

51-01366



Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD Survey Report

(Def Survey)

Report Date:	February 02, 2012 - 11:58 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Noble Energy	Vertical Section Azimuth:	314.651 ° (Grid North)
Field:	WV Marshall County (NAD 27)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	CNX/Noble Energy SHL-3 Pad / Noble Energy SHL-3D-HS	TVD Reference Datum:	KB
Well:	SHL-3D-HS	TVD Reference Elevation:	1311.040 ft above Unknown
Borehole:	Original Borehole	Seabed / Ground Elevation:	1289.180 ft above Unknown
UWI / API#:	Unknown / Unknown	Magnetic Declination:	-8.746 °
Survey Name:	Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD	Total Field Strength:	62897.738 nT
Survey Date:	November 07, 2011	Magnetic Dip Angle:	87.569 °
Tort / AHD / DDI / ERD Ratio:	267.307 ° / 7024.734 ft / 6.564 / 1.058	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° 59' 16.30137", W 80° 33' 24.90766"	North Reference:	Grid North
Location Grid NE Y/X:	N 537582.821 IJUS, E 1703777.285 IJUS	Grid Convergence Used:	-0.674 °
CRS Grid Convergence Angle:	-0.67407430 °	Total Corr Mag North->Grid North:	-3.074 °
Grid Scale Factor:	0.99995885	Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVD88 (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	-1311.94	0.00	0.00	0.00	N/A	537582.82	1703777.28	N 39 58 16.30	W 80 33 24.91
	123.00	0.48	29.48	123.00	-1188.94	0.14	0.43	0.24	0.37	537593.06	1703777.52	N 39 58 16.31	W 80 33 24.90
	223.00	0.26	45.70	223.00	-1068.94	0.23	0.93	0.80	0.24	537593.55	1703777.88	N 39 58 16.31	W 80 33 24.90
	323.00	0.28	18.67	323.00	-988.94	0.32	1.32	0.88	0.15	537593.94	1703778.14	N 39 58 16.31	W 80 33 24.90
	423.00	0.23	330.92	422.99	-888.65	0.62	1.73	0.85	0.22	537594.35	1703778.13	N 39 58 16.32	W 80 33 24.90
	523.00	0.05	161.61	522.98	-788.95	0.77	1.87	0.78	0.28	537594.49	1703778.05	N 39 58 16.32	W 80 33 24.90
	623.00	0.24	324.60	622.80	-688.95	0.94	2.00	0.65	0.29	537594.62	1703777.94	N 39 58 16.32	W 80 33 24.90
	723.00	0.25	323.68	722.89	-588.95	1.36	2.34	0.40	0.01	537594.96	1703777.69	N 39 58 16.32	W 80 33 24.90
	823.00	0.28	355.48	822.89	-488.95	1.78	2.70	0.26	0.15	537595.38	1703777.54	N 39 58 16.33	W 80 33 24.91
	923.00	0.25	69.20	922.89	-388.96	1.85	3.08	0.44	0.32	537595.70	1703777.72	N 39 58 16.33	W 80 33 24.90
	1023.00	0.26	95.73	1022.99	-288.95	1.69	3.14	0.87	0.12	537595.76	1703778.15	N 39 58 16.33	W 80 33 24.90
	1123.00	0.13	273.99	1122.99	-188.95	1.60	3.12	0.98	0.39	537695.74	1703778.27	N 39 58 16.33	W 80 33 24.90
	1223.00	0.51	63.78	1222.99	-88.95	1.44	3.33	1.27	0.63	537595.95	1703778.55	N 39 58 16.33	W 80 33 24.89
	1323.00	0.83	49.77	1322.88	11.04	1.24	3.88	2.09	0.18	537606.60	1703776.37	N 39 58 16.34	W 80 33 24.88
	1423.00	0.42	14.61	1422.98	111.04	1.38	4.59	2.60	0.38	537597.21	1703778.88	N 39 58 16.35	W 80 33 24.88
