



Weatherford Survey Report



Company: CHESAPEAKE	Date: 2/12/2014	Time: 13:46:46	Page: 5
Field: MARSHALL COUNTY (NAD 27)	Co-ordinate(NE) Reference: Well: 206H, Grid North		
Site: VAN ASTON	Vertical (TVD) Reference: SITE 1174.0		
Well: 206H	Section (VS) Reference: Well (0.00N,0.00E,157.00Azi)		
Wellpath: HORIZONTAL	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
14374.00	88.07	157.17	6707.75	-7467.98	385.32	7024.87	1.14	485553.52	1677338.02	
14469.00	88.29	157.37	6710.77	-7555.56	422.01	7119.82	0.31	485465.94	1677374.71	
14564.00	88.22	156.84	6713.66	-7643.03	458.96	7214.78	0.56	485378.47	1677411.66	
14659.00	88.17	155.23	6716.65	-7729.80	497.52	7309.71	1.69	485291.70	1677450.22	
14755.00	88.08	155.61	6719.79	-7817.05	537.43	7405.63	0.41	485204.45	1677490.13	
14851.00	87.97	155.71	6723.10	-7904.47	576.98	7501.54	0.15	485117.03	1677529.68	
14946.00	88.08	154.94	6726.38	-7990.74	616.61	7596.44	0.82	485030.76	1677569.31	
15041.00	88.32	155.39	6729.36	-8076.91	656.49	7691.35	0.54	484944.59	1677609.19	
15136.00	87.85	155.67	6732.54	-8163.33	695.82	7786.26	0.58	484858.17	1677648.52	
15172.00	87.92	155.67	6733.86	-8196.11	710.64	7822.23	0.19	484825.39	1677663.34	LAST MWD SVY
15235.00	87.92	155.67	6736.15	-8253.48	736.58	7885.17	0.00	484768.02	1677689.28	PROJ TO BIT

Annotation

MD ft	TVD ft	
13614.00	6685.21	MWD TIE ON
13677.00	6686.85	DROP
13976.58	6696.73	HOLD
14036.58	6698.56	BUILD
14271.41	6704.85	HOLD
15235.14	0.00	PBHL
15172.00	6733.86	LAST MWD SVY
15235.00	6736.15	PROJ TO BIT

