



Weatherford®

SURVEY REPORT

Report Date: **12/31/2012**
 Customer: **Anadarko**
 Job Name: **4027743**
 Well Name: **Reigle 28N-4HZ**

Field: **Wattenburg**
 Rig: **Xtreme 23**
 Rig Loc: **Weld County**

Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
True North	355.03 deg	52771 nT	66.80 deg	8.64 deg	0.00 deg	8.64 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	839.00 ft	0.74 deg	325.01 deg	838.99 ft	-2.37 ft	-0.60 ft

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head			
				NS (ft)	EW (ft)	Vsect (ft)	Dogleg (deg/100ft)
942.00	0.49	76.68	941.99	-1.72	-0.55	-1.67	1.00
1033.00	0.44	64.42	1032.98	-1.48	0.14	-1.49	0.12
1124.00	2.10	295.38	1123.96	-0.62	-1.05	-0.52	2.64
1214.00	4.15	279.22	1213.83	0.61	-5.76	1.11	2.46
1305.00	5.92	275.87	1304.47	1.62	-13.67	2.80	1.97
1396.00	6.21	260.84	1394.97	1.32	-23.20	3.32	1.77
1493.00	6.31	264.36	1491.39	-0.04	-33.69	2.87	0.41
1586.00	6.43	258.50	1583.82	-1.58	-43.88	2.22	0.71
1679.00	7.20	245.05	1676.17	-5.08	-54.26	-0.36	1.90
1773.00	7.02	243.55	1769.44	-10.12	-64.75	-4.48	0.28
1866.00	7.38	225.13	1861.72	-16.87	-74.07	-10.39	2.50
1959.00	8.31	220.12	1953.85	-26.22	-82.63	-18.97	1.24
2053.00	7.77	206.74	2046.94	-37.09	-89.87	-29.17	2.07
2146.00	7.00	206.63	2139.16	-47.77	-95.24	-39.34	0.83
2239.00	7.61	215.79	2231.41	-57.84	-101.38	-48.84	1.41
2332.00	6.86	218.92	2323.67	-67.15	-108.47	-57.50	0.91
2426.00	7.38	210.09	2416.95	-76.74	-115.03	-66.49	1.29
2519.00	8.96	210.47	2509.00	-88.15	-121.69	-77.28	1.70
2612.00	7.94	211.22	2600.99	-99.89	-128.70	-88.37	1.10
2706.00	8.47	212.91	2694.03	-111.25	-135.82	-99.07	0.62
2800.00	9.46	209.84	2786.88	-123.77	-143.43	-110.88	1.17
2885.00	9.14	209.69	2870.76	-135.69	-150.25	-122.16	0.38
2970.00	8.26	210.18	2954.78	-146.83	-156.66	-132.71	1.04
3055.00	9.05	215.24	3038.82	-157.57	-163.59	-142.81	1.29
3141.00	8.16	220.00	3123.85	-167.77	-171.41	-152.29	1.32
3226.00	7.71	213.71	3208.04	-177.14	-178.46	-161.01	1.15
3312.00	8.60	210.73	3293.17	-187.46	-184.94	-170.74	1.15
3397.00	9.68	212.38	3377.09	-198.96	-192.02	-181.58	1.31
3483.00	9.10	216.34	3461.93	-210.55	-199.92	-192.43	1.01
3568.00	7.73	220.17	3546.02	-220.33	-207.59	-201.52	1.74
3654.00	8.51	222.43	3631.15	-229.45	-215.61	-209.90	0.98
3738.00	7.91	220.04	3714.29	-238.46	-223.53	-218.20	0.82
3824.00	8.80	210.86	3799.38	-248.64	-230.71	-227.71	1.86
3909.00	8.25	210.34	3883.44	-259.48	-237.12	-237.96	0.65
3995.00	9.61	207.97	3968.40	-271.15	-243.61	-249.02	1.64

