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
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 323891

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	3. API Number 30-025-50530

4. Property Code	5. Property Name	6. Well No.
313270	PERLA VERDE 31 STATE COM	404H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	31	19S	35E	P	230	S	1211	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	31	19S	35E	A	50	N	330	E	Lea

9. Pool Information

WC-025 G-08 S203506D;BONE SPRING	97983

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3700
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	15600	2nd Bone Spring Sand		10/3/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	40	1949	680	0
Int1	8.75	7.625	29.7	4100	1430	0
Prod	6.75	5.5	20	15600	1080	2000

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		**OIL CONSERVATION DIVISION**		
Printed Name:	Electronically filed by Tiffany Yancey	Approved By:	Paul F Kautz	
Title:	Production Analyst	Title:	Geologist	
Email Address:	tiffany.yancey@exxonmobil.com	Approved Date:	9/2/2022	Expiration Date: 9/2/2024
Date:	8/23/2022 Phone: 432-215-8939	Conditions of Approval Attached		

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1220 S. St. Francis Dr., Santa Fe, NM 87505
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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	[2] Pool Code	[3] Pool Name
30-025- 50530	97983	WC-25 G-08 S203506D; BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
313270	PERLA VERDE 31 STATE COM	404H

[7] OGRID No.	[8] Operator Name	[9] Elevation
005380	XTO ENERGY, INC.	3,700'

[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
P	31	19 S	35 E		230	SOUTH	1,211	EAST	LEA

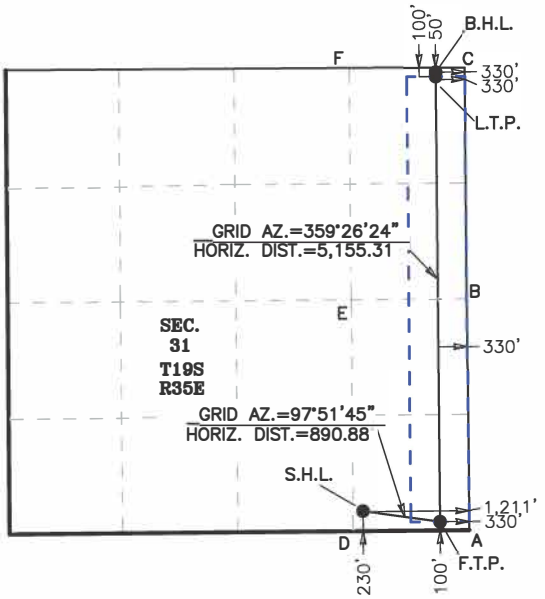
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	31	19 S	35 E		50	NORTH	330	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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.

16



SHL (NAD83 NME)		LTP (NAD83 NME)	
Y =	586,750.1	Y =	591,733.3
X =	800,400.8	X =	801,233.4
LAT. =	32.610210 °N	LAT. =	32.623888 °N
LONG. =	103.492006 °W	LONG. =	103.489174 °W
FTP (NAD83 NME)		**BHL (NAD83 NME)**	
Y =	586,628.3	Y =	591,783.3
X =	801,283.3	X =	801,232.9
LAT. =	32.609856 °N	LAT. =	32.624025 °N
LONG. =	103.489143 °W	LONG. =	103.489174 °W

CORNER COORDINATES (NAD83 NME)

A - Y =	586,531.3 N	X =	801,614.3 E
B - Y =	589,183.4 N	X =	801,588.4 E
C - Y =	591,835.5 N	X =	801,562.4 E
D - Y =	586,519.1 N	X =	800,291.8 E
E - Y =	589,170.7 N	X =	800,267.2 E
F - Y =	591,826.7 N	X =	800,242.6 E

SHL (NAD27 NME)		LTP (NAD27 NME)	
Y =	586,688.8	Y =	591,671.9
X =	759,220.2	X =	760,053.0
LAT. =	32.610091 °N	LAT. =	32.623769 °N
LONG. =	103.491516 °W	LONG. =	103.488683 °W
FTP (NAD27 NME)		**BHL (NAD27 NME)**	
Y =	586,566.9	Y =	591,721.9
X =	760,102.7	X =	760,052.5
LAT. =	32.609736 °N	LAT. =	32.623906 °N
LONG. =	103.488654 °W	LONG. =	103.488684 °W

CORNER COORDINATES (NAD27 NME)

A - Y =	586,470.0 N	X =	760,433.6 E
B - Y =	589,122.0 N	X =	760,407.8 E
C - Y =	591,774.1 N	X =	760,382.0 E
D - Y =	586,457.8 N	X =	759,111.1 E
E - Y =	589,109.3 N	X =	759,086.6 E
F - Y =	591,765.3 N	X =	759,062.1 E

[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.

Cassie Evans — 08/19/22
Signature — Date

Cassie Evans
Printed Name

cassie.evans@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.

4-7-2022
Date of Survey

Signatue and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number — LM — 2022030542

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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

Form APD Comments

Permit 323891

PERMIT COMMENTS

Operator Name and Address:	API Number:
XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	30-025-50530
	Well: PERLA VERDE 31 STATE COM #404H

Created By	Comment	Comment Date
pkautz	HOLD PROPERTY NAME	8/31/2022

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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

Form APD Conditions

Permit 323891

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	30-025-50530
	Well: PERLA VERDE 31 STATE COM #404H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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.

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.

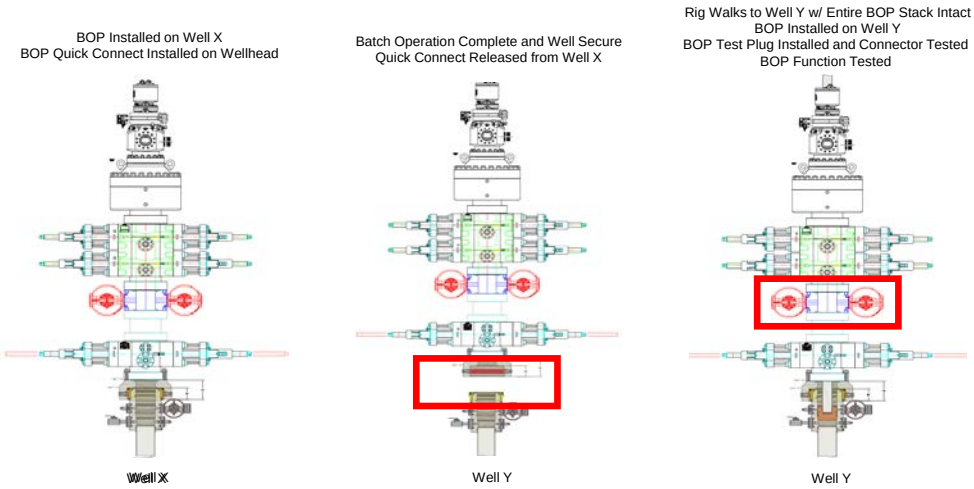
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that 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.