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Wellpath: HORIZONTAL	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9821.00	89.06	157.43	6604.28	-3274.78	-1381.68	2474.58	0.09	489746.72	1675571.02	
9917.00	88.88	158.31	6606.00	-3363.69	-1345.52	2570.56	0.94	489657.81	1675607.18	
10011.00	88.92	159.16	6607.81	-3451.27	-1311.44	2664.49	0.91	489570.23	1675641.26	
10106.00	88.90	160.40	6609.62	-3540.40	-1278.61	2759.36	1.31	489481.10	1675674.09	
10200.00	90.56	158.67	6610.06	-3628.46	-1245.75	2853.26	2.55	489393.04	1675706.95	
10293.00	90.00	157.68	6609.60	-3714.79	-1211.17	2946.24	1.22	489306.71	1675741.53	
10388.00	90.31	157.78	6609.35	-3802.70	-1175.17	3041.23	0.34	489218.80	1675777.53	
10481.00	89.42	156.24	6609.57	-3888.31	-1138.85	3134.23	1.91	489133.19	1675813.85	
10575.00	89.41	156.39	6610.53	-3974.39	-1101.09	3228.22	0.16	489047.11	1675851.61	
10670.00	89.53	157.56	6611.40	-4061.82	-1063.93	3323.21	1.24	488959.68	1675888.77	
10764.00	87.99	157.89	6613.44	-4148.78	-1028.31	3417.18	1.68	488872.72	1675924.39	
10859.00	89.30	160.01	6615.69	-4237.41	-994.20	3512.09	2.62	488784.09	1675958.50	
10953.00	89.77	158.68	6616.45	-4325.36	-961.05	3606.01	1.50	488696.14	1675991.65	
11048.00	88.32	157.14	6618.03	-4413.37	-925.33	3700.98	2.23	488608.13	1676027.37	
11144.00	89.11	158.75	6620.19	-4502.32	-889.29	3796.93	1.87	488519.18	1676063.41	
11239.00	88.48	157.80	6622.18	-4590.55	-854.14	3891.89	1.20	488430.95	1676098.56	
11334.00	89.09	159.01	6624.20	-4678.86	-819.18	3986.84	1.43	488342.64	1676133.52	
11429.00	87.54	156.21	6626.99	-4766.65	-783.01	4081.78	3.37	488254.85	1676169.69	
11523.00	87.36	155.10	6631.17	-4852.21	-744.30	4175.66	1.20	488169.29	1676208.40	
11619.00	87.97	155.97	6635.08	-4939.51	-704.58	4271.54	1.11	488081.99	1676248.12	
11714.00	88.01	155.52	6638.42	-5026.07	-665.58	4366.46	0.48	487995.43	1676287.12	
11809.00	88.06	155.92	6641.67	-5112.62	-626.54	4461.38	0.42	487908.88	1676326.16	
11904.00	87.78	155.53	6645.12	-5199.16	-587.51	4556.30	0.51	487822.34	1676365.19	
11999.00	89.98	156.32	6646.98	-5285.88	-548.77	4651.26	2.46	487735.62	1676403.93	
12094.00	90.54	156.70	6646.55	-5373.00	-510.90	4746.25	0.71	487648.50	1676441.80	
