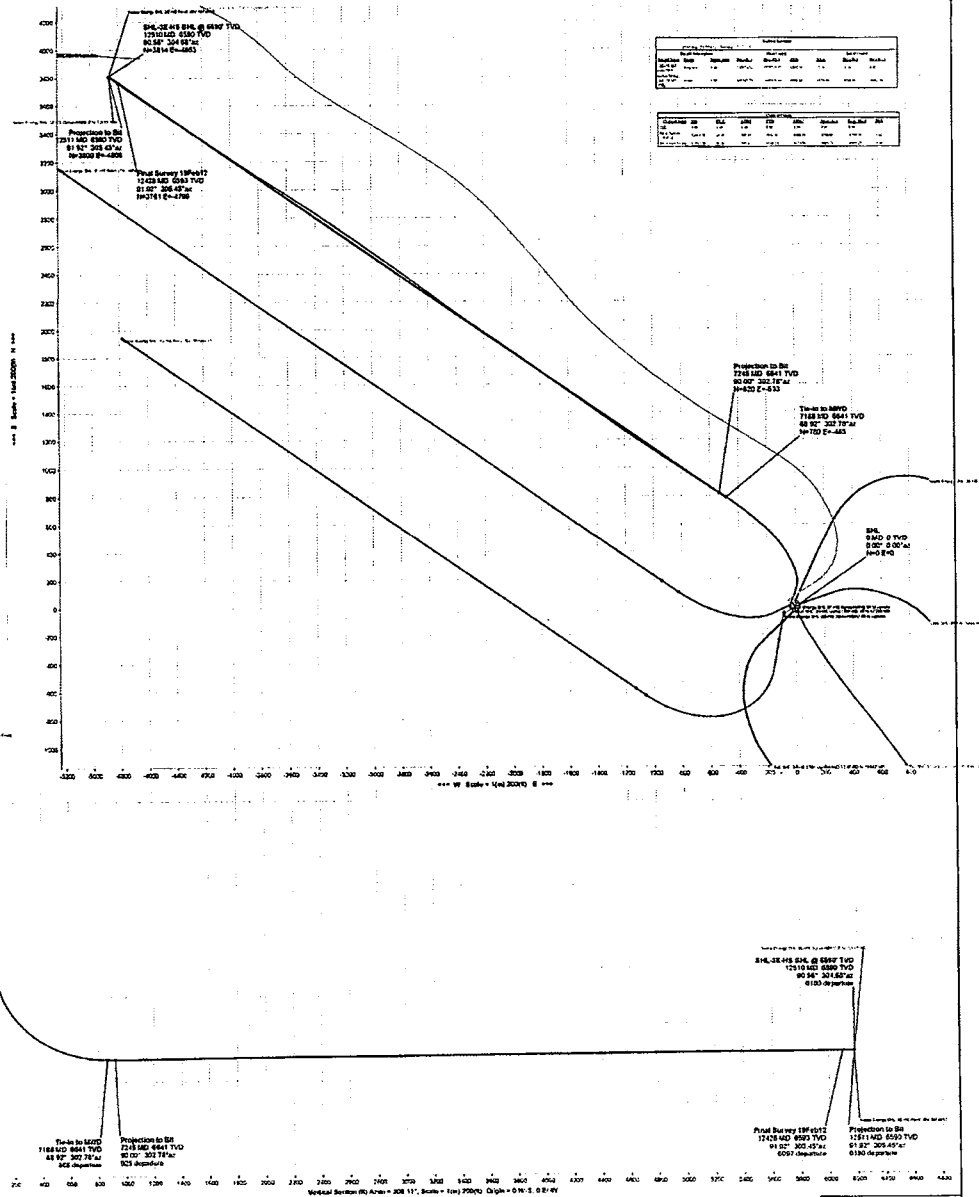




Noble Energy



WELL	SHL-3E-HS	FIELD	WV Marshall County (NAD 27)	PROPERTY	Nabors MSP
Well Name	SHL-3E-HS	Well ID	SHL-3E-HS	Well Type	Oil
Well Status	Active	Well Class	Oil	Well Depth	11,114
Well Depth	11,114	Well Class	Oil	Well Status	Active
Well Type	Oil	Well Status	Active	Well Depth	11,114
Well Class	Oil	Well Status	Active	Well Depth	11,114
Well Status	Active	Well Depth	11,114	Well Class	Oil
Well Depth	11,114	Well Class	Oil	Well Status	Active
Well Class	Oil	Well Status	Active	Well Depth	11,114
Well Status	Active	Well Depth	11,114	Well Class	Oil



Noble Energy SHL-3E-HS Gyros+MWD Off to Update Survey Report

(Non-Def Survey)



51-01363

Report Date: February 18, 2012 - 07:31 PM Survey / DLS Computation: Minimum Curvature / Lubinski
 Client: Noble Energy Vertical Section Azimuth: 308.17° (Grid North)
 Field: WV Marshall County (NAD 27) Vertical Section Origin: 0.000 ft, 0.000 ft
 Structure / Skot: CND/Noble Energy SHL-3 Pad / Noble Energy SHL-3E-HS TVD Reference Datum: KB
 Well: SHL-3E-HS TVD Reference Elevation: 1312.090 ft above Unknown
 Borehole: Original Borehole Seobed / Ground Elevation: 1289.180 ft above Unknown
 UWI / AP#s: Unknown / Unknown Magnetic Declination: -8.748°
 Survey Name: Noble Energy SHL-3E-HS Gyros+MWD Off to Update Total Field Strength: 52687.715 nT
 Survey Date: November 07, 2011 Magnetic Dip Angle: 67.565°
 Tilt / AHD / DDI / ERD Ratio: 169.942° / 6353.745 ft / 6.282 / 0.957 Declination Date: November 07, 2011
 Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet Magnetic Declination Model: BGGM 2011
 Location Lat / Long: N 39° 58' 16.11766", W 80° 33' 25.00746" North Reference: Grid North
 Location Grid NE Y/X: N 537574.115 RUS, E 1703769.317 RUS Grid Convergence Used: -0.674°
 CRS Grid Convergence Angle: -0.87409194° Total Corr Mag North-Grid North: -0.074°
 Grid Scale Factor: 0.99959885 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	-1312.09	0.00	0.00	0.00	N/A	537074.12	1703769.32	N 39 58 16.12	W 80 33 25.01
	123.00	0.41	174.87	123.00	-1199.09	-0.30	-0.44	0.04	0.33	537573.68	1703769.36	N 39 58 16.11	W 80 33 25.01
	223.00	0.59	192.21	223.00	-1089.09	-0.77	-1.20	-0.04	0.22	537572.83	1703769.28	N 39 58 16.10	W 80 33 25.01
	323.00	0.33	152.06	322.99	-989.10	-1.25	-2.04	-0.01	0.39	537572.08	1703769.31	N 39 58 16.10	W 80 33 25.01
	423.00	0.32	144.18	422.99	-889.10	-1.78	-2.52	0.29	0.05	537571.60	1703769.61	N 39 58 16.09	W 80 33 25.00
