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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 NOV 25 2019
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DISTRICT ARTESIA CO. CD.
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 AS-DRILLED PLAT

¹ API Number 30-015- 45772	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 325120	⁵ Property Name LONE WATIE 32 STATE	⁶ Well Number 168H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 2,980'

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
A	32	25 S	29 E		336	NORTH	695	EAST	EDDY

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
P	32	25 S	29 E		202	SOUTH	305	EAST	EDDY

¹² Dedicated Acres 320	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.
NOTE: AS-DRILLED BOTTOM HOLE PLOTTED FROM DATA FURNISHED BY XTO ENERGY

	16 SURFACE LOCATION NAD 83 NME Y= 397,594.6 X= 644,529.7 LAT.= 32.092629°N LONG.= 104.000108°W LOCATION @ 100' NAD 83 NME Y= 397,829.1 X= 644,853.3 LAT.= 32.093271°N LONG.= 103.999060°W FIRST TAKE POINT NAD 83 NME Y= 397,599.0 X= 644,870.6 LAT.= 32.092638°N LONG.= 103.999007°W CORNER COORDINATES TABLE NAD 83 NME A - Y= 397,933.6 N, X= 643,902.8 E B - Y= 397,927.3 N, X= 645,225.4 E C - Y= 395,276.7 N, X= 643,895.4 E D - Y= 395,276.1 N, X= 645,222.7 E E - Y= 392,616.1 N, X= 643,888.3 E F - Y= 392,621.5 N, X= 645,220.8 E CORNER COORDINATES TABLE NAD 27 NME A - Y= 397,875.5 N, X= 602,718.1 E B - Y= 397,869.2 N, X= 604,040.7 E C - Y= 395,218.7 N, X= 602,710.6 E D - Y= 395,218.1 N, X= 604,037.9 E E - Y= 392,558.1 N, X= 602,703.5 E F - Y= 392,563.5 N, X= 604,035.9 E LAST TAKE POINT NAD 83 NME Y= 392,950.3 X= 644,920.2 LAT.= 32.079859°N LONG.= 103.998893°W BOTTOM HOLE LOCATION NAD 83 NME Y= 392,822.5 X= 644,915.8 LAT.= 32.079507°N LONG.= 103.998909°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. <i>Cheryl Rowell</i> 11/20/19 Signature Date CHERYL ROWELL Printed Name cheryl_rowell@xtoenergy.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. 11-20-2019 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number RR 2019010140	

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Intent ☐ As Drilled ☒ XX

DISTRICT 7 - ARTESIA O.C.D.

API # 30-015-45772		Operator Name: XTO PERMIAN OPERATING, LLC		Property Name: LONE WATIE 32 STATE		Well Number 168H	
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Kick Off Point (KOP)

UL A	Section 32	Township 25S	Range 29E	Lot	Feet 336	From N/S N	Feet 695	From E/W E	County EDDY
Latitude 32.092629					Longitude 104.000108			NAD 83	

First Take Point (FTP)

UL A	Section 32	Township 25S	Range 29E	Lot	Feet 330	From N/S N	Feet 354	From E/W E	County EDDY
Latitude 32.092638					Longitude 103.999007			NAD 83	

Last Take Point (LTP)

UL P	Section 32	Township 25S	Range 29E	Lot	Feet 331	From N/S S	Feet 534	From E/W W	County EDDY
Latitude 32.079859					Longitude 103.998893			NAD 83	

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

☒ Yes

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



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NOV 25 2019

DISTRICT 7 - ARTESIA O.C.D.

XTO ENERGY, INC.

Eddy County, NM

Sec 32, T25S, R29E

Lone Watie 32 State #168H

Wellbore #1

Design: Wellbore #1

QES Survey Report

12 June, 2019

A Certified Directional Survey
requested as required by NMOCD
Rule 19.15.16.14 NMAC





