

Well Name: BIG EDDY UNIT DI BB JABBA	Well Location: T20S / R32E / SEC 22 / SWSW / 32.5522 / -103.760677	County or Parish/State: LEA / NM
Well Number: 103H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC065750A, NMNM33955	Unit or CA Name: BIG EDDY	Unit or CA Number: NMNM68294X
US Well Number: 3002547227	Well Status: Approved Application for Permit to Drill	Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2682662

Type of Submission: Notice of Intent **Type of Action:** Other

Date Sundry Submitted: 07/19/2022 **Time Sundry Submitted:** 05:18

Date proposed operation will begin: 08/10/2022

Procedure Description: **Surface Location Move, Casing/Cement, Drilling Variance Changes XTO Permian Operating, LLC requests permission to make the following changes to the original APD: No Additional Surface Disturbance Change SHL fr/270'FSL & 885'FWL to 290'FSL & 610'FWL. Well Stays in the Same Quarter-Quarter as Permitted Total SHL Move: 20'North & 275'East SHL change requested to optimize well pad layout, drilling efficiencies, and for safety purposes. Casing/Cement design per the attached drilling program. Attachments: C102 Drilling Program Directional Plan Multibowl Diagram

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Jabba_103H_Attachments_20220719051802.pdf

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Conditions of Approval

Additional

Sec_22_20S_32E_NMP_2682662_Big_Eddy_Unit_DI_BB_Jabba_103H_Lea_NMNM033955_XTO_COAs_20220831132534.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: STEPHANIE RABADUE	Signed on: JUL 19, 2022 05:18 AM
Name: XTO PERMIAN OPERATING LLC	
Title: Regulatory Coordinator	
Street Address: 500 W. Illinois St, Ste 100	
City: Midland	State: TX
Phone: (432) 620-6714	
Email address: STEPHANIE.RABADUE@EXXONMOBIL.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 09/02/2022
Signature: Chris Walls	

District I

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

District II

811 S. First St., Artesia, NM 88210
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District III

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

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-47227	² Pool Code 53560	³ Pool Name Salt Lake; Bone Spring
⁴ Property Code 328261	⁵ Property Name Big Eddy Unit DI BB Jabba	⁶ Well Number 103H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,529'

¹⁰ Surface Location

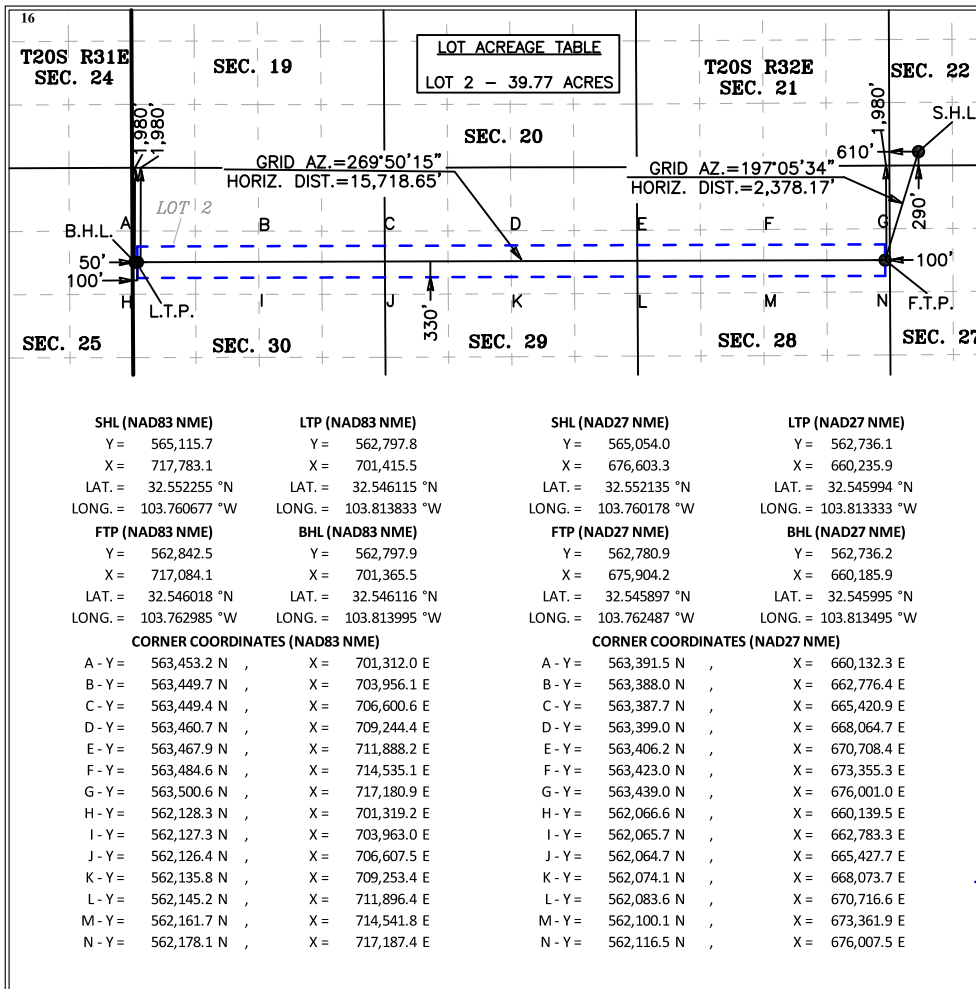
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	22	20 S	32 E		290	SOUTH	610	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	30	20 S	32 E		1,980	NORTH	50	WEST	LEA

¹² Dedicated Acres 479.77	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stephanie Rabadue 05/15/2022
Signature Date

Stephanie Rabadue
Printed Name

stephanie.rabadue@exxonmobil.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

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.

3-9-2022
Date of Survey

Signature and Seal of
Professional Surveyor:

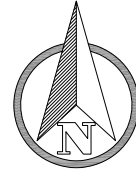
MARK DILLON HARP 23786
Certificate Number



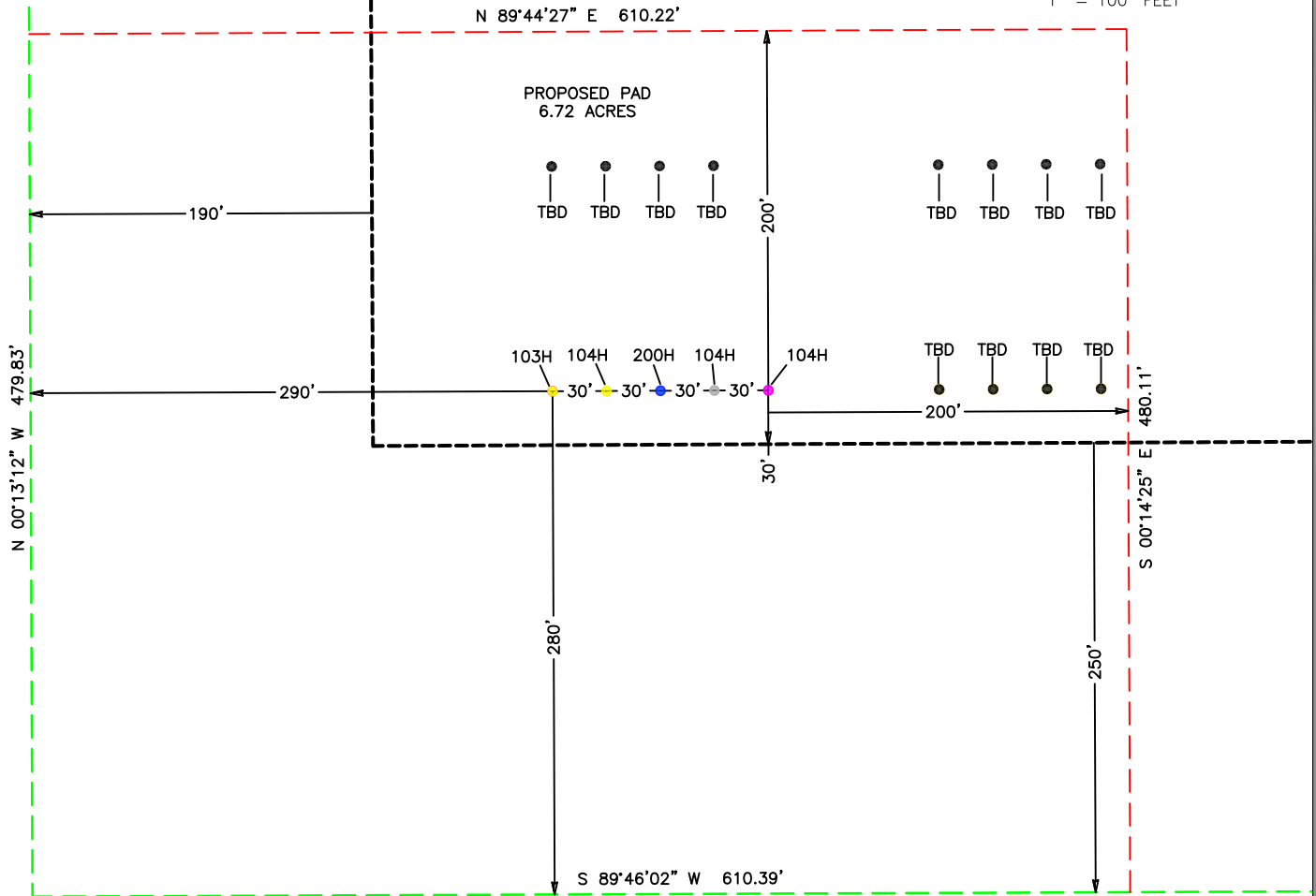
AW

2019061806

SECTION 22
TOWNSHIP 20 SOUTH, RANGE 32 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.
SW/4 SW/4



0 50' 100'
1" = 100 FEET



NOTE:

- 1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF HOBBS HIGHWAY (U.S. HWY 62) AND N.M. 243 HEAD SOUTHWEST ON HOBBS HIGHWAY. GO APPROX. 1.5 MILES AND TURN RIGHT (NORTHWEST) ON A GRAVEL RD. GO APPROX. 0.9 MILES, THE LOCATION IS TO THE NORTH.