	1523.00	0.46	335.01	1522.96	211.04	1.94	5.31	2.52	0.30	537597.93	1703779.81	N 39 58 16.35	W 80 33 24.88
	1623.00	0.63	301.65	1622.97	311.03	2.85	5.56	1.88	0.35	537598.58	1703779.17	N 39 58 16.34	W 80 33 24.88
	1723.00	0.61	300.65	1722.97	411.03	3.90	6.52	0.98	0.02	537599.14	1703778.24	N 39 58 16.37	W 80 33 24.90
	1823.00	0.40	287.15	1822.96	511.02	4.73	6.89	0.17	0.24	537599.61	1703777.45	N 39 58 16.37	W 80 33 24.91
	1923.00	0.64	298.51	1922.96	611.02	5.48	7.21	-0.59	0.16	537599.83	1703778.70	N 39 58 16.37	W 80 33 24.92
	2023.00	0.38	355.33	2022.96	711.02	6.17	7.73	-1.04	0.47	537600.35	1703776.25	N 39 58 16.38	W 80 33 24.92
	2123.00	0.62	297.07	2122.95	811.01	6.94	8.25	-1.46	0.45	537600.87	1703775.82	N 39 58 16.38	W 80 33 24.93
	2223.00	0.38	348.18	2222.95	911.01	7.53	8.77	-1.93	0.41	537601.39	1703775.36	N 39 58 16.39	W 80 33 24.93
	2323.00	0.37	337.90	2322.95	1011.01	8.09	9.37	-2.11	0.07	537601.89	1703775.18	N 39 58 16.39	W 80 33 24.94
	2423.00	0.56	273.94	2422.95	1111.01	8.75	9.70	-2.71	0.51	537602.33	1703774.58	N 39 58 16.40	W 80 33 24.94
	2523.00	0.72	290.32	2522.94	1211.00	9.68	9.96	-3.78	0.25	537602.58	1703773.51	N 39 58 16.40	W 80 33 24.96
	2623.00	0.49	263.46	2622.94	1311.00	10.52	10.13	-4.79	0.36	537602.75	1703772.49	N 39 58 16.40	W 80 33 24.97
	2723.00	0.59	266.82	2722.93	1410.99	11.14	10.05	-5.73	0.10	537602.87	1703771.58	N 39 58 16.40	W 80 33 24.98
	2823.00	0.65	311.04	2822.93	1510.99	12.05	10.39	-6.67	0.47	537603.01	1703770.61	N 39 58 16.40	W 80 33 25.00
	2923.00	0.80	308.77	2922.92	1610.98	13.40	11.28	-7.71	0.25	537603.88	1703769.57	N 39 58 16.41	W 80 33 25.01
	3023.00	1.24	301.31	3022.90	1710.98	15.23	12.31	-9.26	0.37	537604.93	1703768.04	N 39 58 16.42	W 80 33 25.03
	3108.00	1.10	288.10	3107.88	1798.94	16.86	13.04	-10.81	0.36	537605.66	1703766.48	N 39 58 16.43	W 80 33 25.05
	3162.00	1.34	301.88	3161.87	1849.83	17.64	13.54	-11.94	0.70	537606.18	1703765.45	N 39 58 16.43	W 80 33 25.06
	3193.00	1.22	298.16	3192.86	1880.92	18.51	13.88	-12.44	0.47	537606.50	1703764.85	N 39 58 16.44	W 80 33 25.07
	3287.00	1.23	277.28	3286.75	1974.81	22.32	14.79	-16.76	3.32	537607.41	1703760.53	N 39 58 16.45	W 80 33 25.13
	3383.00	5.59	273.32	3382.39	2070.45	28.64	16.51	-24.94	1.48	537608.13	1703762.35	N 39 58 16.45	W 80 33 25.23
	3411.00	5.18	271.26	3410.27	2098.33	30.68	15.82	-27.68	1.69	537608.24	1703749.73	N 39 58 16.45	W 80 33 25.26
	3474.00	6.39	271.72	3473.00	2161.06	34.81	15.77	-33.35	0.83	537608.39	1703743.94	N 39 58 16.45	W 80 33 25.34
	3601.00	4.96	271.19	3599.48	2287.54	43.18	16.06	-44.80	0.32	537608.68	1703732.49	N 39 58 16.45	W 80 33 25.49
	3696.00	3.98	269.18	3694.19	2382.25	48.45	16.10	-52.20	1.04	537608.72	1703725.08	N 39 58 16.45	W 80 33 25.58
	3791.00	-2.28	269.08	3789.05	2477.11	62.48	16.70	-57.28	2.13	537609.32	1703720.01	N 39 58 16.46	W 80 33 25.65
