



**Provide Signature Page for
Directional Survey**

**NM OIL CONSERVATION
ARTESIA DISTRICT**

SEP 14 2018

RECEIVED

XTO ENERGY, INC.

Eddy County, NM

Corral Canyon Federal 29H

Corral Canyon Federal 29H

Wellbore #1 *30.015 - 44641*

Design: Wellbore #1

QES Survey Report

18 February, 2018





Survey Report



Company: XTO ENERGY, INC.

Project: Eddy County, NM

Site: Corral Canyon Federal 29H

Well: Corral Canyon Federal 29H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well Corral Canyon Federal 29H

RKB @ 2971.0usft (Frontier 27)

RKB @ 2971.0usft (Frontier 27)

Grid

Minimum Curvature

EDM 5000.1 Single User Db

Project Eddy County, NM

Map System: US State Plane 1927 (Exact solution)

Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: New Mexico East 3001

System Datum:

Mean Sea Level

Site Corral Canyon Federal 29H

Site Position:		Northing:	419,280.10 usft	Latitude:	32° 9' 8.174 N
From:	Map	Easting:	604,113.80 usft	Longitude:	103° 59' 48.913 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well Corral Canyon Federal 29H

Well Position	+N/-S	0.0 usft	Northing:	419,280.10 usft	Latitude:	32° 9' 8.174 N
	+E/-W	0.0 usft	Easting:	604,113.80 usft	Longitude:	103° 59' 48.913 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,944.0 usft	

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/5/2018	7.08	59.92	47,788.09159957

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	179.07

Survey Program Date 2/18/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
148.0	2,696.0	MWD (Wellbore #1)	MWD	OWSG MWD - Standard
2,762.0	18,843.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
148.0	1.50	48.10	148.0	1.3	1.4	-1.3	1.01	1.01	0.00
207.0	1.20	21.70	207.0	2.4	2.2	-2.3	1.16	-0.51	-44.75
265.0	1.60	30.80	264.9	3.6	2.9	-3.6	0.79	0.69	15.69
335.0	2.20	27.50	334.9	5.7	4.0	-5.6	0.87	0.86	-4.71
393.0	2.30	21.80	392.9	7.7	5.0	-7.7	0.42	0.17	-9.83
452.0	2.00	34.00	451.8	9.7	6.0	-9.6	0.92	-0.51	20.68
513.0	1.80	32.60	512.8	11.4	7.1	-11.3	0.34	-0.33	-2.30
572.0	1.90	45.50	571.8	12.9	8.3	-12.7	0.72	0.17	21.86
605.0	2.30	53.80	604.7	13.6	9.2	-13.5	1.52	1.21	25.15

