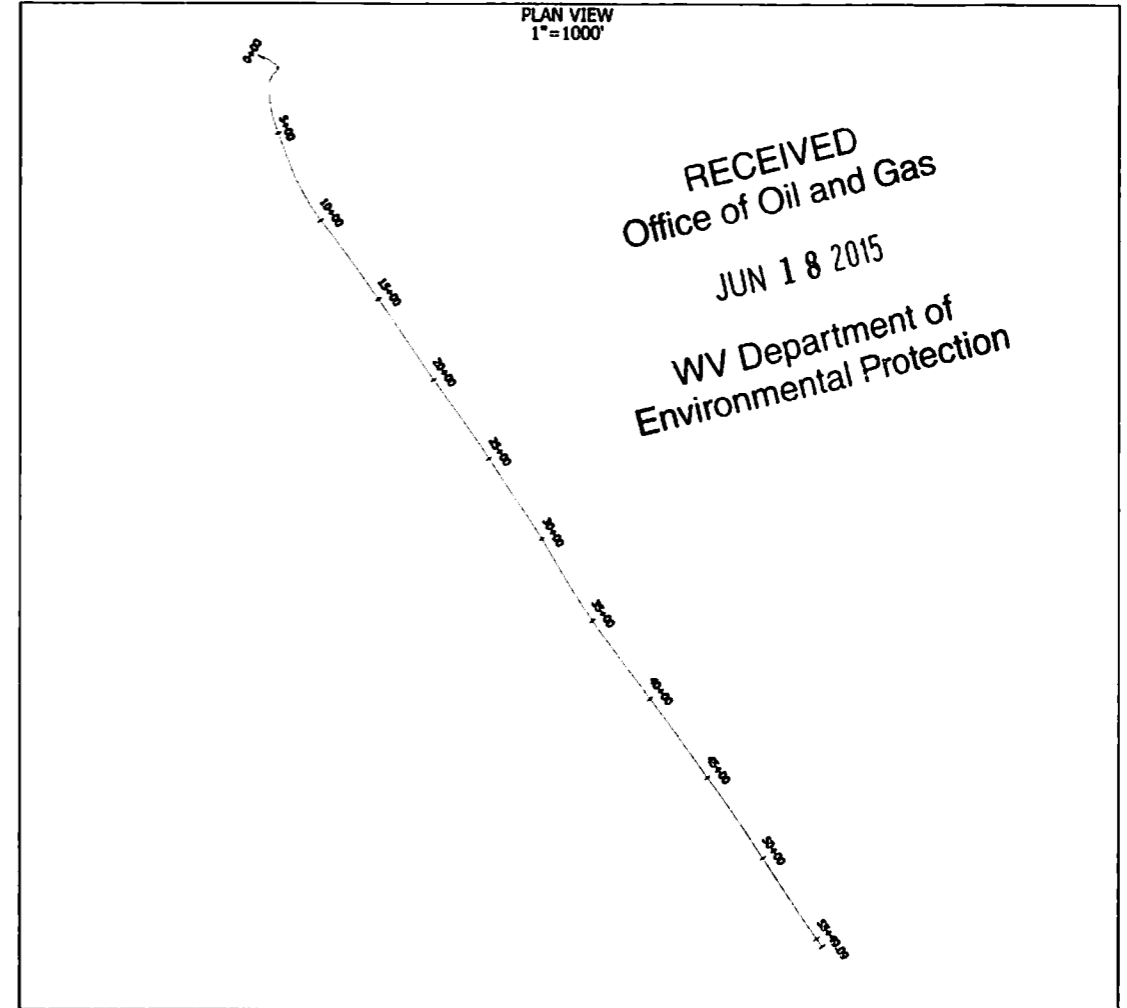
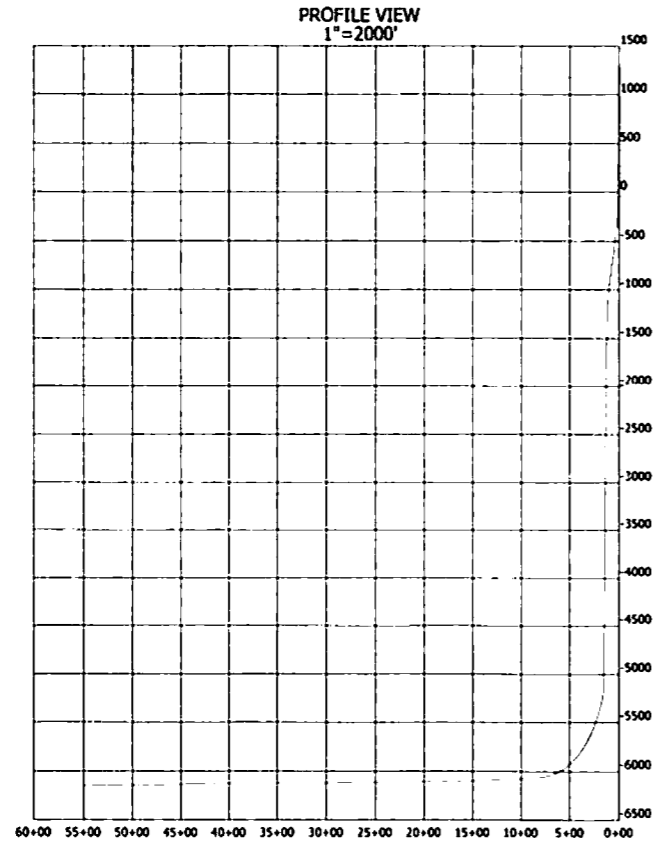


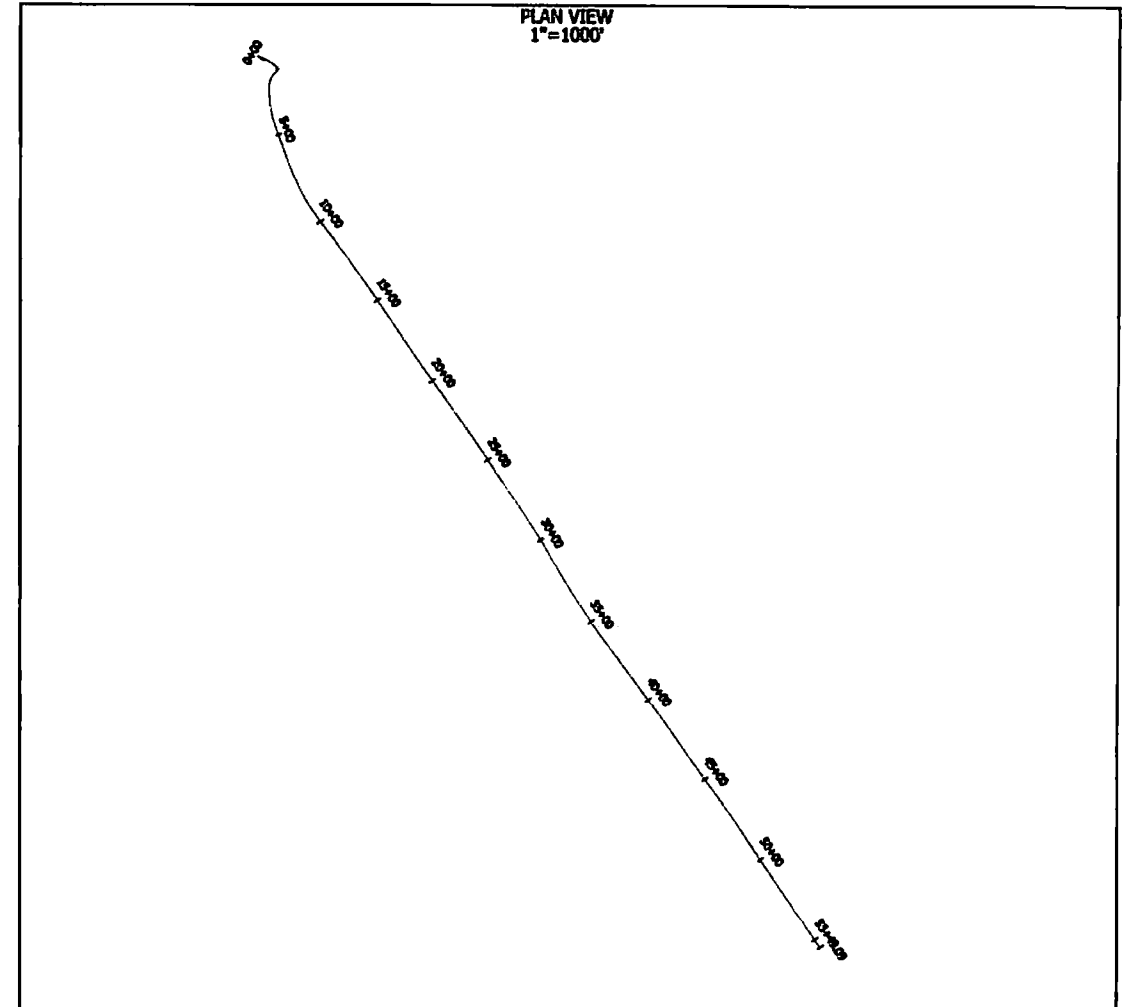
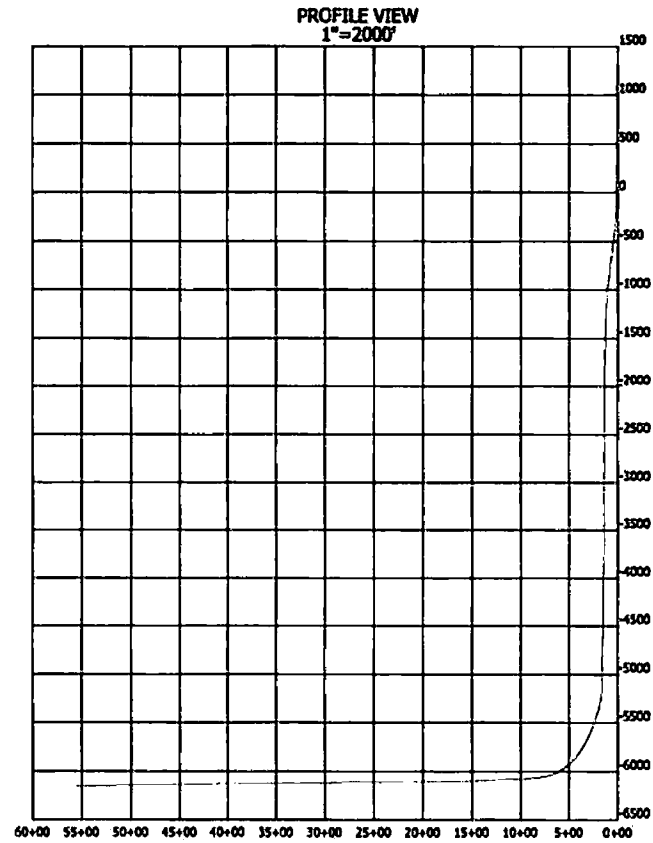
PLAN AND PROFILE VIEW FOR WVDNR #1411 API #47-103-02996



NOTES

1. AS DRILLED DATA WAS PROVIDED BY TRIAD HUNTER.
2. HSM IS NOT CERTIFYING THIS DATA AND IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA THAT HAS BEEN PROVIDED.

PLAN AND PROFILE VIEW FOR WVDNR #1411 API #47-103-02996



NOTES

1. AS DRILLED DATA WAS PROVIDED BY TRIAD HUNTER.
2. HGM IS NOT CERTIFYING THIS DATA AND IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA THAT HAS BEEN PROVIDED.



Triad Hunter WVDNR #1411 Surveys 0ft to 12574ft MD Survey Geodetic Report

(Def Survey)

RECEIVED
 Office of Oil and Gas
 JUN 18 2015
 WV Department of
 Environmental Protection

Report Date: September 25, 2014 - 08:31 AM
Client: Triad Hunter
Field: WV Wetzel County (NAD 27)
Structure / Slot: Triad Hunter WVDNR Pad / WVDNR #1411
Well: WVDNR #1411
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Triad Hunter WVDNR #1411 Surveys 0ft to 12574ft MD
Survey Date: August 13, 2014
Tort / AHD / DDI / ERD Ratio: 195.283 ° / 5550.911 ft / 6.253 / 0.729
Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet
Location Lat / Long: N 39° 30' 18.37970", W 80° 39' 27.68361"
Location Grid N/E Y/X: N 368185.000 ftUS, E 1673348.000 ftUS
CRS Grid Convergence Angle: -0.7383 °
Grid Scale Factor: 0.99994296
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 147.901 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB
TVD Reference Elevation: 1482.000 ft above MSL
Seabed / Ground Elevation: 1460.000 ft above MSL
Magnetic Declination: -7.968 °
Total Gravity Field Strength: 999.2977mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52604.246 nT
Magnetic Dip Angle: 67.072 °
Declination Date: August 11, 2014
Magnetic Declination Model: HDGM 2013
North Reference: Grid North
Grid Convergence Used: -0.7383 °
Total Corr Mag North->Grid North: -7.2298 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	120.00	0.00	-1482.00	0.00	0.00	0.00	N/A	N/A	N/A	368185.00	1673348.00	N 39 30 18.38	W 80 39 27.68
	100.00	0.13	31.04	100.00	-1382.00	-0.05	0.10	0.06	0.13	0.13	0.00	368185.10	1673348.06	N 39 30 18.38	W 80 39 27.68
	200.00	0.36	77.53	200.00	-1282.00	0.00	0.26	0.42	0.29	0.23	46.49	368185.26	1673348.42	N 39 30 18.38	W 80 39 27.68
	300.00	0.38	117.67	300.00	-1182.00	0.40	0.18	1.02	0.25	0.02	40.14	368185.18	1673349.02	N 39 30 18.38	W 80 39 27.67
	400.00	0.11	178.07	400.00	-1082.00	0.76	-0.07	1.32	0.34	-0.27	60.40	368184.93	1673349.32	N 39 30 18.38	W 80 39 27.67
	500.00	0.24	234.71	500.00	-982.00	0.86	-0.29	1.15	0.20	0.13	56.64	368184.71	1673349.15	N 39 30 18.38	W 80 39 27.67
	600.00	0.20	329.30	600.00	-882.00	0.70	-0.26	0.89	0.32	-0.04	94.59	368184.74	1673348.89	N 39 30 18.38	W 80 39 27.67
	700.00	0.17	251.25	699.99	-782.01	0.49	-0.16	0.66	0.23	-0.03	-78.05	368184.84	1673348.66	N 39 30 18.38	W 80 39 27.68
	800.00	0.16	141.98	799.99	-682.01	0.59	-0.32	0.61	0.27	-0.01	-109.27	368184.68	1673348.61	N 39 30 18.38	W 80 39 27.68
	900.00	0.25	103.11	899.99	-582.01	0.89	-0.48	0.91	0.16	0.09	-38.87	368184.52	1673348.91	N 39 30 18.38	W 80 39 27.67
	1000.00	0.18	98.05	999.99	-482.01	1.14	-0.55	1.28	0.07	-0.07	-5.06	368184.45	1673349.28	N 39 30 18.37	W 80 39 27.67
	1100.00	0.21	170.38	1099.99	-382.01	1.41	-0.75	1.46	0.23	0.03	72.33	368184.25	1673349.46	N 39 30 18.37	W 80 39 27.66
	1200.00	0.27	190.14	1199.99	-282.01	1.76	-1.16	1.45	0.10	0.06	19.76	368183.84	1673349.45	N 39 30 18.37	W 80 39 27.66
Final gyro	1275.00	0.17	197.74	1274.99	-207.01	1.96	-1.44	1.39	0.14	-0.13	10.13	368183.56	1673349.39	N 39 30 18.37	W 80 39 27.67
	1357.00	0.20	325.77	1356.99	-125.01	1.89	-1.44	1.27	0.41	0.04	156.13	368183.56	1673349.27	N 39 30 18.37	W 80 39 27.67
	1390.00	0.12	350.58	1389.99	-92.01	1.81	-1.36	1.23	0.32	-0.24	75.18	368183.64	1673349.23	N 39 30 18.37	W 80 39 27.67
	1485.00	0.60	94.82	1484.99	2.99	2.01	-1.30	1.71	0.67	0.51	109.73	368183.70	1673349.71	N 39 30 18.37	W 80 39 27.66
	1580.00	1.75	110.50	1579.97	97.97	3.46	-1.85	3.56	1.25	1.21	16.51	368183.15	1673351.56	N 39 30 18.36	W 80 39 27.64
	1675.00	3.13	106.04	1674.88	192.88	6.55	-3.08	7.42	1.47	1.45	-4.69	368181.92	1673355.42	N 39 30 18.35	W 80 39 27.59
	1770.00	4.64	104.90	1769.66	287.66	11.29	-4.78	13.62	1.59	1.59	-1.20	368180.22	1673361.62	N 39 30 18.33	W 80 39 27.51
	1865.00	6.17	105.65	1864.23	382.23	17.88	-7.15	22.25	1.61	1.61	0.79	368177.85	1673370.25	N 39 30 18.31	W 80 39 27.40

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	1961.00	6.57	112.67	1959.64	477.64	26.18	-10.66	32.29	0.91	0.42	7.31	368174.34	1673380.29	N 39 30 18.28	W 80 39 27.27
	2056.00	7.11	125.46	2053.97	571.97	36.06	-16.16	42.09	1.70	0.57	13.46	368168.84	1673390.09	N 39 30 18.23	W 80 39 27.14
	2151.00	7.70	125.91	2148.18	666.18	47.39	-23.31	52.04	0.62	0.62	0.47	368161.70	1673400.03	N 39 30 18.16	W 80 39 27.02
	2246.00	8.31	122.36	2242.25	760.25	59.49	-30.71	62.99	0.83	0.47	-3.74	368154.29	1673410.99	N 39 30 18.08	W 80 39 26.88
	2341.00	7.29	124.74	2336.37	854.37	71.23	-37.82	73.74	1.13	0.67	2.51	368147.18	1673421.74	N 39 30 18.02	W 80 39 26.74
	2439.00	5.37	132.57	2433.77	951.77	81.37	-44.47	82.23	0.88	-1.07	7.99	368140.53	1673430.22	N 39 30 17.95	W 80 39 26.63
	2533.00	4.05	137.89	2527.45	1045.45	88.88	-49.91	87.69	0.88	-1.40	5.66	368135.10	1673435.69	N 39 30 17.90	W 80 39 26.56
	2627.00	3.31	128.22	2621.26	1139.26	94.70	-54.05	92.05	1.02	-1.79	-10.29	368130.95	1673440.05	N 39 30 17.86	W 80 39 26.50
	2721.00	2.67	104.80	2715.14	1233.14	98.86	-56.29	96.30	1.45	-0.68	-21.91	368128.72	1673444.30	N 39 30 17.84	W 80 39 26.45
	2815.00	1.47	71.28	2809.08	1327.08	100.73	-56.46	99.56	1.76	-0.88	-16.86	368128.54	1673447.55	N 39 30 17.83	W 80 39 26.40
	2909.00	0.55	315.35	2803.07	1421.07	100.57	-55.75	100.39	1.89	-0.98	-123.33	368129.25	1673448.38	N 39 30 17.84	W 80 39 26.39
	3003.00	1.70	278.30	2997.05	1515.05	99.23	-55.23	98.69	1.39	-0.88	-39.41	368129.77	1673446.68	N 39 30 17.85	W 80 39 26.42
	3098.00	1.64	257.39	3092.01	1610.01	97.86	-55.32	95.97	0.84	-0.06	-22.01	368129.68	1673443.96	N 39 30 17.85	W 80 39 26.45
	3193.00	0.81	225.48	3186.99	1704.99	97.55	-56.09	94.16	1.15	-0.87	-33.59	368128.91	1673442.16	N 39 30 17.84	W 80 39 26.47
Survey	3288.00	0.51	191.40	3281.98	1799.98	98.00	-56.97	93.60	0.51	-0.32	-35.87	368128.03	1673441.59	N 39 30 17.83	W 80 39 26.48
	3378.00	0.39	195.10	3371.98	1889.98	98.50	-57.66	93.44	0.14	-0.13	4.11	368127.34	1673441.44	N 39 30 17.82	W 80 39 26.48
	3537.00	0.15	224.52	3530.97	2048.97	98.92	-58.33	93.15	0.17	-0.15	18.50	368126.67	1673441.15	N 39 30 17.82	W 80 39 26.49
	3632.00	0.15	254.89	3625.97	2143.97	98.91	-58.46	92.95	0.08	0.00	31.97	368126.55	1673440.94	N 39 30 17.81	W 80 39 26.49
	3726.00	0.12	285.75	3719.97	2237.97	98.80	-58.46	92.73	0.08	-0.03	32.83	368126.54	1673440.73	N 39 30 17.81	W 80 39 26.49
	3821.00	0.19	285.52	3814.97	2332.97	98.61	-58.39	92.49	0.07	0.07	-0.24	368126.61	1673440.48	N 39 30 17.81	W 80 39 26.49
	3917.00	0.21	295.67	3910.97	2428.97	98.34	-58.27	92.17	0.04	0.02	10.57	368126.73	1673440.17	N 39 30 17.82	W 80 39 26.50
	4011.00	0.22	319.21	4004.97	2522.97	98.02	-58.06	91.90	0.09	0.01	25.04	368126.94	1673439.89	N 39 30 17.82	W 80 39 26.50
	4106.00	0.28	328.26	4099.97	2617.97	97.61	-57.73	91.66	0.08	0.06	9.53	368127.28	1673439.65	N 39 30 17.82	W 80 39 26.50
	4201.00	0.34	319.42	4194.97	2712.97	97.10	-57.31	91.35	0.08	0.06	-9.31	368127.69	1673439.35	N 39 30 17.82	W 80 39 26.51
	4295.00	0.36	313.25	4288.97	2806.97	96.54	-56.90	90.96	0.05	0.02	-6.56	368128.10	1673438.95	N 39 30 17.83	W 80 39 26.51
	4389.00	0.35	316.13	4382.97	2900.97	95.97	-56.49	90.54	0.02	-0.01	3.06	368128.51	1673438.54	N 39 30 17.83	W 80 39 26.52
	4484.00	0.33	324.72	4477.96	2995.96	95.41	-56.06	90.18	0.06	-0.02	9.04	368128.94	1673438.18	N 39 30 17.84	W 80 39 26.52
	4579.00	0.36	322.69	4572.96	3090.96	94.84	-55.60	89.85	0.03	0.03	-2.14	368129.41	1673437.84	N 39 30 17.84	W 80 39 26.53
	4674.00	0.35	322.07	4667.96	3185.96	94.25	-55.13	89.49	0.01	-0.01	-0.65	368129.87	1673437.46	N 39 30 17.85	W 80 39 26.53
	4766.00	0.35	322.23	4759.96	3277.96	93.70	-54.69	89.14	0.00	0.00	0.17	368130.32	1673437.14	N 39 30 17.85	W 80 39 26.54
	4861.00	0.39	313.70	4854.96	3372.96	93.09	-54.23	88.73	0.07	0.04	-8.98	368130.77	1673436.72	N 39 30 17.86	W 80 39 26.54
	4956.00	0.27	313.60	4949.96	3467.96	92.56	-53.86	88.33	0.13	-0.13	-0.11	368131.15	1673436.33	N 39 30 17.86	W 80 39 26.55
	5050.00	0.15	279.26	5043.96	3561.96	92.27	-53.68	88.05	0.18	-0.13	-36.53	368131.32	1673436.05	N 39 30 17.86	W 80 39 26.55
	5145.00	0.25	253.25	5138.95	3656.95	92.13	-53.72	87.73	0.14	0.11	-27.38	368131.28	1673435.73	N 39 30 17.86	W 80 39 26.56
	5240.00	0.36	236.71	5233.95	3751.95	92.08	-53.95	87.28	0.15	0.12	-17.41	368131.06	1673435.28	N 39 30 17.86	W 80 39 26.56
	5335.00	0.48	229.45	5328.95	3846.95	92.15	-54.37	86.73	0.14	0.13	-7.64	368130.63	1673434.73	N 39 30 17.85	W 80 39 26.57
	5433.00	0.45	226.73	5428.95	3944.95	92.28	-54.90	86.14	0.04	-0.03	-2.78	368130.10	1673434.13	N 39 30 17.85	W 80 39 26.58
	5528.00	0.50	213.15	5521.94	4039.94	92.53	-55.50	85.64	0.13	0.05	-14.29	368129.50	1673433.64	N 39 30 17.84	W 80 39 26.58
	5622.00	0.52	198.78	5615.94	4133.94	92.97	-56.25	85.28	0.14	0.02	-15.29	368128.75	1673433.27	N 39 30 17.83	W 80 39 26.59
	5717.00	0.54	195.49	5710.94	4228.94	93.54	-57.09	85.02	0.04	0.02	-3.46	368127.91	1673433.02	N 39 30 17.83	W 80 39 26.59
	5812.00	0.43	196.85	5805.93	4323.93	94.08	-57.86	84.80	0.12	-0.12	1.43	368127.14	1673432.79	N 39 30 17.82	W 80 39 26.59
	5908.00	0.41	187.98	5901.93	4418.93	94.58	-58.55	84.65	0.07	-0.02	-9.24	368126.46	1673432.64	N 39 30 17.81	W 80 39 26.59
	6006.00	0.34	230.87	5999.93	4517.93	94.88	-59.08	84.37	0.29	-0.07	43.77	368125.92	1673432.37	N 39 30 17.81	W 80 39 26.60
	6101.00	0.88	147.58	6094.92	4612.92	95.65	-59.87	84.54	0.95	0.57	-87.67	368125.13	1673432.54	N 39 30 17.80	W 80 39 26.60
	6195.00	1.12	142.79	6188.91	4706.91	97.28	-61.21	85.49	0.27	0.26	-5.10	368123.79	1673433.48	N 39 30 17.79	W 80 39 26.58

RECEIVED
Office of Oil and Gas
JUN 18 2015
WV Department of
Environmental Protection

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (%/100ft)	BR (%/100ft)	TR (%/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6290.00	0.94	142.66	6283.89	4801.89	98.98	-62.57	86.52	0.19	0.19	-0.14	368122.43	1673434.52	N 39 30 17.77	W 80 39 26.57
	6385.00	1.18	147.55	6378.88	4896.88	100.74	-64.02	87.52	0.27	0.25	5.15	368120.99	1673435.51	N 39 30 17.76	W 80 39 26.56
	6481.00	1.08	151.05	6474.86	4992.86	102.63	-65.64	88.49	0.13	-0.10	3.65	368119.36	1673436.48	N 39 30 17.74	W 80 39 26.54
	6513.00	1.10	157.87	6506.85	5024.85	103.23	-66.19	88.75	0.44	0.06	21.31	368118.81	1673436.74	N 39 30 17.74	W 80 39 26.54
	6608.00	0.86	148.32	6601.84	5119.84	104.84	-67.64	89.47	0.30	-0.25	10.05	368117.36	1673437.46	N 39 30 17.72	W 80 39 26.53
	6703.00	7.65	224.92	6696.55	5214.55	106.98	-72.73	85.37	7.89	7.15	80.63	368112.27	1673433.36	N 39 30 17.67	W 80 39 26.58
	6798.00	15.73	224.97	6789.50	5307.50	111.29	-86.35	71.78	8.51	8.62	0.05	368098.66	1673419.78	N 39 30 17.54	W 80 39 26.75
	6893.00	15.58	215.61	6880.99	5398.99	119.01	-105.83	55.25	2.66	-0.16	-9.85	368079.18	1673403.25	N 39 30 17.34	W 80 39 26.96
	6988.00	21.12	187.01	6971.30	5489.30	137.18	-133.27	45.71	10.96	0.89	-30.11	368051.74	1673393.70	N 39 30 17.07	W 80 39 27.08
	7083.00	23.84	176.45	7059.11	5577.11	167.34	-169.44	44.80	5.11	2.86	-11.12	368015.57	1673392.80	N 39 30 16.71	W 80 39 27.08
	7178.00	27.18	175.58	7144.84	5662.84	203.43	-210.24	47.67	3.54	3.52	-0.92	367974.77	1673395.66	N 39 30 16.31	W 80 39 27.04
	7273.00	33.08	170.76	7226.98	5744.98	246.58	-257.51	53.51	6.71	6.21	-5.07	367927.50	1673401.50	N 39 30 15.84	W 80 39 26.96
	7368.00	38.47	165.71	7304.04	5822.04	298.66	-311.79	64.98	6.46	5.67	-5.32	367873.23	1673412.97	N 39 30 15.31	W 80 39 26.80
	7461.00	48.18	160.25	7371.64	5889.64	360.22	-372.61	83.88	11.18	10.44	-5.87	367812.42	1673431.87	N 39 30 14.71	W 80 39 26.55
	7556.00	55.99	158.43	7429.98	5947.98	433.63	-442.65	110.36	8.36	8.22	-1.92	367742.37	1673458.35	N 39 30 14.02	W 80 39 26.20
	7651.00	65.26	159.23	7476.52	5994.52	514.82	-519.78	140.20	9.79	9.76	0.84	367665.25	1673488.19	N 39 30 13.26	W 80 39 25.81
	7708.00	73.01	158.37	7496.81	6014.81	567.08	-569.39	159.45	13.67	13.60	-1.51	367615.64	1673507.44	N 39 30 12.77	W 80 39 25.56
	7746.00	77.60	156.86	7506.45	6024.45	603.30	-603.37	173.45	12.68	12.08	-3.97	367581.67	1673521.44	N 39 30 12.44	W 80 39 25.37
	7840.00	81.48	152.93	7523.52	6041.52	695.02	-687.03	212.67	5.83	4.13	-4.18	367498.01	1673560.66	N 39 30 11.62	W 80 39 24.86
	7935.00	86.29	147.33	7533.64	6051.64	789.34	-768.87	259.70	7.74	5.06	-5.89	367416.17	1673607.69	N 39 30 10.81	W 80 39 24.24
	8030.00	88.93	141.11	7537.61	6055.61	884.00	-845.83	315.17	7.11	2.78	-6.55	367339.22	1673663.15	N 39 30 10.06	W 80 39 23.52
	8125.00	88.56	142.26	7539.69	6057.69	978.42	-920.35	374.05	1.27	-0.39	1.21	367264.71	1673722.03	N 39 30 9.33	W 80 39 22.76
	8219.00	85.67	144.27	7544.42	6062.42	1071.98	-995.57	430.20	3.74	-3.07	2.14	367189.49	1673778.17	N 39 30 8.60	W 80 39 22.03
	8314.00	86.21	144.08	7551.15	6069.15	1166.54	-1072.41	485.66	0.60	0.57	-0.20	367112.66	1673833.63	N 39 30 7.84	W 80 39 21.31
	8409.00	88.86	144.61	7555.23	6073.23	1261.26	-1149.52	540.98	2.84	2.79	0.56	367035.55	1673888.95	N 39 30 7.09	W 80 39 20.59
	8504.00	88.93	145.96	7557.06	6075.06	1356.14	-1227.59	595.07	1.42	0.07	1.42	366957.48	1673943.04	N 39 30 6.32	W 80 39 19.89
	8599.00	88.75	145.81	7558.99	6076.99	1451.06	-1306.23	648.34	0.25	-0.19	-0.16	366878.85	1673996.30	N 39 30 5.55	W 80 39 19.20
	8694.00	89.32	146.34	7560.59	6078.59	1546.00	-1385.04	701.35	0.82	0.60	0.56	366800.04	1674049.31	N 39 30 4.78	W 80 39 18.51
	8788.00	90.35	146.33	7560.86	6078.86	1639.97	-1463.28	753.46	1.10	1.10	-0.01	366721.81	1674101.42	N 39 30 4.01	W 80 39 17.83
	8883.00	89.14	145.94	7561.28	6079.28	1734.92	-1542.16	806.40	1.34	-1.27	-0.41	366642.93	1674154.35	N 39 30 3.24	W 80 39 17.14
	8979.00	89.25	145.04	7562.63	6080.63	1830.82	-1621.26	860.78	0.94	0.11	-0.94	366563.84	1674208.73	N 39 30 2.47	W 80 39 16.44
	9072.00	88.73	145.33	7564.27	6082.27	1923.70	-1697.60	913.87	0.64	-0.56	0.31	366487.50	1674261.81	N 39 30 1.72	W 80 39 15.75
	9167.00	88.66	145.16	7566.43	6084.43	2018.58	-1775.63	968.01	0.19	-0.07	-0.18	366409.48	1674315.95	N 39 30 0.96	W 80 39 15.04
	9262.00	89.07	144.42	7568.31	6086.31	2113.42	-1853.23	1022.77	0.89	0.43	-0.78	366331.88	1674370.71	N 39 30 0.20	W 80 39 14.33
	9357.00	89.80	143.86	7569.25	6087.25	2208.21	-1930.22	1078.42	0.97	0.77	-0.59	366254.89	1674426.36	N 39 29 59.44	W 80 39 13.61
	9451.00	89.80	146.78	7569.58	6087.58	2302.10	-2007.51	1131.90	3.11	0.00	3.11	366177.61	1674479.83	N 39 29 58.68	W 80 39 12.92
	9543.00	90.24	147.37	7569.55	6087.55	2394.09	-2084.73	1181.91	0.80	0.48	0.64	366100.39	1674529.84	N 39 29 57.93	W 80 39 12.27
	9639.00	88.97	146.94	7570.21	6088.21	2490.08	-2165.38	1233.97	1.40	-1.32	-0.45	366019.74	1674581.90	N 39 29 57.14	W 80 39 11.59
	9732.00	88.35	146.62	7572.38	6090.38	2583.03	-2243.16	1284.91	0.75	-0.67	-0.34	365941.97	1674632.83	N 39 29 56.37	W 80 39 10.93
	9827.00	88.28	146.31	7575.18	6093.18	2677.96	-2322.32	1337.37	0.33	-0.07	-0.33	365862.82	1674685.29	N 39 29 55.60	W 80 39 10.24
	9922.00	87.98	146.29	7578.28	6096.28	2772.87	-2401.31	1390.05	0.32	-0.32	-0.02	365783.83	1674737.97	N 39 29 54.83	W 80 39 9.56
	10017.00	89.45	148.16	7580.41	6098.41	2867.84	-2481.16	1441.46	2.50	1.55	1.97	365703.99	1674789.37	N 39 29 54.04	W 80 39 8.89
	10112.00	90.14	151.88	7580.75	6098.75	2962.75	-2563.43	1488.92	3.98	0.73	3.92	365621.72	1674836.83	N 39 29 53.24	W 80 39 8.27
	10206.00	88.94	148.60	7581.50	6099.50	3056.66	-2645.02	1535.57	3.72	-1.28	-3.49	365540.13	1674883.48	N 39 29 52.44	W 80 39 7.66
	10301.00	89.00	148.66	7583.21	6101.21	3151.64	-2726.12	1585.02	0.09	0.06	0.06	365459.04	1674932.92	N 39 29 51.64	W 80 39 7.02

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	10395.00	88.80	147.73	7585.01	6103.01	3245.62	-2805.99	1634.55	1.01	-0.21	-0.99	365379.17	1674982.45	N 39 29 50.86	W 80 39 6.37
	10490.00	90.59	147.39	7585.52	6103.52	3340.61	-2886.16	1685.51	1.92	1.88	-0.36	365299.01	1675033.41	N 39 29 50.07	W 80 39 5.71
	10584.00	90.35	144.04	7584.75	6102.75	3434.52	-2963.82	1738.45	3.57	-0.26	-3.56	365221.36	1675086.34	N 39 29 49.31	W 80 39 5.02
	10878.00	90.46	143.55	7584.08	6102.08	3528.28	-3039.66	1793.97	0.53	0.12	-0.52	365145.52	1675141.86	N 39 29 48.57	W 80 39 4.30
	10773.00	90.04	142.77	7583.67	6101.67	3622.95	-3115.69	1850.93	0.93	-0.44	-0.82	365069.49	1675198.82	N 39 29 47.82	W 80 39 3.56
	10868.00	90.56	142.20	7583.17	6101.17	3717.53	-3191.04	1908.78	0.81	0.55	-0.60	364994.14	1675256.87	N 39 29 47.09	W 80 39 2.81
	10962.00	89.19	143.67	7583.38	6101.38	3811.17	-3266.05	1965.43	2.14	-1.46	1.56	364919.15	1675313.32	N 39 29 46.35	W 80 39 2.08
	11057.00	89.53	143.90	7584.44	6102.44	3905.92	-3342.69	2021.56	0.43	0.36	0.24	364842.51	1675369.44	N 39 29 45.60	W 80 39 1.35
	11152.00	88.15	144.18	7586.36	6104.36	4000.68	-3419.57	2077.33	1.48	-1.45	0.29	364765.64	1675425.21	N 39 29 44.85	W 80 39 0.63
	11247.00	88.50	144.20	7589.14	6107.14	4095.44	-3496.58	2132.89	0.37	0.37	0.02	364688.63	1675480.76	N 39 29 44.10	W 80 38 59.90
	11342.00	88.74	144.84	7591.43	6109.43	4190.25	-3573.91	2188.01	0.72	0.25	0.67	364611.30	1675535.88	N 39 29 43.34	W 80 38 59.19
	11437.00	88.53	144.29	7593.69	6111.69	4285.06	-3651.29	2243.08	0.62	-0.22	-0.58	364533.92	1675590.94	N 39 29 42.58	W 80 38 58.47
	11530.00	88.50	144.64	7596.10	6114.10	4377.86	-3726.95	2297.11	0.38	-0.03	0.38	364458.27	1675644.97	N 39 29 41.84	W 80 38 57.77
	11625.00	88.46	144.06	7598.62	6116.62	4472.64	-3804.12	2352.46	0.61	-0.04	-0.61	364381.11	1675700.32	N 39 29 41.08	W 80 38 57.05
	11719.00	89.66	146.26	7600.16	6118.16	4566.52	-3881.25	2406.15	2.67	1.28	2.34	364303.98	1675754.01	N 39 29 40.33	W 80 38 56.36
	11814.00	90.28	146.09	7600.21	6118.21	4661.47	-3960.17	2459.03	0.68	0.65	-0.18	364225.06	1675806.89	N 39 29 39.56	W 80 38 55.67
	11909.00	89.80	146.43	7600.15	6118.15	4756.43	-4039.17	2511.80	0.62	-0.51	0.36	364146.07	1675859.65	N 39 29 38.78	W 80 38 54.98
	12003.00	89.29	146.17	7600.89	6118.89	4850.39	-4117.37	2563.95	0.61	-0.54	-0.28	364067.87	1675911.80	N 39 29 38.01	W 80 38 54.30
	12098.00	89.56	146.04	7601.85	6119.85	4945.34	-4196.22	2616.93	0.32	0.28	-0.14	363989.03	1675964.77	N 39 29 37.24	W 80 38 53.62
	12192.00	88.36	146.69	7603.55	6121.55	5039.29	-4274.47	2668.98	1.45	-1.28	0.69	363910.78	1676016.82	N 39 29 36.48	W 80 38 52.94
	12287.00	88.46	145.92	7606.19	6124.19	5134.22	-4353.48	2721.66	0.82	0.11	-0.81	363831.78	1676069.50	N 39 29 35.70	W 80 38 52.25
	12382.00	88.49	145.54	7608.72	6126.72	5229.11	-4431.96	2775.14	0.40	0.03	-0.40	363753.30	1676122.98	N 39 29 34.93	W 80 38 51.56
	12477.00	88.73	145.21	7611.02	6129.02	5323.99	-4510.11	2829.10	0.43	0.25	-0.35	363675.16	1676176.94	N 39 29 34.17	W 80 38 50.86
Final Survey	12514.00	88.77	145.21	7611.83	6129.83	5360.94	-4540.49	2850.21	0.11	0.11	0.00	363644.78	1676198.04	N 39 29 33.87	W 80 38 50.58
Projection to TD	12574.00	88.77	145.21	7613.12	6131.12	5420.86	-4589.75	2884.44	0.00	0.00	0.00	363595.52	1676232.26	N 39 29 33.39	W 80 38 50.14

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	22.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / Triad Hunter WVDNR #1411 Surveys 0ft to 12574ft MD
	1	22.000	1275.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Triad Hunter WVDNR #1411 Surveys 0ft to
	1	1275.000	6608.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Triad Hunter WVDNR #1411 Surveys 0ft to
	1	6608.000	12514.000	Act Stns	30.000	30.000	SLB_MWD+DMAG	Original Borehole / Triad Hunter WVDNR #1411 Surveys 0ft to
	1	12514.000	12574.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Triad Hunter WVDNR #1411 Surveys 0ft to

RECEIVED
 Office of Oil and Gas
 JUN 18 2015
 WV Department of
 Environmental Protection