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

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



Summary

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

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

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

1. After a full BOP test is conducted on the first well on the pad.

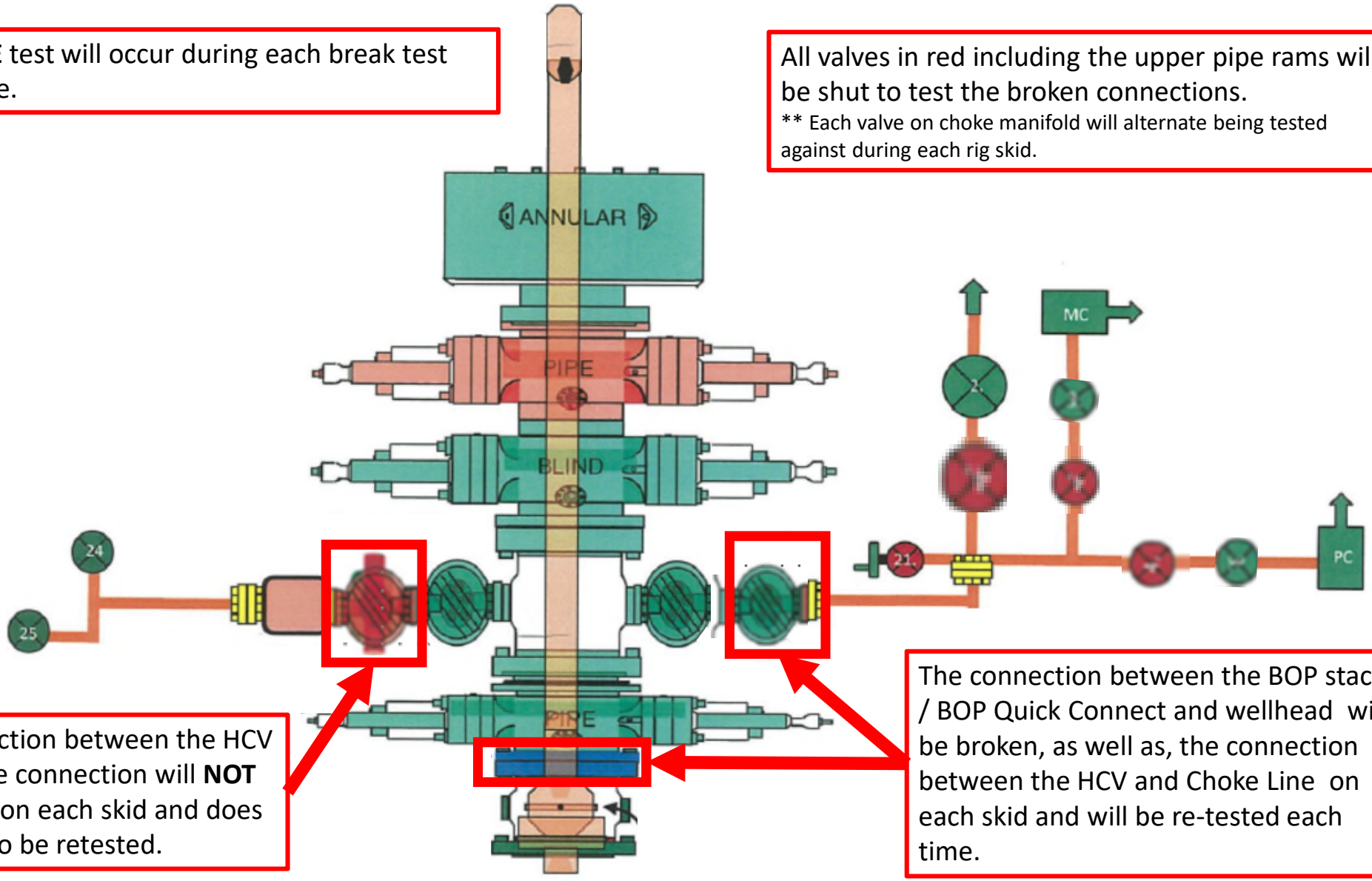
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

4. Full BOP test will be required prior to drilling the production hole.

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

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



The connection between the 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.

GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe&s@gates.com
WEB: www.gates.com

GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

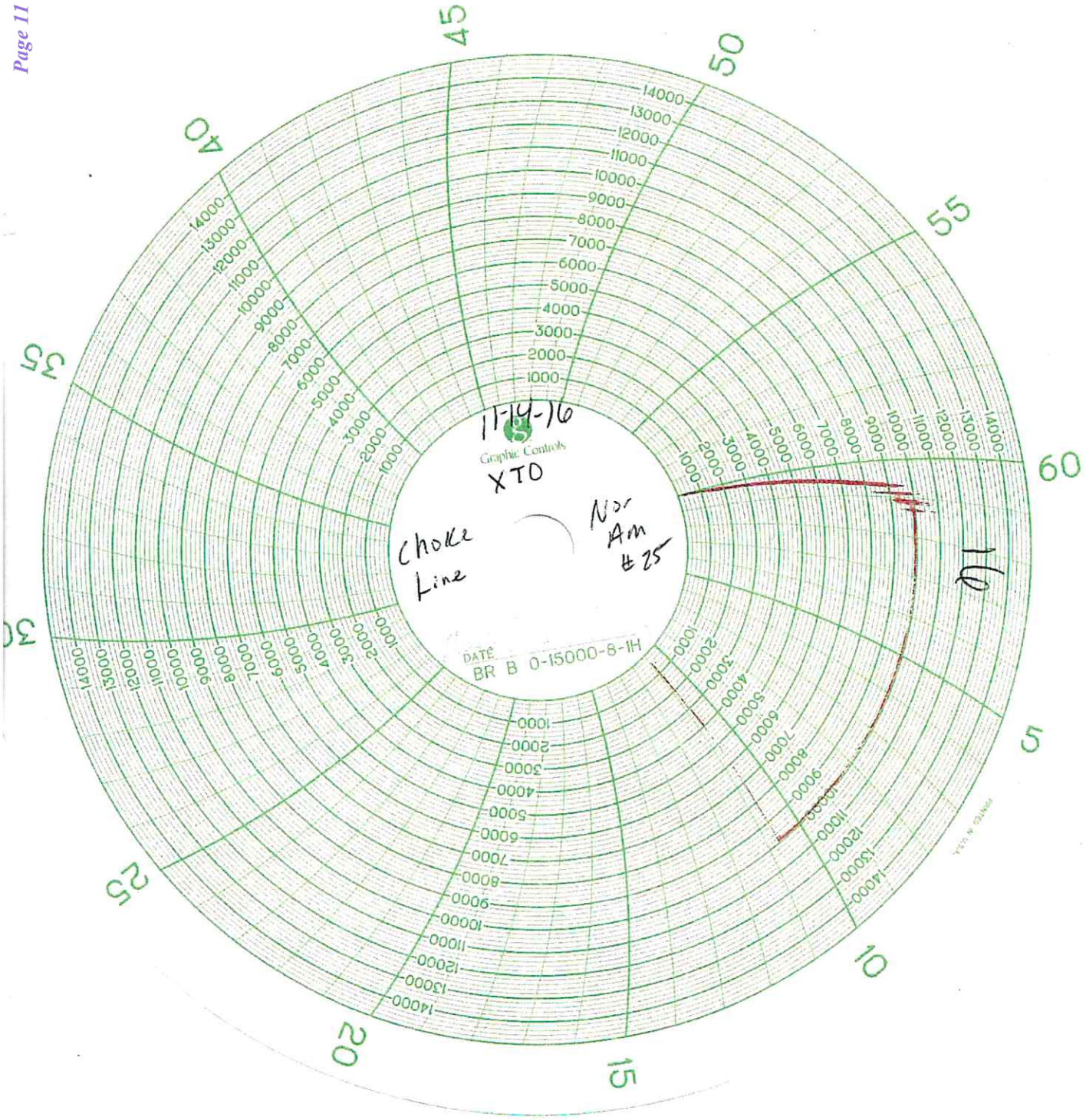
Product Description:	FD3.042.0R41/16.5KFLGE/E LE