	523.00	0.30	142.76	522.99	-789.10	-2.30	-2.95	0.61	0.02	537571.16	1703769.93	N 39 58 16.09	W 80 33 25.00
	623.00	0.30	205.38	622.99	-689.10	-2.82	-3.40	0.66	0.31	537570.72	1703769.98	N 39 58 16.08	W 80 33 25.00
	723.00	0.22	174.20	722.99	-589.10	-3.31	-3.83	0.57	0.16	537570.29	1703769.98	N 39 58 16.08	W 80 33 25.00
	823.00	0.28	164.47	822.99	-489.10	-3.14	-4.25	0.65	0.07	537569.86	1703769.97	N 39 58 16.08	W 80 33 25.00
	923.00	0.13	332.36	922.99	-389.10	-3.23	-4.39	0.68	0.41	537569.73	1703769.98	N 39 58 16.07	W 80 33 25.00
	1023.00	0.22	111.85	1022.99	-289.10	-3.31	-4.38	0.79	0.33	537669.76	1703770.11	N 39 58 16.07	W 80 33 25.00
	1123.00	0.28	176.36	1122.99	-189.11	-3.65	-4.87	0.67	0.28	537669.44	1703770.29	N 39 58 16.07	W 80 33 24.99
	1223.00	0.37	293.59	1222.99	-89.11	-3.51	-4.84	0.66	0.52	537669.27	1703769.98	N 39 58 16.07	W 80 33 25.00
	1323.00	0.57	250.32	1322.98	10.89	-2.95	-4.93	-4.12	0.33	537669.18	1703769.20	N 39 58 16.07	W 80 33 25.01
	1423.00	0.74	269.85	1422.97	110.88	-2.18	-5.10	-1.24	0.28	537669.01	1703768.08	N 39 58 16.07	W 80 33 25.02
	1523.00	0.97	301.23	1522.96	210.87	-0.92	-4.71	-2.53	0.45	537669.41	1703766.79	N 39 58 16.07	W 80 33 25.04
	1623.00	0.72	301.02	1622.96	310.87	0.46	-3.99	-3.72	0.19	537670.12	1703765.90	N 39 58 16.08	W 80 33 25.05
	1723.00	0.39	273.04	1722.95	410.86	1.38	-3.62	-4.59	0.39	537670.49	1703764.72	N 39 58 16.08	W 80 33 25.07
	1823.00	0.13	244.41	1822.95	510.86	1.72	-3.62	-5.03	0.29	537670.49	1703764.28	N 39 58 16.08	W 80 33 25.07
	1923.00	0.19	189.57	1922.95	610.86	1.70	-3.83	-5.16	0.16	537670.28	1703764.15	N 39 58 16.08	W 80 33 25.07
	2023.00	0.21	20.13	2022.95	710.88	1.67	-3.83	-5.13	0.40	537670.29	1703764.19	N 39 58 16.08	W 80 33 25.07
	2123.00	0.22	12.89	2122.95	810.86	1.77	-3.85	-5.04	0.29	537670.55	1703764.26	N 39 58 16.09	W 80 33 25.07
	2223.00	0.28	234.48	2222.95	910.86	1.89	-3.59	-5.22	0.38	537670.52	1703764.10	N 39 58 16.08	W 80 33 25.07
	2323.00	0.10	29.10	2322.95	1010.86	1.97	-3.66	-5.37	0.37	537670.46	1703763.94	N 39 58 16.08	W 80 33 25.08
	2423.00	0.40	295.38	2422.95	1110.86	2.33	-3.43	-5.65	0.42	537670.66	1703763.67	N 39 58 16.08	W 80 33 25.08
	2523.00	0.34	206.42	2522.95	1210.86	2.82	-3.47	-6.05	0.46	537670.55	1703763.26	N 39 58 16.08	W 80 33 25.08
	2623.00	0.44	305.26	2622.94	1310.85	2.96	-3.44	-6.46	0.53	537670.66	1703762.86	N 39 58 16.08	W 80 33 25.09