Survey Report



Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well Lone Watie 32 State #168H
Project:	Eddy County, NM	TVD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Site:	Sec 32, T25S, R29E	MD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Well:	Lone Watie 32 State #168H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, NM		
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		Sec 32, T25S, R29E			
Site Position:		Northing:	397,536.50 usft	Latitude:	32° 5' 33.015 N
From:	Map	Easting:	603,345.00 usft	Longitude:	103° 59' 58.639 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well	Lone Watie 32 State #168H					
Well Position	+N/-S	0.0 usft	Northing:	397,536.50 usft	Latitude:	32° 5' 33.015 N
	+E/-W	0.0 usft	Easting:	603,345.00 usft	Longitude:	103° 59' 58.639 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,980.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	5/9/2019	6.95	59.77	47,815.00000000

Design		Wellbore #1			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	175.67	

Survey Program		Date 6/12/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
205.0	10,155.0	Survey #1 (Wellbore #1)	MWD	OWSG MWD - Standard
10,236.0	15,689.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
205.0	1.30	239.00	205.0	-1.2	-2.0	1.0	0.63	0.63	0.00
300.0	2.80	242.00	299.9	-2.8	-5.0	2.5	1.58	1.58	3.16
422.0	2.88	242.00	421.8	-5.7	-10.3	4.9	0.07	0.07	0.00
483.0	4.60	229.00	482.6	-8.0	-13.5	7.0	3.13	2.82	-21.31
603.0	4.70	231.23	602.2	-14.2	-21.0	12.6	0.17	0.08	1.86
698.0	4.20	228.90	697.0	-19.0	-26.6	16.9	0.56	-0.53	-2.45
762.0	2.11	231.50	760.9	-21.2	-29.3	19.0	3.27	-3.27	4.06
856.0	1.71	210.75	854.8	-23.5	-31.4	21.1	0.84	-0.43	-22.07
951.0	1.19	137.98	949.8	-25.5	-31.4	23.0	1.86	-0.55	-76.60



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Site:	Sec 32, T25S, R29E	MD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Well:	Lone Watie 32 State #168H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
1,046.0	2.42	97.99	1,044.7	-26.5	-28.8	24.2	1.78	1.29	-42.09	
1,140.0	3.30	70.66	1,138.6	-25.9	-24.3	24.0	1.70	0.94	-29.07	
1,235.0	2.90	36.73	1,233.5	-23.0	-20.3	21.4	1.95	-0.42	-35.72	
1,331.0	2.90	37.70	1,329.4	-19.2	-17.3	17.8	0.05	0.00	1.01	
1,426.0	2.99	18.98	1,424.2	-14.9	-15.1	13.7	1.01	0.09	-19.71	
