

<b>Report Date:</b> October 29, 2008 <b>Client:</b> Noble Energy <b>Field:</b> CO, Garfield County (NAD 27 CZ) Noble Energy 2008 <b>Structure / Slot:</b> Noble 36-7S-95W (36L Battlement Mesa Pad) / Battlement Mesa 36-23C <b>Well:</b> Battlement Mesa 36-23C (P&A) <b>Borehole:</b> Original Hole <b>UWI/API#:</b> <b>Survey Name / Date:</b> BM 36-23C Final Surveys 0' to 3350' (MWD) / June 27, 2008 <b>Tort / AHD / DDI / ERD ratio:</b> 29.827° / 596.01 ft / 4.258 / 0.181 <b>Grid Coordinate System:</b> NAD27 Colorado State Planes, Central Zone, US Feet <b>Location Lat/Long:</b> N 39 23 31.859, W 107 57 7.704 <b>Location Grid N/E Y/X:</b> N 577074.242 ftUS, E 1307050.477 ftUS <b>Grid Convergence Angle:</b> -1.54653909° <b>Grid Scale Factor:</b> 0.99994879	<b>Survey / DLS Computation Method:</b> Minimum Curvature / Lubinski <b>Vertical Section Azimuth:</b> 104.150° <b>Vertical Section Origin:</b> N 0.000 ft, E 0.000 ft <b>TVD Reference Datum:</b> RKB <b>TVD Reference Elevation:</b> 8918.0 ft relative to MSL <b>Sea Bed / Ground Level Elevation:</b> 8897.500 ft relative to MSL <b>Magnetic Declination:</b> 10.687° <b>Total Field Strength:</b> 52485.886 nT <b>Magnetic Dip:</b> 65.776° <b>Declination Date:</b> June 27, 2008 <b>Magnetic Declination Model:</b> BGGM 2008 <b>North Reference:</b> Grid North <b>Total Corr Mag North -&gt; Grid North:</b> +12.234° <b>Local Coordinates Referenced To:</b> Well Head
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	577074.24	1307050.48	N 39 23 31.859	W 107 57 7.704
Begin Blackstar MWD Surveys	242.00	2.10	203.10	241.95	-0.69	-4.08	-1.74	0.87	577070.16	1307048.74	N 39 23 31.818	W 107 57 7.725
	339.00	2.30	148.70	338.88	0.42	-7.38	-1.43	2.08	577066.87	1307049.05	N 39 23 31.786	W 107 57 7.720
	429.00	3.60	124.10	428.77	4.36	-10.50	1.85	1.99	577063.74	1307052.33	N 39 23 31.756	W 107 57 7.677
	521.00	4.60	122.00	520.53	10.59	-14.08	7.37	1.10	577060.16	1307057.85	N 39 23 31.722	W 107 57 7.605
	613.00	5.70	113.00	612.16	18.62	-17.82	14.71	1.48	577056.42	1307065.18	N 39 23 31.687	W 107 57 7.511
	705.00	6.20	99.00	703.67	28.08	-20.38	23.82	1.66	577053.86	1307074.30	N 39 23 31.664	W 107 57 7.394
	808.00	7.50	90.40	805.93	40.15	-21.30	36.04	1.60	577052.94	1307086.51	N 39 23 31.658	W 107 57 7.238
	903.00	9.00	96.40	899.95	53.54	-22.17	49.62	1.82	577052.07	1307100.10	N 39 23 31.653	W 107 57 7.065
	998.00	8.90	97.60	993.79	68.20	-23.97	64.29	0.22	577050.27	1307114.76	N 39 23 31.639	W 107 57 6.877
	1094.00	9.60	100.80	1088.54	83.57	-26.45	79.51	0.90	577047.79	1307129.99	N 39 23 31.619	W 107 57 6.682
	1190.00	10.40	101.00	1183.08	100.21	-29.61	95.88	0.83	577044.64	1307146.36	N 39 23 31.592	W 107 57 6.473
	1284.00	11.30	105.10	1275.40	117.89	-33.62	113.10	1.26	577040.62	1307163.58	N 39 23 31.557	W 107 57 6.252
	1379.00	10.70	102.90	1368.66	136.02	-38.02	130.69	0.77	577036.23	1307181.16	N 39 23 31.518	W 107 57 6.027