	2723.00	0.51	272.56	2722.94	1410.85	3.71	-3.19	-7.22	0.28	537670.92	1703762.10	N 39 58 16.09	W 80 33 25.10
	2823.00	0.42	344.76	2822.94	1510.85	4.37	-2.87	-7.76	0.55	537671.29	1703761.36	N 39 58 16.09	W 80 33 25.11
	2923.00	0.26	246.89	2922.94	1610.85	4.77	-2.56	-8.07	0.62	537671.56	1703761.25	N 39 58 16.09	W 80 33 25.11
	2983.00	0.49	301.44	2982.94	1670.85	6.09	-2.48	-8.41	0.67	537671.64	1703760.91	N 39 58 16.09	W 80 33 25.12
	3103.00	0.73	309.76	3102.93	1790.84	6.38	-1.72	-8.44	0.21	537672.40	1703759.88	N 39 58 16.10	W 80 33 25.13
	3196.00	2.12	327.72	3195.90	1883.81	6.58	-1.01	-8.12	1.55	537674.23	1703758.51	N 39 58 16.12	W 80 33 25.15
	3291.00	4.11	334.72	3290.78	1978.66	13.28	4.68	-13.20	2.13	537678.79	1703756.12	N 39 58 16.16	W 80 33 25.18
	3386.00	4.65	331.61	3385.48	2073.39	19.85	11.14	-16.49	0.62	537685.26	1703752.83	N 39 58 16.23	W 80 33 25.22
	3479.00	3.95	326.03	3477.22	2165.13	26.23	17.14	-18.89	0.79	537691.26	1703749.43	N 39 58 16.28	W 80 33 25.27
	3573.00	1.48	312.48	3572.10	2258.01	30.51	20.78	-22.48	2.70	537694.89	1703746.84	N 39 58 16.32	W 80 33 25.30
	3662.00	1.28	306.15	3661.10	2289.01	31.21	21.22	-23.02	0.87	537695.34	1703746.30	N 39 58 16.32	W 80 33 25.31
	3698.00	1.03	307.85	3695.08	2382.99	33.10	22.36	-24.53	0.27	537696.47	1703744.78	N 39 58 16.34	W 80 33 25.33
	3791.00	0.98	310.46	3790.06	2477.97	34.75	23.39	-25.82	0.09	537697.51	1703743.50	N 39 58 16.35	W 80 33 25.34
	3886.00	0.82	283.03	3885.05	2572.96	38.16	24.06	-27.03	0.47	537698.18	1703742.24	N 39 58 16.35	W 80 33 25.36
	3981.00	0.70	281.04	3980.04	2667.95	37.29	24.33	-28.31	0.13	537698.44	1703741.00	N 39 58 16.35	W 80 33 25.37
	4076.00	0.49	298.20	4075.04	2762.95	38.21	24.53	-29.24	0.29	537698.75	1703740.08	N 39 58 16.36	W 80 33 25.39
	4170.00	0.21	283.87	4169.04	2858.95	38.78	24.89	-29.76	0.31	537698.98	1703739.55	N 39 58 16.36	W 80 33 25.39
	4263.00	0.22	261.55	4264.04	2951.96	39.05	24.88	-30.11	0.09	537699.99	1703739.20	N 39 58 16.36	W 80 33 25.40
	4359.00	0.10	163.53	4358.03	3045.94	39.11	24.77	-30.27	0.27	537699.89	1703739.05	N 39 58 16.36	W 80 33 25.40
	4454.00	0.23	270.57	4453.03	3140.94	39.19	24.70	-30.44	0.29	537699.88	1703738.88	N 39 58 16.36	W 80 33 25.40
	4548.00	0.31	249.70	4547.03	3234.94	39.47	24.61	-30.86	0.13	537699.72	1703738.46	N 39 58 16.36	W 80 33 25.41
	4643.00	0.24	253.07	4642.03	3329.94	39.72	24.47	-31.30	0.08	537699.58	1703738.02	N 39 58 16.36	W 80 33 25.41
