

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		5. Lease Serial No. NMNM030452 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. NMNM071016X/POKER LAKE UNIT 8. Lease Name and Well No. POKER LAKE UNIT 23 DTD 443H 9. API Well No. 30-015-55919
2. Name of Operator XTO PERMIAN OPERATING LLC		10. Field and Pool, or Exploratory PURPLE SAGE/WOLFCAMP (GAS) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 23/T24S/R30E/NMP
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND, TX 7970	3b. Phone No. (include area code) (432) 683-2277	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNE / 1152 FNL / 1711 FEL / LAT 32.207469 / LONG -103.848511 At proposed prod. zone SENW / 2627 FNL / 2173 FWL / LAT 32.17441 / LONG -103.853188		
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) 1152 feet	16. No of acres in lease 17. Spacing Unit dedicated to this well 1600.0	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 11493 feet / 24520 feet	20. BLM/BIA Bond No. in file FED: COB000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3429 feet	22. Approximate date work will start* 03/25/2025	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.
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 (Electronic Submission) Title Permitting Manager	Name (Printed/Typed) RICHARD REDUS / Ph: (432) 682-8873	Date 04/17/2024
Approved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959 Office Carlsbad Field Office	Date 11/22/2024

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: 12/10/2024 03:54 PM

APD ID: 10400098062	Well Status: AAPD
APD Received Date: 04/17/2024 07:36 AM	Well Name: POKER LAKE UNIT 23 DTD
Operator: XTO PERMIAN OPERATING LLC	Well Number: 443H

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): 3 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: 1 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, 2018

UNITED 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
		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	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. | 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	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: NWNE / 1152 FNL / 1711 FEL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.207469 / LONG: -103.848511 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 100 FNL / 2173 FWL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.210353 / LONG: -103.853252 (TVD: 11493 feet, MD: 12200 feet)

PPP: NENW / 0 FSL / 2188 FWL / TWSP: 24S / RANGE: 30E / SECTION: 26 / LAT: 32.196133 / LONG: -103.853228 (TVD: 11493 feet, MD: 17500 feet)

BHL: SENW / 2627 FNL / 2173 FWL / TWSP: 24S / RANGE: 30E / SECTION: 35 / LAT: 32.17441 / LONG: -103.853188 (TVD: 11493 feet, MD: 24520 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.

WELL LOCATION INFORMATION

API Number 30-015- 55919	Pool Code 98220	Pool Name PURPLE SAGE; WOLFCAMP (GAS)
Property Code 325598	Property Name POKER LAKE UNIT 23 DTD	Well Number 443H
OGRID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,429'
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	23	24S	30E		1,152' FNL	1,711' FEL	32.207469	-103.848511	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
F	35	24S	30E		2,627' FNL	2,173' FWL	32.174410	-103.853188	EDDY

Dedicated Acres 1,600.00	Infill or Defining Well INFILL	Defining Well API	Overlapping Spacing Unit (Y/N) Y	Consolidation Code U
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	23	24S	30E		1,152' FNL	1,711' FEL	32.207469	-103.848511	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	23	24S	30E		100' FNL	2,173' FWL	32.210353	-103.853252	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
F	35	24S	30E		2,537' FNL	2,173' FWL	32.174657	-103.853190	EDDY

Unitized Area or Area of Interest NMNM105422429	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,429'
---	--	-----------------------------------

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 10/29/2024
Signature Date

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]
Signature and Seal of Professional Surveyor

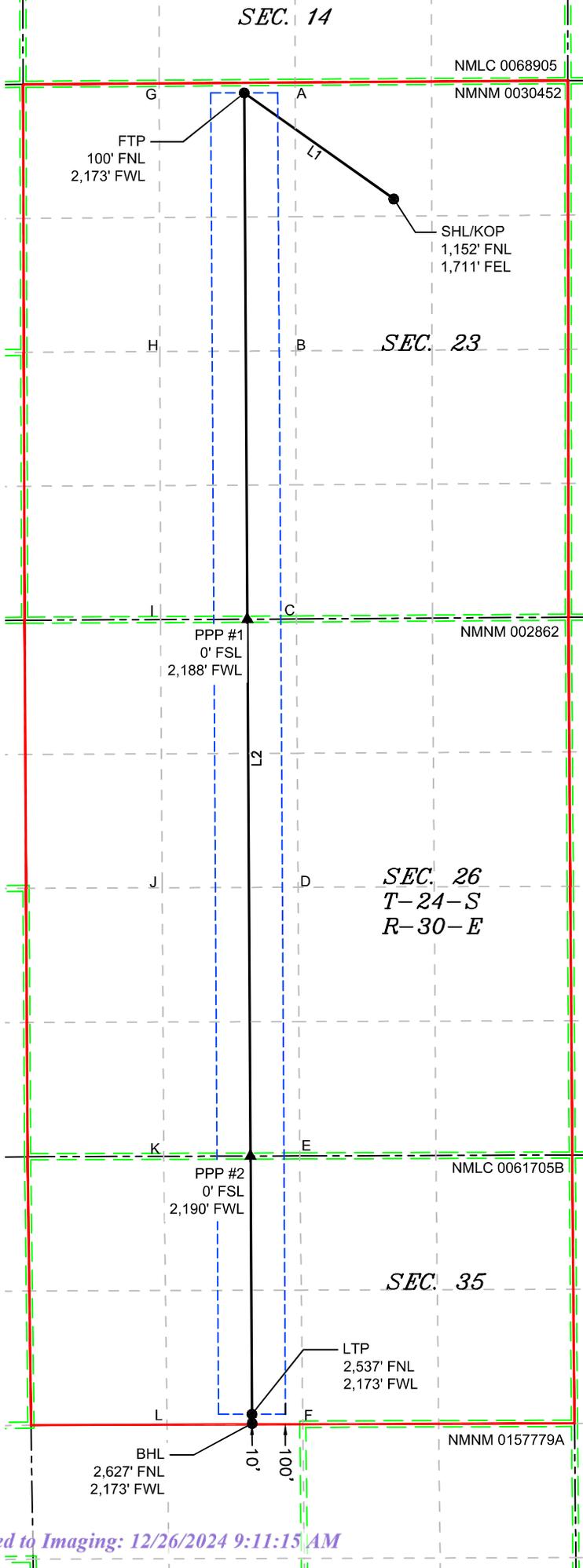
y - NM\003 Poker Lake Unit\09 - PLU 23 DTD - EDDY\Wells\58 - PLU 23 DTD - 443H\DWG\443H C-102.dwg

LEGEND

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

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	305°19'37"	1,802.99'
L2	179°39'26"	13,075.58'

COORDINATE TABLE					
SHL/KOP (NAD 83 NME)			SHL/KOP (NAD 27 NME)		
Y =	439,549.4	N	Y =	439,490.4	N
X =	691,287.9	E	X =	650,104.1	E
LAT. =	32.207469	°N	LAT. =	32.207345	°N
LONG. =	103.848511	°W	LONG. =	103.848025	°W
FTP (NAD 83 NME)			FTP (NAD 27 NME)		
Y =	440,592.0	N	Y =	440,532.9	N
X =	689,816.9	E	X =	648,633.2	E
LAT. =	32.210353	°N	LAT. =	32.210229	°N
LONG. =	103.853252	°W	LONG. =	103.852766	°W
PPP #1 (NAD 83 NME)			PPP #1 (NAD 27 NME)		
Y =	435,419.1	N	Y =	435,360.2	N
X =	689,847.6	E	X =	648,663.7	E
LAT. =	32.196133	°N	LAT. =	32.196009	°N
LONG. =	103.853228	°W	LONG. =	103.852742	°W
PPP #2 (NAD 83 NME)			PPP #2 (NAD 27 NME)		
Y =	430,143.9	N	Y =	430,085.2	N
X =	689,878.9	E	X =	648,694.8	E
LAT. =	32.181632	°N	LAT. =	32.181508	°N
LONG. =	103.853203	°W	LONG. =	103.852718	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	427,606.6	N	Y =	427,547.9	N
X =	689,894.0	E	X =	648,709.7	E
LAT. =	32.174657	°N	LAT. =	32.174533	°N
LONG. =	103.853190	°W	LONG. =	103.852706	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	427,516.6	N	Y =	427,457.9	N
X =	689,895.2	E	X =	648,710.9	E
LAT. =	32.174410	°N	LAT. =	32.174286	°N
LONG. =	103.853188	°W	LONG. =	103.852704	°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 =	440,685.6	N	G - X =	688,981.2	E
H - Y =	438,048.4	N	H - X =	688,988.5	E
I - Y =	435,415.3	N	I - X =	688,995.2	E
J - Y =	432,779.2	N	J - X =	689,010.4	E
K - Y =	430,141.2	N	K - X =	689,026.3	E
L - Y =	427,504.1	N	L - X =	689,058.0	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 =	440,626.6	N	G - X =	647,797.5	E



\\003 Poker Lake Unit\09 - PLU 23 DTD - EDDY\Wells\58 - PLU 23 DTD - 443H\DWG\443H C-102.dwg
 \\003 Poker Lake Unit\09 - PLU 23 DTD - EDDY\Wells\58 - PLU 23 DTD - 443H\DWG\443H C-102.dwg

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
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
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

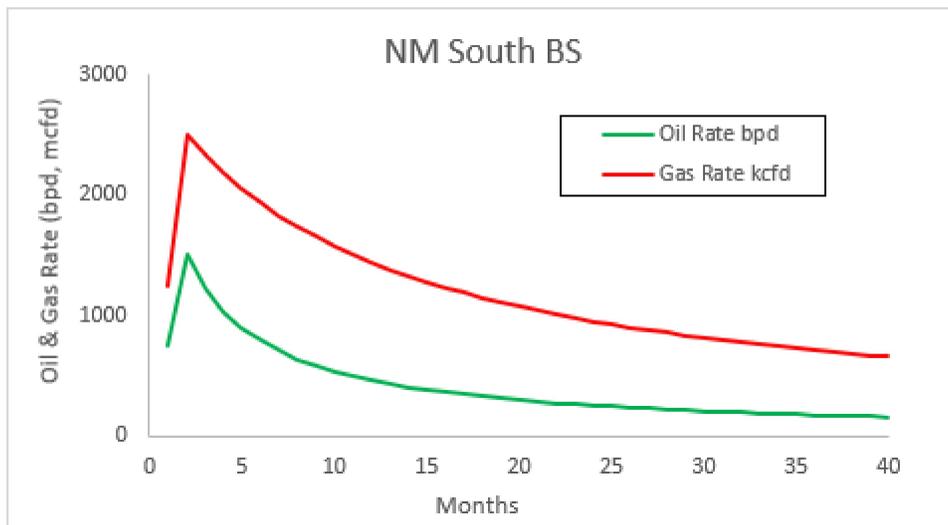
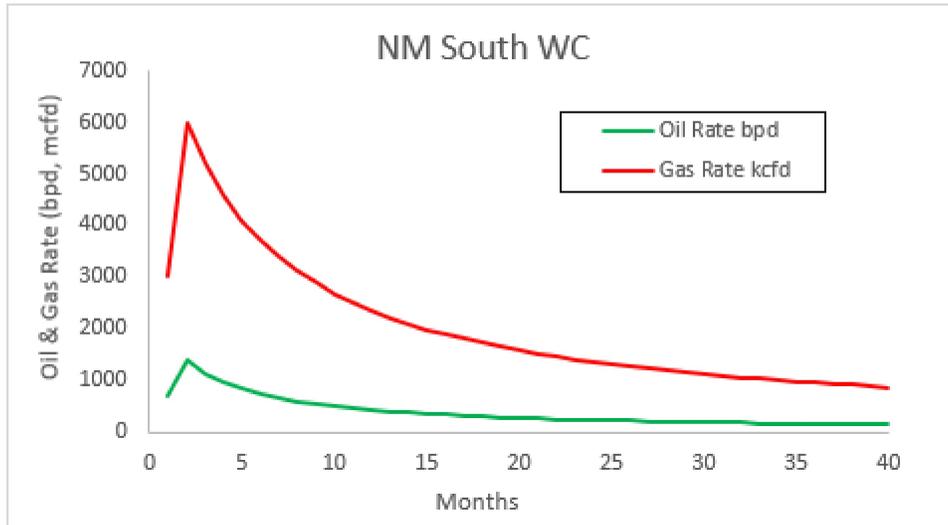
XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- 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-igniters 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.





Drilling Plan Data Report

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

12/11/2024

APD ID: 10400098062

Submission Date: 04/17/2024

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

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
14549467	QUATERNARY	3429	0	0	ALLUVIUM	USEABLE WATER	N
14549468	RUSTLER	2115	1314	1314	ANHYDRITE, SANDSTONE	USEABLE WATER	N
14549469	SALADO	1712	1717	1717	SALT	NONE	N
14549470	BASE OF SALT	-481	3910	3910	SALT	NONE	N
14549471	DELAWARE	-675	4104	4104	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549472	BRUSHY CANYON	-3181	6610	6610	SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549473	BONE SPRING	-4470	7899	7899	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549474	BONE SPRING 1ST	-5241	8670	8670	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549475	BONE SPRING 2ND	-5843	9272	9272	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549476	BONE SPRING 3RD	-6610	10039	10039	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	N
14549478	WOLFCAMP	-7787	11216	11216	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
14549479	WOLFCAMP	-7807	11236	11236	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y
14549477	WOLFCAMP	-7944	11373	11373	SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : PRODUCED WATER	Y

Section 2 - Blowout Prevention

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

Pressure Rating (PSI): 5M

Rating Depth: 11493

Equipment: Once the permanent WH is installed on the Surface casing, the blow out preventer equipment (BOP) will consist of a 10M Triple Ram BOP consisting of 5M Annular, 10M Double Pipe RAM, 10M Blind RAM. XTO will use a Multi-Bowl system which is attached.

Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors. XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells. A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. We will request permission to ONLY retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

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

Choke Diagram Attachment:

PLU_23_DTD_5MCM_20240410151726.pdf

BOP Diagram Attachment:

5M10M_BOP_20240917092656.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	12.25	9.625	NEW	API	N	0	1414	0	1414	3429	2015	1414	J-55	40	BUTT	4.45	1.53	DRY	11.14	DRY	11.14
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	10836	0	10579	3446	-7150	10836	L-80	29.7	FJ	2.21	1.58	DRY	2	DRY	2
3	PRODUCTION	6.75	5.5	NEW	NON API	Y	0	24520	0	11493	3446	-8064	24520	P-110	20	OTHER - Freedom HTQ/Talon HTQ	1.62	1.05	DRY	1.94	DRY	1.94

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_443H_Csg_20240414142322.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

PLU_23_DTD_443H_Csg_20240414142456.pdf

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_443H_Csg_20240414142534.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Freedom_semi_premium_5.5_production_casing_20240812084626.pdf

Talon___semiflush_5.5_production_casing_20240812084628.pdf

Tapered String Spec:

PLU_23_DTD_443H_Csg_20240414142038.pdf

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_443H_Csg_20240414142107.pdf

Section 4 - Cement

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1414	370	1.87	10.5	691.9	100	EconoCem-HLTRRC	NA
SURFACE	Tail		0	1414	130	1.35	14.8	175.5	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	6610	390	1.35	14.8	526.5	100	Class C	NA
INTERMEDIATE	Tail		6610	10836	740	1.33	14.8	984.2	100	Class C	NA
PRODUCTION	Lead		10536	11036	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		11036	24520	960	1.51	13.2	1449.6	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

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
1414	4104	SALT SATURATED	10.5	11							

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

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
4104	1083 6	OTHER : BDE/OBM	9	9.5							
0	1414	WATER-BASED MUD	8.4	8.9							
1083 6	2452 0	OIL-BASED MUD	11.5	12							

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: 7172

Anticipated Surface Pressure: 4643

Anticipated Bottom Hole Temperature(F): 200

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_20240916113848.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

PLU_23_DTD_443H_DD_20240414143524.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

PLU_23_DTD_443H_Cmt_20240414143807.pdf

PLU_23_DTD_443H_RL_20240812085127.pdf

9.625_7.625_5.5_3_String_Slimhole_HBE0000479_4_20240812085427.pdf

PLU_23_DTD_H2S_DiaD_20240812085236.pdf

PLU_23_DTD_H2S_DiaA_20240812085150.pdf

PLU_23_DTD_H2S_DiaC_20240812085210.pdf

Other Variance attachment:

Offline_Cement_Variance_Surf___Interm_Csg_20240812085319.pdf

BOP_Break_Test_Variance_20240812085331.pdf

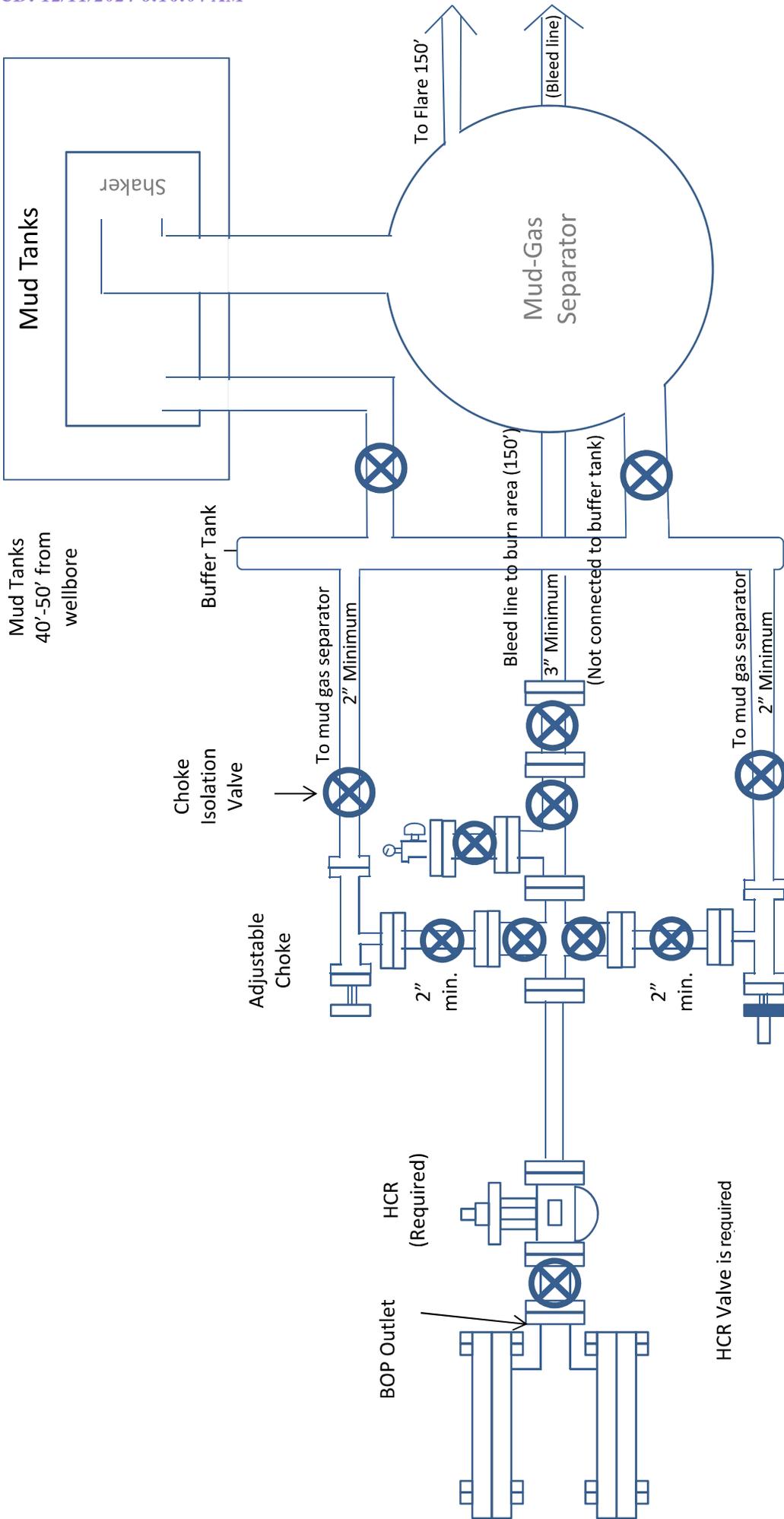
Updated_Flex_Hose_20240812085257.pdf

Spudder_Rig_Request_20240812085308.pdf

Casing Assumptions

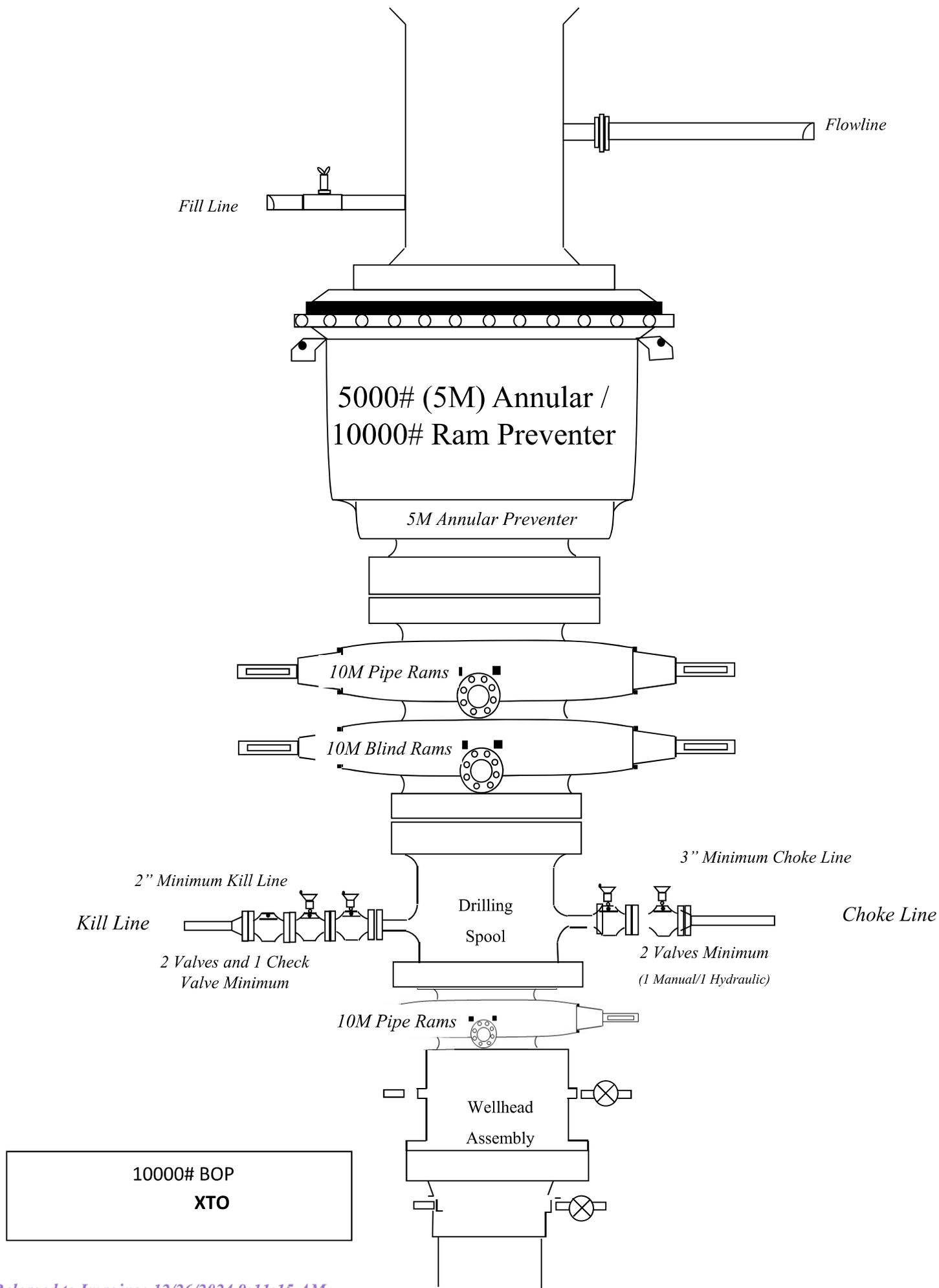
Casing Design																		
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension									
12.25	0' – 1414'	9.625	40	J-55	BTC	New	1.53	4.45	11.14									
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.18	2.92	1.73									
8.75	4000' – 10836'	7.625	29.7	HC L-80	Flush Joint	New	1.58	2.21	2.00									
6.75	0' – 10736'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.73	1.94									
6.75	10736' - 24520'	5.5	20	RY P-110	Semi-Flush	New	1.05	1.62	1.94									

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



5M Choke Manifold Diagram XTO

Drilling Operations Choke Manifold 5M Service



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 (6610') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

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

Production Casing:

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

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.

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

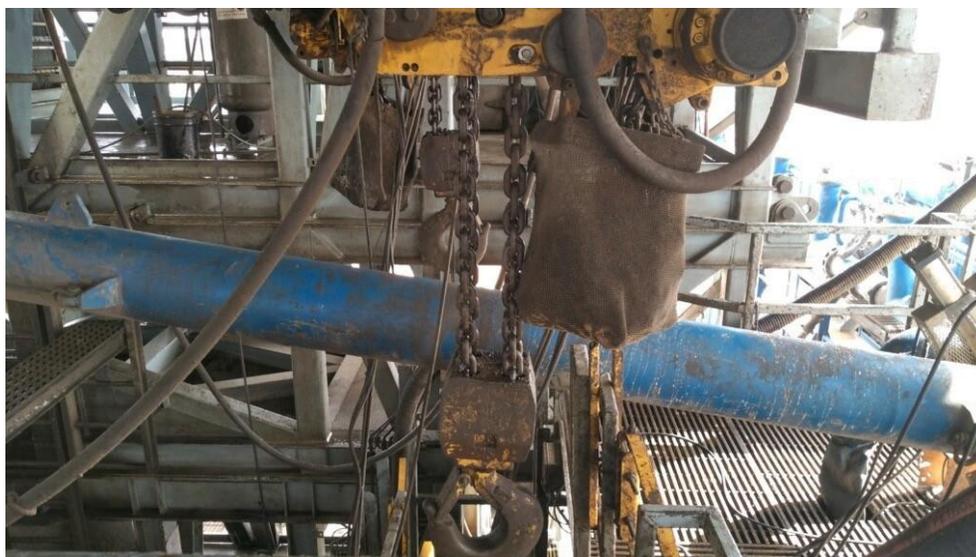


Figure 2: BOP Winch System

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 ^{a,c} psig (MPa)	Pressure Test—High Pressure ^{a,c}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^b	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 ^{b,d}	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 ^e	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes ^e	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	
^a 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. ^b Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program. ^c 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. ^d 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. ^e 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.