12190.00	87.75	156.97	6647.98	-5461.24	-473.14	4842.23	2.92	487560.26	1676479.56	
12285.00	87.36	156.89	6652.03	-5548.57	-435.95	4937.14	0.42	487472.93	1676516.75	
12380.00	87.45	156.97	6656.33	-5635.88	-398.76	5032.05	0.13	487385.62	1676553.94	
12474.00	87.45	156.57	6660.52	-5722.17	-361.72	5125.95	0.43	487299.33	1676590.98	
12570.00	88.65	156.77	6663.78	-5810.27	-323.73	5221.89	1.27	487211.23	1676628.97	
12665.00	88.46	157.28	6666.18	-5897.71	-286.66	5316.86	0.57	487123.79	1676666.04	
12760.00	88.29	157.60	6668.87	-5985.40	-250.23	5411.82	0.38	487036.10	1676702.47	
12855.00	88.27	157.91	6671.72	-6073.29	-214.28	5506.77	0.33	486948.21	1676738.42	
12950.00	88.57	158.13	6674.34	-6161.35	-178.74	5601.72	0.39	486860.15	1676773.96	
13046.00	89.18	158.94	6676.23	-6250.68	-143.61	5697.66	1.06	486770.82	1676809.09	
13141.00	89.32	158.95	6677.47	-6339.33	-109.49	5792.60	0.15	486682.17	1676843.21	
13235.00	89.30	156.69	6678.60	-6426.36	-74.00	5886.58	2.40	486595.14	1676878.70	
13330.00	89.14	156.43	6679.90	-6513.51	-36.22	5981.57	0.32	486507.99	1676916.48	
13424.00	88.83	155.98	6681.56	-6599.51	1.70	6075.54	0.58	486421.99	1676954.40	
13519.00	88.97	155.57	6683.39	-6686.12	40.67	6170.50	0.46	486335.38	1676993.37	
13614.00	88.83	155.02	6685.21	-6772.41	80.37	6265.44	0.60	486249.09	1677033.07	MWD TIE ON
13677.00	88.19	154.46	6686.85	-6829.37	107.25	6328.37	1.34	486162.13	1677059.95	DROP
13709.00	87.87	154.18	6687.95	-6858.19	121.10	6360.32	1.34	486163.31	1677073.80	
13804.00	88.08	154.93	6691.30	-6943.92	161.89	6455.17	0.82	486077.58	1677114.59	
13899.00	88.25	155.85	6694.34	-7030.25	201.43	6550.08	0.98	485991.25	1677154.13	
13976.58	88.23	156.77	6696.73	-7101.26	232.59	6627.62	1.18	485920.24	1677185.29	HOLD
13993.00	88.23	156.96	6697.23	-7116.35	239.04	6644.03	1.18	485905.15	1677191.74	
14036.58	88.28	157.02	6698.56	-7156.44	256.07	6687.59	0.18	485865.06	1677208.77	BUILD
14088.00	88.34	157.09	6700.07	-7203.77	276.11	6738.99	0.18	485817.73	1677228.81	
14183.00	88.53	157.41	6702.67	-7291.35	312.83	6833.95	0.39	485730.15	1677265.53	
14271.41	88.64	158.03	6704.85	-7373.13	346.34	6922.33	0.71	485648.37	1677299.04	HOLD
14279.00	88.65	158.08	6705.03	-7380.17	349.18	6929.92	0.71	485641.33	1677301.88	

