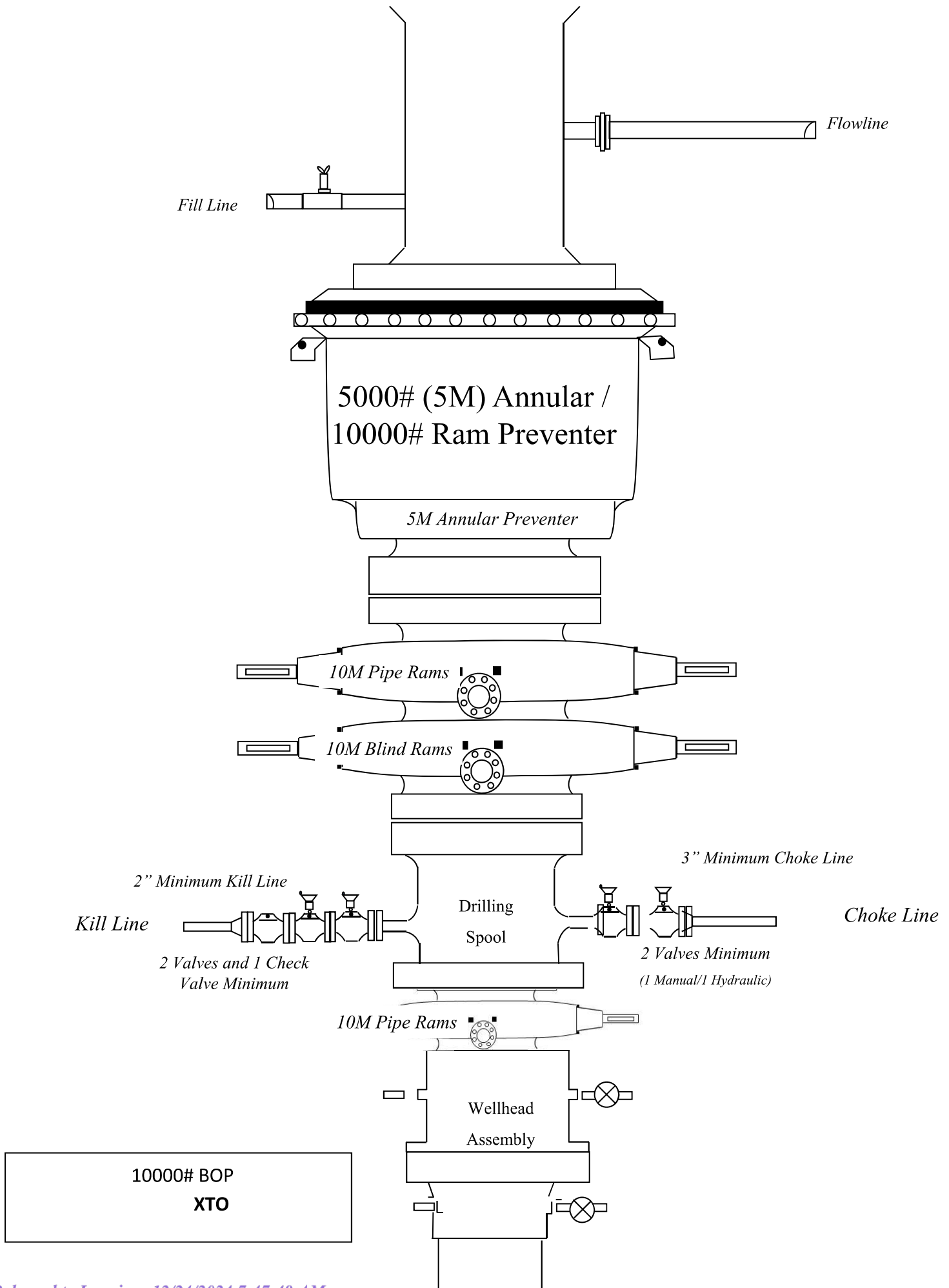
Spudder\_Rig\_Request\_20240928081808.pdf

Offline\_Cement\_Variance\_Surf\_\_\_Interm\_Csg\_20240928081817.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**



## Casing Assumptions

## Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 1731'	13.375	54.5	J-55	BTC	New	2.85	1.49	9.64
12.25	0' – 4049'	9.625	40	J-55	BTC	New	1.57	2.81	3.89
8.75	0' – 4149'	7.625	29.7	RY P-110	Flush Joint	New	2.17	2.82	1.77
8.75	4149' – 10616'	7.625	29.7	HC L-80	Flush Joint	New	1.58	3.21	2.11
6.75	0' – 10516'	5.5	20	RY P-110	Freedom HTQ	New	1.05	1.77	1.95
6.75	10516' - 24472'	5.5	20	RY P-110	Talon HTQ	New	1.05	1.61	5.41

### **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 (6649') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to 3749'.

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

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

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 nipped 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.

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

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

**Background**

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

**Supporting Documentation**

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

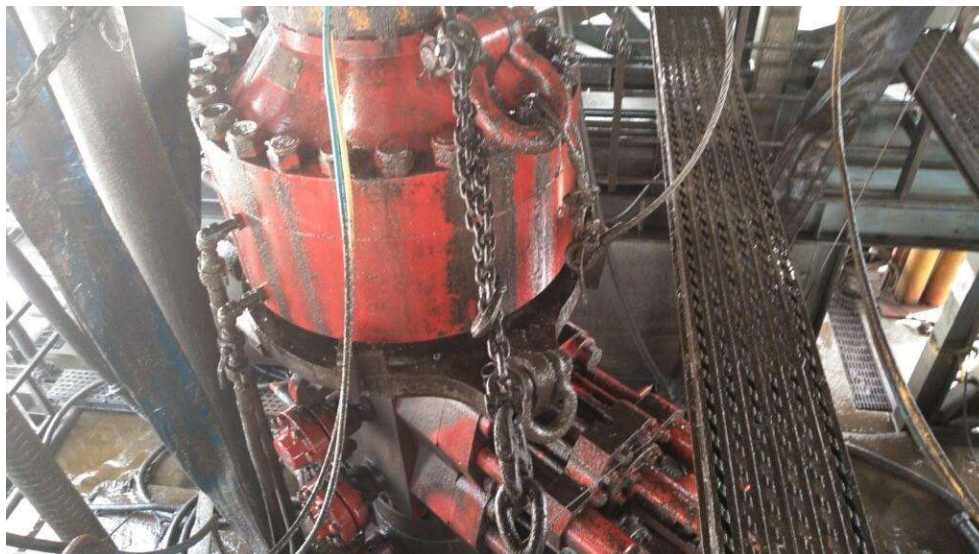


Figure 1: Winch System attached to BOP Stack

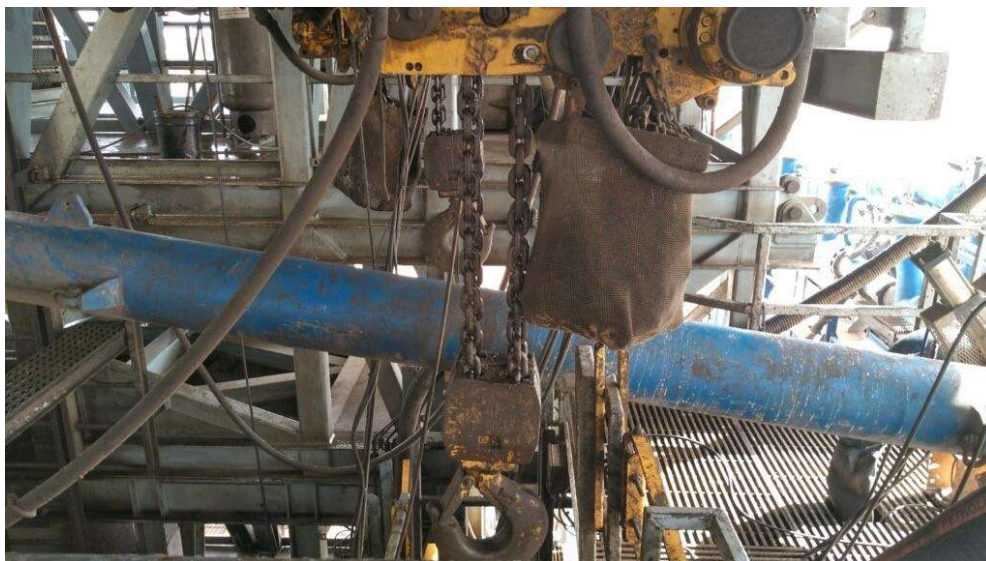


Figure 2: BOP Winch System

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

API STANDARD 53			
Table C.4—Initial Pressure Testing, Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure <sup>a,c</sup> psig (MPa)	Pressure Test—High Pressure <sup>a,c</sup>	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>b,d</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	
<sup>a</sup> Pressure test evaluation periods shall be a minimum of five minutes. No visible leaks. The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure. <sup>b</sup> Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program. <sup>c</sup> For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. <sup>d</sup> For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually. <sup>e</sup> Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.			

