



Company: Chesapeake Appalachia L.L.C  
 Field: Marcellus Shale  
 Cty/Blk/Par: Wetzel Co., WV  
 Well Name: Stansberry 10H  
 Rig: Nomac 242

Job Number: 4552  
 Magnetic Decl.: -8.48  
 Grid Corr.: 0.76  
 Total Survey Corr.: -7.73  
 Target Info: N/a

Calculation Method Minimum Curvature 103-2448  
 Proposed Azimuth 136.8  
 Depth Reference Driller  
 Tie Into: EM Surveys

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
0	Tie In	6633	9.69	35.16	0	6579.57	-61.21	477.41 N	403.44 E	0	0	0	0	0
1	MWD	6681	9.80	37.00	48	6626.88	-73.35	483.98 N	408.22 E	633.15	40.15	0.69	0.2	3.83
2	MWD	6725	10.30	58.00	44	6670.22	-73.23	489.05 N	413.82 E	640.64	40.24	8.36	1.1	47.7
3	MWD	6768	14.00	80.70	43	6712.27	-69.58	491.93 N	422.22 E	648.28	40.64	13.90	8.6	52.8
4	MWD	6811	17.80	94.60	43	6753.63	-61.80	492.25 N	433.91 E	656.19	41.40	12.45	8.8	32.3
5	MWD	6855	20.60	107.10	44	6795.20	-50.09	489.43 N	448.02 E	663.52	42.47	11.27	6.4	28.4
6	MWD	6898	24.90	116.00	43	6834.86	-35.04	483.23 N	463.40 E	669.52	43.80	12.78	10.0	20.7
7	MWD	6942	29.90	122.30	44	6873.92	-15.75	473.30 N	481.01 E	674.82	45.46	13.12	11.4	14.3
8	MWD	6985	33.80	125.50	43	6910.44	6.37	460.62 N	499.81 E	679.70	47.34	9.88	9.1	7.4
9	MWD	7029	37.70	125.90	44	6946.14	31.59	445.62 N	520.68 E	685.34	49.44	8.88	8.9	0.9
10	MWD	7072	41.20	125.60	43	6979.34	58.40	429.66 N	542.86 E	692.32	51.64	8.15	8.1	-0.7
11	MWD	7116	45.70	125.40	44	7011.27	88.06	412.10 N	567.48 E	701.33	54.01	10.23	10.2	-0.5
12	MWD	7159	49.40	126.90	43	7040.29	119.24	393.38 N	593.09 E	711.69	56.45	8.98	8.6	3.5
13	MWD	7202	53.80	129.50	43	7067.00	152.55	372.53 N	619.55 E	722.92	58.98	11.28	10.2	6.0
14	MWD	7246	60.20	131.50	44	7090.95	189.21	348.56 N	647.58 E	735.42	61.71	15.04	14.5	4.5
15	MWD	7289	65.30	132.30	43	7110.63	227.28	323.03 N	676.02 E	749.23	64.46	11.98	11.9	1.9
16	MWD	7333	69.00	132.70	44	7127.72	267.71	295.64 N	705.90 E	765.31	67.28	8.45	8.4	0.9
17	MWD	7376	72.70	133.30	43	7141.82	308.23	267.94 N	735.61 E	782.88	69.99	8.70	8.6	1.4
18	MWD	7419	77.10	132.30	43	7153.02	349.64	239.75 N	766.06 E	802.70	72.62	10.48	10.2	-2.3
19	MWD	7463	82.20	130.20	44	7160.92	392.70	211.22 N	798.60 E	826.06	75.18	12.51	11.6	-4.8
20	MWD	7506	87.40	131.00	43	7164.82	435.26	183.36 N	831.10 E	851.08	77.56	12.23	12.1	1.9
21	MWD	7550	89.20	131.10	44	7166.12	479.02	154.48 N	864.26 E	877.96	79.87	4.10	4.1	0.2
22	MWD	7593	90.00	131.00	43	7166.42	521.80	126.24 N	896.69 E	905.53	81.99	1.87	1.9	-0.2
23	MWD	7680	91.10	133.30	87	7165.59	608.50	67.87 N	961.18 E	963.58	85.96	2.93	1.3	2.6
24	MWD	7767	89.10	133.30	87	7165.44	695.34	8.20 N	1024.50 E	1024.53	89.54	2.30	-2.3	0.0
25	MWD	7854	88.70	132.30	87	7167.11	782.11	50.90 S	1088.32 E	1089.51	92.68	1.24	-0.5	-1.1
26	MWD	7941	89.00	130.40	87	7168.85	868.69	108.36 S	1153.61 E	1158.69	95.37	2.21	0.3	-2.2
27	MWD	8028	88.80	133.90	87	7170.52	955.38	166.72 S	1218.09 E	1229.45	97.79	4.03	-0.2	4.0
28	MWD	8114	89.80	134.60	86	7171.57	1041.28	226.73 S	1279.69 E	1299.62	100.05	1.42	1.2	0.8
29	MWD	8201	87.60	136.30	87	7173.55	1128.23	288.70 S	1340.70 E	1371.43	102.15	3.20	-2.5	2.0
30	MWD	8288	88.80	137.50	87	7176.28	1215.18	352.19 S	1400.11 E	1443.73	104.12	1.95	1.4	1.4



