



Weatherford®

SURVEY REPORT

 Report Date: **2/21/2013**

 Customer: **Anadarko**

 Job Name: **4028455**

 Well Name: **Dechant State 37N-W36HZ**

 Field: **Wattenberg**

 Rig: **H&P 307**

 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	180.21 deg	52840 nT	66.90 deg	8.65 deg	0.00 deg	8.65 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	638.00 ft	0.09 deg	253.09 deg	638.00 ft	0.46 ft	-1.81 ft

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		Vsect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
772.00	0.38	144.45	772.00	0.07	-1.65	-0.06	0.31
864.00	0.22	49.15	864.00	-0.06	-1.34	0.07	0.50
956.00	0.63	132.18	956.00	-0.29	-0.83	0.29	0.70
1048.00	2.61	104.18	1047.96	-1.14	1.57	1.14	2.26
1140.00	5.49	90.08	1139.72	-1.66	8.01	1.63	3.29
1231.00	8.09	86.45	1230.07	-1.27	18.75	1.20	2.89
1323.00	10.13	83.79	1320.91	0.01	33.26	-0.13	2.26
1415.00	10.59	76.93	1411.41	2.79	49.54	-2.97	1.43
1506.00	10.29	76.56	1500.90	6.57	65.59	-6.81	0.34
1596.00	9.93	77.00	1589.51	10.19	80.97	-10.48	0.41
1688.00	9.59	77.76	1680.18	13.60	96.18	-13.95	0.40
1778.00	9.09	75.63	1768.98	16.95	110.40	-17.35	0.68
1870.00	9.09	74.32	1859.83	20.72	124.44	-21.17	0.22
1961.00	8.40	73.46	1949.77	24.55	137.73	-25.06	0.77
2052.00	7.38	74.50	2039.91	28.01	149.73	-28.56	1.13
2144.00	8.91	78.55	2130.98	31.00	162.41	-31.60	1.78
2236.00	11.22	81.94	2221.55	33.67	178.26	-34.32	2.59
2330.00	11.21	79.10	2313.76	36.68	196.28	-37.40	0.59
2425.00	10.08	73.58	2407.13	40.78	213.33	-41.56	1.60
2519.00	9.31	70.06	2499.78	45.69	228.37	-46.53	1.03
2614.00	9.52	72.93	2593.50	50.62	243.10	-51.51	0.54
2708.00	10.28	79.33	2686.11	54.46	258.77	-55.40	1.42
2803.00	10.50	95.00	2779.57	55.27	275.73	-56.28	2.97
2898.00	10.05	93.51	2873.04	54.01	292.63	-55.08	0.55
2992.00	9.38	92.18	2965.70	53.22	308.47	-54.35	0.75
3087.00	10.97	89.10	3059.20	53.06	325.24	-54.26	1.77
3182.00	10.38	87.92	3152.56	53.52	342.83	-54.77	0.66
3276.00	9.71	86.97	3245.11	54.24	359.21	-55.56	0.73
3370.00	11.41	87.55	3337.52	55.06	376.42	-56.44	1.81
3465.00	10.52	85.22	3430.78	56.18	394.45	-57.63	1.05
3560.00	9.66	85.96	3524.31	57.47	411.04	-58.97	0.92
3654.00	10.63	79.81	3616.85	59.56	427.45	-61.12	1.55
3749.00	9.48	78.46	3710.38	62.67	443.74	-64.30	1.24
3844.00	10.78	77.79	3803.90	66.12	460.08	-67.80	1.37
3938.00	10.57	78.46	3896.28	69.70	477.12	-71.45	0.26