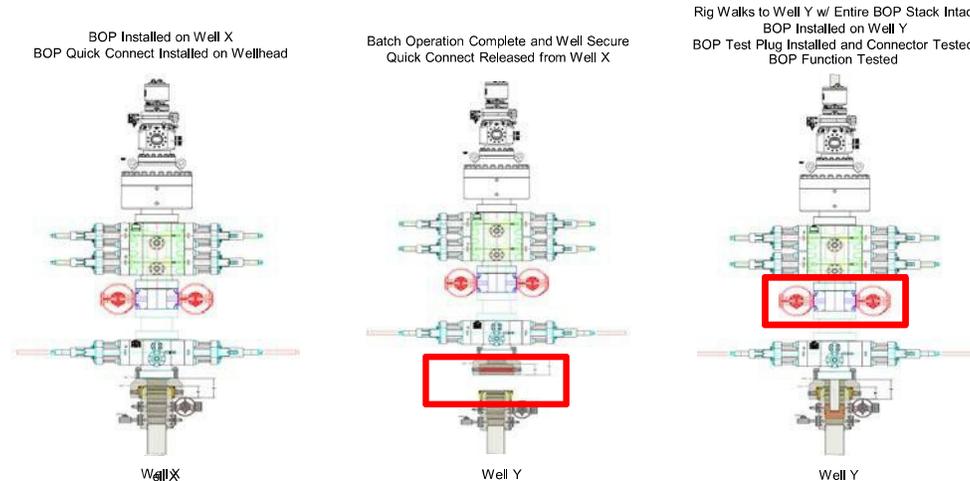
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often 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.

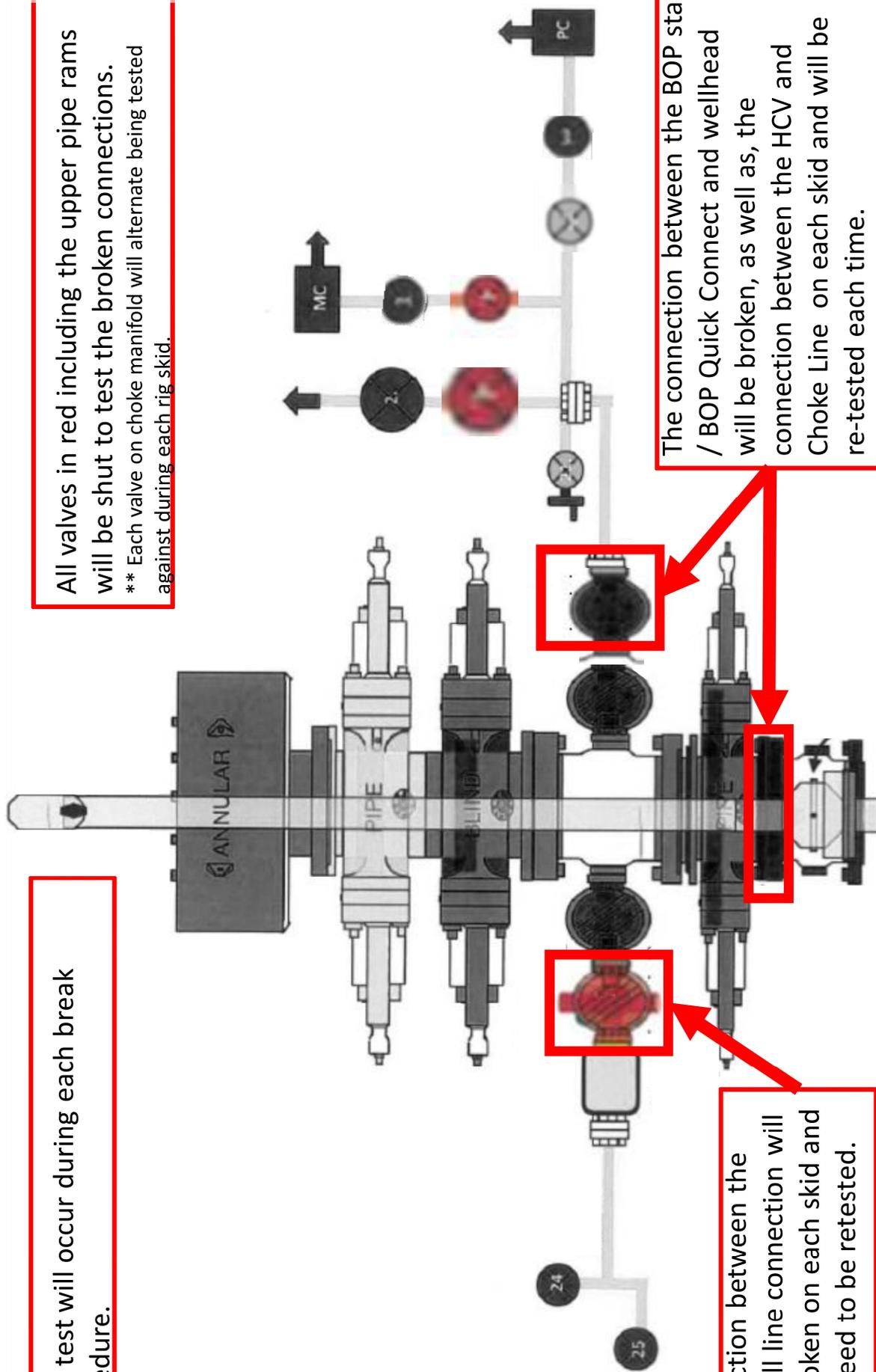
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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.

Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.

The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

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.

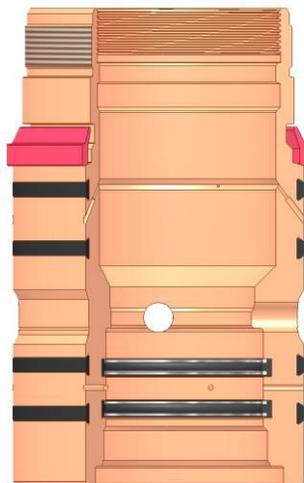
1. Cement Program

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

2. Offline Cementing Procedure

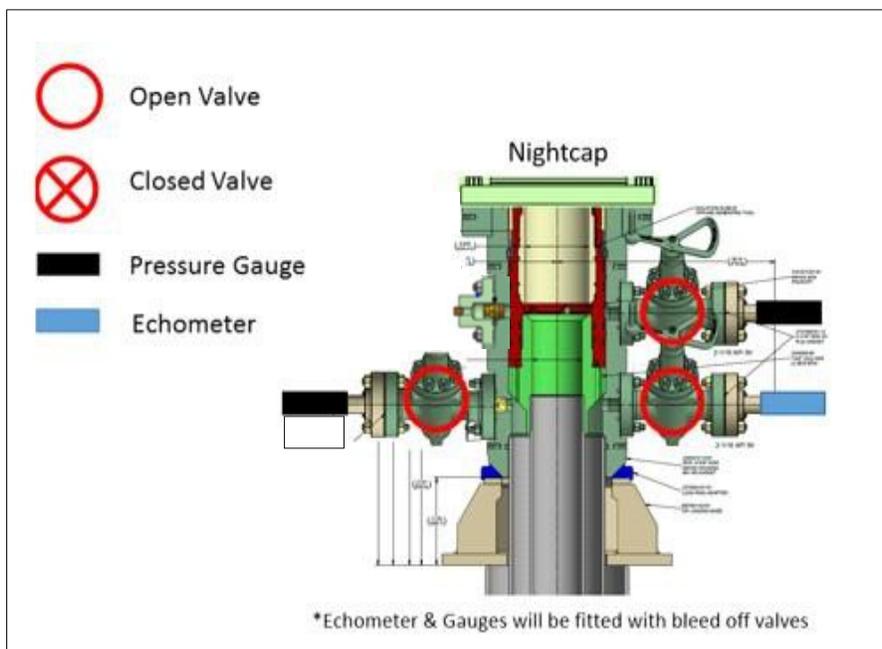
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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

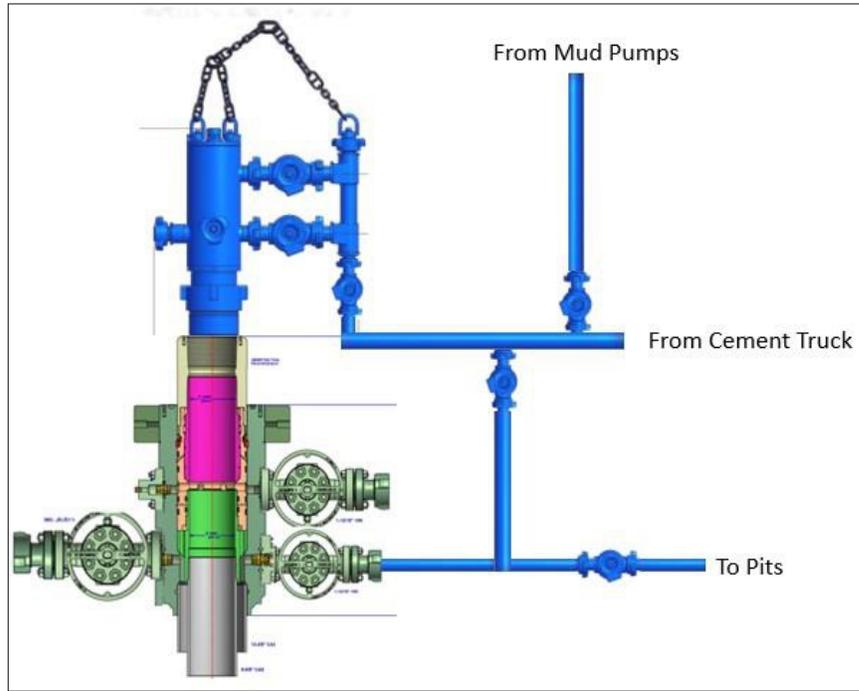
XTO Permian Operating, LLC Offline Cementing Variance Request



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 3rd party pump will be tied into the upper casing valve to pump down the casing ID
 - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
 - v. Well will be confirmed static
 - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during offline cementing operations

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



BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

*NEW CHOKE HOSE
INSTALLED 02-10-2024*

CERTIFICATE OF CONFORMANCE

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

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

SIGNATURE: _____ *F. OSMOS*

TITLE: _____ **QUALITY ASSURANCE**

DATE: _____ **1/25/2024**



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:

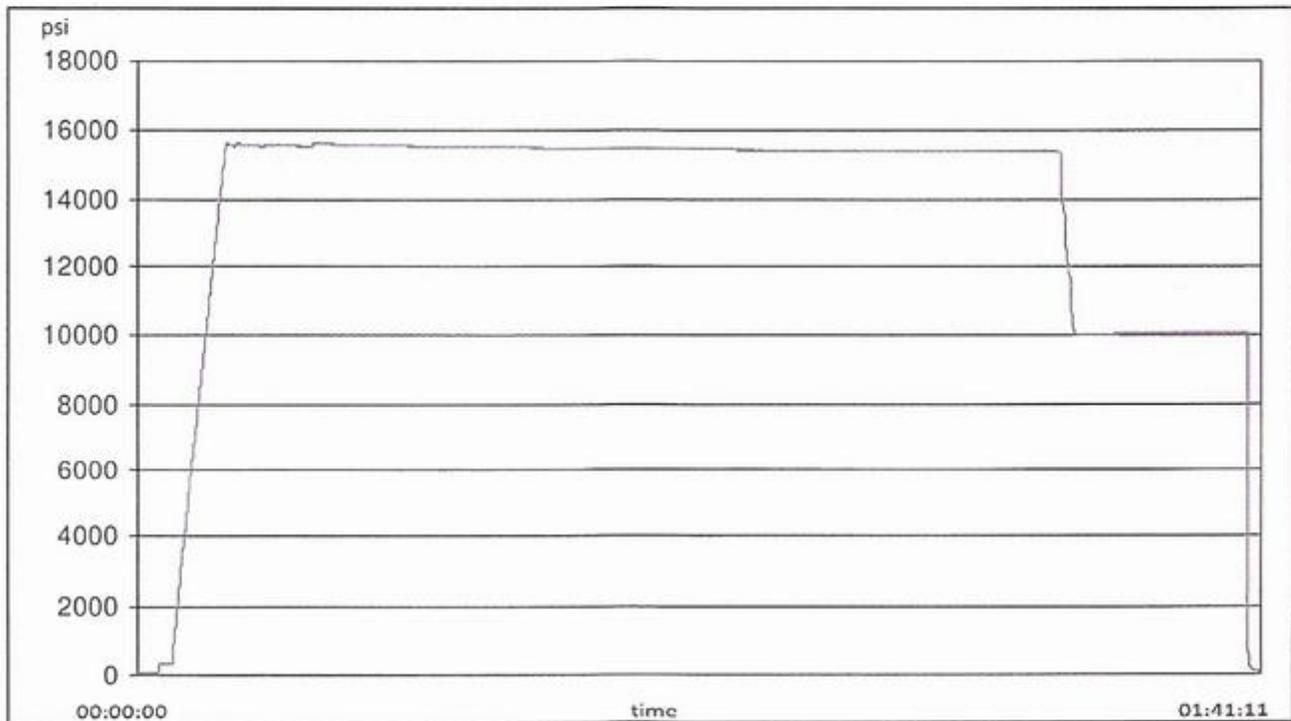
Visual check:

Length: 45 feet

Pressure test result: PASS

Length measurement result:

Test operator: Travis





H3-15/16

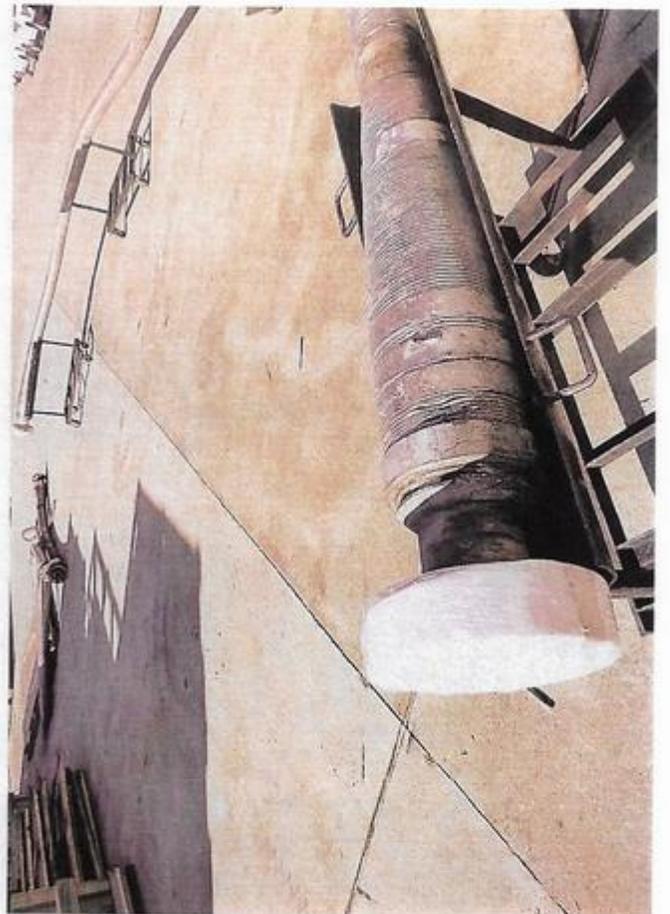
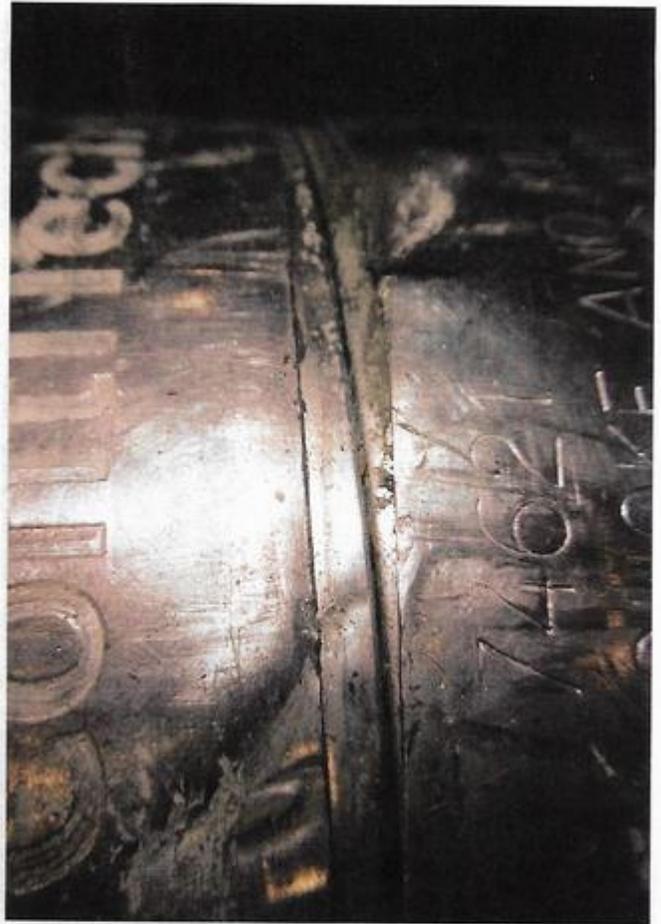
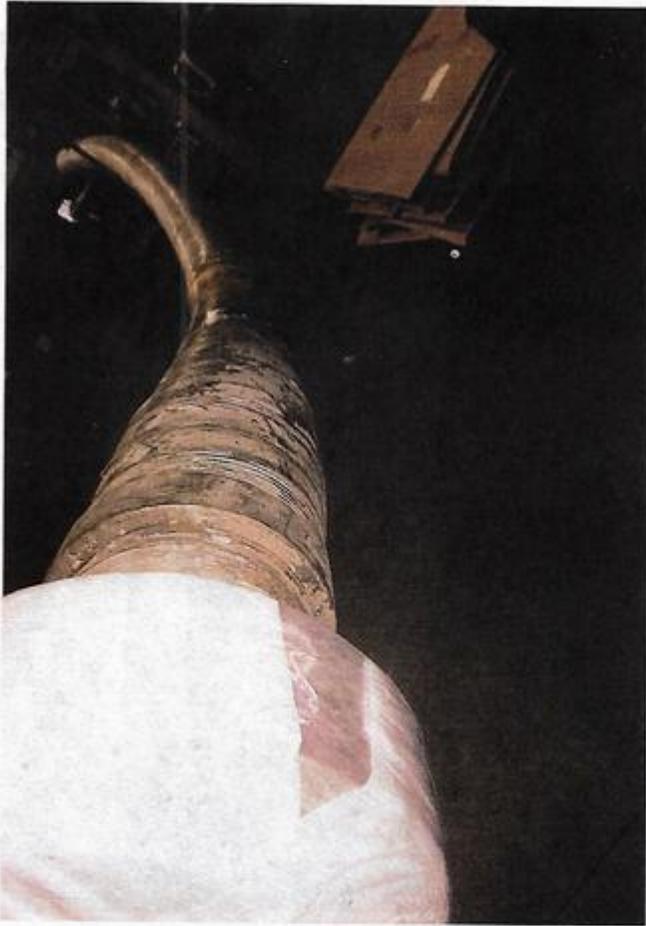
1/25/2024 11:48:06 AM

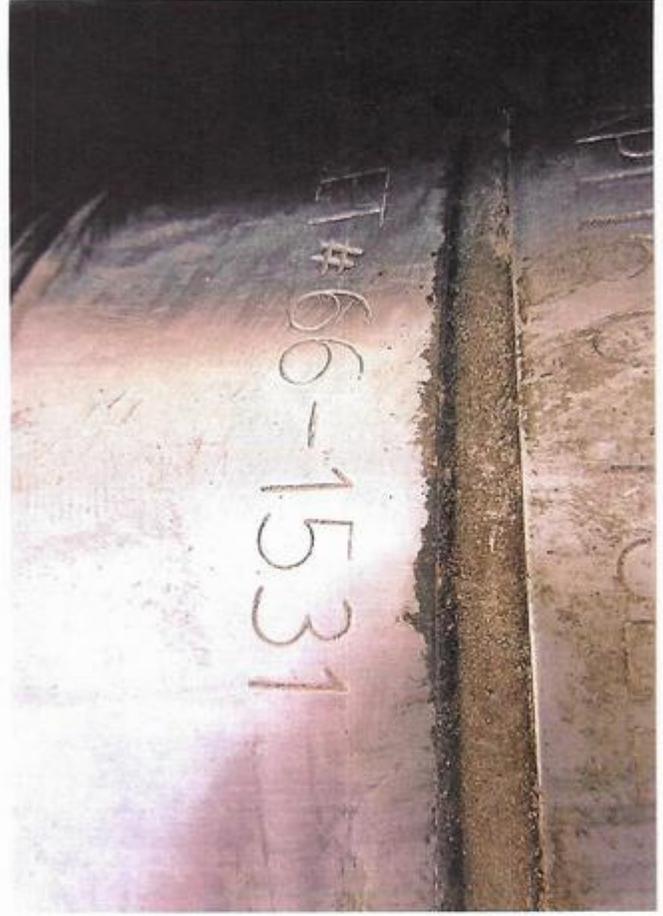
TEST REPORT

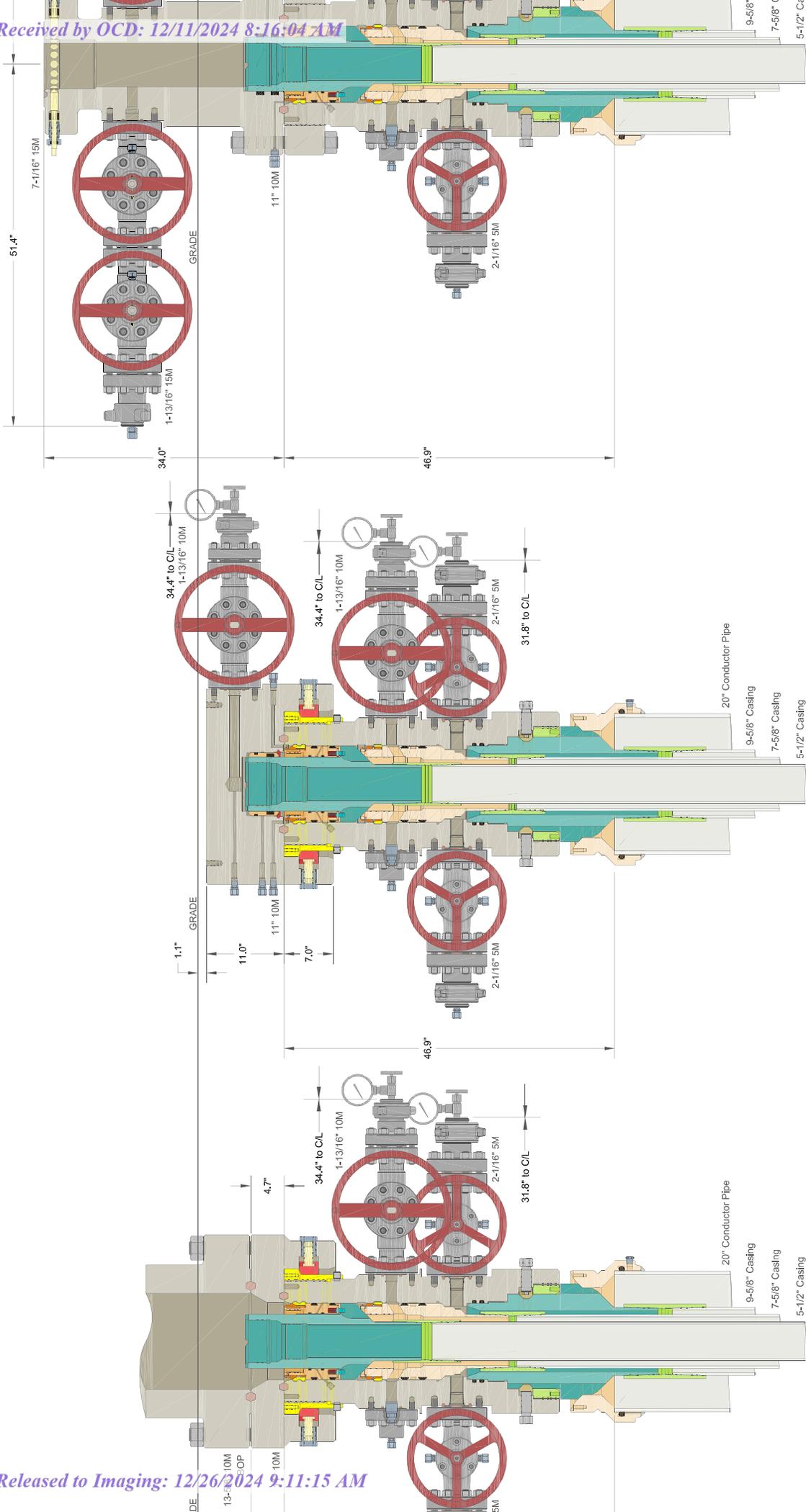
GAUGE TRACEABILITY

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

Comment







Well Plan Report - Poker Lake Unit 23 DTD South 443H

Measured Depth: 24519.97 ft
TVD RKB: 11493.00 ft
Location
 Cartographic Reference System: New Mexico East - NAD 27
Northing: 439490.40 ft
Easting: 650104.10 ft
RKB: 3461.00 ft
Ground Level: 3429.00 ft
North Reference: Grid
Convergence Angle: 0.26 Deg

