

Operator: XTO Energy
Well/Lease: Pearla Negra Fed Com 1H
County: Lea, NM

RECT MIDLAND

OCT 01 2013

STATE OF NEW MEXICO
DEVIATION REPORT

<u>Footage</u>	<u>Degree</u>	<u>Footage</u>	<u>Degree</u>
199	0.25	5959	1.20
341	1.00	6144	1.40
523	0.75	6331	1.20
695	0.25	6517	1.10
996	0.50	6702	1.00
1182	1.00	6888	1.00
1369	1.00	7075	0.80
1555	0.25	7260	0.80
1746	0.75	7446	0.90
1858	1.50	7632	0.60
1927	0.80	7819	0.60
2113	1.70	8004	0.50
2299	1.90	8191	0.40
2485	0.20	8377	0.40
2671	0.60	8563	0.10
2857	1.10	8749	0.40
3043	1.30	8934	1.30
3231	2.00	9121	1.10
3417	0.90	9306	1.20
3603	1.30	9493	1.00
3769	1.20	9679	1.40
3915	1.30	9866	1.40
4100	1.40	10297	0.25
4268	1.40	10338	1.30
4471	1.40		
4658	1.50		
4844	1.30		
5029	1.40		
5215	1.40		
5401	1.40		
5587	1.30		
5773	1.60		

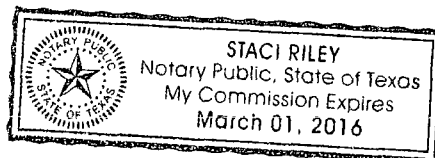
Signed By:

Charles Walsh

Charles Walsh, Division Manager
Pioneer Drilling Company

Appeared before me on Sept 30, 2013.

Staci Riley
Notary Public



DEC 02 2013



Professional Directional
EOG Survey Report



Company: XTO Energy Inc.
Project: Lea County, NM
Site: Perla Negra Federal Com No. 1H
Well: No. 1H
Wellbore: Original Hole
Design: MWD Surveys (0') 1927'-XXXX

Local Co-ordinate Reference: Well No. 1H
TVD Reference: WELL @ 3798.00usft (GL: 3779' + RKB: 19')
MD Reference: WELL @ 3798.00usft (GL: 3779' + RKB: 19')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Project	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Perla Negra Federal Com No. 1H		
Site Position:	Northing:	597,327.70 usft	Latitude: 32° 38' 22.108 N
From: Map	Easting:	791,376.50 usft	Longitude: 103° 31' 15.773 W
Position Uncertainty: 3.30 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.44 °

Well	No. 1H		
Well Position	+N/-S	0.00 usft	Northing: 597,327.70 usft
	+E/-W	0.00 usft	Easting: 791,376.50 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
			Latitude: 32° 38' 22.108 N
			Longitude: 103° 31' 15.773 W
			Ground Level: 3,779.00 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	8/28/2013	7.32
			Dip Angle (°)
			60.52
			Field Strength (nT)
			48,649

Design	MWD Surveys (0') 1927'-XXXX		
Audit Notes:			
Version: 1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			359.49



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Survey Program Date 9/11/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,927.00	9,865.00	Pro MWD (0') 1927'-9865' (Original Hole)	MWD	MWD
10,050.00	10,297.00	BHI ATK (9865') 10050-10297' (Original Ho	MWD	MWD
10,338.00	15,220.00	Pro MWD (10297') 10338'-XXXX (Original	MWD	MWD