	4737.00	0.26	260.98	4736.03	3423.94	39.98	24.38	-31.70	0.04	537699.49	1703737.62	N 39 58 16.36	W 80 33 25.42
	4831.00	0.38	257.98	4830.03	3517.94	40.33	24.28	-32.21	0.13	537699.39	1703737.11	N 39 58 16.35	W 80 33 25.42
	4926.00	0.34	292.96	4925.03	3612.94	40.80	24.32	-32.78	0.23	537699.44	1703736.84	N 39 58 16.36	W 80 33 25.43
	5021.00	0.17	300.06	5020.03	3707.94	41.21	24.50	-33.16	0.18	537699.62	1703736.19	N 39 58 16.36	W 80 33 25.44
	5116.00	0.26	292.91	5114.03	3801.94	41.56	24.85	-33.48	0.10	537699.77	1703736.94	N 39 58 16.36	W 80 33 25.44
	5210.00	0.29	282.87	5209.03	3896.94	41.99	24.79	-33.91	0.06	537699.91	1703735.41	N 39 58 16.36	W 80 33 25.45
	5304.00	0.38	290.27	5303.02	3990.93	42.50	24.96	-34.43	0.11	537699.07	1703734.98	N 39 58 16.36	W 80 33 25.45
	5399.00	0.40	300.83	5398.02	4085.93	43.12	25.23	-35.01	0.08	537699.35	1703734.30	N 39 58 16.36	W 80 33 25.46
	5493.00	0.32	264.07	5492.02	4179.93	43.04	25.38	-35.56	0.25	537699.49	1703733.76	N 39 58 16.36	W 80 33 25.47
	5588.00	0.35	295.84	5587.02	4274.93	44.11	25.47	-36.08	0.20	537699.59	1703733.24	N 39 58 16.37	W 80 33 25.47
	5645.00	0.33	310.92	5644.02	4331.93	44.46	25.66	-36.36	0.16	537699.77	1703732.96	N 39 58 16.37	W 80 33 25.48
	5740.00	0.20	308.06	5733.02	4380.93	44.58	25.74	-36.47	0.45	537699.86	1703732.85	N 39 58 16.37	W 80 33 25.48
	5721.00	0.73	348.60	5720.02	4407.93	44.89	26.08	-36.59	1.27	537699.20	1703732.73	N 39 58 16.37	W 80 33 25.48
	5767.00	5.39	15.39	5765.94	4453.95	45.95	26.48	-36.08	10.33	537602.57	1703733.24	N 39 58 16.39	W 80 33 25.48
	5816.00	11.11	22.27	5814.41	4502.32	48.13	35.05	-33.67	11.83	537601.99	1703732.47	N 39 58 16.45	W 80 33 25.48
	5863.00	14.64	22.75	5860.24	4548.15	50.92	44.85	-29.89	7.09	537618.76	1703739.83	N 39 58 16.56	W 80 33 25.40
	5910.00	15.47	22.22	5906.54	4593.45	54.29	60.22	-24.91	4.33	537630.33	1703744.41	N 39 58 16.67	W 80 33 25.34
	5958.00	18.14	21.06	5951.37	4639.28	58.35	69.49	-19.63	3.55	537643.60	1703749.67	N 39 58 16.80	W 80 33 25.27
	6006.00	22.39	21.00	5995.45	4681.38	63.13	84.68	-13.81	9.04	537698.80	1703759.31	N 39 58 16.95	W 80 33 25.20
	6053.00	27.12	20.85	6039.02	4725.93	68.06	103.45	-8.63	9.86</				

51-01363

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVD95 (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7416.00	90.55	303.35	6840.85	5328.76	1097.31	915.03	-676.89	0.36	638489.11	1703082.46	N 39 58 25.08	W 80 33 33.84
