

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No. 30-015-55887
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		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. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.
25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.		

(Continued on page 2)

*(Instructions on page 2)





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

Application for Permit to Drill

APD Package Report

Date Printed: 11/25/2024 03:48 PM

APD ID: 10400098066

Well Status: AAPD

APD Received Date: 04/18/2024 06:53 AM

Well Name: POKER LAKE UNIT 23 DTD

Operator: XTO PERMIAN OPERATING LLC

Well Number: 451H

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: 2 file(s)
 - Recontouring attachment: 4 file(s)
 - Other SUPO Attachment: 1 file(s)
- PWD Report
- PWD Attachments
 - None

- Bond Report
- Bond Attachments
 - None

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16. No of acres in lease		13. State
17. Spacing Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		
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20. BLM/BIA Bond No. in file		
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22. Approximate date work will start*		23. Estimated duration
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- | | |
|--|---|
| 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 an 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: NWNW / 1247 FNL / 1771 FEL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.207207 / LONG: -103.848706 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 100 FNL / 1348 FWL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.210346 / LONG: -103.85592 (TVD: 9985 feet, MD: 11000 feet)

PPP: NENW / 0 FSL / 1363 FWL / TWSP: 24S / RANGE: 30E / SECTION: 26 / LAT: 32.196133 / LONG: -103.855895 (TVD: 9985 feet, MD: 16300 feet)

BHL: SENW / 2627 FNL / 1348 FWL / TWSP: 24S / RANGE: 30E / SECTION: 35 / LAT: 32.174413 / LONG: -103.855855 (TVD: 9985 feet, MD: 23259 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 30-015-55887	Pool Code 97798	Pool Name WILDCAT G-06 S243026M; BONE SPRING
Property Code 325598	Property Name POKER LAKE UNIT 23 DTD	Well Number 451H
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 B	Section 23	Township 24S	Range 30E	Lot	Ft. from N/S 1,247 FNL	Ft. from E/W 1,771 FEL	Latitude 32.207207	Longitude -103.848706	County EDDY
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Bottom Hole Location

UL F	Section 35	Township 24S	Range 30E	Lot	Ft. from N/S 2,627 FNL	Ft. from E/W 1,348 FWL	Latitude 32.174413	Longitude -103.855855	County EDDY
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Dedicated Acres 800.00	Infill or Defining Well DEFINING	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 B	Section 23	Township 24S	Range 30E	Lot	Ft. from N/S 1,247 FNL	Ft. from E/W 1,771 FEL	Latitude 32.207207	Longitude -103.848706	County EDDY
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First Take Point (FTP)

UL C	Section 23	Township 24S	Range 30E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 1,348 FWL	Latitude 32.210346	Longitude -103.855920	County EDDY
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Last Take Point (LTP)

UL F	Section 35	Township 24S	Range 30E	Lot	Ft. from N/S 2,537 FNL	Ft. from E/W 1,348 FWL	Latitude 32.174660	Longitude -103.855857	County EDDY
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Unitized Area or Area of Interest NMNM105422429	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,429'
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OPERATOR CERTIFICATIONS

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

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

Terra Sebastian
Signature Date

10/29/2024

Printed Name

Terra Sebastian

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

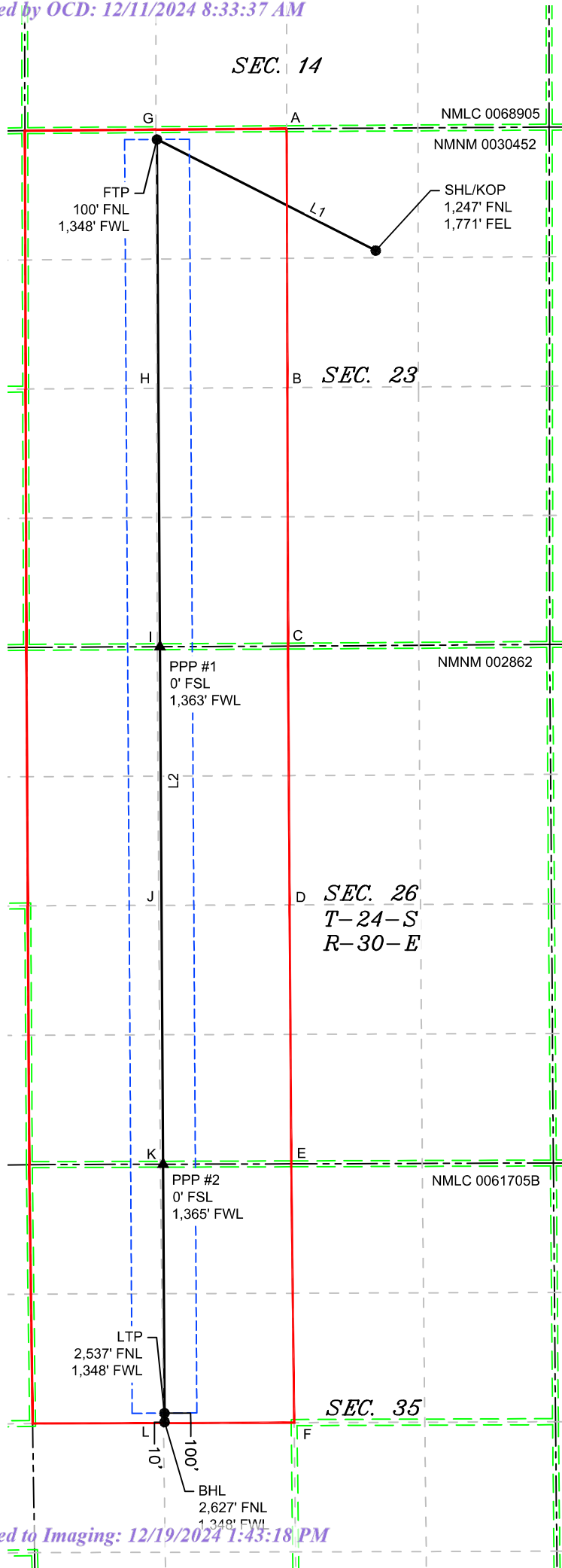


MARK DILLON HARP 23786

Certificate Number

10/28/2024

Date of Survey



LEGEND

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

LINE TABLE

LINE	AZIMUTH	LENGTH
L1	296°50'34"	2,506.17'
L2	179°39'27"	13,071.84'

COORDINATE TABLE

SHL/KOP (NAD 83 NME)		SHL/KOP (NAD 27 NME)	
Y =	439,454.1 N	Y =	439,395.1 N
X =	691,228.1 E	X =	650,044.3 E
LAT. =	32.207207 °N	LAT. =	32.207083 °N
LONG. =	103.848706 °W	LONG. =	103.848220 °W
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	440,585.7 N	Y =	440,526.7 N
X =	688,992.0 E	X =	647,808.2 E
LAT. =	32.210346 °N	LAT. =	32.210222 °N
LONG. =	103.855920 °W	LONG. =	103.855433 °W
PPP #1 (NAD 83 NME)		PPP #1 (NAD 27 NME)	
Y =	435,415.4 N	Y =	435,356.5 N
X =	689,022.6 E	X =	647,838.7 E
LAT. =	32.196133 °N	LAT. =	32.196009 °N
LONG. =	103.855895 °W	LONG. =	103.855409 °W
PPP #2 (NAD 83 NME)		PPP #2 (NAD 27 NME)	
Y =	430,141.4 N	Y =	430,082.7 N
X =	689,053.9 E	X =	647,869.8 E
LAT. =	32.181635 °N	LAT. =	32.181511 °N
LONG. =	103.855869 °W	LONG. =	103.855384 °W
LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	427,604.1 N	Y =	427,545.4 N
X =	689,068.9 E	X =	647,884.7 E
LAT. =	32.174660 °N	LAT. =	32.174536 °N
LONG. =	103.855857 °W	LONG. =	103.855372 °W
BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	427,514.1 N	Y =	427,455.4 N
X =	689,070.1 E	X =	647,885.9 E
LAT. =	32.174413 °N	LAT. =	32.174289 °N
LONG. =	103.855855 °W	LONG. =	103.855370 °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

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
<div>OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)</div>
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

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

VII. Operational Practices

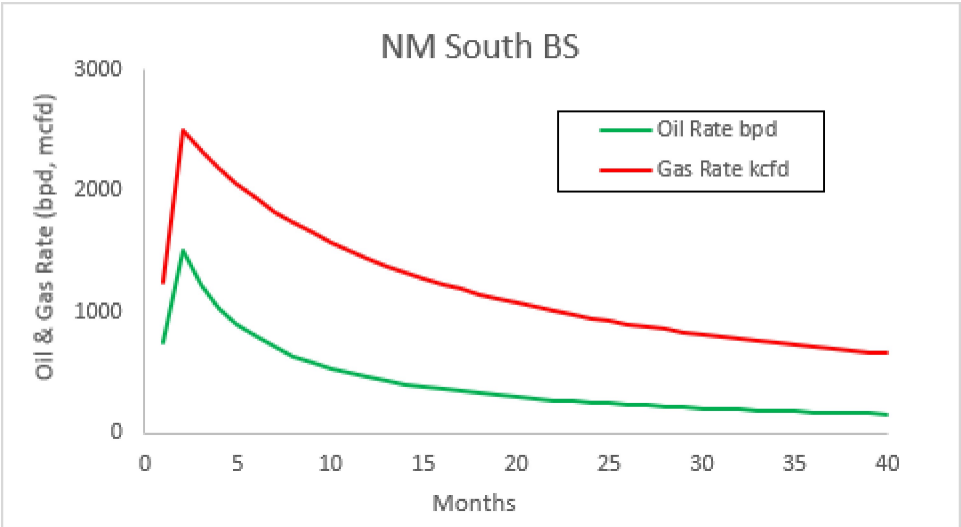
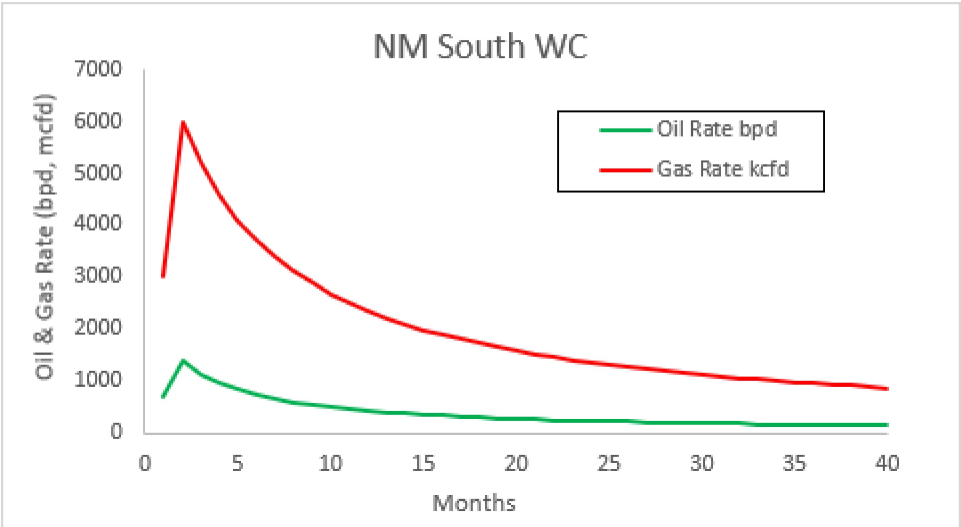
XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLC will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:
 - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
 - Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
 - Flaring in lieu of venting, where technically feasible
 - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
 - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
 - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
 - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

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

VIII. Best Management Practices during Maintenance

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



APD ID: 10400098066

Submission Date: 04/18/2024

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

Well Type: OIL 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
14549503	QUATERNARY	3429	0	0	ALLUVIUM	USEABLE WATER	N
14549504	RUSTLER	2115	1314	1314	ANHYDRITE	USEABLE WATER	N
14549505	SALADO	1712	1717	1717	SALT	NONE	N
14549506	BASE OF SALT	-481	3910	3910	SALT	NONE	N
14549507	DELAWARE	-675	4104	4104	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549508	BRUSHY CANYON	-3181	6610	6610	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14549509	BONE SPRING	-4470	7899	7899	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
14549510	BONE SPRING 1ST	-5241	8670	8670	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
14549511	BONE SPRING 2ND	-6551	9980	9980	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 9985

Equipment: Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril Annular and a 5M Double Ram BOP. XTO will use a 3 string Slim Hole Multi-Bowl system which is attached.

