

30-015-42922



NorAm Drilling Company

A GLOBAL RIG COMPANY ASA

Operator: XTO Energy

Well & Lease Number: CORRAL CANYON FEDERAL 3H

County: Eddy

NM OIL CONSERVATION

ARTESIA DISTRICT

OCT 01 2015

RECEIVED

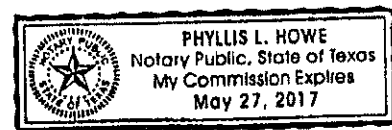
State of New Mexico

Deviation Report

Footage	Degree
300	1.0
675	0.00
1039	1.0
1456	1.50
1928	2.25
2270	2.25
2550	2.0
2870	1.0
3300	1.77
3800	0.98
4300	1.06
4800	0.49
5300	1.06
5800	1.05
6300	0.79
6800	2.01
7300	1.27
7800	1.53
7947	1.57

Completed by: Will Luker

Will Luker, Safety Director
NorAm Drilling Company



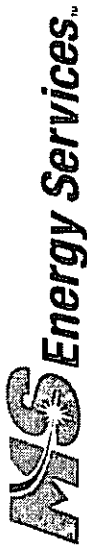
Appeared before me on: 9/1/15

Notary Public: Phyllis L. Howe

8400 N. Sam Houston Parkway West • Suite 120 • Houston, TX 77064 USA • Phone: (281) 598-9200 • Fax (281) 598-9220

1804 Rotary Drive • Humble, TX 77338 USA • Phone: (281) 540-7070 • Fax (281) 540-7071

www.noramdrilling.com



Job Number: SVMO-150340
Company: XTO Energy
Lease/Well: Corral Canyon Federal 3H
Location: Eddy County, NM
Rig Name: Noram #25
RKB: 25'
G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 7.25°

Grid: East To Grid North

File name: S:\2015SU-1\XTOENE-1\MO\CORRAL-23H.SVY

Date/Time: 08-May-15 / 09:16

Curve Name: Surface - 7947' M.D. (SRG)

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 01 2015
RECEIVED

MS Survey

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 347.46

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 7947' MD is, to the best of
our knowledge a true and accurate account of
the well bore.
Louis Back 5/7/15
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.52	220.18	100.00	-.35	-.29	-.27	.45	220.18	.52
200.00	.38	194.44	200.00	-1.01	-.67	-.85	1.21	213.37	.24
300.00	.40	245.90	299.99	-1.48	-1.07	-1.21	1.82	215.89	.34
400.00	.52	232.64	399.99	-1.90	-1.75	-1.47	2.58	222.69	.16
500.00	.75	246.31	499.98	-2.43	-2.71	-1.79	3.64	228.05	.27
600.00	.67	233.49	599.98	-3.05	-3.78	-2.15	4.85	231.13	.18
700.00	.42	208.37	699.97	-3.72	-4.42	-2.67	5.78	229.96	.34
800.00	.71	194.93	799.97	-4.64	-4.76	-3.49	6.64	225.73	.32
900.00	1.30	157.00	899.95	-6.28	-4.47	-5.16	7.71	215.46	.86
1000.00	1.49	111.37	999.93	-7.80	-2.82	-7.00	8.29	199.87	1.10
1100.00	1.11	49.76	1099.90	-7.65	-.87	-7.27	7.69	186.48	1.37
1200.00	1.67	335.17	1199.88	-5.70	-.74	-5.40	5.75	187.41	1.74