Company: XTO ENERGY, INC.
 Project: Eddy County, NM
 Site: Corral Canyon Federal 29H
 Well: Corral Canyon Federal 29H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
 TVD Reference: RKB @ 2971.0usft (Frontier 27)
 MD Reference: RKB @ 2971.0usft (Frontier 27)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)
723.0	1.20	61.30	722.7	15.6	12.2	-15.4	0.95	-0.93	6.36
810.0	1.40	113.00	809.7	15.6	14.0	-15.4	1.32	0.23	59.43
909.0	2.10	152.70	908.6	13.6	15.9	-13.3	1.37	0.71	40.10
1,004.0	2.30	154.00	1,003.5	10.3	17.6	-10.0	0.22	0.21	1.37
1,098.0	1.90	158.40	1,097.5	7.2	19.0	-6.8	0.46	-0.43	4.68
1,195.0	3.00	153.80	1,194.4	3.4	20.7	-3.0	1.15	1.13	-4.74
1,290.0	3.20	148.50	1,289.3	-1.1	23.1	1.5	0.37	0.21	-5.58
1,385.0	3.00	152.90	1,384.1	-5.6	25.7	6.0	0.33	-0.21	4.63
1,480.0	3.50	144.50	1,479.0	-10.2	28.5	10.6	0.73	0.53	-8.84
1,576.0	2.80	119.20	1,574.8	-13.7	32.2	14.2	1.60	-0.73	-26.35
1,668.0	3.60	95.00	1,666.7	-15.0	37.1	15.6	1.69	0.87	-26.30
1,764.0	4.60	83.50	1,762.4	-14.9	43.9	15.6	1.34	1.04	-11.98
1,858.0	4.60	79.20	1,856.1	-13.7	51.3	14.6	0.37	0.00	-4.57
1,956.0	2.80	111.40	1,953.9	-13.9	57.4	14.8	2.74	-1.84	32.86
2,054.0	2.80	203.60	2,051.9	-16.9	58.7	17.9	4.12	0.00	94.08
2,150.0	1.60	127.60	2,147.8	-19.9	58.8	20.9	2.99	-1.25	-79.17
2,246.0	3.30	110.70	2,243.7	-21.7	62.5	22.7	1.91	1.77	-17.60
2,341.0	4.10	112.70	2,338.5	-24.0	68.2	25.1	0.85	0.84	2.11
2,436.0	3.60	120.90	2,433.3	-26.8	73.9	28.0	0.78	-0.53	8.63
2,553.0	2.80	139.00	2,550.1	-30.9	78.9	32.1	1.09	-0.68	15.47
2,628.0	2.10	149.20	2,625.1	-33.4	80.8	34.7	1.10	-0.93	13.60
MWD Tie-In @ 2696.0' MD / 2693.0' TVD									
2,696.0	2.10	146.00	2,693.0	-35.5	82.1	36.9	0.17	0.00	-4.71
2,762.0	1.70	145.90	2,759.0	-37.3	83.4	38.7	0.61	-0.61	-0.15
2,822.0	1.50	151.40	2,818.9	-38.8	84.2	40.1	0.42	-0.33	9.17
2,918.0	1.40	153.50	2,914.9	-40.9	85.4	42.3	0.12	-0.10	2.19
3,013.0	1.30	136.00	3,009.9	-42.7	86.6	44.1	0.44	-0.11	-18.42
3,108.0	1.20	136.00	3,104.9	-44.2	88.1	45.6	0.11	-0.11	0.00
3,204.0	1.30	136.00	3,200.8	-45.7	89.5	47.2	0.10	0.10	0.00
3,299.0	1.30	134.30	3,295.8	-47.3	91.0	48.7	0.04	0.00	-1.79
3,395.0	1.30	134.90	3,391.8	-48.8	92.6	50.3	0.01	0.00	0.63
3,490.0	1.40	130.20	3,486.8	-50.3	94.2	51.8	0.16	0.11	-4.95
3,586.0	1.40	129.20	3,582.7	-51.8	96.0	53.3	0.03	0.00	-1.04
3,682.0	1.40	131.50	3,678.7	-53.3	97.8	54.9	0.06	0.00	2.40
3,777.0	0.40	31.60	3,773.7	-53.8	98.9	55.4	1.60	-1.05	-105.16
3,872.0	0.50	351.80	3,868.7	-53.1	99.0	54.7	0.34	0.11	-41.89
3,965.0	0.40	353.70	3,961.7	-52.4	98.9	54.0	0.11	-0.11	2.04
4,061.0	0.50	347.50	4,057.7	-51.6	98.8	53.2	0.12	0.10	-6.46
4,156.0	0.40	347.40	4,152.7	-50.9	98.6	52.5	0.11	-0.11	-0.11
4,251.0	0.50	355.30	4,247.7	-50.2	98.5	51.8	0.12	0.11	8.32
4,346.0	0.60	355.20	4,342.7	-49.3	98.4	50.9	0.11	0.11	-0.11
4,442.0	0.50	347.90	4,438.7	-48.4	98.3	49.9	0.13	-0.10	-7.60
4,536.0	0.50	353.00	4,532.7	-47.5	98.2	49.1	0.05	0.00	5.43

Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Corral Canyon Federal 29H
Well: Corral Canyon Federal 29H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
TVD Reference: RKB @ 2971.0usft (Frontier 27)
MD Reference: RKB @ 2971.0usft (Frontier 27)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)	Builde Rate (°/100usft)	Turn Rate (°/100usft)
4,632.0	0.30	349.10	4,628.7	-46.9	98.1	48.5	0.21	-0.21	-4.06
4,727.0	0.30	341.10	4,723.7	-46.4	97.9	48.0	0.04	0.00	-8.42
4,823.0	0.40	345.00	4,819.7	-45.8	97.8	47.4	0.11	0.10	4.06
4,919.0	0.40	9.40	4,915.7	-45.2	97.7	46.8	0.18	0.00	25.42
5,014.0	0.30	28.60	5,010.7	-44.6	97.9	46.2	0.16	-0.11	20.21
5,110.0	0.20	349.10	5,106.7	-44.3	98.0	45.8	0.20	-0.10	-41.15
5,205.0	0.30	325.70	5,201.7	-43.9	97.8	45.5	0.15	0.11	-24.63
5,300.0	0.30	303.40	5,296.7	-43.6	97.5	45.1	0.12	0.00	-23.47
5,395.0	0.20	277.50	5,391.7	-43.4	97.1	45.0	0.16	-0.11	-27.26
5,488.0	0.50	273.30	5,484.7	-43.3	96.5	44.9	0.32	0.32	-4.52
5,584.0	0.80	291.00	5,580.7	-43.1	95.5	44.6	0.37	0.31	18.44
5,680.0	0.70	290.50	5,676.6	-42.6	94.3	44.2	0.10	-0.10	-0.52
5,773.0	0.50	295.50	5,769.6	-42.3	93.4	43.8	0.22	-0.22	5.38
5,869.0	0.50	289.80	5,865.6	-41.9	92.6	43.4	0.05	0.00	-5.94
5,963.0	0.60	278.20	5,959.6	-41.7	91.8	43.2	0.16	0.11	-12.34
6,058.0	0.40	287.80	6,054.6	-41.6	91.0	43.0	0.23	-0.21	10.11
6,154.0	0.30	299.60	6,150.6	-41.3	90.4	42.8	0.13	-0.10	12.29
6,250.0	0.30	243.80	6,246.6	-41.3	90.0	42.8	0.29	0.00	-58.13
6,346.0	0.20	239.80	6,342.6	-41.5	89.6	43.0	0.11	-0.10	-4.17
6,442.0	0.10	221.60	6,438.6	-41.7	89.4	43.1	0.11	-0.10	-18.96
6,537.0	0.30	236.30	6,533.6	-41.9	89.1	43.3	0.22	0.21	15.47
6,632.0	0.40	219.30	6,628.6	-42.3	88.7	43.7	0.15	0.11	-17.89
6,727.0	0.70	279.10	6,723.6	-42.4	87.9	43.8	0.64	0.32	62.95
6,820.0	1.00	301.90	6,816.6	-41.9	86.7	43.3	0.48	0.32	24.52
6,914.0	1.40	296.70	6,910.6	-41.0	85.0	42.3	0.44	0.43	-5.53
7,010.0	0.30	264.50	7,006.6	-40.5	83.7	41.8	1.21	-1.15	-33.54
7,105.0	0.50	13.10	7,101.6	-40.1	83.5	41.4	0.69	0.21	114.32
7,200.0	0.80	350.70	7,196.6	-39.0	83.5	40.4	0.41	0.32	-23.58
7,294.0	1.10	291.20	7,290.6	-38.0	82.6	39.4	1.04	0.32	-63.30
7,389.0	2.40	269.10	7,385.5	-37.7	79.7	39.0	1.52	1.37	-23.26
7,484.0	2.40	294.60	7,480.4	-36.9	75.9	38.2	1.11	0.00	26.84
7,580.0	1.40	297.30	7,576.4	-35.6	73.1	36.8	1.05	-1.04	2.81
7,676.0	0.90	283.80	7,672.4	-34.9	71.3	36.0	0.59	-0.52	-14.06
7,772.0	1.60	313.20	7,768.3	-33.8	69.6	34.9	0.97	0.73	30.63
7,852.0	0.70	225.40	7,848.3	-33.3	68.4	34.4	2.15	-1.13	-109.75
7,900.0	7.80	148.20	7,896.2	-36.3	69.9	37.4	15.99	14.79	-160.83
7,948.0	14.20	145.20	7,943.3	-43.9	75.0	45.1	13.38	13.33	-6.25
7,996.0	18.10	144.40	7,989.4	-54.8	82.7	56.2	8.14	8.13	-1.67
8,044.0	22.70	147.60	8,034.3	-68.7	92.0	70.2	9.86	9.58	6.67
8,092.0	25.20	153.00	8,078.2	-85.6	101.6	87.3	6.92	5.21	11.25
8,140.0	25.30	159.90	8,121.6	-104.4	109.8	106.2	6.13	0.21	14.38
8,188.0	26.30	168.40	8,164.9	-124.4	115.4	126.3	7.98	2.08	17.71
8,235.0	27.30	174.90	8,206.8	-145.4	118.5	147.3	6.59	2.13	13.83



