



XTO Energy

Lea County, NM (NAD-27)

Bootstrap Bill State

#3H

Wellbore #1

Plan: PERMIT

Standard Planning Report

14 March, 2019



Project: Lea County, NM (NAD-27)
Site: Bootstrap Bill State
Well: #3H
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: #3H

Rig Name: RKB = 17 @ 3720.00usft
Ground Level: 3703.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	586673.20	756340.50	32.610110	-103.500867

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Bootstrap 3H: SHL (241 FSL & 1169' FWL)	0.00	0.00	0.00	586673.20	756340.50	32.610110	-103.500867	Point
Bootstrap 3H: PBHL (50 FNL & 1800' FWL)	9619.00	5027.10	588.00	591700.30	756928.50	32.623915	-103.498830	Point
Bootstrap 3H: LTP	9619.48	4977.20	588.50	591850.40	756929.00	32.623777	-103.498829	Point
Bootstrap 3H: FTP/ LP	9670.00	-135.50	642.10	586537.70	756982.80	32.609724	-103.498788	Point

West(-)/East(+) (700 usft/in)

-700 -350 0 350 700 1050 1400

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
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	2385.38	7.71	140.16	2384.22	-19.87	16.58	2.00	140.161	-20.05
4	9101.74	7.71	140.16	9038.90	-711.54	593.85	0.00	0.000	-717.71
5	10067.01	80.57	359.40	9670.00	-135.50	642.10	10.00	-140.458	-142.22
6	15180.24	80.57	359.40	9619.48	9619.48	4977.20	588.52	0.000	4970.78
7	15230.14	80.57	359.40	9619.00	5027.10	588.00	0.00	0.000	5020.87

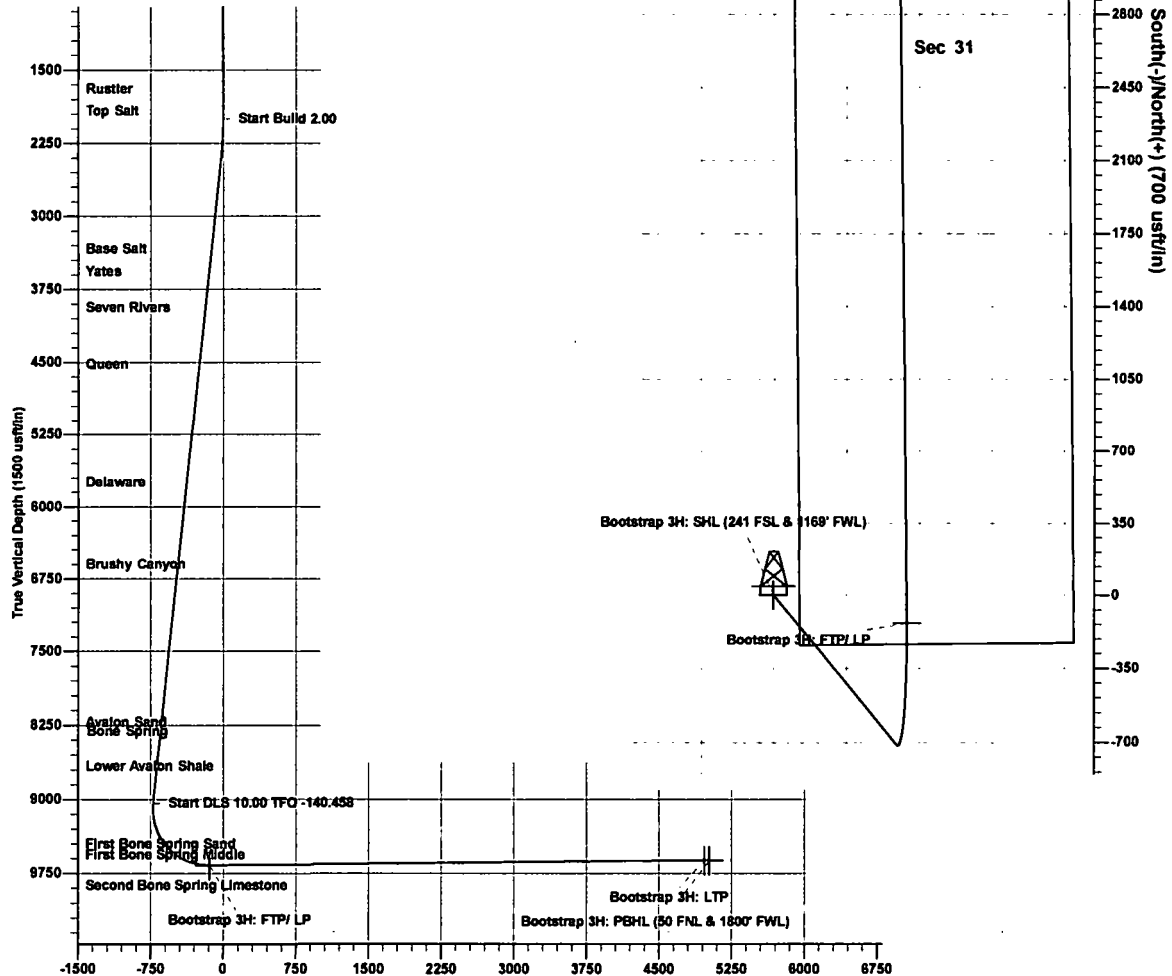
Bootstrap 3H: PBHL (50 FNL & 1800' FWL)