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		Vsect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
4080.00	9.22	207.36	4052.26	-283.46	-250.06	-260.73	0.47
4165.00	8.15	209.14	4136.28	-294.77	-256.13	-271.47	1.30
4251.00	7.08	211.84	4221.52	-304.60	-261.89	-280.76	1.31
4336.00	8.84	208.39	4305.70	-314.80	-267.76	-290.41	2.14
4421.00	8.94	210.09	4389.68	-326.26	-274.18	-301.28	0.33
4507.00	9.44	211.87	4474.57	-338.03	-281.25	-312.39	0.67
4592.00	9.70	218.52	4558.39	-349.55	-289.39	-323.16	1.34
4677.00	9.69	219.08	4642.18	-360.70	-298.36	-333.50	0.11
4763.00	8.16	222.87	4727.14	-370.80	-307.08	-342.80	1.90
4848.00	6.52	228.01	4811.44	-378.45	-314.77	-349.75	2.08
4934.00	7.20	220.36	4896.82	-385.82	-321.89	-356.48	1.32
5019.00	7.99	216.31	4981.08	-394.64	-328.84	-364.67	1.12
5105.00	9.91	207.18	5066.03	-406.04	-335.76	-375.43	2.77
5190.00	8.16	205.48	5149.97	-417.99	-341.69	-386.82	2.08
5276.00	7.59	208.39	5235.16	-428.50	-347.02	-396.83	0.81
5361.00	8.95	208.21	5319.28	-439.27	-352.82	-407.05	1.60
5447.00	9.80	205.87	5404.13	-451.75	-359.17	-418.93	1.08
5532.00	8.09	214.18	5488.09	-463.21	-365.69	-429.78	2.52
5617.00	8.41	213.29	5572.21	-473.35	-372.46	-439.30	0.41
5703.00	7.52	219.99	5657.39	-482.92	-379.53	-448.22	1.49
5788.00	5.82	217.44	5741.81	-490.60	-385.72	-455.34	2.03
5874.00	4.51	216.46	5827.46	-496.78	-390.38	-461.10	1.53
5959.00	3.59	212.85	5912.24	-501.71	-393.81	-465.70	1.12
6044.00	2.04	200.08	5997.14	-505.36	-395.78	-469.18	1.96
6130.00	1.36	165.78	6083.10	-507.79	-396.05	-471.57	1.39
6215.00	0.66	183.44	6168.09	-509.26	-395.83	-473.05	0.89
6301.00	0.73	158.45	6254.08	-510.26	-395.66	-474.07	0.36
6386.00	0.70	170.43	6339.08	-511.28	-395.38	-475.10	0.18
6462.00	0.35	176.72	6415.07	-511.97	-395.29	-475.80	0.47
6518.00	1.38	359.06	6471.07	-511.46	-395.29	-475.29	3.09
6561.00	7.58	357.15	6513.92	-508.11	-395.44	-471.94	14.42
6603.00	13.07	0.22	6555.22	-500.59	-395.56	-464.44	13.13
6646.00	17.29	3.88	6596.71	-489.35	-395.11	-453.28	10.06
6689.00	20.21	6.02	6637.43	-475.58	-393.89	-439.67	6.98
6731.00	23.98	5.25	6676.33	-459.86	-392.35	-424.14	9.00
6774.00	27.66	5.50	6715.03	-441.22	-390.59	-405.72	8.56
6817.00	30.30	5.86	6752.65	-420.49	-388.53	-385.25	6.15
6860.00	29.91	0.16	6789.85	-398.97	-387.39	-363.91	6.71
6902.00	33.50	357.37	6825.58	-376.92	-387.90	-341.89	9.23
6945.00	38.81	358.78	6860.29	-351.57	-388.73	-316.57	12.50
6987.00	44.12	359.18	6891.75	-323.77	-389.22	-288.84	12.66
7030.00	49.84	359.37	6921.08	-292.35	-389.61	-257.50	13.31
7073.00	53.43	358.54	6947.76	-258.65	-390.23	-223.87	8.48
7115.00	58.18	356.19	6971.36	-223.96	-391.85	-189.17	12.22
7158.00	64.26	357.08	6992.05	-186.35	-394.05	-151.52	14.26
7201.00	70.99	359.93	7008.42	-146.63	-395.06	-111.86	16.81
7243.00	73.70	0.85	7021.15	-106.62	-394.79	-72.01	6.78
7286.00	76.86	2.25	7032.08	-65.05	-393.66	-30.70	7.99
7329.00	83.13	2.40	7039.55	-22.76	-391.94	11.28	14.59
7364.00	84.95	2.15	7043.18	12.02	-390.56	45.81	5.25