Plan Sections

Measured	Poker Lake Unit 23 DTD South 443H				TVD				Dogleg		
	Depth (ft)	Inclination (Deg)	Azimuth (Deg)	RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)		Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1958.49	17.17	305.33	1945.70	73.83	-104.16	2.00	0.00	0.00	0.00	2.00	
7200.72	17.17	305.33	6954.30	968.67	-1366.74	0.00	0.00	0.00	0.00	0.00	
8059.21	0.00	0.00	7800.00	1042.50	-1470.90	-2.00	0.00	0.00	0.00	2.00	
11036.01	0.00	0.00	10776.80	1042.50	-1470.90	0.00	0.00	0.00	0.00	0.00	
12161.01	90.00	179.66	11493.00	326.32	-1466.68	8.00	0.00	0.00	0.00	8.00	
24429.59	90.00	179.66	11493.00	-11942.05	-1394.30	0.00	0.00	0.00	0.00	0.00	LTP 9
24519.97	90.00	179.66	11493.00	-12032.43	-1393.77	0.00	0.00	0.00	0.00	0.00	BHL 9

Position Uncertainty

Poker Lake Unit 23 DTD South 443H											
Measured	TVD	Highside	RKB	Error	Bias	Lateral	Error	Bias	Vertical	Error	Bias
Depth	Inclination	Azimuth							Magnitude	Semi-major	Semi-minor
									of Bias	Error	Error
											Azimuth
											Used

Well Plan Report

3/14/24, 6:29 AM

3200.000	17.170	305.327	3131.880	11.101	0.000	11.607	0.000	4.522	0.000	0.000	11.670	11.021	106.941	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3300.000	17.170	305.327	3227.423	11.464	0.000	11.991	0.000	4.648	0.000	0.000	12.055	11.368	107.428	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3400.000	17.170	305.327	3322.966	11.827	0.000	12.377	0.000	4.776	0.000	0.000	12.440	11.715	107.870	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3500.000	17.170	305.327	3418.510	12.191	0.000	12.762	0.000	4.906	0.000	0.000	12.826	12.063	108.270	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3600.000	17.170	305.327	3514.053	12.555	0.000	13.149	0.000	5.037	0.000	0.000	13.213	12.411	108.636	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3700.000	17.170	305.327	3609.597	12.919	0.000	13.536	0.000	5.171	0.000	0.000	13.600	12.759	108.970	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3800.000	17.170	305.327	3705.140	13.284	0.000	13.923	0.000	5.306	0.000	0.000	13.988	13.108	109.277	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3900.000	17.170	305.327	3800.683	13.649	0.000	14.311	0.000	5.442	0.000	0.000	14.377	13.457	109.559	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4000.000	17.170	305.327	3896.227	14.014	0.000	14.699	0.000	5.580	0.000	0.000	14.765	13.806	109.820	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4100.000	17.170	305.327	3991.770	14.380	0.000	15.087	0.000	5.720	0.000	0.000	15.154	14.155	110.061	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4200.000	17.170	305.327	4087.314	14.745	0.000	15.476	0.000	5.861	0.000	0.000	15.544	14.505	110.285	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4300.000	17.170	305.327	4182.857	15.111	0.000	15.865	0.000	6.004	0.000	0.000	15.934	14.855	110.493	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4400.000	17.170	305.327	4278.400	15.477	0.000	16.255	0.000	6.148	0.000	0.000	16.324	15.205	110.687	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4500.000	17.170	305.327	4373.944	15.844	0.000	16.645	0.000	6.293	0.000	0.000	16.714	15.556	110.868	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4600.000	17.170	305.327	4469.487	16.210	0.000	17.034	0.000	6.440	0.000	0.000	17.105	15.906	111.038	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4700.000	17.170	305.327	4565.031	16.577	0.000	17.425	0.000	6.589	0.000	0.000	17.496	16.257	111.197	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4800.000	17.170	305.327	4660.574	16.943	0.000	17.815	0.000	6.739	0.000	0.000	17.887	16.608	111.346	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4900.000	17.170	305.327	4756.117	17.310	0.000	18.206	0.000	6.891	0.000	0.000	18.279	16.959	111.486	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5000.000	17.170	305.327	4851.661	17.677	0.000	18.597	0.000	7.044	0.000	0.000	18.670	17.310	111.618	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5100.000	17.170	305.327	4947.204	18.044	0.000	18.988	0.000	7.198	0.000	0.000	19.062	17.661	111.742	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5200.000	17.170	305.327	5042.748	18.411	0.000	19.379	0.000	7.354	0.000	0.000	19.454	18.013	111.860	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5300.000	17.170	305.327	5138.291	18.778	0.000	19.770	0.000	7.512	0.000	0.000	19.846	18.364	111.971	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5400.000	17.170	305.327	5233.834	19.146	0.000	20.162	0.000	7.671	0.000	0.000	20.239	18.716	112.076	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5500.000	17.170	305.327	5329.378	19.513	0.000	20.553	0.000	7.831	0.000	0.000	20.631	19.068	112.176	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5600.000	17.170	305.327	5424.921	19.881	0.000	20.945	0.000	7.993	0.000	0.000	21.024	19.420	112.270	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5700.000	17.170	305.327	5520.465	20.248	0.000	21.337	0.000	8.157	0.000	0.000	21.417	19.773	112.360	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5800.000	17.170	305.327	5616.008	20.616	0.000	21.729	0.000	8.323	0.000	0.000	21.810	20.125	112.445	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5900.000	17.170	305.327	5711.551	20.984	0.000	22.121	0.000	8.489	0.000	0.000	22.203	20.477	112.526	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6000.000	17.170	305.327	5807.095	21.351	0.000	22.513	0.000	8.658	0.000	0.000	22.596	20.830	112.603	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6100.000	17.170	305.327	5902.638	21.719	0.000	22.906	0.000	8.828	0.000	0.000	22.989	21.183	112.677	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6200.000	17.170	305.327	5998.182	22.087	0.000	23.298	0.000	9.000	0.000	0.000	23.383	21.536	112.747	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6300.000	17.170	305.327	6093.725	22.455	0.000	23.691	0.000	9.173	0.000	0.000	23.776	21.889	112.814	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6400.000	17.170	305.327	6189.269	22.823	0.000	24.083	0.000	9.349	0.000	0.000	24.170	22.242	112.878	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6500.000	17.170	305.327	6284.812	23.191	0.000	24.476	0.000	9.526	0.000	0.000	24.563	22.595	112.939	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

Well Plan Report

3/14/24, 6:29 AM

6600.000	17.170	305.327	6380.355	23.560	0.000	24.869	0.000	9.704	0.000	0.000	24.957	22.948	112.997	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6700.000	17.170	305.327	6475.899	23.928	0.000	25.262	0.000	9.885	0.000	0.000	25.351	23.302	113.053	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6800.000	17.170	305.327	6571.442	24.296	0.000	25.655	0.000	10.067	0.000	0.000	25.745	23.655	113.106	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6900.000	17.170	305.327	6666.986	24.664	0.000	26.048	0.000	10.251	0.000	0.000	26.139	24.009	113.157	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7000.000	17.170	305.327	6762.529	25.033	0.000	26.441	0.000	10.436	0.000	0.000	26.533	24.363	113.206	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7100.000	17.170	305.327	6858.072	25.401	0.000	26.834	0.000	10.624	0.000	0.000	26.927	24.717	113.252	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7200.717	17.170	305.327	6954.301	25.772	0.000	27.230	0.000	10.815	0.000	0.000	27.324	25.073	113.298	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7300.000	15.184	305.327	7049.648	26.171	0.000	27.616	0.000	11.004	0.000	0.000	27.711	25.425	113.328	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7400.000	13.184	305.327	7146.594	26.543	0.000	27.996	0.000	11.192	0.000	0.000	28.092	25.779	113.329	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7500.000	11.184	305.327	7244.337	26.885	0.000	28.368	0.000	11.376	0.000	0.000	28.465	26.134	113.301	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7600.000	9.184	305.327	7342.756	27.195	0.000	28.730	0.000	11.556	0.000	0.000	28.829	26.489	113.251	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7700.000	7.184	305.327	7441.733	27.473	0.000	29.085	0.000	11.731	0.000	0.000	29.184	26.842	113.182	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7800.000	5.184	305.327	7541.146	27.719	0.000	29.431	0.000	11.901	0.000	0.000	29.532	27.194	113.099	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7900.000	3.184	305.327	7640.874	27.932	0.000	29.769	0.000	12.067	0.000	0.000	29.871	27.542	113.008	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8000.000	1.184	305.327	7740.796	28.111	0.000	30.099	0.000	12.230	0.000	0.000	30.202	27.888	112.912	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8059.208	0.000	0.000	7800.000	30.059	0.000	28.449	0.000	12.324	0.000	0.000	30.396	28.089	112.866	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8100.000	0.000	0.000	7840.792	30.194	0.000	28.585	0.000	12.389	0.000	0.000	30.530	28.226	112.841	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8200.000	0.000	0.000	7940.792	30.525	0.000	28.918	0.000	12.549	0.000	0.000	30.858	28.562	112.781	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8300.000	0.000	0.000	8040.792	30.857	0.000	29.251	0.000	12.713	0.000	0.000	31.187	28.898	112.722	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8400.000	0.000	0.000	8140.792	31.189	0.000	29.585	0.000	12.880	0.000	0.000	31.517	29.235	112.664	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8500.000	0.000	0.000	8240.792	31.522	0.000	29.920	0.000	13.051	0.000	0.000	31.847	29.573	112.607	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8600.000	0.000	0.000	8340.792	31.855	0.000	30.255	0.000	13.224	0.000	0.000	32.178	29.911	112.550	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8700.000	0.000	0.000	8440.792	32.189	0.000	30.591	0.000	13.401	0.000	0.000	32.510	30.250	112.495	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8800.000	0.000	0.000	8540.792	32.523	0.000	30.927	0.000	13.581	0.000	0.000	32.842	30.589	112.440	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8900.000	0.000	0.000	8640.792	32.858	0.000	31.264	0.000	13.765	0.000	0.000	33.174	30.928	112.386	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9000.000	0.000	0.000	8740.792	33.193	0.000	31.601	0.000	13.951	0.000	0.000	33.507	31.268	112.333	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9100.000	0.000	0.000	8840.792	33.529	0.000	31.939	0.000	14.141	0.000	0.000	33.841	31.609	112.281	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9200.000	0.000	0.000	8940.792	33.866	0.000	32.277	0.000	14.334	0.000	0.000	34.175	31.949	112.230	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9300.000	0.000	0.000	9040.792	34.202	0.000	32.616	0.000	14.531	0.000	0.000	34.510	32.290	112.179	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9400.000	0.000	0.000	9140.792	34.540	0.000	32.955	0.000	14.730	0.000	0.000	34.845	32.632	112.129	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9500.000	0.000	0.000	9240.792	34.877	0.000	33.294	0.000	14.934	0.000	0.000	35.181	32.974	112.079	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9600.000	0.000	0.000	9340.792	35.215	0.000	33.634	0.000	15.140	0.000	0.000	35.517	33.316	112.031	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9700.000	0.000	0.000	9440.792	35.554	0.000	33.975	0.000	15.350	0.000	0.000	35.853	33.658	111.983	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9800.000	0.000	0.000	9540.792	35.893	0.000	34.315	0.000	15.563	0.000	0.000	36.190	34.001	111.936	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

