



Scientific Drilling

Survey Report

Well Name:		LANTZ-MILLS UNIT 2 #3H					
Survey:		Computed from MWDRun Lantz-Mills Unit 2 #3H Run 1's Gyro Surveys and MWDRun Lantz-Mills Unit 2 #3H Run...					
Survey Date:		6/6/2010					
MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
108.00	0.25	83.39	108.00	-0.10	0.03	0.23	0.23
208.00	0.00	0.00	208.00	-0.19	0.05	0.45	0.25
308.00	0.00	0.00	308.00	-0.19	0.05	0.45	0.00
408.00	0.00	0.00	408.00	-0.19	0.05	0.45	0.00
508.00	0.25	348.90	508.00	0.01	0.27	0.41	0.25
608.00	0.25	183.16	608.00	0.04	0.26	0.35	0.50
708.00	0.00	0.00	708.00	-0.14	0.04	0.34	0.25
808.00	0.25	252.93	808.00	-0.09	-0.02	0.13	0.25
908.00	0.50	265.06	908.00	0.16	-0.12	-0.51	0.26
1008.00	0.50	271.19	1007.99	0.59	-0.15	-1.38	0.05
1108.00	0.75	284.32	1107.99	1.30	0.02	-2.45	0.29
1208.00	0.75	245.45	1207.98	1.85	-0.09	-3.68	0.50
1308.00	0.25	245.58	1307.97	1.96	-0.45	-4.47	0.50
1408.00	0.50	91.70	1407.97	1.74	-0.55	-4.24	0.73
1508.00	0.75	104.83	1507.97	1.03	-0.73	-3.17	0.29
1608.00	0.50	95.96	1607.96	0.29	-0.95	-2.10	0.27
1708.00	0.25	55.03	1707.96	0.04	-0.87	-1.49	0.35
1808.00	0.25	249.03	1807.96	0.09	-0.82	-1.51	0.50
1908.00	0.25	310.04	1907.96	0.34	-0.76	-1.88	0.25
2008.00	0.50	350.04	2007.96	0.95	-0.19	-2.13	0.35
2108.00	1.00	341.04	2107.95	2.21	1.07	-2.49	0.51
2208.00	1.00	357.04	2207.93	3.83	2.76	-2.81	0.28
2308.00	0.75	338.05	2307.92	5.24	4.24	-3.10	0.38
2408.00	0.50	316.05	2407.91	6.31	5.16	-3.65	0.34
2508.00	0.25	342.06	2507.91	6.95	5.69	-4.02	0.30
2608.00	0.25	344.06	2607.91	7.37	6.10	-4.15	0.01
2708.00	0.24	338.07	2707.91	7.79	6.51	-4.29	0.03
2808.00	0.50	331.09	2807.91	8.43	7.08	-4.58	0.26
2908.00	0.25	350.09	2907.91	9.07	7.68	-4.82	0.28
3008.00	0.25	356.10	3007.91	9.46	8.11	-4.88	0.03
3108.00	0.25	318.10	3107.90	9.87	8.49	-5.04	0.16
3208.00	0.25	301.10	3207.90	10.28	8.77	-5.37	0.07
3308.00	0.50	295.11	3307.90	10.84	9.07	-5.95	0.25
3408.00	0.50	330.11	3407.90	11.64	9.63	-6.56	0.30
3508.00	0.50	301.12	3507.89	12.46	10.23	-7.15	0.25
3608.00	0.50	291.12	3607.89	13.20	10.62	-7.94	0.09
3708.00	0.25	325.15	3707.89	13.76	10.95	-8.47	0.32
3808.00	0.25	309.20	3807.89	14.19	11.27	-8.76	0.07