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Well: 206H **Section (VS) Reference:** Well (0.00N,0.00E,157.00Azi)
Wellpath: HORIZONTAL **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
6864.00	65.31	238.52	6443.45	-671.48	-1781.03	-77.81	9.07	492350.02	1675171.67	
6896.00	68.03	238.64	6456.12	-686.79	-1806.10	-73.51	8.51	492334.71	1675146.60	
6928.00	70.44	238.40	6467.47	-702.42	-1831.62	-69.09	7.56	492319.08	1675121.08	
6959.00	72.94	238.15	6477.20	-717.89	-1856.65	-64.63	8.10	492303.61	1675096.05	
6991.00	75.14	238.05	6486.00	-734.15	-1882.77	-59.87	6.88	492287.35	1675069.93	
7022.00	77.19	238.02	6493.42	-750.08	-1908.30	-55.18	6.61	492271.42	1675044.40	
7054.00	78.88	236.77	6500.05	-766.95	-1934.67	-49.96	6.52	492254.55	1675018.03	
7085.00	79.49	234.31	6505.87	-784.18	-1959.78	-43.91	8.04	492237.32	1674992.92	
7117.00	79.38	231.77	6511.74	-803.09	-1984.91	-36.32	7.81	492218.41	1674967.79	
7148.00	79.63	227.90	6517.38	-822.75	-2008.20	-27.32	12.30	492198.75	1674944.50	
7180.00	80.38	224.40	6522.94	-844.58	-2030.92	-16.11	11.02	492176.92	1674921.78	
7211.00	82.00	220.90	6527.69	-867.11	-2051.67	-3.48	12.32	492154.39	1674901.03	
7243.00	82.94	218.65	6531.88	-891.49	-2071.97	11.04	7.56	492130.01	1674880.73	
7274.00	83.21	215.63	6535.62	-916.02	-2090.54	26.36	9.71	492105.48	1674862.16	
7306.00	82.50	212.52	6539.60	-942.31	-2108.33	43.61	9.90	492079.19	1674844.37	
7337.00	81.69	208.65	6543.87	-968.74	-2123.95	61.83	12.64	492052.76	1674828.75	
7369.00	81.74	205.96	6548.48	-996.87	-2138.48	82.06	8.32	492024.63	1674814.22	
7401.00	82.06	202.65	6552.99	-1025.74	-2151.51	103.54	10.29	491995.76	1674801.19	
7432.00	83.69	200.15	6556.84	-1054.38	-2162.74	125.51	9.57	491967.12	1674789.96	
7464.00	85.79	197.53	6559.77	-1084.53	-2173.02	149.25	10.47	491936.97	1674779.68	
7495.00	87.25	194.02	6561.65	-1114.31	-2181.43	173.37	12.24	491907.19	1674771.27	
7527.00	87.75	190.40	6563.05	-1145.55	-2188.19	199.49	11.41	491875.95	1674764.51	
7558.00	87.38	187.00	6564.37	-1176.16	-2192.88	225.83	11.02	491845.34	1674759.82	
7589.00	86.69	183.65	6565.97	-1206.98	-2195.75	253.08	11.02	491814.52	1674756.95	
7621.00	85.88	180.27	6568.04	-1238.89	-2196.84	282.03	10.84	491782.61	1674755.86	
