

Weatherford International, Inc.

Survey Report

Weatherford

Company: XTO Energy Inc. Field: Rio Arriba County, NM Site: Vaqueros Canyon #1 Well: Vaqueros Canyon #1 Wellpath: Horizontal		Date: 9/10/2007 Co-ordinate(NE) Reference: SITE: Vaqueros Canyon #1, True North Vertical (TVD) Reference: SITE: 6961.0 Section (VS) Reference: Multiple (See Wellpath) Survey Calculation Method: Minimum Curvature		Time: 07:54:40 Page: 1 Db: Sybase						
Field: Rio Arriba County, NM USA Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level										
Map Zone: New Mexico, Western Zone Coordinate System: Site Centre Geomagnetic Model: bggm2006										
Site: Vaqueros Canyon #1										
RCVD NOV 28 '07 OIL CONS. DIV. DIST. 3										
Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 6949.00 ft		Northing: 2090307.25 ft Easting: 2898534.78 ft Latitude: 36 44 34 656 N Longitude: 107 14 4 380 W North Reference: True Grid Convergence: 0 36 deg								
Well: Vaqueros Canyon #1										
Slot Name:										
Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft		Northing: 2090307.25 ft Easting: 2898534.78 ft Latitude: 36 44 34 656 N Longitude: 107 14 4 380 W								
Wellpath: Horizontal										
Current Datum: SITE Magnetic Data: 7/30/2007 Field Strength: 51266 nT Vertical Section: Depth From (TVD) ft		Height: 6961.00 ft Drilled From: Pilot Hole Tie-on Depth: 3391.00 ft Above System Datum: Mean Sea Level Declination: 10.20 deg Mag Dip Angle: 63 70 deg +N/-S ft +E/-W ft Direction deg								
0.00 100.00		0.00 0.00 0.00 0.00 200.78								
Survey: MWD Surveys										
Start Date: 8/16/2007										
Company: Weatherford Drilling Services										
Engineer:										
Tied-to: User Defined										
Survey: MWD Surveys										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
402.00	1.94	71.58	401.92	2.15	6.46	-4.30	0.00	0.00	0.00	TIE IN
900.00	0.69	92.83	899.78	4.67	17.45	-10.55	0.27	-0.25	4.27	
1400.00	0.88	32.30	1399.74	7.76	22.51	-15.24	0.16	0.04	-12.11	
1904.00	0.31	41.70	1903.71	12.05	25.49	-20.31	0.11	-0.11	1.87	
2092.00	0.69	19.58	2091.71	13.50	26.20	-21.92	0.22	0.20	-11.77	
2122.00	0.63	28.45	2121.70	13.81	26.34	-22.26	0.39	-0.20	29.57	
2154.00	1.19	14.83	2153.70	14.29	26.51	-22.77	1.86	1.75	-42.56	
2184.00	1.19	23.45	2183.69	14.88	26.72	-23.39	0.60	0.00	28.73	
2215.00	0.94	12.45	2214.69	15.42	26.90	-23.96	1.04	-0.81	-35.48	
2245.00	0.31	51.33	2244.69	15.71	27.02	-24.27	2.42	-2.10	129.60	
2276.00	0.63	196.58	2275.69	15.60	27.03	-24.18	2.91	1.03	468.55	
2306.00	1.81	207.83	2305.68	15.02	26.76	-23.54	3.99	3.93	37.50	
2336.00	2.88	218.58	2335.65	14.01	26.07	-22.35	3.84	3.57	35.83	
2367.00	4.25	216.20	2366.59	12.48	24.91	-20.50	4.44	4.42	-7.68	
2398.00	5.50	216.08	2397.48	10.35	23.36	-17.96	4.03	4.03	-0.39	
2428.00	6.06	215.83	2427.33	7.91	21.58	-15.05	1.87	1.87	-0.83	
2459.00	7.50	217.33	2458.11	4.97	19.40	-11.53	4.68	4.65	4.84	
2488.00	8.50	214.83	2486.83	1.71	17.02	-7.64	3.65	3.45	-8.62	
2519.00	9.69	212.20	2517.44	-2.38	14.33	-2.86	4.07	3.84	-8.48	
2550.00	11.44	212.20	2547.91	-7.19	11.30	2.72	5.65	5.65	0.00	
2581.00	12.94	211.70	2578.21	-12.75	7.84	9.14	4.85	4.84	-1.61	
2612.00	14.94	209.58	2608.30	-19.18	4.04	16.50	6.66	6.45	-6.84	
2642.00	16.44	207.83	2637.18	-26.29	0.15	24.53	5.24	5.00	-5.83	