Bootstrap 3H: LTP

200' Hardline/ Setback

FORMATION TOP DETAILS

TVDPATH	Formation
1865.00	Rustler
1993.00	Top Salt
3412.00	Base Salt
3642.00	Yates
4011.00	Seven Rivers
4598.00	Queen
5821.00	Delaware
6675.00	Brushy Canyon
8131.00	Bone Spring
8298.00	Avalon Sand
8830.00	Lower Avalon Shale
8873.00	First Bone Spring Sand
9619.00	TD
9670.00	Landing Point



Vertical Section at 359.40° (1500 usft/in)

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by Prototype are at the sole risk and responsibility of the user.

Plan: PERMIT (#3H/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 30-025-	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name BOOTSTRAP BILL STATE	
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁶ Well Number 3H ⁹ Elevation 3,703'

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
L4	31	19 S	35 E		241	SOUTH	1,169	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
C	31	19 S	35 E		50	NORTH	1,800	WEST	LEA

¹² Dedicated Acres	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.

¹⁶	SURFACE LOCATION NAD 27 NME Y= 586,673.2 X= 756,340.5 LAT.= 32.610110°N LONG.= 103.500867°W LAST TAKE POINT NAD 27 NME Y= 591,650.4 X= 756,929.0 LAT.= 32.623777°N LONG.= 103.498830°W FIRST TAKE POINT NAD 27 NME Y= 586,537.7 X= 756,982.6 LAT.= 32.609724°N LONG.= 103.498786°W BOTTOM HOLE LOCATION NAD 27 NME Y= 591,700.3 X= 756,928.5 LAT.= 32.623915°N LONG.= 103.498830°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 586,433.0 N, X= 756,467.9 E B - Y= 589,083.3 N, X= 756,444.8 E C - Y= 591,746.9 N, X= 756,421.9 E D - Y= 586,445.1 N, X= 757,788.5 E E - Y= 589,096.1 N, X= 757,765.4 E F - Y= 591,755.9 N, X= 757,742.1 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 586,494.8 N, X= 797,648.6 E B - Y= 589,145.2 N, X= 797,625.4 E C - Y= 591,808.9 N, X= 797,602.4 E D - Y= 586,506.9 N, X= 798,969.2 E E - Y= 589,158.0 N, X= 798,946.0 E F - Y= 591,817.9 N, X= 798,922.7 E SURFACE LOCATION NAD 83 NME Y= 586,735.0 X= 797,521.2 LAT.= 32.610230°N LONG.= 103.501358°W LAST TAKE POINT NAD 83 NME Y= 591,712.4 X= 798,109.5 LAT.= 32.623898°N LONG.= 103.499320°W FIRST TAKE POINT NAD 83 NME Y= 586,599.5 X= 798,163.3 LAT.= 32.609844°N LONG.= 103.499276°W BOTTOM HOLE LOCATION NAD 83 NME Y= 591,762.3 X= 798,109.0 LAT.= 32.624035°N LONG.= 103.499321°W	¹⁷ OPERATOR CERTIFICATION <i>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.</i> Signature _____ Date _____ Printed Name _____ E-mail Address _____ ¹⁸ SURVEYOR CERTIFICATION <i>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.</i> 3-6-2019 Date of Survey _____ Signature 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 2018112726
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www.prototypewellplanning.com
Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO Energy
Project: Lea County, NM (NAD-27)
Site: Bootstrap Bill State
Well: #3H
Wellbore: Wellbore #1
Design: PERMIT