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

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

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

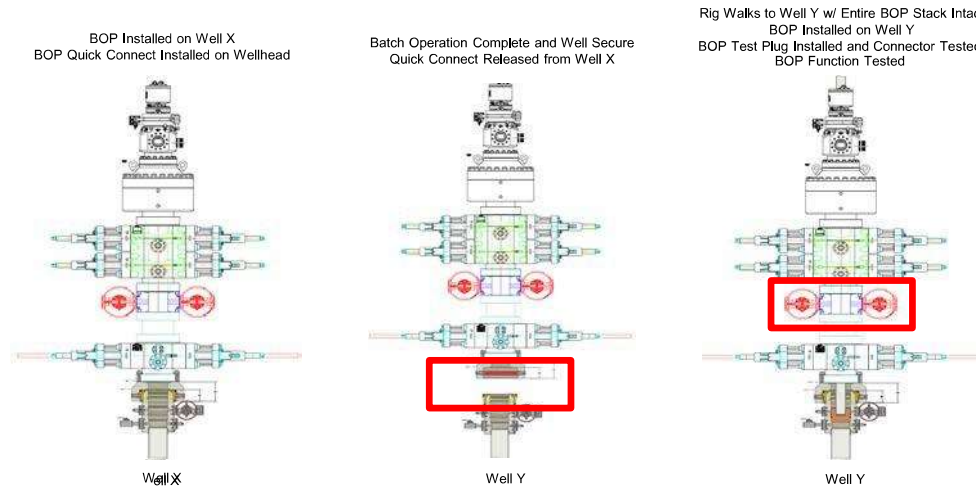
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

### **Procedures**

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

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

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



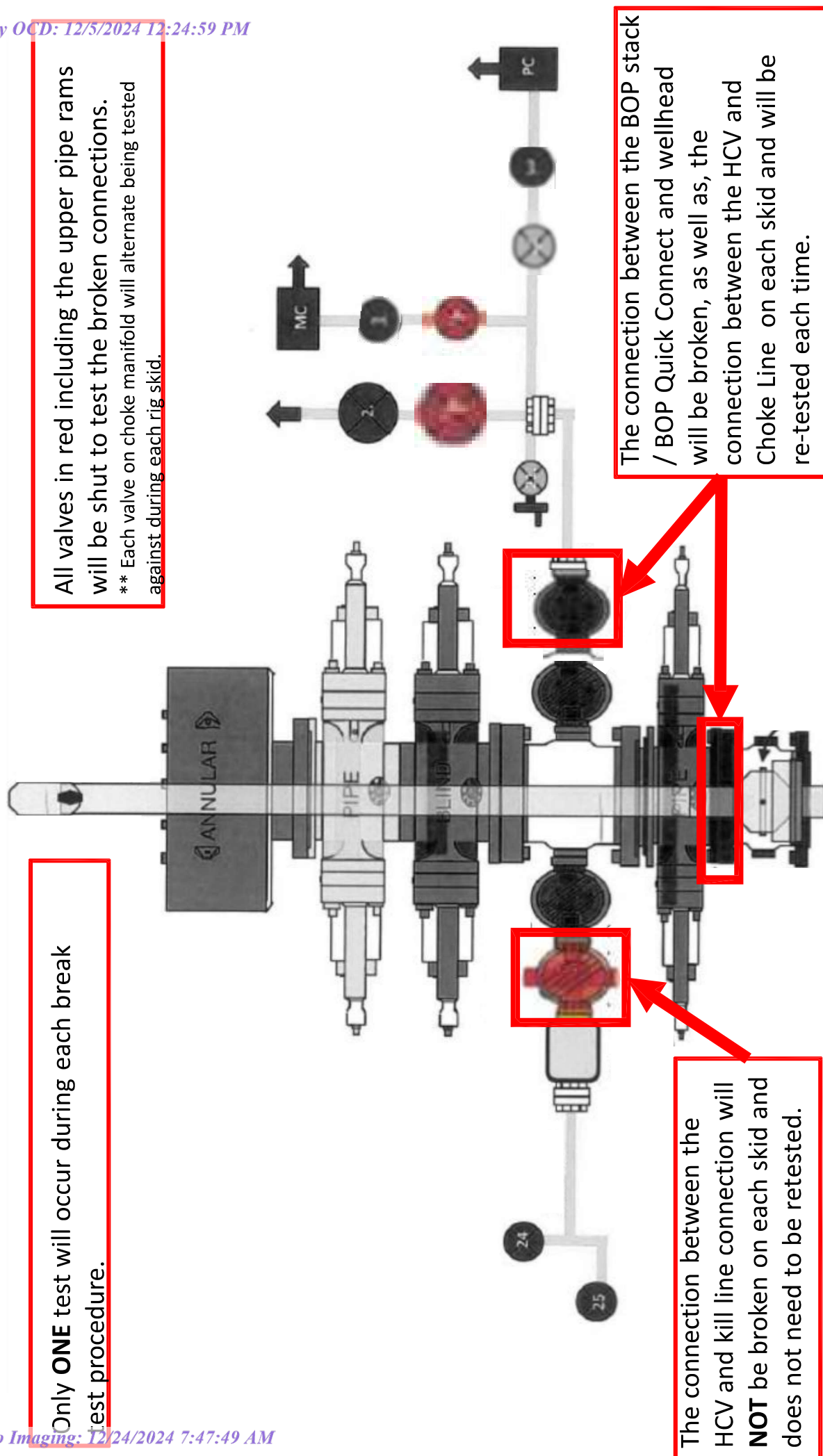
### Summary

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

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

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

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



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

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

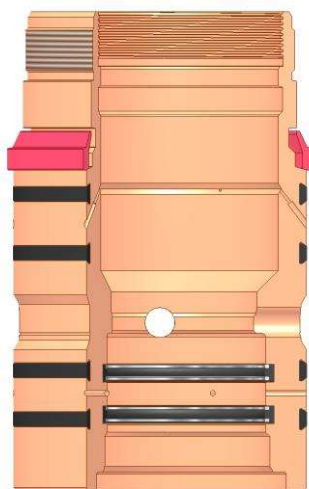
**1. Cement Program**

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

**2. Offline Cementing Procedure**

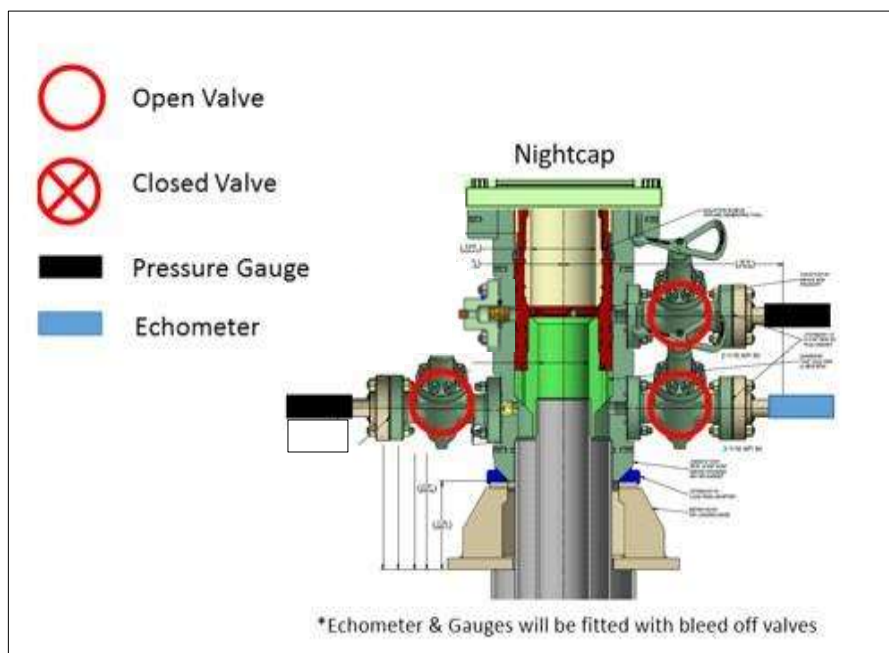
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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



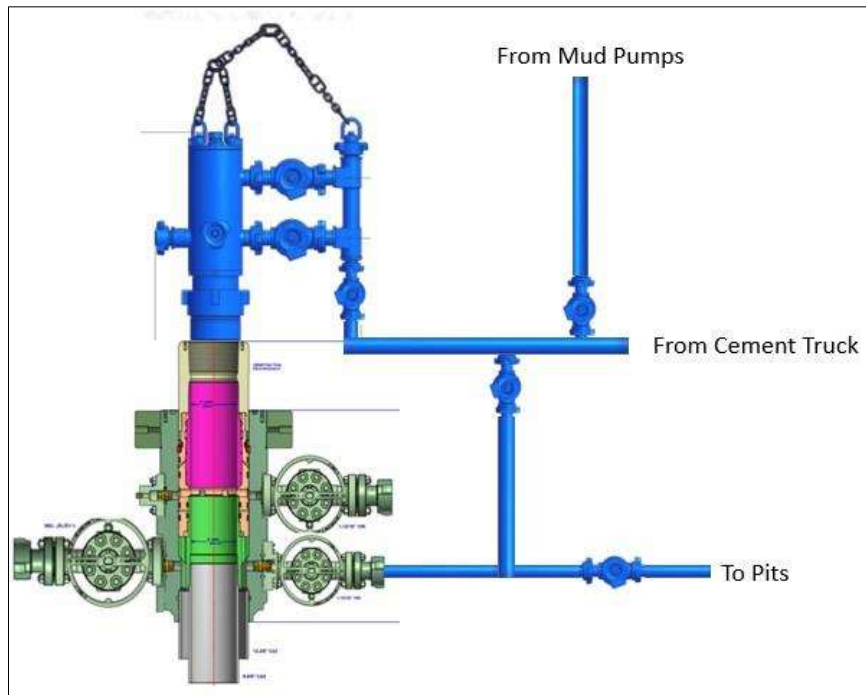
Annular packoff with both external and internal seals

## XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

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

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

Wellhead diagram during offline cementing operations

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



H3-15/16

1/25/2024 11:48:06 AM

# TEST REPORT

**CUSTOMER**

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

**TEST OBJECT**

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

**TEST INFORMATION**

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2: 3.0 x 4-1/16 10K

Part number:

Description:

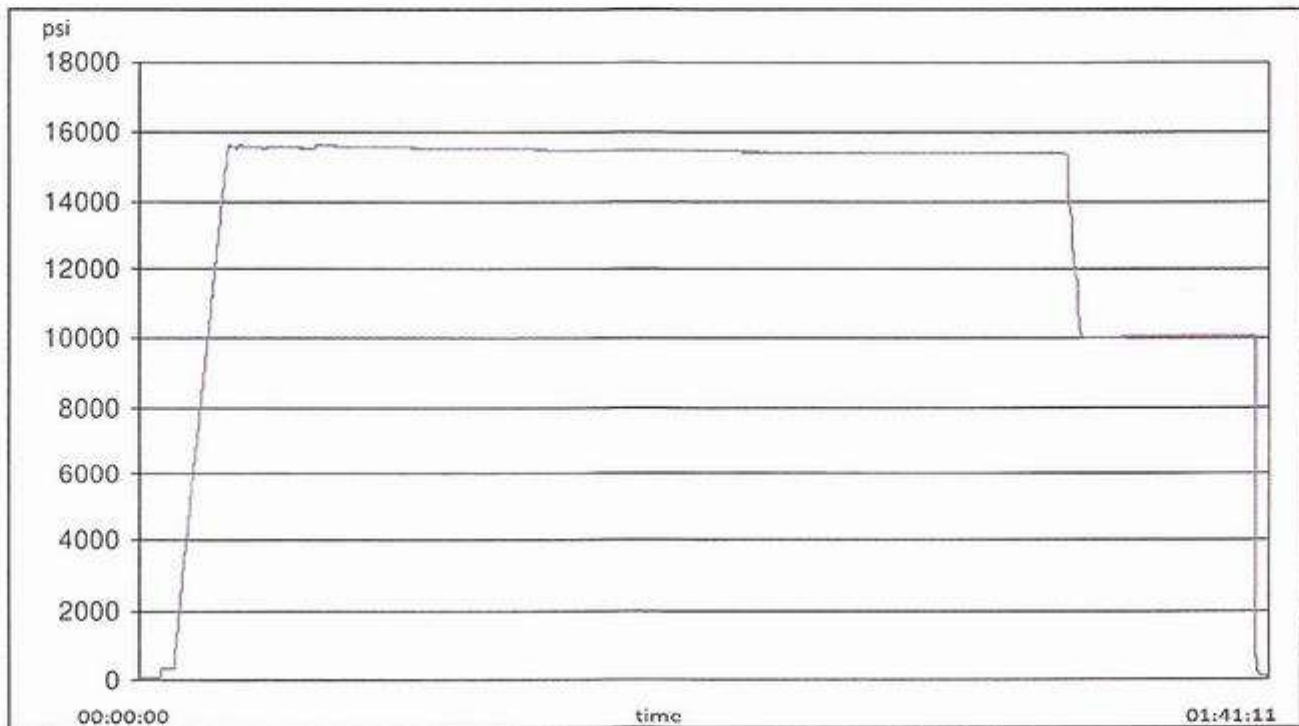
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





H3-15/16

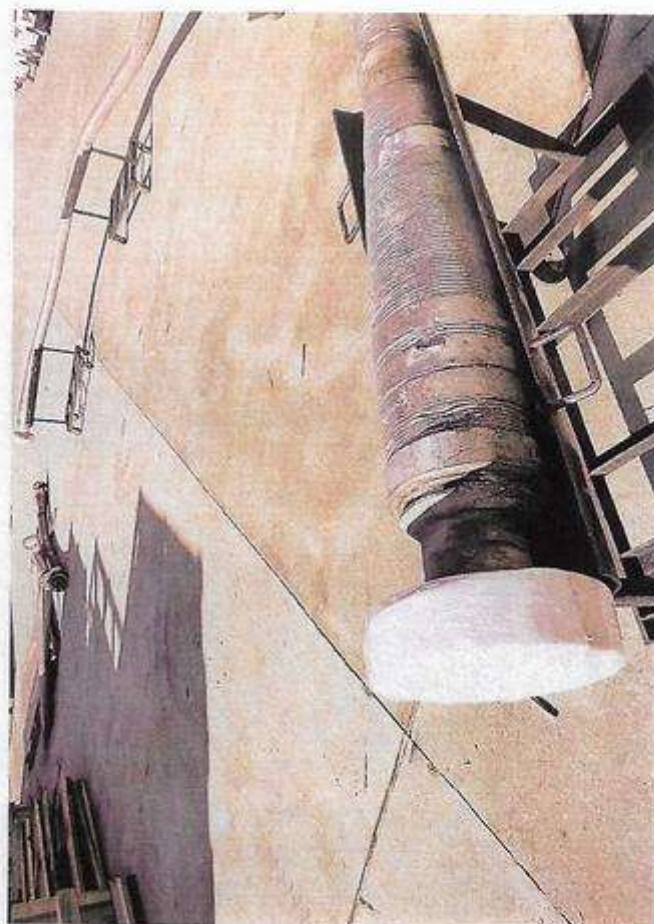
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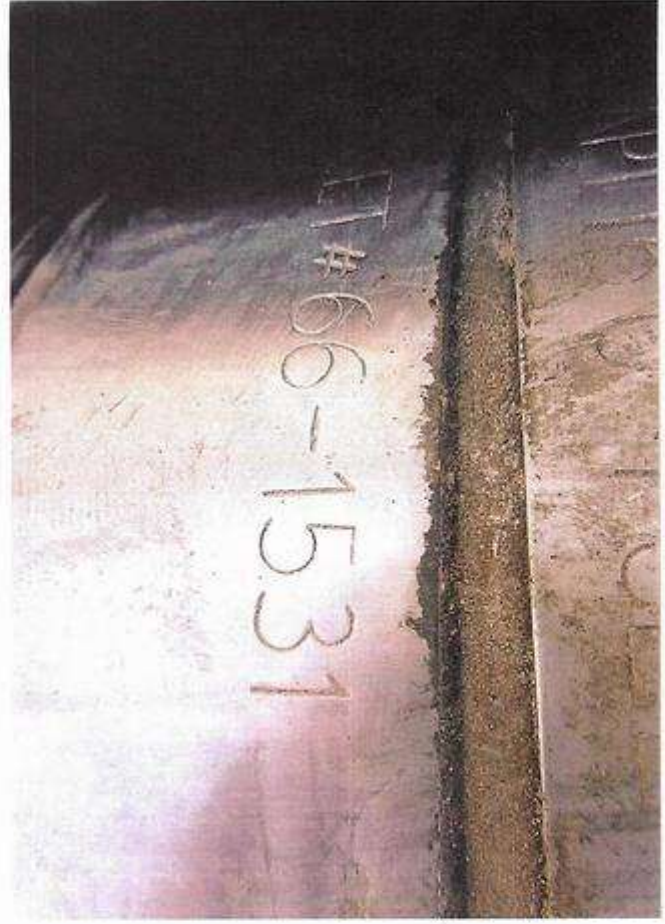
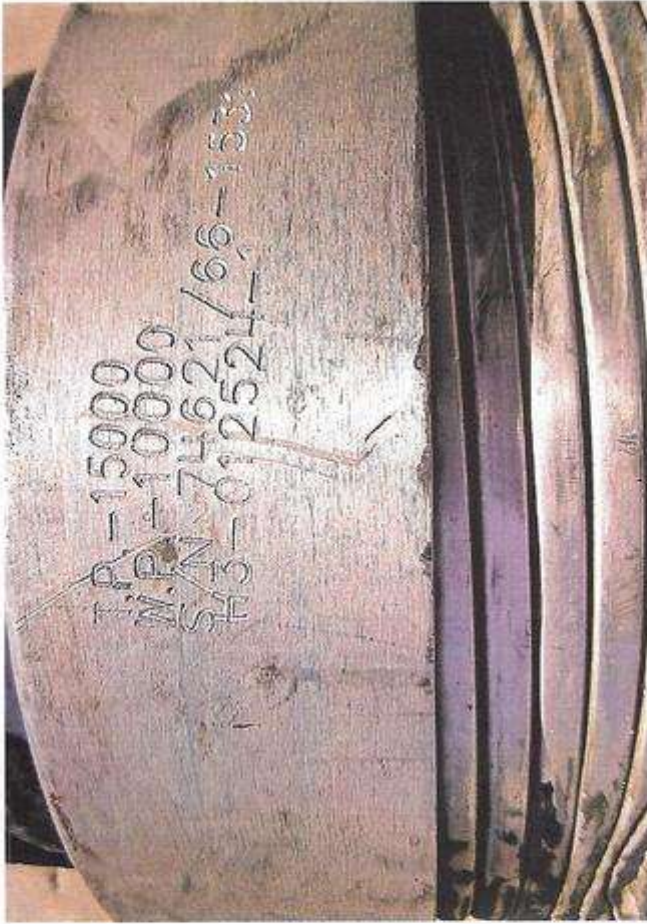
TEST REPORT

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





**QC APPROVED** BY POSSIBILITY<sup>™</sup>

**Gates**

I.D.: 3" LENGTH: 45'

GRADE: 160 Lb. END FITTING: 1 1/4" 10K Flange E/F

H#: H3-012524-1

CUST NAME: Nalor's DOC#: S28480

NOTES: 1015582803 S/N: 74621 ASSET 66-1531



DRAWING NO. SDT-3301

## CACTUS WELLHEAD LLC

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

Well Plan Report - Poker Lake Unit 23 DTD South 542H

Measured Depth: 24471.60 ft  
TVD RKB: 11532.00 ft  
Location  
Cartographic Reference System: New Mexico East - NAD 27  
Northing: 441293.80 ft  
Easting: 651205.50 ft  
RKB: 3475.00 ft  
Ground Level: 3443.00 ft  
North Reference: Grid  
Convergence Angle: 0.26 Deg

Plan Sections Poker Lake Unit 23 DTD South 542H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD		Y Offset (ft)	X Offset (ft)	Build		Turn		Dogleg
			RKB	(ft)			Rate (Deg/100ft)	(Deg/100ft)	Rate (Deg/100ft)	(Deg/100ft)	Rate (Deg/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4787.31	18.78	226.55	4773.29	0.00	-87.94	-92.85	2.39	0.00	0.00	2.39	0.00
7378.70	18.78	226.55	7226.71	0.00	-661.66	-698.55	0.00	0.00	0.00	0.00	0.00
8166.02	0.00	0.00	8000.00	0.00	-749.60	-791.40	-2.39	0.00	0.00	2.39	0.00
10981.82	0.00	0.00	10815.80	0.00	-749.60	-791.40	0.00	0.00	0.00	0.00	0.00
12106.82	90.00	179.66	11532.00	0.00	-1465.78	-787.18	8.00	0.00	0.00	8.00	0.00
24381.61	90.00	179.66	11532.00	0.00	-13740.37	-714.76	0.00	0.00	0.00	0.00	LTP 19
24471.60	90.00	179.66	11532.00	0.00	-13830.36	-714.23	0.00	0.00	0.00	0.00	BHL 19