End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:	QUALITY	Technical Supervisor :	PRODUCTION
Date :	6/8/2014	Date :	6/8/2014
Signature :		Signature :	

Form PTC - 01 Rev.0 2



HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

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

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

Ignition of Gas source

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

Characteristics of H_2S and SO_2

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

Contacting Authorities

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

CARLSBAD OFFICE – EDDY & LEA COUNTIES

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

XTO PERSONNEL:

Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147

SHERIFF DEPARTMENTS:

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

NEW MEXICO STATE POLICE: 575-392-5588

FIRE DEPARTMENTS: 911

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

HOSPITALS: 911

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

AGENT NOTIFICATIONS:

For Lea County:

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

For Eddy County:

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

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

Description of Operations:

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

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Cement Variance Request

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 Brushy Canyon (6710') 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 to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, 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 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 GE procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

XTO Energy

Lea County, NM (NAD-27)
Bootstrap Bill State
#4H

Wellbore #1

Plan: PERMIT

Standard Planning Report

14 March, 2019

Project: Lea County, NM (NAD-27)
Site: Bootstrap Bill State
Well: #4H
Wellbore: Wellbore #1
Design: PERMIT

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

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

WELL DETAILS: #4H

Rig Name:
RKB = 17' @ 3718.00usft
Ground Level: 3701.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	586693.50	760173.60	32.610083	-103.488420

DESIGN TARGET DETAILS

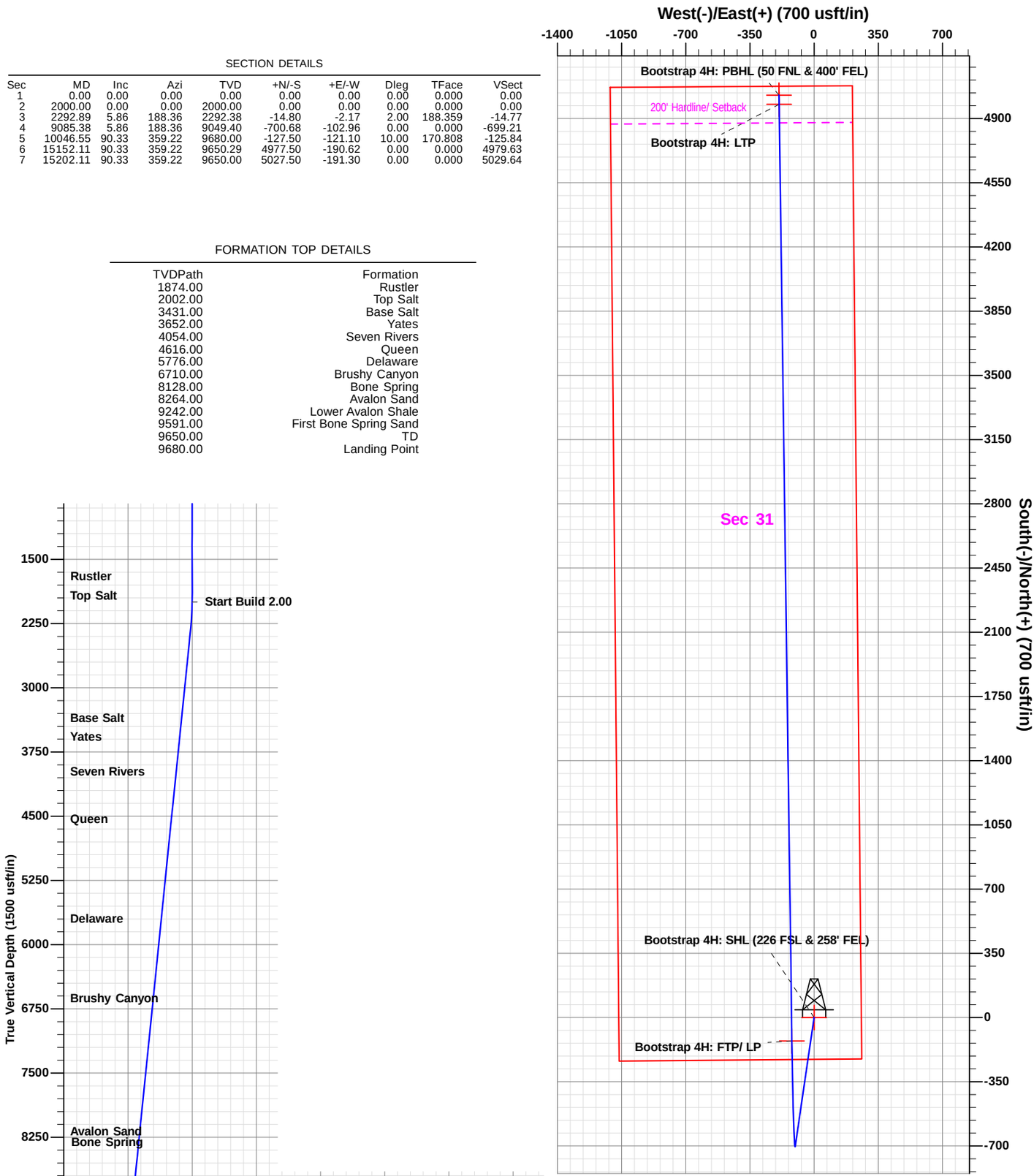
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Bootstrap 4H: SHL (226 FSL & 258' FEL)	0.00	0.00	0.00	586693.50	760173.60	32.610083	-103.488420	Point
Bootstrap 4H: PBHL (50 FNL & 400' FEL)	9650.00	5027.50	-191.30	591721.00	759982.30	32.623905	-103.488911	Point
Bootstrap 4H: LTP	9650.29	4977.50	-190.60	591671.00	759983.00	32.623768	-103.488910	Point
Bootstrap 4H: FTP/ LP	9680.00	-127.50	-121.10	586566.00	760052.50	32.609735	-103.488817	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.000	0.00
3	2292.89	5.86	188.36	2292.38	-14.80	-2.17	2.00	188.359	-14.77
4	9085.38	5.86	188.36	9049.40	-700.68	-102.96	0.00	0.000	-699.21
5	10046.55	90.33	359.22	9680.00	-127.50	-121.10	10.00	170.808	-125.84
6	15152.11	90.33	359.22	9650.29	4977.50	-190.62	0.00	0.000	4979.63
7	15202.11	90.33	359.22	9650.00	5027.50	-191.30	0.00	0.000	5029.64