Requesting Variance? YES

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

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

Choke Diagram Attachment:

PLU_23_DTD_5MCM_20240410151726.pdf

BOP Diagram Attachment:

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

PLU_23_DTD_5MCM_20240410151726.pdf

5MBOP_20240926053859.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	1.74	DRY	11.14	DRY	11.14
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	9579	0	9065	3446	-5636	9579	L-80	29.7	FJ	2.5	2.11	DRY	2.45	DRY	2.45
3	PRODUCTION	6.75	5.5	NEW	NON API	Y	0	23259	0	9985	3446	-6556	23259	P-110	20	OTHER - Freedom HTQ/Talon HTQ	2.04	1.05	DRY	2.1	DRY	2.1

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_451H_Csg_20241011122528.pdf

Casing Attachments

Casing ID: 2StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

PLU_23_DTD_451H_Csg_20241011122515.pdf

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_451H_Csg_20241011122520.pdf

Casing ID: 3StringPRODUCTION

Inspection Document:

Spec Document:

Freedom_semi_premium_5.5_production_casing_20240926053951.pdf

Talon__semiflush_5.5_production_casing_20240926053952.pdf

Tapered String Spec:

PLU_23_DTD_451H_Csg_20241011122503.pdf

Casing Design Assumptions and Worksheet(s):

PLU_23_DTD_451H_Csg_20241011122508.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	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	270	1.35	14.8	364.5	100	Class C	NA
INTERMEDIATE	Tail		6610	9579	740	1.33	14.8	984.2	100	Class C	NA

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		9279	9779	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		9779	23259	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
4104	9579	OTHER : BDE/OBM	9	9.5							
0	1414	WATER-BASED MUD	8.4	8.9							
1414	4104	SALT SATURATED	10.5	11							
9579	23259	OIL-BASED MUD	10.5	11							

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

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: 5711

Anticipated Surface Pressure: 3514

Anticipated Bottom Hole Temperature(F): 185

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_20240926053729.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

PLU_23_DTD_451H_DD_20240414182021.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

PLU_23_DTD_451H_Cmt_20240414182115.pdf

9.625_7.625_5.5_3_String_Slimhole_HBE0000479_4_20240926054504.pdf

PLU_23_DTD_H2S_DiaC_20241008115226.pdf

PLU_23_DTD_H2S_DiaD_20241008115226.pdf

PLU_23_DTD_H2S_DiaA_20241008115226.pdf

PLU_23_DTD_GCP_20241021092322.pdf

Other Variance attachment:

Spudder_Rig_Request_20240926054609.pdf

Offline_Cement_Variance_Surf___Interm_Csg_20240926054608.pdf

Updated_Flex_Hose_20240926054610.pdf

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

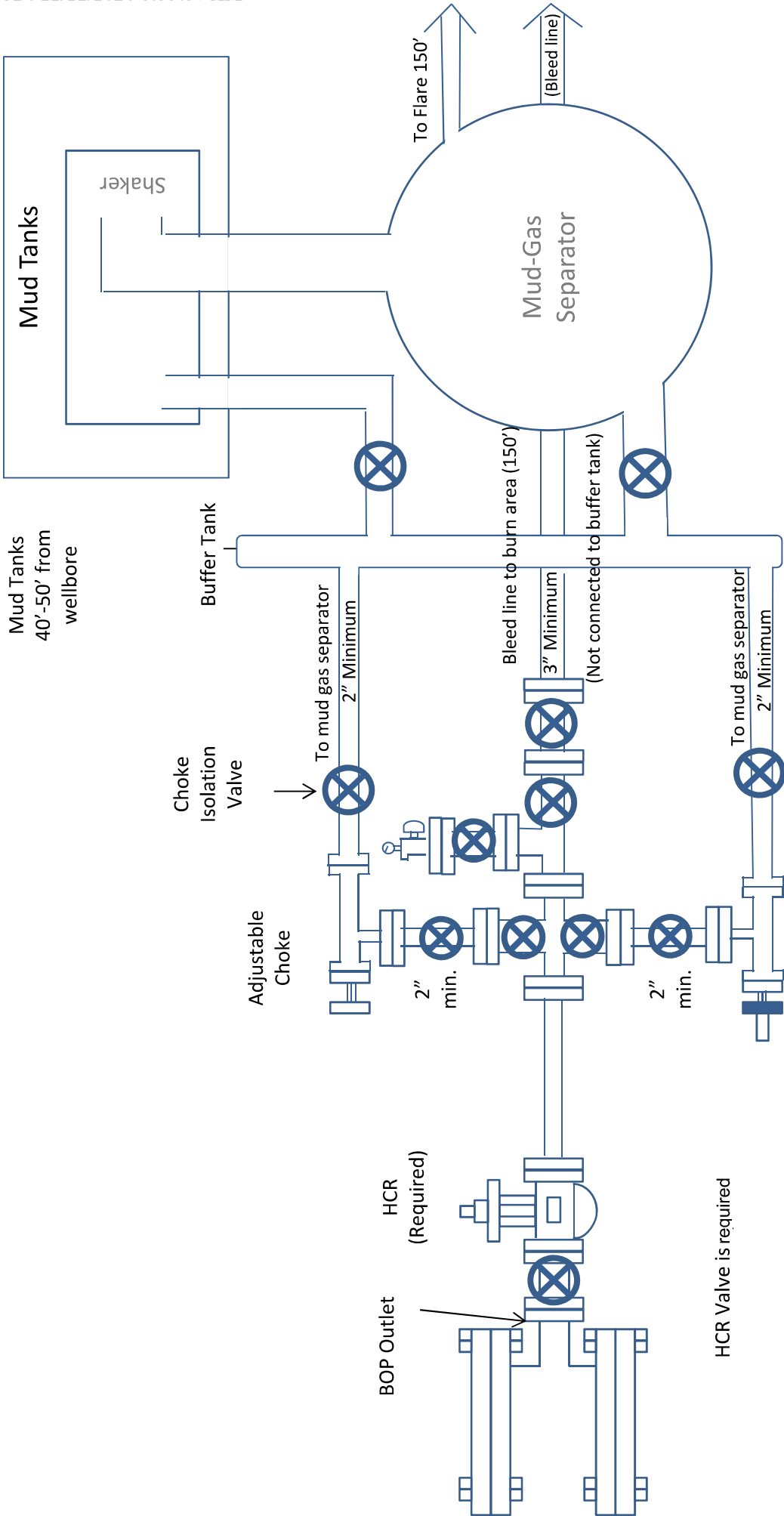
BOP_Break_Test_Variance_20241001141543.pdf

CONFIDENTIAL

Casing Design

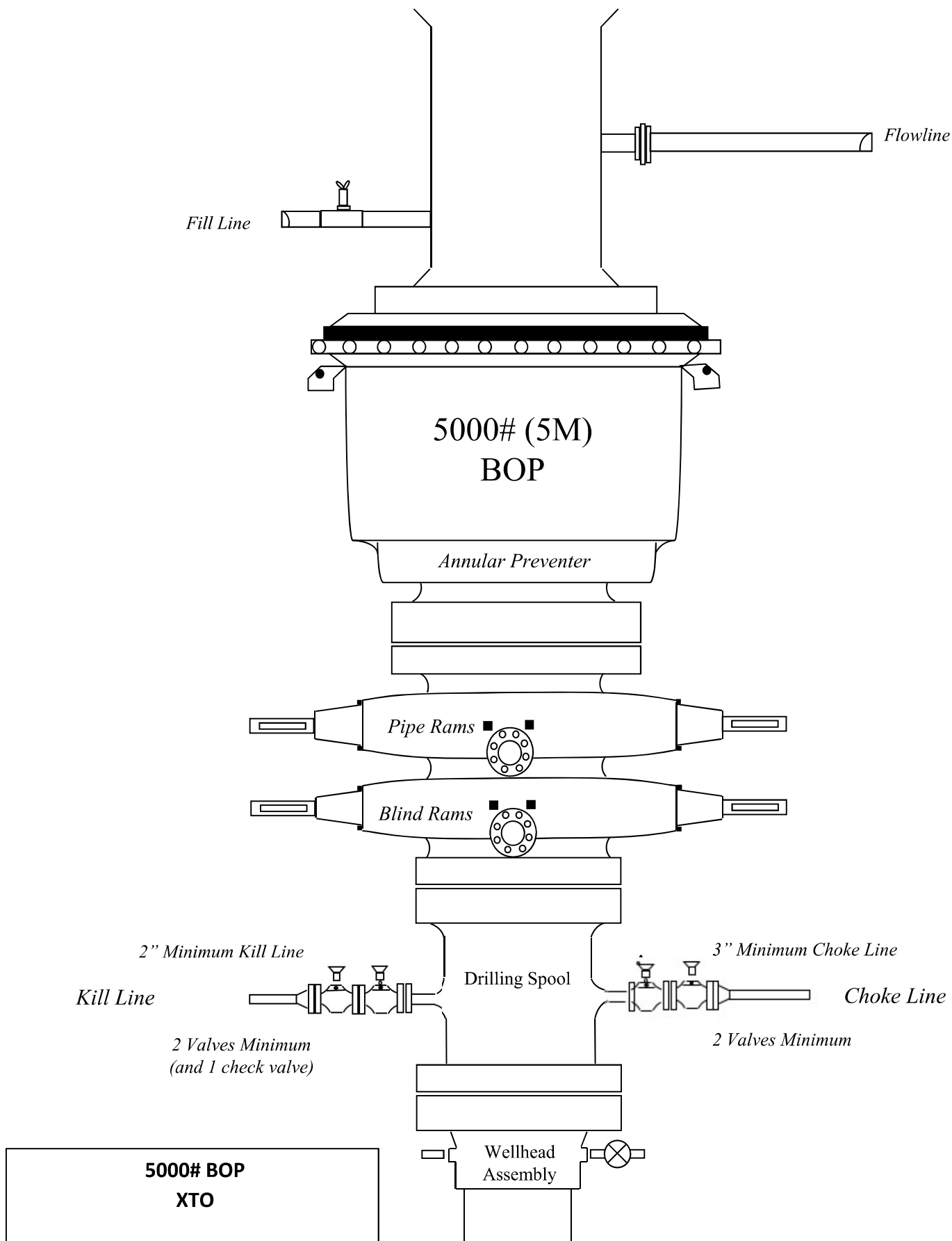
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1414'	9.625	40	J-55	BTC	New	1.74	4.45	11.14
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.91	2.92	1.96
8.75	4000' – 9579'	7.625	29.7	HC L-80	Flush Joint	New	2.11	2.50	2.45
6.75	0' – 9479'	5.5	20	RY P-110	Freedom HTQ	New	1.05	2.14	2.10
6.75	9479' - 23259'	5.5	20	RY P-110	Talon HTQ	New	1.05	2.04	2.10

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.

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

Description of Operations:

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

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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack

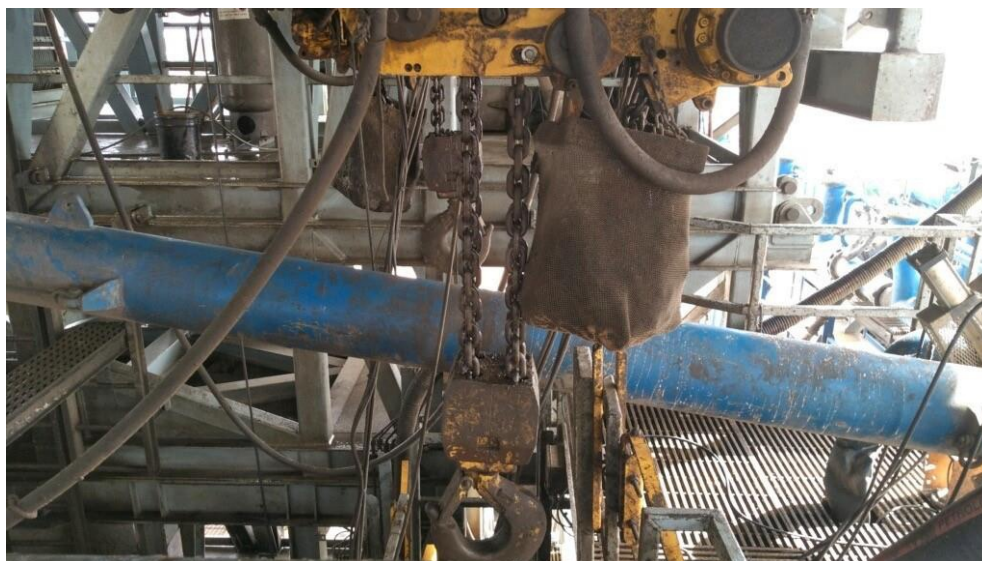


Figure 2: BOP Winch System

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

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API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Pressure Test—High Pressure ^{ac}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^a	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 ^{bd}	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.