7652.00	85.91	177.44	6570.26	-1269.80	-2196.22	310.72	9.11	491751.70	1674756.48	
7684.00	86.38	174.02	6572.41	-1301.63	-2193.85	340.95	10.76	491719.87	1674758.85	
7715.00	87.94	170.77	6573.95	-1332.32	-2189.75	370.80	11.62	491689.18	1674762.95	
7747.00	89.35	167.82	6574.71	-1363.75	-2183.81	402.05	10.22	491657.75	1674768.89	
7778.00	89.56	165.40	6575.00	-1393.90	-2176.63	432.62	7.84	491627.60	1674776.07	
7809.00	89.38	163.15	6575.29	-1423.74	-2168.23	463.36	7.28	491597.76	1674784.47	
7841.00	89.13	161.14	6575.71	-1454.19	-2158.42	495.23	6.33	491567.31	1674794.28	
7872.00	88.94	158.52	6576.23	-1483.28	-2147.73	526.18	8.47	491538.22	1674804.97	
7935.00	88.88	157.67	6577.43	-1541.72	-2124.23	589.16	1.35	491479.78	1674828.47	
8030.00	88.83	155.85	6579.33	-1629.00	-2086.76	684.14	1.92	491392.50	1674865.94	
8122.00	89.06	156.42	6581.02	-1713.11	-2049.54	776.11	0.67	491308.39	1674903.16	
8218.00	89.00	158.38	6582.64	-1801.73	-2012.66	872.09	2.04	491219.77	1674940.04	
8311.00	89.42	159.92	6583.93	-1888.62	-1979.56	965.01	1.72	491132.88	1674973.14	
8406.00	88.24	157.59	6585.87	-1977.14	-1945.15	1059.94	2.75	491044.36	1675007.55	
8500.00	88.60	157.33	6588.46	-2063.93	-1909.13	1153.90	0.47	490957.57	1675043.57	
8595.00	87.83	155.95	6591.42	-2151.10	-1871.48	1248.85	1.66	490870.40	1675081.22	
8689.00	89.81	156.65	6593.35	-2237.15	-1833.71	1342.82	2.23	490784.35	1675118.99	
8783.00	89.14	155.60	6594.21	-2323.10	-1795.66	1436.80	1.33	490698.40	1675157.04	
8877.00	88.92	155.04	6595.81	-2408.50	-1756.42	1530.75	0.64	490613.00	1675196.28	
8972.00	90.30	157.07	6596.45	-2495.31	-1717.87	1625.72	2.58	490526.19	1675234.83	
9064.00	90.44	157.00	6595.86	-2580.02	-1681.97	1717.72	0.17	490441.48	1675270.73	
9159.00	90.00	157.42	6595.49	-2667.60	-1645.17	1812.72	0.64	490353.90	1675307.53	
9254.00	89.81	156.60	6595.65	-2755.06	-1608.07	1907.72	0.89	490266.44	1675344.63	
9348.00	89.13	155.61	6596.52	-2840.99	-1570.00	2001.70	1.28	490180.51	1675382.70	
9443.00	88.81	156.20	6598.23	-2927.70	-1531.22	2096.67	0.71	490093.80	1675421.48	
9538.00	88.81	155.43	6600.20	-3014.34	-1492.31	2191.63	0.81	490007.16	1675460.39	
9632.00	89.48	157.16	6601.60	-3100.40	-1454.52	2285.61	1.97	489921.10	1675498.18	
9726.00	89.11	157.36	6602.76	-3187.09	-1418.19	2379.60	0.45	489834.41	1675534.51	