Well Plan Report

3/14/24, 6:29 AM

9900.000	0.000	0.000	9640.792	36.232	0.000	34.656	0.000	15.779	0.000	0.000	36.527	34.344	111.889	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10000.000	0.000	0.000	9740.792	36.572	0.000	34.997	0.000	15.999	0.000	0.000	36.865	34.688	111.843	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10100.000	0.000	0.000	9840.792	36.911	0.000	35.339	0.000	16.222	0.000	0.000	37.203	35.032	111.798	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10200.000	0.000	0.000	9940.792	37.252	0.000	35.681	0.000	16.449	0.000	0.000	37.542	35.376	111.753	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10300.000	0.000	0.000	10040.792	37.592	0.000	36.023	0.000	16.679	0.000	0.000	37.881	35.720	111.709	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10400.000	0.000	0.000	10140.792	37.933	0.000	36.366	0.000	16.912	0.000	0.000	38.220	36.065	111.665	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10500.000	0.000	0.000	10240.792	38.275	0.000	36.709	0.000	17.149	0.000	0.000	38.560	36.409	111.622	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10600.000	0.000	0.000	10340.792	38.616	0.000	37.052	0.000	17.389	0.000	0.000	38.899	36.755	111.580	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10700.000	0.000	0.000	10440.792	38.958	0.000	37.395	0.000	17.632	0.000	0.000	39.240	37.100	111.538	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10800.000	0.000	0.000	10540.792	39.300	0.000	37.739	0.000	17.878	0.000	0.000	39.580	37.445	111.497	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10900.000	0.000	0.000	10640.792	39.643	0.000	38.083	0.000	18.128	0.000	0.000	39.921	37.791	111.456	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11000.000	0.000	0.000	10740.792	39.986	0.000	38.428	0.000	18.382	0.000	0.000	40.262	38.137	111.416	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11036.008	0.000	0.000	10776.800	40.109	0.000	38.552	0.000	18.474	0.000	0.000	40.385	38.262	111.402	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11100.000	5.119	179.662	10840.707	39.891	0.000	38.772	-0.000	18.636	0.000	0.000	40.591	38.474	111.440	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11200.000	13.119	179.662	10939.363	39.038	0.000	39.083	-0.000	18.880	0.000	0.000	40.884	38.781	111.651	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11300.000	21.119	179.662	11034.855	37.596	0.000	39.378	-0.000	19.108	0.000	0.000	41.158	39.070	111.983	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11400.000	29.119	179.662	11125.324	35.622	0.000	39.654	-0.000	19.317	0.000	0.000	41.402	39.337	112.469	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11500.000	37.119	179.662	11209.009	33.199	0.000	39.907	-0.000	19.507	0.000	0.000	41.612	39.578	113.122	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11600.000	45.119	179.662	11284.282	30.448	0.000	40.135	-0.000	19.679	0.000	0.000	41.784	39.791	113.940	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11700.000	53.119	179.662	11349.677	27.535	0.000	40.336	-0.000	19.833	0.000	0.000	41.918	39.976	114.903	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11800.000	61.119	179.662	11403.922	24.694	0.000	40.508	-0.000	19.973	0.000	0.000	42.015	40.131	115.966	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11900.000	69.119	179.662	11445.961	22.243	0.000	40.650	-0.000	20.100	0.000	0.000	42.078	40.258	117.050	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12000.000	77.119	179.662	11474.975	20.575	0.000	40.760	-0.000	20.219	0.000	0.000	42.112	40.357	118.039	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12100.000	85.119	179.662	11490.400	20.062	0.000	40.838	-0.000	20.331	0.000	0.000	42.124	40.431	118.767	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12161.008	90.000	179.662	11492.997	20.397	0.000	40.868	-0.000	20.397	0.000	0.000	42.124	40.464	118.974	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12200.000	90.000	179.662	11492.997	20.440	0.000	40.883	-0.000	20.440	0.000	0.000	42.121	40.482	119.054	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12300.000	90.000	179.662	11492.997	20.557	0.000	40.934	-0.000	20.557	0.000	0.000	42.118	40.538	119.454	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12400.000	90.000	179.662	11492.997	20.683	0.000	40.997	-0.000	20.683	0.000	0.000	42.119	40.603	120.065	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12500.000	90.000	179.662	11492.997	20.819	0.000	41.071	-0.000	20.819	0.000	0.000	42.123	40.676	120.921	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12600.000	90.000	179.662	11492.997	20.963	0.000	41.157	-0.000	20.963	0.000	0.000	42.132	40.757	122.065	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12700.000	90.000	179.662	11492.997	21.116	0.000	41.254	-0.000	21.116	0.000	0.000	42.146	40.845	123.553	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12800.000	90.000	179.662	11492.997	21.277	0.000	41.363	-0.000	21.277	0.000	0.000	42.167	40.939	125.451	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12900.000	90.000	179.662	11492.997	21.447	0.000	41.483	-0.000	21.447	0.000	0.000	42.195	41.037	127.837	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13000.000	90.000	179.662	11492.997	21.626	0.000	41.614	-0.000	21.626	0.000	0.000	42.232	41.137	130.781	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

Well Plan Report

3/14/24, 6:29 AM

13100.000	90.000	179.662	11492.997	21.812	0.000	41.757	-0.000	21.812	0.000	0.000	42.282	41.237	134.329	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13200.000	90.000	179.662	11492.997	22.006	0.000	41.910	-0.000	22.006	0.000	0.000	42.348	41.333	-41.543	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13300.000	90.000	179.662	11492.997	22.208	0.000	42.075	-0.000	22.208	0.000	0.000	42.431	41.423	-36.971	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13400.000	90.000	179.662	11492.997	22.417	0.000	42.250	-0.000	22.417	0.000	0.000	42.535	41.503	-32.208	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13500.000	90.000	179.662	11492.997	22.633	0.000	42.436	-0.000	22.633	0.000	0.000	42.661	41.572	-27.563	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13600.000	90.000	179.662	11492.997	22.856	0.000	42.632	-0.000	22.856	0.000	0.000	42.809	41.631	-23.302	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13700.000	90.000	179.662	11492.997	23.086	0.000	42.838	-0.000	23.086	0.000	0.000	42.977	41.680	-19.574	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13800.000	90.000	179.662	11492.997	23.323	0.000	43.055	-0.000	23.323	0.000	0.000	43.164	41.722	-16.414	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
13900.000	90.000	179.662	11492.997	23.566	0.000	43.282	-0.000	23.566	0.000	0.000	43.368	41.758	-13.783	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14000.000	90.000	179.662	11492.997	23.815	0.000	43.519	-0.000	23.815	0.000	0.000	43.586	41.789	-11.608	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14100.000	90.000	179.662	11492.997	24.070	0.000	43.765	-0.000	24.070	0.000	0.000	43.818	41.817	-9.811	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14200.000	90.000	179.662	11492.997	24.331	0.000	44.021	-0.000	24.331	0.000	0.000	44.063	41.842	-8.322	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14300.000	90.000	179.662	11492.997	24.598	0.000	44.287	-0.000	24.598	0.000	0.000	44.320	41.866	-7.081	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14400.000	90.000	179.662	11492.997	24.870	0.000	44.562	-0.000	24.870	0.000	0.000	44.587	41.888	-6.041	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14500.000	90.000	179.662	11492.997	25.147	0.000	44.845	-0.000	25.147	0.000	0.000	44.865	41.910	-5.163	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14600.000	90.000	179.662	11492.997	25.430	0.000	45.138	-0.000	25.430	0.000	0.000	45.154	41.931	-4.418	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14700.000	90.000	179.662	11492.997	25.717	0.000	45.439	-0.000	25.717	0.000	0.000	45.451	41.952	-3.781	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14800.000	90.000	179.662	11492.997	26.009	0.000	45.749	-0.000	26.009	0.000	0.000	45.758	41.973	-3.233	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
14900.000	90.000	179.662	11492.997	26.306	0.000	46.067	-0.000	26.306	0.000	0.000	46.074	41.994	-2.759	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15000.000	90.000	179.662	11492.997	26.607	0.000	46.394	-0.000	26.607	0.000	0.000	46.399	42.015	-2.348	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15100.000	90.000	179.662	11492.997	26.913	0.000	46.728	-0.000	26.913	0.000	0.000	46.732	42.036	-1.988	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15200.000	90.000	179.662	11492.997	27.222	0.000	47.071	-0.000	27.222	0.000	0.000	47.073	42.058	-1.674	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15300.000	90.000	179.662	11492.997	27.536	0.000	47.421	-0.000	27.536	0.000	0.000	47.422	42.080	-1.397	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15400.000	90.000	179.662	11492.997	27.854	0.000	47.778	-0.000	27.854	0.000	0.000	47.779	42.102	-1.152	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15500.000	90.000	179.662	11492.997	28.175	0.000	48.143	-0.000	28.175	0.000	0.000	48.144	42.125	-0.936	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15600.000	90.000	179.662	11492.997	28.500	0.000	48.515	-0.000	28.500	0.000	0.000	48.516	42.148	-0.744	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15700.000	90.000	179.662	11492.997	28.828	0.000	48.894	-0.000	28.828	0.000	0.000	48.894	42.172	-0.572	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15800.000	90.000	179.662	11492.997	29.160	0.000	49.280	-0.000	29.160	0.000	0.000	49.280	42.197	-0.419	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
15900.000	90.000	179.662	11492.997	29.495	0.000	49.673	-0.000	29.495	0.000	0.000	49.673	42.222	-0.283	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16000.000	90.000	179.662	11492.997	29.833	0.000	50.072	-0.000	29.833	0.000	0.000	50.072	42.247	-0.160	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16100.000	90.000	179.662	11492.997	30.175	0.000	50.478	-0.000	30.175	0.000	0.000	50.478	42.273	-0.050	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16200.000	90.000	179.662	11492.997	30.519	0.000	50.890	-0.000	30.519	0.000	0.000	50.890	42.300	0.049	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16300.000	90.000	179.662	11492.997	30.866	0.000	51.308	-0.000	30.866	0.000	0.000	51.308	42.327	0.138	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16400.000	90.000	179.662	11492.997	31.216	0.000	51.732	-0.000	31.216	0.000	0.000	51.732	42.355	0.219	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

Well Plan Report

3/14/24, 6:29 AM

16500.000	90.000	179.662	11492.997	31.568	0.000	52.161	-0.000	31.568	0.000	0.000	52.162	42.383	0.292	MWD+IFR1+SAG+MS+GS_XTO_PLU
16600.000	90.000	179.662	11492.997	31.923	0.000	52.596	-0.000	31.923	0.000	0.000	52.598	42.412	0.357	MWD+IFR1+SAG+MS+GS_XTO_PLU
16700.000	90.000	179.662	11492.997	32.281	0.000	53.037	-0.000	32.281	0.000	0.000	53.039	42.441	0.417	MWD+IFR1+SAG+MS+GS_XTO_PLU
16800.000	90.000	179.662	11492.997	32.641	0.000	53.483	-0.000	32.641	0.000	0.000	53.485	42.472	0.470	MWD+IFR1+SAG+MS+GS_XTO_PLU
16900.000	90.000	179.662	11492.997	33.003	0.000	53.935	-0.000	33.003	0.000	0.000	53.937	42.502	0.519	MWD+IFR1+SAG+MS+GS_XTO_PLU
17000.000	90.000	179.662	11492.997	33.368	0.000	54.391	-0.000	33.368	0.000	0.000	54.394	42.534	0.563	MWD+IFR1+SAG+MS+GS_XTO_PLU
17100.000	90.000	179.662	11492.997	33.734	0.000	54.853	-0.000	33.734	0.000	0.000	54.856	42.566	0.603	MWD+IFR1+SAG+MS+GS_XTO_PLU
17200.000	90.000	179.662	11492.997	34.103	0.000	55.319	-0.000	34.103	0.000	0.000	55.323	42.598	0.639	MWD+IFR1+SAG+MS+GS_XTO_PLU
17300.000	90.000	179.662	11492.997	34.474	0.000	55.791	-0.000	34.474	0.000	0.000	55.794	42.632	0.671	MWD+IFR1+SAG+MS+GS_XTO_PLU
17400.000	90.000	179.662	11492.997	34.847	0.000	56.266	-0.000	34.847	0.000	0.000	56.270	42.665	0.701	MWD+IFR1+SAG+MS+GS_XTO_PLU
17500.000	90.000	179.662	11492.997	35.222	0.000	56.746	-0.000	35.222	0.000	0.000	56.751	42.700	0.728	MWD+IFR1+SAG+MS+GS_XTO_PLU
17600.000	90.000	179.662	11492.997	35.599	0.000	57.231	-0.000	35.599	0.000	0.000	57.236	42.735	0.752	MWD+IFR1+SAG+MS+GS_XTO_PLU
17700.000	90.000	179.662	11492.997	35.977	0.000	57.720	-0.000	35.977	0.000	0.000	57.725	42.771	0.774	MWD+IFR1+SAG+MS+GS_XTO_PLU
17800.000	90.000	179.662	11492.997	36.357	0.000	58.213	-0.000	36.357	0.000	0.000	58.218	42.807	0.793	MWD+IFR1+SAG+MS+GS_XTO_PLU
17900.000	90.000	179.662	11492.997	36.739	0.000	58.710	-0.000	36.739	0.000	0.000	58.716	42.844	0.811	MWD+IFR1+SAG+MS+GS_XTO_PLU
18000.000	90.000	179.662	11492.997	37.123	0.000	59.211	-0.000	37.123	0.000	0.000	59.217	42.881	0.827	MWD+IFR1+SAG+MS+GS_XTO_PLU
18100.000	90.000	179.662	11492.997	37.508	0.000	59.716	-0.000	37.508	0.000	0.000	59.722	42.919	0.841	MWD+IFR1+SAG+MS+GS_XTO_PLU
18200.000	90.000	179.662	11492.997	37.894	0.000	60.225	-0.000	37.894	0.000	0.000	60.231	42.958	0.854	MWD+IFR1+SAG+MS+GS_XTO_PLU
18300.000	90.000	179.662	11492.997	38.282	0.000	60.737	-0.000	38.282	0.000	0.000	60.744	42.998	0.865	MWD+IFR1+SAG+MS+GS_XTO_PLU
18400.000	90.000	179.662	11492.997	38.672	0.000	61.253	-0.000	38.672	0.000	0.000	61.260	43.037	0.875	MWD+IFR1+SAG+MS+GS_XTO_PLU
18500.000	90.000	179.662	11492.997	39.063	0.000	61.773	-0.000	39.063	0.000	0.000	61.780	43.078	0.884	MWD+IFR1+SAG+MS+GS_XTO_PLU
18600.000	90.000	179.662	11492.997	39.455	0.000	62.296	-0.000	39.455	0.000	0.000	62.303	43.119	0.892	MWD+IFR1+SAG+MS+GS_XTO_PLU
18700.000	90.000	179.662	11492.997	39.849	0.000	62.822	-0.000	39.849	0.000	0.000	62.830	43.161	0.899	MWD+IFR1+SAG+MS+GS_XTO_PLU
18800.000	90.000	179.662	11492.997	40.244	0.000	63.351	-0.000	40.244	0.000	0.000	63.359	43.203	0.904	MWD+IFR1+SAG+MS+GS_XTO_PLU
18900.000	90.000	179.662	11492.997	40.640	0.000	63.884	-0.000	40.640	0.000	0.000	63.892	43.246	0.909	MWD+IFR1+SAG+MS+GS_XTO_PLU
19000.000	90.000	179.662	11492.997	41.037	0.000	64.420	-0.000	41.037	0.000	0.000	64.428	43.290	0.914	MWD+IFR1+SAG+MS+GS_XTO_PLU
19100.000	90.000	179.662	11492.997	41.436	0.000	64.958	-0.000	41.436	0.000	0.000	64.967	43.334	0.917	MWD+IFR1+SAG+MS+GS_XTO_PLU
19200.000	90.000	179.662	11492.997	41.835	0.000	65.500	-0.000	41.835	0.000	0.000	65.509	43.379	0.920	MWD+IFR1+SAG+MS+GS_XTO_PLU
19300.000	90.000	179.662	11492.997	42.236	0.000	66.044	-0.000	42.236	0.000	0.000	66.053	43.424	0.922	MWD+IFR1+SAG+MS+GS_XTO_PLU
19400.000	90.000	179.662	11492.997	42.638	0.000	66.592	-0.000	42.638	0.000	0.000	66.601	43.470	0.924	MWD+IFR1+SAG+MS+GS_XTO_PLU
19500.000	90.000	179.662	11492.997	43.041	0.000	67.141	-0.000	43.041	0.000	0.000	67.151	43.517	0.925	MWD+IFR1+SAG+MS+GS_XTO_PLU
19600.000	90.000	179.662	11492.997	43.445	0.000	67.694	-0.000	43.445	0.000	0.000	67.704	43.564	0.926	MWD+IFR1+SAG+MS+GS_XTO_PLU
19700.000	90.000	179.662	11492.997	43.850	0.000	68.249	-0.000	43.850	0.000	0.000	68.259	43.611	0.926	MWD+IFR1+SAG+MS+GS_XTO_PLU
19800.000	90.000	179.662	11492.997	44.256	0.000	68.807	-0.000	44.256	0.000	0.000	68.817	43.660	0.926	MWD+IFR1+SAG+MS+GS_XTO_PLU