LEGEND

- PROPOSED PAD
--- PROPOSED DRILLING ISLAND
--- PROPOSED PAD FALL OFF
--- SECTION LINE

WELL NAMES

- JABBA
● EMPIRE
● GRIEVOUS
● HUX
● FUTURE WELL

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786



XTO PERMIAN OPERATING, LLC.

PAD LAYOUT

BIG EDDY UNIT BB PROPOSED PAD
LOCATED 625 FEET FROM THE WEST LINE
AND 250 FEET FROM THE SOUTH LINE OF
SECTION 22, TOWNSHIP 20 SOUTH, RANGE 32
EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO



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TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

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DATE:	07-05-2022	PROJECT NO:	2017111944
DRAWN BY:	LM	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	0

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

XTO Energy Inc.
Big Eddy Unit Blue Bird Jabba 103H
Projected TD: 26320' MD / 9805' TVD
SHL: 290' FSL & 610' FWL , Section 22, T20S, R32E
BHL: 1980' FNL & 50' FWL , Section 30, T20S, R32E
Lea County, NM

1. Geologic Name of Surface Formation

A. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	966'	Water
Top of Salt	1338'	Water
Base of Salt	2669'	Water
Capitan Reef	3003'	Water
Delaware	4985'	Water
Brushy Canyon	6126'	Water/Oil/Gas
Bone Spring	7732'	Water
1st Bone Spring Ss	8812'	Water/Oil/Gas
2nd Bone Spring Ss	9451'	Water/Oil/Gas
Target/Land Curve	9805'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 18.625 inch casing @ 1066' (272' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13.375 inch casing at 2769' and circulating cement to surface. The second intermediate will isolate the Capitan Reef from the salt down to the next casing seat by setting 9.625 inch casing at 5035' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 26320 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 2928 feet; >50' above the Capitan Reef) per Potash regulations.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
24	0' – 1066'	18.625	87.5	J-55	BTC	New	2.71	1.31	14.25
17.5	0' – 2769'	13.375	54.5	J-55	BTC	New	2.19	1.34	5.65
12.25	0' – 2869'	9.625	40	HC P-110	BTC	New	2.94	3.15	6.26
12.25	2869' – 5035'	9.625	40	HC L-80	BTC	New	2.14	3.05	10.57
8.5	0' – 4935'	5.5	20	RY P-110	Semi-Premium	New	1.05	4.55	1.99
8.5	4935' - 26320'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.29	2.24

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 13.375 Collapse analyzed using 50% evacuation based on regional experience.
- 9.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on 2M annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 18-5/8" bottom

B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2

- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 18.625, 87.5 New BTC, J-55 casing to be set at +/- 1066'

Lead: 1340 sxs Class C (mixed at 12.8 ppg, 1.95 ft³/sx, 10.93 gal/sx water)
 Tail: 550 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 250 psi 24 hr = 500 psi

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.

1st Intermediate Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 2769'

Lead: 1750 sxs Class C (mixed at 12.9 ppg, 1.95 ft³/sx, 10.93 gal/sx water)
 Tail: 310 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 5035'

1st Stage

Optional Lead: 1250 sxs Class C (mixed at 10.5 ppg, 2.37 ft³/sx, 12.78 gal/sx water)
 TOC: 0
 Tail: 140 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 TOC: 4735
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage Bradenhead (if needed)

Optional Tail: 1220 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 Top of Cement: 0
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests the option to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef (3003') and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef 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 to surface. If cement reaches surface, 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: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 26320'1st Stage

Lead: 330 sxs 50/50 POZ/Class C (mixed at 11.5 ppg, 2.6 ft³/sx, 14.84 gal/sx water) Top of Cement: 6126 feet
 Tail: 2930 sxs 50/50 POZ/Class H (mixed at 13.2 ppg, 1.51 ft³/sx, 7.21 gal/sx water) Top of Cement: 9474 feet
 Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

2nd Stage Bradenhead (if needed)

Optional Tail: 1100 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 Top of Cement: 2928
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests the option to pump a two stage cement job on the 5-1/2" production casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (4985') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to a depth dictated by the COA or current regulations.

A freshwater spacer will be pumped behind the cement to displace to the desired depth. A bradenhead squeeze will reduce channeling and allow for a more accurate placement of cement, while leaving an un-cemented portion of the annulus for pressure monitoring during completions operations.

XTO requests the ability to conduct the bradenhead squeeze offline.

XTO requests to pump an Optional Lead & Tail, if well conditions dictate, in an attempt to bring top of cement as dictated by the COA or current regulations. If cement reaches this depth, the BLM will be notified and the second stage bradenhead squeeze will be negated.

Lead: 1410 sxs 50/50 POZ/Class C (mixed at 11.5 ppg, 2.6 ft³/sx, 14.84 gal/sx water) Top of Cement: 2928 feet
 Tail: 2930 sxs 50/50 POZ/Class H (mixed at 13.2 ppg, 1.51 ft³/sx, 7.21 gal/sx water) Top of Cement: 9474 feet
 Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 18.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydral and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 0 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 18.625, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nipping up on the 13.375, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1066'	24	FW/Native	8.7-9.2	35-40	NC
1066' - 2769'	17.5	Brine	10-10.5	30-32	NC
2769' to 5035'	12.25	FW / Cut Brine	9-9.5	30-32	NC
5035' to 26320'	8.5	OBM	9.5-10	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 18-5/8" surface casing with brine solution. A 10 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 18.625 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 165 to 185 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 4844 psi.

10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after Remuda 25 State drilling is completed and BLM approval. Move in operations and drilling is expected to take 40 days.

Well Plan Report - BEU BB JABBA 103H

Measured
Depth: 26319.88 ft

TVD RKB: 9805.00 ft

Location

Cartographic New Mexico
Reference East - NAD
System: 27

Northing: 565055.17 ft

Easting: 676585.34 ft

RKB: 3543.00 ft

Ground
Level: 3513.00 ft

North
Reference: Grid

Convergenc
e Angle: 0.31 Deg

Site: BlueBird

Slot: BEU BB
JABBA 103H

Plan		BEU BB							
Sections		JABBA 103H							
Measured		TVD		Build		Turn		Dogleg	
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	

0	0	0	0	0	0	0	0	0
2950	0	0	2950	0	0	0	0	0
3936.76	19.74	179.51	3917.36	-168.26	1.43	2	0	2
9474.27	19.74	179.51	9129.62	-2038.06	17.4	0	0	0
10600.6	90	269.83	9805	-2282.52	-698.05	6.24	8.02	8 FTP 5
26319.88	90	269.83	9805	-2330.02	-16417.26	0	0	0 BHL 5

Position		BEU BB												
Uncertainty		JABBA 103H												
Measured		TVD		Highside		Lateral		Vertical		Magnitude		Semi-major	Semi-minor	Semi-minor Tool
Depth	Inclination	RKB	Error	Bias	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth Used
(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)
0	0	0	0	0	0	0	0	2.297	0	0	0	0	0	XOM_R2OW SG 0 MWD+IFR1+ MS
100	0	100	0.358	0	0.358	0	0.358	2.299	0	0	0.358	0.358	0	XOM_R2OW SG 0 MWD+IFR1+ MS
200	0	200	0.717	0	0.717	0	0.717	2.307	0	0	0.717	0.717	0	XOM_R2OW SG 0 MWD+IFR1+ MS
300	0	300	1.075	0	1.075	0	1.075	2.321	0	0	1.075	1.075	0	XOM_R2OW SG 0 MWD+IFR1+ MS
400	0	400	1.434	0	1.434	0	1.434	2.34	0	0	1.434	1.434	0	XOM_R2OW SG 0 MWD+IFR1+ MS
500	0	500	1.792	0	1.792	0	1.792	2.364	0	0	1.792	1.792	0	XOM_R2OW SG 0 MWD+IFR1+ MS
600	0	600	2.151	0	2.151	0	2.151	2.394	0	0	2.151	2.151	0	XOM_R2OW SG 0 MWD+IFR1+ MS