Local Co-ordinate Reference: Well #3H
TVD Reference: RKB = 17' @ 3720.00usft
MD Reference: RKB = 17' @ 3720.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	#3H					
Well Position	+N/-S	0.40 usft	Northing:	586,673.20 usft	Latitude:	32.610110
	+E/-W	30.10 usft	Easting:	756,340.50 usft	Longitude:	-103.500868
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,703.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/14/2019	6.760	60.403	47,993

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	359.40

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	
2,385.38	7.71	140.16	2,384.22	-19.87	16.58	2.00	2.00	0.00	140.161	
9,101.74	7.71	140.16	9,039.90	-711.54	593.65	0.00	0.00	0.00	0.000	
10,067.01	90.57	359.40	9,670.00	-135.50	642.10	10.00	8.58	-14.58	-140.458	Bootstrap 3H: FTP/
15,181.36	90.57	359.40	9,619.48	4,978.32	588.51	0.00	0.00	0.00	0.000	Bootstrap 3H: LTP
15,230.14	90.57	359.40	9,619.00	5,027.10	588.00	0.00	0.00	0.00	0.000	Bootstrap 3H: PBHI



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Local Co-ordinate Reference: Well #3H
 TVD Reference: RKB = 17' @ 3720.00usft
 MD Reference: RKB = 17' @ 3720.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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 3H: SHL (241 FSL & 1169' FWL)									
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
1,865.00	0.00	0.00	1,865.00	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
1,993.00	0.00	0.00	1,993.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	140.16	2,099.98	-1.34	1.12	-1.35	2.00	2.00	0.00
2,200.00	4.00	140.16	2,199.84	-5.36	4.47	-5.40	2.00	2.00	0.00
2,300.00	6.00	140.16	2,299.45	-12.05	10.05	-12.15	2.00	2.00	0.00
2,385.38	7.71	140.16	2,384.22	-19.87	16.58	-20.05	2.00	2.00	0.00
2,400.00	7.71	140.16	2,398.71	-21.38	17.84	-21.56	0.00	0.00	0.00
2,500.00	7.71	140.16	2,497.80	-31.68	26.43	-31.95	0.00	0.00	0.00
2,600.00	7.71	140.16	2,596.90	-41.98	35.02	-42.34	0.00	0.00	0.00
2,700.00	7.71	140.16	2,696.00	-52.27	43.61	-52.73	0.00	0.00	0.00
2,800.00	7.71	140.16	2,795.09	-62.57	52.20	-63.12	0.00	0.00	0.00
2,900.00	7.71	140.16	2,894.19	-72.87	60.80	-73.50	0.00	0.00	0.00
3,000.00	7.71	140.16	2,993.29	-83.17	69.39	-83.89	0.00	0.00	0.00
3,100.00	7.71	140.16	3,092.38	-93.47	77.98	-94.28	0.00	0.00	0.00
3,200.00	7.71	140.16	3,191.48	-103.76	86.57	-104.67	0.00	0.00	0.00
3,300.00	7.71	140.16	3,290.58	-114.06	95.16	-115.05	0.00	0.00	0.00
3,400.00	7.71	140.16	3,389.67	-124.36	103.76	-125.44	0.00	0.00	0.00
3,422.53	7.71	140.16	3,412.00	-126.68	105.69	-127.78	0.00	0.00	0.00
Base Salt									
3,500.00	7.71	140.16	3,488.77	-134.66	112.35	-135.83	0.00	0.00	0.00
3,600.00	7.71	140.16	3,587.87	-144.96	120.94	-146.22	0.00	0.00	0.00
3,654.63	7.71	140.16	3,642.00	-150.58	125.63	-151.89	0.00	0.00	0.00
Yates									
3,700.00	7.71	140.16	3,686.96	-155.26	129.53	-156.60	0.00	0.00	0.00
3,800.00	7.71	140.16	3,786.06	-165.55	138.12	-166.99	0.00	0.00	0.00
3,900.00	7.71	140.16	3,885.15	-175.85	146.72	-177.38	0.00	0.00	0.00
4,000.00	7.71	140.16	3,984.25	-186.15	155.31	-187.77	0.00	0.00	0.00
4,026.99	7.71	140.16	4,011.00	-188.93	157.63	-190.57	0.00	0.00	0.00
Seven Rivers									