	7513.00	90.58	303.42	6839.91	5327.82	1191.09	907.31	-756.20	0.37	638541.39	1703013.15	N 39 58 25.59	W 80 33 34.87
	7608.00	90.65	303.25	6838.90	5326.81	1285.66	1019.32	-835.37	0.19	638603.59	1702933.79	N 39 58 26.09	W 80 33 35.89
	7702.00	90.86	303.30	6837.56	5325.57	1380.31	1071.08	-914.15	0.23	638645.15	1702855.21	N 39 58 26.80	W 80 33 36.91
	7797.00	91.07	303.67	6836.06	5323.97	1474.99	1123.49	-993.37	0.45	638697.56	1702775.99	N 39 58 27.10	W 80 33 37.94
	7890.00	90.82	303.91	6834.52	5322.43	1567.71	1175.21	-1070.65	0.37	638749.27	1702698.71	N 39 58 27.61	W 80 33 38.94
	7987.00	91.07	304.24	6832.92	5320.83	1664.46	1229.55	-1150.99	0.43	638803.61	1702618.38	N 39 58 28.13	W 80 33 39.98
	8081.00	91.10	304.93	6831.14	5319.05	1758.26	1282.89	-1235.35	0.19	638856.96	1702541.01	N 39 58 28.55	W 80 33 40.98
	8175.00	90.58	305.78	6829.76	5317.67	1848.14	1337.28	-1305.02	1.06	638911.34	1702464.36	N 39 58 29.18	W 80 33 41.97
	8270.00	90.79	306.10	6828.63	5316.54	1947.07	1393.03	-1381.92	0.40	638967.29	1702387.45	N 39 58 29.72	W 80 33 42.97
	8365.00	90.69	306.14	6827.40	5315.31	2042.00	1449.03	-1458.66	0.11	639023.08	1702310.72	N 39 58 30.27	W 80 33 43.96
	8459.00	90.24	305.78	6826.64	5314.56	2135.93	1504.23	-1534.74	0.61	639078.28	1702234.64	N 39 58 30.80	W 80 33 44.95
	8554.00	90.07	305.95	6826.38	5314.29	2230.88	1558.88	-1611.73	0.25	639133.53	1702157.66	N 39 58 31.34	W 80 33 45.94
	8649.00	89.79	305.99	6826.50	5314.41	2325.79	1615.68	-1688.61	0.30	639189.73	1702080.78	N 39 58 31.89	W 80 33 46.94
	8743.00	89.18	305.71	6827.34	5315.26	2418.72	1670.73	-1764.80	0.71	639244.78	1702004.59	N 39 58 32.42	W 80 33 47.93
	8838.00	89.52	305.39	6828.42	5316.33	2514.61	1728.96	-1842.03	0.49	639300.00	1701927.31	N 39 58 32.96	W 80 33 48.93
	8933.00	90.10	305.35	6828.74	5316.65	2609.50	1780.95	-1919.56	0.51	639354.99	1701849.54	N 39 58 33.49	W 80 33 49.93
	9027.00	90.14	305.18	6828.54	5316.45	2703.39	1836.23	-1996.31	0.19	639409.26	1701773.10	N 39 58 34.02	W 80 33 50.93
	9122.00	90.14	305.22	6828.31	5316.22	2798.27	1889.99	-2073.93	0.04	639464.02	1701695.47	N 39 58 34.55	W 80 33 51.93
	9217.00	90.24	304.86	6827.99	5315.90	2893.13	1944.53	-2151.71	0.39	639518.56	1701617.70	N 39 58 35.08	W 80 33 52.94
	9311.00	90.14	305.12	6827.68	5315.59	2986.99	1998.43	-2228.72	0.30	639572.46	1701540.60	N 39 58 35.61	W 80 33 53.94
	9406.00	90.45	305.33	6827.19	5315.10	3081.87	2053.23	-2306.33	0.39	639627.39	1701463.79	N 39 58 36.14	W 80 33 54.94