	3886.00	0.72	352.36	3884.02	2572.08	54.08	17.04	-59.13	2.15	537610.58	1703718.16	N 39 58 16.47	W 80 33 25.67
	3980.00	0.70	337.65	3979.01	2668.07	55.67	18.06	-59.42	0.19	537611.68	1703717.86	N 39 58 16.48	W 80 33 25.67
	4075.00	0.36	338.19	4073.01	2761.07	66.48	19.87	-59.75	0.36	537612.49	1703717.53	N 39 58 16.49	W 80 33 25.68
	4169.00	0.39	323.08	4167.01	2855.07	67.06	20.40	-60.08	0.11	537613.02	1703717.23	N 39 58 16.50	W 80 33 25.68
	4264.00	0.23	280.91	4262.01	2950.07	57.54	20.70	-60.44	0.28	537613.32	1703716.85	N 39 58 16.50	W 80 33 25.69
	4359.00	0.12	286.32	4356.01	3044.07	57.79	20.76	-60.72	0.12	537613.38	1703716.57	N 39 58 16.50	W 80 33 25.69
	4453.00	0.28	307.94	4451.00	3139.03	58.10	20.83	-61.00	0.16	537613.55	1703716.29	N 39 58 16.50	W 80 33 25.68
	4547.00	0.00	351.92	4545.00	3233.06	58.33	21.07	-61.18	0.30	537613.69	1703716.11	N 39 58 16.50	W 80 33 25.70
	4640.00	0.32	253.01	4638.00	3328.08	58.46	21.00	-61.42	0.34	537613.82	1703715.88	N 39 58 16.50	W 80 33 25.70
	4738.00	0.20	293.60	4734.00	3422.08	58.74	20.89	-61.83	0.22	537613.61	1703715.45	N 39 58 16.50	W 80 33 25.71
	4831.00	0.22	258.70	4828.00	3517.06	58.90	21.01	-62.18	0.14	537613.83	1703715.12	N 39 58 16.50	W 80 33 25.71
	4926.00	0.23	248.59	4924.00	3612.06	59.16	20.90	-62.52	0.04	537613.52	1703714.77	N 39 58 16.50	W 80 33 25.71
	5021.00	0.24	263.46	5019.00	3707.06	58.35	20.80	-62.86	0.07	537613.42	1703714.40	N 39 58 16.50	W 80 33 25.72
	5114.00	0.41	293.83	5112.00	3800.06	58.79	20.91	-63.39	0.25	537613.53	1703713.90	N 39 58 16.50	W 80 33 25.73
	5285.00	0.27	288.77	5283.00	3951.06	60.81	21.23	-64.22	0.10	537613.85	1703713.07	N 39 58 16.50	W 80 33 25.74
	5382.00	0.42	306.79	5380.00	3988.06	60.92	21.33	-64.41	0.51	537613.95	1703712.87	N 39 58 16.50	W 80 33 25.74
	5391.00	0.27	305.80	5388.09	4077.05	61.35	21.63	-64.85	0.17	537614.27	1703712.44	N 39 58 16.51	W 80 33 25.74
	5437.00	1.48	39.67	5434.99	4123.05	61.51	22.17	-64.58	3.27	537614.79	1703712.73	N 39 58 16.51	W 80 33 25.74
	5484.00	5.18	43.61	5481.99	4109.98	61.60	24.10	-62.72	7.88	537616.78	1703714.57	N 39 58 16.53	W 80 33 25.72
	5531.00	8.95	49.17	5528.54	4218.80	81.41	28.13	-58.54	8.15	537820.76	1703718.75	N 39 58 16.57	W 80 33 25.66
	5570.00	12.79	51.14	5575.67	4293.73	80.58	33.99	-61.61	8.08	537626.57	1703725.67	N 39 58 16.63	W 80 33 25.56
	5626.00	15.08	53.40	5621.28	4369.34	59.96	40.89	-62.05	5.01	537633.48	1703734.83	N 39 58 16.70	W 80 33 25.46
	5674.00	18.30	55.47	5667.28	4355.32	66.70	49.86	-51.43	6.82	537641.49	1703745.88	N 39 58 16.78	W 80 33 25.32
	5721.00	21.80	55.56	5711.43	4399.49	63.87	57.94	-18.21	7.02	537650.58	1703759.07	N 39 58 16.87	W 80 33 25.15
	5768.00	21.07	55.45	5764.50	4442.85	50.18	69.46	-2.90	7.17	537681.08	1703774.38	N 39 58 16.89	W 80 33 24.96
	5815.00	29.36	56.50	5796.40	4484.46	45.95	80.45	14.89					