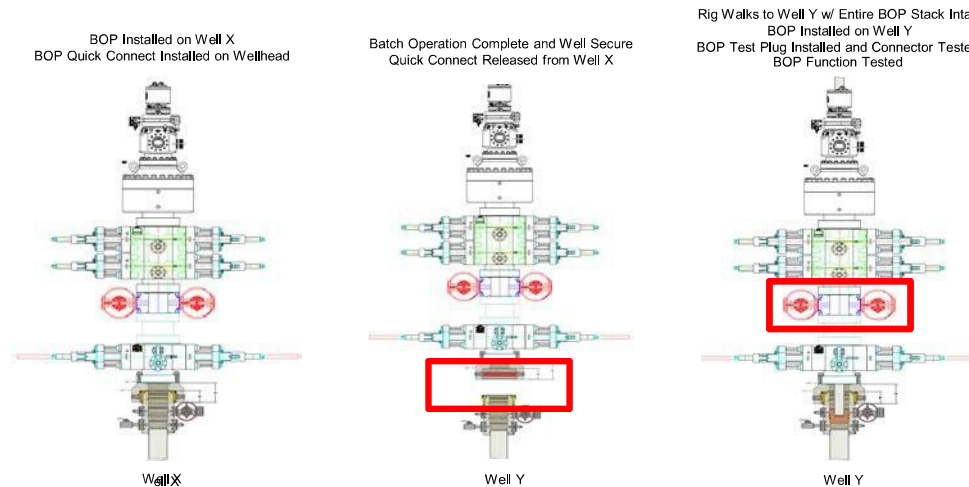
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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



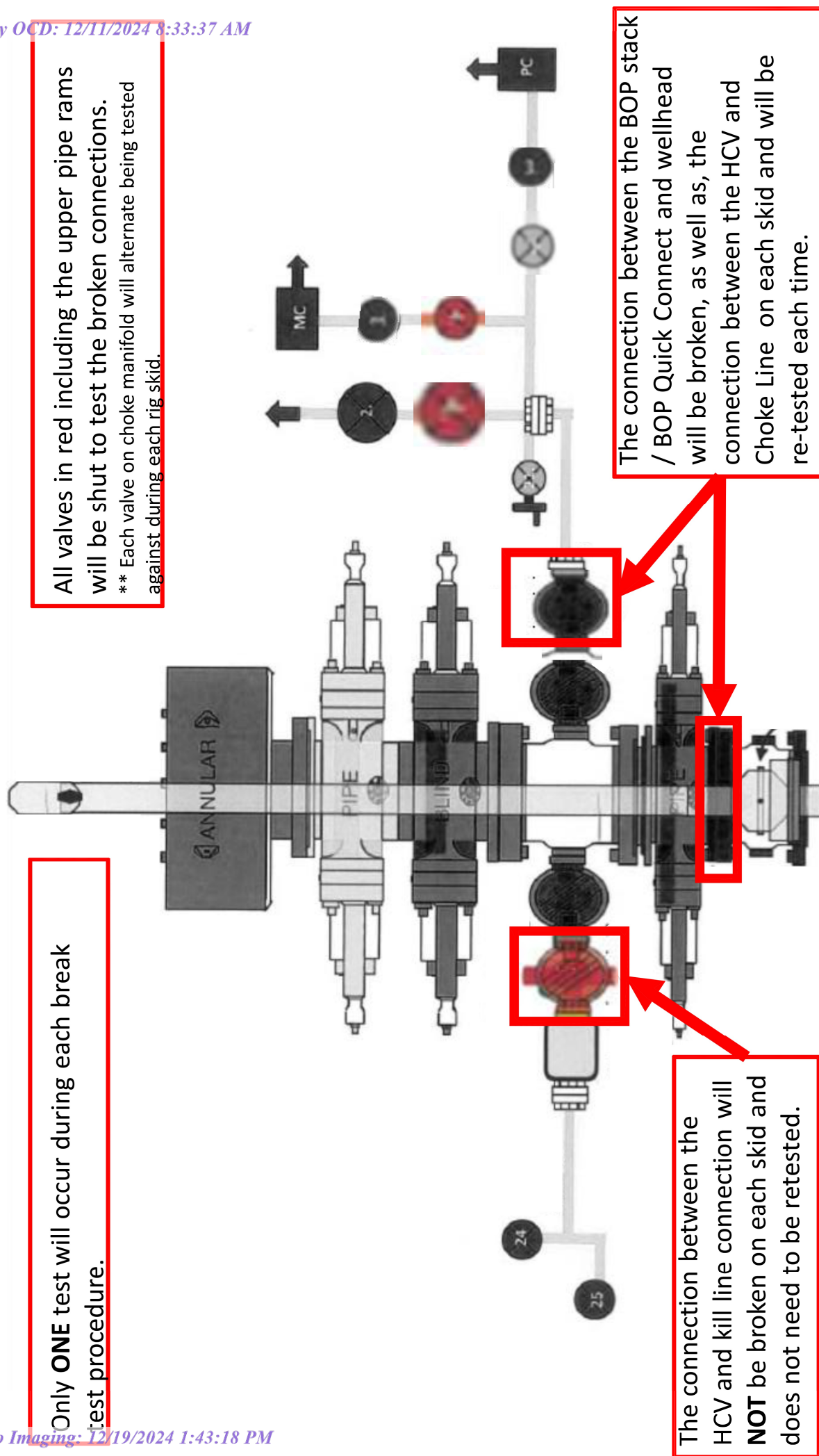
Summary

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.



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.

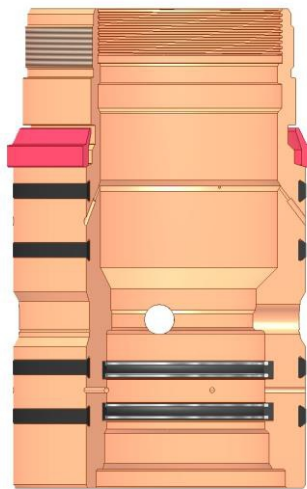
1. Cement Program

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

2. Offline Cementing Procedure

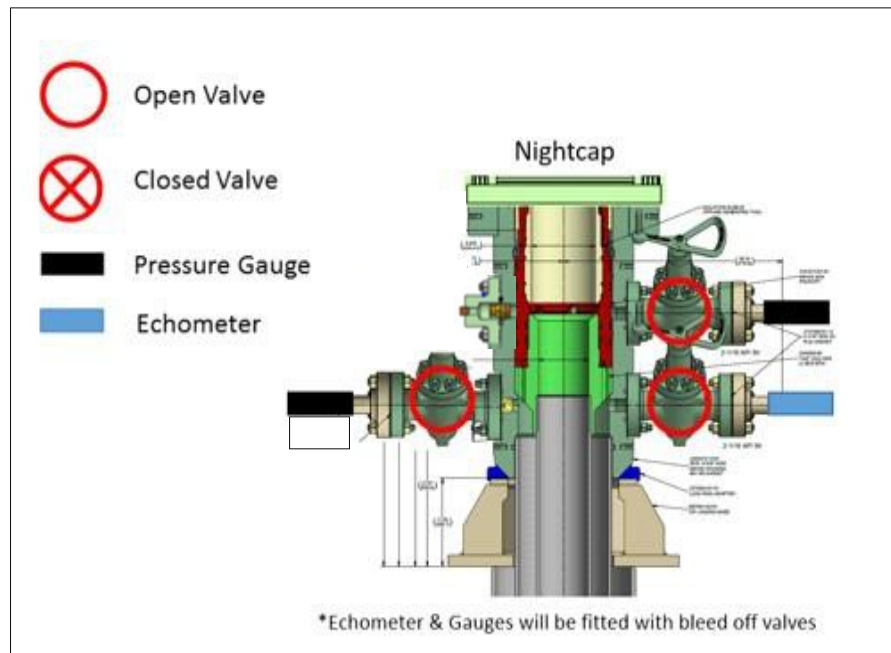
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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.



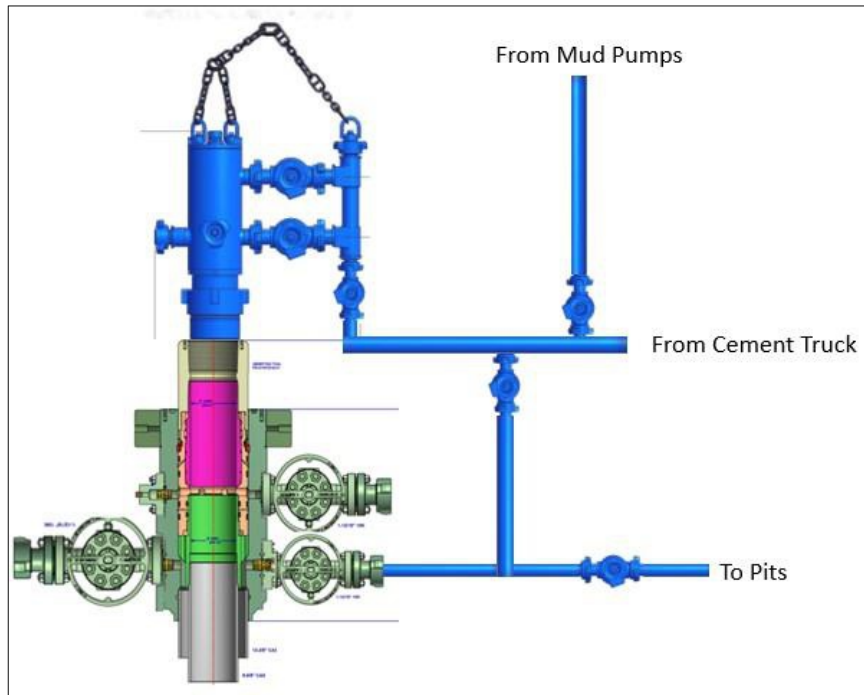
Annular packoff with both external and internal seals

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®**

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7603 Pralrie 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. Cismos***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:

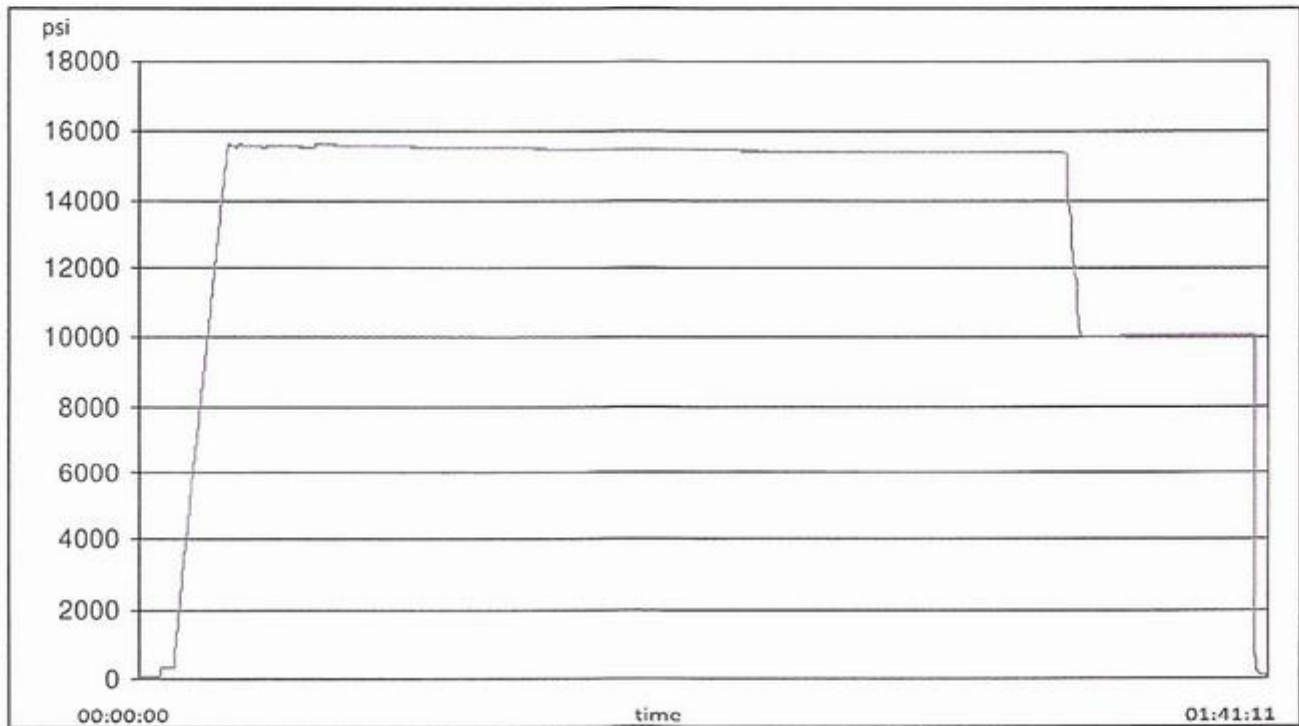
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





H3-15/16

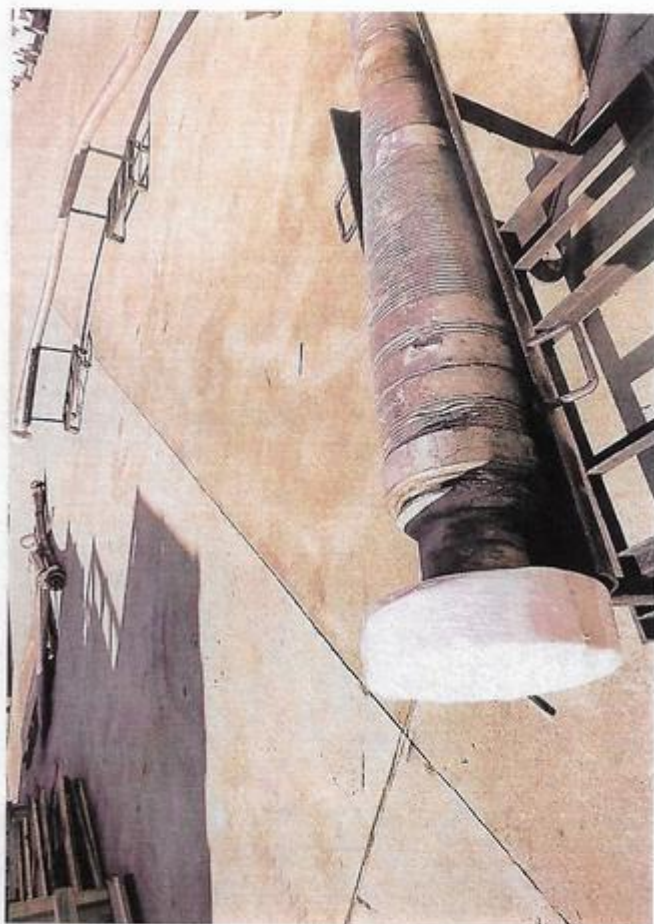
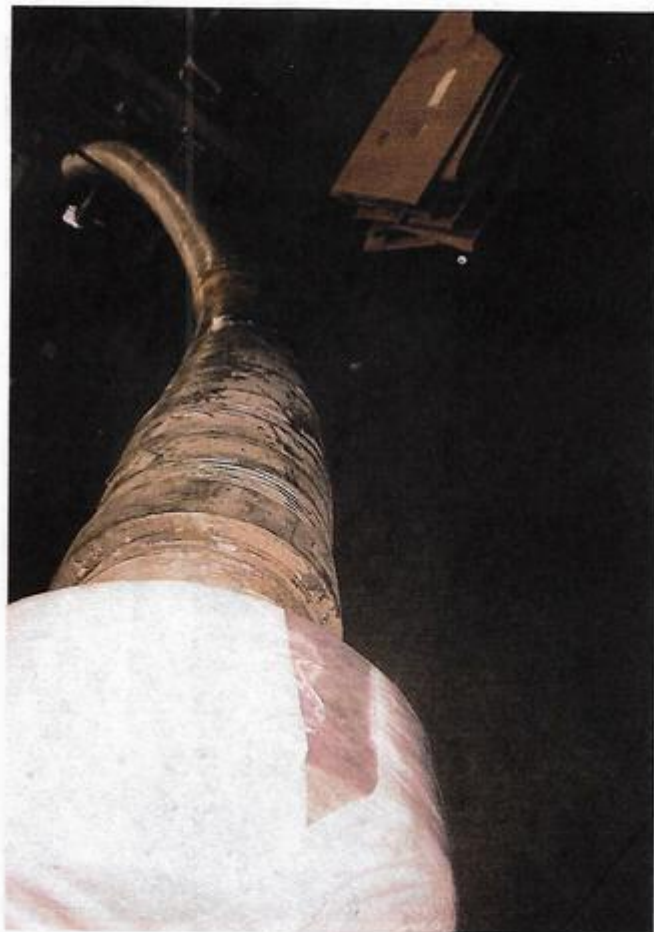
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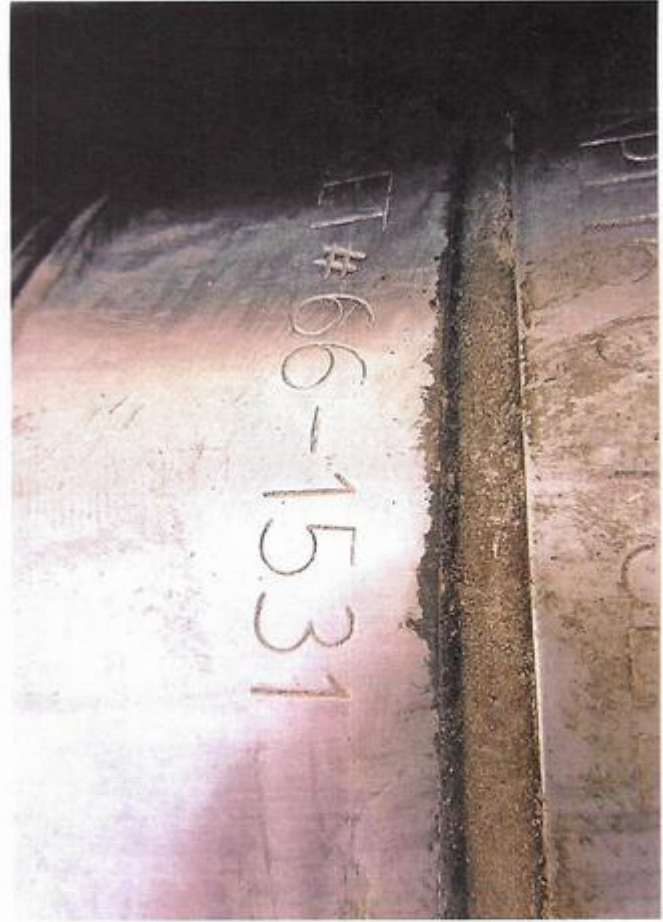
TEST REPORT

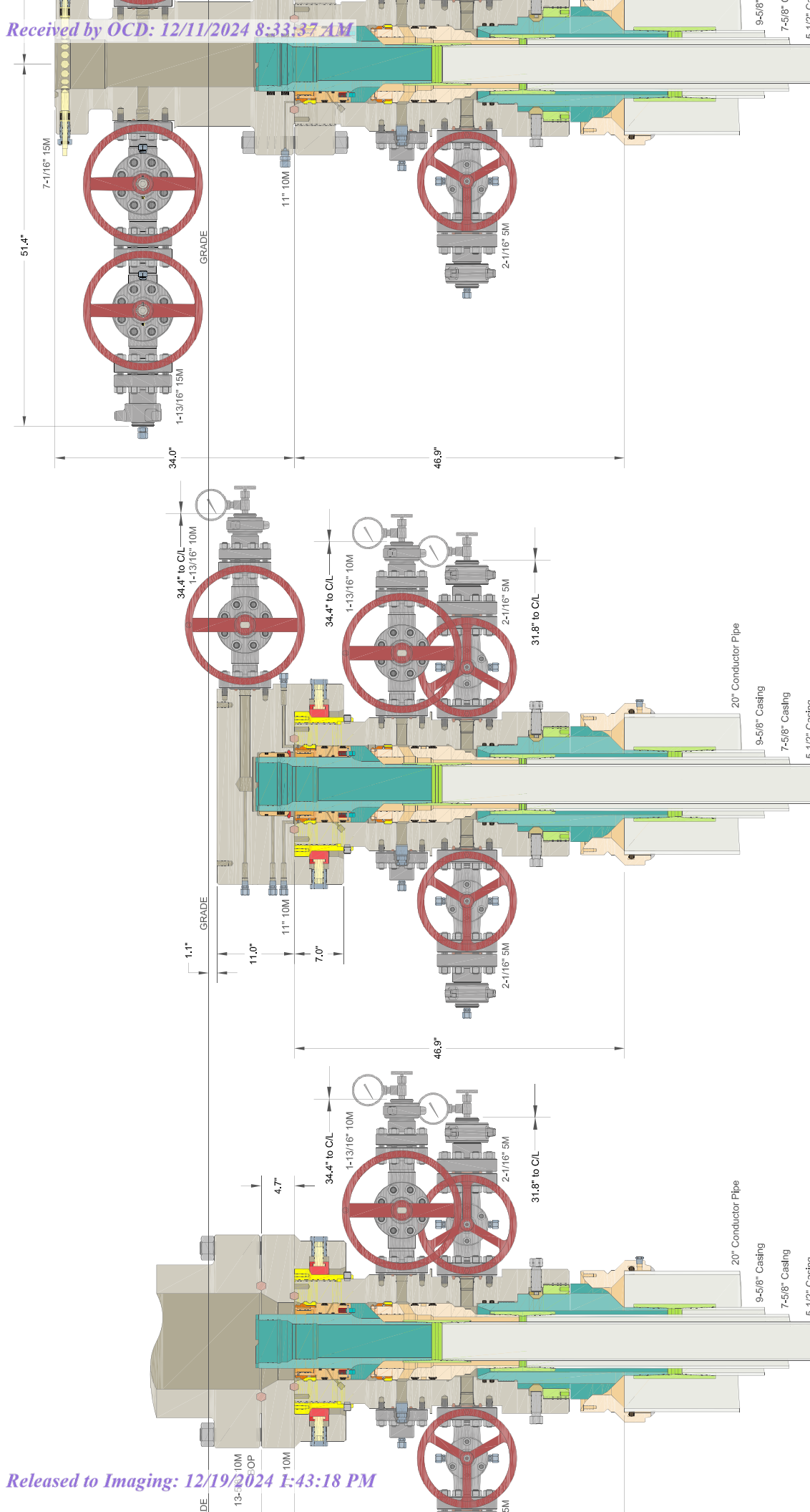
GAUGE TRACEABILITY

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

Comment







Well Plan Report - Poker Lake Unit 23 DTD South 451H

Measured Depth: 23259.05 ft
TVD RKB: 9985.00 ft
Location
Cartographic Reference System: New Mexico East - NAD 27
Northing: 439395.10 ft
Easting: 650044.30 ft
RKB: 3461.00 ft
Ground Level: 3429.00 ft
North Reference: Grid
Convergence Angle: 0.26 Deg