1,520.0	3.21	11.15	1,518.1	-10.0	-13.7	9.0	0.51	0.23	-8.33	
1,614.0	3.30	39.50	1,612.0	-5.3	-11.5	4.5	1.70	0.10	30.16	
1,708.0	1.80	62.00	1,705.9	-2.6	-8.5	1.9	1.89	-1.60	23.94	
1,803.0	1.70	61.20	1,800.8	-1.2	-5.9	0.7	0.11	-0.11	-0.84	
1,898.0	2.30	54.10	1,895.8	0.6	-3.2	-0.8	0.68	0.63	-7.47	
1,992.0	2.20	58.80	1,989.7	2.6	-0.1	-2.6	0.22	-0.11	5.00	
2,086.0	2.40	54.10	2,083.6	4.7	3.0	-4.5	0.29	0.21	-5.00	
330' HL Crossed @ 2137.3'MD / 2134.9' TVD										
2,137.3	2.40	54.10	2,134.9	6.0	4.8	-5.6	0.00	0.00	0.00	
2,181.0	2.40	53.90	2,178.5	7.1	6.3	-6.6	0.02	0.00	-0.46	
2,275.0	2.60	57.70	2,272.4	9.4	9.7	-8.6	0.28	0.21	4.04	
2,370.0	2.50	66.80	2,367.4	11.3	13.4	-10.3	0.44	-0.11	9.58	
2,465.0	2.50	70.70	2,462.3	12.8	17.2	-11.5	0.18	0.00	4.11	
2,560.0	1.90	79.60	2,557.2	13.8	20.7	-12.2	0.72	-0.63	9.37	
2,653.0	1.90	71.30	2,650.1	14.6	23.7	-12.8	0.30	0.00	-8.92	
2,747.0	3.20	54.20	2,744.0	16.6	27.3	-14.5	1.59	1.38	-18.19	
2,839.0	3.00	51.50	2,835.9	19.6	31.3	-17.2	0.27	-0.22	-2.93	
2,934.0	2.90	48.80	2,930.8	22.8	35.1	-20.0	0.18	-0.11	-2.84	
3,029.0	2.80	46.80	3,025.7	25.9	38.6	-22.9	0.15	-0.11	-2.11	
3,124.0	2.80	45.20	3,120.6	29.1	41.9	-25.9	0.08	0.00	-1.68	
3,219.0	2.60	44.00	3,215.4	32.3	45.0	-28.8	0.22	-0.21	-1.26	
3,315.0	2.50	43.10	3,311.4	35.4	48.0	-31.7	0.11	-0.10	-0.94	
3,406.0	2.40	44.30	3,402.3	38.2	50.7	-34.3	0.12	-0.11	1.32	
3,502.0	3.70	41.40	3,498.1	42.0	54.1	-37.8	1.36	1.35	-3.02	
3,525.0	2.20	49.60	3,521.1	42.8	54.9	-38.6	6.76	-6.52	35.65	
3,596.0	4.00	39.50	3,592.0	45.6	57.6	-41.2	2.64	2.54	-14.23	
3,691.0	3.90	38.80	3,686.8	50.7	61.7	-45.9	0.12	-0.11	-0.74	
3,785.0	3.70	39.90	3,780.6	55.5	65.6	-50.4	0.23	-0.21	1.17	
3,880.0	3.50	39.20	3,875.4	60.1	69.4	-54.7	0.22	-0.21	-0.74	
3,975.0	3.40	36.60	3,970.2	64.6	72.9	-58.9	0.20	-0.11	-2.74	
4,070.0	3.60	30.00	4,065.0	69.5	76.1	-63.5	0.47	0.21	-6.95	
4,164.0	3.90	26.50	4,158.8	74.9	79.0	-68.7	0.40	0.32	-3.72	
4,258.0	3.60	47.50	4,252.6	79.8	82.6	-73.3	1.49	-0.32	22.34	
4,353.0	4.40	61.70	4,347.4	83.5	88.0	-76.6	1.33	0.84	14.95	
4,447.0	4.40	61.60	4,441.1	86.9	94.4	-79.5	0.01	0.00	-0.11	
4,542.0	4.40	61.20	4,535.8	90.4	100.8	-82.5	0.03	0.00	-0.42	
4,637.0	4.20	61.80	4,630.6	93.8	107.0	-85.5	0.22	-0.21	0.63	
4,732.0	4.10	62.00	4,725.3	97.0	113.1	-88.2	0.11	-0.11	0.21	