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3908.00	0.25	333.26	3907.89	14.61	11.60	-9.03	0.10
4008.00	0.25	285.31	4007.89	14.99	11.85	-9.34	0.20
4108.00	0.50	273.36	4107.88	15.39	11.94	-9.98	0.26
4208.00	0.50	225.42	4207.88	15.55	11.66	-10.73	0.41
4308.00	0.50	210.47	4307.88	15.24	10.97	-11.26	0.13
4408.00	0.50	202.53	4407.87	14.78	10.19	-11.65	0.07
4508.00	0.25	220.58	4507.87	14.46	9.63	-11.96	0.27
4608.00	0.75	211.63	4607.87	14.10	8.90	-12.44	0.50
4708.00	0.25	206.96	4707.86	13.69	8.15	-12.89	0.50
4808.00	0.50	201.01	4807.86	13.31	7.55	-13.14	0.25
4908.00	0.50	183.06	4907.86	12.68	6.71	-13.32	0.16
5008.00	0.50	177.12	5007.85	11.94	5.83	-13.32	0.05
5108.00	0.50	197.17	5107.85	11.27	4.98	-13.43	0.17
5208.00	0.50	207.22	5207.84	10.76	4.18	-13.76	0.09
5308.00	0.25	208.28	5307.84	10.42	3.60	-14.06	0.25
5408.00	0.25	187.33	5407.84	10.14	3.19	-14.19	0.09
5508.00	0.25	162.41	5507.84	9.76	2.76	-14.15	0.11
5600.00	0.25	162.41	5599.84	9.37	2.38	-14.03	0.00
5670.00	0.43	251.33	5669.84	9.28	2.15	-14.23	0.70
5702.00	1.80	287.88	5701.83	9.69	2.27	-14.83	4.63
5734.00	3.76	279.60	5733.79	10.76	2.60	-16.34	6.24
5766.00	5.56	286.52	5765.69	12.60	3.21	-18.86	5.88
5796.00	7.66	291.67	5795.48	15.29	4.37	-22.11	7.25
5827.00	9.96	291.20	5826.12	19.07	6.10	-26.53	7.43
5858.00	11.21	292.41	5856.59	23.64	8.22	-31.82	4.10
5889.00	12.69	293.72	5886.92	28.88	10.73	-37.72	4.84
5920.00	14.46	294.28	5917.05	34.87	13.70	-44.37	5.75
5951.00	16.23	292.51	5946.94	41.58	16.94	-51.90	5.88
5982.00	18.13	289.92	5976.56	48.86	20.25	-60.43	6.61
6013.00	20.17	286.67	6005.84	56.62	23.42	-70.09	7.43
6043.00	21.45	284.43	6033.89	64.42	26.27	-80.36	5.04
6074.00	23.30	286.21	6062.55	73.03	29.40	-91.74	6.34
6104.00	24.46	285.90	6089.98	82.00	32.75	-103.41	3.91
6135.00	25.96	286.95	6118.03	91.80	36.49	-116.07	5.05
6166.00	27.63	288.68	6145.70	102.41	40.77	-129.37	5.92
6197.00	29.00	290.66	6172.99	113.87	45.73	-143.21	5.38
6227.00	30.35	292.81	6199.06	125.77	51.23	-157.01	5.71
6259.00	31.00	293.47	6226.58	139.09	57.65	-172.02	2.30



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MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft
6290.00	32.55	294.47	6252.93	152.55	64.28	-186.93	5.29
6320.00	33.91	294.36	6278.03	166.17	71.08	-201.90	4.51
6351.00	35.71	296.07	6303.48	180.96	78.62	-217.91	6.59
6382.00	36.80	297.51	6328.48	196.56	86.88	-234.27	4.48
6413.00	38.00	298.17	6353.10	212.77	95.68	-250.91	4.07
6444.00	39.17	299.23	6377.34	229.55	104.96	-267.87	4.34
6476.00	40.42	300.11	6401.92	247.50	115.10	-285.66	4.31
6507.00	42.89	301.02	6425.08	265.70	125.58	-303.40	8.18
6538.00	44.90	300.74	6447.42	284.75	136.61	-321.85	6.53
6568.00	46.85	301.22	6468.31	303.85	147.70	-340.31	6.60
6599.00	47.91	301.11	6489.30	324.12	159.50	-359.83	3.42
6631.00	49.16	302.63	6510.49	345.56	172.16	-380.19	5.29
6663.00	50.81	304.35	6531.07	367.78	185.69	-400.62	6.60
6695.00	52.10	305.53	6551.01	390.72	200.02	-421.14	4.95
6727.00	53.50	306.27	6570.36	414.26	214.97	-441.78	4.76
6758.00	53.62	306.31	6588.77	437.35	229.73	-461.88	0.41
6790.00	54.51	308.13	6607.55	461.50	245.40	-482.51	5.39
6822.00	57.01	309.05	6625.55	486.38	261.90	-503.19	8.15
6854.00	59.19	310.54	6642.46	512.11	279.29	-524.05	7.89
6886.00	61.20	312.77	6658.37	538.69	297.75	-544.79	8.70
6918.00	63.69	314.03	6673.17	566.08	317.24	-565.40	8.54
6950.00	66.15	314.74	6686.74	594.19	337.52	-586.11	7.96
6981.00	69.05	315.99	6698.55	622.10	357.91	-606.24	10.07
7013.00	70.86	316.44	6709.52	651.48	379.62	-627.04	5.79
7045.00	72.35	317.09	6719.61	681.21	401.74	-647.84	5.06
7077.00	72.64	316.29	6729.24	711.09	423.95	-668.77	2.54
7109.00	73.15	317.54	6738.65	741.05	446.28	-689.66	4.05
7140.00	75.63	320.06	6746.99	770.48	468.75	-709.32	11.19
7172.00	78.19	320.15	6754.24	801.31	492.66	-729.31	7.98
7204.00	80.28	321.62	6760.22	832.47	517.05	-749.14	7.96
7236.00	82.08	323.08	6765.12	863.91	542.08	-768.45	7.21
7268.00	84.16	325.32	6768.95	895.59	567.85	-787.03	9.51
7300.00	86.44	325.73	6771.58	927.44	594.14	-805.08	7.23
7332.00	88.28	326.68	6773.05	959.38	620.70	-822.86	6.49
7363.00	89.23	326.56	6773.72	990.35	646.58	-839.92	3.06
7395.00	90.03	326.72	6773.93	1022.34	673.31	-857.51	2.58
7427.00	89.83	327.15	6773.97	1054.33	700.13	-874.97	1.47
7459.00	89.83	328.04	6774.06	1086.32	727.14	-892.12	2.79