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Northing (usft)	Easting (usft)	DLeg (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	597,327.70	791,376.50	0.00
1,927.00	0.80	127.90	1,926.94	-8.26	10.62	-8.36	597,319.44	791,387.12	0.04
ProDirectional First MWD Survey									
2,113.00	1.70	114.60	2,112.89	-10.21	14.15	-10.34	597,317.49	791,390.65	0.51
2,299.00	1.90	112.00	2,298.80	-12.51	19.52	-12.69	597,315.19	791,396.02	0.12
2,485.00	0.20	66.00	2,484.76	-13.54	22.67	-13.74	597,314.16	791,399.17	0.95
2,671.00	0.60	53.20	2,670.76	-12.82	23.75	-13.03	597,314.88	791,400.25	0.22
2,857.00	1.10	99.00	2,856.74	-12.52	26.29	-12.75	597,315.18	791,402.79	0.43
3,043.00	1.30	96.60	3,042.70	-13.04	30.15	-13.31	597,314.66	791,406.65	0.11
3,231.00	2.00	76.20	3,230.62	-12.50	35.46	-12.82	597,315.20	791,411.96	0.48
3,417.00	0.90	69.00	3,416.56	-11.20	39.97	-11.56	597,316.50	791,416.47	0.60
3,603.00	1.30	41.30	3,602.52	-9.10	42.73	-9.48	597,318.60	791,419.23	0.35
3,769.00	1.20	42.00	3,768.48	-6.39	45.13	-6.79	597,321.31	791,421.63	0.06
3,915.00	1.30	36.90	3,914.45	-3.93	47.15	-4.35	597,323.77	791,423.65	0.10
4,100.00	1.40	47.60	4,099.40	-0.73	50.08	-1.17	597,326.97	791,426.58	0.15
4,286.00	1.40	40.90	4,285.34	2.52	53.25	2.05	597,330.22	791,429.75	0.09
4,471.00	1.40	43.20	4,470.29	5.88	56.27	5.38	597,333.58	791,432.77	0.03
4,658.00	1.50	46.90	4,657.23	9.22	59.62	8.69	597,336.92	791,436.12	0.07
4,844.00	1.30	46.30	4,843.17	12.34	62.93	11.78	597,340.04	791,439.43	0.11
5,030.00	1.40	39.20	5,029.12	15.56	65.89	14.97	597,343.26	791,442.39	0.10
5,216.00	1.40	38.50	5,215.07	19.10	68.74	18.48	597,346.80	791,445.24	0.01



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5,402.00	1.40	38.20	5,401.01	22.66	71.56	22.02	597,350.36	791,448.06	0.00
5,587.00	1.30	35.80	5,585.96	26.14	74.18	25.48	597,353.84	791,450.68	0.06
5,773.00	1.60	33.60	5,771.90	30.01	76.85	29.33	597,357.71	791,453.35	0.16
5,959.00	1.20	28.60	5,957.84	33.88	79.22	33.18	597,361.58	791,455.72	0.22
6,145.00	1.40	28.00	6,143.80	37.60	81.22	36.88	597,365.30	791,457.72	0.11
6,331.00	1.20	32.10	6,329.75	41.26	83.32	40.51	597,368.96	791,459.82	0.12
6,517.00	1.10	34.90	6,515.71	44.37	85.38	43.61	597,372.07	791,461.88	0.06
6,702.00	1.00	27.60	6,700.68	47.26	87.14	46.48	597,374.96	791,463.64	0.09
6,888.00	1.00	19.30	6,886.65	50.23	88.43	49.44	597,377.93	791,464.93	0.08
7,075.00	0.80	5.30	7,073.63	53.07	89.09	52.27	597,380.77	791,465.59	0.16
7,261.00	0.80	359.40	7,259.61	55.66	89.20	54.86	597,383.36	791,465.70	0.04
7,447.00	0.90	3.60	7,445.59	58.42	89.28	57.62	597,386.12	791,465.78	0.06
7,632.00	0.60	357.70	7,630.57	60.83	89.33	60.04	597,388.53	791,465.83	0.17
7,819.00	0.60	354.70	7,817.56	62.79	89.20	61.99	597,390.49	791,465.70	0.02
8,005.00	0.50	322.40	8,003.56	64.40	88.61	63.61	597,392.10	791,465.11	0.17
8,191.00	0.40	308.90	8,189.55	65.45	87.61	64.67	597,393.15	791,464.11	0.08
8,377.00	0.40	235.40	8,375.55	65.49	86.57	64.72	597,393.19	791,463.07	0.26
8,563.00	0.10	213.50	8,561.54	64.99	85.95	64.22	597,392.69	791,462.45	0.17
8,748.00	0.40	130.30	8,746.54	64.43	86.35	63.66	597,392.13	791,462.85	0.22
8,934.00	1.30	157.50	8,932.52	62.06	87.66	61.28	597,389.76	791,464.16	0.52
9,121.00	1.10	149.30	9,119.48	58.56	89.38	57.76	597,386.26	791,465.88	0.14
9,307.00	1.20	131.10	9,305.44	55.75	91.76	54.93	597,383.45	791,468.26	0.20
9,493.00	1.00	117.00	9,491.41	53.73	94.68	52.88	597,381.43	791,471.18	0.18
9,679.00	1.40	101.20	9,677.37	52.55	98.35	51.67	597,380.25	791,474.85	0.28
9,865.00	1.40	92.20	9,863.31	52.02	102.85	51.10	597,379.72	791,479.35	0.12
10,050.00	1.10	95.32	10,048.27	51.77	106.88	50.82	597,379.47	791,483.38	0.17
10,235.00	0.79	132.73	10,233.24	50.74	109.58	49.76	597,378.44	791,486.08	0.36