Survey Report



Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Corral Canyon Federal 29H
Well: Corral Canyon Federal 29H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
TVD Reference: RKB @ 2971.0usft (Frontier 27)
MD Reference: RKB @ 2971.0usft (Frontier 27)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
8,283.0	28.90	179.80	8,249.2	-167.9	119.5	169.9	5.85	3.33	10.21
8,330.0	31.70	180.20	8,289.7	-191.7	119.5	193.6	5.97	5.96	0.85
8,378.0	35.90	180.30	8,329.6	-218.4	119.4	220.3	8.75	8.75	0.21
8,425.0	39.90	179.00	8,366.7	-247.2	119.6	249.1	8.68	8.51	-2.77
8,473.0	43.50	179.10	8,402.5	-279.1	120.1	281.1	7.50	7.50	0.21
8,521.0	47.80	180.00	8,436.1	-313.5	120.4	315.4	9.06	8.96	1.88
8,569.0	52.70	179.00	8,466.8	-350.3	120.7	352.3	10.33	10.21	-2.08
8,616.0	57.10	176.10	8,493.8	-388.7	122.4	390.7	10.63	9.36	-6.17
8,664.0	61.80	175.90	8,518.2	-430.0	125.3	431.9	9.80	9.79	-0.42
8,711.0	66.70	176.10	8,538.6	-472.2	128.2	474.2	10.43	10.43	0.43
8,759.0	69.90	177.30	8,556.3	-516.7	130.8	518.8	7.06	6.67	2.50
8,807.0	73.10	177.30	8,571.6	-562.2	132.9	564.3	6.67	6.67	0.00
8,855.0	77.50	176.00	8,583.7	-608.5	135.6	610.6	9.53	9.17	-2.71
8,902.0	81.20	175.30	8,592.4	-654.6	139.1	656.7	8.01	7.87	-1.49
8,950.0	83.90	175.60	8,598.7	-702.0	142.9	704.2	5.66	5.63	0.63
8,997.0	86.30	176.00	8,602.7	-748.7	146.3	751.0	5.18	5.11	0.85
9,046.0	88.90	178.50	8,604.7	-797.6	148.7	799.9	7.36	5.31	5.10
9,093.0	90.30	180.00	8,605.0	-844.6	149.3	846.9	4.37	2.98	3.19
9,187.0	89.80	178.40	8,605.0	-938.6	150.6	940.9	1.78	-0.53	-1.70
9,282.0	89.80	178.00	8,605.3	-1,033.5	153.6	1,035.9	0.42	0.00	-0.42
9,377.0	89.90	177.90	8,605.5	-1,128.5	157.0	1,130.9	0.15	0.11	-0.11
9,472.0	89.50	177.10	8,606.0	-1,223.4	161.1	1,225.8	0.94	-0.42	-0.84
9,567.0	90.40	177.80	8,606.1	-1,318.3	165.4	1,320.8	1.20	0.95	0.74
9,663.0	90.50	177.10	8,605.4	-1,414.2	169.6	1,416.7	0.74	0.10	-0.73
9,757.0	89.80	179.10	8,605.1	-1,508.1	172.8	1,510.7	2.25	-0.74	2.13
9,852.0	87.70	180.20	8,607.2	-1,603.1	173.3	1,605.7	2.50	-2.21	1.16
9,947.0	87.60	180.60	8,611.1	-1,698.0	172.7	1,700.6	0.43	-0.11	0.42
10,041.0	88.60	180.50	8,614.2	-1,791.9	171.8	1,794.5	1.07	1.06	-0.11
10,137.0	89.40	180.40	8,615.9	-1,887.9	171.0	1,890.4	0.84	0.83	-0.10
10,231.0	90.20	181.00	8,616.2	-1,981.9	169.9	1,984.4	1.06	0.85	0.64
10,323.0	91.30	181.80	8,615.0	-2,073.9	167.6	2,076.3	1.48	1.20	0.87
10,419.0	90.30	180.70	8,613.7	-2,169.8	165.5	2,172.2	1.55	-1.04	-1.15
10,514.0	89.40	179.30	8,613.9	-2,264.8	165.5	2,267.2	1.75	-0.95	-1.47
10,609.0	89.70	179.10	8,614.7	-2,359.8	166.9	2,362.2	0.38	0.32	-0.21
10,704.0	89.80	178.50	8,615.1	-2,454.8	168.8	2,457.2	0.64	0.11	-0.63
10,799.0	90.90	178.90	8,614.5	-2,549.8	171.0	2,552.2	1.23	1.16	0.42
10,893.0	89.50	178.60	8,614.2	-2,643.7	173.1	2,646.2	1.52	-1.49	-0.32
10,988.0	89.80	178.40	8,614.8	-2,738.7	175.5	2,741.2	0.38	0.32	-0.21
11,084.0	89.90	177.80	8,615.0	-2,834.7	178.7	2,837.2	0.63	0.10	-0.63
11,178.0	90.90	178.60	8,614.3	-2,928.6	181.7	2,931.2	1.36	1.06	0.85
11,273.0	89.20	180.00	8,614.3	-3,023.6	182.8	3,026.2	2.32	-1.79	1.47
11,368.0	89.80	180.60	8,615.1	-3,118.6	182.3	3,121.1	0.89	0.63	0.63
11,463.0	90.30	180.20	8,615.0	-3,213.6	181.7	3,216.1	0.67	0.53	-0.42
11,558.0	90.90	180.40	8,614.0	-3,308.6	181.2	3,311.1	0.67	0.63	0.21