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
1300.00	1.33	270.18	1299.85	-4.37	-2.51	-3.72	5.04	209.90	1.64
1400.00	1.50	218.21	1399.83	-5.40	-4.48	-4.29	7.02	219.72	1.25
1500.00	1.47	131.23	1499.80	-7.27	-4.33	-6.16	8.46	210.77	2.04
1600.00	1.63	66.98	1599.77	-7.56	-2.05	-6.93	7.83	195.21	1.65
1700.00	1.66	345.10	1699.74	-5.60	-1.12	-5.23	5.71	191.28	2.16
1800.00	1.81	273.93	1799.71	-4.10	-3.07	-3.33	5.12	216.82	2.02
1900.00	1.46	207.78	1899.68	-5.11	-5.24	-3.86	7.32	225.67	1.81
2000.00	1.32	141.22	1999.65	-7.14	-5.11	-5.86	8.78	215.58	1.53
2100.00	1.30	64.79	2099.63	-7.55	-3.36	-6.64	8.27	203.98	1.62
2200.00	1.73	338.04	2199.61	-5.67	-2.90	-4.91	6.37	207.07	2.10
2300.00	1.24	285.82	2299.58	-3.98	-4.50	-2.90	6.01	228.56	1.38
2400.00	1.34	211.16	2399.56	-4.68	-6.15	-3.23	7.73	232.72	1.57
2500.00	2.07	144.99	2499.52	-7.16	-5.72	-5.75	9.16	218.61	1.96
2600.00	2.47	99.59	2599.45	-9.00	-2.56	-8.23	9.36	195.86	1.79
2700.00	2.26	79.92	2699.37	-9.01	1.51	-9.13	9.14	170.50	.83
2800.00	1.83	13.86	2799.32	-7.12	3.83	-7.78	8.08	151.70	2.26
2900.00	1.87	305.41	2899.28	-4.62	2.89	-5.14	5.45	148.03	2.08
3000.00	2.17	292.23	2999.21	-2.96	-20	-2.85	2.97	183.81	.55
3100.00	2.16	291.21	3099.14	-1.56	-3.71	-7.2	4.02	247.14	.04
3200.00	1.67	288.31	3199.09	-.42	-6.85	1.07	6.86	266.47	.50
3300.00	1.77	299.06	3299.04	.79	-9.58	2.85	9.61	274.69	.34
3400.00	1.48	303.03	3399.00	2.24	-12.01	4.79	12.22	280.56	.31
3500.00	1.09	284.24	3498.98	3.18	-14.02	6.14	14.37	282.77	.57
3600.00	1.38	295.17	3598.95	3.92	-16.03	7.31	16.50	283.75	.37
3700.00	.92	283.78	3698.93	4.63	-17.90	8.40	18.49	284.49	.51
3800.00	.98	296.01	3798.92	5.19	-19.45	9.29	20.13	284.95	.21
3900.00	1.11	280.89	3898.90	5.75	-21.17	10.21	21.93	285.20	.30
4000.00	.82	272.74	3998.89	5.97	-22.83	10.78	23.60	284.65	.32
4100.00	.81	269.62	4098.88	6.00	-24.25	11.12	24.98	283.89	.05
4200.00	.91	294.11	4198.87	6.32	-25.69	11.74	26.45	283.82	.38
4300.00	1.06	279.61	4298.85	6.80	-27.32	12.57	28.16	283.97	.29
4400.00	.81	300.38	4398.84	7.31	-28.84	13.40	29.76	284.22	.42
4500.00	.85	287.92	4498.83	7.89	-30.16	14.25	31.18	284.67	.18
4600.00	.83	267.45	4598.82	8.09	-31.59	14.76	32.61	284.36	.30