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10,297.00	0.25	123.98	10,295.24	50.37	110.01	49.39	597,378.07	791,486.51	0.88
10,338.00	1.30	40.40	10,336.24	50.68	110.39	49.69	597,378.38	791,486.89	3.16
10,369.00	3.20	13.40	10,367.21	51.79	110.81	50.80	597,379.49	791,487.31	6.86
10,400.00	5.60	6.40	10,398.12	54.13	111.18	53.14	597,381.83	791,487.68	7.92
10,431.00	8.40	3.50	10,428.89	57.90	111.49	56.90	597,385.60	791,487.99	9.10
10,462.00	11.50	2.80	10,459.42	63.24	111.78	62.25	597,390.94	791,488.28	10.01
10,493.00	14.40	1.90	10,489.62	70.19	112.06	69.19	597,397.89	791,488.56	9.38
10,525.00	17.00	0.70	10,520.43	78.84	112.25	77.84	597,406.54	791,488.75	8.19
10,556.00	21.00	357.60	10,549.73	88.93	112.07	87.93	597,416.63	791,488.57	13.30
10,586.00	26.20	355.90	10,577.22	100.91	111.37	99.92	597,428.61	791,487.87	17.48
10,617.00	31.30	353.40	10,604.39	115.75	109.95	114.76	597,443.45	791,486.45	16.90
10,648.00	37.10	350.70	10,630.02	132.99	107.52	132.03	597,460.69	791,484.02	19.34
10,678.00	41.20	349.60	10,653.28	151.64	104.27	150.71	597,479.34	791,480.77	13.86
10,709.00	45.30	349.00	10,675.85	172.51	100.32	171.61	597,500.21	791,476.82	13.29
10,740.00	49.70	348.90	10,696.79	194.94	95.94	194.07	597,522.64	791,472.44	14.20
10,771.00	53.50	348.60	10,716.04	218.76	91.20	217.94	597,546.46	791,467.70	12.28
10,802.00	55.70	348.40	10,734.00	243.52	86.16	242.74	597,571.22	791,462.66	7.12
10,833.00	58.80	348.90	10,750.77	269.08	81.03	268.35	597,596.78	791,457.53	10.09
10,864.00	61.00	349.70	10,766.31	295.43	76.06	294.74	597,623.13	791,452.56	7.44
10,896.00	62.20	350.50	10,781.53	323.16	71.22	322.51	597,650.86	791,447.72	4.35
10,927.00	64.00	350.90	10,795.56	350.44	66.75	349.83	597,678.14	791,443.25	5.92
10,958.00	66.30	351.80	10,808.58	378.25	62.52	377.68	597,705.95	791,439.02	7.87
10,989.00	67.40	352.60	10,820.77	406.49	58.66	405.95	597,734.19	791,435.16	4.27
11,020.00	68.90	353.10	10,832.31	435.04	55.08	434.53	597,762.74	791,431.58	5.06
11,051.00	71.20	353.60	10,842.89	463.98	51.70	463.50	597,791.68	791,428.20	7.57
11,082.00	72.80	353.50	10,852.46	493.27	48.39	492.82	597,820.97	791,424.89	5.17
11,113.00	75.40	353.40	10,860.96	522.89	44.99	522.47	597,850.59	791,421.49	8.39