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Well Name:		LANTZ-MILLS UNIT 2 #3H					
Survey:		Computed from MWDRun Lantz-Mills Unit 2 #3H Run 1's Gyro Surveys and MWDRun Lantz-Mills Unit 2 #3H Run...					
Survey Date:		6/6/2010					
MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft
7490.00	90.44	328.64	6773.99	1117.32	753.53	-908.39	2.75
7522.00	91.04	328.93	6773.58	1149.32	780.89	-924.97	2.10
7554.00	91.31	329.18	6772.92	1181.31	808.34	-941.42	1.15
7585.00	90.81	329.96	6772.34	1212.30	835.06	-957.12	2.97
7617.00	90.57	330.11	6771.96	1244.28	862.78	-973.10	0.89
7648.00	90.24	331.25	6771.74	1275.26	889.81	-988.28	3.84
7680.00	90.34	331.72	6771.58	1307.21	917.93	-1003.56	1.49
7712.00	90.30	331.65	6771.40	1339.16	946.10	-1018.73	0.25
7744.00	90.13	331.29	6771.28	1371.12	974.21	-1034.02	1.24
7775.00	90.27	332.24	6771.17	1402.07	1001.52	-1048.68	3.10
7807.00	90.67	332.50	6770.91	1433.99	1029.87	-1063.52	1.50
7839.00	91.21	332.45	6770.38	1465.91	1058.25	-1078.31	1.68
7871.00	90.10	332.74	6770.02	1497.82	1086.65	-1093.03	3.58
7903.00	90.17	332.47	6769.94	1529.74	1115.07	-1107.76	0.88
7966.00	90.71	333.34	6769.46	1592.55	1171.15	-1136.45	1.62
8030.00	90.94	332.92	6768.54	1656.33	1228.23	-1165.37	0.75
8093.00	90.13	334.72	6767.95	1719.05	1284.77	-1193.16	3.13
8157.00	90.24	334.66	6767.74	1782.67	1342.62	-1220.52	0.18
8221.00	90.40	334.10	6767.39	1846.33	1400.33	-1248.20	0.92
8284.00	90.91	334.16	6766.67	1909.02	1457.01	-1275.69	0.80
8348.00	90.34	335.30	6765.97	1972.63	1514.88	-1303.01	2.00
8411.00	90.71	335.58	6765.40	2035.17	1572.18	-1329.19	0.74
8475.00	90.57	336.51	6764.69	2098.60	1630.66	-1355.18	1.46
8539.00	90.54	335.54	6764.07	2162.04	1689.13	-1381.18	1.52
8602.00	91.18	335.13	6763.12	2224.59	1746.38	-1407.47	1.20
8666.00	91.14	334.62	6761.83	2288.17	1804.31	-1434.64	0.79
8729.00	90.57	334.22	6760.89	2350.83	1861.13	-1461.84	1.11
8793.00	90.94	334.43	6760.04	2414.49	1918.80	-1489.57	0.67
8857.00	90.10	334.77	6759.46	2478.12	1976.62	-1517.01	1.41
8921.00	90.34	334.80	6759.22	2541.73	2034.52	-1544.28	0.37
8985.00	90.71	334.76	6758.63	2605.34	2092.42	-1571.55	0.58
9048.00	90.84	334.47	6757.78	2667.97	2149.33	-1598.55	0.51
9112.00	90.91	333.80	6756.81	2731.65	2206.91	-1626.46	1.05
9176.00	91.08	333.20	6755.70	2795.39	2264.18	-1655.02	0.98
9240.00	91.48	334.68	6754.27	2859.08	2321.65	-1683.13	2.39
9304.00	90.91	335.11	6752.93	2922.67	2379.60	-1710.27	1.12
9367.00	91.18	335.37	6751.79	2985.22	2436.80	-1736.65	0.59
9431.00	91.01	334.52	6750.57	3048.80	2494.76	-1763.75	1.36
9495.00	90.81	333.52	6749.56	3112.49	2552.29	-1791.78	1.59