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103-02448

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
31	MWD	8375	89.70	138.80	87	7177.42	1302.15	416.99 S	1458.15 E	1516.60	105.96	1.82	1.0	1.5
32	MWD	8462	88.70	138.50	87	7178.63	1389.09	482.29 S	1515.62 E	1590.51	107.65	1.20	-1.1	-0.3
33	MWD	8548	87.80	136.80	86	7181.26	1475.04	545.82 S	1573.53 E	1665.50	109.13	2.24	-1.0	-2.0
34	MWD	8635	89.10	137.50	87	7183.61	1562.00	609.58 S	1632.67 E	1742.75	110.47	1.70	1.5	0.8
35	MWD	8722	88.50	136.40	87	7185.44	1648.98	673.14 S	1692.04 E	1821.02	111.69	1.44	-0.7	-1.3
36	MWD	8808	88.60	135.80	86	7187.61	1734.95	735.09 S	1751.66 E	1899.65	112.77	0.71	0.1	-0.7
37	MWD	8895	89.10	135.80	87	7189.36	1821.92	797.44 S	1812.30 E	1979.99	113.75	0.57	0.6	0.0
38	MWD	8982	90.70	136.50	87	7189.51	1908.91	860.18 S	1872.57 E	2060.68	114.67	2.01	1.8	0.8
39	MWD	9069	91.90	136.10	87	7187.54	1995.88	923.06 S	1932.66 E	2141.78	115.53	1.45	1.4	-0.5
40	MWD	9155	91.10	136.10	86	7185.28	2081.84	985.01 S	1992.27 E	2222.47	116.31	0.93	-0.9	0.0
41	MWD	9242	89.90	136.00	87	7184.53	2168.83	1047.64 S	2052.65 E	2304.54	117.04	1.38	-1.4	-0.1
42	MWD	9329	90.40	136.00	87	7184.30	2255.82	1110.22 S	2113.08 E	2386.99	117.72	0.57	0.6	0.0
43	MWD	9416	91.00	135.90	87	7183.23	2342.80	1172.75 S	2173.57 E	2469.76	118.35	0.70	0.7	-0.1
44	MWD	9503	86.60	132.60	87	7185.06	2429.67	1233.42 S	2235.85 E	2553.49	118.88	6.32	-5.1	-3.8
45	MWD	9590	88.00	133.80	87	7189.15	2516.39	1292.91 S	2299.19 E	2637.78	119.35	2.12	1.6	1.4
46	MWD	9677	88.50	134.60	87	7191.81	2603.26	1353.53 S	2361.53 E	2721.93	119.82	1.08	0.6	0.9
47	MWD	9764	88.90	135.30	87	7193.79	2690.19	1414.98 S	2423.09 E	2805.98	120.28	0.93	0.5	0.8
48	MWD	9850	89.80	136.20	86	7194.76	2776.17	1476.58 S	2483.09 E	2888.95	120.74	1.48	1.0	1.0
49	MWD	9937	90.90	136.90	87	7194.23	2863.17	1539.73 S	2542.92 E	2972.75	121.19	1.50	1.3	0.8
50	MWD	10024	88.50	134.60	87	7194.69	2950.14	1602.04 S	2603.62 E	3057.02	121.60	3.82	-2.8	-2.6
51	MWD	10111	89.20	133.50	87	7196.43	3037.02	1662.52 S	2666.14 E	3142.01	121.95	1.50	0.8	-1.3
52	MWD	10197	86.70	129.90	86	7199.51	3122.60	1719.68 S	2730.29 E	3226.73	122.20	5.09	-2.9	-4.2
53	MWD	10284	88.30	131.80	87	7203.30	3209.05	1776.53 S	2796.03 E	3312.68	122.43	2.85	1.8	2.2
54	MWD	10371	88.60	132.10	87	7205.66	3295.70	1834.66 S	2860.71 E	3398.48	122.67	0.49	0.3	0.3
55	MWD	10458	90.40	133.80	87	7206.42	3382.50	1893.94 S	2924.38 E	3484.11	122.93	2.85	2.1	2.0
56	MWD	10545	90.30	134.70	87	7205.88	3469.41	1954.64 S	2986.70 E	3569.45	123.20	1.04	-0.1	1.0
57	MWD	10631	90.90	137.10	86	7204.98	3555.39	2016.39 S	3046.54 E	3653.39	123.50	2.88	0.7	2.8
58	MWD	10675	89.90	135.40	44	7204.68	3599.38	2048.17 S	3076.96 E	3696.31	123.65	4.48	-2.3	-3.9
59	MWD	10718	89.80	134.50	43	7204.79	3642.36	2078.55 S	3107.40 E	3738.49	123.78	2.11	-0.2	-2.1
60	MWD	10805	91.20	136.90	87	7204.03	3729.33	2140.81 S	3168.15 E	3823.64	124.05	3.19	1.6	2.8