Plan Sections
Poker Lake Unit 23 DTD South 451H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD		Y Offset (ft)	X Offset (ft)	Build		Turn Rate (Deg/100ft)	Dogleg	
			RKB (ft)	Rate (Deg/100ft)			Rate (Deg/100ft)	Target (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	
2335.81	24.72	296.84	2297.83	118.50	-234.17	-2001.93	2.00	2.00	0.00	2.00	
7074.22	24.72	296.84	6602.17	1013.10	-2236.10	-2231.88	-2.00	0.00	0.00	2.00	
8310.03	0.00	0.00	7800.00	1131.60	-2236.10	-2159.52	0.00	0.00	0.00	0.00	LTP 12
9778.83	0.00	0.00	9268.80	415.42	-11939.59	-2158.99	8.00	8.00	0.00	8.00	
10903.83	90.00	179.66	9985.00	-11849.28			0.00	0.00	0.00	0.00	BHL 12
23168.74	90.00	179.66	9985.00				0.00	0.00	0.00	0.00	
23259.05	90.00	179.66	9985.00				0.00	0.00	0.00	0.00	

Position Uncertainty
Poker Lake Unit 23 DTD South 451H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.358	0.179	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.310	0.000	0.717	0.538	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2.326	0.000	1.075	0.896	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.347	0.000	1.434	1.255	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.375	0.000	1.792	1.613	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.407	0.000	2.151	1.972	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.445	0.000	2.509	2.330	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.486	0.000	2.868	2.689	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.533	0.000	3.226	3.047	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.583	0.000	3.585	3.405	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.636	0.000	3.943	3.764	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1200.000	2.000	296.842	1199.980	4.153	0.000	4.261	0.000	2.692	0.000	4.297	4.117	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1300.000	4.000	296.842	1299.838	4.497	0.000	4.612	0.000	2.750	0.000	4.649	4.468	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1400.000	6.000	296.842	1399.452	4.836	0.000	4.964	0.000	2.808	0.000	5.003	4.818	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1500.000	8.000	296.842	1498.702	5.170	0.000	5.317	0.000	2.868	0.000	5.358	5.168	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1600.000	10.000	296.842	1597.465	5.499	0.000	5.672	0.000	2.928	0.000	5.715	5.517	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1700.000	12.000	296.842	1695.623	5.821	0.000	6.029	0.000	2.991	0.000	6.073	5.865	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1800.000	14.000	296.842	1793.055	6.137	0.000	6.388	0.000	3.057	0.000	6.434	6.211	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1900.000	16.000	296.842	1889.643	6.446	0.000	6.749	0.000	3.125	0.000	6.796	6.554	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2000.000	18.000	296.842	1985.268	6.748	0.000	7.115	0.000	3.198	0.000	7.162	6.895	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2100.000	20.000	296.842	2079.816	7.042	0.000	7.485	0.000	3.276	0.000	7.532	7.233	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2200.000	22.000	296.842	2173.169	7.329	0.000	7.862	0.000	3.360	0.000	7.908	7.567	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2300.000	24.000	296.842	2265.215	7.608	0.000	8.246	0.000	3.451	0.000	8.291	7.897	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2335.807	24.716	296.842	2297.834	7.705	0.000	8.385	0.000	3.479	0.000	8.430	8.017	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2400.000	24.716	296.842	2356.146	7.930	0.000	8.637	0.000	3.552	0.000	8.681	8.223	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2500.000	24.716	296.842	2446.985	8.281	0.000	9.037	0.000	3.676	0.000	9.079	8.543	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2600.000	24.716	296.842	2537.824	8.635	0.000	9.443	0.000	3.805	0.000	9.483	8.866	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2700.000	24.716	296.842	2628.664	8.992	0.000	9.854	0.000	3.938	0.000	9.893	9.189	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2800.000	24.716	296.842	2719.503	9.350	0.000	10.269	0.000	4.076	0.000	10.308	9.515	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2900.000	24.716	296.842	2810.342	9.710	0.000	10.688	0.000	4.218	0.000	10.727	9.841	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3000.000	24.716	296.842	2901.181	10.071	0.000	11.111	0.000	4.363	0.000	11.149	10.169	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

3100.000	24.716	296.842	2992.020	10.434	0.000	11.536	0.000	4.511	0.000	0.000	11.575	10.498	105.719	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3200.000	24.716	296.842	3082.859	10.798	0.000	11.965	0.000	4.663	0.000	0.000	12.003	10.829	106.172	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3300.000	24.716	296.842	3173.698	11.163	0.000	12.396	0.000	4.817	0.000	0.000	12.434	11.160	106.564	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3400.000	24.716	296.842	3264.537	11.529	0.000	12.829	0.000	4.974	0.000	0.000	12.868	11.492	106.906	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3500.000	24.716	296.842	3355.376	11.895	0.000	13.264	0.000	5.134	0.000	0.000	13.303	11.825	107.207	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3600.000	24.716	296.842	3446.215	12.263	0.000	13.701	0.000	5.295	0.000	0.000	13.741	12.159	107.473	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3700.000	24.716	296.842	3537.054	12.632	0.000	14.140	0.000	5.459	0.000	0.000	14.180	12.494	107.710	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3800.000	24.716	296.842	3627.893	13.001	0.000	14.580	0.000	5.624	0.000	0.000	14.621	12.829	107.923	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
3900.000	24.716	296.842	3718.732	13.370	0.000	15.022	0.000	5.792	0.000	0.000	15.063	13.166	108.115	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4000.000	24.716	296.842	3809.571	13.741	0.000	15.464	0.000	5.961	0.000	0.000	15.506	13.502	108.289	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4100.000	24.716	296.842	3900.410	14.112	0.000	15.908	0.000	6.132	0.000	0.000	15.950	13.840	108.446	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4200.000	24.716	296.842	3991.249	14.483	0.000	16.353	0.000	6.305	0.000	0.000	16.396	14.178	108.590	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4300.000	24.716	296.842	4082.088	14.855	0.000	16.799	0.000	6.479	0.000	0.000	16.843	14.516	108.722	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4400.000	24.716	296.842	4172.927	15.227	0.000	17.246	0.000	6.655	0.000	0.000	17.290	14.855	108.843	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4500.000	24.716	296.842	4263.766	15.600	0.000	17.694	0.000	6.832	0.000	0.000	17.738	15.194	108.955	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4600.000	24.716	296.842	4354.605	15.973	0.000	18.142	0.000	7.010	0.000	0.000	18.187	15.534	109.058	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4700.000	24.716	296.842	4445.444	16.346	0.000	18.591	0.000	7.190	0.000	0.000	18.637	15.874	109.154	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4800.000	24.716	296.842	4536.283	16.720	0.000	19.041	0.000	7.372	0.000	0.000	19.088	16.215	109.243	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
4900.000	24.716	296.842	4627.122	17.094	0.000	19.492	0.000	7.554	0.000	0.000	19.539	16.556	109.325	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5000.000	24.716	296.842	4717.962	17.468	0.000	19.943	0.000	7.738	0.000	0.000	19.990	16.898	109.403	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5100.000	24.716	296.842	4808.801	17.842	0.000	20.394	0.000	7.924	0.000	0.000	20.443	17.239	109.475	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5200.000	24.716	296.842	4899.640	18.217	0.000	20.846	0.000	8.110	0.000	0.000	20.895	17.582	109.543	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5300.000	24.716	296.842	4990.479	18.592	0.000	21.299	0.000	8.298	0.000	0.000	21.349	17.924	109.606	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5400.000	24.716	296.842	5081.318	18.967	0.000	21.752	0.000	8.487	0.000	0.000	21.802	18.267	109.666	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5500.000	24.716	296.842	5172.157	19.343	0.000	22.205	0.000	8.678	0.000	0.000	22.256	18.610	109.722	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5600.000	24.716	296.842	5262.996	19.718	0.000	22.659	0.000	8.869	0.000	0.000	22.711	18.953	109.775	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5700.000	24.716	296.842	5353.835	20.094	0.000	23.113	0.000	9.062	0.000	0.000	23.166	19.297	109.825	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5800.000	24.716	296.842	5444.674	20.470	0.000	23.567	0.000	9.256	0.000	0.000	23.621	19.641	109.872	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
5900.000	24.716	296.842	5535.513	20.846	0.000	24.022	0.000	9.452	0.000	0.000	24.076	19.985	109.917	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6000.000	24.716	296.842	5626.352	21.222	0.000	24.477	0.000	9.648	0.000	0.000	24.532	20.330	109.959	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6100.000	24.716	296.842	5717.191	21.599	0.000	24.932	0.000	9.846	0.000	0.000	24.988	20.675	110.000	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6200.000	24.716	296.842	5808.030	21.975	0.000	25.388	0.000	10.046	0.000	0.000	25.445	21.020	110.038	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6300.000	24.716	296.842	5898.869	22.352	0.000	25.844	0.000	10.246	0.000	0.000	25.901	21.365	110.074	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6400.000	24.716	296.842	5989.708	22.728	0.000	26.300	0.000	10.448	0.000	0.000	26.358	21.711	110.109	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

6500.000	24.716	296.842	6080.547	23.105	0.000	26.756	0.000	10.651	0.000	0.000	26.815	22.057	110.142	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6600.000	24.716	296.842	6171.386	23.482	0.000	27.213	0.000	10.856	0.000	0.000	27.273	22.403	110.173	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6700.000	24.716	296.842	6262.225	23.859	0.000	27.670	0.000	11.061	0.000	0.000	27.730	22.749	110.203	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6800.000	24.716	296.842	6353.064	24.237	0.000	28.127	0.000	11.268	0.000	0.000	28.188	23.096	110.232	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
6900.000	24.716	296.842	6443.903	24.614	0.000	28.584	0.000	11.477	0.000	0.000	28.646	23.443	110.259	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7000.000	24.716	296.842	6534.742	24.991	0.000	29.041	0.000	11.686	0.000	0.000	29.104	23.790	110.285	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7074.223	24.716	296.842	6602.166	25.271	0.000	29.381	0.000	11.843	0.000	0.000	29.444	24.047	110.303	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7100.000	24.201	296.842	6625.630	25.387	0.000	29.498	0.000	11.898	0.000	0.000	29.562	24.137	110.309	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7200.000	22.201	296.842	6717.538	25.816	0.000	29.943	0.000	12.108	0.000	0.000	30.007	24.485	110.323	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7300.000	20.201	296.842	6810.765	26.215	0.000	30.371	0.000	12.314	0.000	0.000	30.437	24.835	110.322	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7400.000	18.201	296.842	6905.198	26.584	0.000	30.783	0.000	12.512	0.000	0.000	30.850	25.188	110.308	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7500.000	16.201	296.842	7000.720	26.921	0.000	31.179	0.000	12.703	0.000	0.000	31.247	25.541	110.283	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7600.000	14.201	296.842	7097.217	27.226	0.000	31.559	0.000	12.888	0.000	0.000	31.628	25.894	110.249	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7700.000	12.201	296.842	7194.570	27.499	0.000	31.925	0.000	13.066	0.000	0.000	31.995	26.247	110.207	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7800.000	10.201	296.842	7292.660	27.738	0.000	32.276	0.000	13.237	0.000	0.000	32.347	26.598	110.159	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
7900.000	8.201	296.842	7391.368	27.943	0.000	32.614	0.000	13.402	0.000	0.000	32.686	26.947	110.107	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8000.000	6.201	296.842	7490.575	28.114	0.000	32.939	0.000	13.561	0.000	0.000	33.012	27.292	110.053	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8100.000	4.201	296.842	7590.158	28.250	0.000	33.252	0.000	13.714	0.000	0.000	33.327	27.633	109.997	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8200.000	2.201	296.842	7689.997	28.352	0.000	33.555	0.000	13.862	0.000	0.000	33.630	27.970	109.942	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8300.000	0.201	296.842	7789.970	28.420	0.000	33.849	0.000	14.005	0.000	0.000	33.924	28.301	109.890	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8310.030	0.000	0.000	7800.000	33.352	0.000	29.040	0.000	14.019	0.000	0.000	33.954	28.334	109.886	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8400.000	0.000	0.000	7889.970	33.621	0.000	29.324	0.000	14.146	0.000	0.000	34.220	28.623	109.861	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8500.000	0.000	0.000	7989.970	33.922	0.000	29.641	0.000	14.290	0.000	0.000	34.517	28.946	109.833	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8600.000	0.000	0.000	8089.970	34.224	0.000	29.959	0.000	14.438	0.000	0.000	34.815	29.270	109.806	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8700.000	0.000	0.000	8189.970	34.527	0.000	30.278	0.000	14.589	0.000	0.000	35.115	29.594	109.779	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8800.000	0.000	0.000	8289.970	34.831	0.000	30.597	0.000	14.743	0.000	0.000	35.415	29.920	109.752	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
8900.000	0.000	0.000	8389.970	35.136	0.000	30.918	0.000	14.901	0.000	0.000	35.717	30.246	109.726	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9000.000	0.000	0.000	8489.970	35.443	0.000	31.239	0.000	15.062	0.000	0.000	36.019	30.572	109.700	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9100.000	0.000	0.000	8589.970	35.750	0.000	31.561	0.000	15.226	0.000	0.000	36.323	30.900	109.674	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9200.000	0.000	0.000	8689.970	36.058	0.000	31.884	0.000	15.394	0.000	0.000	36.628	31.228	109.648	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9300.000	0.000	0.000	8789.970	36.367	0.000	32.208	0.000	15.565	0.000	0.000	36.933	31.557	109.623	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9400.000	0.000	0.000	8889.970	36.676	0.000	32.532	0.000	15.740	0.000	0.000	37.240	31.886	109.598	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9500.000	0.000	0.000	8989.970	36.987	0.000	32.857	0.000	15.919	0.000	0.000	37.547	32.216	109.573	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9600.000	0.000	0.000	9089.970	37.299	0.000	33.183	0.000	16.101	0.000	0.000	37.856	32.547	109.548	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

9700.000	0.000	0.000	9189.970	37.611	0.000	33.510	0.000	16.286	0.000	0.000	38.165	32.878	109.524	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9778.830	0.000	0.000	9268.800	37.858	0.000	33.768	0.000	16.435	0.000	0.000	38.409	33.139	109.505	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9800.000	1.694	179.662	9289.967	37.783	0.000	33.856	-0.000	16.475	0.000	0.000	38.471	33.207	109.509	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
9900.000	9.694	179.662	9389.393	37.128	0.000	34.159	-0.000	16.658	0.000	0.000	38.740	33.510	109.600	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10000.000	17.694	179.662	9486.471	35.885	0.000	34.450	-0.000	16.832	0.000	0.000	38.993	33.796	109.741	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10100.000	25.694	179.662	9579.313	34.099	0.000	34.723	-0.000	16.996	0.000	0.000	39.222	34.062	109.941	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10200.000	33.694	179.662	9666.111	31.838	0.000	34.975	-0.000	17.153	0.000	0.000	39.420	34.306	110.199	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10300.000	41.694	179.662	9745.176	29.204	0.000	35.205	-0.000	17.306	0.000	0.000	39.584	34.524	110.507	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10400.000	49.694	179.662	9814.969	26.339	0.000	35.410	-0.000	17.458	0.000	0.000	39.712	34.718	110.848	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10500.000	57.694	179.662	9874.131	23.443	0.000	35.590	-0.000	17.611	0.000	0.000	39.803	34.888	111.198	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10600.000	65.694	179.662	9921.512	20.799	0.000	35.742	-0.000	17.768	0.000	0.000	39.861	35.033	111.526	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10700.000	73.694	179.662	9956.187	18.792	0.000	35.866	-0.000	17.930	0.000	0.000	39.890	35.156	111.792	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10800.000	81.694	179.662	9977.484	17.846	0.000	35.961	-0.000	18.097	0.000	0.000	39.895	35.257	111.948	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
10903.830	90.000	179.662	9984.997	18.275	0.000	36.027	-0.000	18.275	0.000	0.000	39.884	35.339	111.937	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11000.000	90.000	179.662	9984.997	18.447	0.000	36.080	-0.000	18.447	0.000	0.000	39.869	35.410	111.853	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11100.000	90.000	179.662	9984.997	18.635	0.000	36.147	-0.000	18.635	0.000	0.000	39.855	35.495	111.821	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11200.000	90.000	179.662	9984.997	18.831	0.000	36.228	-0.000	18.831	0.000	0.000	39.843	35.591	111.845	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11300.000	90.000	179.662	9984.997	19.037	0.000	36.322	-0.000	19.037	0.000	0.000	39.833	35.699	111.930	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11400.000	90.000	179.662	9984.997	19.251	0.000	36.428	-0.000	19.251	0.000	0.000	39.826	35.818	112.080	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11500.000	90.000	179.662	9984.997	19.473	0.000	36.548	-0.000	19.473	0.000	0.000	39.821	35.948	112.303	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11600.000	90.000	179.662	9984.997	19.704	0.000	36.681	-0.000	19.704	0.000	0.000	39.818	36.089	112.608	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11700.000	90.000	179.662	9984.997	19.942	0.000	36.826	-0.000	19.942	0.000	0.000	39.818	36.241	113.006	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11800.000	90.000	179.662	9984.997	20.187	0.000	36.983	-0.000	20.187	0.000	0.000	39.821	36.403	113.513	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
11900.000	90.000	179.662	9984.997	20.440	0.000	37.153	-0.000	20.440	0.000	0.000	39.827	36.574	114.145	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12000.000	90.000	179.662	9984.997	20.699	0.000	37.335	-0.000	20.699	0.000	0.000	39.836	36.754	114.928	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12100.000	90.000	179.662	9984.997	20.965	0.000	37.529	-0.000	20.965	0.000	0.000	39.849	36.943	115.891	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12200.000	90.000	179.662	9984.997	21.238	0.000	37.734	-0.000	21.238	0.000	0.000	39.867	37.140	117.072	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12300.000	90.000	179.662	9984.997	21.517	0.000	37.952	-0.000	21.517	0.000	0.000	39.891	37.342	118.520	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12400.000	90.000	179.662	9984.997	21.801	0.000	38.180	-0.000	21.801	0.000	0.000	39.922	37.550	120.297	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12500.000	90.000	179.662	9984.997	22.092	0.000	38.420	-0.000	22.092	0.000	0.000	39.962	37.760	122.476	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12600.000	90.000	179.662	9984.997	22.387	0.000	38.671	-0.000	22.387	0.000	0.000	40.014	37.970	125.141	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12700.000	90.000	179.662	9984.997	22.688	0.000	38.932	-0.000	22.688	0.000	0.000	40.080	38.177	128.373	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12800.000	90.000	179.662	9984.997	22.994	0.000	39.204	-0.000	22.994	0.000	0.000	40.166	38.375	132.221	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
12900.000	90.000	179.662	9984.997	23.305	0.000	39.487	-0.000	23.305	0.000	0.000	40.275	38.560	-43.340	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

13000.000	90.000	179.662	9984.997	23.621	0.000	39.779	-0.000	23.621	0.000	0.000	40.413	38.727	-38.460	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13100.000	90.000	179.662	9984.997	23.941	0.000	40.082	-0.000	23.941	0.000	0.000	40.584	38.873	-33.417	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13200.000	90.000	179.662	9984.997	24.265	0.000	40.394	-0.000	24.265	0.000	0.000	40.787	38.995	-28.542	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13300.000	90.000	179.662	9984.997	24.593	0.000	40.715	-0.000	24.593	0.000	0.000	41.022	39.096	-24.108	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13400.000	90.000	179.662	9984.997	24.926	0.000	41.046	-0.000	24.926	0.000	0.000	41.285	39.178	-20.256	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13500.000	90.000	179.662	9984.997	25.262	0.000	41.386	-0.000	25.262	0.000	0.000	41.572	39.246	-17.008	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13600.000	90.000	179.662	9984.997	25.602	0.000	41.734	-0.000	25.602	0.000	0.000	41.880	39.302	-14.309	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13700.000	90.000	179.662	9984.997	25.945	0.000	42.091	-0.000	25.945	0.000	0.000	42.206	39.350	-12.079	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13800.000	90.000	179.662	9984.997	26.291	0.000	42.457	-0.000	26.291	0.000	0.000	42.546	39.391	-10.234	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
13900.000	90.000	179.662	9984.997	26.641	0.000	42.830	-0.000	26.641	0.000	0.000	42.901	39.427	-8.700	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14000.000	90.000	179.662	9984.997	26.994	0.000	43.212	-0.000	26.994	0.000	0.000	43.267	39.460	-7.417	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14100.000	90.000	179.662	9984.997	27.350	0.000	43.601	-0.000	27.350	0.000	0.000	43.644	39.490	-6.336	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14200.000	90.000	179.662	9984.997	27.709	0.000	43.997	-0.000	27.709	0.000	0.000	44.031	39.518	-5.418	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14300.000	90.000	179.662	9984.997	28.071	0.000	44.401	-0.000	28.071	0.000	0.000	44.427	39.545	-4.634	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14400.000	90.000	179.662	9984.997	28.435	0.000	44.813	-0.000	28.435	0.000	0.000	44.832	39.571	-3.960	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14500.000	90.000	179.662	9984.997	28.802	0.000	45.231	-0.000	28.802	0.000	0.000	45.245	39.596	-3.376	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14600.000	90.000	179.662	9984.997	29.172	0.000	45.655	-0.000	29.172	0.000	0.000	45.666	39.620	-2.868	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14700.000	90.000	179.662	9984.997	29.543	0.000	46.087	-0.000	29.543	0.000	0.000	46.094	39.644	-2.423	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14800.000	90.000	179.662	9984.997	29.917	0.000	46.524	-0.000	29.917	0.000	0.000	46.530	39.668	-2.032	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
14900.000	90.000	179.662	9984.997	30.294	0.000	46.968	-0.000	30.294	0.000	0.000	46.972	39.692	-1.687	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15000.000	90.000	179.662	9984.997	30.672	0.000	47.418	-0.000	30.672	0.000	0.000	47.420	39.716	-1.381	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15100.000	90.000	179.662	9984.997	31.052	0.000	47.873	-0.000	31.052	0.000	0.000	47.875	39.740	-1.109	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15200.000	90.000	179.662	9984.997	31.435	0.000	48.335	-0.000	31.435	0.000	0.000	48.335	39.765	-0.866	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15300.000	90.000	179.662	9984.997	31.819	0.000	48.802	-0.000	31.819	0.000	0.000	48.802	39.789	-0.649	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15400.000	90.000	179.662	9984.997	32.205	0.000	49.274	-0.000	32.205	0.000	0.000	49.274	39.814	-0.454	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15500.000	90.000	179.662	9984.997	32.593	0.000	49.751	-0.000	32.593	0.000	0.000	49.751	39.839	-0.278	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15600.000	90.000	179.662	9984.997	32.982	0.000	50.234	-0.000	32.982	0.000	0.000	50.234	39.864	-0.120	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15700.000	90.000	179.662	9984.997	33.373	0.000	50.721	-0.000	33.373	0.000	0.000	50.721	39.890	0.023	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15800.000	90.000	179.662	9984.997	33.766	0.000	51.213	-0.000	33.766	0.000	0.000	51.214	39.916	0.153	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
15900.000	90.000	179.662	9984.997	34.160	0.000	51.710	-0.000	34.160	0.000	0.000	51.711	39.943	0.270	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
16000.000	90.000	179.662	9984.997	34.556	0.000	52.211	-0.000	34.556	0.000	0.000	52.213	39.970	0.377	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
16100.000	90.000	179.662	9984.997	34.953	0.000	52.717	-0.000	34.953	0.000	0.000	52.719	39.998	0.474	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
16200.000	90.000	179.662	9984.997	35.352	0.000	53.227	-0.000	35.352	0.000	0.000	53.230	40.026	0.562	MWD+IFR1+SAG+MS+GS_XTO_PLU	23
16300.000	90.000	179.662	9984.997	35.752	0.000	53.741	-0.000	35.752	0.000	0.000	53.744	40.054	0.642	MWD+IFR1+SAG+MS+GS_XTO_PLU	23

16400.000	90.000	179.662	9984.997	36.153	0.000	54.259	-0.000	36.153	0.000	0.000	54.263	40.083	0.715	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16500.000	90.000	179.662	9984.997	36.555	0.000	54.781	-0.000	36.555	0.000	0.000	54.786	40.113	0.782	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16600.000	90.000	179.662	9984.997	36.959	0.000	55.306	-0.000	36.959	0.000	0.000	55.312	40.143	0.844	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16700.000	90.000	179.662	9984.997	37.364	0.000	55.836	-0.000	37.364	0.000	0.000	55.842	40.173	0.899	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16800.000	90.000	179.662	9984.997	37.770	0.000	56.369	-0.000	37.770	0.000	0.000	56.376	40.204	0.950	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
16900.000	90.000	179.662	9984.997	38.177	0.000	56.905	-0.000	38.177	0.000	0.000	56.913	40.236	0.997	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17000.000	90.000	179.662	9984.997	38.585	0.000	57.445	-0.000	38.585	0.000	0.000	57.453	40.268	1.040	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17100.000	90.000	179.662	9984.997	38.994	0.000	57.988	-0.000	38.994	0.000	0.000	57.997	40.301	1.079	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17200.000	90.000	179.662	9984.997	39.404	0.000	58.534	-0.000	39.404	0.000	0.000	58.544	40.334	1.114	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17300.000	90.000	179.662	9984.997	39.815	0.000	59.084	-0.000	39.815	0.000	0.000	59.094	40.367	1.147	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17400.000	90.000	179.662	9984.997	40.227	0.000	59.636	-0.000	40.227	0.000	0.000	59.647	40.401	1.177	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17500.000	90.000	179.662	9984.997	40.640	0.000	60.192	-0.000	40.640	0.000	0.000	60.203	40.436	1.204	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17600.000	90.000	179.662	9984.997	41.054	0.000	60.750	-0.000	41.054	0.000	0.000	60.762	40.471	1.229	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17700.000	90.000	179.662	9984.997	41.468	0.000	61.311	-0.000	41.468	0.000	0.000	61.324	40.507	1.251	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17800.000	90.000	179.662	9984.997	41.884	0.000	61.874	-0.000	41.884	0.000	0.000	61.888	40.543	1.272	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
17900.000	90.000	179.662	9984.997	42.300	0.000	62.441	-0.000	42.300	0.000	0.000	62.455	40.580	1.291	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18000.000	90.000	179.662	9984.997	42.717	0.000	63.010	-0.000	42.717	0.000	0.000	63.025	40.617	1.308	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18100.000	90.000	179.662	9984.997	43.135	0.000	63.581	-0.000	43.135	0.000	0.000	63.597	40.655	1.323	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18200.000	90.000	179.662	9984.997	43.553	0.000	64.155	-0.000	43.553	0.000	0.000	64.171	40.693	1.337	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18300.000	90.000	179.662	9984.997	43.972	0.000	64.731	-0.000	43.972	0.000	0.000	64.748	40.732	1.349	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18400.000	90.000	179.662	9984.997	44.392	0.000	65.309	-0.000	44.392	0.000	0.000	65.327	40.771	1.360	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18500.000	90.000	179.662	9984.997	44.813	0.000	65.890	-0.000	44.813	0.000	0.000	65.908	40.811	1.370	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18600.000	90.000	179.662	9984.997	45.234	0.000	66.473	-0.000	45.234	0.000	0.000	66.491	40.851	1.379	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18700.000	90.000	179.662	9984.997	45.656	0.000	67.058	-0.000	45.656	0.000	0.000	67.077	40.892	1.387	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18800.000	90.000	179.662	9984.997	46.079	0.000	67.645	-0.000	46.079	0.000	0.000	67.664	40.934	1.394	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
18900.000	90.000	179.662	9984.997	46.502	0.000	68.234	-0.000	46.502	0.000	0.000	68.254	40.976	1.400	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19000.000	90.000	179.662	9984.997	46.925	0.000	68.825	-0.000	46.925	0.000	0.000	68.845	41.018	1.405	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19100.000	90.000	179.662	9984.997	47.350	0.000	69.417	-0.000	47.350	0.000	0.000	69.438	41.061	1.410	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19200.000	90.000	179.662	9984.997	47.774	0.000	70.012	-0.000	47.774	0.000	0.000	70.034	41.105	1.413	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19300.000	90.000	179.662	9984.997	48.200	0.000	70.609	-0.000	48.200	0.000	0.000	70.631	41.149	1.416	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19400.000	90.000	179.662	9984.997	48.626	0.000	71.207	-0.000	48.626	0.000	0.000	71.229	41.193	1.419	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19500.000	90.000	179.662	9984.997	49.052	0.000	71.807	-0.000	49.052	0.000	0.000	71.830	41.238	1.421	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19600.000	90.000	179.662	9984.997	49.479	0.000	72.409	-0.000	49.479	0.000	0.000	72.432	41.283	1.422	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19700.000	90.000	179.662	9984.997	49.906	0.000	73.012	-0.000	49.906	0.000	0.000	73.036	41.329	1.423	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

19800.000	90.000	179.662	9984.997	50.334	0.000	73.617	-0.000	50.334	0.000	0.000	73.641	41.376	1.423	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
19900.000	90.000	179.662	9984.997	50.762	0.000	74.224	-0.000	50.762	0.000	0.000	74.248	41.423	1.423	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20000.000	90.000	179.662	9984.997	51.191	0.000	74.832	-0.000	51.191	0.000	0.000	74.856	41.470	1.422	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20100.000	90.000	179.662	9984.997	51.620	0.000	75.441	-0.000	51.620	0.000	0.000	75.466	41.518	1.421	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20200.000	90.000	179.662	9984.997	52.050	0.000	76.052	-0.000	52.050	0.000	0.000	76.077	41.567	1.420	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20300.000	90.000	179.662	9984.997	52.480	0.000	76.665	-0.000	52.480	0.000	0.000	76.690	41.616	1.419	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20400.000	90.000	179.662	9984.997	52.910	0.000	77.279	-0.000	52.910	0.000	0.000	77.304	41.665	1.417	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20500.000	90.000	179.662	9984.997	53.341	0.000	77.894	-0.000	53.341	0.000	0.000	77.920	41.715	1.414	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20600.000	90.000	179.662	9984.997	53.773	0.000	78.510	-0.000	53.773	0.000	0.000	78.536	41.766	1.412	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20700.000	90.000	179.662	9984.997	54.204	0.000	79.128	-0.000	54.204	0.000	0.000	79.154	41.817	1.409	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20800.000	90.000	179.662	9984.997	54.636	0.000	79.747	-0.000	54.636	0.000	0.000	79.774	41.868	1.406	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
20900.000	90.000	179.662	9984.997	55.068	0.000	80.367	-0.000	55.068	0.000	0.000	80.394	41.920	1.403	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21000.000	90.000	179.662	9984.997	55.501	0.000	80.988	-0.000	55.501	0.000	0.000	81.016	41.972	1.400	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21100.000	90.000	179.662	9984.997	55.934	0.000	81.611	-0.000	55.934	0.000	0.000	81.639	42.025	1.396	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21200.000	90.000	179.662	9984.997	56.368	0.000	82.235	-0.000	56.368	0.000	0.000	82.262	42.078	1.392	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21300.000	90.000	179.662	9984.997	56.801	0.000	82.860	-0.000	56.801	0.000	0.000	82.888	42.132	1.388	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21400.000	90.000	179.662	9984.997	57.235	0.000	83.486	-0.000	57.235	0.000	0.000	83.514	42.187	1.384	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21500.000	90.000	179.662	9984.997	57.670	0.000	84.113	-0.000	57.670	0.000	0.000	84.141	42.241	1.380	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21600.000	90.000	179.662	9984.997	58.104	0.000	84.741	-0.000	58.104	0.000	0.000	84.769	42.297	1.376	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21700.000	90.000	179.662	9984.997	58.539	0.000	85.370	-0.000	58.539	0.000	0.000	85.398	42.352	1.371	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21800.000	90.000	179.662	9984.997	58.974	0.000	86.000	-0.000	58.974	0.000	0.000	86.029	42.408	1.367	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
21900.000	90.000	179.662	9984.997	59.410	0.000	86.631	-0.000	59.410	0.000	0.000	86.660	42.465	1.362	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22000.000	90.000	179.662	9984.997	59.846	0.000	87.263	-0.000	59.846	0.000	0.000	87.292	42.522	1.357	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22100.000	90.000	179.662	9984.997	60.282	0.000	87.896	-0.000	60.282	0.000	0.000	87.925	42.580	1.352	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22200.000	90.000	179.662	9984.997	60.718	0.000	88.530	-0.000	60.718	0.000	0.000	88.559	42.638	1.347	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22300.000	90.000	179.662	9984.997	61.155	0.000	89.165	-0.000	61.155	0.000	0.000	89.194	42.696	1.342	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22400.000	90.000	179.662	9984.997	61.592	0.000	89.800	-0.000	61.592	0.000	0.000	89.830	42.755	1.337	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22500.000	90.000	179.662	9984.997	62.029	0.000	90.437	-0.000	62.029	0.000	0.000	90.467	42.814	1.332	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22600.000	90.000	179.662	9984.997	62.466	0.000	91.074	-0.000	62.466	0.000	0.000	91.104	42.874	1.326	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22700.000	90.000	179.662	9984.997	62.904	0.000	91.712	-0.000	62.904	0.000	0.000	91.742	42.934	1.321	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22800.000	90.000	179.662	9984.997	63.342	0.000	92.351	-0.000	63.342	0.000	0.000	92.381	42.995	1.316	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
22900.000	90.000	179.662	9984.997	63.780	0.000	92.991	-0.000	63.780	0.000	0.000	93.021	43.056	1.310	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
23000.000	90.000	179.662	9984.997	64.218	0.000	93.632	-0.000	64.218	0.000	0.000	93.662	43.118	1.305	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23
23100.000	90.000	179.662	9984.997	64.657	0.000	94.273	-0.000	64.657	0.000	0.000	94.303	43.180	1.299	MWD+IFR1+SAG+MS+GS_XTO_PLU	TD_23

23168.740	90.000	179.662	9984.997	64.958	0.000	94.714	-0.000	64.958	0.000	0.000	94.744	43.222	1.296	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23200.000	90.000	179.662	9984.997	65.095	0.000	94.914	-0.000	65.095	0.000	0.000	94.944	43.242	1.294	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23
23259.053	90.000	179.662	9984.997	65.355	0.000	95.293	-0.000	65.355	0.000	0.000	95.323	43.279	1.291	MWD+IFR1+SAG+MS+GS_XTO_PLUDDTD_23

Plan Targets

Poker Lake Unit 23 DTD South 451H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 12	10600.70	440526.70	647808.20	6524.00	RECTANGLE
SHL 12	13578.64	439393.53	650062.31	6149.46	RECTANGLE
LTP 12	23169.17	427545.40	647884.70	6524.00	RECTANGLE
BHL 12	23259.65	427455.40	647885.90	6524.00	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 451H
SURFACE HOLE FOOTAGE:	1247'/N & 1771'/E
BOTTOM HOLE FOOTAGE:	2627'/N & 1348'/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	<div style="color: red; text-align: center;">Choose an option (including blank option.)</div> <input type="checkbox"/> WIPP		
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 10/29/2024
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

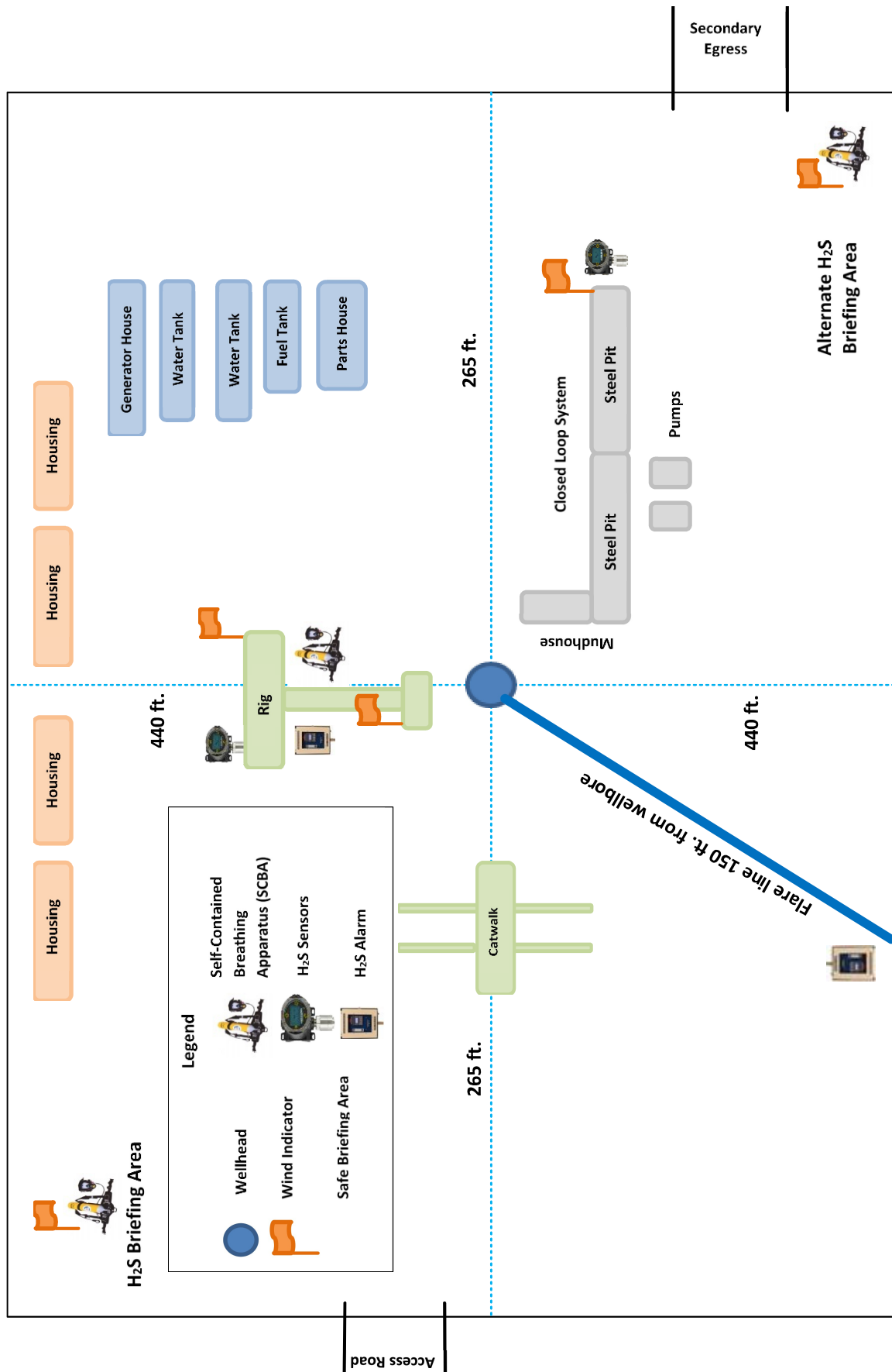
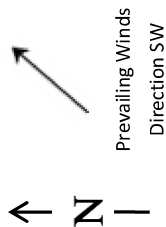
AGENT NOTIFICATIONS:**For Lea County:**

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

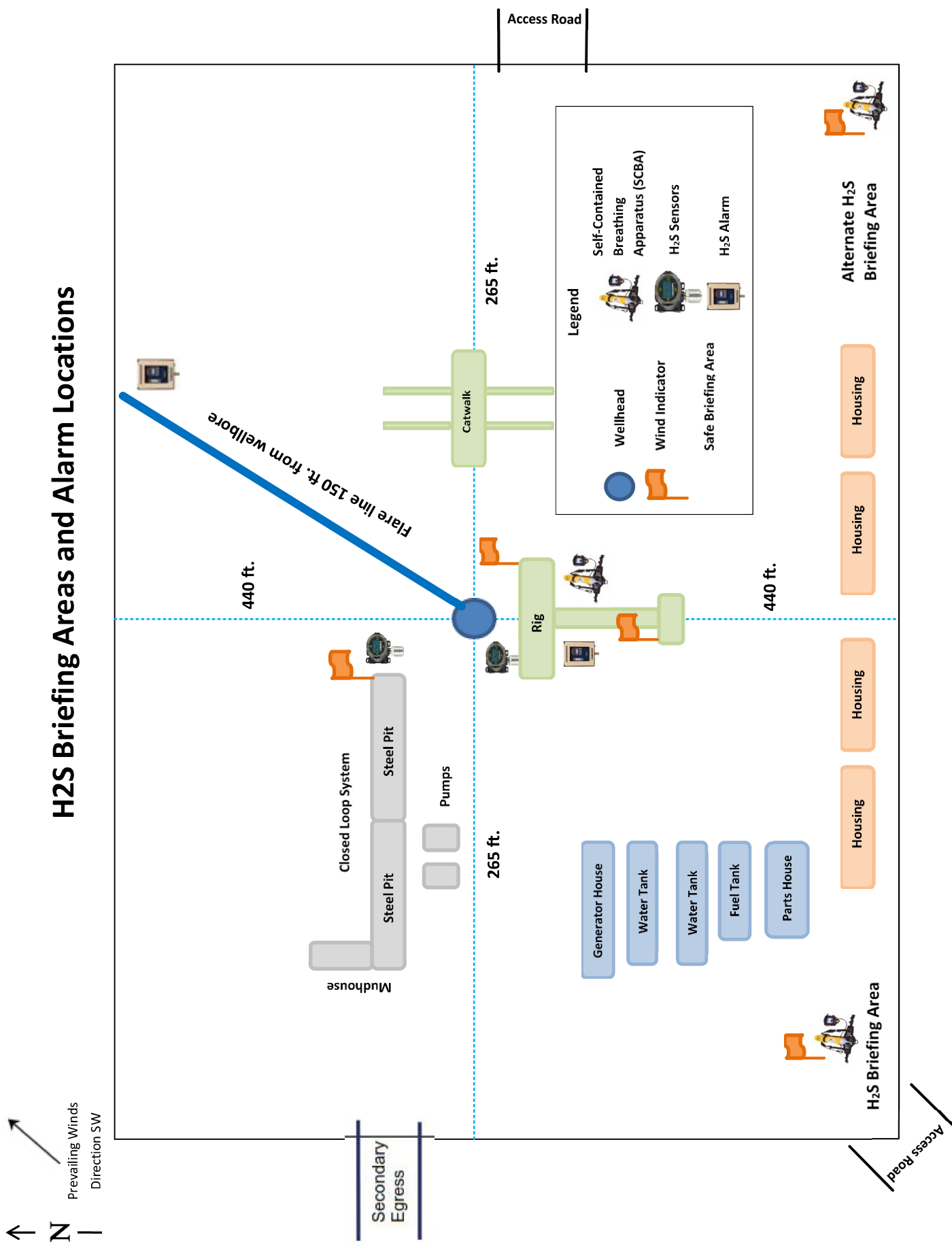
For Eddy County:

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

H2S Briefing Areas and Alarm Locations

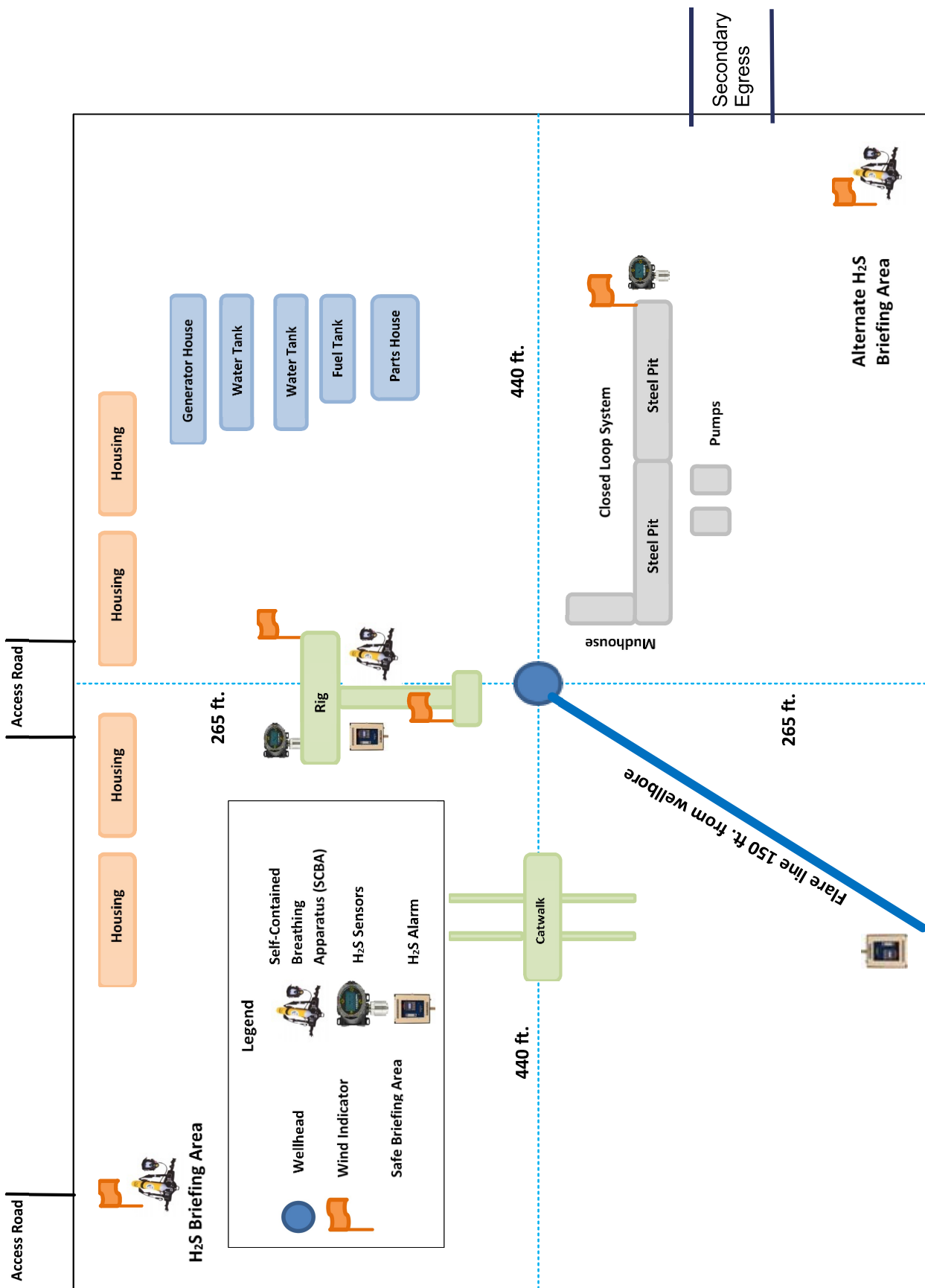


H2S Briefing Areas and Alarm Locations



H2S Briefing Areas and Alarm Locations

Prevaling Winds
Direction SW



Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

Safe containmant attachment:**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** A licensed 3rd party contractor will be used to haul and dispose of garbage.**Reserve Pit****Reserve Pit being used?** NO**Temporary disposal of produced water into reserve pit?** NO**Reserve pit length (ft.)****Reserve pit width (ft.)****Reserve pit depth (ft.)****Reserve pit volume (cu. yd.)****Is at least 50% of the reserve pit in cut?****Reserve pit liner****Reserve pit liner specifications and installation description****Cuttings Area****Cuttings Area being used?** NO**Are you storing cuttings on location?** Y

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

Cuttings area length (ft.)**Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?****WCuttings area liner****Cuttings area liner specifications and installation description****Section 8 - Ancillary****Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities****Comments:**

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

Section 9 - Well Site

Well Site Layout Diagram:

PLU_23_DTD_451H_Well_20240414183614.pdf

PLU_23_DTD_451H_RL_20241009060500.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 gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

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

Well Name: POKER LAKE UNIT 23 DTD

Well Number: 451H

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 SimonaBippus 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 SimonaBippus 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 SimonaBippus 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 SimonaBippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 410620

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 410620
	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.	12/19/2024
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/19/2024
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.	12/19/2024
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.	12/19/2024