Survey Report



Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Corral Canyon Federal 29H
Well: Corral Canyon Federal 29H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
TVD Reference: RKB @ 2971.0usft (Frontier 27)
MD Reference: RKB @ 2971.0usft (Frontier 27)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
11,654.0	91.30	180.40	8,612.2	-3,404.6	180.5	3,407.0	0.42	0.42	0.00
11,749.0	91.60	180.50	8,609.8	-3,499.5	179.8	3,502.0	0.33	0.32	0.11
11,843.0	89.30	179.90	8,609.0	-3,593.5	179.4	3,596.0	2.53	-2.45	-0.64
11,938.0	90.00	180.00	8,609.6	-3,688.5	179.5	3,690.9	0.74	0.74	0.11
12,034.0	89.60	180.80	8,609.9	-3,784.5	178.8	3,786.9	0.93	-0.42	0.83
12,128.0	90.40	181.40	8,609.9	-3,878.5	177.0	3,880.9	1.06	0.85	0.64
12,224.0	91.30	181.50	8,608.5	-3,974.5	174.6	3,976.8	0.94	0.94	0.10
12,320.0	87.60	180.20	8,609.4	-4,070.4	173.2	4,072.7	4.09	-3.85	-1.35
12,416.0	89.00	180.10	8,612.3	-4,166.4	172.9	4,168.6	1.46	1.46	-0.10
12,509.0	87.20	179.30	8,615.4	-4,259.3	173.4	4,261.6	2.12	-1.94	-0.86
12,604.0	88.50	179.30	8,618.9	-4,354.2	174.6	4,356.5	1.37	1.37	0.00
12,699.0	89.10	179.30	8,620.9	-4,449.2	175.7	4,451.5	0.63	0.63	0.00
12,795.0	89.70	179.00	8,621.9	-4,545.2	177.2	4,547.5	0.70	0.63	-0.31
12,890.0	91.20	178.70	8,621.2	-4,640.2	179.1	4,642.5	1.61	1.58	-0.32
12,985.0	89.10	178.70	8,620.9	-4,735.1	181.2	4,737.5	2.21	-2.21	0.00
13,080.0	88.50	178.80	8,622.9	-4,830.1	183.3	4,832.4	0.64	-0.63	0.11
13,176.0	92.40	180.90	8,622.2	-4,926.1	183.6	4,928.4	4.61	4.06	2.19
13,272.0	91.70	180.60	8,618.7	-5,022.0	182.3	5,024.3	0.79	-0.73	-0.31
13,367.0	89.60	179.90	8,617.7	-5,117.0	181.9	5,119.3	2.33	-2.21	-0.74