Est BNL: "0" 764' FSL, 1851' FEL

CP/B

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Survey Report



Weatherford

Company: XTO Energy Inc.	Date: 9/10/2007	Time: 07:54:40	Page: 2
Field: Rio Arriba County, NM	Co-ordinate(NE) Reference:	Site: Vaqueros Canyon #1, True North	
Site: Vaqueros Canyon #1	Vertical (TVD) Reference:	SITE 6961.0	
Well: Vaqueros Canyon #1	Section (VS) Reference:	Multiple (See Wellpath)	
Wellpath: Horizontal	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2673.00	17.94	208 20	2666 79	-34.38	-4.16	33 62	4.85	4.84	1.19	
2704.00	18.75	209.45	2696.22	-42.93	-8 86	43 28	2.90	2.61	4 03	
2735.00	20 06	209 08	2725.45	-51 91	-13.90	53 47	4.24	4.23	-1.19	
2767 00	20 94	207 70	2755.43	-61.77	-19.22	64 57	3.14	2.75	-4 31	
2798 00	21.91	205.58	2784 29	-71.89	-24 29	75.84	4.00	3 13	-6 84	
2829.00	22 75	202 45	2812 96	-82.65	-29.08	87 59	4.70	2 71	-10.10	
2860.00	23 25	200 83	2841.50	-93 91	-33.55	99 70	2.60	1.61	-5.23	
2891.00	23.63	200 33	2869.94	-105.45	-37 88	112.03	1 38	1.23	-1 61	
2922.00	23.06	198 58	2898.40	-117.04	-41.97	124.31	2 90	-1.84	-5 65	
2953.00	23.69	198.83	2926.86	-128.68	-45.92	136 60	2.06	2.03	0.81	
2984.00	23.38	198 58	2955 28	-140.41	-49.89	148 98	1.05	-1 00	-0.81	
3015.00	23 38	199 20	2983 73	-152.05	-53.87	161 27	0.79	0.00	2 00	
3045 00	23.44	199 58	3011.26	-163 29	-57.83	173.19	0.54	0 20	1 27	
3077 00	23 75	201 70	3040 59	-175.28	-62.34	185.99	2 82	0 97	6.62	
3107 00	23 94	203.95	3068 03	-186.45	-67.05	198 11	3 10	0.63	7 50	
3139 00	25.25	204 08	3097.12	-198.62	-72.47	211.41	4 10	4.09	0.41	
3170.00	26.06	205 20	3125.07	-210.81	-78.07	224 80	3.05	2.61	3.61	
3202.00	27 50	203.08	3153.64	-223.97	-83.96	239 19	5.40	4.50	-6.62	
3234 00	28.69	201.95	3181.87	-237.89	-89 72	254.25	4 07	3.72	-3 53	
3265.00	30 38	202.45	3208.84	-252.04	-95.50	269.53	5.51	5.45	1.61	
3296.00	31.81	201.45	3235.38	-266 89	-101.48	285 53	4.90	4.61	-3.23	
3328.00	33.00	201 33	3262.40	-282.86	-107.73	302.68	3.72	3.72	-0.37	
3360.00	33.75	202 20	3289.12	-299.21	-114.26	320.28	2.78	2.34	2 72	
3391.00	33.75	201.33	3314.90	-315.20	-120.65	337 50	1.56	0 00	-2.81	
3423.00	31.06	205.95	3341.92	-330.91	-127.50	354 62	11 42	-8 41	14.44	
3453 00	28.63	212 95	3367 94	-343.91	-134 80	369 36	14.15	-8 10	23.33	
3484.00	31 06	216.83	3394.83	-356.54	-143.63	384.31	10.01	7.84	12.52	
3514.00	36.13	215 45	3419.81	-369.95	-153.41	400.31	17 09	16.90	-4.60	
3546.00	42.19	213.57	3444 61	-386.60	-164.83	419 93	19.30	18.94	-5.87	
3577.00	48.44	212.08	3466 40	-405.12	-176 76	441.48	20.45	20.16	-4 81	
3609.00	54 44	211 45	3486.34	-426.39	-189.92	466 04	18.81	18.75	-1.97	
3663.00	63.00	216.00	3514.36	-464 68	-215.58	510.93	17.40	15.85	8.43	
3679 00	67.75	211.33	3521 03	-476.78	-223.63	525.11	39.81	29.69	-29.19	
3709 00	72.13	205.13	3531.33	-501.60	-236.93	553.03	24.28	14.60	-20.67	
3740 00	73 31	202.08	3540.54	-528.72	-248.77	582 59	10.14	3.81	-9 84	
3771 00	73.56	197.33	3549.38	-556.68	-258.79	612.29	14 71	0.81	-15.32	
3801 00	74 31	195.83	3557.68	-584.31	-267 01	641.04	5.42	2.50	-5.00	
3831.00	74.38	195 33	3565.78	-612.14	-274.77	669 80	1.62	0.23	-1.67	
3861.00	74.44	195 20	3573.84	-640.02	-282.38	698 57	0.46	0 20	-0.43	
3891 00	74.56	195 45	3581.86	-667 90	-290.02	727 34	0.90	0.40	0 83	
3922 00	75.44	195.58	3589.88	-696.75	-298 03	757 16	2.87	2.84	0.42	
3952 00	75 69	196.20	3597.36	-724.69	-305 99	786.11	2.17	0.83	2.07	
3982 00	76.19	198 70	3604.65	-752.45	-314.71	815 16	8.25	1.67	8 33	
4013.00	76.88	199 58	3611.87	-780 93	-324.60	845 29	3.55	2.23	2.84	
4043.00	77.13	199 95	3618 61	-808.44	-334.48	874.52	1.46	0.83	1.23	
4074.00	77.69	199.95	3625 37	-836.88	-344 80	904.77	1 81	1 81	0 00	
4104.00	79.75	200.20	3631.24	-864.51	-354 90	934 19	6.92	6 87	0.83	
4133.00	82.13	200 80	3635 81	-891.33	-364.93	962 82	8.46	8.21	2.07	
4164.00	84.63	200.70	3639 38	-920.13	-375.84	993.61	8 07	8.06	-0.32	
4195 00	87.13	200 83	3641.61	-949 04	-386 80	1024 53	8.08	8 06	0 42	
4226 00	88 56	201.08	3642.77	-977.96	-397 88	1055 51	4 68	4.61	0 81	
4256.00	90.44	200 58	3643.03	-1006.00	-408.55	1085 51	6.48	6.27	-1.67	
4286.00	91.63	200.53	3642 49	-1034.09	-419.08	1115.50	3.97	3.97	-0.17	