	9501.00	90.96	305.66	6826.02	5313.93	3178.76	2108.40	-2381.66	0.55	639682.42	1701385.76	N 39 58 36.67	W 80 33 55.94
	9595.00	91.13	306.29	6824.31	5312.22	3270.68	2163.52	-2459.71	0.67	639737.64	1701309.72	N 39 58 37.21	W 80 33 56.93
	9690.00	90.93	308.23	6822.60	5310.51	3365.82	2219.80	-2538.30	0.22	639793.82	1701233.13	N 39 58 37.76	W 80 33 57.92
	9784.00	90.38	306.15	6821.53	5309.44	3459.56	2275.30	-2612.15	0.59	639849.31	1701157.27	N 39 58 38.30	W 80 33 58.90
	9878.00	90.69	306.16	6820.65	5308.56	3553.50	2330.77	-2688.04	0.33	639904.31	1701081.39	N 39 58 38.84	W 80 33 59.89
	9973.00	90.55	306.18	6819.62	5307.53	3648.44	2386.84	-2764.72	0.15	639959.60	1701004.72	N 39 58 39.38	W 80 34 0.88
	10067.00	90.55	306.87	6818.72	5308.63	3742.37	2442.13	-2840.74	0.33	640016.13	1700928.70	N 39 58 39.92	W 80 34 1.88
	10162.00	90.34	305.47	6817.98	5305.99	3837.29	2497.92	-2917.91	0.48	640071.53	1700851.53	N 39 58 40.46	W 80 34 2.86
	10256.00	90.45	305.24	6817.33	5305.24	3931.17	2551.91	-2994.57	0.27	640125.92	1700774.87	N 39 58 40.99	W 80 34 3.86
	10351.00	90.62	305.05	6816.44	5304.35	4026.04	2605.59	-3072.25	0.27	640180.60	1700697.20	N 39 58 41.52	W 80 34 4.86
	10445.00	90.82	305.00	6815.43	5303.34	4119.90	2660.54	-3149.22	0.05	640234.54	1700620.23	N 39 58 42.04	W 80 34 5.86
	10540.00	90.62	304.45	6814.48	5302.39	4214.73	2714.65	-3227.30	0.59	640288.75	1700542.16	N 39 58 42.57	W 80 34 6.87
	10634.00	90.55	304.31	6813.60	5301.51	4308.53	2767.73	-3304.88	0.15	640343.13	1700464.58	N 39 58 43.06	W 80 34 7.87
	10728.00	90.69	304.15	6812.50	5300.60	4402.31	2820.50	-3382.59	0.23	640394.60	1700386.87	N 39 58 43.59	W 80 34 8.88
	10823.00	90.62	303.49	6811.50	5299.41	4497.04	2873.48	-3461.61	0.70	640447.47	1700307.86	N 39 58 44.11	W 80 34 9.90
	10917.00	90.69	303.04	6810.43	5298.34	4590.89	2925.03	-3540.10	0.48	640499.02	1700229.37	N 39 58 44.61	W 80 34 10.92
	11011.00	90.72	302.60	6809.27	5297.18	4684.29	2976.98	-3619.09	0.47	640549.96	1700150.38	N 39 58 45.10	W 80 34 11.94
	11107.00	91.17	302.55	6808.69	5295.50	4779.33	3027.66	-3699.98	0.47	640601.64	1700069.50	N 39 58 45.80	W 80 34 12.99
	11202.00	91.34	302.67	6808.61	5293.82	4874.37	3078.84	-3779.98	0.22	640652.82	1699989.50	N 39 58 46.10	W 80 34 14.02
	11296.00	91.24	303.17	6808.49	5291.40	4967.96	3126.91	-3858.87	0.54	640703.89	1699910.62	N 39 58 46.60	W 80 34 15.05