13,462.0	90.30	179.80	8,617.7	-5,212.0	182.1	5,214.3	0.74	0.74	-0.11
13,558.0	89.10	178.40	8,618.2	-5,308.0	183.6	5,310.2	1.92	-1.25	-1.46
13,652.0	89.20	177.90	8,619.6	-5,401.9	186.7	5,404.2	0.54	0.11	-0.53
13,749.0	88.10	177.10	8,621.9	-5,498.8	190.9	5,501.2	1.40	-1.13	-0.82
13,843.0	89.10	177.40	8,624.2	-5,592.6	195.4	5,595.1	1.11	1.06	0.32
13,938.0	89.10	177.50	8,625.7	-5,687.5	199.6	5,690.0	0.11	0.00	0.11
14,032.0	90.80	179.00	8,625.8	-5,781.5	202.5	5,784.0	2.41	1.81	1.60
14,128.0	89.10	180.40	8,625.9	-5,877.5	203.0	5,880.0	2.29	-1.77	1.46
14,224.0	92.40	182.30	8,624.6	-5,973.4	200.8	5,975.9	3.97	3.44	1.98
14,319.0	92.80	181.80	8,620.3	-6,068.3	197.4	6,070.7	0.67	0.42	-0.53
14,415.0	92.80	181.10	8,615.6	-6,164.1	194.9	6,166.5	0.73	0.00	-0.73
14,505.0	92.60	181.10	8,611.4	-6,254.0	193.2	6,256.3	0.22	-0.22	0.00
14,537.0	91.60	181.50	8,610.2	-6,286.0	192.5	6,288.3	3.37	-3.13	1.25
14,632.0	91.90	181.40	8,607.3	-6,380.9	190.1	6,383.2	0.33	0.32	-0.11
14,727.0	91.30	182.20	8,604.7	-6,475.8	187.1	6,478.0	1.05	-0.63	0.84
14,822.0	87.30	181.10	8,605.8	-6,570.8	184.4	6,572.9	4.37	-4.21	-1.16
14,917.0	87.50	180.70	8,610.1	-6,665.6	182.9	6,667.7	0.47	0.21	-0.42
15,012.0	87.60	180.70	8,614.2	-6,760.6	181.7	6,762.6	0.11	0.11	0.00
15,107.0	88.90	180.20	8,617.1	-6,855.5	181.0	6,857.5	1.47	1.37	-0.53
15,202.0	89.60	179.80	8,618.3	-6,950.5	181.0	6,952.5	0.85	0.74	-0.42
15,298.0	89.40	178.80	8,619.2	-7,046.5	182.1	7,048.5	1.06	-0.21	-1.04
15,392.0	91.00	179.30	8,618.8	-7,140.5	183.7	7,142.5	1.78	1.70	0.53
15,487.0	91.40	180.00	8,616.9	-7,235.4	184.3	7,237.5	0.85	0.42	0.74
15,583.0	89.20	179.00	8,616.4	-7,331.4	185.1	7,333.5	2.52	-2.29	-1.04

Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Corral Canyon Federal 29H
Well: Corral Canyon Federal 29H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
TVD Reference: RKB @ 2971.0usft (Frontier 27)
MD Reference: RKB @ 2971.0usft (Frontier 27)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
15,677.0	90.50	179.30	8,616.6	-7,425.4	186.5	7,427.5	1.42	1.38	0.32
15,772.0	90.90	179.20	8,615.4	-7,520.4	187.8	7,522.5	0.43	0.42	-0.11
15,867.0	90.00	178.20	8,614.7	-7,615.4	189.9	7,617.4	1.42	-0.95	-1.05
15,962.0	89.80	177.00	8,614.9	-7,710.3	193.9	7,712.4	1.28	-0.21	-1.26
16,057.0	90.60	180.50	8,614.5	-7,805.2	196.0	7,807.4	3.78	0.84	3.68
16,152.0	91.90	180.90	8,612.5	-7,900.2	194.8	7,902.3	1.43	1.37	0.42
16,247.0	89.80	178.60	8,611.0	-7,995.2	195.2	7,997.3	3.28	-2.21	-2.42
16,343.0	90.90	178.30	8,610.5	-8,091.2	197.8	8,093.3	1.19	1.15	-0.31
16,438.0	90.60	180.20	8,609.2	-8,186.1	199.1	8,188.3	2.02	-0.32	2.00
16,533.0	90.50	178.60	8,608.3	-8,281.1	200.0	8,283.3	1.69	-0.11	-1.68
16,629.0	91.00	178.60	8,607.0	-8,377.1	202.4	8,379.3	0.52	0.52	0.00
16,724.0	90.50	178.60	8,605.8	-8,472.0	204.7	8,474.3	0.53	-0.53	0.00
16,819.0	89.40	180.00	8,605.9	-8,567.0	205.9	8,569.2	1.87	-1.16	1.47
16,913.0	90.00	180.10	8,606.4	-8,661.0	205.8	8,663.2	0.65	0.64	0.11
17,009.0	90.50	180.40	8,606.0	-8,757.0	205.4	8,759.2	0.61	0.52	0.31
17,103.0	90.90	180.20	8,604.8	-8,851.0	204.9	8,853.2	0.48	0.43	-0.21
17,198.0	91.60	180.70	8,602.7	-8,946.0	204.1	8,948.1	0.91	0.74	0.53
17,293.0	89.50	180.40	8,601.8	-9,041.0	203.2	9,043.1	2.23	-2.21	-0.32
17,388.0	90.10	180.70	8,602.2	-9,136.0	202.3	9,138.1	0.71	0.63	0.32
17,483.0	90.80	180.60	8,601.4	-9,231.0	201.2	9,233.0	0.74	0.74	-0.11
17,576.0	89.20	180.40	8,601.4	-9,324.0	200.4	9,326.0	1.73	-1.72	-0.22
17,670.0	89.90	180.60	8,602.1	-9,418.0	199.6	9,420.0	0.77	0.74	0.21
17,766.0	90.60	180.60	8,601.7	-9,513.9	198.6	9,515.9	0.73	0.73	0.00
17,861.0	88.80	179.90	8,602.2	-9,608.9	198.2	9,610.9	2.03	-1.89	-0.74
17,956.0	89.20	179.60	8,603.9	-9,703.9	198.6	9,705.9	0.53	0.42	-0.32
18,052.0	90.10	179.50	8,604.5	-9,799.9	199.3	9,801.9	0.94	0.94	-0.10
18,147.0	90.80	180.00	8,603.7	-9,894.9	199.8	9,896.9	0.91	0.74	0.53
18,243.0	89.30	179.90	8,603.6	-9,990.9	199.8	9,992.8	1.57	-1.56	-0.10
18,338.0	89.60	179.30	8,604.6	-10,085.9	200.5	10,087.8	0.71	0.32	-0.63
18,435.0	90.40	179.40	8,604.6	-10,182.9	201.6	10,184.8	0.83	0.82	0.10
18,530.0	91.00	179.30	8,603.4	-10,277.9	202.7	10,279.8	0.64	0.63	-0.11
18,626.0	89.10	179.90	8,603.3	-10,373.9	203.4	10,375.8	2.08	-1.98	0.63
18,720.0	89.50	179.90	8,604.5	-10,467.9	203.5	10,469.8	0.43	0.43	0.00
18,795.0	90.00	179.40	8,604.8	-10,542.9	204.0	10,544.8	0.94	0.67	-0.67
TD @ 18843.0' MD / 8604.8' TVD									
18,843.0	90.00	179.40	8,604.8	-10,590.9	204.5	10,592.8	0.00	0.00	0.00



Survey Report



Company: XTO ENERGY, INC.
Project: Eddy County, NM
Site: Corral Canyon Federal 29H
Well: Corral Canyon Federal 29H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Corral Canyon Federal 29H
TVD Reference: RKB @ 2971.0usft (Frontier 27)
MD Reference: RKB @ 2971.0usft (Frontier 27)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,696.0	2,693.0	-35.5	82.1	MWD Tie-in @ 2696.0' MD / 2693.0' TVD
18,843.0	8,604.8	-10,590.9	204.5	TD @ 18843.0' MD / 8604.8' TVD

Checked By: _____ Approved By: _____ Date: _____