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3082.00	18.27	247.98	3038.53	-63.50	-385.07	-92.00	1.23	492958.00	1676567.63	
3177.00	18.85	250.52	3128.59	-74.20	-413.34	-93.20	1.05	492947.30	1676539.36	
3272.00	19.93	250.72	3218.20	-84.67	-443.10	-95.19	1.14	492936.83	1676509.60	
3364.00	19.66	245.54	3304.77	-96.25	-471.99	-95.82	1.93	492925.25	1676480.71	
3459.00	19.67	245.36	3394.23	-109.54	-501.07	-94.95	0.06	492911.96	1676451.63	
3554.00	19.32	246.49	3483.78	-122.47	-530.01	-94.35	0.54	492899.03	1676422.69	
3648.00	19.32	248.40	3572.49	-134.40	-558.73	-94.60	0.67	492887.10	1676393.97	
3741.00	18.23	247.52	3660.54	-145.63	-586.47	-95.10	1.21	492875.87	1676366.23	
3836.00	17.81	249.23	3750.88	-156.46	-613.79	-95.80	0.71	492865.04	1676338.91	
3931.00	18.72	251.11	3841.09	-166.55	-641.80	-97.46	1.14	492854.95	1676310.90	
4025.00	19.85	252.45	3929.82	-176.24	-671.29	-100.06	1.29	492845.26	1676281.41	
4120.00	20.49	251.86	4018.99	-186.28	-702.46	-103.00	0.71	492835.22	1676250.24	
4214.00	21.09	251.25	4106.87	-196.84	-734.11	-105.65	0.68	492824.66	1676218.59	
4309.00	22.24	249.56	4195.16	-208.62	-767.15	-107.72	1.38	492812.88	1676185.55	
4404.00	23.25	245.54	4282.78	-222.66	-801.06	-108.04	1.95	492798.84	1676151.64	
4499.00	22.43	244.98	4370.33	-238.09	-834.55	-106.93	0.89	492783.41	1676118.15	
4593.00	22.07	244.52	4457.33	-253.27	-866.75	-105.53	0.43	492768.23	1676085.95	
4687.00	23.16	243.93	4544.10	-268.99	-899.29	-103.77	1.18	492752.51	1676053.41	
4782.00	22.70	243.12	4631.59	-285.49	-932.43	-101.53	0.59	492736.01	1676020.27	
4876.00	21.79	242.85	4718.59	-301.65	-964.13	-99.04	0.97	492719.85	1675988.57	
4970.00	20.82	246.25	4806.17	-316.34	-994.95	-97.56	1.67	492705.16	1675957.75	
5065.00	19.60	247.92	4895.32	-329.13	-1025.17	-97.60	1.42	492692.37	1675927.53	
5159.00	18.27	252.62	4984.24	-339.46	-1053.84	-99.29	2.15	492682.04	1675898.86	
5254.00	21.96	254.56	5073.43	-348.64	-1085.18	-103.09	3.95	492672.86	1675867.52	
5348.00	25.75	254.91	5159.39	-358.64	-1121.85	-108.21	4.03	492662.86	1675830.85	
5443.00	24.07	252.51	5245.55	-369.83	-1160.26	-112.92	2.06	492651.67	1675792.44	
5538.00	25.42	247.06	5331.83	-383.61	-1197.52	-114.80	2.79	492637.89	1675755.18	
5632.00	22.41	244.30	5417.76	-399.24	-1232.25	-113.97	3.42	492622.26	1675720.45	
5727.00	20.39	244.26	5506.20	-414.29	-1263.48	-112.33	2.13	492607.21	1675689.22	
5822.00	20.49	243.50	5595.22	-428.89	-1293.27	-110.52	0.30	492592.61	1675659.43	
5916.00	20.45	246.65	5683.29	-442.74	-1323.07	-109.42	1.17	492578.76	1675629.63	
6011.00	20.33	248.67	5772.34	-455.32	-1353.68	-109.80	0.75	492566.18	1675599.02	
6106.00	20.58	249.07	5861.35	-467.29	-1384.65	-110.88	0.30	492554.21	1675568.05	
6200.00	21.94	250.52	5948.95	-479.05	-1416.64	-112.56	1.55	492542.45	1675536.06	
6263.00	23.44	249.02	6007.07	-487.46	-1439.43	-113.72	2.55	492534.04	1675513.27	
6331.00	22.23	248.35	6069.74	-497.05	-1464.02	-114.50	1.82	492524.45	1675488.68	
6363.00	24.04	246.00	6099.17	-501.93	-1475.60	-114.53	6.35	492519.57	1675477.10	
6394.00	26.34	243.86	6127.22	-507.53	-1487.54	-114.04	7.98	492513.97	1675465.16	
6426.00	29.07	243.58	6155.54	-514.12	-1500.88	-113.19	8.54	492507.38	1675451.82	
6457.00	31.56	242.40	6182.30	-521.23	-1514.82	-112.09	8.26	492500.27	1675437.88	
6489.00	35.00	242.27	6209.05	-529.38	-1530.37	-110.66	10.75	492492.12	1675422.33	
6520.00	38.57	242.73	6233.88	-537.95	-1546.83	-109.21	11.55	492483.55	1675405.87	
6551.00	43.00	242.27	6257.34	-547.30	-1564.79	-107.62	14.32	492474.20	1675387.91	
6583.00	46.44	241.90	6280.08	-557.84	-1584.68	-105.69	10.78	492463.66	1675368.02	
6614.00	47.80	241.40	6301.17	-568.63	-1604.67	-103.57	4.54	492452.87	1675348.03	
6646.00	48.63	240.65	6322.49	-580.19	-1625.54	-101.08	3.13	492441.31	1675327.16	
6677.00	49.75	240.02	6342.75	-591.80	-1645.93	-98.36	3.93	492429.70	1675306.77	
6709.00	51.49	240.06	6363.06	-604.16	-1667.36	-95.36	5.44	492417.34	1675285.34	
6740.00	54.94	240.02	6381.62	-616.55	-1688.87	-92.35	11.13	492404.95	1675263.83	
6770.00	57.44	239.52	6398.31	-629.10	-1710.40	-89.21	8.45	492392.40	1675242.30	
6801.00	59.95	239.48	6414.41	-642.55	-1733.22	-85.76	8.10	492378.95	1675219.48	
6833.00	62.50	238.65	6429.82	-656.97	-1757.28	-81.88	8.29	492364.53	1675195.42	