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 Site: Vaqueros Canyon #1 Vertical (TVD) Reference: SITE 6961.0
 Well: Vaqueros Canyon #1 Section (VS) Reference: Multiple (See Wellpath)
 Wellpath: Horizontal Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
4316.00	92.75	200.33	3641.35	-1062.18	-429.54	1145.48	3.79	3.73	-0.67	
4346.00	91.19	200.95	3640.31	-1090.24	-440.11	1175.46	5.60	-5.20	2.07	
4378.00	90.50	200.58	3639.84	-1120.15	-451.46	1207.45	2.45	-2.16	-1.16	
4410.00	91.19	200.70	3639.37	-1150.10	-462.73	1239.45	2.19	2.16	0.37	
4441.00	89.13	199.45	3639.28	-1179.21	-473.37	1270.45	7.77	-6.65	-4.03	
4473.00	86.96	199.95	3640.38	-1209.32	-484.15	1302.42	6.96	-6.78	1.56	
4504.00	86.63	199.08	3642.11	-1238.49	-494.49	1333.36	3.00	-1.06	-2.81	
4536.00	87.44	198.95	3643.76	-1268.70	-504.91	1365.31	2.56	2.53	-0.41	
4567.00	89.69	199.83	3644.54	-1297.93	-515.19	1396.28	7.79	7.26	2.84	
4599.00	91.00	199.70	3644.35	-1328.05	-526.01	1428.28	4.11	4.09	-0.41	
4630.00	91.94	199.83	3643.55	-1357.21	-536.49	1459.26	3.06	3.03	0.42	
4662.00	91.13	200.08	3642.69	-1387.28	-547.41	1491.25	2.65	-2.53	0.78	
4693.00	89.44	200.80	3642.54	-1416.33	-558.24	1522.25	5.93	-5.45	2.32	
4726.00	89.94	199.70	3642.72	-1447.29	-569.66	1555.24	3.66	1.52	-3.33	
4757.00	90.69	199.58	3642.55	-1476.48	-580.08	1586.24	2.45	2.42	-0.39	
4789.00	91.50	199.20	3641.94	-1506.66	-590.70	1618.22	2.80	2.53	-1.19	
4821.00	89.38	199.70	3641.69	-1536.83	-601.35	1650.21	6.81	-6.62	1.56	
4852.00	89.56	199.70	3641.98	-1566.02	-611.80	1681.20	0.58	0.58	0.00	
4884.00	88.13	199.70	3642.62	-1596.14	-622.59	1713.19	4.47	-4.47	0.00	
4915.00	88.38	199.70	3643.57	-1625.31	-633.03	1744.17	0.81	0.81	0.00	
4947.00	89.19	199.83	3644.25	-1655.42	-643.85	1776.16	2.56	2.53	0.41	
4979.00	90.00	199.45	3644.47	-1685.55	-654.61	1808.15	2.80	2.53	-1.19	
5010.00	90.88	199.70	3644.23	-1714.76	-664.99	1839.14	2.95	2.84	0.81	
5042.00	90.06	200.58	3643.97	-1744.80	-676.01	1871.14	3.76	-2.56	2.75	
5073.00	90.56	201.20	3643.80	-1773.76	-687.06	1902.14	2.57	1.61	2.00	