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
4700.00	.51	245.31	4698.81	7.87	-32.72	14.79	33.65	283.53	.41
4800.00	.49	283.22	4798.81	7.78	-33.54	14.88	34.43	283.07	.33
4900.00	.74	270.64	4898.80	7.89	-34.60	15.21	35.49	282.84	.28
5000.00	.80	259.93	4998.79	7.77	-35.93	15.39	36.76	282.21	.16
5100.00	.83	228.98	5098.78	7.18	-37.17	15.07	37.85	280.93	.44
5200.00	.93	256.18	5198.77	6.51	-38.50	14.71	39.05	279.59	.43
5300.00	1.06	252.43	5298.76	6.03	-40.17	14.61	40.62	278.54	.15
5400.00	1.25	235.83	5398.74	5.14	-41.96	14.13	42.27	276.99	.38
5500.00	1.20	236.04	5498.72	3.94	-43.73	13.34	43.90	275.15	.05
5600.00	1.30	255.11	5598.69	3.07	-45.69	12.92	45.79	273.84	.43
5700.00	1.17	254.97	5698.67	2.51	-47.77	12.82	47.84	273.01	.13
5800.00	1.05	256.15	5798.65	2.03	-49.65	12.76	49.69	272.34	.12
5900.00	1.03	245.11	5898.63	1.43	-51.35	12.55	51.37	271.60	.20
6000.00	.64	242.58	5998.62	.79	-52.67	12.21	52.67	270.86	.39
6100.00	.95	227.70	6098.61	-.02	-53.77	11.66	53.77	269.98	.37
6200.00	.89	206.96	6198.60	-1.27	-54.74	10.64	54.75	268.67	.34
6300.00	.79	227.53	6298.59	-2.43	-55.60	9.70	55.65	267.50	.32
6400.00	.99	202.61	6398.58	-3.69	-56.44	8.65	56.56	266.26	.43
6500.00	.84	198.44	6498.57	-5.18	-57.00	7.32	57.24	264.80	.16
6600.00	.69	191.70	6598.56	-6.47	-57.36	6.14	57.72	263.56	.17
6700.00	1.03	190.98	6698.54	-7.94	-57.65	4.77	58.20	262.16	.34
6800.00	2.01	212.50	6798.51	-10.30	-58.77	2.70	59.66	260.06	1.12
6900.00	2.19	247.67	6898.45	-12.51	-61.47	1.14	62.73	258.50	1.28
7000.00	2.27	270.24	6998.37	-13.23	-65.22	1.25	66.55	258.54	.88
7100.00	3.64	268.29	7098.24	-13.31	-70.38	2.29	71.62	259.29	1.37
7200.00	3.01	273.06	7198.07	-13.27	-76.17	3.59	77.32	260.12	.69
7300.00	1.27	249.57	7298.00	-13.51	-79.83	4.14	80.97	260.39	1.91
7400.00	1.96	251.36	7397.96	-14.45	-82.49	3.81	83.75	260.07	.69
7500.00	1.90	263.99	7497.90	-15.17	-85.76	3.82	87.09	259.97	.43
7600.00	1.79	258.06	7597.85	-15.66	-88.94	4.02	90.31	260.01	.22
7700.00	1.73	249.13	7697.80	-16.52	-91.87	3.82	93.35	259.80	.28
7800.00	1.53	233.49	7797.76	-17.86	-94.36	3.06	96.03	259.28	.49
7900.00	1.67	207.17	7897.72	-19.95	-96.10	1.39	98.15	258.27	.74
Last Survey Depth Recorded									
7947.00	1.57	209.75	7944.70	-21.12	-96.73	.39	99.01	257.69	.26

XTO ENERGY

XTO Energy Inc

Eddy County, NM (NAD 27)

Corral Canyon Federal

Corral Canyon Federal 3H

Wellbore #1 / Job#1513432

Design: Surveys (Noram 25)

Standard Survey Report

26 May, 2015

XTOENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

Project	Eddy 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	Corral Canyon Federal			
Site Position:		Northing:	419,285.50 usft	Latitude: 32° 9' 8.30126 N
From:	Map	Easting:	601,708.20 usft	Longitude: 104° 0' 16.89527 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.17 °

Well	Corral Canyon Federal 3H			
Well Position	+N/-S	0.00 usft	Northing:	419,285.50 usft
	+E/-W	0.00 usft	Easting:	601,708.20 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level: 3,004.00 usft

Wellbore	Wellbore #1 / Job#1513432					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	5/8/2015	7.35	60.00	48,290	

Design	Surveys (Noram 25)					
Audit Notes:						
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)		
	0.00	0.00	0.00	1.89		

Survey Program	Date 5/26/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	7,947.00	MS Gyro Survey (Wellbore #1 / Job#15134	NS-GYRO-MS	North sensing gyrocompassing m/s	
8,048.00	15,530.00	Phoenix MWD Survey (Wellbore #1 / Job#	PHX+MWD+HDGM	PHX+MWD+HDGM	

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
100.00	0.52	220.18	100.00	-0.35	-0.29	-0.36	0.52	0.52	0.00
200.00	0.38	194.44	200.00	-1.01	-0.67	-1.04	0.24	-0.14	-25.74
300.00	0.40	245.90	299.99	-1.48	-1.07	-1.51	0.34	0.02	51.46
400.00	0.52	232.64	399.99	-1.90	-1.75	-1.95	0.16	0.12	-13.26
500.00	0.75	246.31	499.98	-2.43	-2.71	-2.52	0.27	0.23	13.87
600.00	0.67	233.49	599.98	-3.05	-3.78	-3.17	0.18	-0.08	-12.82
700.00	0.42	208.37	699.97	-3.72	-4.42	-3.86	0.34	-0.25	-25.12
800.00	0.71	194.93	799.97	-4.64	-4.76	-4.79	0.32	0.29	-13.44
900.00	1.30	157.00	899.95	-6.28	-4.47	-6.42	0.86	0.59	-37.93

XTOENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
1,000.00	1.49	111.37	999.93	-7.80	-2.82	-7.89	1.10	0.19	-45.63
1,100.00	1.11	49.76	1,099.90	-7.65	-0.87	-7.67	1.37	-0.38	-61.61
1,200.00	1.67	335.17	1,199.88	-5.70	-0.74	-5.72	1.74	0.56	-74.59
1,300.00	1.33	270.18	1,299.85	-4.37	-2.51	-4.45	1.64	-0.34	-64.99
1,400.00	1.50	218.21	1,399.83	-5.40	-4.48	-5.54	1.25	0.17	-51.97
1,500.00	1.47	131.23	1,499.80	-7.27	-4.33	-7.41	2.04	-0.03	-86.98
1,600.00	1.63	66.98	1,599.77	-7.56	-2.05	-7.62	1.65	0.16	-64.25
1,700.00	1.66	345.10	1,699.74	-5.60	-1.12	-5.64	2.16	0.03	-81.88
1,800.00	1.81	273.93	1,799.71	-4.10	-3.07	-4.19	2.02	0.15	-71.17
1,900.00	1.46	207.78	1,899.68	-5.11	-5.24	-5.28	1.81	-0.35	-66.15
2,000.00	1.32	141.22	1,999.65	-7.14	-5.11	-7.30	1.53	-0.14	-66.56
2,100.00	1.30	64.79	2,099.63	-7.55	-3.36	-7.68	1.62	-0.02	-76.43
2,200.00	1.73	338.04	2,199.61	-5.67	-2.90	-5.78	2.10	0.43	-86.75
2,300.00	1.24	285.82	2,299.58	-3.98	-4.50	-4.12	1.38	-0.49	-52.22
2,400.00	1.34	211.16	2,399.56	-4.68	-6.15	-4.88	1.57	0.10	-74.66
2,500.00	2.07	144.99	2,499.52	-7.16	-5.72	-7.35	1.96	0.73	-66.17
2,600.00	2.47	99.59	2,599.45	-9.00	-2.56	-9.08	1.79	0.40	-45.40
2,700.00	2.26	79.92	2,699.37	-9.01	1.51	-8.96	0.83	-0.21	-19.67
2,800.00	1.83	13.86	2,799.32	-7.12	3.83	-6.99	2.26	-0.43	-66.08
2,900.00	1.87	305.41	2,899.28	-4.62	2.89	-4.52	2.08	0.04	-68.45
3,000.00	2.17	292.23	2,999.21	-2.96	-0.20	-2.97	0.55	0.30	-13.18
3,100.00	2.16	291.21	3,099.14	-1.56	-3.71	-1.68	0.04	-0.01	-1.02
3,200.00	1.67	288.31	3,199.09	-0.42	-6.85	-0.65	0.50	-0.49	-2.90
3,300.00	1.77	299.06	3,299.04	0.79	-9.58	0.47	0.34	0.10	10.75
3,400.00	1.48	303.03	3,399.00	2.24	-12.01	1.84	0.31	-0.29	3.97
3,500.00	1.09	284.24	3,498.98	3.18	-14.02	2.71	0.57	-0.39	-18.79
3,600.00	1.38	295.17	3,598.95	3.92	-16.03	3.39	0.37	0.29	10.93
3,700.00	0.92	283.78	3,698.93	4.63	-17.90	4.03	0.51	-0.46	-11.39
3,800.00	0.98	296.01	3,798.92	5.19	-19.45	4.55	0.21	0.06	12.23
3,900.00	1.11	280.89	3,898.90	5.75	-21.17	5.05	0.30	0.13	-15.12
4,000.00	0.82	272.74	3,998.89	5.97	-22.83	5.21	0.32	-0.29	-8.15
4,100.00	0.81	269.62	4,098.88	6.00	-24.25	5.19	0.05	-0.01	-3.12
4,200.00	0.91	294.11	4,198.87	6.32	-25.69	5.47	0.38	0.10	24.49
4,300.00	1.06	279.61	4,298.85	6.80	-27.32	5.89	0.29	0.15	-14.50
4,400.00	0.81	300.38	4,398.84	7.31	-28.84	6.35	0.42	-0.25	20.77
4,500.00	0.85	287.92	4,498.83	7.89	-30.16	6.89	0.18	0.04	-12.46
4,600.00	0.83	267.45	4,598.82	8.09	-31.59	7.04	0.30	-0.02	-20.47
4,700.00	0.51	245.31	4,698.81	7.87	-32.72	6.79	0.41	-0.32	-22.14
4,800.00	0.49	283.22	4,798.81	7.78	-33.54	6.87	0.33	-0.02	37.91
4,900.00	0.74	270.64	4,898.80	7.89	-34.60	6.74	0.28	0.25	-12.58
5,000.00	0.80	259.93	4,998.79	7.77	-35.93	6.58	0.16	0.06	-10.71
5,100.00	0.83	228.98	5,098.78	7.18	-37.17	5.95	0.44	0.03	-30.95
5,200.00	0.93	256.18	5,198.77	6.51	-38.50	5.23	0.43	0.10	27.20

XTOENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MVD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
5,300.00	1.06	252.43	5,298.76	6.03	-40.17	4.71	0.15	0.13	-3.75
5,400.00	1.25	235.83	5,398.74	5.14	-41.96	3.76	0.38	0.19	-16.60
5,500.00	1.20	236.04	5,498.72	3.94	-43.73	2.50	0.05	-0.05	0.21
5,600.00	1.30	255.11	5,598.69	3.07	-45.69	1.56	0.43	0.10	19.07
5,700.00	1.17	254.97	5,698.67	2.51	-47.77	0.93	0.13	-0.13	-0.14
5,800.00	1.05	256.15	5,798.65	2.03	-49.65	0.39	0.12	-0.12	1.18
5,900.00	1.03	245.11	5,898.63	1.43	-51.35	-0.26	0.20	-0.02	-11.04
6,000.00	0.64	242.58	5,998.62	0.79	-52.67	-0.94	0.39	-0.39	-2.53
6,100.00	0.95	227.70	6,098.61	-0.02	-53.77	-1.79	0.37	0.31	-14.88
6,200.00	0.89	206.96	6,198.60	-1.27	-54.74	-3.08	0.34	-0.06	-20.74
6,300.00	0.79	227.53	6,298.59	-2.43	-55.60	-4.26	0.32	-0.10	20.57
6,400.00	0.99	202.61	6,398.58	-3.69	-56.44	-5.55	0.43	0.20	-24.92
6,500.00	0.84	198.44	6,498.57	-5.18	-57.00	-7.08	0.16	-0.15	-4.17
6,600.00	0.69	191.70	6,598.56	-6.47	-57.36	-8.38	0.17	-0.15	-6.74
6,700.00	1.03	190.98	6,698.55	-7.94	-57.65	-9.84	0.34	0.34	-0.72
6,800.00	2.01	212.50	6,798.51	-10.30	-58.77	-12.24	1.12	0.98	21.52
6,900.00	2.19	247.67	6,898.45	-12.51	-61.47	-14.53	1.28	0.18	35.17
7,000.00	2.27	270.24	6,998.37	-13.23	-65.22	-15.37	0.88	0.08	22.57
7,100.00	3.64	268.29	7,098.24	-13.31	-70.38	-15.63	1.37	1.37	-1.85
7,200.00	3.01	273.06	7,198.07	-13.27	-76.17	-15.77	0.69	-0.63	4.77
7,300.00	1.27	249.57	7,298.00	-13.51	-79.83	-16.14	1.91	-1.74	-23.49
7,400.00	1.96	251.36	7,397.96	-14.45	-82.49	-17.16	0.69	0.69	1.79
7,500.00	1.90	263.99	7,497.90	-15.17	-85.76	-17.99	0.43	-0.06	12.63
7,600.00	1.79	258.06	7,597.85	-15.66	-88.94	-18.59	0.22	-0.11	-5.93
7,700.00	1.73	249.13	7,697.80	-16.52	-91.87	-19.55	0.28	-0.06	-8.93
7,800.00	1.53	233.49	7,797.76	-17.86	-94.36	-20.96	0.49	-0.20	-15.64
7,900.00	1.67	207.17	7,897.72	-19.95	-96.10	-23.11	0.74	0.14	-26.32
7,947.00	1.57	209.75	7,944.70	-21.12	-96.73	-24.29	0.26	-0.21	5.49
Tie-on to MS Gyro Survey									
8,048.00	4.00	343.70	8,045.63	-18.93	-98.41	-22.17	5.16	2.41	132.62
First Phoenix MWD Survey									
8,079.00	9.70	351.30	8,076.40	-15.31	-99.10	-18.57	18.58	18.39	24.52
8,111.00	14.70	359.00	8,107.67	-8.58	-99.58	-11.86	16.40	15.63	24.06
8,142.00	17.50	2.70	8,137.45	0.01	-99.43	-3.27	9.62	9.03	11.94
8,174.00	19.80	2.90	8,167.77	10.23	-98.93	6.96	7.19	7.19	0.63
8,205.00	22.50	2.50	8,196.68	21.40	-98.41	18.14	8.72	8.71	-1.29
8,237.00	25.50	2.00	8,225.91	34.40	-97.90	31.16	9.40	9.38	-1.56
8,268.00	26.90	0.90	8,253.72	48.09	-97.56	44.84	4.78	4.52	-3.55
8,300.00	27.90	359.20	8,282.13	62.81	-97.55	59.58	3.97	3.13	-5.31
8,332.00	28.70	358.50	8,310.31	77.98	-97.85	74.71	2.71	2.50	-2.19
8,363.00	29.80	0.60	8,337.34	93.15	-97.97	89.86	5.10	3.87	6.77
8,395.00	31.20	2.10	8,364.90	109.40	-97.58	106.13	4.71	4.06	4.89
8,426.00	34.30	1.50	8,390.97	126.16	-97.06	122.89	10.05	10.00	-1.94
8,458.00	38.60	0.20	8,416.70	145.17	-96.79	141.90	13.65	13.44	-4.06