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Weatherford Survey Report



Company: CHESAPEAKE Field: MARSHALL COUNTY (NAD 27) Site: VAN ASTON Well: 206H Wellpath: HORIZONTAL	Date: 2/12/2014 Co-ordinate(NE) Reference: Well: 206H, Grid North Vertical (TVD) Reference: SITE 1174.0 Section (VS) Reference: Well (0.00N,0.00E,157.00Azi) Survey Calculation Method: Minimum Curvature	Time: 13:46:46 Page: 1								
Survey: MWD Company: Weatherford International Ltd. Tool: MWD:MWD - Standard	Start Date: 2/7/2014 Engineer: Dev Kumar Tied-to: From: GYROS									
Field: MARSHALL COUNTY (NAD 27)										
Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: West Virginia, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010									
Site: VAN ASTON										
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 1152.00 ft			RECEIVED Office of Oil and Gas APR 04 2016							
Well: 206H Well Position: +N/-S -39.30 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 493021.50 ft Easting: 1676952.70 ft	Latitude: 39 50 52.575 N Longitude: 80 39 2.095 W	WV Department of Environmental Protection							
Wellpath: HORIZONTAL Current Datum: SITE Magnetic Data: 12/19/2013 Field Strength: 52632 nT Vertical Section: Depth From (TVD) ft	Height: 1174.00 ft +N/-S: 0.00 ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: -8.68 deg Mag Dip Angle: 67.28 deg +E/-W: 0.00 ft	Direction: 157.00 deg							
Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
775.00	0.69	14.99	775.00	0.06	0.69	0.22	0.00	493021.56	1676953.39	
870.00	0.14	301.10	869.99	0.67	0.74	-0.33	0.70	493022.17	1676953.44	
964.00	2.57	270.44	963.96	0.75	-1.47	-1.26	2.61	493022.25	1676951.23	
1056.00	6.08	267.10	1055.68	0.52	-8.40	-3.76	3.82	493022.02	1676944.30	
1153.00	8.00	263.77	1151.95	-0.48	-20.24	-7.47	2.02	493021.02	1676932.46	
1245.00	8.31	277.74	1243.03	-0.28	-33.19	-12.71	2.17	493021.22	1676919.51	
1340.00	9.40	278.31	1336.89	1.77	-47.67	-20.26	1.15	493023.27	1676905.03	
1434.00	9.36	265.41	1429.65	2.27	-62.89	-26.66	2.23	493023.77	1676889.81	
1529.00	8.59	258.51	1523.49	0.24	-77.54	-30.51	1.39	493021.74	1676875.16	
1624.00	7.91	266.59	1617.51	-1.57	-91.02	-34.12	1.41	493019.93	1676861.68	
1718.00	8.01	264.50	1710.60	-2.58	-103.99	-38.26	0.33	493018.92	1676848.71	
1812.00	8.46	268.77	1803.63	-3.35	-117.43	-42.79	0.81	493018.15	1676835.27	
1907.00	8.14	270.10	1897.64	-3.49	-131.14	-48.03	0.39	493018.01	1676821.56	
2001.00	8.22	269.93	1990.68	-3.49	-144.51	-53.25	0.09	493018.01	1676808.19	
2095.00	7.67	267.21	2083.78	-3.80	-157.50	-58.04	0.71	493017.70	1676795.20	
2181.00	7.28	267.50	2169.05	-4.32	-168.68	-61.93	0.46	493017.18	1676784.02	
2325.00	7.08	260.28	2311.92	-6.22	-186.54	-67.16	0.64	493015.28	1676766.16	
2420.00	11.55	262.53	2405.64	-8.44	-201.75	-71.06	4.72	493013.06	1676750.95	
2515.00	13.91	260.15	2498.30	-11.63	-222.43	-76.20	2.54	493009.87	1676730.27	
2609.00	15.08	255.25	2589.31	-16.68	-245.39	-80.53	1.80	493004.82	1676707.31	
2703.00	16.35	255.29	2679.80	-23.15	-270.01	-84.19	1.35	492998.35	1676682.69	
2797.00	18.02	253.91	2769.60	-30.54	-296.78	-87.85	1.83	492990.96	1676655.92	
2892.00	20.40	250.13	2859.31	-40.24	-326.48	-90.52	2.83	492981.26	1676626.22	
2987.00	19.43	247.59	2948.62	-51.90	-356.66	-91.59	1.37	492969.60	1676596.04	



CHESAPEAKE
VAN ASTON WASH 206H
MARSHALL COUNTY, WV

SITE DETAILS
VAN ASTON
Site Centre Northing: 493060.80
Easting: 1676945.90
Ground Level: 1152.00
Positional Uncertainty: 0.00
Convergence: -0.73

FIELD DETAILS

MARSHALL COUNTY (NAD 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: West Virginia, Northern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SECTION DETAILS

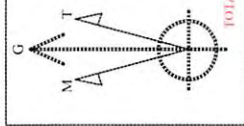
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	13614.00	88.83	155.02	6685.21	-6772.41	80.37	0.00	0.00	6265.44	
2	13677.00	88.83	155.02	6686.50	-6829.51	106.97	0.00	0.00	6328.39	
3	13976.58	86.35	156.70	6699.09	-7102.62	229.37	1.00	145.91	6627.61	206H PBHL P7
4	14036.58	86.35	156.70	6702.91	-7157.61	253.05	0.00	0.00	6687.49	
5	14271.41	88.70	156.70	6713.06	-7373.08	345.83	1.00	0.00	6922.08	
6	15235.14	88.70	156.70	6734.95	-8258.00	726.90	0.00	0.00	7885.55	206H PBHL P7

WELL DETAILS

Name: 206H
+N/-S: -39.30
+E/-W: 6.80
Northing: 493021.50
Easting: 1676952.70
Latitude: 39°50'52.575N
Longitude: 080°39'02.095W
Slot: N/A

TARGET DETAILS

Name: 206H PBHL P7
TVD: 6734.95
+N/-S: -8258.00
+E/-W: 726.90
Northing: 484763.50
Easting: 1677679.60
Shape: Point

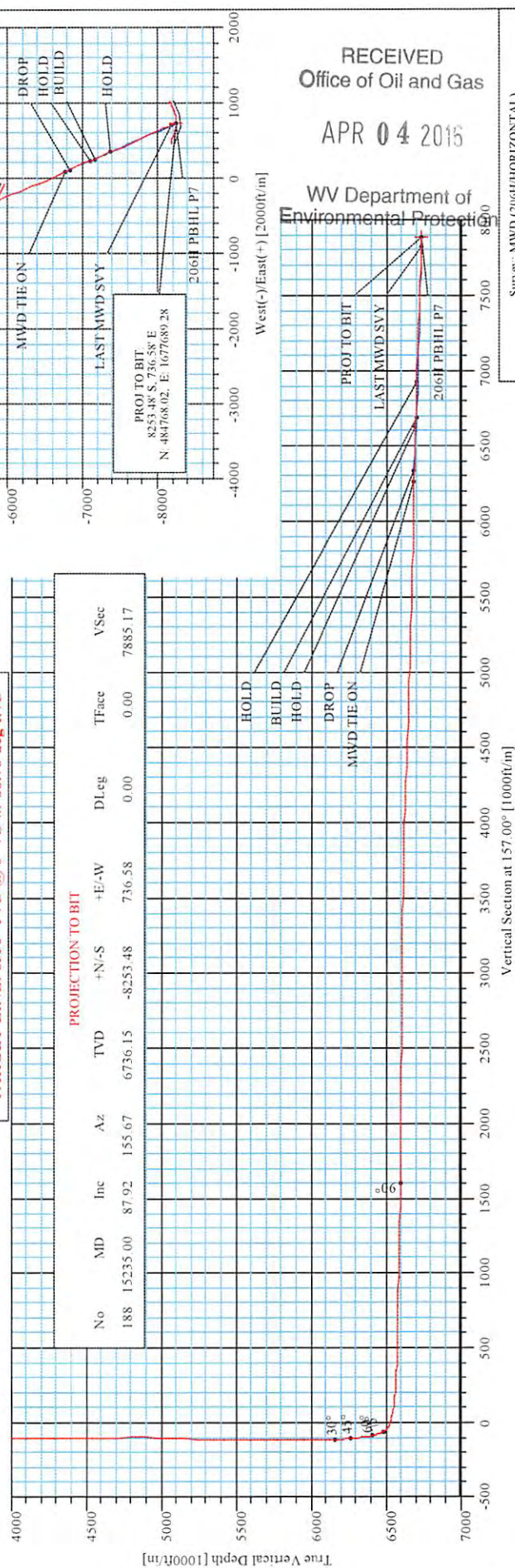


KB ELEVATION 1174'
GR ELEVATION 1152'

TARGET LINE: 6556' TVD @ 0° VS w/ 88.70 deg INC

PROJECTION TO BIT

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
188	15235.00	87.92	155.67	6736.15	-8253.48	736.58	0.00	0.00	7885.17



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Survey: MWD (206H) HORIZONTAL