Survey Report



Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well Lone Watie 32 State #168H
Project:	Eddy County, NM	TVD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
4,826.0	4.20	59.90	4,819.1	100.4	119.0	-91.1	0.19	0.11	-2.23	
4,920.0	4.10	61.30	4,912.8	103.7	125.0	-94.0	0.15	-0.11	1.49	
5,015.0	4.00	60.40	5,007.6	107.0	130.8	-96.8	0.12	-0.11	-0.95	
5,109.0	4.00	57.80	5,101.4	110.3	136.5	-99.7	0.19	0.00	-2.77	
5,202.0	3.70	57.80	5,194.2	113.7	141.7	-102.6	0.32	-0.32	0.00	
5,296.0	3.50	57.70	5,288.0	116.8	146.7	-105.4	0.21	-0.21	-0.11	
5,391.0	3.30	60.60	5,382.8	119.7	151.6	-107.9	0.28	-0.21	3.05	
5,486.0	2.90	62.70	5,477.7	122.1	156.1	-110.0	0.44	-0.42	2.21	
5,581.0	2.60	60.00	5,572.6	124.3	160.1	-111.9	0.34	-0.32	-2.84	
5,675.0	2.60	60.90	5,666.5	126.4	163.8	-113.7	0.04	0.00	0.96	
5,770.0	2.40	63.20	5,761.4	128.4	167.5	-115.4	0.24	-0.21	2.42	
5,863.0	2.90	48.10	5,854.3	130.8	170.9	-117.5	0.92	0.54	-16.24	
5,957.0	3.00	50.00	5,948.1	134.0	174.6	-120.4	0.15	0.11	2.02	
6,052.0	2.80	53.40	6,043.0	137.0	178.4	-123.1	0.28	-0.21	3.58	
6,146.0	2.60	56.40	6,136.9	139.5	182.0	-125.4	0.26	-0.21	3.19	
6,240.0	2.70	51.60	6,230.8	142.1	185.5	-127.7	0.26	0.11	-5.11	
6,336.0	2.80	50.50	6,326.7	145.0	189.1	-130.3	0.12	0.10	-1.15	
6,430.0	2.70	50.20	6,420.6	147.8	192.5	-132.9	0.11	-0.11	-0.32	
6,526.0	2.20	49.60	6,516.5	150.5	195.7	-135.3	0.52	-0.52	-0.63	
6,621.0	2.00	48.20	6,611.4	152.8	198.3	-137.4	0.22	-0.21	-1.47	
6,716.0	1.60	49.50	6,706.4	154.7	200.6	-139.2	0.42	-0.42	1.37	
6,810.0	1.40	28.30	6,800.4	156.6	202.1	-140.9	0.62	-0.21	-22.55	
6,904.0	2.90	23.50	6,894.3	159.8	203.6	-144.0	1.61	1.60	-5.11	
6,998.0	2.00	45.40	6,988.2	163.1	205.7	-147.1	1.37	-0.96	23.30	
7,092.0	2.30	41.60	7,082.1	165.7	208.1	-149.5	0.35	0.32	-4.04	
7,187.0	2.50	47.50	7,177.1	168.5	210.9	-152.1	0.33	0.21	6.21	
7,280.0	2.40	54.90	7,270.0	171.0	214.0	-154.4	0.36	-0.11	7.96	
7,374.0	3.20	43.20	7,363.9	174.0	217.4	-157.1	1.04	0.85	-12.45	
7,467.0	2.30	54.80	7,456.8	177.0	220.7	-159.8	1.13	-0.97	12.47	
7,561.0	2.30	77.10	7,550.7	178.5	224.1	-161.1	0.95	0.00	23.72	
7,655.0	2.30	56.70	7,644.6	180.0	227.5	-162.3	0.87	0.00	-21.70	
7,748.0	3.30	49.40	7,737.5	182.7	231.1	-164.8	1.14	1.08	-7.85	
7,842.0	2.50	43.80	7,831.4	186.0	234.6	-167.7	0.90	-0.85	-5.96	
7,937.0	1.50	33.10	7,926.3	188.5	236.7	-170.1	1.12	-1.05	-11.26	
8,032.0	2.30	28.50	8,021.3	191.2	238.3	-172.7	0.86	0.84	-4.84	
8,126.0	2.90	68.90	8,115.2	193.8	241.4	-175.0	2.00	0.64	42.98	
8,221.0	2.10	100.30	8,210.1	194.3	245.4	-175.2	1.64	-0.84	33.05	
8,314.0	2.80	80.80	8,303.0	194.4	249.3	-175.0	1.16	0.75	-20.97	
8,408.0	2.30	73.30	8,396.9	195.3	253.3	-175.6	0.64	-0.53	-7.98	
8,502.0	1.70	76.70	8,490.9	196.1	256.5	-176.2	0.65	-0.64	3.62	
8,596.0	1.70	72.20	8,584.8	196.9	259.2	-176.8	0.14	0.00	-4.79	
8,690.0	2.00	86.40	8,678.8	197.4	262.2	-177.1	0.58	0.32	15.11	
8,784.0	3.40	92.90	8,772.7	197.4	266.6	-176.7	1.52	1.49	6.91	