Well Plan Report

3/14/24, 6:29 AM

19900.000	90.000	179.662	11492.997	44.663	0.000	69.367	-0.000	44.663	0.000	0.000	69.377	43.708	0.925	MWD+IFR1+SAG+MS+GS_XTO_PLU
20000.000	90.000	179.662	11492.997	45.070	0.000	69.930	-0.000	45.070	0.000	0.000	69.940	43.758	0.924	MWD+IFR1+SAG+MS+GS_XTO_PLU
20100.000	90.000	179.662	11492.997	45.479	0.000	70.495	-0.000	45.479	0.000	0.000	70.505	43.808	0.923	MWD+IFR1+SAG+MS+GS_XTO_PLU
20200.000	90.000	179.662	11492.997	45.888	0.000	71.062	-0.000	45.888	0.000	0.000	71.072	43.859	0.921	MWD+IFR1+SAG+MS+GS_XTO_PLU
20300.000	90.000	179.662	11492.997	46.299	0.000	71.631	-0.000	46.299	0.000	0.000	71.642	43.910	0.919	MWD+IFR1+SAG+MS+GS_XTO_PLU
20400.000	90.000	179.662	11492.997	46.710	0.000	72.203	-0.000	46.710	0.000	0.000	72.214	43.961	0.917	MWD+IFR1+SAG+MS+GS_XTO_PLU
20500.000	90.000	179.662	11492.997	47.122	0.000	72.777	-0.000	47.122	0.000	0.000	72.788	44.014	0.915	MWD+IFR1+SAG+MS+GS_XTO_PLU
20600.000	90.000	179.662	11492.997	47.534	0.000	73.352	-0.000	47.534	0.000	0.000	73.363	44.067	0.912	MWD+IFR1+SAG+MS+GS_XTO_PLU
20700.000	90.000	179.662	11492.997	47.948	0.000	73.930	-0.000	47.948	0.000	0.000	73.941	44.120	0.910	MWD+IFR1+SAG+MS+GS_XTO_PLU
20800.000	90.000	179.662	11492.997	48.362	0.000	74.510	-0.000	48.362	0.000	0.000	74.521	44.174	0.907	MWD+IFR1+SAG+MS+GS_XTO_PLU
20900.000	90.000	179.662	11492.997	48.777	0.000	75.092	-0.000	48.777	0.000	0.000	75.103	44.229	0.903	MWD+IFR1+SAG+MS+GS_XTO_PLU
21000.000	90.000	179.662	11492.997	49.192	0.000	75.675	-0.000	49.192	0.000	0.000	75.687	44.284	0.900	MWD+IFR1+SAG+MS+GS_XTO_PLU
21100.000	90.000	179.662	11492.997	49.609	0.000	76.261	-0.000	49.609	0.000	0.000	76.273	44.339	0.897	MWD+IFR1+SAG+MS+GS_XTO_PLU
21200.000	90.000	179.662	11492.997	50.026	0.000	76.848	-0.000	50.026	0.000	0.000	76.860	44.396	0.893	MWD+IFR1+SAG+MS+GS_XTO_PLU
21300.000	90.000	179.662	11492.997	50.443	0.000	77.437	-0.000	50.443	0.000	0.000	77.449	44.452	0.889	MWD+IFR1+SAG+MS+GS_XTO_PLU
21400.000	90.000	179.662	11492.997	50.861	0.000	78.028	-0.000	50.861	0.000	0.000	78.040	44.510	0.885	MWD+IFR1+SAG+MS+GS_XTO_PLU
21500.000	90.000	179.662	11492.997	51.280	0.000	78.621	-0.000	51.280	0.000	0.000	78.633	44.568	0.881	MWD+IFR1+SAG+MS+GS_XTO_PLU
21600.000	90.000	179.662	11492.997	51.700	0.000	79.215	-0.000	51.700	0.000	0.000	79.227	44.626	0.877	MWD+IFR1+SAG+MS+GS_XTO_PLU
21700.000	90.000	179.662	11492.997	52.120	0.000	79.811	-0.000	52.120	0.000	0.000	79.823	44.685	0.873	MWD+IFR1+SAG+MS+GS_XTO_PLU
21800.000	90.000	179.662	11492.997	52.540	0.000	80.408	-0.000	52.540	0.000	0.000	80.420	44.745	0.869	MWD+IFR1+SAG+MS+GS_XTO_PLU
21900.000	90.000	179.662	11492.997	52.961	0.000	81.007	-0.000	52.961	0.000	0.000	81.019	44.805	0.865	MWD+IFR1+SAG+MS+GS_XTO_PLU
22000.000	90.000	179.662	11492.997	53.383	0.000	81.607	-0.000	53.383	0.000	0.000	81.620	44.865	0.860	MWD+IFR1+SAG+MS+GS_XTO_PLU
22100.000	90.000	179.662	11492.997	53.805	0.000	82.209	-0.000	53.805	0.000	0.000	82.222	44.926	0.856	MWD+IFR1+SAG+MS+GS_XTO_PLU
22200.000	90.000	179.662	11492.997	54.228	0.000	82.812	-0.000	54.228	0.000	0.000	82.825	44.988	0.852	MWD+IFR1+SAG+MS+GS_XTO_PLU
22300.000	90.000	179.662	11492.997	54.651	0.000	83.417	-0.000	54.651	0.000	0.000	83.430	45.050	0.847	MWD+IFR1+SAG+MS+GS_XTO_PLU
22400.000	90.000	179.662	11492.997	55.075	0.000	84.023	-0.000	55.075	0.000	0.000	84.036	45.113	0.843	MWD+IFR1+SAG+MS+GS_XTO_PLU
22500.000	90.000	179.662	11492.997	55.499	0.000	84.631	-0.000	55.499	0.000	0.000	84.643	45.176	0.838	MWD+IFR1+SAG+MS+GS_XTO_PLU
22600.000	90.000	179.662	11492.997	55.924	0.000	85.240	-0.000	55.924	0.000	0.000	85.252	45.240	0.833	MWD+IFR1+SAG+MS+GS_XTO_PLU
22700.000	90.000	179.662	11492.997	56.349	0.000	85.850	-0.000	56.349	0.000	0.000	85.862	45.304	0.829	MWD+IFR1+SAG+MS+GS_XTO_PLU
22800.000	90.000	179.662	11492.997	56.775	0.000	86.461	-0.000	56.775	0.000	0.000	86.474	45.369	0.824	MWD+IFR1+SAG+MS+GS_XTO_PLU
22900.000	90.000	179.662	11492.997	57.201	0.000	87.074	-0.000	57.201	0.000	0.000	87.086	45.434	0.819	MWD+IFR1+SAG+MS+GS_XTO_PLU
23000.000	90.000	179.662	11492.997	57.627	0.000	87.687	-0.000	57.627	0.000	0.000	87.700	45.500	0.815	MWD+IFR1+SAG+MS+GS_XTO_PLU
23100.000	90.000	179.662	11492.997	58.054	0.000	88.302	-0.000	58.054	0.000	0.000	88.315	45.567	0.810	MWD+IFR1+SAG+MS+GS_XTO_PLU
23200.000	90.000	179.662	11492.997	58.482	0.000	88.918	-0.000	58.482	0.000	0.000	88.931	45.633	0.805	MWD+IFR1+SAG+MS+GS_XTO_PLU

Well Plan Report

3/14/24, 6:29 AM

23300.000	90.000	179.662	11492.997	58.909	0.000	89.536	-0.000	58.909	0.000	0.000	89.549	45.701	0.800	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23400.000	90.000	179.662	11492.997	59.338	0.000	90.154	-0.000	59.338	0.000	0.000	90.167	45.769	0.796	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23500.000	90.000	179.662	11492.997	59.766	0.000	90.774	-0.000	59.766	0.000	0.000	90.787	45.837	0.791	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23600.000	90.000	179.662	11492.997	60.195	0.000	91.394	-0.000	60.195	0.000	0.000	91.407	45.906	0.786	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23700.000	90.000	179.662	11492.997	60.624	0.000	92.016	-0.000	60.624	0.000	0.000	92.029	45.975	0.781	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23800.000	90.000	179.662	11492.997	61.054	0.000	92.639	-0.000	61.054	0.000	0.000	92.652	46.045	0.776	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23900.000	90.000	179.662	11492.997	61.484	0.000	93.262	-0.000	61.484	0.000	0.000	93.275	46.116	0.772	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24000.000	90.000	179.662	11492.997	61.914	0.000	93.887	-0.000	61.914	0.000	0.000	93.900	46.186	0.767	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24100.000	90.000	179.662	11492.997	62.345	0.000	94.512	-0.000	62.345	0.000	0.000	94.526	46.258	0.762	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24200.000	90.000	179.662	11492.997	62.776	0.000	95.139	-0.000	62.776	0.000	0.000	95.152	46.330	0.757	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24300.000	90.000	179.662	11492.997	63.207	0.000	95.767	-0.000	63.207	0.000	0.000	95.780	46.402	0.753	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24400.000	90.000	179.662	11492.997	63.639	0.000	96.395	-0.000	63.639	0.000	0.000	96.408	46.475	0.748	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24429.589	90.000	179.662	11492.997	63.767	0.000	96.581	-0.000	63.767	0.000	0.000	96.594	46.496	0.747	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24500.000	90.000	179.662	11492.997	64.071	0.000	97.023	-0.000	64.071	0.000	0.000	97.037	46.548	0.743	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
24519.972	90.000	179.662	11492.997	64.157	0.000	97.149	-0.000	64.157	0.000	0.000	97.162	46.563	0.742	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

Poker Lake Unit 23 DTD South 443H

Plan Targets

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 9	11896.67	440532.90	648633.20	8032.00	RECTANGLE
SHL 8	13961.17	439488.62	650092.19	7875.90	RECTANGLE
LTP 9	24430.05	427547.90	648709.70	8032.00	RECTANGLE
BHL 9	24520.54	427457.90	648710.90	8032.00	RECTANGLE

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO LEASE NO.: NMNM030452 LOCATION: Sec. 23, T.24 S, R 30 E COUNTY: Eddy County, New Mexico
WELL NAME & NO.: Poker Lake Unit 23 DTD 443H SURFACE HOLE FOOTAGE: 1152'N & 1711'E BOTTOM HOLE FOOTAGE: 2627'N & 2173'W

COA

H ₂ S	<input checked="" type="radio"/> No		<input type="radio"/> Yes	
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
Choose an option (including blank option.)				
Cave / Karst	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<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 (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The 9-5/8 inch surface casing shall be set at approximately **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 **7-5/8** inch 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 6610'**.
 - b. **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down **Surface X Intermediate 1** 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 Surface 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.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back **200 feet** into the previous casing. Operator shall provide method of verification.