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Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6194.00	45.94	36.55	6072.24	4760.30	13.00	238.04	218.88	8.72	537630.85	1703994.15	N 39 58 18.68 W	80 33 22.16	
	6242.00	45.28	31.43	6105.83	4793.89	19.34	266.45	236.05	7.74	537850.06	1704013.32	N 39 58 18.68 W	80 33 21.92	
	6288.00	44.78	25.90	6139.06	4827.12	28.48	256.60	261.90	8.38	537888.21	1704029.28	N 39 58 19.25 W	80 33 21.72	
	6337.00	44.62	19.26	6173.20	4861.26	41.15	328.74	284.94	9.73	537919.35	1704042.22	N 39 58 19.58 W	80 33 21.55	
	6384.00	48.20	13.08	6206.21	4894.27	57.12	358.86	274.23	10.05	537951.47	1704051.50	N 39 58 19.88 W	80 33 21.44	
	6432.00	47.01	8.04	6239.20	4927.28	76.68	393.13	280.61	7.91	537986.74	1704057.88	N 39 58 20.22 W	80 33 21.36	
	6478.00	47.25	3.30	6271.18	4959.24	98.32	427.39	284.01	7.41	538019.99	1704061.28	N 39 58 20.56 W	80 33 21.32	
	6526.00	48.89	358.41	6302.60	4990.68	122.52	482.33	284.61	8.49	538054.03	1704061.78	N 39 58 20.90 W	80 33 21.32	
	6573.00	51.03	352.09	6332.65	5020.91	149.65	498.18	281.79	9.03	538080.78	1704059.68	N 39 58 21.29 W	80 33 21.36	
	6621.00	50.89	348.04	6363.16	5051.22	179.81	534.89	275.66	8.93	538127.48	1704052.93	N 39 58 21.62 W	80 33 21.45	
	6670.00	61.83	344.47	6393.89	5081.95	212.31	571.85	266.50	5.99	538164.54	1704043.86	N 39 58 21.98 W	80 33 21.57	
	6718.00	53.05	340.83	6422.00	5110.06	244.45	606.69	256.72	6.98	538199.28	1704032.99	N 39 58 22.33 W	80 33 21.72	
	6765.00	53.04	338.05	6451.47	5139.53	280.00	643.35	241.97	4.53	538235.94	1704019.25	N 39 58 22.60 W	80 33 21.00	
	6810.00	53.94	334.10	6478.25	5168.31	313.86	678.39	227.30	7.33	538268.98	1704004.68	N 39 58 23.01 W	80 33 22.09	
	6859.00	57.54	332.97	6505.83	5193.89	351.97	712.64	209.25	7.59	538305.23	1703986.52	N 39 58 23.37 W	80 33 22.33	
	6907.00	61.19	330.92	6530.28	5218.34	391.40	749.07	185.82	6.44	538341.66	1703967.09	N 39 58 23.73 W	80 33 22.58	
	6952.00	65.31	327.77	6559.54	5238.60	430.26	783.61	169.32	11.08	538376.20	1703948.60	N 39 58 24.08 W	80 33 22.85	
	6999.00	68.89	325.59	6588.82	5256.98	472.60	819.78	145.52	8.73	538412.36	1703922.81	N 39 58 24.42 W	80 33 23.16	
	7046.00	71.42	322.23	6618.10	5272.84	516.22	855.49	119.49	8.81	538448.17	1703898.77	N 39 58 24.77 W	80 33 23.50	
	7094.00	74.31	317.60	6648.03	5288.99	561.68	896.56	89.95	11.01	538483.14	1703874.24	N 39 58 25.11 W	80 33 23.89	
	7141.00	77.35	313.87	6678.10	5298.50	607.42	932.17	58.15	10.05	538515.75	1703850.43	N 39 58 25.43 W	80 33 24.30	
	7188.00	80.22	312.02	6708.58	5307.64	653.50	954.57	24.41	7.22	538547.15	1703801.69	N 39 58 25.74 W	80 33 24.74	
	7235.00	81.83	309.84	6738.91	5314.97	709.82	984.98	-10.67	5.72	538577.56	1703768.82	N 39 58 26.03 W	80 33 25.19	
	7282.00	84.11	306.43	6769.07	5320.73	740.18	1013.78	-47.35	8.68	538606.36	1703729.94	N 39 58 26.31 W	80 33 25.87	