	11391.00	91.00	303.15	6808.103	5289.54	5062.59	3181.87	-3938.38	0.25	640755.85	1699831.11	N 39 58 47.10	W 80 34 16.08
	11485.00	90.65	303.82	6808.27	5288.18	5167.25	3234.07	-4017.74	0.54	640808.04	1699751.76	N 39 58 47.61	W 80 34 17.10
	11580.00	90.17	303.34	6809.59	5287.50	5260.93	3283.85	-4096.19	0.65	640859.83	1699673.31	N 39 58 48.11	W 80 34 18.12
	11675.00	89.73	303.88	6809.60	5287.59	5345.64	3338.51	-4176.26	0.82	640912.48	1699594.24	N 39 58 48.62	W 80 34 19.14
	11770.00	89.88	304.27	6808.18	5286.09	5440.41	3391.80	-4253.90	0.31	640965.77	1699515.80	N 39 58 49.14	W 80 34 20.16
	11864.00	90.31	304.47	6806.21	5288.12	5534.21	3444.87	-4331.49	0.72	641018.83	1699438.01	N 39 58 49.65	W 80 34 21.16
	11959.00	90.14	304.22	6805.23	5287.74	5628.01	3498.46	-4409.33	0.32	641072.43	1699359.58	N 39 58 50.17	W 80 34 22.18
	12054.00	90.10	303.90	6805.63	5287.04	5723.77	3551.67	-4489.53	0.34	641125.63	1699280.86	N 39 58 50.69	W 80 34 23.20
	12148.00	90.65	303.71	6805.02	5286.93	5817.50	3603.97	-4566.73	0.62	641177.93	1699202.78	N 39 58 51.20	W 80 34 24.21
	12243.00	91.10	303.85	6807.57	5285.48	5912.22	3656.78	-4645.69	0.50	641230.74	1699123.83	N 39 58 51.71	W 80 34 25.23
	12337.00	91.55	304.21	6805.39	5283.30	6005.96	3709.37	-4723.57	0.81	641283.33	1699045.59	N 39 58 52.22	W 80 34 26.24
	12432.00	91.82	305.45	6802.64	5280.50	6096.76	3761.32	-4799.23	1.42	641335.27	1698967.29	N 39 58 52.72	W 80 34 27.21
Prod to TD	12511.00	91.92	305.45	6800.86	5277.77	6179.63	3809.43	-4865.81	0.60	641383.38	1698890.72	N 39 58 53.19	W 80 34 28.28

Survey Type: Non-Def Survey

Survey Error Model: ISCSWA Rev 0 *** 3-D 95.000% Confidence 2.7956 sigma
 Survey Program:

Description	MD From (ft)	MD To (ft)	ECU Freq	Survey Tool Type	Borehole / Survey
	0.00	22.910	Act Stns	SLB_NSG+MSHOT-Depth Only	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	22.910	22.910	Act Stns	SLB_NSG+MSHOT-Depth Only	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	22.910	2983.000	Act Stns	SLB_NSG+MSHOT	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	2983.000	3573.000	Act Stns	SLB_NSG+SSHOT	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	3573.000	8721.000	Act Stns	SLB_MWD-INC_ONLY	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	8721.000	7188.000	Act Stns	SLB_MWD+DMAG	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update
	7188.000	12511.000	Act Stns	SLB_MWD-STD	Original Borehole / Noble Energy SHL-3E-HS Gyros+MWD Dft to Update

04/04/2014