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 Survey Date: 6/6/2010

MD ft	Inc deg	Azim deg	TVD ft	VS ft	Northing ft	Easting ft	DLS deg/100ft
9558.00	90.94	333.40	6748.59	3175.24	2608.64	-1819.93	0.28
9622.00	89.90	333.09	6748.13	3239.02	2665.79	-1848.74	1.70
9686.00	89.73	332.53	6748.33	3302.83	2722.71	-1877.98	0.92
9749.00	90.03	332.73	6748.46	3365.67	2778.66	-1906.95	0.58
9813.00	90.50	332.13	6748.16	3429.51	2835.39	-1936.57	1.20
9876.00	90.37	331.16	6747.68	3492.41	2890.83	-1966.49	1.55
9940.00	90.74	331.89	6747.06	3556.32	2947.08	-1997.00	1.27
10004.00	91.65	333.17	6745.73	3620.14	3003.85	-2026.52	2.46
10068.00	90.77	333.19	6744.38	3683.91	3060.96	-2055.39	1.36
10131.00	90.34	332.73	6743.77	3746.72	3117.06	-2084.03	1.00
10195.00	91.01	333.14	6743.02	3810.52	3174.05	-2113.15	1.23
10259.00	91.31	334.42	6741.72	3874.23	3231.45	-2141.42	2.06
10323.00	90.40	334.59	6740.76	3937.87	3289.21	-2168.97	1.44
10386.00	90.54	334.59	6740.25	4000.50	3346.12	-2196.00	0.21
10450.00	91.24	334.42	6739.25	4064.14	3403.88	-2223.54	1.13
10514.00	89.76	334.65	6738.69	4127.78	3461.66	-2251.06	2.34
10578.00	89.13	334.55	6739.31	4191.41	3519.47	-2278.51	1.01
10640.00	89.70	334.79	6739.95	4253.04	3575.50	-2305.03	1.00
10703.00	90.07	334.78	6740.08	4315.66	3632.50	-2331.87	0.59
10766.00	90.37	334.91	6739.84	4378.27	3689.52	-2358.65	0.52
10829.00	90.17	334.41	6739.54	4440.90	3746.46	-2385.62	0.85
10892.00	90.94	334.58	6738.93	4503.55	3803.32	-2412.74	1.26
10955.00	91.81	334.69	6737.41	4566.17	3860.23	-2439.72	1.39
11019.00	90.71	334.17	6736.01	4629.81	3917.94	-2467.34	1.91
11083.00	90.84	334.22	6735.14	4693.48	3975.56	-2495.19	0.22
11146.00	90.81	333.07	6734.24	4756.22	4032.00	-2523.16	1.83
11210.00	90.71	333.43	6733.40	4819.99	4089.15	-2551.96	0.58
11273.00	91.01	333.61	6732.45	4882.74	4145.53	-2580.05	0.56
11337.00	91.24	333.52	6731.20	4946.47	4202.82	-2608.54	0.39
11400.00	91.31	332.91	6729.79	5009.24	4259.05	-2636.92	0.97
11464.00	90.57	331.97	6728.74	5073.08	4315.78	-2666.53	1.86
11527.00	90.97	331.72	6727.89	5135.96	4371.32	-2696.25	0.75
11591.00	91.01	331.89	6726.79	5199.84	4427.72	-2726.49	0.27
11655.00	91.95	332.07	6725.13	5263.70	4484.20	-2756.54	1.49

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