Database: EDM 5000.1 Single User Db
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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	7.71	140.16	4,083.35	-196.45	163.90	-198.15	0.00	0.00	0.00
4,200.00	7.71	140.16	4,182.44	-206.75	172.49	-208.54	0.00	0.00	0.00
4,300.00	7.71	140.16	4,281.54	-217.04	181.08	-218.93	0.00	0.00	0.00
4,400.00	7.71	140.16	4,380.64	-227.34	189.68	-229.32	0.00	0.00	0.00
4,500.00	7.71	140.16	4,479.73	-237.64	198.27	-239.70	0.00	0.00	0.00
4,600.00	7.71	140.16	4,578.83	-247.94	206.86	-250.09	0.00	0.00	0.00
4,619.34	7.71	140.16	4,598.00	-249.93	208.52	-252.10	0.00	0.00	0.00
Queen									
4,700.00	7.71	140.16	4,677.93	-258.24	215.45	-260.48	0.00	0.00	0.00
4,800.00	7.71	140.16	4,777.02	-268.54	224.04	-270.87	0.00	0.00	0.00
4,900.00	7.71	140.16	4,876.12	-278.83	232.64	-281.25	0.00	0.00	0.00
5,000.00	7.71	140.16	4,975.22	-289.13	241.23	-291.64	0.00	0.00	0.00
5,100.00	7.71	140.16	5,074.31	-299.43	249.82	-302.03	0.00	0.00	0.00
5,200.00	7.71	140.16	5,173.41	-309.73	258.41	-312.42	0.00	0.00	0.00
5,300.00	7.71	140.16	5,272.51	-320.03	267.00	-322.80	0.00	0.00	0.00
5,400.00	7.71	140.16	5,371.60	-330.32	275.60	-333.19	0.00	0.00	0.00
5,500.00	7.71	140.16	5,470.70	-340.62	284.19	-343.58	0.00	0.00	0.00
5,600.00	7.71	140.16	5,569.80	-350.92	292.78	-353.97	0.00	0.00	0.00
5,700.00	7.71	140.16	5,668.89	-361.22	301.37	-364.35	0.00	0.00	0.00
5,800.00	7.71	140.16	5,767.99	-371.52	309.96	-374.74	0.00	0.00	0.00
5,853.49	7.71	140.16	5,821.00	-377.03	314.56	-380.30	0.00	0.00	0.00
Delaware									
5,900.00	7.71	140.16	5,867.09	-381.82	318.56	-385.13	0.00	0.00	0.00
6,000.00	7.71	140.16	5,966.18	-392.11	327.15	-395.52	0.00	0.00	0.00
6,100.00	7.71	140.16	6,065.28	-402.41	335.74	-405.91	0.00	0.00	0.00
6,200.00	7.71	140.16	6,164.38	-412.71	344.33	-416.29	0.00	0.00	0.00
6,300.00	7.71	140.16	6,263.47	-423.01	352.92	-426.68	0.00	0.00	0.00
6,400.00	7.71	140.16	6,362.57	-433.31	361.52	-437.07	0.00	0.00	0.00
6,500.00	7.71	140.16	6,461.67	-443.60	370.11	-447.46	0.00	0.00	0.00
6,600.00	7.71	140.16	6,560.76	-453.90	378.70	-457.84	0.00	0.00	0.00
6,700.00	7.71	140.16	6,659.86	-464.20	387.29	-468.23	0.00	0.00	0.00
6,715.28	7.71	140.16	6,675.00	-465.77	388.60	-469.82	0.00	0.00	0.00
Brushy Canyon									
6,800.00	7.71	140.16	6,758.95	-474.50	395.88	-478.62	0.00	0.00	0.00
6,900.00	7.71	140.16	6,858.05	-484.80	404.48	-489.01	0.00	0.00	0.00
7,000.00	7.71	140.16	6,957.15	-495.09	413.07	-499.39	0.00	0.00	0.00
7,100.00	7.71	140.16	7,056.24	-505.39	421.66	-509.78	0.00	0.00	0.00
7,200.00	7.71	140.16	7,155.34	-515.69	430.25	-520.17	0.00	0.00	0.00
7,300.00	7.71	140.16	7,254.44	-525.99	438.84	-530.56	0.00	0.00	0.00
7,400.00	7.71	140.16	7,353.53	-536.29	447.44	-540.94	0.00	0.00	0.00
7,500.00	7.71	140.16	7,452.63	-546.59	456.03	-551.33	0.00	0.00	0.00
7,600.00	7.71	140.16	7,551.73	-556.88	464.62	-561.72	0.00	0.00	0.00
7,700.00	7.71	140.16	7,650.82	-567.18	473.21	-572.11	0.00	0.00	0.00
7,800.00	7.71	140.16	7,749.92	-577.48	481.80	-582.49	0.00	0.00	0.00
7,900.00	7.71	140.16	7,849.02	-587.78	490.39	-592.88	0.00	0.00	0.00
8,000.00	7.71	140.16	7,948.11	-598.08	498.99	-603.27	0.00	0.00	0.00
8,100.00	7.71	140.16	8,047.21	-608.37	507.58	-613.66	0.00	0.00	0.00
8,184.55	7.71	140.16	8,131.00	-617.08	514.84	-622.44	0.00	0.00	0.00
Bone Spring									
8,200.00	7.71	140.16	8,146.31	-618.67	516.17	-624.04	0.00	0.00	0.00
8,300.00	7.71	140.16	8,245.40	-628.97	524.76	-634.43	0.00	0.00	0.00
8,351.06	7.71	140.16	8,296.00	-634.23	529.15	-639.74	0.00	0.00	0.00
Avalon Sand									