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		Vsect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
4033.00	10.48	76.59	3989.68	73.45	494.07	-75.26	0.37
4127.00	10.07	73.80	4082.17	77.72	510.27	-79.59	0.69
4222.00	9.70	71.93	4175.76	82.52	525.86	-84.45	0.52
4317.00	9.27	72.74	4269.46	87.28	540.77	-89.26	0.47
4411.00	8.10	69.72	4362.38	91.82	554.22	-93.85	1.34
4506.00	7.50	67.91	4456.50	96.47	566.24	-98.54	0.68
4601.00	7.29	67.07	4550.71	101.15	577.53	-103.26	0.25
4695.00	6.67	66.04	4644.02	105.69	588.02	-107.84	0.67
4790.00	5.87	66.64	4738.45	109.86	597.52	-112.05	0.84
4885.00	5.24	66.00	4833.00	113.55	605.94	-115.77	0.67
4979.00	4.77	65.09	4926.64	116.94	613.41	-119.19	0.51
5074.00	4.49	64.21	5021.33	120.22	620.34	-122.49	0.30
5168.00	2.34	76.44	5115.16	122.27	625.52	-124.56	2.40
5263.00	1.03	85.06	5210.12	122.80	628.25	-125.10	1.40
5357.00	0.43	306.15	5304.11	123.08	628.81	-125.38	1.47
5736.00	1.47	162.67	5683.08	119.28	629.11	-121.58	0.48
6114.00	1.54	151.02	6060.95	110.21	633.01	-112.53	0.08
6358.00	1.44	160.79	6304.87	104.44	635.61	-106.77	0.11
6396.00	1.31	163.78	6342.85	103.58	635.89	-105.91	0.39
6490.00	11.97	162.80	6436.09	93.20	639.08	-95.54	11.34
6585.00	21.07	168.32	6527.08	67.01	645.47	-69.38	9.71
6680.00	29.60	174.99	6612.88	26.83	650.98	-29.22	9.46
6774.00	37.26	178.41	6691.28	-24.82	653.80	22.42	8.39
6869.00	44.98	182.62	6762.80	-87.21	653.07	84.82	8.63
6963.00	55.06	181.46	6823.12	-159.10	650.56	156.72	10.76
7058.00	66.27	183.37	6869.59	-241.71	647.00	239.33	11.93
7153.00	72.54	184.68	6902.99	-330.37	640.74	328.02	6.72
7247.00	78.88	184.47	6926.18	-421.12	633.48	418.80	6.75
7277.00	83.48	183.99	6930.78	-450.68	631.30	448.36	15.41
7369.00	90.74	183.16	6935.42	-542.32	625.57	540.03	7.94
7463.00	89.88	180.74	6934.91	-636.26	622.37	633.97	2.73
7557.00	89.44	179.14	6935.47	-730.25	622.47	727.97	1.77
7652.00	90.49	178.65	6935.53	-825.23	624.30	822.94	1.22
7747.00	90.53	178.60	6934.68	-920.20	626.58	917.90	0.07
7841.00	90.44	178.42	6933.89	-1014.17	629.03	1011.86	0.21
7936.00	90.19	180.02	6933.36	-1109.15	630.32	1106.84	1.70
8031.00	89.74	180.01	6933.42	-1204.15	630.30	1201.84	0.47
8125.00	90.43	179.27	6933.28	-1298.15	630.89	1295.83	1.08
8220.00	90.19	179.19	6932.77	-1393.14	632.16	1390.81	0.27
8314.00	90.06	179.15	6932.56	-1487.13	633.52	1484.80	0.14
8409.00	89.94	178.76	6932.56	-1582.12	635.26	1579.78	0.43
8504.00	90.37	180.89	6932.31	-1677.11	635.55	1674.77	2.29
8598.00	90.74	182.15	6931.39	-1771.07	633.05	1768.74	1.40
8693.00	90.06	182.15	6930.73	-1866.00	629.49	1863.68	0.72
8788.00	90.12	181.41	6930.58	-1960.95	626.54	1958.64	0.78
8882.00	89.81	181.18	6930.64	-2054.93	624.42	2052.63	0.41
8977.00	89.81	181.41	6930.95	-2149.90	622.27	2147.61	0.24
9071.00	89.63	180.87	6931.41	-2243.88	620.40	2241.59	0.61
9166.00	89.75	181.08	6931.93	-2338.87	618.78	2336.58	0.25
9261.00	90.19	181.62	6931.98	-2433.84	616.54	2431.57	0.73

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
9355.00	90.18	181.68	6931.67	-2527.80	613.84	2525.53	0.06
9450.00	90.31	181.44	6931.27	-2622.77	611.25	2620.51	0.29
9544.00	90.68	181.25	6930.46	-2716.74	609.04	2714.49	0.44
9639.00	91.17	181.30	6928.92	-2811.70	606.93	2809.46	0.52
9734.00	90.31	181.47	6927.70	-2906.66	604.63	2904.43	0.92
9828.00	90.18	180.89	6927.29	-3000.64	602.70	2998.41	0.63
9923.00	90.12	180.57	6927.04	-3095.63	601.49	3093.41	0.34
10017.00	89.38	179.70	6927.45	-3189.63	601.27	3187.41	1.22
10112.00	89.82	179.66	6928.12	-3284.63	601.80	3282.40	0.47
10207.00	90.68	179.43	6927.70	-3379.62	602.55	3377.39	0.94
10301.00	91.48	181.03	6925.93	-3473.60	602.18	3471.37	1.90
10396.00	91.42	180.57	6923.53	-3568.56	600.85	3566.33	0.49
10490.00	90.56	180.50	6921.90	-3662.54	599.97	3660.32	0.92
10585.00	89.75	180.00	6921.65	-3757.54	599.56	3755.32	1.00
10680.00	89.26	179.97	6922.47	-3852.54	599.58	3850.31	0.52
10774.00	88.77	180.01	6924.08	-3946.52	599.60	3944.30	0.52
10869.00	88.71	180.43	6926.17	-4041.50	599.23	4039.27	0.45
10964.00	88.58	180.65	6928.42	-4136.47	598.34	4134.25	0.27
11058.00	88.03	180.91	6931.20	-4230.42	597.06	4228.20	0.65
11153.00	87.35	180.89	6935.03	-4325.33	595.57	4323.12	0.72
11247.00	86.85	180.81	6939.78	-4419.20	594.18	4416.99	0.54
11342.00	84.93	181.42	6946.59	-4513.93	592.33	4511.73	2.12
11436.00	84.13	180.96	6955.55	-4607.48	590.39	4605.28	0.98
Projected to Total Depth:							
11490.00	84.13	180.96	6961.08	-4661.19	589.49	4659.00	0.00

Weatherford M/LWD Surveys from 772.0 to 11436.0 MD.

TD at 11490.0 MD.

The total correction is 8.65 deg relative to True North.