FORMATION TOP DETAILS

TVDPath	Formation
1874.00	Rustler
2002.00	Top Salt
3431.00	Base Salt
3652.00	Yates
4054.00	Seven Rivers
4616.00	Queen
5776.00	Delaware
6710.00	Brushy Canyon
8128.00	Bone Spring
8264.00	Avalon Sand
9242.00	Lower Avalon Shale
9591.00	First Bone Spring Sand
9650.00	TD
9680.00	Landing Point



Plan: PERMIT (#4H/Wellbore #1)

Created By: Matthew May Date: 9:15, March 14 2019

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
Phone: (575) 748-1283 Fax: (575) 748-9720
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	[2] Pool Code	[3] Pool Name
30-025-		

[4] Property Code	[5] Property Name	[6] Well Number
	BOOTSTRAP BILL STATE	4H

[7] OGRID No.	[8] Operator Name	[9] Elevation
005380	XTO ENERGY, INC.	3,701'

[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
P	31	19 S	35 E		226	SOUTH	258	EAST	LEA

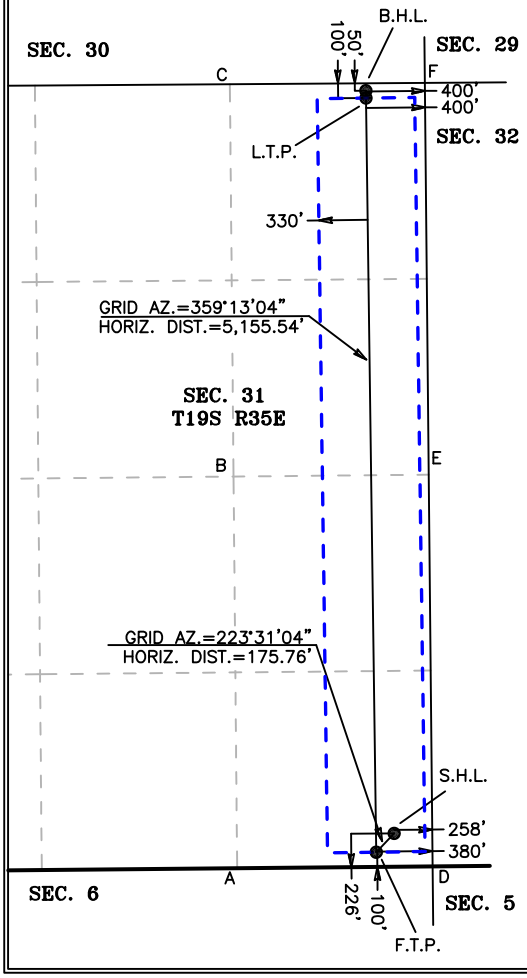
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	31	19 S	35 E		50	NORTH	400	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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.

[16]



SURFACE LOCATION
NAD 27 NME
Y= 586,693.5
X= 760,173.6
LAT.= 32.610083°N
LONG.= 103.488420°W

LAST TAKE POINT
NAD 27 NME
Y= 591,671.0
X= 759,983.0
LAT.= 32.623768°N
LONG.= 103.488910°W

FIRST TAKE POINT
NAD 27 NME
Y= 586,566.0
X= 760,052.5
LAT.= 32.609735°N
LONG.= 103.488816°W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 591,721.0
X= 759,982.3
LAT.= 32.623905°N
LONG.= 103.488911°W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 586,457.3 N, X= 759,111.0 E
B - Y= 589,108.8 N, X= 759,086.5 E
C - Y= 591,764.7 N, X= 759,062.0 E
D - Y= 586,469.5 N, X= 760,433.5 E
E - Y= 589,121.5 N, X= 760,407.7 E
F - Y= 591,773.6 N, X= 760,381.8 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 586,519.1 N, X= 800,291.8 E
B - Y= 589,170.7 N, X= 800,267.2 E
C - Y= 591,826.7 N, X= 800,242.6 E
D - Y= 586,531.3 N, X= 801,614.3 E
E - Y= 589,183.4 N, X= 801,588.4 E
F - Y= 591,835.5 N, X= 801,562.4 E

SURFACE LOCATION
NAD 83 NME
Y= 586,755.3
X= 801,354.4
LAT.= 32.610203°N
LONG.= 103.488910°W

LAST TAKE POINT
NAD 83 NME
Y= 591,732.9
X= 801,163.6
LAT.= 32.623888°N
LONG.= 103.489401°W

FIRST TAKE POINT
NAD 83 NME
Y= 586,627.8
X= 801,233.3
LAT.= 32.609855°N
LONG.= 103.489306°W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 591,782.9
X= 801,162.9
LAT.= 32.624025°N
LONG.= 103.489402°W

[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.

Signature Date

Printed Name

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.