700	0	0	700	2.509	0	2.509	0	2.428	0	0	2.509	2.509	0	XOM_R2OW SG MWD+IFR1+ MS XOM_R2OW
800	0	0	800	2.868	0	2.868	0	2.467	0	0	2.868	2.868	0	SG MWD+IFR1+ MS XOM_R2OW
900	0	0	900	3.226	0	3.226	0	2.511	0	0	3.226	3.226	0	SG MWD+IFR1+ MS XOM_R2OW
1000	0	0	1000	3.585	0	3.585	0	2.56	0	0	3.585	3.585	0	SG MWD+IFR1+ MS XOM_R2OW
1100	0	0	1100	3.943	0	3.943	0	2.613	0	0	3.943	3.943	0	SG MWD+IFR1+ MS XOM_R2OW
1200	0	0	1200	4.302	0	4.302	0	2.67	0	0	4.302	4.302	0	SG MWD+IFR1+ MS XOM_R2OW
1300	0	0	1300	4.66	0	4.66	0	2.731	0	0	4.66	4.66	0	SG MWD+IFR1+ MS XOM_R2OW
1400	0	0	1400	5.019	0	5.019	0	2.797	0	0	5.019	5.019	0	SG MWD+IFR1+ MS XOM_R2OW
1500	0	0	1500	5.377	0	5.377	0	2.866	0	0	5.377	5.377	0	SG MWD+IFR1+ MS XOM_R2OW
1600	0	0	1600	5.736	0	5.736	0	2.939	0	0	5.736	5.736	0	SG MWD+IFR1+ MS XOM_R2OW
1700	0	0	1700	6.094	0	6.094	0	3.016	0	0	6.094	6.094	0	SG MWD+IFR1+ MS XOM_R2OW
1800	0	0	1800	6.452	0	6.452	0	3.096	0	0	6.452	6.452	0	SG MWD+IFR1+ MS

1900	0	0	1900	6.811	0	6.811	0	3.179	0	0	6.811	6.811	0	XOM_R2OW SG MWD+IFR1+ MS
2000	0	0	2000	7.169	0	7.169	0	3.266	0	0	7.169	7.169	0	XOM_R2OW SG MWD+IFR1+ MS
2100	0	0	2100	7.528	0	7.528	0	3.355	0	0	7.528	7.528	0	XOM_R2OW SG MWD+IFR1+ MS
2200	0	0	2200	7.886	0	7.886	0	3.448	0	0	7.886	7.886	0	XOM_R2OW SG MWD+IFR1+ MS
2300	0	0	2300	8.245	0	8.245	0	3.544	0	0	8.245	8.245	0	XOM_R2OW SG MWD+IFR1+ MS
2400	0	0	2400	8.603	0	8.603	0	3.643	0	0	8.603	8.603	0	XOM_R2OW SG MWD+IFR1+ MS
2500	0	0	2500	8.962	0	8.962	0	3.745	0	0	8.962	8.962	0	XOM_R2OW SG MWD+IFR1+ MS
2600	0	0	2600	9.32	0	9.32	0	3.849	0	0	9.32	9.32	0	XOM_R2OW SG MWD+IFR1+ MS
2700	0	0	2700	9.679	0	9.679	0	3.956	0	0	9.679	9.679	0	XOM_R2OW SG MWD+IFR1+ MS
2800	0	0	2800	10.037	0	10.037	0	4.066	0	0	10.037	10.037	0	XOM_R2OW SG MWD+IFR1+ MS
2900	0	0	2900	10.396	0	10.396	0	4.179	0	0	10.396	10.396	0	XOM_R2OW SG MWD+IFR1+ MS
2950	0	0	2950	10.575	0	10.575	0	4.237	0	0	10.575	10.575	0	XOM_R2OW SG MWD+IFR1+ MS

3000	1	179.511	2999.997	10.744	0	10.745	0	4.295	0	0	10.745	10.745	45	XOM_R2OW SG MWD+IFR1+ MS
3100	3	179.511	3099.931	11.055	0	11.068	0	4.412	0	0	11.068	11.068	0.502	XOM_R2OW SG MWD+IFR1+ MS
3200	5	179.511	3199.683	11.356	0	11.393	0	4.53	0	0	11.393	11.393	0.466	XOM_R2OW SG MWD+IFR1+ MS
3300	7	179.511	3299.13	11.647	0	11.72	0	4.65	0	0	11.72	11.719	0.167	XOM_R2OW SG MWD+IFR1+ MS
3400	9	179.511	3398.152	11.926	0	12.049	0	4.771	0	0	12.049	12.045	-0.021	XOM_R2OW SG MWD+IFR1+ MS
3500	11	179.511	3496.628	12.195	0	12.378	0	4.894	0	0	12.378	12.372	-0.135	XOM_R2OW SG MWD+IFR1+ MS
3600	13	179.511	3594.437	12.452	0	12.709	0	5.019	0	0	12.709	12.699	-0.209	XOM_R2OW SG MWD+IFR1+ MS
3700	15	179.511	3691.462	12.698	0	13.041	0	5.147	0	0	13.041	13.025	-0.262	XOM_R2OW SG MWD+IFR1+ MS
3800	17	179.511	3787.583	12.934	0	13.375	0	5.277	0	0	13.375	13.351	-0.301	XOM_R2OW SG MWD+IFR1+ MS
3900	19	179.511	3882.684	13.159	0	13.71	0	5.412	0	0	13.71	13.677	-0.331	XOM_R2OW SG MWD+IFR1+ MS
3936.758	19.735	179.511	3917.362	13.239	0	13.833	0	5.459	0	0	13.833	13.798	-0.334	XOM_R2OW SG MWD+IFR1+ MS
4000	19.735	179.511	3976.889	13.455	0	14.046	0	5.552	0	0	14.046	14.002	-0.354	XOM_R2OW SG MWD+IFR1+ MS

4100	19.735	179.511	4071.015	13.802	0	14.386	0	5.707	0	0	14.386	14.329	-0.376	XOM_R2OW SG MWD+IFR1+ MS
4200	19.735	179.511	4165.142	14.153	0	14.73	0	5.866	0	0	14.73	14.659	-0.389	XOM_R2OW SG MWD+IFR1+ MS
4300	19.735	179.511	4259.268	14.508	0	15.076	0	6.03	0	0	15.076	14.993	-0.398	XOM_R2OW SG MWD+IFR1+ MS
4400	19.735	179.511	4353.394	14.867	0	15.425	0	6.198	0	0	15.425	15.331	-0.405	XOM_R2OW SG MWD+IFR1+ MS
4500	19.735	179.511	4447.521	15.23	0	15.776	0	6.37	0	0	15.776	15.673	-0.41	XOM_R2OW SG MWD+IFR1+ MS
4600	19.735	179.511	4541.647	15.597	0	16.13	0	6.547	0	0	16.13	16.017	-0.414	XOM_R2OW SG MWD+IFR1+ MS
4700	19.735	179.511	4635.774	15.967	0	16.486	0	6.727	0	0	16.486	16.365	-0.418	XOM_R2OW SG MWD+IFR1+ MS
4800	19.735	179.511	4729.9	16.339	0	16.845	0	6.911	0	0	16.845	16.715	-0.421	XOM_R2OW SG MWD+IFR1+ MS
4900	19.735	179.511	4824.026	16.715	0	17.205	0	7.098	0	0	17.205	17.069	-0.424	XOM_R2OW SG MWD+IFR1+ MS
5000	19.735	179.511	4918.153	17.093	0	17.567	0	7.289	0	0	17.567	17.425	-0.427	XOM_R2OW SG MWD+IFR1+ MS
5100	19.735	179.511	5012.279	17.474	0	17.931	0	7.483	0	0	17.931	17.783	-0.43	XOM_R2OW SG MWD+IFR1+ MS
5200	19.735	179.511	5106.405	17.857	0	18.296	0	7.681	0	0	18.296	18.143	-0.432	XOM_R2OW SG MWD+IFR1+ MS