Survey Report



Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well Lone Watie 32 State #168H
Project:	Eddy County, NM	TVD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Site:	Sec 32, T25S, R29E	MD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Well:	Lone Watie 32 State #168H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
8,878.0	2.90	106.40	8,866.5	196.6	271.6	-175.5	0.95	-0.53	14.36
8,973.0	2.80	87.40	8,961.4	196.0	276.3	-174.6	1.00	-0.11	-20.00
9,067.0	3.90	79.90	9,055.2	196.7	281.7	-174.8	1.26	1.17	-7.98
9,162.0	2.50	69.90	9,150.1	197.9	286.8	-175.7	1.58	-1.47	-10.53
9,256.0	1.80	74.10	9,244.0	199.0	290.2	-176.6	0.76	-0.74	4.47
9,349.0	1.30	73.40	9,337.0	199.7	292.6	-177.1	0.54	-0.54	-0.75
9,444.0	1.60	66.70	9,432.0	200.6	294.8	-177.7	0.36	0.32	-7.05
9,539.0	2.10	47.10	9,526.9	202.3	297.3	-179.3	0.84	0.53	-20.63
9,634.0	2.60	49.70	9,621.8	204.9	300.3	-181.6	0.54	0.53	2.74
9,729.0	3.40	37.70	9,716.7	208.5	303.6	-185.0	1.07	0.84	-12.63
9,824.0	3.80	42.60	9,811.5	213.0	307.5	-189.2	0.53	0.42	5.16
9,919.0	3.60	43.60	9,906.3	217.5	311.7	-193.4	0.22	-0.21	1.05
10,014.0	3.30	41.30	10,001.1	221.7	315.5	-197.3	0.35	-0.32	-2.42
10,109.0	3.50	30.90	10,096.0	226.3	318.8	-201.6	0.68	0.21	-10.95
MWD Tie-in @ 10155.0' MD / 10141.9' TVD									
10,155.0	3.20	33.30	10,141.9	228.5	320.2	-203.7	0.72	-0.65	5.22
10,236.0	2.71	28.23	10,222.8	232.1	322.4	-207.1	0.69	-0.60	-6.26
10,301.0	2.50	27.04	10,287.7	234.7	323.8	-209.6	0.33	-0.32	-1.83
10,332.0	1.31	105.21	10,318.7	235.2	324.4	-210.1	8.30	-3.84	252.16
10,364.0	4.68	148.94	10,350.7	234.0	325.4	-208.8	12.00	10.53	136.66
10,396.0	8.90	152.14	10,382.4	230.7	327.3	-205.4	13.24	13.19	10.00
10,428.0	11.67	159.10	10,413.9	225.5	329.6	-200.0	9.47	8.66	21.75
10,459.0	14.31	163.99	10,444.1	218.9	331.8	-193.2	9.22	8.52	15.77
10,490.0	15.92	167.32	10,474.0	211.1	333.7	-185.3	5.90	5.19	10.74
10,522.0	17.38	167.29	10,504.7	202.1	335.8	-176.2	4.56	4.56	-0.09
10,553.0	18.22	170.89	10,534.2	192.8	337.5	-166.8	4.46	2.71	11.61
10,633.0	21.18	172.40	10,609.5	166.1	341.4	-139.9	3.75	3.70	1.89
10,665.0	25.60	174.17	10,638.9	153.5	342.9	-127.2	13.98	13.81	5.53
10,696.0	31.52	178.62	10,666.1	138.8	343.8	-112.4	20.28	19.10	14.35
10,728.0	38.98	182.08	10,692.2	120.3	343.6	-94.0	24.13	23.31	10.81
10,759.0	43.85	181.70	10,715.5	99.8	342.9	-73.6	15.73	15.71	-1.23
10,793.0	47.01	180.95	10,739.3	75.6	342.4	-49.5	9.43	9.29	-2.21
10,825.0	49.86	180.29	10,760.6	51.7	342.1	-25.7	9.04	8.91	-2.06
10,856.0	53.19	181.40	10,779.8	27.4	341.8	-1.5	11.10	10.74	3.58
330' HL Crossed @ 10884.1' MD / 10795.9' TVD									
10,884.1	56.97	182.54	10,795.9	4.4	341.0	21.4	13.87	13.47	4.06
10,888.0	57.50	182.69	10,798.0	1.1	340.8	24.6	13.87	13.49	3.85
10,919.0	61.75	183.47	10,813.7	-25.6	339.4	51.1	13.88	13.71	2.52
10,950.0	63.55	181.86	10,828.0	-53.1	338.1	78.5	7.42	5.81	-5.19
10,981.0	65.59	181.27	10,841.3	-81.1	337.3	106.3	6.80	6.58	-1.90
11,013.0	68.54	178.77	10,853.7	-110.5	337.3	135.7	11.69	9.22	-7.81
11,044.0	71.81	178.99	10,864.2	-139.7	337.9	164.8	10.57	10.55	0.71
11,076.0	77.59	179.71	10,872.7	-170.6	338.3	195.6	18.19	18.06	2.25
11,107.0	81.21	178.36	10,878.4	-201.0	338.8	226.0	12.44	11.68	-4.35