3-6-2019
Date of Survey

Signatue and Seal of
Professional Surveyor:

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

MARK DILLON HARP 23786
Certificate Number AI 2018112727

www.prototypewellplanning.com

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	XTO Energy	**TVD Reference:**	RKB = 17' @ 3718.00usft
Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Project Lea County, NM (NAD-27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Bootstrap Bill State

Site Position:		**Northing:**	586,672.80 usft	**Latitude:**	32.610110
From:	Map	**Easting:**	756,310.40 usft	**Longitude:**	-103.500965
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.449 °

Well #4H

Well Position	**+N/-S**	20.70 usft	**Northing:**	586,693.50 usft	**Latitude:**	32.610083
	+E/-W	3,863.20 usft	**Easting:**	760,173.60 usft	**Longitude:**	-103.488420
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,701.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/14/2019	6.754	60.405	47,994

Design PERMIT

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.22

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,292.89	5.86	188.36	2,292.38	-14.80	-2.17	2.00	2.00	0.00	188.359	
9,085.38	5.86	188.36	9,049.40	-700.68	-102.96	0.00	0.00	0.00	0.000	
10,046.55	90.33	359.22	9,680.00	-127.50	-121.10	10.00	8.79	17.78	170.808	Bootstrap 4H: FTP/
15,152.11	90.33	359.22	9,650.29	4,977.50	-190.62	0.00	0.00	0.00	0.000	Bootstrap 4H: LTP
15,202.11	90.33	359.22	9,650.00	5,027.50	-191.30	0.00	0.00	0.00	0.000	Bootstrap 4H: PBHl

XTO ENERGY

www.prototypewellplanning.com

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	XTO Energy	**TVD Reference:**	RKB = 17' @ 3718.00usft
Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bootstrap 4H: SHL (226 FSL & 258' FEL)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,874.00	0.00	0.00	1,874.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,002.00	0.04	188.36	2,002.00	0.00	0.00	0.00	2.00	2.00	0.00
Top Salt									
2,100.00	2.00	188.36	2,099.98	-1.73	-0.25	-1.72	2.00	2.00	0.00
2,200.00	4.00	188.36	2,199.84	-6.90	-1.01	-6.89	2.00	2.00	0.00
2,292.89	5.86	188.36	2,292.38	-14.80	-2.17	-14.77	2.00	2.00	0.00
2,300.00	5.86	188.36	2,299.45	-15.52	-2.28	-15.49	0.00	0.00	0.00
2,400.00	5.86	188.36	2,398.93	-25.62	-3.76	-25.56	0.00	0.00	0.00
2,500.00	5.86	188.36	2,498.41	-35.71	-5.25	-35.64	0.00	0.00	0.00
2,600.00	5.86	188.36	2,597.89	-45.81	-6.73	-45.72	0.00	0.00	0.00
2,700.00	5.86	188.36	2,697.36	-55.91	-8.22	-55.79	0.00	0.00	0.00
2,800.00	5.86	188.36	2,796.84	-66.01	-9.70	-65.87	0.00	0.00	0.00
2,900.00	5.86	188.36	2,896.32	-76.10	-11.18	-75.94	0.00	0.00	0.00
3,000.00	5.86	188.36	2,995.80	-86.20	-12.67	-86.02	0.00	0.00	0.00
3,100.00	5.86	188.36	3,095.28	-96.30	-14.15	-96.10	0.00	0.00	0.00
3,200.00	5.86	188.36	3,194.75	-106.40	-15.63	-106.17	0.00	0.00	0.00
3,300.00	5.86	188.36	3,294.23	-116.49	-17.12	-116.25	0.00	0.00	0.00
3,400.00	5.86	188.36	3,393.71	-126.59	-18.60	-126.33	0.00	0.00	0.00
3,437.49	5.86	188.36	3,431.00	-130.38	-19.16	-130.10	0.00	0.00	0.00
Base Salt									
3,500.00	5.86	188.36	3,493.19	-136.69	-20.08	-136.40	0.00	0.00	0.00
3,600.00	5.86	188.36	3,592.66	-146.79	-21.57	-146.48	0.00	0.00	0.00
3,659.65	5.86	188.36	3,652.00	-152.81	-22.45	-152.49	0.00	0.00	0.00
Yates									
3,700.00	5.86	188.36	3,692.14	-156.89	-23.05	-156.56	0.00	0.00	0.00
3,800.00	5.86	188.36	3,791.62	-166.98	-24.54	-166.63	0.00	0.00	0.00
3,900.00	5.86	188.36	3,891.10	-177.08	-26.02	-176.71	0.00	0.00	0.00
4,000.00	5.86	188.36	3,990.58	-187.18	-27.50	-186.79	0.00	0.00	0.00
4,063.76	5.86	188.36	4,054.00	-193.62	-28.45	-193.21	0.00	0.00	0.00
Seven Rivers									