5300	19.735	179.511	5200.532	18.242	0	18.663	0	7.881	0	0	18.663	18.506	-0.434	XOM_R2OW SG MWD+IFR1+ MS
5400	19.735	179.511	5294.658	18.629	0	19.031	0	8.085	0	0	19.031	18.87	-0.437	XOM_R2OW SG MWD+IFR1+ MS
5500	19.735	179.511	5388.784	19.018	0	19.401	0	8.291	0	0	19.401	19.237	-0.439	XOM_R2OW SG MWD+IFR1+ MS
5600	19.735	179.511	5482.911	19.409	0	19.772	0	8.5	0	0	19.772	19.605	-0.441	XOM_R2OW SG MWD+IFR1+ MS
5700	19.735	179.511	5577.037	19.801	0	20.144	0	8.713	0	0	20.144	19.975	-0.443	XOM_R2OW SG MWD+IFR1+ MS
5800	19.735	179.511	5671.163	20.195	0	20.518	0	8.927	0	0	20.518	20.347	-0.445	XOM_R2OW SG MWD+IFR1+ MS
5900	19.735	179.511	5765.29	20.591	0	20.892	0	9.145	0	0	20.892	20.72	-0.448	XOM_R2OW SG MWD+IFR1+ MS
6000	19.735	179.511	5859.416	20.988	0	21.267	0	9.365	0	0	21.267	21.095	-0.45	XOM_R2OW SG MWD+IFR1+ MS
6100	19.735	179.511	5953.542	21.386	0	21.644	0	9.588	0	0	21.644	21.471	-0.452	XOM_R2OW SG MWD+IFR1+ MS
6200	19.735	179.511	6047.669	21.785	0	22.021	0	9.814	0	0	22.021	21.849	-0.455	XOM_R2OW SG MWD+IFR1+ MS
6300	19.735	179.511	6141.795	22.186	0	22.399	0	10.042	0	0	22.399	22.227	-0.457	XOM_R2OW SG MWD+IFR1+ MS
6400	19.735	179.511	6235.922	22.588	0	22.779	0	10.272	0	0	22.779	22.607	-0.459	XOM_R2OW SG MWD+IFR1+ MS

6500	19.735	179.511	6330.048	22.991	0	23.158	0	10.505	0	0	23.158	22.989	-0.462	XOM_R2OW SG MWD+IFR1+ MS
6600	19.735	179.511	6424.174	23.394	0	23.539	0	10.74	0	0	23.539	23.371	-0.465	XOM_R2OW SG MWD+IFR1+ MS
6700	19.735	179.511	6518.301	23.799	0	23.92	0	10.978	0	0	23.92	23.754	-0.468	XOM_R2OW SG MWD+IFR1+ MS
6800	19.735	179.511	6612.427	24.205	0	24.302	0	11.218	0	0	24.302	24.139	-0.47	XOM_R2OW SG MWD+IFR1+ MS
6900	19.735	179.511	6706.553	24.611	0	24.685	0	11.461	0	0	24.685	24.524	-0.474	XOM_R2OW SG MWD+IFR1+ MS
7000	19.735	179.511	6800.68	25.019	0	25.068	0	11.706	0	0	25.068	24.911	-0.477	XOM_R2OW SG MWD+IFR1+ MS
7100	19.735	179.511	6894.806	25.427	0	25.452	0	11.953	0	0	25.452	25.298	-0.48	XOM_R2OW SG MWD+IFR1+ MS
7200	19.735	179.511	6988.932	25.836	0	25.837	0	12.202	0	0	25.837	25.686	-0.484	XOM_R2OW SG MWD+IFR1+ MS
7300	19.735	179.511	7083.059	26.246	0	26.222	0	12.454	0	0	26.222	26.075	-0.488	XOM_R2OW SG MWD+IFR1+ MS
7400	19.735	179.511	7177.185	26.656	0	26.607	0	12.708	0	0	26.607	26.465	-0.493	XOM_R2OW SG MWD+IFR1+ MS
7500	19.735	179.511	7271.311	27.067	0	26.993	0	12.965	0	0	26.993	26.856	-0.497	XOM_R2OW SG MWD+IFR1+ MS
7600	19.735	179.511	7365.438	27.478	0	27.38	0	13.224	0	0	27.38	27.247	-0.503	XOM_R2OW SG MWD+IFR1+ MS

7700	19.735	179.511	7459.564	27.891	0	27.767	0	13.485	0	0	27.767	27.639	-0.508	XOM_R2OW SG MWD+IFR1+ MS
7800	19.735	179.511	7553.69	28.303	0	28.154	0	13.748	0	0	28.154	28.032	-0.515	XOM_R2OW SG MWD+IFR1+ MS
7900	19.735	179.511	7647.817	28.717	0	28.542	0	14.014	0	0	28.542	28.426	-0.522	XOM_R2OW SG MWD+IFR1+ MS
8000	19.735	179.511	7741.943	29.13	0	28.93	0	14.281	0	0	28.93	28.82	-0.53	XOM_R2OW SG MWD+IFR1+ MS
8100	19.735	179.511	7836.07	29.545	0	29.319	0	14.552	0	0	29.319	29.215	-0.539	XOM_R2OW SG MWD+IFR1+ MS
8200	19.735	179.511	7930.196	29.959	0	29.708	0	14.824	0	0	29.708	29.611	-0.55	XOM_R2OW SG MWD+IFR1+ MS
8300	19.735	179.511	8024.322	30.375	0	30.097	0	15.099	0	0	30.097	30.007	-0.563	XOM_R2OW SG MWD+IFR1+ MS
8400	19.735	179.511	8118.449	30.79	0	30.487	0	15.375	0	0	30.487	30.404	-0.578	XOM_R2OW SG MWD+IFR1+ MS
8500	19.735	179.511	8212.575	31.206	0	30.877	0	15.654	0	0	30.877	30.801	-0.597	XOM_R2OW SG MWD+IFR1+ MS
8600	19.735	179.511	8306.701	31.623	0	31.267	0	15.936	0	0	31.267	31.199	-0.62	XOM_R2OW SG MWD+IFR1+ MS
8700	19.735	179.511	8400.828	32.04	0	31.658	0	16.219	0	0	31.658	31.598	-0.65	XOM_R2OW SG MWD+IFR1+ MS
8800	19.735	179.511	8494.954	32.457	0	32.049	0	16.505	0	0	32.049	31.997	-0.69	XOM_R2OW SG MWD+IFR1+ MS

8900	19.735	179.511	8589.08	32.874	0	32.44	0	16.793	0	0	32.44	32.397	-0.747	XOM_R2OW SG MWD+IFR1+ MS
9000	19.735	179.511	8683.207	33.292	0	32.831	0	17.084	0	0	32.831	32.797	-0.833	XOM_R2OW SG MWD+IFR1+ MS
9100	19.735	179.511	8777.333	33.711	0	33.223	0	17.376	0	0	33.223	33.197	-0.983	XOM_R2OW SG MWD+IFR1+ MS
9200	19.735	179.511	8871.459	34.129	0	33.615	0	17.671	0	0	33.615	33.599	-1.306	XOM_R2OW SG MWD+IFR1+ MS
9300	19.735	179.511	8965.586	34.548	0	34.007	0	17.968	0	0	34.007	34	-2.498	XOM_R2OW SG MWD+IFR1+ MS
9400	19.735	179.511	9059.712	34.967	0	34.4	0	18.268	0	0	34.402	34.4	95.318	XOM_R2OW SG MWD+IFR1+ MS
9474.266	19.735	179.511	9129.616	35.279	0	34.691	0	18.492	0	0	34.701	34.691	91.085	XOM_R2OW SG MWD+IFR1+ MS
9500	19.827	185.59	9153.834	35.371	0	34.792	0	18.569	0	0	34.805	34.792	92.897	XOM_R2OW SG MWD+IFR1+ MS
9600	22.013	207.284	9247.377	35.41	0	35.183	0	18.872	0	0	35.204	35.18	96.95	XOM_R2OW SG MWD+IFR1+ MS
9700	26.435	223.642	9338.652	34.952	0	35.566	0	19.173	0	0	35.593	35.554	99.355	XOM_R2OW SG MWD+IFR1+ MS
9800	32.183	235.073	9425.883	34.024	0	35.935	0	19.473	0	0	35.962	35.903	97.974	XOM_R2OW SG MWD+IFR1+ MS
9900	38.668	243.192	9507.372	32.675	0	36.283	0	19.774	0	0	36.306	36.219	94.191	XOM_R2OW SG MWD+IFR1+ MS

																XOM_R2OW
10000	45.571	249.237	9581.533	30.98	0	36.607	0	20.077	0	0	36.621	36.494	89.024	SG	MWD+IFR1+	
															MS	XOM_R2OW
10100	52.726	253.981	9646.922	29.043	0	36.903	0	20.386	0	0	36.908	36.723	83.474	SG	MWD+IFR1+	
															MS	XOM_R2OW
10200	60.036	257.89	9702.267	27.007	0	37.169	0	20.703	0	0	37.169	36.899	78.36	SG	MWD+IFR1+	
															MS	XOM_R2OW
10300	67.445	261.257	9746.49	25.058	0	37.4	0	21.031	0	0	37.406	37.019	74.07	SG	MWD+IFR1+	
															MS	XOM_R2OW
10400	74.918	264.278	9778.73	23.425	0	37.595	0	21.37	0	0	37.626	37.082	70.61	SG	MWD+IFR1+	
															MS	XOM_R2OW
10500	82.428	267.093	9798.361	22.36	0	37.75	0	21.721	0	0	37.83	37.092	67.803	SG	MWD+IFR1+	
															MS	XOM_R2OW
10600.597	90	269.826	9805	22.081	0	37.86	0	22.081	0	0	38.024	37.053	65.426	SG	MWD+IFR1+	
															MS	XOM_R2OW
10700	90	269.826	9805	22.452	0	37.987	0	22.452	0	0	38.218	36.993	63.912	SG	MWD+IFR1+	
															MS	XOM_R2OW
10800	90	269.826	9805	22.845	0	38.132	0	22.845	0	0	38.426	36.937	63.227	SG	MWD+IFR1+	
															MS	XOM_R2OW
10900	90	269.826	9805	23.258	0	38.294	0	23.258	0	0	38.647	36.885	62.97	SG	MWD+IFR1+	
															MS	XOM_R2OW
11000	90	269.826	9805	23.69	0	38.472	0	23.69	0	0	38.88	36.837	62.973	SG	MWD+IFR1+	
															MS	XOM_R2OW
11100	90	269.826	9805	24.139	0	38.667	0	24.139	0	0	39.126	36.794	63.139	SG	MWD+IFR1+	
															MS	