Position Uncertainty Poker Lake Unit 23 DTD South 542H

Measured	TVD		Lateral		Vertical		Magnitude		Semi-major		Semi-minor		Tool	
Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	Error	Bias	Error	Azimuth	Used

[illegible]

3400.000	0.000	0.000	3400.000	12.188	0.000	12.009	0.000	12.188	12.009	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
3500.000	0.000	0.000	3500.000	12.547	0.000	12.367	0.000	12.547	12.367	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
3600.000	0.000	0.000	3600.000	12.905	0.000	12.726	0.000	12.905	12.726	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
3700.000	0.000	0.000	3700.000	13.263	0.000	13.084	0.000	13.263	13.084	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
3800.000	0.000	0.000	3800.000	13.622	0.000	13.443	0.000	13.622	13.443	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
3900.000	0.000	0.000	3900.000	13.980	0.000	13.801	0.000	13.980	13.801	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4000.000	0.000	0.000	4000.000	14.339	0.000	14.160	0.000	14.339	14.160	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4100.000	2.385	226.554	4099.971	14.576	-0.000	14.597	0.000	14.682	14.502	89.980	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4200.000	4.771	226.554	4199.769	14.870	-0.000	14.926	0.000	15.012	14.829	89.939	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4300.000	7.156	226.554	4299.221	15.142	-0.000	15.255	0.000	15.343	15.155	89.736	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4400.000	9.542	226.554	4398.154	15.389	-0.000	15.585	0.000	15.674	15.480	89.258	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4500.000	11.927	226.554	4496.397	15.612	-0.000	15.916	0.000	16.006	15.804	88.405	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4600.000	14.312	226.554	4593.779	15.810	-0.000	16.248	0.000	16.337	16.125	87.099	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4700.000	16.698	226.554	4690.133	15.982	-0.000	16.580	0.000	16.667	16.444	85.289	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4787.314	18.781	226.554	4773.291	16.111	-0.000	16.871	0.000	16.956	16.719	83.332	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4800.000	18.781	226.554	4785.302	16.151	-0.000	16.914	0.000	16.998	16.760	83.175	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
4900.000	18.781	226.554	4879.977	16.475	-0.000	17.250	0.000	17.329	17.072	80.280	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5000.000	18.781	226.554	4974.653	16.800	-0.000	17.591	0.000	17.664	17.386	77.586	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5100.000	18.781	226.554	5069.329	17.127	-0.000	17.935	0.000	18.003	17.702	75.102	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5200.000	18.781	226.554	5164.005	17.456	-0.000	18.282	0.000	18.345	18.019	72.829	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5300.000	18.781	226.554	5258.681	17.786	-0.000	18.632	0.000	18.691	18.337	70.759	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5400.000	18.781	226.554	5353.357	18.118	-0.000	18.985	0.000	19.040	18.656	68.881	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5500.000	18.781	226.554	5448.032	18.452	-0.000	19.341	0.000	19.392	18.977	67.178	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5600.000	18.781	226.554	5542.708	18.787	-0.000	19.700	0.000	19.747	19.299	65.637	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5700.000	18.781	226.554	5637.384	19.124	-0.000	20.061	0.000	20.105	19.621	64.240	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5800.000	18.781	226.554	5732.060	19.461	-0.000	20.424	0.000	20.465	19.945	62.972	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
5900.000	18.781	226.554	5826.736	19.800	-0.000	20.790	0.000	20.828	20.270	61.820	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6000.000	18.781	226.554	5921.411	20.140	-0.000	21.157	0.000	21.193	20.595	60.770	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6100.000	18.781	226.554	6016.087	20.482	-0.000	21.527	0.000	21.560	20.922	59.812	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6200.000	18.781	226.554	6110.763	20.824	-0.000	21.898	0.000	21.929	21.249	58.935	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6300.000	18.781	226.554	6205.439	21.167	-0.000	22.272	0.000	22.300	21.577	58.130	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6400.000	18.781	226.554	6300.115	21.511	-0.000	22.647	0.000	22.674	21.906	57.389	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6500.000	18.781	226.554	6394.791	21.856	-0.000	23.024	0.000	23.048	22.236	56.707	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6600.000	18.781	226.554	6489.466	22.202	-0.000	23.402	0.000	23.425	22.567	56.075	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6700.000	18.781	226.554	6584.142	22.549	-0.000	23.781	0.000	23.803	22.898	55.490	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

6800.000	18.781	226.554	6678.818	22.897	-0.000	24.163	0.000	8.891	0.000	0.000	24.182	23.230	54.947	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
6900.000	18.781	226.554	6773.494	23.245	-0.000	24.545	0.000	9.070	0.000	0.000	24.563	23.563	54.441	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7000.000	18.781	226.554	6868.170	23.594	-0.000	24.929	0.000	9.251	0.000	0.000	24.946	23.897	53.969	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7100.000	18.781	226.554	6962.845	23.944	-0.000	25.314	0.000	9.435	0.000	0.000	25.330	24.231	53.528	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7200.000	18.781	226.554	7057.521	24.294	-0.000	25.700	0.000	9.621	0.000	0.000	25.714	24.566	53.115	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7300.000	18.781	226.554	7152.197	24.645	-0.000	26.087	0.000	9.810	0.000	0.000	26.101	24.901	52.727	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7378.702	18.781	226.554	7226.709	24.922	-0.000	26.392	0.000	9.960	0.000	0.000	26.405	25.166	52.439	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7400.000	18.273	226.554	7246.903	25.034	-0.000	26.475	0.000	10.001	0.000	0.000	26.487	25.237	52.364	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7500.000	15.887	226.554	7342.486	25.540	-0.000	26.860	0.000	10.196	0.000	0.000	26.872	25.576	52.045	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7600.000	13.502	226.554	7439.208	26.009	-0.000	27.240	0.000	10.392	0.000	0.000	27.251	25.919	51.779	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7700.000	11.116	226.554	7536.902	26.439	-0.000	27.614	0.000	10.585	0.000	0.000	27.624	26.265	51.558	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7800.000	8.731	226.554	7635.399	26.828	-0.000	27.982	0.000	10.776	0.000	0.000	27.991	26.613	51.373	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
7900.000	6.346	226.554	7734.527	27.176	-0.000	28.343	0.000	10.964	0.000	0.000	28.352	26.962	51.217	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8000.000	3.960	226.554	7834.116	27.482	-0.000	28.697	0.000	11.150	0.000	0.000	28.705	27.311	51.085	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8100.000	1.575	226.554	7933.992	27.745	-0.000	29.044	0.000	11.332	0.000	0.000	29.052	27.658	50.972	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8166.016	0.000	0.000	8000.000	28.734	0.000	28.445	0.000	11.452	0.000	0.000	29.276	27.886	50.992	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8200.000	0.000	0.000	8033.984	28.850	0.000	28.559	0.000	11.513	0.000	0.000	29.391	28.003	51.049	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8300.000	0.000	0.000	8133.984	29.194	0.000	28.897	0.000	11.695	0.000	0.000	29.727	28.347	51.214	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8400.000	0.000	0.000	8233.984	29.537	0.000	29.235	0.000	11.879	0.000	0.000	30.064	28.692	51.377	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8500.000	0.000	0.000	8333.984	29.882	0.000	29.573	0.000	12.067	0.000	0.000	30.402	29.038	51.538	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8600.000	0.000	0.000	8433.984	30.226	0.000	29.912	0.000	12.258	0.000	0.000	30.740	29.383	51.698	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8700.000	0.000	0.000	8533.984	30.571	0.000	30.251	0.000	12.452	0.000	0.000	31.079	29.729	51.855	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8800.000	0.000	0.000	8633.984	30.916	0.000	30.591	0.000	12.649	0.000	0.000	31.418	30.075	52.011	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
8900.000	0.000	0.000	8733.984	31.261	0.000	30.931	0.000	12.849	0.000	0.000	31.757	30.421	52.164	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9000.000	0.000	0.000	8833.984	31.607	0.000	31.271	0.000	13.052	0.000	0.000	32.097	30.768	52.316	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9100.000	0.000	0.000	8933.984	31.953	0.000	31.612	0.000	13.258	0.000	0.000	32.438	31.115	52.466	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9200.000	0.000	0.000	9033.984	32.299	0.000	31.954	0.000	13.467	0.000	0.000	32.778	31.462	52.614	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9300.000	0.000	0.000	9133.984	32.646	0.000	32.295	0.000	13.679	0.000	0.000	33.119	31.809	52.761	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9400.000	0.000	0.000	9233.984	32.993	0.000	32.637	0.000	13.895	0.000	0.000	33.461	32.157	52.906	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9500.000	0.000	0.000	9333.984	33.340	0.000	32.980	0.000	14.113	0.000	0.000	33.803	32.505	53.049	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9600.000	0.000	0.000	9433.984	33.687	0.000	33.322	0.000	14.335	0.000	0.000	34.145	32.853	53.190	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9700.000	0.000	0.000	9533.984	34.034	0.000	33.665	0.000	14.560	0.000	0.000	34.488	33.201	53.330	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9800.000	0.000	0.000	9633.984	34.382	0.000	34.009	0.000	14.788	0.000	0.000	34.831	33.549	53.468	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
9900.000	0.000	0.000	9733.984	34.730	0.000	34.352	0.000	15.019	0.000	0.000	35.174	33.898	53.604	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10000.000	0.000	0.000	9833.984	35.078	0.000	34.696	0.000	15.253	0.000	0.000	35.517	34.246	53.739	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