XTO ENERGY

www.prototypewellplanning.com

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	XTO Energy	**TVD Reference:**	RKB = 17' @ 3718.00usft
Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.00	5.86	188.36	4,090.05	-197.28	-28.99	-196.86	0.00	0.00	0.00
4,200.00	5.86	188.36	4,189.53	-207.37	-30.47	-206.94	0.00	0.00	0.00
4,300.00	5.86	188.36	4,289.01	-217.47	-31.95	-217.02	0.00	0.00	0.00
4,400.00	5.86	188.36	4,388.49	-227.57	-33.44	-227.09	0.00	0.00	0.00
4,500.00	5.86	188.36	4,487.96	-237.67	-34.92	-237.17	0.00	0.00	0.00
4,600.00	5.86	188.36	4,587.44	-247.76	-36.41	-247.25	0.00	0.00	0.00
4,628.71	5.86	188.36	4,616.00	-250.66	-36.83	-250.14	0.00	0.00	0.00
Queen									
4,700.00	5.86	188.36	4,686.92	-257.86	-37.89	-257.32	0.00	0.00	0.00
4,800.00	5.86	188.36	4,786.40	-267.96	-39.37	-267.40	0.00	0.00	0.00
4,900.00	5.86	188.36	4,885.88	-278.06	-40.86	-277.47	0.00	0.00	0.00
5,000.00	5.86	188.36	4,985.35	-288.15	-42.34	-287.55	0.00	0.00	0.00
5,100.00	5.86	188.36	5,084.83	-298.25	-43.82	-297.63	0.00	0.00	0.00
5,200.00	5.86	188.36	5,184.31	-308.35	-45.31	-307.70	0.00	0.00	0.00
5,300.00	5.86	188.36	5,283.79	-318.45	-46.79	-317.78	0.00	0.00	0.00
5,400.00	5.86	188.36	5,383.27	-328.54	-48.28	-327.86	0.00	0.00	0.00
5,500.00	5.86	188.36	5,482.74	-338.64	-49.76	-337.93	0.00	0.00	0.00
5,600.00	5.86	188.36	5,582.22	-348.74	-51.24	-348.01	0.00	0.00	0.00
5,700.00	5.86	188.36	5,681.70	-358.84	-52.73	-358.09	0.00	0.00	0.00
5,794.80	5.86	188.36	5,776.00	-368.41	-54.13	-367.64	0.00	0.00	0.00
Delaware									
5,800.00	5.86	188.36	5,781.18	-368.94	-54.21	-368.16	0.00	0.00	0.00
5,900.00	5.86	188.36	5,880.65	-379.03	-55.69	-378.24	0.00	0.00	0.00
6,000.00	5.86	188.36	5,980.13	-389.13	-57.18	-388.32	0.00	0.00	0.00
6,100.00	5.86	188.36	6,079.61	-399.23	-58.66	-398.39	0.00	0.00	0.00
6,200.00	5.86	188.36	6,179.09	-409.33	-60.15	-408.47	0.00	0.00	0.00
6,300.00	5.86	188.36	6,278.57	-419.42	-61.63	-418.55	0.00	0.00	0.00
6,400.00	5.86	188.36	6,378.04	-429.52	-63.11	-428.62	0.00	0.00	0.00
6,500.00	5.86	188.36	6,477.52	-439.62	-64.60	-438.70	0.00	0.00	0.00
6,600.00	5.86	188.36	6,577.00	-449.72	-66.08	-448.78	0.00	0.00	0.00
6,700.00	5.86	188.36	6,676.48	-459.81	-67.56	-458.85	0.00	0.00	0.00
6,733.70	5.86	188.36	6,710.00	-463.22	-68.06	-462.25	0.00	0.00	0.00
Brushy Canyon									
6,800.00	5.86	188.36	6,775.95	-469.91	-69.05	-468.93	0.00	0.00	0.00
6,900.00	5.86	188.36	6,875.43	-480.01	-70.53	-479.00	0.00	0.00	0.00
7,000.00	5.86	188.36	6,974.91	-490.11	-72.02	-489.08	0.00	0.00	0.00
7,100.00	5.86	188.36	7,074.39	-500.20	-73.50	-499.16	0.00	0.00	0.00
7,200.00	5.86	188.36	7,173.87	-510.30	-74.98	-509.23	0.00	0.00	0.00
7,300.00	5.86	188.36	7,273.34	-520.40	-76.47	-519.31	0.00	0.00	0.00
7,400.00	5.86	188.36	7,372.82	-530.50	-77.95	-529.39	0.00	0.00	0.00
7,500.00	5.86	188.36	7,472.30	-540.60	-79.43	-539.46	0.00	0.00	0.00
7,600.00	5.86	188.36	7,571.78	-550.69	-80.92	-549.54	0.00	0.00	0.00
7,700.00	5.86	188.36	7,671.26	-560.79	-82.40	-559.62	0.00	0.00	0.00
7,800.00	5.86	188.36	7,770.73	-570.89	-83.89	-569.69	0.00	0.00	0.00
7,900.00	5.86	188.36	7,870.21	-580.99	-85.37	-579.77	0.00	0.00	0.00
8,000.00	5.86	188.36	7,969.69	-591.08	-86.85	-589.85	0.00	0.00	0.00
8,100.00	5.86	188.36	8,069.17	-601.18	-88.34	-599.92	0.00	0.00	0.00
8,159.14	5.86	188.36	8,128.00	-607.15	-89.21	-605.88	0.00	0.00	0.00
Bone Spring									
8,200.00	5.86	188.36	8,168.64	-611.28	-89.82	-610.00	0.00	0.00	0.00
8,295.86	5.86	188.36	8,264.00	-620.96	-91.24	-619.66	0.00	0.00	0.00
Avalon Sand									
8,300.00	5.86	188.36	8,268.12	-621.38	-91.30	-620.08	0.00	0.00	0.00

XTO ENERGY

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Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	XTO Energy	**TVD Reference:**	RKB = 17' @ 3718.00usft
Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.00	5.86	188.36	8,367.60	-631.47	-92.79	-630.15	0.00	0.00	0.00
8,500.00	5.86	188.36	8,467.08	-641.57	-94.27	-640.23	0.00	0.00	0.00
8,600.00	5.86	188.36	8,566.56	-651.67	-95.76	-650.31	0.00	0.00	0.00
8,700.00	5.86	188.36	8,666.03	-661.77	-97.24	-660.38	0.00	0.00	0.00
8,800.00	5.86	188.36	8,765.51	-671.86	-98.72	-670.46	0.00	0.00	0.00
8,900.00	5.86	188.36	8,864.99	-681.96	-100.21	-680.53	0.00	0.00	0.00
9,000.00	5.86	188.36	8,964.47	-692.06	-101.69	-690.61	0.00	0.00	0.00
9,085.38	5.86	188.36	9,049.40	-700.68	-102.96	-699.21	0.00	0.00	0.00
9,100.00	4.42	191.39	9,063.96	-701.97	-103.18	-700.50	10.00	-9.83	20.73
9,150.00	1.15	305.22	9,113.91	-703.57	-103.97	-702.09	10.00	-6.53	227.65
9,200.00	5.75	349.90	9,163.81	-700.81	-104.82	-699.32	10.00	9.20	89.37
9,250.00	10.72	354.27	9,213.28	-693.71	-105.72	-692.21	10.00	9.93	8.74
9,279.38	13.65	355.36	9,242.00	-687.54	-106.28	-686.03	10.00	9.97	3.71
Lower Avalon Shale									
9,300.00	15.71	355.89	9,261.95	-682.33	-106.67	-680.81	10.00	9.98	2.55
9,350.00	20.70	356.74	9,309.43	-666.75	-107.66	-665.22	10.00	9.99	1.70
9,400.00	25.69	357.27	9,355.37	-647.08	-108.68	-645.55	10.00	9.99	1.06
9,450.00	30.69	357.64	9,399.43	-623.49	-109.72	-621.94	10.00	9.99	0.74
9,500.00	35.69	357.91	9,441.26	-596.15	-110.78	-594.59	10.00	10.00	0.55
9,550.00	40.69	358.13	9,480.54	-565.27	-111.84	-563.69	10.00	10.00	0.43
9,600.00	45.69	358.30	9,516.99	-531.07	-112.91	-529.49	10.00	10.00	0.35
9,650.00	50.68	358.45	9,550.31	-493.84	-113.96	-492.24	10.00	10.00	0.29
9,700.00	55.68	358.58	9,580.26	-453.83	-115.00	-452.23	10.00	10.00	0.25
9,719.53	57.64	358.62	9,591.00	-437.52	-115.40	-435.91	10.00	10.00	0.23
First Bone Spring Sand									
9,750.00	60.68	358.69	9,606.62	-411.37	-116.01	-409.76	10.00	10.00	0.22
9,800.00	65.68	358.79	9,629.17	-366.78	-116.99	-365.15	10.00	10.00	0.20
9,850.00	70.68	358.89	9,647.74	-320.38	-117.93	-318.75	10.00	10.00	0.19
9,856.94	71.38	358.90	9,650.00	-313.82	-118.06	-312.18	10.00	10.00	0.18
TD									
9,900.00	75.68	358.98	9,662.21	-272.54	-118.82	-270.90	10.00	10.00	0.18
9,950.00	80.68	359.06	9,672.45	-223.63	-119.66	-221.98	10.00	10.00	0.17
10,000.00	85.68	359.14	9,678.38	-174.00	-120.44	-172.35	10.00	10.00	0.17
10,046.55	90.33	359.22	9,680.00	-127.50	-121.10	-125.84	10.00	10.00	0.16
Landing Point - Bootstrap 4H: FTP/ LP									
10,100.00	90.33	359.22	9,679.69	-74.05	-121.83	-72.39	0.00	0.00	0.00
10,200.00	90.33	359.22	9,679.11	25.94	-123.19	27.61	0.00	0.00	0.00
10,300.00	90.33	359.22	9,678.53	125.92	-124.55	127.61	0.00	0.00	0.00
10,400.00	90.33	359.22	9,677.94	225.91	-125.91	227.61	0.00	0.00	0.00
10,500.00	90.33	359.22	9,677.36	325.90	-127.27	327.61	0.00	0.00	0.00
10,600.00	90.33	359.22	9,676.78	425.89	-128.64	427.60	0.00	0.00	0.00
10,700.00	90.33	359.22	9,676.20	525.88	-130.00	527.60	0.00	0.00	0.00
10,800.00	90.33	359.22	9,675.62	625.87	-131.36	627.60	0.00	0.00	0.00
10,900.00	90.33	359.22	9,675.03	725.86	-132.72	727.60	0.00	0.00	0.00
11,000.00	90.33	359.22	9,674.45	825.85	-134.08	827.60	0.00	0.00	0.00
11,100.00	90.33	359.22	9,673.87	925.84	-135.44	927.60	0.00	0.00	0.00
11,200.00	90.33	359.22	9,673.29	1,025.83	-136.81	1,027.59	0.00	0.00	0.00
11,300.00	90.33	359.22	9,672.71	1,125.82	-138.17	1,127.59	0.00	0.00	0.00
11,400.00	90.33	359.22	9,672.12	1,225.80	-139.53	1,227.59	0.00	0.00	0.00
11,500.00	90.33	359.22	9,671.54	1,325.79	-140.89	1,327.59	0.00	0.00	0.00
11,600.00	90.33	359.22	9,670.96	1,425.78	-142.25	1,427.59	0.00	0.00	0.00
11,700.00	90.33	359.22	9,670.38	1,525.77	-143.61	1,527.58	0.00	0.00	0.00
11,800.00	90.33	359.22	9,669.80	1,625.76	-144.98	1,627.58	0.00	0.00	0.00
11,900.00	90.33	359.22	9,669.22	1,725.75	-146.34	1,727.58	0.00	0.00	0.00

XTO ENERGY

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Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	XTO Energy	**TVD Reference:**	RKB = 17' @ 3718.00usft
Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,000.00	90.33	359.22	9,668.63	1,825.74	-147.70	1,827.58	0.00	0.00	0.00
12,100.00	90.33	359.22	9,668.05	1,925.73	-149.06	1,927.58	0.00	0.00	0.00
12,200.00	90.33	359.22	9,667.47	2,025.72	-150.42	2,027.58	0.00	0.00	0.00
12,300.00	90.33	359.22	9,666.89	2,125.71	-151.78	2,127.57	0.00	0.00	0.00
12,400.00	90.33	359.22	9,666.31	2,225.69	-153.15	2,227.57	0.00	0.00	0.00
12,500.00	90.33	359.22	9,665.72	2,325.68	-154.51	2,327.57	0.00	0.00	0.00
12,600.00	90.33	359.22	9,665.14	2,425.67	-155.87	2,427.57	0.00	0.00	0.00
12,700.00	90.33	359.22	9,664.56	2,525.66	-157.23	2,527.57	0.00	0.00	0.00
12,800.00	90.33	359.22	9,663.98	2,625.65	-158.59	2,627.57	0.00	0.00	0.00
12,900.00	90.33	359.22	9,663.40	2,725.64	-159.95	2,727.56	0.00	0.00	0.00
13,000.00	90.33	359.22	9,662.81	2,825.63	-161.32	2,827.56	0.00	0.00	0.00
13,100.00	90.33	359.22	9,662.23	2,925.62	-162.68	2,927.56	0.00	0.00	0.00
13,200.00	90.33	359.22	9,661.65	3,025.61	-164.04	3,027.56	0.00	0.00	0.00
13,300.00	90.33	359.22	9,661.07	3,125.60	-165.40	3,127.56	0.00	0.00	0.00
13,400.00	90.33	359.22	9,660.49	3,225.58	-166.76	3,227.56	0.00	0.00	0.00
13,500.00	90.33	359.22	9,659.90	3,325.57	-168.12	3,327.55	0.00	0.00	0.00
13,600.00	90.33	359.22	9,659.32	3,425.56	-169.49	3,427.55	0.00	0.00	0.00
13,700.00	90.33	359.22	9,658.74	3,525.55	-170.85	3,527.55	0.00	0.00	0.00
13,800.00	90.33	359.22	9,658.16	3,625.54	-172.21	3,627.55	0.00	0.00	0.00
13,900.00	90.33	359.22	9,657.58	3,725.53	-173.57	3,727.55	0.00	0.00	0.00
14,000.00	90.33	359.22	9,657.00	3,825.52	-174.93	3,827.55	0.00	0.00	0.00
14,100.00	90.33	359.22	9,656.41	3,925.51	-176.29	3,927.54	0.00	0.00	0.00
14,200.00	90.33	359.22	9,655.83	4,025.50	-177.65	4,027.54	0.00	0.00	0.00
14,300.00	90.33	359.22	9,655.25	4,125.49	-179.02	4,127.54	0.00	0.00	0.00
14,400.00	90.33	359.22	9,654.67	4,225.48	-180.38	4,227.54	0.00	0.00	0.00
14,500.00	90.33	359.22	9,654.09	4,325.46	-181.74	4,327.54	0.00	0.00	0.00
14,600.00	90.33	359.22	9,653.50	4,425.45	-183.10	4,427.54	0.00	0.00	0.00
14,700.00	90.33	359.22	9,652.92	4,525.44	-184.46	4,527.53	0.00	0.00	0.00
14,800.00	90.33	359.22	9,652.34	4,625.43	-185.82	4,627.53	0.00	0.00	0.00
14,900.00	90.33	359.22	9,651.76	4,725.42	-187.19	4,727.53	0.00	0.00	0.00
15,000.00	90.33	359.22	9,651.18	4,825.41	-188.55	4,827.53	0.00	0.00	0.00
15,100.00	90.33	359.22	9,650.59	4,925.40	-189.91	4,927.53	0.00	0.00	0.00
15,152.11	90.33	359.22	9,650.29	4,977.50	-190.62	4,979.63	0.00	0.00	0.00
Bootstrap 4H: LTP									
15,202.11	90.33	359.22	9,650.00	5,027.50	-191.30	5,029.64	0.00	0.00	0.00
Bootstrap 4H: PBHL (50 FNL & 400' FEL)									