	1476.00	11.40	102.50	1463.86	154.60	-42.10	148.82	0.73	577032.14	1307199.29	N 39 23 31.483	W 107 57 5.795
	1572.00	11.50	99.00	1557.95	173.62	-45.65	167.54	0.73	577028.59	1307218.01	N 39 23 31.453	W 107 57 5.555
	1667.00	12.00	99.70	1650.96	192.89	-48.80	186.63	0.55	577025.45	1307237.09	N 39 23 31.427	W 107 57 5.311
	1762.00	12.10	95.60	1743.87	212.59	-51.43	206.27	0.91	577022.81	1307256.74	N 39 23 31.406	W 107 57 5.060
	1857.00	12.50	96.20	1836.69	232.61	-53.52	226.40	0.44	577020.73	1307276.87	N 39 23 31.391	W 107 57 4.803
	1953.00	12.80	97.20	1930.36	253.46	-55.97	247.28	0.39	577018.27	1307297.74	N 39 23 31.372	W 107 57 4.536
	2048.00	14.10	99.70	2022.75	275.44	-59.24	269.13	1.50	577015.00	1307319.59	N 39 23 31.345	W 107 57 4.257
	2143.00	14.70	101.50	2114.77	299.02	-63.59	292.35	0.79	577010.65	1307342.81	N 39 23 31.309	W 107 57 3.960
	2239.00	15.30	103.30	2207.49	323.85	-68.94	316.61	0.79	577005.31	1307367.07	N 39 23 31.262	W 107 57 3.649
	2334.00	15.50	100.70	2299.09	349.06	-74.18	341.28	0.76	577000.07	1307391.74	N 39 23 31.217	W 107 57 3.333
	2430.00	15.10	104.50	2391.68	374.37	-79.69	365.99	1.12	576994.56	1307416.45	N 39 23 31.169	W 107 57 3.017
	2525.00	14.10	102.30	2483.62	398.31	-85.25	389.28	1.20	576988.99	1307439.73	N 39 23 31.121	W 107 57 2.718
	2621.00	14.00	103.10	2576.74	421.61	-90.37	412.01	0.23	576983.87	1307462.47	N 39 23 31.076	W 107 57 2.427
	2716.00	13.40	102.30	2669.04	444.10	-95.32	433.96	0.66	576978.92	1307484.41	N 39 23 31.033	W 107 57 2.146
	2812.00	13.40	100.70	2762.43	466.32	-99.76	455.76	0.39	576974.49	1307506.21	N 39 23 30.995	W 107 57 1.867
	2907.00	12.80	103.20	2854.96	487.83	-104.21	476.82	0.87	576970.04	1307527.27	N 39 23 30.957	W 107 57 1.597
	3003.00	12.80	102.50	2948.57	509.09	-108.94	497.56	0.16	576965.31	1307548.01	N 39 23 30.915	W 107 57 1.331
	3098.00	12.70	103.20	3041.23	530.05	-113.60	518.00	0.19	576960.65	1307568.45	N 39 23 30.875	W 107 57 1.070
	3193.00	12.80	101.00	3133.89	551.00	-117.99	538.50	0.52	576956.26	1307588.94	N 39 23 30.837	W 107 57 0.807
Last Blackstar MWD Survey	3289.00	12.80	98.70	3227.50	572.21	-121.63	559.45	0.53	576952.62	1307609.89	N 39 23 30.806	W 107 57 0.539
9 5/8" Casing Point	3350.00	12.80	98.70	3286.98	585.66	-123.67	572.81	0.00	576950.58	1307623.25	N 39 23 30.790	W 107 57 0.368
Projection to Bit	3350.00	12.80	98.70	3286.99	585.66	-123.67	572.81	0.00	576950.58	1307623.25	N 39 23 30.790	W 107 57 0.368

**Survey Type:** Definitive Survey

**Survey Error Model:** SLB ISCWSA version 24 \*\*\* 3-D 95.00% Confidence 2.7955 sigma

**Surveying Prog:**

MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type
0.00	20.50	Act-Stns	SLB_MWD-STD-Depth Only
20.50	3289.00	Act-Stns	SLB_MWD-STD
3289.00	3350.00	Act-Stns	SLB_BLIND+TREND

**Borehole -> Survey**

Original Hole -> BM 36-23C Final Surveys 0' to 3350' (MWD)  
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\*Italicized stations are NOT used in position calculations.