11200	90	269.826	9805	24.606	0	38.878	0	24.606	0	0	39.384	36.754	63.413	XOM_R2OW SG MWD+IFR1+ MS
11300	90	269.826	9805	25.088	0	39.104	0	25.088	0	0	39.654	36.719	63.758	XOM_R2OW SG MWD+IFR1+ MS
11400	90	269.826	9805	25.585	0	39.347	0	25.585	0	0	39.936	36.688	64.151	XOM_R2OW SG MWD+IFR1+ MS
11500	90	269.826	9805	26.097	0	39.605	0	26.097	0	0	40.23	36.661	64.575	XOM_R2OW SG MWD+IFR1+ MS
11600	90	269.826	9805	26.621	0	39.878	0	26.621	0	0	40.536	36.638	65.018	XOM_R2OW SG MWD+IFR1+ MS
11700	90	269.826	9805	27.159	0	40.165	0	27.159	0	0	40.854	36.618	65.473	XOM_R2OW SG MWD+IFR1+ MS
11800	90	269.826	9805	27.708	0	40.467	0	27.708	0	0	41.184	36.601	65.933	XOM_R2OW SG MWD+IFR1+ MS
11900	90	269.826	9805	28.268	0	40.784	0	28.268	0	0	41.525	36.587	66.394	XOM_R2OW SG MWD+IFR1+ MS
12000	90	269.826	9805	28.839	0	41.114	0	28.839	0	0	41.877	36.577	66.853	XOM_R2OW SG MWD+IFR1+ MS
12100	90	269.826	9805	29.419	0	41.457	0	29.419	0	0	42.24	36.569	67.307	XOM_R2OW SG MWD+IFR1+ MS
12200	90	269.826	9805	30.009	0	41.814	0	30.009	0	0	42.615	36.564	67.755	XOM_R2OW SG MWD+IFR1+ MS
12300	90	269.826	9805	30.608	0	42.183	0	30.608	0	0	43	36.561	68.194	XOM_R2OW SG MWD+IFR1+ MS

12400	90	269.826	9805	31.215	0	42.565	0	31.215	0	0	43.396	36.561	68.625	XOM_R2OW SG MWD+IFR1+ MS
12500	90	269.826	9805	31.829	0	42.959	0	31.829	0	0	43.803	36.564	69.047	XOM_R2OW SG MWD+IFR1+ MS
12600	90	269.826	9805	32.451	0	43.365	0	32.451	0	0	44.22	36.569	69.458	XOM_R2OW SG MWD+IFR1+ MS
12700	90	269.826	9805	33.08	0	43.782	0	33.08	0	0	44.646	36.576	69.86	XOM_R2OW SG MWD+IFR1+ MS
12800	90	269.826	9805	33.716	0	44.21	0	33.716	0	0	45.083	36.585	70.251	XOM_R2OW SG MWD+IFR1+ MS
12900	90	269.826	9805	34.357	0	44.65	0	34.357	0	0	45.529	36.596	70.631	XOM_R2OW SG MWD+IFR1+ MS
13000	90	269.826	9805	35.005	0	45.099	0	35.005	0	0	45.985	36.609	71.001	XOM_R2OW SG MWD+IFR1+ MS
13100	90	269.826	9805	35.658	0	45.559	0	35.658	0	0	46.449	36.624	71.361	XOM_R2OW SG MWD+IFR1+ MS
13200	90	269.826	9805	36.316	0	46.029	0	36.316	0	0	46.923	36.64	71.71	XOM_R2OW SG MWD+IFR1+ MS
13300	90	269.826	9805	36.979	0	46.509	0	36.979	0	0	47.405	36.659	72.05	XOM_R2OW SG MWD+IFR1+ MS
13400	90	269.826	9805	37.647	0	46.997	0	37.647	0	0	47.896	36.679	72.379	XOM_R2OW SG MWD+IFR1+ MS
13500	90	269.826	9805	38.319	0	47.495	0	38.319	0	0	48.395	36.701	72.699	XOM_R2OW SG MWD+IFR1+ MS

13600	90	269.826	9805	38.995	0	48.002	0	38.995	0	0	48.902	36.724	73.01	XOM_R2OW SG MWD+IFR1+ MS
13700	90	269.826	9805	39.676	0	48.517	0	39.676	0	0	49.417	36.75	73.312	XOM_R2OW SG MWD+IFR1+ MS
13800	90	269.826	9805	40.36	0	49.04	0	40.36	0	0	49.94	36.776	73.605	XOM_R2OW SG MWD+IFR1+ MS
13900	90	269.826	9805	41.048	0	49.571	0	41.048	0	0	50.47	36.804	73.889	XOM_R2OW SG MWD+IFR1+ MS
14000	90	269.826	9805	41.739	0	50.109	0	41.739	0	0	51.007	36.834	74.165	XOM_R2OW SG MWD+IFR1+ MS
14100	90	269.826	9805	42.434	0	50.656	0	42.434	0	0	51.551	36.865	74.433	XOM_R2OW SG MWD+IFR1+ MS
14200	90	269.826	9805	43.131	0	51.209	0	43.131	0	0	52.102	36.897	74.693	XOM_R2OW SG MWD+IFR1+ MS
14300	90	269.826	9805	43.832	0	51.769	0	43.832	0	0	52.659	36.93	74.946	XOM_R2OW SG MWD+IFR1+ MS
14400	90	269.826	9805	44.535	0	52.337	0	44.535	0	0	53.223	36.965	75.192	XOM_R2OW SG MWD+IFR1+ MS
14500	90	269.826	9805	45.241	0	52.91	0	45.241	0	0	53.793	37.002	75.43	XOM_R2OW SG MWD+IFR1+ MS
14600	90	269.826	9805	45.95	0	53.49	0	45.95	0	0	54.369	37.039	75.662	XOM_R2OW SG MWD+IFR1+ MS
14700	90	269.826	9805	46.661	0	54.076	0	46.661	0	0	54.952	37.078	75.888	XOM_R2OW SG MWD+IFR1+ MS

14800	90	269.826	9805	47.374	0	54.668	0	47.374	0	0	55.539	37.118	76.107	XOM_R2OW SG MWD+IFR1+ MS
14900	90	269.826	9805	48.09	0	55.266	0	48.09	0	0	56.133	37.159	76.32	XOM_R2OW SG MWD+IFR1+ MS
15000	90	269.826	9805	48.807	0	55.869	0	48.807	0	0	56.731	37.201	76.527	XOM_R2OW SG MWD+IFR1+ MS
15100	90	269.826	9805	49.527	0	56.478	0	49.527	0	0	57.335	37.245	76.728	XOM_R2OW SG MWD+IFR1+ MS
15200	90	269.826	9805	50.249	0	57.092	0	50.249	0	0	57.944	37.29	76.924	XOM_R2OW SG MWD+IFR1+ MS
15300	90	269.826	9805	50.972	0	57.71	0	50.972	0	0	58.558	37.335	77.115	XOM_R2OW SG MWD+IFR1+ MS
15400	90	269.826	9805	51.698	0	58.334	0	51.698	0	0	59.176	37.382	77.301	XOM_R2OW SG MWD+IFR1+ MS
15500	90	269.826	9805	52.425	0	58.962	0	52.425	0	0	59.799	37.43	77.482	XOM_R2OW SG MWD+IFR1+ MS
15600	90	269.826	9805	53.153	0	59.595	0	53.153	0	0	60.427	37.479	77.658	XOM_R2OW SG MWD+IFR1+ MS
15700	90	269.826	9805	53.884	0	60.233	0	53.884	0	0	61.059	37.529	77.829	XOM_R2OW SG MWD+IFR1+ MS
15800	90	269.826	9805	54.616	0	60.875	0	54.616	0	0	61.695	37.581	77.997	XOM_R2OW SG MWD+IFR1+ MS
15900	90	269.826	9805	55.349	0	61.52	0	55.349	0	0	62.336	37.633	78.16	XOM_R2OW SG MWD+IFR1+ MS