10100.000	0.000	0.000	9933.984	35.426	0.000	35.041	0.000	15.491	0.000	0.000	35.861	34.595	53.872	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10200.000	0.000	0.000	10033.984	35.775	0.000	35.385	0.000	15.731	0.000	0.000	36.205	34.945	54.004	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10300.000	0.000	0.000	10133.984	36.124	0.000	35.730	0.000	15.975	0.000	0.000	36.550	35.294	54.134	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10400.000	0.000	0.000	10233.984	36.473	0.000	36.075	0.000	16.222	0.000	0.000	36.895	35.643	54.263	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10500.000	0.000	0.000	10333.984	36.822	0.000	36.420	0.000	16.472	0.000	0.000	37.240	35.993	54.390	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10600.000	0.000	0.000	10433.984	37.171	0.000	36.766	0.000	16.725	0.000	0.000	37.585	36.343	54.516	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10700.000	0.000	0.000	10533.984	37.521	0.000	37.112	0.000	16.981	0.000	0.000	37.930	36.693	54.640	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10800.000	0.000	0.000	10633.984	37.870	0.000	37.458	0.000	17.241	0.000	0.000	38.276	37.043	54.763	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10900.000	0.000	0.000	10733.984	38.220	0.000	37.804	0.000	17.504	0.000	0.000	38.622	37.393	54.885	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
10981.816	0.000	0.000	10815.800	38.506	0.000	38.088	0.000	17.721	0.000	0.000	38.906	37.680	54.983	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11000.000	1.455	179.662	10833.982	38.612	0.000	38.143	-0.000	17.769	0.000	0.000	38.967	37.742	54.983	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11100.000	9.455	179.662	10933.448	38.795	0.000	38.483	-0.000	18.039	0.000	0.000	39.300	38.080	54.808	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11200.000	17.455	179.662	11030.625	38.384	0.000	38.823	-0.000	18.308	0.000	0.000	39.632	38.414	54.481	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11300.000	25.455	179.662	11123.620	37.394	0.000	39.158	-0.000	18.568	0.000	0.000	39.954	38.737	53.830	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11400.000	33.455	179.662	11210.624	35.862	0.000	39.484	-0.000	18.815	0.000	0.000	40.258	39.040	52.725	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11500.000	41.455	179.662	11289.943	33.849	0.000	39.796	-0.000	19.044	0.000	0.000	40.539	39.316	51.075	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11600.000	49.455	179.662	11360.033	31.445	0.000	40.091	-0.000	19.253	0.000	0.000	40.795	39.558	48.866	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11700.000	57.455	179.662	11419.530	28.776	0.000	40.365	-0.000	19.439	0.000	0.000	41.025	39.761	46.184	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11800.000	65.455	179.662	11467.277	26.018	0.000	40.614	-0.000	19.603	0.000	0.000	41.232	39.920	43.229	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
11900.000	73.455	179.662	11502.343	23.416	0.000	40.837	-0.000	19.745	0.000	0.000	41.418	40.034	40.289	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12000.000	81.455	179.662	11524.047	21.292	0.000	41.030	-0.000	19.865	0.000	0.000	41.583	40.106	37.659	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12106.816	90.000	179.662	11531.997	19.973	0.000	41.199	-0.000	19.973	0.000	0.000	41.737	40.145	35.448	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12200.000	90.000	179.662	11531.997	20.063	0.000	41.334	-0.000	20.063	0.000	0.000	41.864	40.164	33.860	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12300.000	90.000	179.662	11531.997	20.168	0.000	41.490	-0.000	20.168	0.000	0.000	42.010	40.184	32.206	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12400.000	90.000	179.662	11531.997	20.284	0.000	41.656	-0.000	20.284	0.000	0.000	42.167	40.206	30.631	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12500.000	90.000	179.662	11531.997	20.408	0.000	41.834	-0.000	20.408	0.000	0.000	42.334	40.229	29.139	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12600.000	90.000	179.662	11531.997	20.543	0.000	42.022	-0.000	20.543	0.000	0.000	42.512	40.252	27.733	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12700.000	90.000	179.662	11531.997	20.686	0.000	42.221	-0.000	20.686	0.000	0.000	42.701	40.276	26.410	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12800.000	90.000	179.662	11531.997	20.838	0.000	42.430	-0.000	20.838	0.000	0.000	42.901	40.301	25.170	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
12900.000	90.000	179.662	11531.997	20.999	0.000	42.650	-0.000	20.999	0.000	0.000	43.111	40.325	24.010	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13000.000	90.000	179.662	11531.997	21.168	0.000	42.880	-0.000	21.168	0.000	0.000	43.331	40.350	22.925	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13100.000	90.000	179.662	11531.997	21.346	0.000	43.119	-0.000	21.346	0.000	0.000	43.561	40.376	21.911	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13200.000	90.000	179.662	11531.997	21.532	0.000	43.369	-0.000	21.532	0.000	0.000	43.802	40.402	20.964	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13300.000	90.000	179.662	11531.997	21.726	0.000	43.628	-0.000	21.726	0.000	0.000	44.053	40.428	20.080	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13400.000	90.000	179.662	11531.997	21.927	0.000	43.896	-0.000	21.927	0.000	0.000	44.313	40.454	19.254	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

13500.000	90.000	179.662	11531.997	22.136	0.000	44.174	-0.000	22.136	0.000	0.000	44.583	40.481	18.482	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13600.000	90.000	179.662	11531.997	22.352	0.000	44.461	-0.000	22.352	0.000	0.000	44.862	40.508	17.760	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13700.000	90.000	179.662	11531.997	22.576	0.000	44.756	-0.000	22.576	0.000	0.000	45.151	40.536	17.084	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13800.000	90.000	179.662	11531.997	22.806	0.000	45.061	-0.000	22.806	0.000	0.000	45.448	40.564	16.451	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
13900.000	90.000	179.662	11531.997	23.043	0.000	45.374	-0.000	23.043	0.000	0.000	45.754	40.592	15.856	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14000.000	90.000	179.662	11531.997	23.286	0.000	45.695	-0.000	23.286	0.000	0.000	46.069	40.621	15.298	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14100.000	90.000	179.662	11531.997	23.536	0.000	46.025	-0.000	23.536	0.000	0.000	46.393	40.651	14.773	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14200.000	90.000	179.662	11531.997	23.791	0.000	46.363	-0.000	23.791	0.000	0.000	46.724	40.680	14.279	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14300.000	90.000	179.662	11531.997	24.053	0.000	46.709	-0.000	24.053	0.000	0.000	47.064	40.710	13.814	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14400.000	90.000	179.662	11531.997	24.320	0.000	47.062	-0.000	24.320	0.000	0.000	47.412	40.741	13.375	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14500.000	90.000	179.662	11531.997	24.593	0.000	47.423	-0.000	24.593	0.000	0.000	47.767	40.772	12.960	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14600.000	90.000	179.662	11531.997	24.871	0.000	47.791	-0.000	24.871	0.000	0.000	48.130	40.804	12.568	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14700.000	90.000	179.662	11531.997	25.154	0.000	48.166	-0.000	25.154	0.000	0.000	48.500	40.836	12.196	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14800.000	90.000	179.662	11531.997	25.442	0.000	48.549	-0.000	25.442	0.000	0.000	48.877	40.869	11.844	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
14900.000	90.000	179.662	11531.997	25.735	0.000	48.938	-0.000	25.735	0.000	0.000	49.262	40.902	11.510	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15000.000	90.000	179.662	11531.997	26.032	0.000	49.334	-0.000	26.032	0.000	0.000	49.653	40.935	11.193	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15100.000	90.000	179.662	11531.997	26.334	0.000	49.736	-0.000	26.334	0.000	0.000	50.051	40.970	10.892	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15200.000	90.000	179.662	11531.997	26.641	0.000	50.145	-0.000	26.641	0.000	0.000	50.455	41.004	10.605	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15300.000	90.000	179.662	11531.997	26.951	0.000	50.560	-0.000	26.951	0.000	0.000	50.866	41.040	10.331	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15400.000	90.000	179.662	11531.997	27.266	0.000	50.982	-0.000	27.266	0.000	0.000	51.283	41.075	10.070	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15500.000	90.000	179.662	11531.997	27.584	0.000	51.409	-0.000	27.584	0.000	0.000	51.705	41.112	9.822	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15600.000	90.000	179.662	11531.997	27.906	0.000	51.842	-0.000	27.906	0.000	0.000	52.134	41.149	9.584	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15700.000	90.000	179.662	11531.997	28.232	0.000	52.280	-0.000	28.232	0.000	0.000	52.569	41.186	9.356	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15800.000	90.000	179.662	11531.997	28.562	0.000	52.724	-0.000	28.562	0.000	0.000	53.009	41.224	9.139	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
15900.000	90.000	179.662	11531.997	28.894	0.000	53.173	-0.000	28.894	0.000	0.000	53.454	41.263	8.930	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16000.000	90.000	179.662	11531.997	29.231	0.000	53.628	-0.000	29.231	0.000	0.000	53.905	41.302	8.731	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16100.000	90.000	179.662	11531.997	29.570	0.000	54.088	-0.000	29.570	0.000	0.000	54.361	41.342	8.539	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16200.000	90.000	179.662	11531.997	29.912	0.000	54.552	-0.000	29.912	0.000	0.000	54.822	41.382	8.355	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16300.000	90.000	179.662	11531.997	30.257	0.000	55.022	-0.000	30.257	0.000	0.000	55.288	41.423	8.178	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16400.000	90.000	179.662	11531.997	30.605	0.000	55.496	-0.000	30.605	0.000	0.000	55.759	41.464	8.008	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16500.000	90.000	179.662	11531.997	30.956	0.000	55.975	-0.000	30.956	0.000	0.000	56.235	41.506	7.845	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16600.000	90.000	179.662	11531.997	31.310	0.000	56.458	-0.000	31.310	0.000	0.000	56.714	41.549	7.687	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16700.000	90.000	179.662	11531.997	31.666	0.000	56.945	-0.000	31.666	0.000	0.000	57.199	41.592	7.536	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16800.000	90.000	179.662	11531.997	32.024	0.000	57.437	-0.000	32.024	0.000	0.000	57.688	41.635	7.390	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
16900.000	90.000	179.662	11531.997	32.385	0.000	57.933	-0.000	32.385	0.000	0.000	58.181	41.680	7.249	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