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61	MWD	10892	90.70	137.50	87	7202.59	3816.32	2204.63 S	3227.25 E	3908.40	124.34	0.90	-0.6	0.7
62	MWD	10979	88.80	137.00	87	7202.97	3903.31	2268.52 S	3286.31 E	3993.24	124.62	2.26	-2.2	-0.6
63	MWD	11065	88.40	137.10	86	7205.07	3989.28	2331.44 S	3344.88 E	4077.24	124.88	0.48	-0.5	0.1
64	MWD	11152	87.10	137.60	87	7208.48	4076.21	2395.38 S	3403.78 E	4162.16	125.14	1.60	-1.5	0.6
65	MWD	11239	87.90	137.80	87	7212.28	4163.11	2459.67 S	3462.28 E	4247.04	125.39	0.95	0.9	0.2
66	MWD	11326	89.80	138.50	87	7214.02	4250.07	2524.46 S	3520.31 E	4331.91	125.64	2.33	2.2	0.8
67	MWD	11413	88.80	137.10	87	7215.09	4337.04	2588.90 S	3578.74 E	4416.99	125.88	1.98	-1.1	-1.6
68	MWD	11500	90.10	137.70	87	7215.92	4424.03	2652.94 S	3637.62 E	4502.26	126.10	1.65	1.5	0.7
69	MWD	11586	89.20	136.10	86	7216.45	4510.03	2715.73 S	3696.38 E	4586.77	126.30	2.13	-1.0	-1.9
70	MWD	11673	89.70	136.70	87	7217.28	4597.02	2778.73 S	3756.38 E	4672.44	126.49	0.90	0.6	0.7
71	MWD	11760.00	89.20	136.60	87	7218.12	4684.02	2841.99 S	3816.09 E	4758.10	126.68	0.59	-0.6	-0.1
72	MWD	11847.00	88.40	137.30	87	7219.94	4771.00	2905.55 S	3875.47 E	4843.71	126.86	1.22	-0.9	0.8
73	MWD	11934.00	89.80	138.00	87	7221.31	4857.97	2969.84 S	3934.07 E	4929.18	127.05	1.80	1.6	0.8
74	MWD	12020.00	87.30	136.10	86	7223.48	4943.93	3032.76 S	3992.64 E	5013.86	127.22	3.65	-2.9	-2.2
75	MWD	12064.00	87.80	136.00	44	7225.36	4987.89	3064.40 S	4023.15 E	5057.30	127.30	1.16	1.1	-0.2
76	MWD	12107.00	86.90	134.60	43	7227.35	5030.83	3094.94 S	4053.36 E	5099.84	127.36	3.87	-2.1	-3.3
77	MWD	12194.00	87.00	134.00	87	7231.98	5117.62	3155.61 S	4115.54 E	5186.09	127.48	0.70	0.1	-0.7