www.prototypewellplanning.com
Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO Energy
Project: Lea County, NM (NAD-27)
Site: Bootstrap Bill State
Well: #3H
Wellbore: Wellbore #1
Design: PERMIT

Local Co-ordinate Reference: Well #3H
TVD Reference: RKB = 17' @ 3720.00usft
MD Reference: RKB = 17' @ 3720.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	7.71	140.16	8,344.50	-639.27	533.35	-644.82	0.00	0.00	0.00
8,500.00	7.71	140.16	8,443.60	-649.57	541.95	-655.21	0.00	0.00	0.00
8,600.00	7.71	140.16	8,542.69	-659.87	550.54	-665.59	0.00	0.00	0.00
8,700.00	7.71	140.16	8,641.79	-670.16	559.13	-675.98	0.00	0.00	0.00
8,800.00	7.71	140.16	8,740.89	-680.46	567.72	-686.37	0.00	0.00	0.00
8,889.93	7.71	140.16	8,830.00	-689.72	575.45	-695.71	0.00	0.00	0.00
Lower Avalon Shale									
8,900.00	7.71	140.16	8,839.98	-690.76	576.31	-696.76	0.00	0.00	0.00
9,000.00	7.71	140.16	8,939.08	-701.06	584.91	-707.14	0.00	0.00	0.00
9,101.74	7.71	140.16	9,039.90	-711.54	593.65	-717.71	0.00	0.00	0.00
9,150.00	5.03	102.49	9,087.88	-714.48	597.79	-720.70	10.00	-5.55	-78.07
9,200.00	6.24	51.08	9,137.66	-713.25	602.04	-719.51	10.00	2.42	-102.81
9,250.00	10.12	28.14	9,187.16	-707.66	606.23	-713.97	10.00	7.77	-45.88
9,300.00	14.69	18.53	9,235.98	-697.77	610.32	-704.12	10.00	9.14	-19.23
9,350.00	19.47	13.48	9,283.77	-683.65	614.28	-690.04	10.00	9.56	-10.10
9,400.00	24.34	10.37	9,330.15	-665.40	618.08	-671.83	10.00	9.73	-6.21
9,450.00	29.24	8.25	9,374.77	-643.16	621.69	-649.64	10.00	9.82	-4.24
9,500.00	34.18	6.70	9,417.29	-617.11	625.08	-623.62	10.00	9.87	-3.11
9,550.00	39.13	5.50	9,457.39	-587.44	628.23	-593.99	10.00	9.90	-2.41
9,600.00	44.08	4.52	9,494.77	-554.38	631.12	-560.96	10.00	9.92	-1.94
9,650.00	49.05	3.71	9,529.13	-518.17	633.71	-524.78	10.00	9.93	-1.62
9,700.00	54.02	3.02	9,560.22	-479.10	636.00	-485.74	10.00	9.94	-1.40
9,722.35	56.24	2.73	9,573.00	-460.79	636.92	-467.44	10.00	9.95	-1.27
First Bone Spring Sand									
9,750.00	58.99	2.40	9,587.81	-437.47	637.96	-444.12	10.00	9.95	-1.20