16000	90	269.826	9805	56.083	0	62.17	0	56.083	0	0	62.98	37.686	78.318	XOM_R2OW SG MWD+IFR1+ MS
16100	90	269.826	9805	56.819	0	62.824	0	56.819	0	0	63.628	37.74	78.473	XOM_R2OW SG MWD+IFR1+ MS
16200	90	269.826	9805	57.557	0	63.482	0	57.557	0	0	64.28	37.796	78.624	XOM_R2OW SG MWD+IFR1+ MS
16300	90	269.826	9805	58.295	0	64.143	0	58.295	0	0	64.936	37.852	78.771	XOM_R2OW SG MWD+IFR1+ MS
16400	90	269.826	9805	59.035	0	64.807	0	59.035	0	0	65.595	37.909	78.915	XOM_R2OW SG MWD+IFR1+ MS
16500	90	269.826	9805	59.776	0	65.476	0	59.776	0	0	66.257	37.967	79.055	XOM_R2OW SG MWD+IFR1+ MS
16600	90	269.826	9805	60.518	0	66.147	0	60.518	0	0	66.923	38.026	79.192	XOM_R2OW SG MWD+IFR1+ MS
16700	90	269.826	9805	61.261	0	66.822	0	61.261	0	0	67.592	38.086	79.326	XOM_R2OW SG MWD+IFR1+ MS
16800	90	269.826	9805	62.005	0	67.5	0	62.005	0	0	68.264	38.147	79.457	XOM_R2OW SG MWD+IFR1+ MS
16900	90	269.826	9805	62.75	0	68.181	0	62.75	0	0	68.94	38.209	79.584	XOM_R2OW SG MWD+IFR1+ MS
17000	90	269.826	9805	63.496	0	68.864	0	63.496	0	0	69.618	38.272	79.709	XOM_R2OW SG MWD+IFR1+ MS
17100	90	269.826	9805	64.243	0	69.551	0	64.243	0	0	70.299	38.336	79.83	XOM_R2OW SG MWD+IFR1+ MS

17200	90	269.826	9805	64.991	0	70.241	0	64.991	0	0	70.983	38.401	79.949	XOM_R2OW SG MWD+IFR1+ MS
17300	90	269.826	9805	65.739	0	70.933	0	65.739	0	0	71.67	38.466	80.066	XOM_R2OW SG MWD+IFR1+ MS
17400	90	269.826	9805	66.489	0	71.628	0	66.489	0	0	72.359	38.533	80.179	XOM_R2OW SG MWD+IFR1+ MS
17500	90	269.826	9805	67.239	0	72.325	0	67.239	0	0	73.051	38.6	80.291	XOM_R2OW SG MWD+IFR1+ MS
17600	90	269.826	9805	67.99	0	73.025	0	67.99	0	0	73.746	38.668	80.4	XOM_R2OW SG MWD+IFR1+ MS
17700	90	269.826	9805	68.742	0	73.727	0	68.742	0	0	74.442	38.737	80.506	XOM_R2OW SG MWD+IFR1+ MS
17800	90	269.826	9805	69.495	0	74.432	0	69.495	0	0	75.142	38.807	80.61	XOM_R2OW SG MWD+IFR1+ MS
17900	90	269.826	9805	70.248	0	75.139	0	70.248	0	0	75.843	38.878	80.712	XOM_R2OW SG MWD+IFR1+ MS
18000	90	269.826	9805	71.002	0	75.848	0	71.002	0	0	76.547	38.949	80.812	XOM_R2OW SG MWD+IFR1+ MS
18100	90	269.826	9805	71.756	0	76.559	0	71.756	0	0	77.253	39.022	80.91	XOM_R2OW SG MWD+IFR1+ MS
18200	90	269.826	9805	72.512	0	77.272	0	72.512	0	0	77.961	39.095	81.006	XOM_R2OW SG MWD+IFR1+ MS
18300	90	269.826	9805	73.268	0	77.987	0	73.268	0	0	78.671	39.169	81.1	XOM_R2OW SG MWD+IFR1+ MS

18400	90	269.826	9805	74.024	0	78.705	0	74.024	0	0	79.384	39.244	81.192	XOM_R2OW SG MWD+IFR1+ MS
18500	90	269.826	9805	74.781	0	79.424	0	74.781	0	0	80.098	39.319	81.282	XOM_R2OW SG MWD+IFR1+ MS
18600	90	269.826	9805	75.539	0	80.145	0	75.539	0	0	80.814	39.396	81.37	XOM_R2OW SG MWD+IFR1+ MS
18700	90	269.826	9805	76.297	0	80.868	0	76.297	0	0	81.532	39.473	81.457	XOM_R2OW SG MWD+IFR1+ MS
18800	90	269.826	9805	77.056	0	81.593	0	77.056	0	0	82.252	39.551	81.541	XOM_R2OW SG MWD+IFR1+ MS
18900	90	269.826	9805	77.815	0	82.319	0	77.815	0	0	82.973	39.63	81.625	XOM_R2OW SG MWD+IFR1+ MS
19000	90	269.826	9805	78.575	0	83.047	0	78.575	0	0	83.696	39.709	81.706	XOM_R2OW SG MWD+IFR1+ MS
19100	90	269.826	9805	79.335	0	83.777	0	79.335	0	0	84.421	39.789	81.786	XOM_R2OW SG MWD+IFR1+ MS
19200	90	269.826	9805	80.096	0	84.508	0	80.096	0	0	85.148	39.871	81.865	XOM_R2OW SG MWD+IFR1+ MS
19300	90	269.826	9805	80.857	0	85.241	0	80.857	0	0	85.876	39.952	81.942	XOM_R2OW SG MWD+IFR1+ MS
19400	90	269.826	9805	81.618	0	85.975	0	81.618	0	0	86.606	40.035	82.018	XOM_R2OW SG MWD+IFR1+ MS
19500	90	269.826	9805	82.38	0	86.711	0	82.38	0	0	87.337	40.118	82.092	XOM_R2OW SG MWD+IFR1+ MS

19600	90	269.826	9805	83.143	0	87.448	0	83.143	0	0	88.07	40.202	82.165	XOM_R2OW SG MWD+IFR1+ MS
19700	90	269.826	9805	83.906	0	88.187	0	83.906	0	0	88.804	40.287	82.236	XOM_R2OW SG MWD+IFR1+ MS
19800	90	269.826	9805	84.669	0	88.927	0	84.669	0	0	89.54	40.372	82.307	XOM_R2OW SG MWD+IFR1+ MS
19900	90	269.826	9805	85.433	0	89.668	0	85.433	0	0	90.277	40.459	82.376	XOM_R2OW SG MWD+IFR1+ MS
20000	90	269.826	9805	86.197	0	90.411	0	86.197	0	0	91.015	40.546	82.443	XOM_R2OW SG MWD+IFR1+ MS
20100	90	269.826	9805	86.961	0	91.155	0	86.961	0	0	91.755	40.633	82.51	XOM_R2OW SG MWD+IFR1+ MS
20200	90	269.826	9805	87.726	0	91.9	0	87.726	0	0	92.496	40.721	82.576	XOM_R2OW SG MWD+IFR1+ MS
20300	90	269.826	9805	88.491	0	92.646	0	88.491	0	0	93.238	40.81	82.64	XOM_R2OW SG MWD+IFR1+ MS
20400	90	269.826	9805	89.257	0	93.394	0	89.257	0	0	93.981	40.9	82.703	XOM_R2OW SG MWD+IFR1+ MS
20500	90	269.826	9805	90.022	0	94.143	0	90.022	0	0	94.726	40.991	82.765	XOM_R2OW SG MWD+IFR1+ MS
20600	90	269.826	9805	90.788	0	94.892	0	90.788	0	0	95.472	41.082	82.826	XOM_R2OW SG MWD+IFR1+ MS
20700	90	269.826	9805	91.555	0	95.643	0	91.555	0	0	96.219	41.173	82.886	XOM_R2OW SG MWD+IFR1+ MS

20800	90	269.826	9805	92.322	0	96.395	0	92.322	0	0	96.967	41.266	82.946	XOM_R2OW SG MWD+IFR1+ MS
20900	90	269.826	9805	93.089	0	97.148	0	93.089	0	0	97.716	41.359	83.004	XOM_R2OW SG MWD+IFR1+ MS
21000	90	269.826	9805	93.856	0	97.902	0	93.856	0	0	98.466	41.452	83.061	XOM_R2OW SG MWD+IFR1+ MS
21100	90	269.826	9805	94.624	0	98.657	0	94.624	0	0	99.217	41.547	83.117	XOM_R2OW SG MWD+IFR1+ MS
21200	90	269.826	9805	95.392	0	99.413	0	95.392	0	0	99.969	41.642	83.172	XOM_R2OW SG MWD+IFR1+ MS
21300	90	269.826	9805	96.16	0	100.17	0	96.16	0	0	100.723	41.737	83.227	XOM_R2OW SG MWD+IFR1+ MS
21400	90	269.826	9805	96.928	0	100.928	0	96.928	0	0	101.477	41.834	83.28	XOM_R2OW SG MWD+IFR1+ MS
21500	90	269.826	9805	97.697	0	101.687	0	97.697	0	0	102.232	41.931	83.333	XOM_R2OW SG MWD+IFR1+ MS
21600	90	269.826	9805	98.466	0	102.447	0	98.466	0	0	102.988	42.028	83.385	XOM_R2OW SG MWD+IFR1+ MS
21700	90	269.826	9805	99.235	0	103.207	0	99.235	0	0	103.745	42.126	83.436	XOM_R2OW SG MWD+IFR1+ MS
21800	90	269.826	9805	100.005	0	103.969	0	100.005	0	0	104.503	42.225	83.486	XOM_R2OW SG MWD+IFR1+ MS
21900	90	269.826	9805	100.774	0	104.731	0	100.774	0	0	105.262	42.324	83.536	XOM_R2OW SG MWD+IFR1+ MS