5104.00	89.31	200.83	3643.84	-1802.70	-698.18	1933.14	4.21	-4.03	-1.19	
5136.00	89.75	200.95	3644.10	-1832.60	-709.59	1965.13	1.43	1.37	0.37	
5167.00	90.63	201.08	3644.00	-1861.53	-720.71	1996.13	2.87	2.84	0.42	
5199.00	91.31	201.20	3643.46	-1891.38	-732.25	2028.13	2.16	2.12	0.37	
5230.00	89.94	200.08	3643.12	-1920.38	-743.17	2059.12	5.71	-4.42	-3.61	
5262.00	90.00	199.20	3643.14	-1950.52	-753.93	2091.12	2.76	0.19	-2.75	
5293.00	90.88	199.08	3642.90	-1979.81	-764.09	2122.10	2.86	2.84	-0.39	
5325.00	91.44	199.20	3642.25	-2010.03	-774.58	2154.08	1.79	1.75	0.37	
5356.00	89.88	199.95	3641.89	-2039.24	-784.97	2185.07	5.58	-5.03	2.42	
5386.00	87.56	200.08	3642.56	-2067.42	-795.23	2215.06	7.75	-7.73	0.43	
5418.00	88.19	200.08	3643.75	-2097.45	-806.21	2247.04	1.97	1.97	0.00	
5448.00	89.13	199.95	3644.45	-2125.63	-816.47	2277.03	3.16	3.13	-0.43	
5478.00	89.94	199.95	3644.69	-2153.83	-826.71	2307.02	2.70	2.70	0.00	
5510.00	91.13	200.20	3644.40	-2183.88	-837.69	2339.02	3.80	3.72	0.78	
5573.00	88.63	201.58	3644.53	-2242.73	-860.16	2402.01	4.53	-3.97	2.19	
5605.00	89.13	201.58	3645.15	-2272.49	-871.92	2434.00	1.56	1.56	0.00	
5637.00	90.06	202.08	3645.38	-2302.19	-883.82	2465.99	3.30	2.91	1.56	
5668.00	88.75	201.58	3645.70	-2330.96	-895.35	2496.99	4.52	-4.23	-1.61	
5700.00	87.25	200.58	3646.82	-2360.80	-906.85	2528.97	5.63	-4.69	-3.12	
5731.00	87.63	200.20	3648.20	-2389.83	-917.64	2559.93	1.73	1.23	-1.23	
5763.00	88.56	200.20	3649.27	-2419.85	-928.68	2591.91	2.91	2.91	0.00	
5794.00	89.31	199.83	3649.84	-2448.97	-939.29	2622.91	2.70	2.42	-1.19	
5826.00	89.81	199.45	3650.09	-2479.11	-950.05	2654.90	1.96	1.56	-1.19	
5858.00	90.50	198.83	3650.00	-2509.34	-960.54	2686.88	2.90	2.16	-1.94	
5890.00	91.25	199.08	3649.51	-2539.60	-970.93	2718.86	2.47	2.34	0.78	
5921.00	92.13	198.95	3648.60	-2568.89	-981.03	2749.84	2.87	2.84	-0.42	
5953.00	91.69	198.58	3647.53	-2599.18	-991.32	2781.80	1.80	-1.37	-1.16	
5985.00	91.56	199.45	3646.62	-2629.42	-1001.74	2813.77	2.75	-0.41	2.72	
6016.00	92.13	199.58	3645.63	-2658.62	-1012.09	2844.75	1.89	1.84	0.42	