9,800.00	63.97	1.85	9,611.67	-393.58	639.59	-400.25	10.00	9.95	-1.11
9,817.23	65.69	1.67	9,619.00	-377.99	640.07	-384.67	10.00	9.96	-1.04
TD									
9,850.00	68.95	1.34	9,631.64	-347.77	640.86	-354.46	10.00	9.96	-1.00
9,900.00	73.93	0.86	9,647.55	-300.40	641.76	-307.10	10.00	9.96	-0.95
9,950.00	78.91	0.41	9,659.29	-251.81	642.30	-258.52	10.00	9.96	-0.90
10,000.00	83.89	359.97	9,666.76	-202.39	642.47	-209.11	10.00	9.96	-0.87
10,050.00	88.87	359.54	9,669.92	-152.51	642.26	-159.22	10.00	9.96	-0.86
10,067.01	90.57	359.40	9,670.00	-135.50	642.10	-142.22	10.00	9.96	-0.85
Landing Point - Bootstrap 3H: FTP/ LP									
10,100.00	90.57	359.40	9,669.67	-102.51	641.75	-109.23	0.00	0.00	0.00
10,200.00	90.57	359.40	9,668.69	-2.52	640.71	-9.23	0.00	0.00	0.00
10,300.00	90.57	359.40	9,667.70	97.47	639.66	90.76	0.00	0.00	0.00
10,400.00	90.57	359.40	9,666.71	197.46	638.61	190.76	0.00	0.00	0.00
10,500.00	90.57	359.40	9,665.72	297.45	637.56	290.75	0.00	0.00	0.00
10,600.00	90.57	359.40	9,664.74	397.44	636.52	390.75	0.00	0.00	0.00
10,700.00	90.57	359.40	9,663.75	497.43	635.47	490.74	0.00	0.00	0.00
10,800.00	90.57	359.40	9,662.76	597.42	634.42	590.74	0.00	0.00	0.00
10,900.00	90.57	359.40	9,661.77	697.41	633.37	690.73	0.00	0.00	0.00
11,000.00	90.57	359.40	9,660.78	797.40	632.32	790.73	0.00	0.00	0.00
11,100.00	90.57	359.40	9,659.80	897.38	631.28	890.73	0.00	0.00	0.00
11,200.00	90.57	359.40	9,658.81	997.37	630.23	990.72	0.00	0.00	0.00
11,300.00	90.57	359.40	9,657.82	1,097.36	629.18	1,090.72	0.00	0.00	0.00
11,400.00	90.57	359.40	9,656.83	1,197.35	628.13	1,190.71	0.00	0.00	0.00
11,500.00	90.57	359.40	9,655.85	1,297.34	627.08	1,290.71	0.00	0.00	0.00
11,600.00	90.57	359.40	9,654.86	1,397.33	626.04	1,390.70	0.00	0.00	0.00
11,700.00	90.57	359.40	9,653.87	1,497.32	624.99	1,490.70	0.00	0.00	0.00
11,800.00	90.57	359.40	9,652.88	1,597.31	623.94	1,590.69	0.00	0.00	0.00
11,900.00	90.57	359.40	9,651.89	1,697.30	622.89	1,690.69	0.00	0.00	0.00