22000	90	269.826	9805	101.544	0	105.494	0	101.544	0	0	106.021	42.424	83.585	XOM_R2OW SG MWD+IFR1+ MS
22100	90	269.826	9805	102.314	0	106.258	0	102.314	0	0	106.782	42.525	83.633	XOM_R2OW SG MWD+IFR1+ MS
22200	90	269.826	9805	103.085	0	107.022	0	103.085	0	0	107.543	42.626	83.68	XOM_R2OW SG MWD+IFR1+ MS
22300	90	269.826	9805	103.855	0	107.788	0	103.855	0	0	108.305	42.728	83.727	XOM_R2OW SG MWD+IFR1+ MS
22400	90	269.826	9805	104.626	0	108.554	0	104.626	0	0	109.068	42.83	83.773	XOM_R2OW SG MWD+IFR1+ MS
22500	90	269.826	9805	105.397	0	109.321	0	105.397	0	0	109.832	42.933	83.818	XOM_R2OW SG MWD+IFR1+ MS
22600	90	269.826	9805	106.168	0	110.088	0	106.168	0	0	110.596	43.037	83.863	XOM_R2OW SG MWD+IFR1+ MS
22700	90	269.826	9805	106.94	0	110.857	0	106.94	0	0	111.361	43.141	83.906	XOM_R2OW SG MWD+IFR1+ MS
22800	90	269.826	9805	107.711	0	111.626	0	107.711	0	0	112.127	43.246	83.95	XOM_R2OW SG MWD+IFR1+ MS
22900	90	269.826	9805	108.483	0	112.395	0	108.483	0	0	112.893	43.351	83.993	XOM_R2OW SG MWD+IFR1+ MS
23000	90	269.826	9805	109.255	0	113.166	0	109.255	0	0	113.661	43.457	84.035	XOM_R2OW SG MWD+IFR1+ MS
23100	90	269.826	9805	110.027	0	113.936	0	110.027	0	0	114.429	43.563	84.076	XOM_R2OW SG MWD+IFR1+ MS

23200	90	269.826	9805	110.799	0	114.708	0	110.799	0	0	115.197	43.67	84.117	XOM_R2OW SG MWD+IFR1+ MS
23300	90	269.826	9805	111.572	0	115.48	0	111.572	0	0	115.966	43.777	84.157	XOM_R2OW SG MWD+IFR1+ MS
23400	90	269.826	9805	112.345	0	116.253	0	112.345	0	0	116.736	43.885	84.197	XOM_R2OW SG MWD+IFR1+ MS
23500	90	269.826	9805	113.117	0	117.027	0	113.117	0	0	117.507	43.994	84.236	XOM_R2OW SG MWD+IFR1+ MS
23600	90	269.826	9805	113.89	0	117.801	0	113.89	0	0	118.278	44.103	84.275	XOM_R2OW SG MWD+IFR1+ MS
23700	90	269.826	9805	114.664	0	118.575	0	114.664	0	0	119.05	44.213	84.313	XOM_R2OW SG MWD+IFR1+ MS
23800	90	269.826	9805	115.437	0	119.35	0	115.437	0	0	119.822	44.323	84.351	XOM_R2OW SG MWD+IFR1+ MS
23900	90	269.826	9805	116.21	0	120.126	0	116.21	0	0	120.595	44.433	84.388	XOM_R2OW SG MWD+IFR1+ MS
24000	90	269.826	9805	116.984	0	120.902	0	116.984	0	0	121.368	44.545	84.425	XOM_R2OW SG MWD+IFR1+ MS
24100	90	269.826	9805	117.758	0	121.679	0	117.758	0	0	122.142	44.656	84.461	XOM_R2OW SG MWD+IFR1+ MS
24200	90	269.826	9805	118.532	0	122.456	0	118.532	0	0	122.917	44.768	84.497	XOM_R2OW SG MWD+IFR1+ MS
24300	90	269.826	9805	119.306	0	123.234	0	119.306	0	0	123.692	44.881	84.532	XOM_R2OW SG MWD+IFR1+ MS

24400	90	269.826	9805	120.08	0	124.012	0	120.08	0	0	124.468	44.994	84.567	XOM_R2OW SG MWD+IFR1+ MS
24500	90	269.826	9805	120.854	0	124.791	0	120.854	0	0	125.244	45.108	84.601	XOM_R2OW SG MWD+IFR1+ MS
24600	90	269.826	9805	121.629	0	125.57	0	121.629	0	0	126.02	45.222	84.635	XOM_R2OW SG MWD+IFR1+ MS
24700	90	269.826	9805	122.403	0	126.35	0	122.403	0	0	126.797	45.337	84.669	XOM_R2OW SG MWD+IFR1+ MS
24800	90	269.826	9805	123.178	0	127.13	0	123.178	0	0	127.575	45.452	84.702	XOM_R2OW SG MWD+IFR1+ MS
24900	90	269.826	9805	123.953	0	127.911	0	123.953	0	0	128.353	45.568	84.734	XOM_R2OW SG MWD+IFR1+ MS
25000	90	269.826	9805	124.728	0	128.692	0	124.728	0	0	129.132	45.684	84.766	XOM_R2OW SG MWD+IFR1+ MS
25100	90	269.826	9805	125.503	0	129.473	0	125.503	0	0	129.911	45.801	84.798	XOM_R2OW SG MWD+IFR1+ MS
25200	90	269.826	9805	126.278	0	130.255	0	126.278	0	0	130.69	45.918	84.83	XOM_R2OW SG MWD+IFR1+ MS
25300	90	269.826	9805	127.054	0	131.038	0	127.054	0	0	131.47	46.035	84.861	XOM_R2OW SG MWD+IFR1+ MS
25400	90	269.826	9805	127.829	0	131.82	0	127.829	0	0	132.251	46.153	84.891	XOM_R2OW SG MWD+IFR1+ MS
25500	90	269.826	9805	128.605	0	132.604	0	128.605	0	0	133.032	46.272	84.922	XOM_R2OW SG MWD+IFR1+ MS