	7329.00	85.94	303.48	6798.74	5324.80	792.30	1040.59	-85.73	7.40	538633.17	1703691.66	N 39 58 26.57 W	80 33 26.17	
	7377.00	88.80	303.51	6829.78	5327.84	839.30	1087.02	-125.88	1.79	538659.60	1703651.61	N 39 58 26.83 W	80 33 26.68	
	7424.00	88.45	303.07	6861.73	5329.79	885.34	1092.80	-164.03	3.63	538686.37	1703612.36	N 39 58 27.08 W	80 33 27.19	
	7472.00	91.34	302.38	6894.42	5329.68	932.29	1118.74	-205.31	6.19	538711.32	1703571.99	N 39 58 27.33 W	80 33 27.71	
	7520.00	92.06	301.71	6927.81	5328.69	971.31	1138.96	-239.20	2.40	538732.53	1703530.10	N 39 58 27.54 W	80 33 28.15	
	7567.00	91.58	302.14	6961.63	5325.67	1013.93	1160.17	-319.79	0.08	538752.74	1703487.51	N 39 58 28.03 W	80 33 28.20	
	7615.00	91.24	301.24	6995.32	5323.36	1154.50	1239.01	-398.60	1.03	538771.68	1703445.41	N 39 58 28.60 W	80 33 30.22	
	7795.00	90.03	301.70	6933.53	5321.59	1247.01	1288.59	-479.01	0.58	538811.66	1703297.40	N 39 58 28.98 W	80 33 31.21	
	7890.00	90.89	302.30	6962.02	5320.08	1336.70	1338.03	-560.46	0.63	538851.49	1703216.85	N 39 58 29.47 W	80 33 32.31	
	7984.00	90.58	303.70	6990.81	5318.87	1431.75	1390.12	-639.28	1.53	538896.78	1703136.02	N 39 58 29.96 W	80 33 33.33	
	8079.00	90.03	304.84	7019.31	5318.37	1525.19	1443.61	-717.79	1.39	538938.17	1703059.52	N 39 58 30.48 W	80 33 34.35	
	8173.00	89.90	306.15	7048.36	5318.42	1619.59	1498.19	-794.32	1.40	538980.96	1702983.00	N 39 58 31.01 W	80 33 35.34	
	8288.00	89.70	306.70	7077.62	5318.88	1712.01	1554.60	-870.76	0.59	539014.75	1702906.56	N 39 58 31.58 W	80 33 36.33	
	8383.00	89.69	305.56	7107.19	5319.11	1805.96	1610.81	-947.49	1.20	539053.04	1702829.94	N 39 58 32.11 W	80 33 37.32	
	8487.00	89.66	307.49	7136.98	5319.48	1899.01	1668.55	-1023.02	2.06	539095.10	1702754.30	N 39 58 32.65 W	80 33 38.30	
	8592.00	89.78	308.86	7166.97	5319.77	1993.40	1725.27	-1097.70	1.44	539137.82	1702679.63	N 39 58 33.22 W	80 33 39.27	
	8697.00	89.78	309.73	7197.14	5320.14	2087.99	1785.43	-1171.22	0.92	539179.98	1702606.11	N 39 58 33.81 W	80 33 40.22	
	8842.00	89.83	310.66	7227.42	5320.48	2182.72	1848.99	-1243.63	1.29	539221.44	1702533.71	N 39 58 34.41 W	80 33 41.18	
	8838.00	90.24	312.43	7257.87	5320.43	2278.59	1909.44	-1313.82	1.53	539263.77	1702463.05	N 39 58 35.05 W	80 33 42.97	
	8931.00	90.45	313.58	7288.46	5319.85	2371.55	1974.24	-1383.30	1.63	539306.19	1702403.52	N 39 58 35.02 W	80 33 42.07	
	9025.00	90.82	316.05	7319.22	5318.98	2465.54	2039.90	-1455.55	1.57	539353.48	1702336.60	N 39 58 35.29 W	80 33 43.85	
	9120.00	90.41	316.22	7350.00	5318.12	2560.52	2107.81	-1516.97	1.25	539400.34	1702269.38	N 39 58 35.95 W	80 33 44.71	
	9215.00	90.48	318.03	7380.81	5317.38	2655.42	2177.43	-1581.60	1.91	539451.96	1702195.75	N 39 58 37.63 W	80 33 45.55	
	9309.00	90.45	319.43	7411.66	5316.62	2749.18	2248.08	-1643.60	1.49	539504.80	1702133.75	N 39 58 38.32 W	80 33 46.38	