Database: EDM 5000.1 Single User Db
 Company: XTO Energy
 Project: Lea County, NM (NAD-27)
 Site: Bootstrap Bill State
 Well: #3H
 Wellbore: Wellbore #1
 Design: PERMIT

Local Co-ordinate Reference: Well #3H
 TVD Reference: RKB = 17' @ 3720.00usft
 MD Reference: RKB = 17' @ 3720.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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	90.57	359.40	9,650.91	1,797.29	621.85	1,790.68	0.00	0.00	0.00
12,100.00	90.57	359.40	9,649.92	1,897.28	620.80	1,890.68	0.00	0.00	0.00
12,200.00	90.57	359.40	9,648.93	1,997.27	619.75	1,990.67	0.00	0.00	0.00
12,300.00	90.57	359.40	9,647.94	2,097.26	618.70	2,090.67	0.00	0.00	0.00
12,400.00	90.57	359.40	9,646.96	2,197.25	617.65	2,190.66	0.00	0.00	0.00
12,500.00	90.57	359.40	9,645.97	2,297.24	616.61	2,290.66	0.00	0.00	0.00
12,600.00	90.57	359.40	9,644.98	2,397.23	615.56	2,390.65	0.00	0.00	0.00
12,700.00	90.57	359.40	9,643.99	2,497.22	614.51	2,490.65	0.00	0.00	0.00
12,800.00	90.57	359.40	9,643.00	2,597.21	613.46	2,590.64	0.00	0.00	0.00
12,900.00	90.57	359.40	9,642.02	2,697.20	612.42	2,690.64	0.00	0.00	0.00
13,000.00	90.57	359.40	9,641.03	2,797.19	611.37	2,790.63	0.00	0.00	0.00
13,100.00	90.57	359.40	9,640.04	2,897.18	610.32	2,890.63	0.00	0.00	0.00
13,200.00	90.57	359.40	9,639.05	2,997.17	609.27	2,990.62	0.00	0.00	0.00
13,300.00	90.57	359.40	9,638.07	3,097.16	608.22	3,090.62	0.00	0.00	0.00
13,400.00	90.57	359.40	9,637.08	3,197.15	607.18	3,190.61	0.00	0.00	0.00
13,500.00	90.57	359.40	9,636.09	3,297.14	606.13	3,290.61	0.00	0.00	0.00
13,600.00	90.57	359.40	9,635.10	3,397.13	605.08	3,390.60	0.00	0.00	0.00
13,700.00	90.57	359.40	9,634.11	3,497.12	604.03	3,490.60	0.00	0.00	0.00
13,800.00	90.57	359.40	9,633.13	3,597.10	602.99	3,590.59	0.00	0.00	0.00
13,900.00	90.57	359.40	9,632.14	3,697.09	601.94	3,690.59	0.00	0.00	0.00
14,000.00	90.57	359.40	9,631.15	3,797.08	600.89	3,790.58	0.00	0.00	0.00
14,100.00	90.57	359.40	9,630.16	3,897.07	599.84	3,890.58	0.00	0.00	0.00
14,200.00	90.57	359.40	9,629.18	3,997.06	598.79	3,990.57	0.00	0.00	0.00
14,300.00	90.57	359.40	9,628.19	4,097.05	597.75	4,090.57	0.00	0.00	0.00
14,400.00	90.57	359.40	9,627.20	4,197.04	596.70	4,190.56	0.00	0.00	0.00
14,500.00	90.57	359.40	9,626.21	4,297.03	595.65	4,290.56	0.00	0.00	0.00
14,600.00	90.57	359.40	9,625.22	4,397.02	594.60	4,390.55	0.00	0.00	0.00
14,700.00	90.57	359.40	9,624.24	4,497.01	593.55	4,490.55	0.00	0.00	0.00
14,800.00	90.57	359.40	9,623.25	4,597.00	592.51	4,590.54	0.00	0.00	0.00
14,900.00	90.57	359.40	9,622.26	4,696.99	591.46	4,690.54	0.00	0.00	0.00
15,000.00	90.57	359.40	9,621.27	4,796.98	590.41	4,790.53	0.00	0.00	0.00
15,100.00	90.57	359.40	9,620.29	4,896.97	589.36	4,890.53	0.00	0.00	0.00
15,180.24	90.57	359.40	9,619.49	4,977.20	588.52	4,970.76	0.00	0.00	0.00
Bootstrap 3H: LTP									
15,181.36	90.57	359.40	9,619.48	4,978.32	588.51	4,971.89	0.00	0.00	0.00
15,200.00	90.57	359.40	9,619.30	4,996.96	588.32	4,990.53	0.00	0.00	0.00
15,230.14	90.57	359.40	9,619.00	5,027.10	588.00	5,020.67	0.00	0.00	0.00
Bootstrap 3H: PBHL (60 FNL & 1800' FWL)									