XTOENERGY

Survey Report

Company: XTO Energy Inc
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 Site: Corral Canyon Federal
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 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
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 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
8,490.00	41.70	359.70	8,441.16	165.80	-96.81	162.52	9.74	9.69	-1.56
8,521.00	45.10	0.10	8,463.68	187.10	-96.84	183.80	11.00	10.97	1.29
8,552.00	50.00	1.50	8,484.60	208.96	-96.51	208.68	16.15	15.81	4.52
8,584.00	53.60	3.20	8,504.38	235.08	-95.47	231.80	12.00	11.25	5.31
8,615.00	56.20	4.70	8,522.21	260.38	-93.72	257.15	9.27	8.39	4.84
8,647.00	58.60	7.10	8,539.45	287.19	-90.94	284.03	9.81	7.50	7.50
8,678.00	61.50	8.90	8,554.93	313.78	-87.20	310.74	10.62	9.35	5.81
8,710.00	64.50	10.80	8,569.45	341.87	-82.31	338.97	10.76	9.38	5.94
8,741.00	68.70	12.20	8,581.76	369.74	-76.64	367.01	14.17	13.55	4.52
8,773.00	71.70	13.10	8,592.80	399.11	-70.04	396.58	9.74	9.38	2.81
8,804.00	73.90	13.90	8,601.77	427.80	-63.13	425.59	7.51	7.10	2.58
8,835.00	77.50	14.80	8,609.42	457.00	-55.68	454.92	11.95	11.61	2.90
8,867.00	81.50	15.40	8,615.25	487.37	-47.49	485.54	12.64	12.50	1.88
8,898.00	84.90	15.70	8,618.92	517.02	-39.24	515.45	11.01	10.97	0.97
8,928.00	87.00	15.80	8,621.04	545.82	-31.11	544.50	7.01	7.00	0.33
8,959.00	87.40	15.30	8,622.56	575.65	-22.81	574.59	2.06	1.29	-1.61
8,991.00	87.90	14.50	8,623.87	606.55	-14.59	605.74	2.85	1.56	-2.50
9,022.00	88.60	13.70	8,624.82	636.60	-7.04	636.02	3.43	2.26	-2.58
9,054.00	88.60	12.30	8,625.80	667.77	0.15	667.41	4.37	0.00	-4.38
9,085.00	89.00	10.90	8,626.25	698.13	6.38	697.86	4.70	1.29	-4.52
9,117.00	89.10	8.80	8,626.78	729.65	11.86	729.65	6.57	0.31	-6.56
9,148.00	89.30	7.30	8,627.21	760.34	16.20	760.46	4.88	0.65	-4.84
9,179.00	89.20	6.30	8,627.82	791.12	19.87	791.35	3.24	-0.32	-3.23
9,274.00	89.50	4.40	8,628.69	885.70	28.72	888.16	2.02	0.32	-2.00
9,368.00	90.40	3.10	8,628.78	979.49	34.87	980.11	1.68	0.86	-1.38
9,462.00	92.30	4.50	8,628.56	1,073.25	41.10	1,074.03	2.51	2.02	1.49
9,557.00	91.50	2.70	8,623.41	1,168.01	47.06	1,168.93	2.07	-0.84	-1.89
9,652.00	90.10	1.40	8,622.08	1,262.04	50.46	1,263.91	2.01	-1.47	-1.37
9,746.00	89.90	1.60	8,622.08	1,356.90	52.92	1,357.91	0.30	-0.21	0.21
9,840.00	90.00	1.60	8,622.17	1,450.87	55.54	1,451.91	0.11	0.11	0.00
9,935.00	92.10	2.30	8,620.43	1,545.79	58.77	1,546.89	2.33	2.21	0.74
10,029.00	91.70	2.10	8,617.31	1,639.67	62.38	1,640.83	0.48	-0.43	-0.21
10,124.00	90.80	1.70	8,615.15	1,734.59	65.53	1,735.81	0.94	-0.84	-0.42
10,218.00	92.50	1.80	8,612.37	1,828.50	68.40	1,829.78	1.71	1.70	0.11
10,313.00	92.70	1.50	8,608.06	1,923.37	71.13	1,924.67	0.38	0.21	-0.32
10,407.00	92.50	1.80	8,603.79	2,017.23	73.84	2,018.57	0.38	-0.21	0.32
10,502.00	92.20	1.50	8,599.90	2,112.11	76.57	2,113.49	0.45	-0.32	-0.32
10,596.00	89.40	0.90	8,598.58	2,206.07	78.54	2,207.46	3.05	-2.98	-0.64
10,627.00	88.50	359.60	8,599.15	2,237.06	78.67	2,238.44	5.10	-2.90	-4.19
10,659.00	88.20	359.10	8,600.07	2,269.05	78.31	2,270.40	1.82	-0.94	-1.56
10,690.00	88.90	359.50	8,600.86	2,300.04	77.93	2,301.36	2.60	2.26	1.29
10,785.00	90.20	0.90	8,601.60	2,395.03	78.26	2,396.31	2.01	1.37	1.47
10,880.00	91.30	2.50	8,600.36	2,489.97	81.08	2,491.29	2.04	1.16	1.68

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
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 Design: Surveys (Noram 25)

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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
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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)
10,974.00	88.70	1.50	8,600.36	2,583.91	84.36	2,585.28	2.98	-2.77	-1.06
11,068.00	88.30	2.30	8,602.82	2,677.82	87.48	2,679.25	0.95	-0.43	0.85
11,163.00	88.40	3.20	8,605.56	2,772.67	92.03	2,774.20	0.95	0.11	0.95
11,257.00	87.90	3.60	8,608.59	2,866.46	97.60	2,868.12	0.68	-0.53	0.43
11,352.00	88.00	2.80	8,611.99	2,961.25	102.90	2,963.03	0.85	0.11	-0.84
11,446.00	89.10	0.80	8,614.37	3,055.17	105.85	3,057.00	2.43	1.17	-2.13
11,541.00	87.90	358.80	8,616.86	3,150.13	105.52	3,151.89	2.45	-1.26	-2.11
11,635.00	89.00	358.00	8,619.40	3,244.05	102.90	3,245.68	1.45	1.17	-0.85
11,730.00	91.50	359.50	8,618.98	3,339.02	100.83	3,340.53	3.07	2.83	1.58
11,824.00	91.50	359.50	8,616.52	3,432.88	100.01	3,434.41	0.00	0.00	0.00
11,919.00	91.00	1.50	8,614.45	3,527.95	100.84	3,529.36	2.17	-0.53	2.11
12,013.00	89.90	0.90	8,613.71	3,621.93	102.80	3,623.35	1.33	-1.17	-0.64
12,108.00	90.90	1.90	8,613.05	3,716.89	105.13	3,718.34	1.49	1.05	1.05
12,202.00	90.30	1.40	8,612.06	3,810.85	107.83	3,812.33	0.83	-0.64	-0.53
12,297.00	91.30	3.40	8,610.74	3,905.75	111.81	3,907.31	2.35	1.05	2.11
12,391.00	90.40	2.50	8,609.34	3,999.61	116.65	4,001.28	1.35	-0.96	-0.96
12,486.00	90.60	3.00	8,608.51	4,094.50	121.20	4,096.27	0.57	0.21	0.53
12,580.00	90.30	3.70	8,607.78	4,188.34	126.70	4,190.24	0.81	-0.32	0.74
12,674.00	90.80	5.90	8,606.87	4,282.00	134.56	4,284.10	2.40	0.53	2.34
12,769.00	89.20	3.50	8,606.87	4,376.87	142.34	4,378.98	3.04	-1.68	-2.53
12,863.00	89.10	3.60	8,608.27	4,470.48	148.16	4,472.93	0.15	-0.11	0.11
12,958.00	90.50	3.60	8,608.60	4,565.29	154.13	4,567.89	1.47	1.47	0.00
13,052.00	90.10	3.00	8,608.11	4,659.13	159.54	4,661.85	0.77	-0.43	-0.64
13,147.00	90.00	3.80	8,608.02	4,753.96	165.17	4,756.82	0.85	-0.11	0.84
13,241.00	89.20	0.70	8,608.88	4,847.87	168.86	4,850.80	3.41	-0.85	-3.30
13,335.00	88.00	358.30	8,610.98	4,941.83	168.04	4,944.69	2.85	-1.28	-2.55
13,430.00	89.50	0.90	8,613.05	5,036.80	167.38	5,039.58	3.16	1.58	2.74
13,524.00	88.60	1.00	8,614.81	5,130.77	168.94	5,133.55	0.96	-0.96	0.11
13,618.00	89.50	1.20	8,616.17	5,224.74	170.75	5,227.53	0.98	0.96	0.21
13,713.00	90.30	0.90	8,616.33	5,319.72	172.49	5,322.52	0.90	0.84	-0.32
13,807.00	91.50	1.70	8,614.86	5,413.88	174.62	5,416.50	1.53	1.28	0.85
13,902.00	90.50	1.30	8,613.20	5,508.63	177.10	5,511.48	1.13	-1.05	-0.42
13,996.00	90.80	2.30	8,612.13	5,602.58	180.06	5,605.47	1.11	0.32	1.06
14,091.00	89.80	1.30	8,611.64	5,697.53	183.04	5,700.47	1.49	-1.05	-1.05
14,185.00	90.60	1.10	8,611.31	5,791.51	185.01	5,794.46	0.88	0.85	-0.21
14,280.00	90.50	1.50	8,610.40	5,886.48	187.16	5,889.45	0.43	-0.11	0.42
14,375.00	90.70	2.30	8,609.40	5,981.42	190.31	5,984.44	0.87	0.21	0.84
14,469.00	90.20	2.20	8,608.66	6,075.35	194.00	6,078.44	0.54	-0.53	-0.11
14,564.00	90.00	3.30	8,608.50	6,170.23	198.56	6,173.43	1.18	-0.21	1.16
14,658.00	89.20	2.80	8,609.15	6,264.10	203.56	6,267.40	1.00	-0.85	-0.53
14,753.00	90.40	4.40	8,609.48	6,358.91	209.53	6,362.36	2.11	1.26	1.68
14,847.00	91.00	7.20	8,608.34	6,452.41	219.03	6,456.12	3.05	0.64	2.98
14,942.00	89.10	2.80	8,608.25	6,547.02	227.30	6,550.95	5.04	-2.00	-4.63

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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)
15,036.00	90.10	1.40	8,608.91	6,640.95	230.75	6,844.95	1.83	1.06	-1.49
15,131.00	90.30	2.30	8,608.58	6,735.90	233.81	6,739.95	0.97	0.21	0.95
15,225.00	90.20	2.30	8,608.17	6,829.82	237.59	6,833.94	0.11	-0.11	0.00
15,319.00	89.70	2.70	8,608.25	6,923.73	241.69	6,927.94	0.68	-0.53	0.43
15,413.00	89.10	3.20	8,609.23	7,017.60	246.52	7,021.91	0.83	-0.64	0.53
Final Phoenix MWD Survey									
15,530.00	89.10	3.20	8,611.07	7,134.40	253.05	7,138.87	0.00	0.00	0.00
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,947.00	7,944.70	-21.12	-96.73	Tie-on to MS Gyro Survey
8,048.00	8,045.63	-18.93	-98.41	First Phoenix MWD Survey
15,413.00	8,609.23	7,017.60	246.52	Final Phoenix MWD Survey
15,530.00	8,611.07	7,134.40	253.05	Projection to TD

Checked By: _____

Approved By: _____

Date: _____