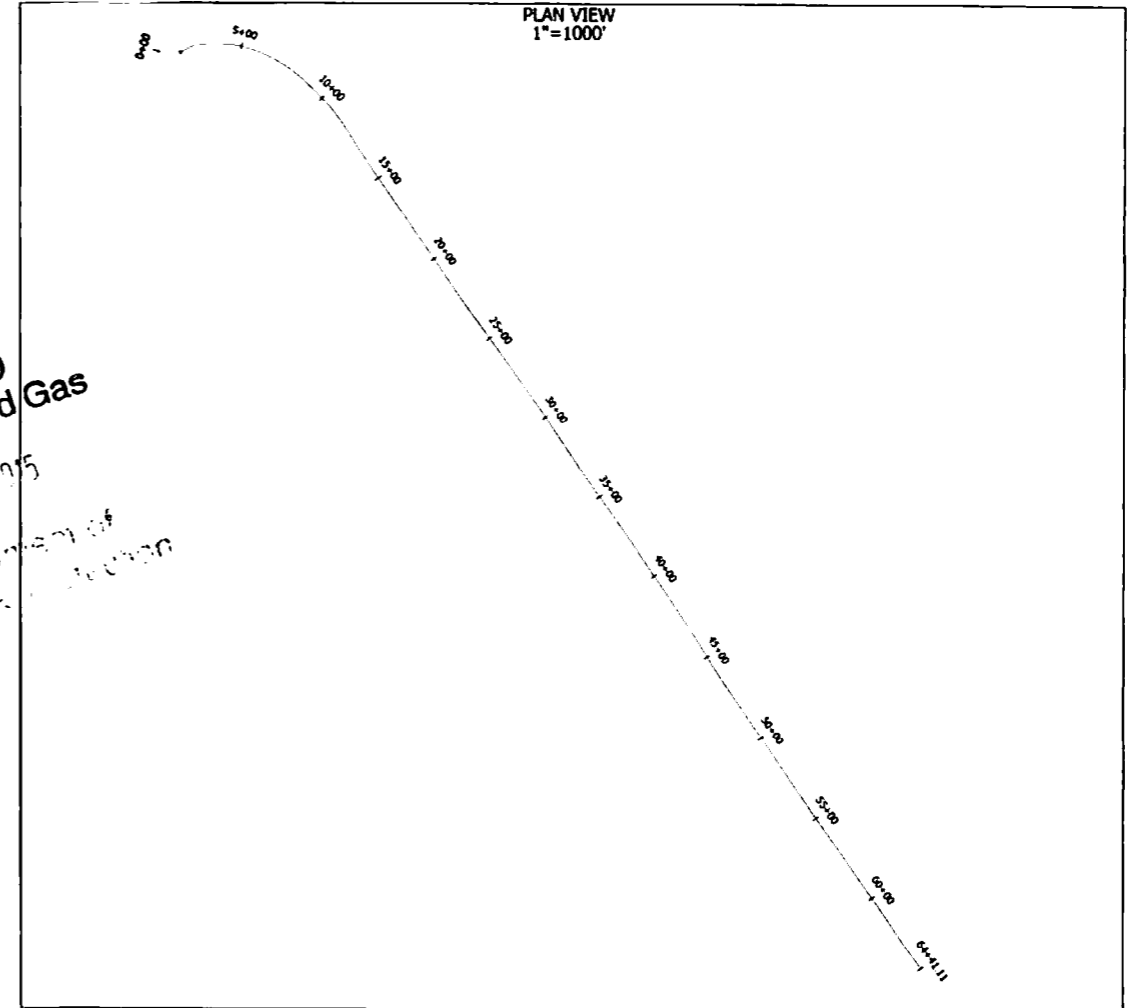
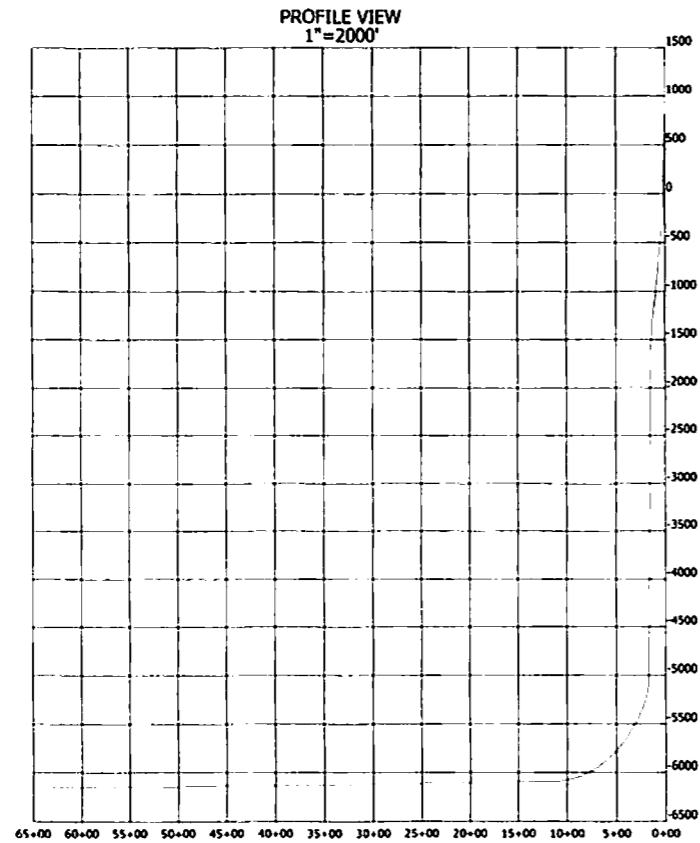