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Well: #3H
Wellbore: Wellbore #1
Design: PERMIT

Local Co-ordinate Reference: Well #3H
TVD Reference: RKB = 17' @ 3720.00usft
MD Reference: RKB = 17' @ 3720.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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 3H: SHL (2- - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	586,673.20	756,340.50	32.610110	-103.500868
Bootstrap 3H: PBHL (- plan hits target center - Point	0.00	0.00	9,619.00	5,027.10	588.00	591,700.30	756,928.50	32.623915	-103.498830
Bootstrap 3H: LTP - plan misses target center by 0.03usft at 15180.24usft MD (9619.49 TVD, 4977.20 N, 588.52 E) - Point	0.00	0.00	9,619.48	4,977.20	588.50	591,650.40	756,929.00	32.623778	-103.498830
Bootstrap 3H: FTP/ LI - plan hits target center - Point	0.00	0.00	9,670.00	-135.50	642.10	586,537.70	756,982.60	32.609724	-103.498786

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,865.00	1,865.00	Rustler			
1,993.00	1,993.00	Top Salt			
3,422.53	3,412.00	Base Salt			
3,654.63	3,642.00	Yates			
4,026.99	4,011.00	Seven Rivers			
4,619.34	4,598.00	Queen			
5,853.49	5,821.00	Delaware			
6,715.28	6,675.00	Brushy Canyon			
8,184.55	8,131.00	Bone Spring			
8,351.06	8,296.00	Avalon Sand			
8,889.93	8,830.00	Lower Avalon Shale			
9,722.35	9,573.00	First Bone Spring Sand			
9,817.23	9,619.00	TD			
10,067.01	9,670.00	Landing Point			

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 05/03/2019

☒ Original

Operator & OGRID No.: XTO ENERGY INC [005380]

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility: Perla Verde CTB

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MMCF/D	Flared or Vented	Comments
Bootstrap Bill State 1H		4-31-19S-35E	241'FSL & 1139'FWL	650 MCF/D	Flared/Sold	
Bootstrap Bill State 2H		P-31-19S-35E	230'FSL & 1301'FEL	650 MCF/D	Flared/Sold	
Bootstrap Bill State 3H		4-31-19S-35E	241'FSL & 1169'FWL	650 MCF/D	Flared/Sold	
Bootstrap Bill State 4H		P-31-19S-35E	226'FSL & 258'FEL	650 MCF/D	Flared/Sold	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA and will be connected to TARGA low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. XTO ENERGY provides (periodically) to TARGA a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, XTO ENERGY and TARGA have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Monument Plant located in Sec. 36, 19S, R36E, Lea County, NM. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA's system at that time. Based on current information, it is XTO ENERGY's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines