



XTO ENERGY, INC.

Eddy County, NM

Sec 10, T25S, R29E

Corral Canyon 3-34 Fed #108H

Wellbore #1

Plan: Design #4

QES Well Planning Report

11 December, 2018





Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Corral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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 10, T25S, R29E

Site Position:		Northing:	418,642.60 usft	Latitude:	32° 9' 1.624 N
From:	Map	Easting:	611,643.50 usft	Longitude:	103° 58' 21.351 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.19 °

Well:	Corral Canyon Federal #108H					
Well Position	+N/-S	229.5 usft	Northing:	418,872.10 usft	Latitude:	32° 9' 3.809 N
	+E/-W	2,561.2 usft	Easting:	614,204.70 usft	Longitude:	103° 57' 51.551 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,028.0 usft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/4/2017	7.15	59.93	47,876.34915461

Design: Design #4

Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	0.0
----------	--------	------	---------------	-----

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	356.56

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,360.0	0.00	0.00	6,360.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,693.2	10.00	232.53	6,691.5	-17.6	-23.0	3.00	3.00	0.00	232.53	
8,291.6	10.00	232.53	8,265.7	-186.4	-243.2	0.00	0.00	0.00	0.00	
9,252.2	90.00	359.99	8,893.0	383.3	-331.1	10.00	8.33	13.27	127.04	FTP - CCF 24H
14,402.3	90.00	359.99	8,893.0	5,533.4	-332.2	0.00	0.00	0.00	0.00	PBHL - CCF 24H



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Corral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
558.0	0.00	0.00	558.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
876.0	0.00	0.00	876.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt									
2,954.0	0.00	0.00	2,954.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware									
3,156.0	0.00	0.00	3,156.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Cherry Canyon									
4,058.0	0.00	0.00	4,058.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Corral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Brushy Canyon									
5,619.0	0.00	0.00	5,619.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 3° / 100'									
6,360.0	0.00	0.00	6,360.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	1.20	232.53	6,400.0	-0.3	-0.3	-0.2	3.00	3.00	0.00
6,500.0	4.20	232.53	6,499.9	-3.1	-4.1	-2.9	3.00	3.00	0.00
6,600.0	7.20	232.53	6,599.4	-9.2	-12.0	-8.4	3.00	3.00	0.00
Basal Brushy Canyon									
6,642.0	8.46	232.53	6,641.0	-12.6	-16.5	-11.6	3.00	3.00	0.00
EOB @ 10.00° Inc. / 232.53° Azm									
6,693.2	10.00	232.53	6,691.5	-17.6	-23.0	-16.2	3.00	3.00	0.00
6,700.0	10.00	232.53	6,698.2	-18.4	-23.9	-16.9	0.00	0.00	0.00
6,800.0	10.00	232.53	6,796.7	-28.9	-37.7	-26.6	0.00	0.00	0.00
6,900.0	10.00	232.53	6,895.2	-39.5	-51.5	-36.3	0.00	0.00	0.00
Bone Spring									
6,925.2	10.00	232.53	6,920.0	-42.1	-55.0	-38.8	0.00	0.00	0.00
7,000.0	10.00	232.53	6,993.7	-50.0	-65.3	-46.0	0.00	0.00	0.00
7,100.0	10.00	232.53	7,092.1	-60.6	-79.1	-55.8	0.00	0.00	0.00
7,200.0	10.00	232.53	7,190.6	-71.2	-92.8	-65.5	0.00	0.00	0.00
7,300.0	10.00	232.53	7,289.1	-81.7	-106.6	-75.2	0.00	0.00	0.00
7,400.0	10.00	232.53	7,387.6	-92.3	-120.4	-84.9	0.00	0.00	0.00
7,500.0	10.00	232.53	7,486.1	-102.8	-134.2	-94.6	0.00	0.00	0.00
7,600.0	10.00	232.53	7,584.5	-113.4	-147.9	-104.3	0.00	0.00	0.00
7,700.0	10.00	232.53	7,683.0	-124.0	-161.7	-114.0	0.00	0.00	0.00
1st Bone Spring Lm									
7,758.9	10.00	232.53	7,741.0	-130.2	-169.8	-119.8	0.00	0.00	0.00
7,800.0	10.00	232.53	7,781.5	-134.5	-175.5	-123.8	0.00	0.00	0.00
1st Bone Spring Ss									
7,834.0	10.00	232.53	7,815.0	-138.1	-180.2	-127.1	0.00	0.00	0.00
7,900.0	10.00	232.53	7,880.0	-145.1	-189.3	-133.5	0.00	0.00	0.00
8,000.0	10.00	232.53	7,978.5	-155.6	-203.0	-143.2	0.00	0.00	0.00
8,100.0	10.00	232.53	8,077.0	-166.2	-216.8	-152.9	0.00	0.00	0.00
8,200.0	10.00	232.53	8,175.4	-176.8	-230.6	-162.6	0.00	0.00	0.00



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Corral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

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)
2nd Bone Spring Lm									
8,215.8	10.00	232.53	8,191.0	-178.4	-232.8	-164.2	0.00	0.00	0.00
Build 10° / 100'									
8,291.6	10.00	232.53	8,265.7	-186.4	-243.2	-171.5	0.00	0.00	0.00
8,300.0	9.51	236.58	8,273.9	-187.3	-244.4	-172.3	10.00	-5.75	48.33
8,350.0	7.97	268.39	8,323.4	-189.6	-251.3	-174.2	10.00	-3.09	63.62
8,400.0	9.28	301.09	8,372.8	-187.7	-258.2	-171.8	10.00	2.62	65.40
8,450.0	12.59	321.19	8,421.9	-181.3	-265.1	-165.1	10.00	6.61	40.20
8,500.0	16.75	332.28	8,470.3	-170.7	-271.8	-154.1	10.00	8.32	22.18
8,550.0	21.26	338.92	8,517.6	-155.8	-278.5	-138.9	10.00	9.03	13.27
8,600.0	25.95	343.28	8,563.4	-136.9	-284.9	-119.6	10.00	9.38	8.73
8,650.0	30.73	346.38	8,607.4	-114.0	-291.0	-96.3	10.00	9.56	6.19
8,700.0	35.57	348.70	8,649.2	-87.3	-296.9	-69.4	10.00	9.67	4.66
2nd Bone Spring Ss									
8,734.9	38.96	350.03	8,677.0	-66.5	-300.8	-48.4	10.00	9.73	3.79
8,750.0	40.44	350.54	8,688.6	-57.0	-302.4	-38.8	10.00	9.76	3.40
8,800.0	45.33	352.04	8,725.2	-23.4	-307.5	-4.9	10.00	9.79	3.00
8,850.0	50.24	353.30	8,758.8	13.3	-312.2	32.0	10.00	9.82	2.53
2nd Bone Spring B									
8,856.6	50.89	353.46	8,763.0	18.4	-312.8	37.1	10.00	9.84	2.32
8,900.0	55.17	354.40	8,789.1	52.9	-316.5	71.7	10.00	9.85	2.17
8,950.0	60.10	355.37	8,815.9	94.9	-320.2	113.9	10.00	9.86	1.94
9,000.0	65.04	356.25	8,838.9	139.2	-323.5	158.3	10.00	9.88	1.76
9,050.0	69.98	357.07	8,858.0	185.3	-326.2	204.5	10.00	9.89	1.62
2nd Bone Spring C									
9,081.5	73.10	357.55	8,868.0	215.1	-327.6	234.3	10.00	9.89	1.54
9,100.0	74.93	357.83	8,873.1	232.9	-328.3	252.1	10.00	9.90	1.50
9,150.0	79.88	358.56	8,884.0	281.6	-329.8	300.9	10.00	9.90	1.46
9,200.0	84.83	359.26	8,890.6	331.2	-330.8	350.4	10.00	9.90	1.41
EOB @ 90.00° Inc. / 359.99° Azm									
9,252.2	90.00	359.99	8,893.0	383.3	-331.1	402.5	10.00	9.90	1.39
9,300.0	90.00	359.99	8,893.0	431.1	-331.1	450.2	0.00	0.00	0.00
9,400.0	90.00	359.99	8,893.0	531.1	-331.1	550.0	0.00	0.00	0.00
9,500.0	90.00	359.99	8,893.0	631.1	-331.2	649.8	0.00	0.00	0.00
9,600.0	90.00	359.99	8,893.0	731.1	-331.2	749.6	0.00	0.00	0.00
9,700.0	90.00	359.99	8,893.0	831.1	-331.2	849.4	0.00	0.00	0.00
9,800.0	90.00	359.99	8,893.0	931.1	-331.2	949.3	0.00	0.00	0.00
9,900.0	90.00	359.99	8,893.0	1,031.1	-331.2	1,049.1	0.00	0.00	0.00
10,000.0	90.00	359.99	8,893.0	1,131.1	-331.3	1,148.9	0.00	0.00	0.00
10,100.0	90.00	359.99	8,893.0	1,231.1	-331.3	1,248.7	0.00	0.00	0.00
10,200.0	90.00	359.99	8,893.0	1,331.1	-331.3	1,348.5	0.00	0.00	0.00
10,300.0	90.00	359.99	8,893.0	1,431.1	-331.3	1,448.4	0.00	0.00	0.00
10,400.0	90.00	359.99	8,893.0	1,531.1	-331.3	1,548.2	0.00	0.00	0.00
10,500.0	90.00	359.99	8,893.0	1,631.1	-331.4	1,648.0	0.00	0.00	0.00
10,600.0	90.00	359.99	8,893.0	1,731.1	-331.4	1,747.8	0.00	0.00	0.00
10,700.0	90.00	359.99	8,893.0	1,831.1	-331.4	1,847.7	0.00	0.00	0.00
10,800.0	90.00	359.99	8,893.0	1,931.1	-331.4	1,947.5	0.00	0.00	0.00
10,900.0	90.00	359.99	8,893.0	2,031.1	-331.5	2,047.3	0.00	0.00	0.00
11,000.0	90.00	359.99	8,893.0	2,131.1	-331.5	2,147.1	0.00	0.00	0.00
11,100.0	90.00	359.99	8,893.0	2,231.1	-331.5	2,246.9	0.00	0.00	0.00
11,200.0	90.00	359.99	8,893.0	2,331.1	-331.5	2,346.8	0.00	0.00	0.00
11,300.0	90.00	359.99	8,893.0	2,431.1	-331.5	2,446.6	0.00	0.00	0.00
11,400.0	90.00	359.99	8,893.0	2,531.1	-331.6	2,546.4	0.00	0.00	0.00



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Corral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

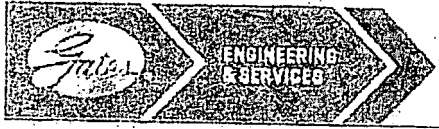
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,500.0	90.00	359.99	8,893.0	2,631.1	-331.6	2,646.2	0.00	0.00	0.00
11,600.0	90.00	359.99	8,893.0	2,731.1	-331.6	2,746.0	0.00	0.00	0.00
11,700.0	90.00	359.99	8,893.0	2,831.1	-331.6	2,845.9	0.00	0.00	0.00
11,800.0	90.00	359.99	8,893.0	2,931.1	-331.6	2,945.7	0.00	0.00	0.00
11,900.0	90.00	359.99	8,893.0	3,031.1	-331.7	3,045.5	0.00	0.00	0.00
12,000.0	90.00	359.99	8,893.0	3,131.1	-331.7	3,145.3	0.00	0.00	0.00
12,100.0	90.00	359.99	8,893.0	3,231.1	-331.7	3,245.2	0.00	0.00	0.00
12,200.0	90.00	359.99	8,893.0	3,331.1	-331.7	3,345.0	0.00	0.00	0.00
12,300.0	90.00	359.99	8,893.0	3,431.1	-331.8	3,444.8	0.00	0.00	0.00
12,400.0	90.00	359.99	8,893.0	3,531.1	-331.8	3,544.6	0.00	0.00	0.00
12,500.0	90.00	359.99	8,893.0	3,631.1	-331.8	3,644.4	0.00	0.00	0.00
12,600.0	90.00	359.99	8,893.0	3,731.1	-331.8	3,744.3	0.00	0.00	0.00
12,700.0	90.00	359.99	8,893.0	3,831.1	-331.8	3,844.1	0.00	0.00	0.00
12,800.0	90.00	359.99	8,893.0	3,931.1	-331.9	3,943.9	0.00	0.00	0.00
12,900.0	90.00	359.99	8,893.0	4,031.1	-331.9	4,043.7	0.00	0.00	0.00
13,000.0	90.00	359.99	8,893.0	4,131.1	-331.9	4,143.5	0.00	0.00	0.00
13,100.0	90.00	359.99	8,893.0	4,231.1	-331.9	4,243.4	0.00	0.00	0.00
13,200.0	90.00	359.99	8,893.0	4,331.1	-331.9	4,343.2	0.00	0.00	0.00
13,300.0	90.00	359.99	8,893.0	4,431.1	-332.0	4,443.0	0.00	0.00	0.00
13,400.0	90.00	359.99	8,893.0	4,531.1	-332.0	4,542.8	0.00	0.00	0.00
13,500.0	90.00	359.99	8,893.0	4,631.1	-332.0	4,642.7	0.00	0.00	0.00
13,600.0	90.00	359.99	8,893.0	4,731.1	-332.0	4,742.5	0.00	0.00	0.00
13,700.0	90.00	359.99	8,893.0	4,831.1	-332.0	4,842.3	0.00	0.00	0.00
13,800.0	90.00	359.99	8,893.0	4,931.1	-332.1	4,942.1	0.00	0.00	0.00
13,900.0	90.00	359.99	8,893.0	5,031.1	-332.1	5,041.9	0.00	0.00	0.00
14,000.0	90.00	359.99	8,893.0	5,131.1	-332.1	5,141.8	0.00	0.00	0.00
14,100.0	90.00	359.99	8,893.0	5,231.1	-332.1	5,241.6	0.00	0.00	0.00
14,200.0	90.00	359.99	8,893.0	5,331.1	-332.2	5,341.4	0.00	0.00	0.00
14,300.0	90.00	359.99	8,893.0	5,431.1	-332.2	5,441.2	0.00	0.00	0.00
TD @ 14402.3' MD / 8893.0' TVD									
14,402.3	90.00	359.99	8,893.0	5,533.4	-332.2	5,543.4	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP - CCF 108H - hit/miss target - plan hits target center - Point	0.00	0.00	8,893.0	5,483.4	-332.2	424,355.50	613,872.50	32° 9' 58.086 N	103° 57' 55.197 W
PBHL - CCF 108H - plan hits target center - Point	0.00	0.00	8,893.0	5,533.4	-332.2	424,405.50	613,872.50	32° 9' 58.581 N	103° 57' 55.195 W
FTP - CCF 108H - plan hits target center - Point	0.00	0.01	8,893.0	383.3	-331.1	419,255.40	613,873.60	32° 9' 7.614 N	103° 57' 55.387 W

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Corral Canyon Federal #108H
Company:	XTO ENERGY, INC.	TVD Reference:	RKB @ 3055.0usft (Frontier #27)
Project:	Eddy County, NM	MD Reference:	RKB @ 3055.0usft (Frontier #27)
Site:	Sec 10, T25S, R29E	North Reference:	Grid
Well:	Coiral Canyon Federal #108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #4		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
558.0	558.0	Rustler				
876.0	876.0	Top Salt				
2,954.0	2,954.0	Base Salt				
3,156.0	3,156.0	Delaware				
4,058.0	4,058.0	Cherry Canyon				
5,619.0	5,619.0	Brushy Canyon				
6,642.0	6,641.0	Basal Brushy Canyon				
6,925.2	6,920.0	Bone Spring				
7,758.9	7,741.0	1st Bone Spring Lm				
7,834.0	7,815.0	1st Bone Spring Ss				
8,215.8	8,191.0	2nd Bone Spring Lm				
8,734.9	8,677.0	2nd Bone Spring Ss/				
8,856.6	8,763.0	2nd Bone Spring B				
9,081.5	8,868.0	2nd Bone Spring C				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,360.0	6,360.0	0.0	0.0	Build 3° / 100'	
6,693.2	6,691.5	-17.6	-23.0	EOB @ 10.00° Inc. / 232.53° Azm	
8,291.6	8,265.7	-186.4	-243.2	Build 10° / 100'	
9,252.2	8,893.0	383.3	-331.1	EOB @ 90.00° Inc. / 359.99° Azm	
14,402.3	8,893.0	5,533.4	-332.2	TD @ 14402.3' MD / 8893.0' TVD	



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

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

GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	HORIWA
Product Description:	FD3.0-12.0R-1/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

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

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