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Planning Report

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Project:	Lea County, NM (NAD-27)	**MD Reference:**	RKB = 17' @ 3718.00usft
Site:	Bootstrap Bill State	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Bootstrap 4H: SHL (2 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	586,693.50	760,173.60	32.610083	-103.488420
Bootstrap 4H: PBHL (- plan hits target center - Point	0.00	0.00	9,650.00	5,027.50	-191.30	591,721.00	759,982.30	32.623905	-103.488912
Bootstrap 4H: LTP - plan misses target center by 0.02usft at 15152.11usft MD (9650.29 TVD, 4977.50 N, -190.62 E) - Point	0.00	0.00	9,650.29	4,977.50	-190.60	591,671.00	759,983.00	32.623768	-103.488911
Bootstrap 4H: FTP/ LI - plan hits target center - Point	0.00	0.00	9,680.00	-127.50	-121.10	586,566.00	760,052.50	32.609735	-103.488817

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,874.00	1,874.00	Rustler			
2,002.00	2,002.00	Top Salt			
3,437.49	3,431.00	Base Salt			
3,659.65	3,652.00	Yates			
4,063.76	4,054.00	Seven Rivers			
4,628.71	4,616.00	Queen			
5,794.80	5,776.00	Delaware			
6,733.70	6,710.00	Brushy Canyon			
8,159.14	8,128.00	Bone Spring			
8,295.86	8,264.00	Avalon Sand			
9,279.38	9,242.00	Lower Avalon Shale			
9,719.53	9,591.00	First Bone Spring Sand			
9,856.94	9,650.00	TD			
10,046.55	9,680.00	Landing Point			

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

XTO Energy Inc.
Davy Jones State 4H
Projected TD: 16109' MD / 10549' TVD
SHL: 230' FSL & 1211' FEL , Section 31, T19S, R35E
BHL: 50' FNL & 330' FEL , Section 31, T19S, R35E
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	1849'	Water
Top of Salt	2149'	Water
Base of Salt	3398'	Water
Delaware	5758'	Water
Brushy Canyon	6990'	Water/Oil/Gas
Bone Spring	8111'	Water
1st Bone Spring Ss	9571'	Water/Oil/Gas
Target/Land Curve	10549'	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 9.625 inch casing @ 1949' (200' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 4100' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 16109 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 3800 feet).

3. Casing Design

Hole Size	MD	TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1949'	1946'	9.625	40	J-55	BTC	New	3.39	2.91	8.08
8.75	0' – 2000'	2000'	7.625	29.7	RY P-110	Flush Joint	New	3.40	5.30	4.58
8.75	2000' – 4100'	4100'	7.625	29.7	HC L-80	Flush Joint	New	2.47	4.88	6.51
6.75	0' – 4000'	4000'	5.5	20	RY P-110	Semi-Premium	New	1.05	5.74	2.51
6.75	4000' - 15600'	9670'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.18	2.51

· Production casing meets the clearance requiremenets as tapered string crosses over before encountering the intermediate shoe, per Onshore Order 2.3.B.1
· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
· XTO requests to not utilize centralizers in the curve and lateral
· 7.625 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 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: 11" 10M top flange x 9-5/8" bottom
B. Tubing Head: 11" 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 7-5/8" casing per BLM Onshore Order 2
· Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 1949'

Lead: 550 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 130 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 = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 4100'
1st Stage
Optional Lead: 380 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: -260 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6990
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage
Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)
Tail: 790 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 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 (6990') 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: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 16109'

Lead: -70 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 3800 feet
Tail: 1010 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 2000 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 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 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 2781 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 nippling up on the 9.625, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nippling up on the 7.625, 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' - 1949'	12.25	FW/Native	8.7-9.2	35-40	NC
1949' - 4100'	8.75	FW / Cut Brine / Direct Emulsion / OBM	9.7-10.2	30-32	NC
4100' - 16109'	6.75	OBM	9.3-9.8	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 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut 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 9.625 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 170 to 190 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 5101 psi.

10. Anticipated Starting Date and Duration of Operations

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

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 Energy Inc._____ **OGRID:** _____05380_____ **Date:** _08_/_09_/_2022_

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Perla Verde 31 State Com 201H		4-31-19S-35E	241'FSL & 1139'FWL	500	650	350
Perla Verde 31 State 202H		P-31-19S-35E	230'FSL & 1301'FEL	500	650	350
Perla Verde 31 State Com 203H		4-31-19S-35E	241'FSL & 1169'FWL	500	650	350
Perla Verde 31 State Com 204H		P-31-19S-35E	226'FSL & 258'FEL	500	650	350
Perla Verde 31 State Com 401H		4-31-19S-35E	241' FSL & 1109' FWL	500	650	350
Perla Verde 31 State 402H		P-31-19S-35E	230' FSL & 1301' FEL	500	650	350
Perla Verde 31 State Com 403H		4-31-19S-35E	242' FSL & 1199' FWL	500	650	350
Perla Verde 31 State 404H		P-31-19S-35E	230' FSL & 1211' FEL	500	650	350

IV. Central Delivery Point Name: __**Perla Verde CTB**_____ [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
Perla Verde 31 State Com 201H		4-31-19S-35E	241'FSL & 1139'FWL	500	650	350
Perla Verde 31 State 202H		P-31-19S-35E	230'FSL & 1301'FEL	500	650	350
Perla Verde 31 State Com 203H		4-31-19S-35E	241'FSL & 1169'FWL	500	650	350
Perla Verde 31 State Com 204H		P-31-19S-35E	226'FSL & 258'FEL	500	650	350
Perla Verde 31 State Com 401H		4-31-19S-35E	241' FSL & 1109' FWL	500	650	350

Perla Verde 31 State Com 401H		A-31-19S-35E	230' FSL & 1301' FEL	500	650	350	
Perla Verde 31 State Com 403H		4-31-19S-35E	242' FSL & 1199' FWL	500	650	350	
Perla Verde 31 State 404H		P-31-19S-35E	230' FSL & 1211' FEL	500	650	350	

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 X 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 X 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: Cassie Evans
Printed Name: Cassie Evans
Title: Regulatory Analyst
E-mail Address: cassie.evans@exxonmobil.com
Date: 08/09/22
Phone: 432.218.3671

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

VI. Separation Equipment:

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

VII. Operational Practices:

1. Subsection B.
    - During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
    - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
2. Subsection C.
    - During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

    For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

    - Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
    - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
3. Subsection D.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
    - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

4. Subsection E.
   - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
   - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
   - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
5. Subsection F.
   - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
   - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

VIII. Best Management Practices:

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

VI. Separation Equipment:

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

VII. Operational Practices:

1. Subsection B. ○ During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
    - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
2. Subsection C. ○ During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

    For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

    - Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
    - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
3. Subsection D. ○ At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
    - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

4. Subsection E.
   - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
   - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
   - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
5. Subsection F.
   - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
   - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

VIII. Best Management Practices:

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.