	9404.00	90.41	318.61	7442.53	5315.91	2843.83	2320.33	-1705.27	0.19	539559.85	1702072.06	N 39 58 39.03 W	80 33 47.16	
	9499.00	90.45	316.80	7473.42	5315.20	2938.48	2392.79	-1766.71	0.20	539618.11	1702010.65	N 39 58 39.74 W	80 33 47.96	
	9595.00	90.52	319.83	7504.33	5314.39	3034.07	2466.13	-1828.65	0.08	540058.64	1701948.71	N 39 58 40.46 W	80 33 48.77	
	9689.00	90.27	318.40	7535.27	5313.73	3127.78	2537.19	-1890.18	1.54	540129.70	1701887.19	N 39 58 41.15 W	80 33 49.67	
	9783.00	90.34	317.76	7566.24	5313.23	3221.61	2607.16	-1952.96	0.85	540199.06	1701824.41	N 39 58 41.84 W	80 33 50.39	
	9877.00	90.65	317.69	7597.24	5312.42	3315.45	2678.88	-2015.99	0.39	540269.99	1701761.38	N 39 58 42.52 W	80 33 51.21	
	9972.00	90.82	317.66	7628.27	5311.37	3410.30	2747.30	-2079.75	0.32	540338.89	1701697.63	N 39 58 43.21 W	80 33 52.04	
	10068.00	90.96	318.29	7659.26	5310.07	3504.21	2816.03	-2143.88	1.53	540408.53	1701633.52	N 39 58 43.88 W	80 33 52.87	
	10160.00	90.88	313.56	7690.22	5308.58	3608.19	2882.63	-2210.17	2.48	540475.12	1701567.21	N 39 58 44.53 W	80 33 53.73	
	10254.00	89.63	311.71	7721.15	5307.93	3692.13	2946.55	-2270.08	2.56	540539.04	1701498.30	N 39 58 45.16 W	80 33 54.63	
	10349.00	89.11	309.84	7752.06	5308.73	3786.91	3008.67	-2350.94	1.23	540601.16	1701428.44	N 39 58 45.76 W	80 33 55.56	
	10443.00	90.14	307.10	7782.94	5309.34	3880.36	3067.20	-2424.48	3.21	540659.69	1701352.01	N 39 58 46.37 W	80 33 56.51	
	10539.00	91.17	304.53	7813.79	5308.25	3975.21	3123.37	-2502.31	2.88	540715.85	1701275.08	N 39 58 46.87 W	80 33 57.52	
	10632.00	90.72	303.59	7844.61	5306.71	4066.81	3175.45	-2579.35	1.12	540769.63	1701198.05	N 39 58 47.38 W	80 33 58.52	
	10729.00	90.62	302.62	7875.40	5305.41	4161.64	3228.42	-2660.59	1.01	540820.90	1701116.81	N 39 58 47.89 W	80 33 59.57	
	10821.00	90.60	302.21	7906.16	5304.20	4254.64	3277.73	-2738.25	0.47	540870.21	1701039.15	N 39 58 48.37 W	80 34 0.58	
	10916.00	90.31	302.16	7936.91										

51-01366

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	0.000		22.780	Act Stns	SLB_NSG+MSHOT-Depth Only					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	22.780		3108.000	Act Stns	SLB_NSG+MSHOT					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	3108.000		3383.000	Act Stns	SLB_NSG+SSHOT					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	3383.000		3411.000	Act Stns	SLB_MWD-INC_ONLY					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	3411.000		3474.000	Act Stns	SLB_NSG+SSHOT					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	3474.000		5302.000	Act Stns	SLB_MWD-INC_ONLY					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	5302.000		12879.000	Act Stns	SLB_MWD-STD					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			
	12879.000		12968.000	Act Stns	SLB_BLIND+TREND					Original Borehole / Noble Energy SHL-3D-HS Gyros+MWD 0' To 12968' MD			