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.

Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- a. 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.
- b. Manufacturer representative shall install the test plug for the initial BOP test.
- c. 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.
- d. 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 2nd 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 2nd 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 10/15/2024
575-234-5998 / zstevens@blm.gov



HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, 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 H₂S 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 H₂S, 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 (SO₂). 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 H₂S and SO₂

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

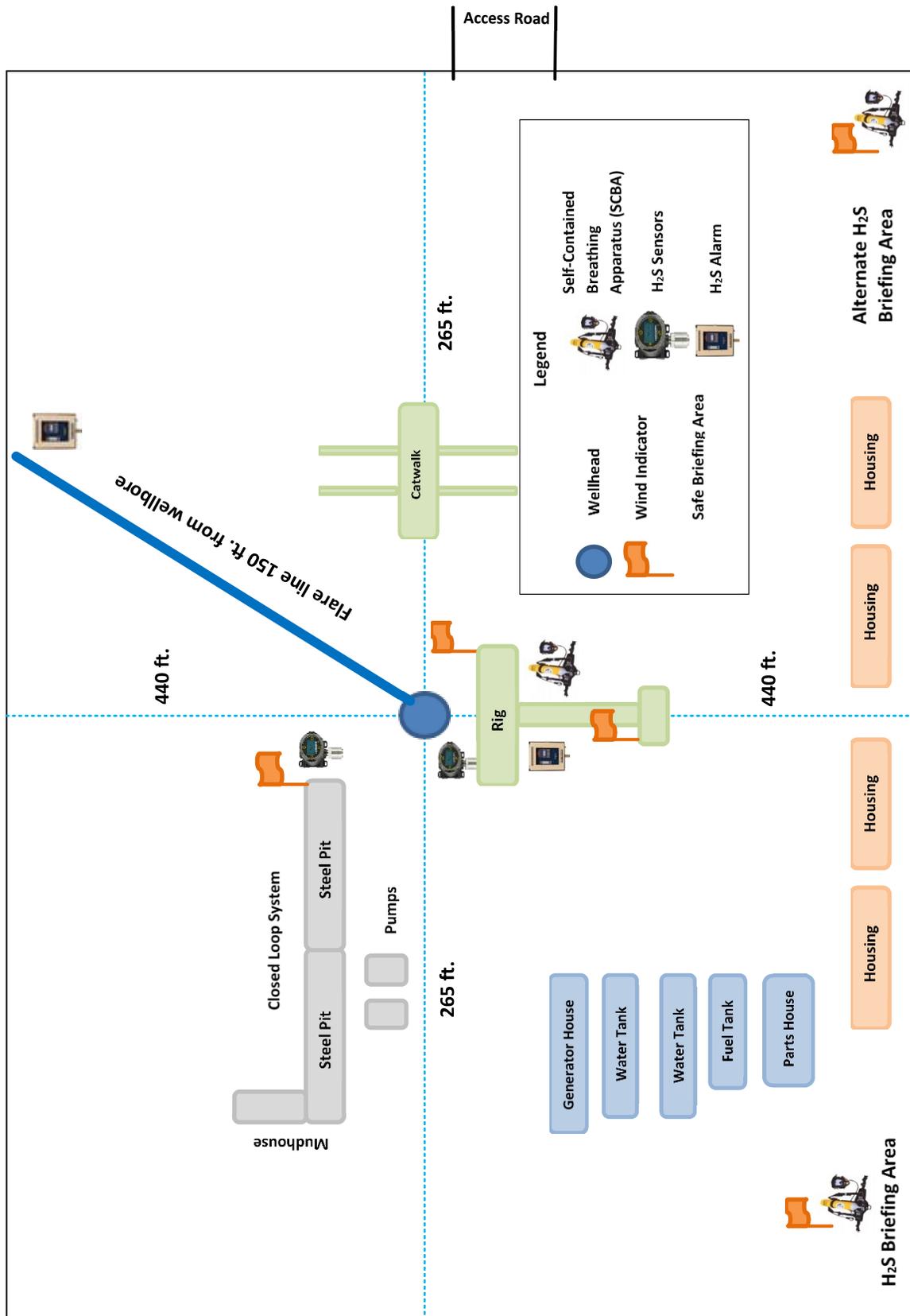
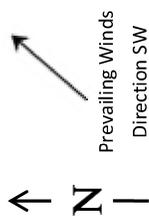
For Lea County:

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

For Eddy County:

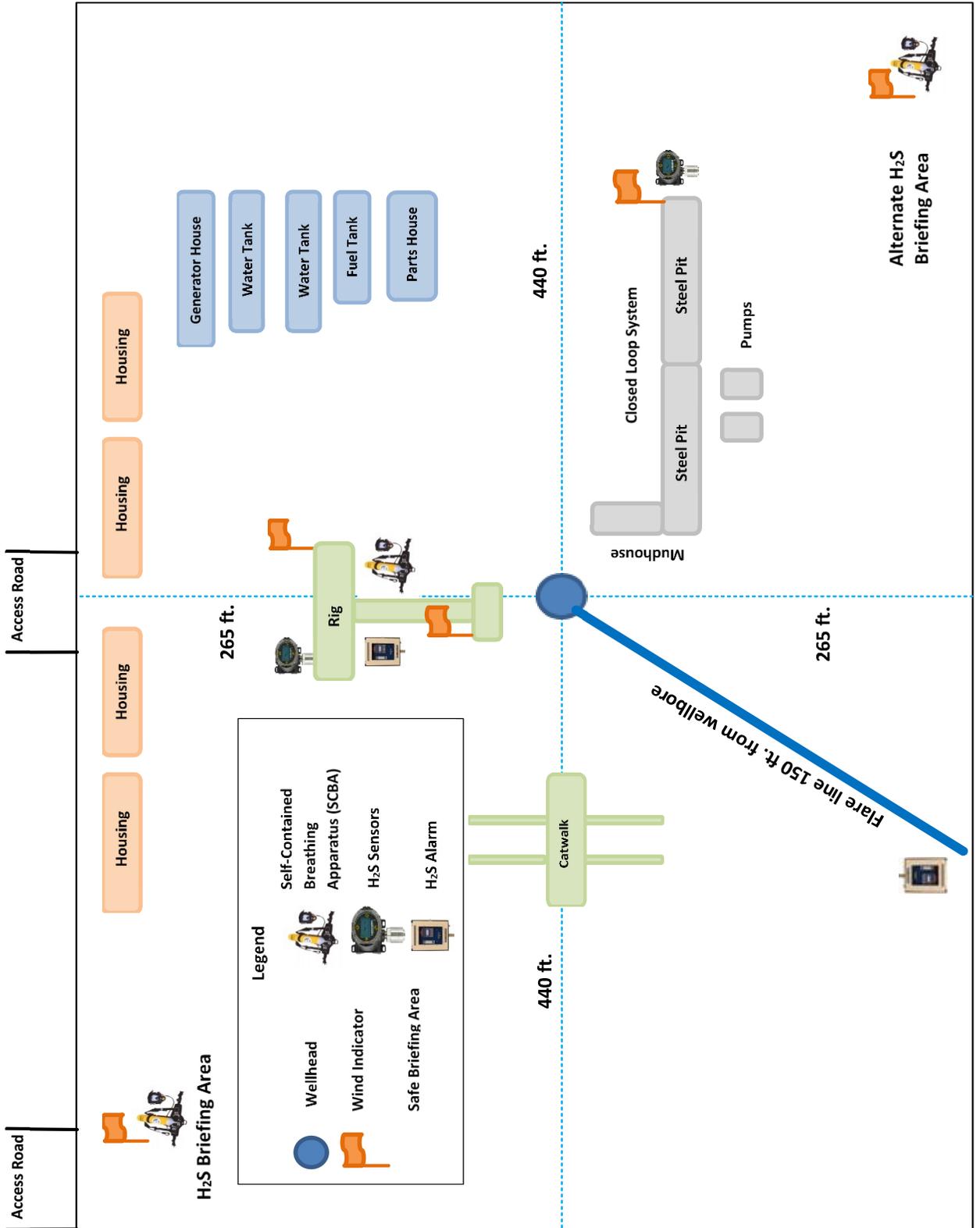
Bureau of Land Management - Carlsbad 575-234-5972
New Mexico Oil Conservation Division - Artesia 575-748-1283

H2S Briefing Areas and Alarm Locations

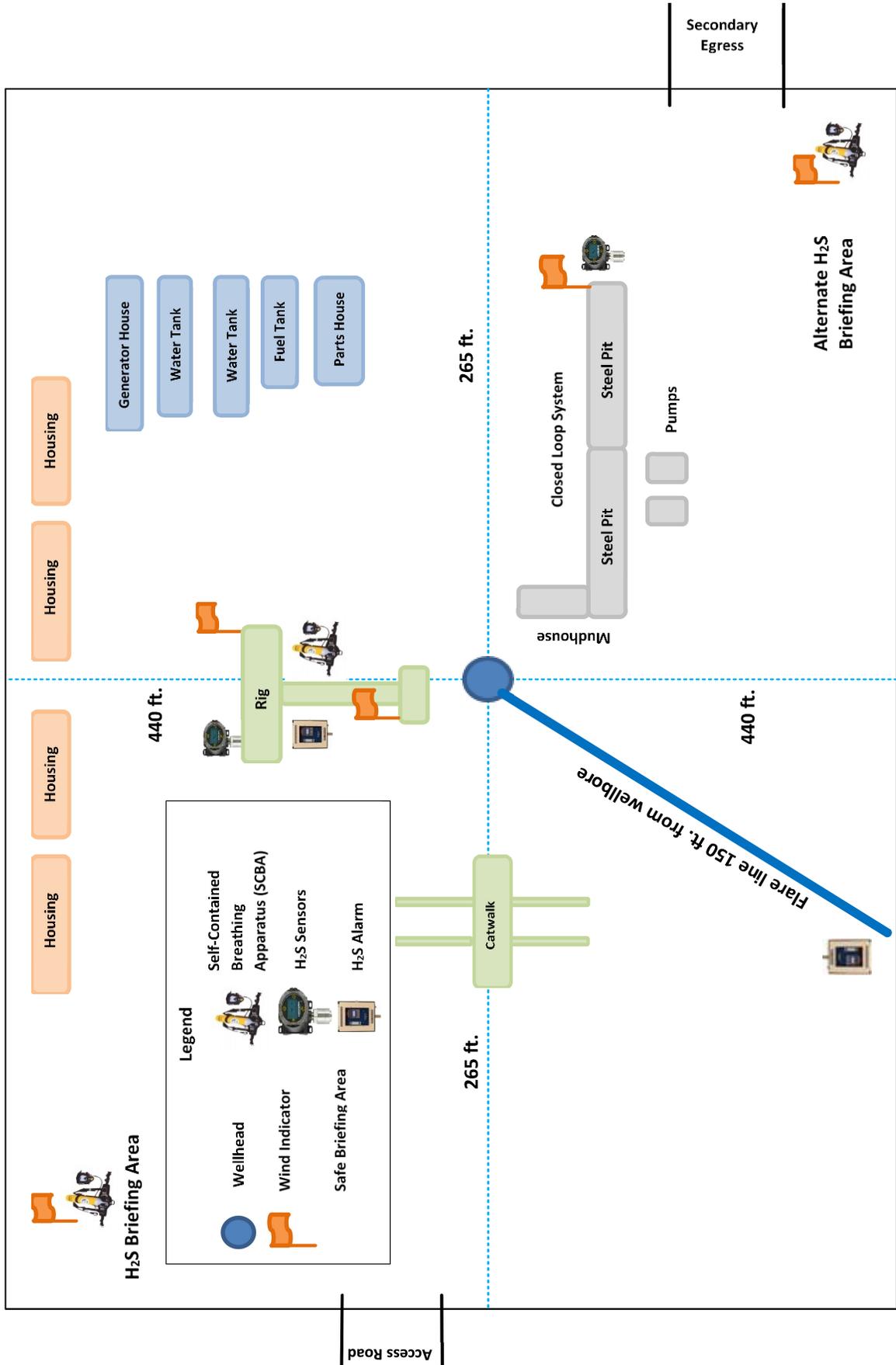
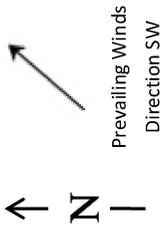


H2S Briefing Areas and Alarm Locations

Prevaling Winds
Direction SW



H2S Briefing Areas and Alarm Locations



Operator Name: XTO PERMIAN OPERATING LLC	
Well Name: POKER LAKE UNIT 23 DTD	Well Number: 443H

regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

Safe containmant attachment:

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

Disposal type description:

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

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

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

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

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:

Section 9 - Well Site

Well Site Layout Diagram:

PLU_23_DTD_443H_Well_20240414144054.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: C

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 gulying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 443H

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

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 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.

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 410608

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 410608
	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.	12/11/2024
tsebastian	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	12/11/2024
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	12/26/2024
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/26/2024
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.	12/26/2024
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.	12/26/2024