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11,143.00	78.20	353.20	10,867.81	551.90	41.58	551.50	597,879.60	791,418.08	9.36
11,174.00	81.10	353.30	10,873.38	582.18	38.00	581.81	597,909.88	791,414.50	9.36
11,205.00	84.80	353.50	10,877.18	612.73	34.46	612.40	597,940.43	791,410.96	11.95
11,236.00	88.30	354.10	10,879.04	643.49	31.12	643.19	597,971.19	791,407.62	11.45
11,267.00	89.70	353.90	10,879.59	674.32	27.88	674.04	598,002.02	791,404.38	4.56
11,361.00	91.10	354.10	10,878.93	767.80	18.06	767.60	598,095.50	791,394.56	1.50
11,453.00	92.70	354.10	10,875.88	859.26	8.61	859.14	598,186.96	791,385.11	1.74
11,546.00	90.00	356.00	10,873.69	951.87	0.59	951.83	598,279.57	791,377.09	3.55
11,639.00	91.00	356.20	10,872.88	1,044.65	-5.74	1,044.66	598,372.35	791,370.76	1.10
11,732.00	91.00	358.50	10,871.25	1,137.53	-10.04	1,137.57	598,465.23	791,366.46	2.47
11,825.00	91.60	358.70	10,869.14	1,230.48	-12.31	1,230.54	598,558.18	791,364.19	0.68
11,918.00	92.40	358.50	10,865.90	1,323.39	-14.58	1,323.47	598,651.09	791,361.92	0.89
12,012.00	92.00	359.40	10,862.29	1,417.31	-16.30	1,417.40	598,745.01	791,360.20	1.05
12,104.00	89.70	0.00	10,860.92	1,509.29	-16.78	1,509.38	598,836.99	791,359.72	2.58
12,197.00	90.50	359.80	10,860.76	1,602.29	-16.95	1,602.37	598,929.99	791,359.55	0.89
12,290.00	90.40	359.10	10,860.03	1,695.28	-17.84	1,695.37	599,022.98	791,358.66	0.76
12,383.00	86.80	359.90	10,862.30	1,788.23	-18.65	1,788.33	599,115.93	791,357.85	3.97
12,476.00	87.70	0.30	10,866.77	1,881.12	-18.49	1,881.21	599,208.82	791,358.01	1.06
12,569.00	89.40	359.90	10,869.12	1,974.09	-18.33	1,974.18	599,301.79	791,358.17	1.88
12,661.00	87.40	0.00	10,871.69	2,066.05	-18.41	2,066.13	599,393.75	791,358.09	2.18
12,755.00	89.90	0.70	10,873.90	2,160.01	-17.83	2,160.09	599,487.71	791,358.67	2.76
12,848.00	92.10	0.80	10,872.28	2,252.99	-16.61	2,253.04	599,580.69	791,359.89	2.37
12,941.00	93.80	0.40	10,867.49	2,345.85	-15.64	2,345.90	599,673.55	791,360.86	1.88
13,034.00	92.70	0.60	10,862.22	2,438.70	-14.83	2,438.73	599,766.40	791,361.67	1.20
13,127.00	92.10	0.90	10,858.33	2,531.61	-13.62	2,531.63	599,859.31	791,362.88	0.72
13,220.00	89.30	0.40	10,857.19	2,624.59	-12.56	2,624.59	599,952.29	791,363.94	3.06
13,313.00	89.20	0.40	10,858.41	2,717.58	-11.91	2,717.57	600,045.28	791,364.59	0.11