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Survey Report



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Company: XTO Energy Inc. Date: 9/10/2007 Time: 07:54:40 Page: 4
 Field: Rio Arriba County, NM Co-ordinate(NE) Reference: Site Vaqueros Canyon #1, True North
 Site: Vaqueros Canyon #1 Vertical (TVD) Reference: SITE 6961.0
 Well: Vaqueros Canyon #1 Section (VS) Reference: Multiple (See Wellpath)
 Wellpath: Horizontal Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6048.00	92 19	199 58	3644 42	-2688 75	-1022.80	2876.72	0.19	0.19	0.00	
6079.00	90.31	199 95	3643 74	-2717 91	-1033.28	2907.70	6 18	-6.06	1.19	
6111.00	88.75	201.08	3644 01	-2747 88	-1044 50	2939.70	6 02	0.48	1.03	0487110353
6142.00	89 19	200 95	3644 56	-2776 82	-1055.61	2970.69	1 48	1.42	-0.42	20237500714
6174.00	90.00	201 20	3644 79	-2806 67	-1067.12	3002.69	2.65	2.53	-0.78	
6204.00	90.94	201 08	3644 54	-2834 65	-1077.94	3032 69	3.16	3 13	-0.40	
6237.00	91.38	200.83	3643.88	-2865.47	-1089.74	3065.68	1 53	1.33	-0.76	
6299.00	90.44	200.45	3642 89	-2923 48	-1111.59	3127.68	1 64	-1 52	-0 61	
6331.00	90.25	199.95	3642 70	-2953 51	-1122.64	3159.67	1.67	-0 59	-1 56	
6362.00	91.13	199.58	3642 33	-2982.68	-1133.12	3190.67	3 08	2 84	-1 19	
6394.00	91.94	199.20	3641 47	-3012 85	-1143.74	3222.64	2.80	2 53	-1 19	
6423.00	92 00	200 20	3640 47	-3040.14	-1153.51	3251.62	3.45	0.21	3 45	
6455.00	91 31	200 70	3639 55	-3070.11	-1164.69	3283.61	2 66	-2 16	1 56	
6484.00	89 25	200 95	3639 41	-3097 21	-1175.00	3312.61	7.16	-7 10	0.86	
6516.00	88 13	201 95	3640.14	-3126 99	-1186.69	3344.59	4 69	-3.50	3.12	LAST SURVEY

Annotation

MD ft	TVD ft	
402.00	401 92	TIE IN
6516.00	3640 14	LAST SURVEY