Survey Report



Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well Lone Watie 32 State #168H
Project:	Eddy County, NM	TVD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Site:	Sec 32, T25S, R29E	MD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Well:	Lone Watie 32 State #168H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
11,138.0	83.89	178.64	10,882.4	-231.7	339.6	256.7	8.69	8.65	0.90
11,169.0	86.70	179.19	10,884.9	-262.6	340.2	287.6	9.24	9.06	1.77
11,201.0	86.39	178.29	10,886.9	-294.6	340.9	319.5	2.97	-0.97	-2.81
11,232.0	88.10	178.32	10,888.4	-325.5	341.8	350.4	5.52	5.52	0.10
11,263.0	90.53	179.68	10,888.7	-356.5	342.3	381.3	8.98	7.84	4.39
11,295.0	92.47	179.32	10,887.9	-388.5	342.6	413.2	6.17	6.06	-1.13
11,326.0	88.77	177.08	10,887.6	-419.5	343.6	444.2	13.95	-11.94	-7.23
11,420.0	89.44	175.89	10,889.0	-513.3	349.3	538.2	1.45	0.71	-1.27
11,514.0	90.09	175.27	10,889.4	-607.0	356.6	632.2	0.96	0.69	-0.66
11,607.0	90.67	174.85	10,888.8	-699.6	364.6	725.2	0.77	0.62	-0.45
11,702.0	88.63	175.53	10,889.4	-794.3	372.6	820.2	2.26	-2.15	0.72
11,796.0	91.40	178.37	10,889.4	-888.1	377.6	914.1	4.22	2.95	3.02
11,890.0	92.16	178.54	10,886.4	-982.1	380.1	1,008.0	0.83	0.81	0.18
11,985.0	88.43	179.03	10,885.9	-1,077.0	382.1	1,102.8	3.96	-3.93	0.52
12,079.0	88.57	179.30	10,888.4	-1,171.0	383.5	1,196.6	0.32	0.15	0.29
12,174.0	90.76	183.94	10,889.0	-1,265.9	380.8	1,291.0	5.40	2.31	4.88
12,269.0	89.72	180.45	10,888.6	-1,360.8	377.1	1,385.4	3.83	-1.09	-3.67
12,387.0	86.10	176.03	10,892.9	-1,478.6	380.8	1,503.2	4.84	-3.07	-3.75
12,480.0	91.79	179.32	10,894.6	-1,571.5	384.5	1,596.0	7.07	6.12	3.54
12,574.0	91.15	176.10	10,892.2	-1,665.4	388.3	1,689.9	3.49	-0.68	-3.43
12,668.0	89.11	176.54	10,892.0	-1,759.2	394.3	1,783.9	2.22	-2.17	0.47
12,763.0	88.93	179.87	10,893.6	-1,854.1	397.3	1,878.8	3.51	-0.19	3.51
12,856.0	88.85	177.60	10,895.4	-1,947.1	399.3	1,971.7	2.44	-0.09	-2.44
12,950.0	92.44	180.31	10,894.3	-2,041.0	401.1	2,065.5	4.78	3.82	2.88
13,044.0	91.18	182.00	10,891.4	-2,134.9	399.2	2,159.0	2.24	-1.34	1.80
13,138.0	89.94	180.09	10,890.4	-2,228.9	397.5	2,252.6	2.42	-1.32	-2.03
13,232.0	91.01	180.44	10,889.7	-2,322.9	397.0	2,346.3	1.20	1.14	0.37
13,325.0	89.86	185.07	10,889.0	-2,415.8	392.5	2,438.5	5.13	-1.24	4.98
13,420.0	90.53	186.19	10,888.6	-2,510.3	383.2	2,532.1	1.37	0.71	1.18
13,504.0	89.44	187.69	10,888.7	-2,593.7	373.1	2,614.5	2.21	-1.30	1.79
13,607.0	90.39	187.76	10,888.8	-2,695.8	359.2	2,715.2	0.92	0.92	0.07
13,701.0	90.70	188.54	10,887.9	-2,788.8	345.9	2,807.0	0.89	0.33	0.83
13,796.0	88.77	185.76	10,888.4	-2,883.1	334.1	2,900.0	3.56	-2.03	-2.93
13,890.0	87.90	181.00	10,891.1	-2,976.8	328.5	2,993.1	5.15	-0.93	-5.06
13,984.0	90.84	179.24	10,892.1	-3,070.8	328.4	3,086.8	3.65	3.13	-1.87
14,079.0	93.84	177.59	10,888.2	-3,165.7	331.0	3,181.6	3.60	3.16	-1.74
14,173.0	90.09	176.39	10,885.0	-3,259.5	335.9	3,275.5	4.19	-3.99	-1.28
14,268.0	88.66	177.78	10,886.1	-3,354.3	340.7	3,370.5	2.10	-1.51	1.46
14,361.0	92.69	181.17	10,885.0	-3,447.3	341.6	3,463.2	5.66	4.33	3.65
14,455.0	91.49	180.86	10,881.5	-3,541.2	339.9	3,556.8	1.32	-1.28	-0.33
14,549.0	89.89	178.73	10,880.4	-3,635.2	340.3	3,650.5	2.83	-1.70	-2.27
14,643.0	89.69	177.51	10,880.7	-3,729.1	343.3	3,744.4	1.32	-0.21	-1.30
14,738.0	89.72	177.86	10,881.2	-3,824.1	347.2	3,839.4	0.37	0.03	0.37