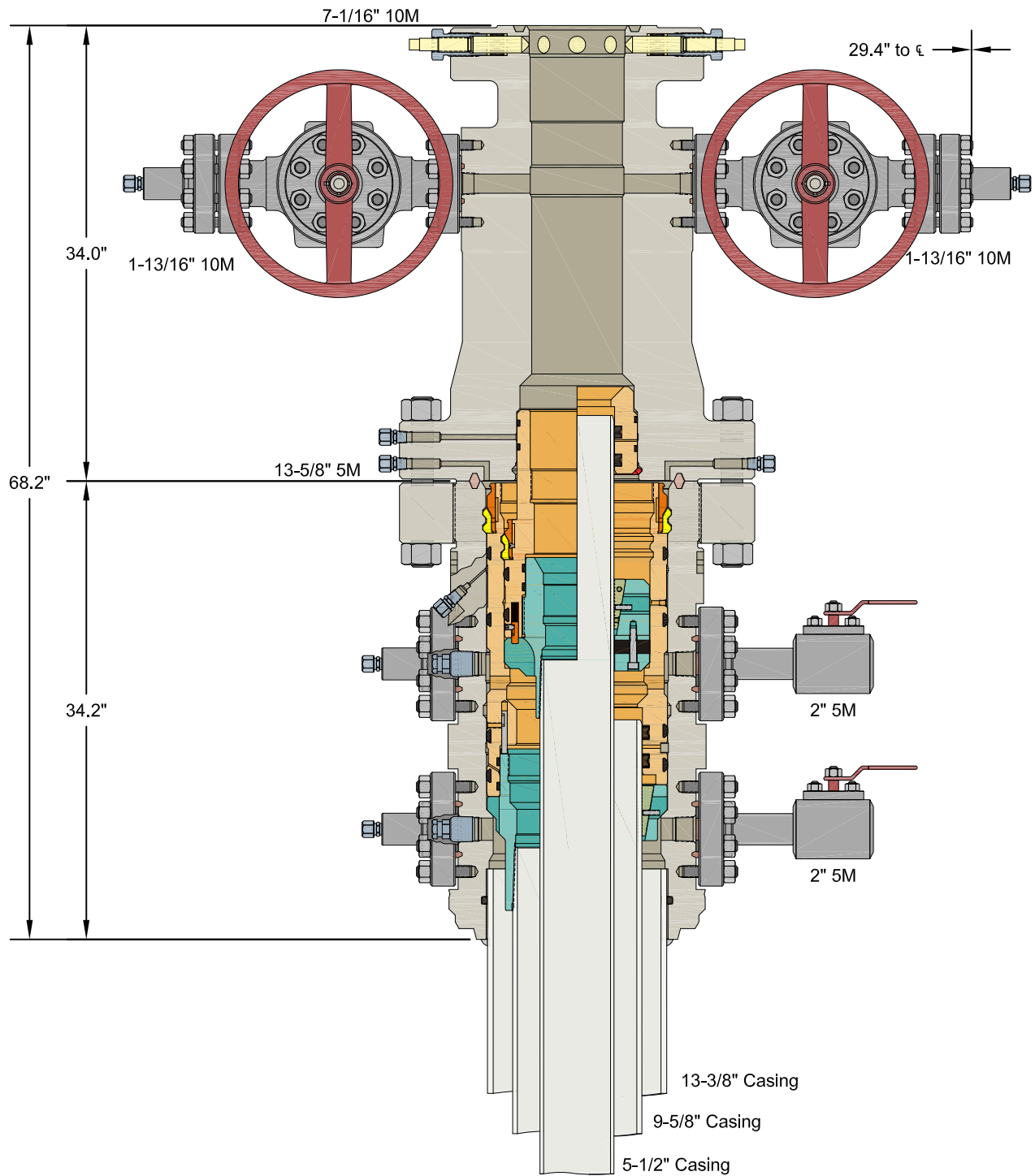
25600	90	269.826	9805	129.38	0	133.387	0	129.38	0	0	133.813	46.391	84.952	XOM_R2OW SG MWD+IFR1+ MS
25700	90	269.826	9805	130.156	0	134.171	0	130.156	0	0	134.595	46.51	84.981	XOM_R2OW SG MWD+IFR1+ MS
25800	90	269.826	9805	130.932	0	134.956	0	130.932	0	0	135.377	46.63	85.01	XOM_R2OW SG MWD+IFR1+ MS
25900	90	269.826	9805	131.708	0	135.74	0	131.708	0	0	136.159	46.75	85.039	XOM_R2OW SG MWD+IFR1+ MS
26000	90	269.826	9805	132.484	0	136.526	0	132.484	0	0	136.942	46.871	85.068	XOM_R2OW SG MWD+IFR1+ MS
26100	90	269.826	9805	133.26	0	137.311	0	133.26	0	0	137.725	46.992	85.096	XOM_R2OW SG MWD+IFR1+ MS
26200	90	269.826	9805	134.036	0	138.097	0	134.036	0	0	138.509	47.114	85.124	XOM_R2OW SG MWD+IFR1+ MS
26300	90	269.826	9805	134.813	0	138.883	0	134.813	0	0	139.293	47.236	85.152	XOM_R2OW SG MWD+IFR1+ MS
26319.878	90	269.826	9805	134.967	0	139.039	0	134.967	0	0	139.449	47.26	85.157	XOM_R2OW SG MWD+IFR1+ MS

Plan Targets		BEU BB JABBA 103H			
Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape

FTP 5	10600.51	562772.65	675887.29	6262 CIRCLE
LTP 5	26269.93	562725.11	660218.03	6262 CIRCLE
BHL 5	26319.88	562725.15	660168.08	6262 CIRCLE



GE Oil & Gas



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XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead
Assembly, With T-EBS-F Tubing Head

DRAWN

VJK

16FEB17

APPRV

KN

16FEB17

FOR REFERENCE ONLY

DRAWING NO.

10012842

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 (OOGO) No. 2, 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. OOGO No. 2, Section I.D.2 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 OOGO No. 2, Section IV., XTO Energy submits this request for the variance.

Supporting Documentation

OOGO No. 2 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 OOGO No. 2 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. OOGO No. 2 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 ^b	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers ^{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.

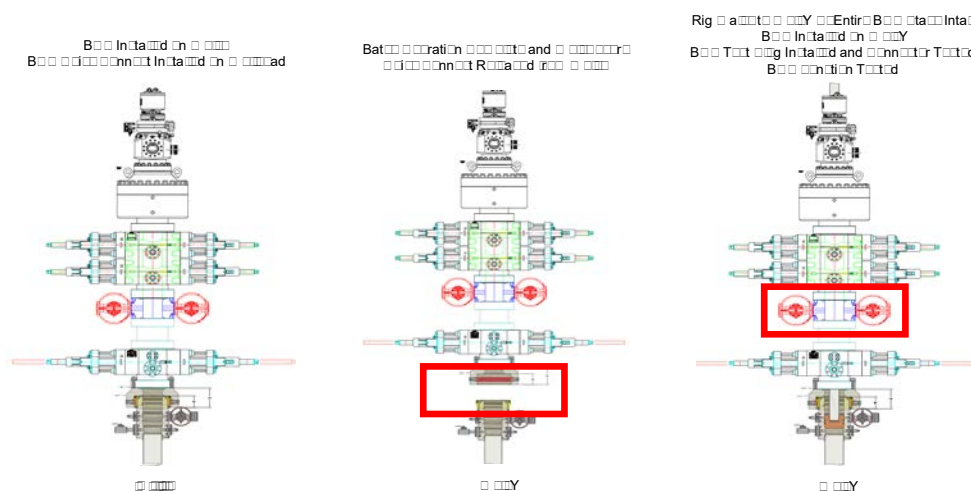
Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and 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 OOGO No. 2 (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 OOGO No.2.

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.

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



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

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

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

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

All valves in red including the upper pipe rams will be shut to test the broken connections.

** Each valve on choke manifold will alternate being tested against during each rig skid.



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

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

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 nippedled 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.

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 180 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.

Big Eddy Unit DI BB Jabba 30a M M T
M

Big Eddy Unit DI BB Jabba 103H

18 5/8	surface csg in a	24	inch hole.	Design Factors					Surface		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"C"	□□□□	J □□	BT□	□□□□	□□□□	□□□□	□□□□	□	□□□□	□□□□	□□□□□□
"B"			BT□				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,110				Tail Cmt	does not	circ to sfc.	Totals:	□□□□			□□□□□□
Comparison of Proposed to Minimum Required Cement Volumes											
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg		
24	□□□□□□	1890	□□□□	1332	□□□	9.20	□□□	2M			
Site plat (pipe racks S or E) as per O.O.I.III.D.4.I. not found.											

13 3/8		casing inside the		18 5/8		Design Factors				Int 1			
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	□□□□	J □□		BT□	□□□□	□□□□	□□□□	□□□□	□	□□□□	□□□□	□□□□□□	
								0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig:								Totals:		□□□□			□□□□□□
The cement volume(s) are intended to achieve a top of						0	ft from surface or a		1066			overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE				Min Dist Hole-Cplg	
17 1/2	□□□□□□	2060	□□□□	1976	□□	10.50	□□□	2M				□□□□	
Class 'H' tail cmt yld > 1.20													

9 5/8		casing inside the		13 3/8		Design Factors				Int 2		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"□"	□□□□	□□□ □□□		BT□	□□□□	□□□□	□□□□	□□□□	□	□□□□	□□□□	□□□□□□
"B"	40.00	HCL 80		BT□	∞	2.99	2.24	2,166	4	3.89	□□□□	86,640
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500								Totals:		□□□□	□□□□□□	
The cement volume(s) are intended to achieve a top of					0	ft from surface or a			2769			overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	□□□□□	1390	□□□□	1714	□□	9.50	□□□□	2M				□□□□
Class 'C' tail cmt yld > 1.35												

5 1/2		casing inside the		9 5/8		Design Factors					Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"C"	□□□□	RY □ □□		□□□□□□□□□□	□□□□	□□□□	□□□□	□□□□	□	□□□□	□□□□	□□□□□□	
"B"	20.00	RY P 110		Semi-Flush	∞	4.33	4.93	21,938	5	8.55		□□□□ 438,760	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500								Totals:		□□□□□		□□□□□□□	
The cement volume(s) are intended to achieve a top of						4400	ft from surface or a		635			overlap.	
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist	
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP					BOPE	Hole-Cplg
8 1/2	□□□□□	3320	□□□□	5168	□	10.00						□□□□	
Class 'C' tail cmt yld > 1.35			Capitan Reef est top XXXX.										

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Big Eddy Unit DI BB Jabba 103H
LOCATION:	Sec 22-20S-32E-NMP
COUNTY:	Lea County, New Mexico

Updated COAs per Sundry 2682662 approved through engineering on 08/31/2022.

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input checked="" type="checkbox"/> 4 String Area	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit

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 Onshore Order 6 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 **18 5/8** inch surface casing shall be set at approximately 1177 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) 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 **24 hours in the Potash Area** 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 **13-3/8** inch intermediate casing set at 2,800 ft is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In R111 Potash 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.
 - ❖ In Capitan Reef 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.
 - ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is: Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
 - a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is: Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
 - a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i 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)

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)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

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
 - Notify the BLM when moving in and removing the Spudder Rig.
 - 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.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 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. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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, 2) until cement has been in place at least 24 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-P 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
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:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. 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.

- a. 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 when specified), 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).
- b. 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. 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.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. 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.
- h. 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 Onshore Order No. 2.

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.

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

CONDITIONS

Action 140783

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 140783
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	9/7/2022