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13,406.00	90.30	0.40	10,858.81	2,810.57	-11.26	2,810.56	600,138.27	791,365.24	1.18
13,499.00	91.20	0.00	10,857.60	2,903.56	-10.94	2,903.54	600,231.26	791,365.56	1.06
13,592.00	92.10	359.60	10,854.92	2,996.52	-11.26	2,996.50	600,324.22	791,365.24	1.06
13,685.00	91.20	359.40	10,852.24	3,089.48	-12.07	3,089.46	600,417.18	791,364.43	0.99
13,778.00	89.90	358.50	10,851.35	3,182.46	-13.78	3,182.45	600,510.16	791,362.72	1.70
13,870.00	90.90	358.40	10,850.71	3,274.42	-16.27	3,274.43	600,602.12	791,360.23	1.09
13,964.00	90.40	358.80	10,849.64	3,368.38	-18.56	3,368.42	600,696.08	791,357.94	0.68
14,057.00	91.70	358.40	10,847.93	3,461.34	-20.83	3,461.39	600,789.04	791,355.67	1.46
14,150.00	91.20	359.20	10,845.58	3,554.29	-22.78	3,554.35	600,881.99	791,353.72	1.01
14,243.00	89.80	358.80	10,844.77	3,647.27	-24.40	3,647.34	600,974.97	791,352.10	1.57
14,336.00	90.10	358.40	10,844.85	3,740.24	-26.68	3,740.33	601,067.94	791,349.82	0.54
14,429.00	90.60	358.60	10,844.28	3,833.21	-29.11	3,833.31	601,160.91	791,347.39	0.58
14,522.00	91.30	358.70	10,842.74	3,926.17	-31.30	3,926.29	601,253.87	791,345.20	0.76
14,615.00	91.50	358.80	10,840.47	4,019.12	-33.33	4,019.25	601,346.82	791,343.17	0.24
14,709.00	92.00	359.00	10,837.60	4,113.05	-35.13	4,113.20	601,440.75	791,341.37	0.57
14,801.00	92.80	359.20	10,833.75	4,204.96	-36.58	4,205.12	601,532.66	791,339.92	0.90
14,894.00	90.90	359.40	10,830.74	4,297.90	-37.71	4,298.07	601,625.60	791,338.79	2.05
14,988.00	91.40	359.30	10,828.86	4,391.88	-38.78	4,392.05	601,719.58	791,337.72	0.54
15,081.00	91.70	359.30	10,826.34	4,484.84	-39.91	4,485.01	601,812.54	791,336.59	0.32
15,170.00	92.00	359.30	10,823.47	4,573.78	-41.00	4,573.97	601,901.48	791,335.50	0.34
Last Survey: 15081' MD 10823.47' TVD									
15,220.00	92.00	359.30	10,821.72	4,623.75	-41.61	4,623.94	601,951.45	791,334.89	0.00
PTB @ 15,220' MD, 10,821.72' TVD									



Professional Directional
EOG Survey Report



Company: XTO Energy Inc.
Project: Lea County, NM
Site: Perla Negra Federal Com No. 1H
Well: No. 1H
Wellbore: Original Hole
Design: MWD Surveys (0') 1927'-XXXX

Local Co-ordinate Reference: Well No. 1H
TVD Reference: WELL @ 3798.00usft (GL: 3779' + RKB: 19')
MD Reference: WELL @ 3798.00usft (GL: 3779' + RKB: 19')
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
15,170.00	10,823.47	4,573.78	-41.00	Last Survey: 15081' MD 10823.47' TVD
15,220.00	10,821.72	4,623.75	-41.61	PTB @ 15,220' MD, 10,821.72' TVD