78	MWD	12281.00	87.50	134.50	87	7236.16	5204.43	3216.25 S	4177.78 E	5272.39	127.59	0.81	0.6	0.6
79	MWD	12367.00	88.90	135.00	86	7238.86	5290.33	3276.76 S	4238.83 E	5357.69	127.71	1.73	1.6	0.6
80	MWD	12454.00	90.30	135.00	87	7239.46	5377.29	3338.28 S	4300.34 E	5443.99	127.82	1.61	1.6	0.0
81	MWD	12541.00	91.60	135.00	87	7238.02	5464.23	3399.79 S	4361.85 E	5530.31	127.93	1.49	1.5	0.0
82	MWD	12628.00	90.70	136.70	87	7236.28	5551.20	3462.19 S	4422.44 E	5616.47	128.06	2.21	-1.0	2.0
83	MWD	12715.00	89.10	138.00	87	7236.43	5638.19	3526.18 S	4481.38 E	5702.34	128.20	2.37	-1.8	1.5
84	MWD	12802.00	89.90	137.80	87	7237.19	5725.17	3590.73 S	4539.70 E	5788.11	128.34	0.95	0.9	-0.2
85	MWD	12889.00	88.60	135.20	87	7238.33	5812.15	3653.82 S	4599.58 E	5874.23	128.46	3.34	-1.5	-3.0
86	MWD	12975.00	89.70	135.20	86	7239.60	5898.11	3714.84 S	4660.17 E	5959.63	128.56	1.28	1.3	0.0
87	MWD	13062.00	88.60	131.80	87	7240.89	5984.94	3774.71 S	4723.26 E	6046.29	128.63	4.11	-1.3	-3.9
88	MWD	13149.00	89.30	133.20	87	7242.49	6071.68	3833.48 S	4787.39 E	6133.08	128.69	1.80	0.8	1.6
89	MWD	13236.00	88.20	131.60	87	7244.38	6158.39	3892.12 S	4851.61 E	6219.87	128.74	2.23	-1.3	-1.8
90	MWD	13323.00	89.40	131.90	87	7246.21	6245.04	3950.04 S	4916.51 E	6306.73	128.78	1.42	1.4	0.3

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 WV STATE GEOLOGICAL SURVEY



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								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
91	MWD	13417.00	88.50	128.50	94	7247.93	6338.38	4010.70 S	4988.28 E	6400.67	128.80	3.74	-1.0	-3.6
92	MWD	13476.00	88.50	128.50	59	7249.47	6396.74	4047.41 S	5034.44 E	6459.65	128.80	0.00	0.0	0.0
93	MWD													
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