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
7491.00	90.35	359.47	7048.39	138.84	-388.78	172.00	4.75
7576.00	90.37	358.93	7047.85	223.83	-389.96	256.78	0.64
7661.00	90.00	359.83	7047.58	308.83	-390.88	341.53	1.14
7747.00	90.56	359.16	7047.16	394.82	-391.64	427.27	1.02
7832.00	90.62	0.26	7046.28	479.82	-392.07	511.98	1.30
7918.00	89.88	0.83	7045.91	565.81	-391.25	597.58	1.09
8003.00	88.46	357.92	7047.14	650.78	-392.18	682.31	3.81
8088.00	90.74	359.10	7047.73	735.75	-394.39	767.15	3.02
8174.00	91.67	0.35	7045.92	821.72	-394.80	852.84	1.81
8259.00	90.86	1.97	7044.05	906.68	-393.08	937.33	2.13
8345.00	90.74	1.74	7042.85	992.63	-390.30	1022.71	0.30
8430.00	89.38	1.54	7042.76	1077.59	-387.86	1107.14	1.62
8516.00	89.94	0.67	7043.27	1163.57	-386.21	1192.66	1.20
8601.00	90.25	359.84	7043.13	1248.57	-385.83	1277.30	1.04
8687.00	90.25	0.59	7042.75	1334.57	-385.50	1362.95	0.87
8772.00	90.43	359.70	7042.25	1419.57	-385.29	1447.61	1.07
8857.00	89.75	1.36	7042.11	1504.56	-384.50	1532.21	2.11
8943.00	88.89	0.39	7043.13	1590.54	-383.19	1617.76	1.51
9028.00	89.75	0.50	7044.14	1675.53	-382.53	1702.37	1.02
9114.00	90.25	0.06	7044.14	1761.53	-382.11	1788.01	0.77
9199.00	90.99	358.99	7043.22	1846.52	-382.81	1872.74	1.53
9284.00	90.18	0.34	7042.35	1931.51	-383.31	1957.46	1.85
9370.00	90.18	1.50	7042.08	2017.50	-381.93	2043.00	1.35
9455.00	88.70	2.67	7042.92	2102.44	-378.84	2127.35	2.22
9541.00	88.58	2.43	7044.96	2188.33	-375.01	2212.59	0.31
9626.00	88.21	1.55	7047.34	2273.24	-372.06	2296.93	1.12
9712.00	90.25	0.77	7048.49	2359.21	-370.32	2382.42	2.54
9797.00	91.85	0.46	7046.94	2444.19	-369.41	2467.00	1.92
9883.00	91.36	1.88	7044.53	2530.13	-367.65	2552.47	1.75
9968.00	90.12	2.84	7043.43	2615.05	-364.15	2636.77	1.84
10053.00	88.15	0.90	7044.71	2699.99	-361.38	2721.14	3.25
10139.00	87.53	0.40	7047.95	2785.92	-360.41	2806.67	0.93
10224.00	88.70	359.00	7050.75	2870.87	-360.85	2891.34	2.15
10309.00	87.47	358.33	7053.59	2955.80	-362.83	2976.12	1.65
10394.00	89.81	356.70	7055.61	3040.69	-366.51	3061.01	3.35
10480.00	90.68	357.52	7055.24	3126.57	-370.85	3146.95	1.39
10565.00	91.23	0.73	7053.82	3211.54	-372.15	3231.71	3.83
10650.00	89.81	1.27	7053.05	3296.52	-370.67	3316.24	1.79
10736.00	90.25	0.02	7053.01	3382.51	-369.70	3401.82	1.54
10821.00	91.54	0.45	7051.68	3467.50	-369.35	3486.46	1.60
10907.00	91.05	2.39	7049.73	3553.45	-367.22	3571.90	2.33
10992.00	91.42	1.91	7047.90	3638.37	-364.03	3656.23	0.71
11078.00	88.77	2.49	7047.76	3724.30	-360.73	3741.55	3.15
11163.00	89.57	0.98	7048.99	3809.25	-358.16	3825.95	2.01
11248.00	90.43	359.24	7048.99	3894.24	-357.99	3910.61	2.28
11334.00	89.69	359.47	7048.90	3980.24	-358.96	3996.37	0.90
11411.00	89.08	0.62	7049.73	4057.23	-358.90	4073.07	1.69

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
Projected to Total Depth:							
11469.00	89.08	0.62	7050.66	4115.22	-358.27	4130.78	0.00

Weatherford surveys from 942 ft MD to 11411 ft MD.

TD at 11469 ft MD.

The total correction is 8.64 deg relative to True North.