Survey Report



Company:	XTO ENERGY, INC.	Local Co-ordinate Reference:	Well Lone Watie 32 State #168H
Project:	Eddy County, NM	TVD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Site:	Sec 32, T25S, R29E	MD Reference:	KB=23' @ 3003.0usft (Nabors M7507)
Well:	Lone Watie 32 State #168H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
14,832.0	90.39	176.88	10,881.1	-3,918.0	351.5	3,933.3	1.26	0.71	-1.04
14,926.0	89.69	175.40	10,881.1	-4,011.7	357.8	4,027.3	1.74	-0.74	-1.57
15,020.0	89.78	173.81	10,881.5	-4,105.3	366.7	4,121.3	1.69	0.10	-1.69
15,113.0	87.76	172.00	10,883.5	-4,197.6	378.1	4,214.2	2.92	-2.17	-1.95
15,229.0	91.99	173.30	10,883.8	-4,312.6	393.0	4,330.0	3.81	3.65	1.12
15,323.0	90.73	179.11	10,881.5	-4,406.3	399.2	4,423.9	6.32	-1.34	6.18
15,418.0	91.96	183.07	10,879.3	-4,501.3	397.4	4,518.4	4.36	1.29	4.17
15,511.0	91.49	182.56	10,876.5	-4,594.1	392.8	4,610.7	0.75	-0.51	-0.55
330' HL Crossed @ 15561.1' MD / 10875.3' TVD									
15,561.1	91.17	182.23	10,875.3	-4,644.2	390.7	4,660.4	0.91	-0.64	-0.65
15,605.0	90.89	181.95	10,874.5	-4,688.0	389.1	4,704.0	0.91	-0.64	-0.65
15,641.0	91.12	181.83	10,873.9	-4,724.0	387.9	4,739.8	0.72	0.64	-0.33
TD @ 15689.0' MD / 10873.0' TVD									
15,689.0	91.12	181.83	10,873.0	-4,772.0	386.4	4,787.5	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,137.3	2,134.9	6.0	4.8	330' HL Crossed @ 2137.3' MD / 2134.9' TVD
10,155.0	10,141.9	228.5	320.2	MWD Tie-in @ 10155.0' MD / 10141.9' TVD
10,884.1	10,795.9	4.4	341.0	330' HL Crossed @ 10884.1' MD / 10795.9' TVD
15,561.1	10,875.3	-4,644.2	390.7	330' HL Crossed @ 15561.1' MD / 10875.3' TVD
15,689.0	10,873.0	-4,772.0	386.4	TD @ 15689.0' MD / 10873.0' TVD

Checked By: _____	Approved By: _____	Date: _____
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