17000.000	90.000	179.662	11531.997	32.748	0.000	58.433	-0.000	32.748	0.000	0.000	58.678	41.725	7.113	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17100.000	90.000	179.662	11531.997	33.114	0.000	58.937	-0.000	33.114	0.000	0.000	59.179	41.770	6.981	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17200.000	90.000	179.662	11531.997	33.482	0.000	59.445	-0.000	33.482	0.000	0.000	59.684	41.816	6.854	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17300.000	90.000	179.662	11531.997	33.852	0.000	59.956	-0.000	33.852	0.000	0.000	60.192	41.863	6.732	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17400.000	90.000	179.662	11531.997	34.223	0.000	60.472	-0.000	34.223	0.000	0.000	60.705	41.910	6.613	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17500.000	90.000	179.662	11531.997	34.597	0.000	60.990	-0.000	34.597	0.000	0.000	61.221	41.957	6.498	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17600.000	90.000	179.662	11531.997	34.973	0.000	61.512	-0.000	34.973	0.000	0.000	61.740	42.006	6.387	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17700.000	90.000	179.662	11531.997	35.351	0.000	62.038	-0.000	35.351	0.000	0.000	62.263	42.055	6.279	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17800.000	90.000	179.662	11531.997	35.730	0.000	62.567	-0.000	35.730	0.000	0.000	62.789	42.104	6.175	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
17900.000	90.000	179.662	11531.997	36.111	0.000	63.099	-0.000	36.111	0.000	0.000	63.319	42.154	6.074	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18000.000	90.000	179.662	11531.997	36.494	0.000	63.634	-0.000	36.494	0.000	0.000	63.852	42.205	5.976	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18100.000	90.000	179.662	11531.997	36.878	0.000	64.172	-0.000	36.878	0.000	0.000	64.387	42.256	5.881	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18200.000	90.000	179.662	11531.997	37.264	0.000	64.713	-0.000	37.264	0.000	0.000	64.926	42.308	5.788	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18300.000	90.000	179.662	11531.997	37.652	0.000	65.257	-0.000	37.652	0.000	0.000	65.468	42.360	5.698	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18400.000	90.000	179.662	11531.997	38.041	0.000	65.804	-0.000	38.041	0.000	0.000	66.013	42.413	5.611	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18500.000	90.000	179.662	11531.997	38.431	0.000	66.354	-0.000	38.431	0.000	0.000	66.560	42.466	5.526	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18600.000	90.000	179.662	11531.997	38.823	0.000	66.906	-0.000	38.823	0.000	0.000	67.110	42.520	5.444	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18700.000	90.000	179.662	11531.997	39.216	0.000	67.461	-0.000	39.216	0.000	0.000	67.663	42.575	5.364	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18800.000	90.000	179.662	11531.997	39.611	0.000	68.018	-0.000	39.611	0.000	0.000	68.218	42.630	5.286	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
18900.000	90.000	179.662	11531.997	40.006	0.000	68.578	-0.000	40.006	0.000	0.000	68.776	42.685	5.210	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19000.000	90.000	179.662	11531.997	40.403	0.000	69.141	-0.000	40.403	0.000	0.000	69.337	42.742	5.136	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19100.000	90.000	179.662	11531.997	40.801	0.000	69.706	-0.000	40.801	0.000	0.000	69.899	42.798	5.064	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19200.000	90.000	179.662	11531.997	41.201	0.000	70.273	-0.000	41.201	0.000	0.000	70.465	42.856	4.994	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19300.000	90.000	179.662	11531.997	41.601	0.000	70.842	-0.000	41.601	0.000	0.000	71.032	42.914	4.925	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19400.000	90.000	179.662	11531.997	42.003	0.000	71.414	-0.000	42.003	0.000	0.000	71.602	42.972	4.858	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19500.000	90.000	179.662	11531.997	42.406	0.000	71.987	-0.000	42.406	0.000	0.000	72.174	43.031	4.793	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19600.000	90.000	179.662	11531.997	42.809	0.000	72.563	-0.000	42.809	0.000	0.000	72.748	43.090	4.730	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19700.000	90.000	179.662	11531.997	43.214	0.000	73.141	-0.000	43.214	0.000	0.000	73.324	43.150	4.668	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19800.000	90.000	179.662	11531.997	43.620	0.000	73.721	-0.000	43.620	0.000	0.000	73.902	43.211	4.608	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
19900.000	90.000	179.662	11531.997	44.026	0.000	74.303	-0.000	44.026	0.000	0.000	74.482	43.272	4.549	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20000.000	90.000	179.662	11531.997	44.434	0.000	74.887	-0.000	44.434	0.000	0.000	75.064	43.334	4.491	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20100.000	90.000	179.662	11531.997	44.842	0.000	75.472	-0.000	44.842	0.000	0.000	75.648	43.396	4.435	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20200.000	90.000	179.662	11531.997	45.251	0.000	76.060	-0.000	45.251	0.000	0.000	76.234	43.459	4.380	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20300.000	90.000	179.662	11531.997	45.662	0.000	76.649	-0.000	45.662	0.000	0.000	76.821	43.522	4.326	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20400.000	90.000	179.662	11531.997	46.073	0.000	77.240	-0.000	46.073	0.000	0.000	77.411	43.586	4.273	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

20500.000	90.000	179.662	11531.997	46.484	0.000	77.832	-0.000	46.484	0.000	0.000	78.002	43.650	4.222	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20600.000	90.000	179.662	11531.997	46.897	0.000	78.427	-0.000	46.897	0.000	0.000	78.595	43.715	4.171	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20700.000	90.000	179.662	11531.997	47.310	0.000	79.023	-0.000	47.310	0.000	0.000	79.189	43.781	4.122	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20800.000	90.000	179.662	11531.997	47.725	0.000	79.620	-0.000	47.725	0.000	0.000	79.785	43.847	4.074	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
20900.000	90.000	179.662	11531.997	48.139	0.000	80.219	-0.000	48.139	0.000	0.000	80.383	43.913	4.027	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21000.000	90.000	179.662	11531.997	48.555	0.000	80.820	-0.000	48.555	0.000	0.000	80.982	43.980	3.981	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21100.000	90.000	179.662	11531.997	48.971	0.000	81.422	-0.000	48.971	0.000	0.000	81.583	44.047	3.936	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21200.000	90.000	179.662	11531.997	49.388	0.000	82.026	-0.000	49.388	0.000	0.000	82.185	44.115	3.891	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21300.000	90.000	179.662	11531.997	49.806	0.000	82.631	-0.000	49.806	0.000	0.000	82.789	44.184	3.848	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21400.000	90.000	179.662	11531.997	50.224	0.000	83.237	-0.000	50.224	0.000	0.000	83.394	44.253	3.805	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21500.000	90.000	179.662	11531.997	50.643	0.000	83.845	-0.000	50.643	0.000	0.000	84.000	44.323	3.764	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21600.000	90.000	179.662	11531.997	51.062	0.000	84.454	-0.000	51.062	0.000	0.000	84.608	44.393	3.723	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21700.000	90.000	179.662	11531.997	51.482	0.000	85.064	-0.000	51.482	0.000	0.000	85.217	44.463	3.683	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21800.000	90.000	179.662	11531.997	51.903	0.000	85.676	-0.000	51.903	0.000	0.000	85.827	44.534	3.644	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
21900.000	90.000	179.662	11531.997	52.324	0.000	86.289	-0.000	52.324	0.000	0.000	86.439	44.606	3.605	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22000.000	90.000	179.662	11531.997	52.746	0.000	86.903	-0.000	52.746	0.000	0.000	87.052	44.678	3.567	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22100.000	90.000	179.662	11531.997	53.168	0.000	87.518	-0.000	53.168	0.000	0.000	87.666	44.750	3.530	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22200.000	90.000	179.662	11531.997	53.591	0.000	88.135	-0.000	53.591	0.000	0.000	88.281	44.823	3.494	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22300.000	90.000	179.662	11531.997	54.014	0.000	88.752	-0.000	54.014	0.000	0.000	88.898	44.897	3.458	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22400.000	90.000	179.662	11531.997	54.438	0.000	89.371	-0.000	54.438	0.000	0.000	89.515	44.971	3.423	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22500.000	90.000	179.662	11531.997	54.862	0.000	89.991	-0.000	54.862	0.000	0.000	90.134	45.045	3.389	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22600.000	90.000	179.662	11531.997	55.287	0.000	90.612	-0.000	55.287	0.000	0.000	90.754	45.120	3.355	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22700.000	90.000	179.662	11531.997	55.712	0.000	91.234	-0.000	55.712	0.000	0.000	91.375	45.196	3.322	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22800.000	90.000	179.662	11531.997	56.138	0.000	91.857	-0.000	56.138	0.000	0.000	91.997	45.272	3.289	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
22900.000	90.000	179.662	11531.997	56.564	0.000	92.481	-0.000	56.564	0.000	0.000	92.620	45.348	3.257	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23000.000	90.000	179.662	11531.997	56.991	0.000	93.106	-0.000	56.991	0.000	0.000	93.243	45.425	3.226	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23100.000	90.000	179.662	11531.997	57.418	0.000	93.732	-0.000	57.418	0.000	0.000	93.868	45.502	3.195	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23200.000	90.000	179.662	11531.997	57.845	0.000	94.359	-0.000	57.845	0.000	0.000	94.494	45.580	3.165	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23300.000	90.000	179.662	11531.997	58.273	0.000	94.987	-0.000	58.273	0.000	0.000	95.121	45.658	3.135	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23400.000	90.000	179.662	11531.997	58.701	0.000	95.616	-0.000	58.701	0.000	0.000	95.749	45.737	3.105	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23500.000	90.000	179.662	11531.997	59.130	0.000	96.245	-0.000	59.130	0.000	0.000	96.378	45.816	3.076	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23600.000	90.000	179.662	11531.997	59.559	0.000	96.876	-0.000	59.559	0.000	0.000	97.007	45.896	3.048	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23700.000	90.000	179.662	11531.997	59.988	0.000	97.507	-0.000	59.988	0.000	0.000	97.638	45.976	3.020	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23800.000	90.000	179.662	11531.997	60.418	0.000	98.140	-0.000	60.418	0.000	0.000	98.269	46.057	2.993	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23900.000	90.000	179.662	11531.997	60.848	0.000	98.773	-0.000	60.848	0.000	0.000	98.901	46.138	2.966	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

24000.000	90.000	179.662	11531.997	61.278	0.000	99.407	-0.000	61.278	0.000	0.000	99.534	46.219	2.939	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24100.000	90.000	179.662	11531.997	61.709	0.000	100.041	-0.000	61.709	0.000	0.000	100.168	46.301	2.913	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24200.000	90.000	179.662	11531.997	62.140	0.000	100.677	-0.000	62.140	0.000	0.000	100.803	46.384	2.887	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24300.000	90.000	179.662	11531.997	62.572	0.000	101.313	-0.000	62.572	0.000	0.000	101.438	46.467	2.862	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24381.611	90.000	179.662	11531.997	62.924	0.000	101.833	-0.000	62.924	0.000	0.000	101.957	46.535	2.841	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24400.000	90.000	179.662	11531.997	63.004	0.000	101.949	-0.000	63.004	0.000	0.000	102.074	46.550	2.837	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24471.603	90.000	179.662	11531.997	63.313	0.000	102.406	-0.000	63.313	0.000	0.000	102.529	46.610	2.819	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

Poker Lake Unit 23 DTD South 542H

Plan Targets	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 19	11801.30	440544.20	650414.10	8057.00	RECTANGLE
SHL 18	12992.34	441291.78	651193.78	8687.59	RECTANGLE
LTP 19	24381.68	427553.40	650490.80	8057.00	RECTANGLE
BHL 19	24472.44	427463.40	650492.10	8057.00	RECTANGLE

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO
<b>LEASE NO.:</b>	NMNM030452
<b>LOCATION:</b>	Sec. 14, T. 24S, R 30 E
<b>COUNTY:</b>	Eddy County, New Mexico ▼
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 23 DTD 542H
<b>SURFACE HOLE FOOTAGE:</b>	645'/S & 607'/E
<b>BOTTOM HOLE FOOTAGE:</b>	2627'/N & 1385'/E

COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No <span style="margin-left: 100px;"><input type="radio"/> Yes</span>			
<b>Potash / WIPP</b>	<input type="radio"/> None	<input checked="" type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus
	Choose an option (including blank option.)			<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Fluid-Filled	

### A. HYDROGEN SULFIDE

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

### B. CASING

1. The 13-3/8 inch surface casing shall be set at approximately **780** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping

- cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **9-5/8** inch 1<sup>st</sup> Intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, or potash.**

3. The minimum required fill of cement behind the **7-5/8** inch 2<sup>nd</sup> Intermediate casing is: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon at 6649'**.

- **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement should tie-back **500 feet** into the previous casing. Operator shall provide method of verification. If cement does not reach desired depth, the appropriate BLM office shall be notified.

**Excess calculates to -7%. Additional cement maybe required.**

**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, or potash.**

Operator has proposed to pump down **Intermediate 1 X Intermediate 2** annulus after primary cementing stage. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the Production casing to tieback requirements listed above after the second stage BH to verify TOC.** Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

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

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification. **Excess calculates to 15%. Additional cement maybe required.**

### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

### D. SPECIAL REQUIREMENT (S)

#### Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

#### Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. **(This is not necessary for secondary recovery unit wells)**

#### BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.

- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

**Offline Cementing**

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

Engineer may elect to vary this language. Speak with Chris about implementing changes and whether that change seems reasonable.

**Casing Clearance**

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

## GENERAL REQUIREMENTS

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

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

### Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;

[BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822

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

### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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

## **B. PRESSURE CONTROL**

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

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

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

- open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
  - viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

### **C. DRILLING MUD**

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

### **D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be

disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**Approved by Zota Stevens on 11/18/2024**  
575-234-5998 / [zstevens@blm.gov](mailto:zstevens@blm.gov)



## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

### Assumed 100 ppm ROE = 3000'

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

#### **Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, 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<sub>2</sub>S 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
  - o Detection of H<sub>2</sub>S, and
  - o Measures for protection against the gas,
  - o 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<sub>2</sub>). 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<sub>2</sub>S and SO<sub>2</sub>**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	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

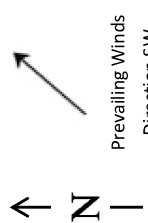
**AGENT NOTIFICATIONS:****For Lea County:**

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

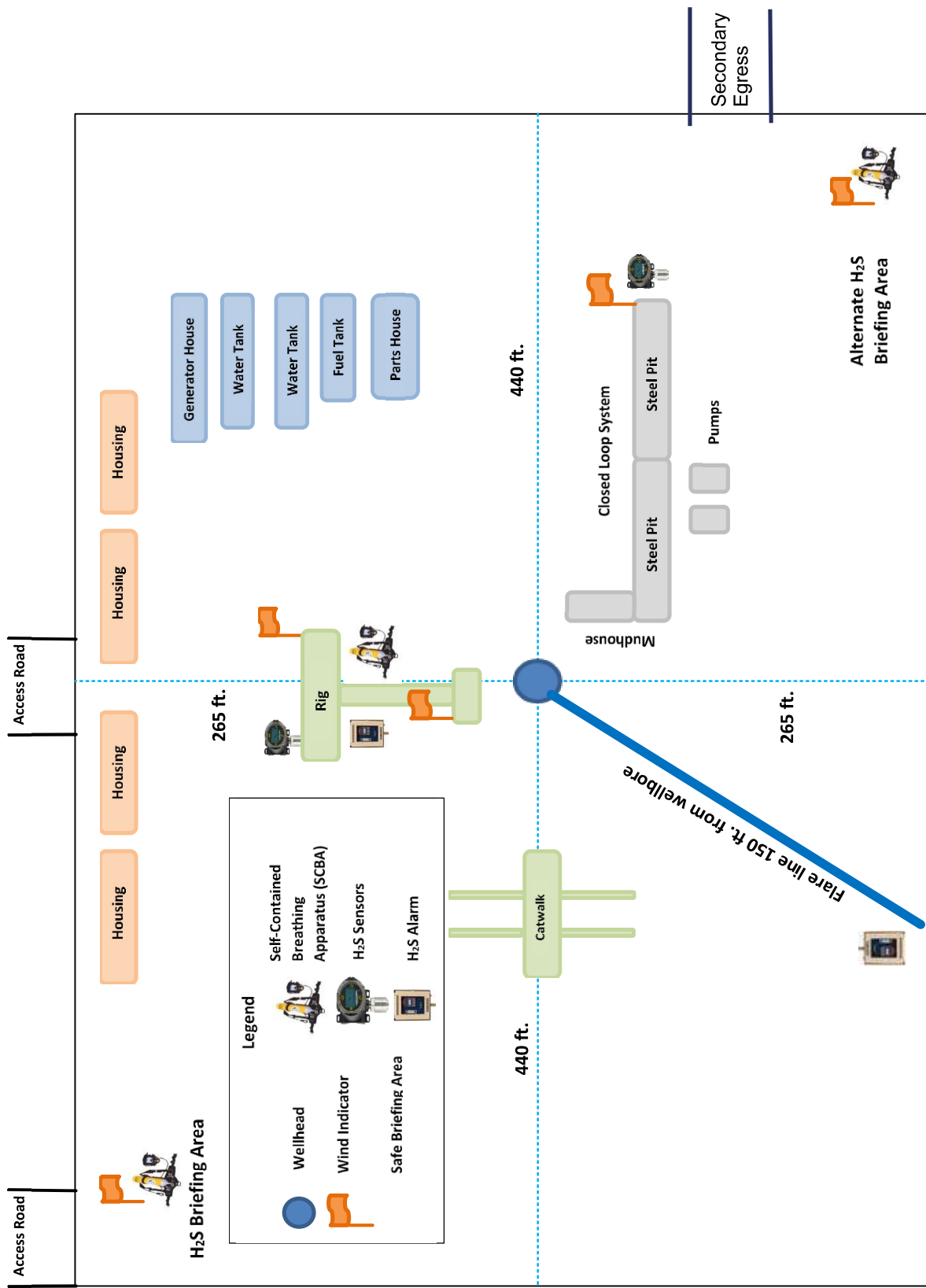
**For Eddy County:**

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

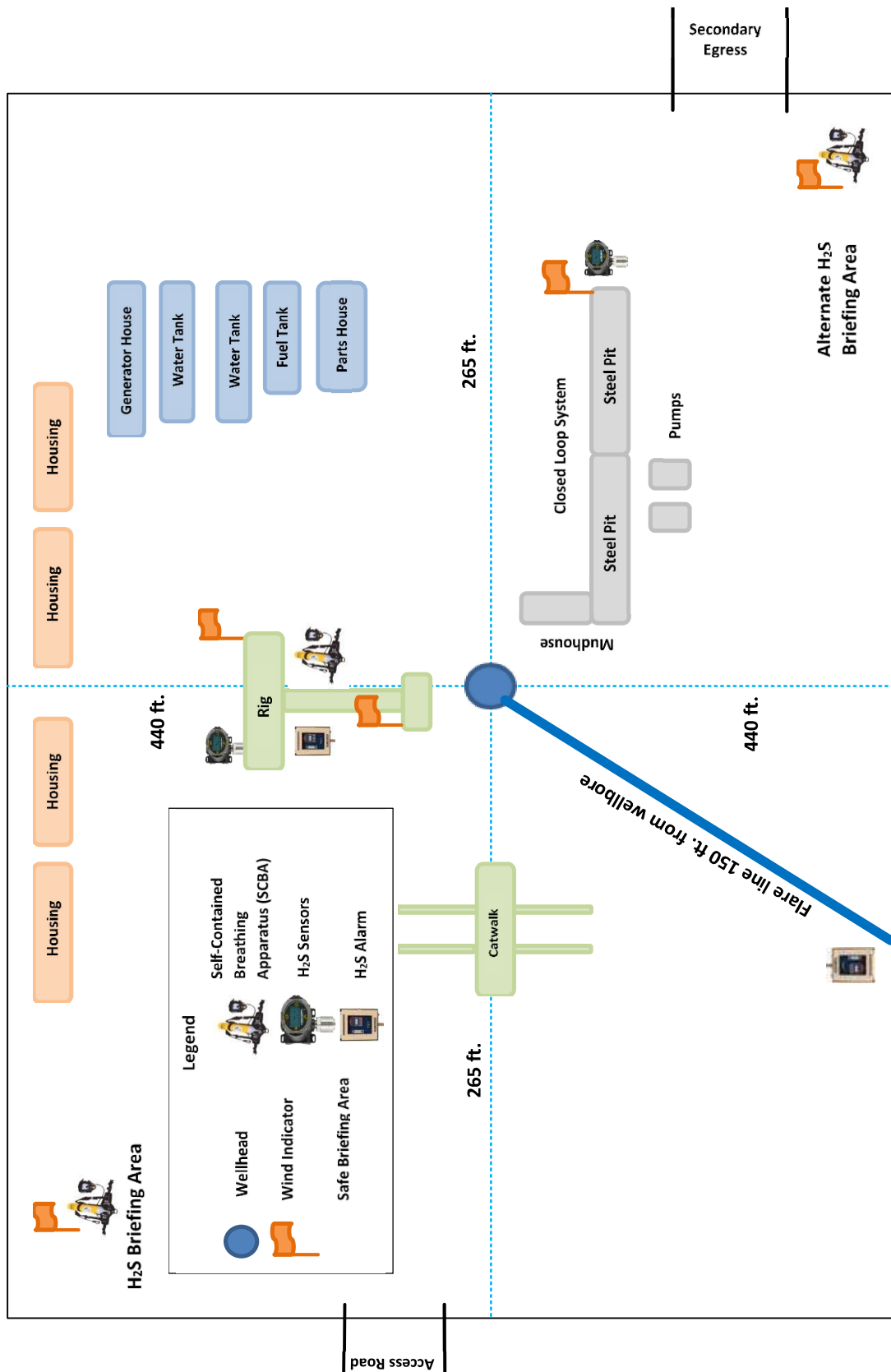
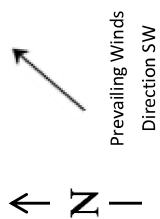
# H2S Briefing Areas and Alarm Locations



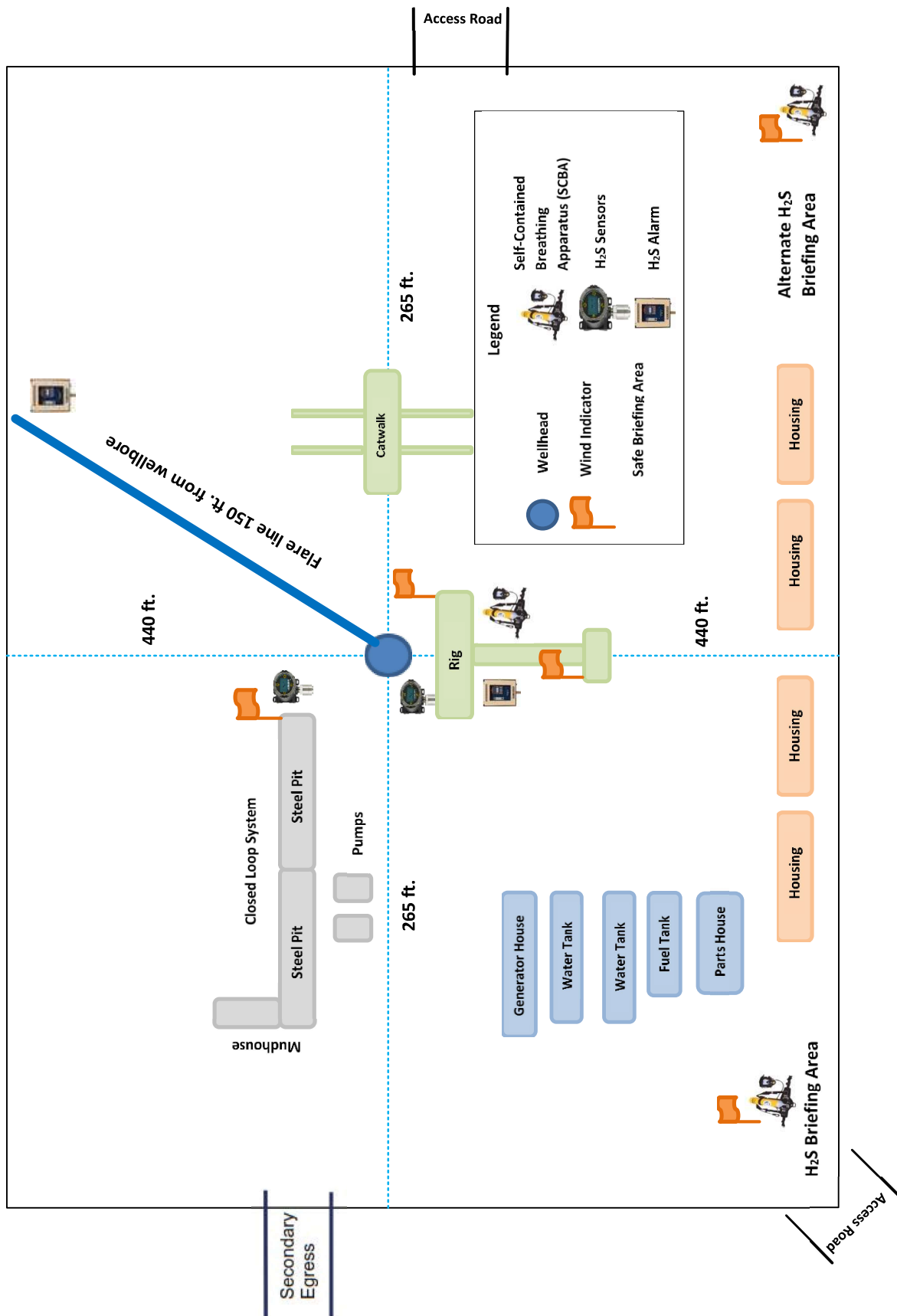
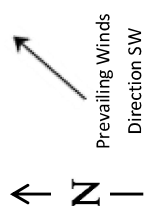
Prevailing Winds  
Direction SW



# H2S Briefing Areas and Alarm Locations



# H2S Briefing Areas and Alarm Locations



**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H**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 garbage.

### 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 cuttings 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.

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** POKER LAKE UNIT 23 DTD**Well Number:** 542H

### Section 9 - Well Site

**Well Site Layout Diagram:**

PLU\_23\_DTD\_542H\_Well\_20240413170353.pdf

PLU\_23\_DTD\_542H\_RL\_20241011135436.pdf

**Comments:** Multi-well pad.

### Section 10 - Plans for Surface Reclamation

**Type of disturbance:** No New Surface Disturbance **Multiple Well Pad Name:** POKER LAKE UNIT 23 DTD**Multiple Well Pad Number:** D**Recontouring**

PLU\_23\_DTD\_IR1\_20240411181254.pdf

PLU\_23\_DTD\_IR2\_20240411181254.pdf

PLU\_23\_DTD\_IR3\_20240411181254.pdf

PLU\_23\_DTD\_IR4\_20240411181254.pdf

**Drainage/Erosion control construction:** 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.

**Drainage/Erosion control reclamation:** Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

<b>Well pad proposed disturbance (acres):</b>	<b>Well pad interim reclamation (acres): 0</b>	<b>Well pad long term disturbance (acres): 0</b>
<b>Road proposed disturbance (acres):</b>	<b>Road interim reclamation (acres): 0</b>	<b>Road long term disturbance (acres): 0</b>
<b>Powerline proposed disturbance (acres):</b>	<b>Powerline interim reclamation (acres): 0</b>	<b>Powerline long term disturbance (acres): 0</b>
<b>Pipeline proposed disturbance (acres):</b>	<b>Pipeline interim reclamation (acres): 0</b>	<b>Pipeline long term disturbance (acres): 0</b>
<b>Other proposed disturbance (acres):</b>	<b>Other interim reclamation (acres): 0</b>	<b>Other long term disturbance (acres): 0</b>
<b>Total proposed disturbance: 0</b>	<b>Total interim reclamation: 0</b>	<b>Total long term disturbance: 0</b>

**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) plant 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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** POKER LAKE UNIT 23 DTD

**Well Number:** 542H

species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

**Existing Vegetation at the well pad:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation Community at other disturbances**

**Non native seed used?** N

**Non native seed description:**

**Seedling transplant description:**

**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:**

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

General Information  
Phone: (505) 629-6116

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

State of New Mexico

Energy, Minerals and Natural Resources

Oil Conservation Division

1220 S. St Francis Dr.

Santa Fe, NM 87505

CONDITIONS

Action 409044

CONDITIONS

Operator:  XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID:  373075
	Action Number:  409044
	Action Type:  [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
tsebastian	Cement is required to circulate on both surface and intermediate1 strings of casing.	12/5/2024
tsebastian	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	12/5/2024
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	12/24/2024
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/24/2024
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.	12/24/2024
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.	12/24/2024