PLAN AND PROFILE VIEW FOR WVDNR #1412 API #47-103-02997

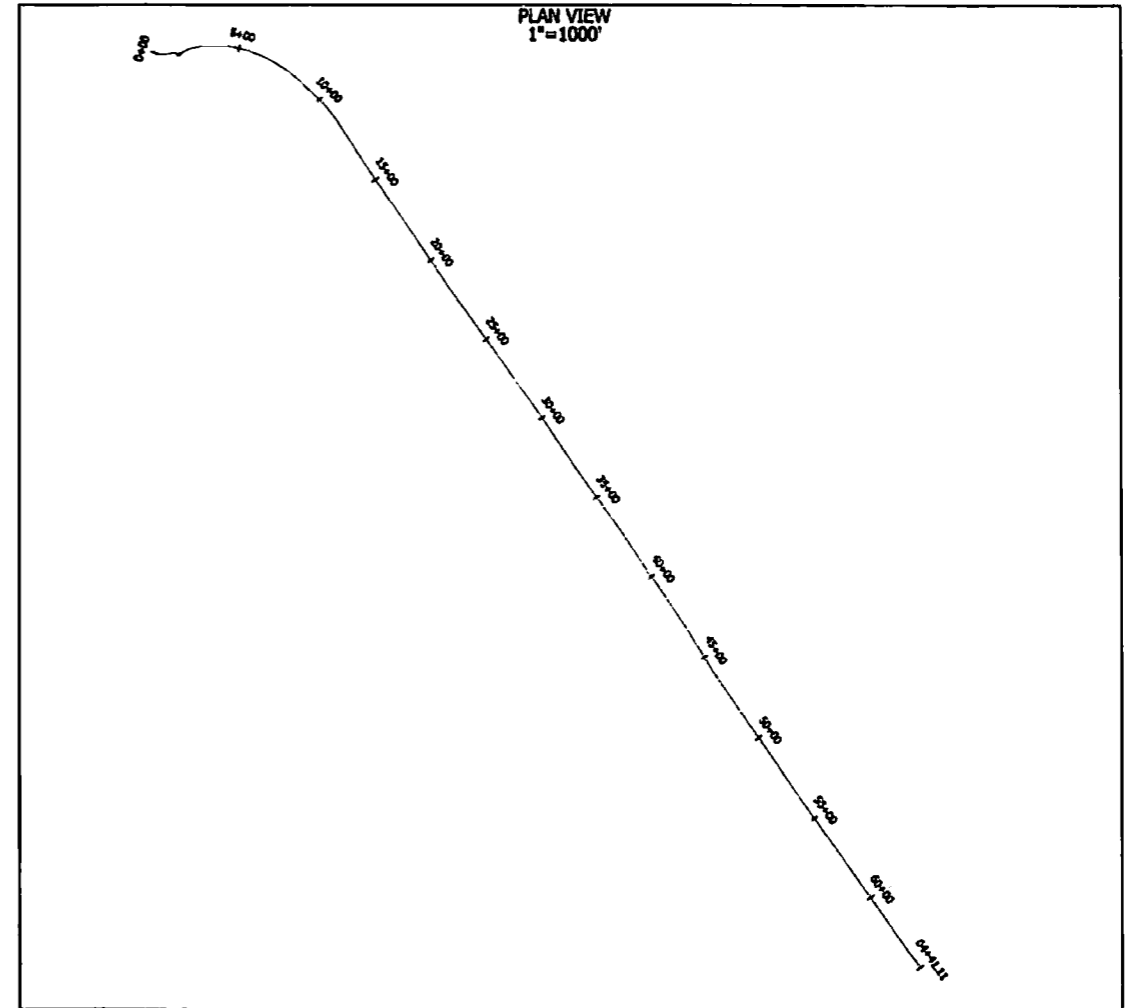
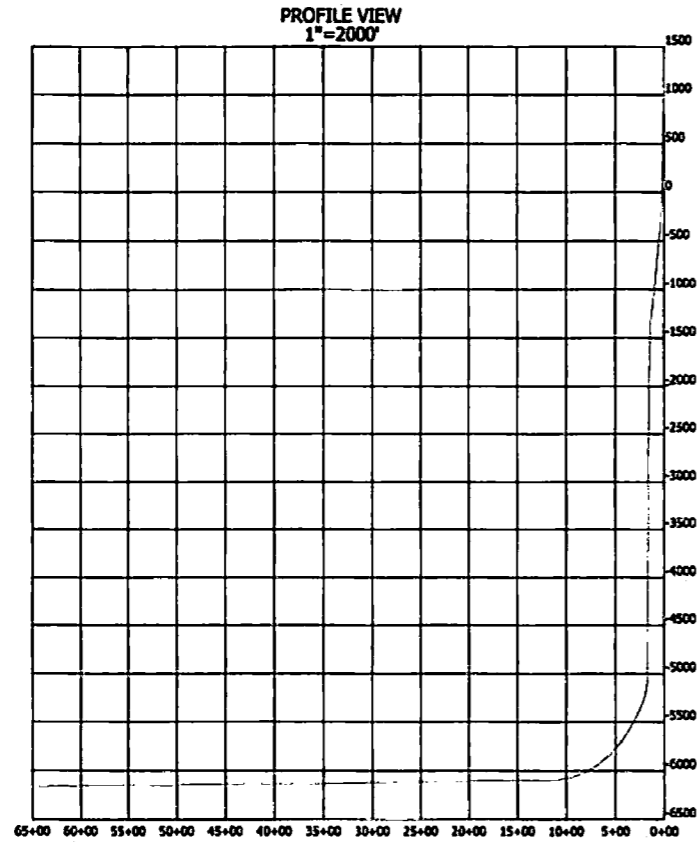


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Environmental Protection

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 #1412 API #47-103-02997



NOTES

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Triad Hunter WVDNR #1412 Gyro+MWD 0ft to 13371ft MD Survey Geodetic

Report

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Report Date: October 02, 2014 - 08:32 AM
Client: Triad Hunter
Field: WV Wetzel County (NAD 27)
Structure / Slot: Triad Hunter WVDNR Pad / WVDNR #1412
Well: WVDNR #1412
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Triad Hunter WVDNR #1412 Gyro+MWD 0ft to 13371ft MD
Survey Date: August 06, 2014
Tort / AHD / DDI / ERD Ratio: 213.679 ° / 6442.874 ft / 6.383 / 0.845
Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet
Location Lat / Long: N 39° 30' 18.50046", W 80° 39' 27.46870"
Location Grid N/E Y/X: N 368197.000 ftUS, E 1673365.000 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: 140.273 ° (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: 52606.118 nT
Magnetic Dip Angle: 67.074 °
Declination Date: August 06, 2014
Magnetic Declination Model: HDGM 2013
North Reference: Grid North
Grid Convergence Used: -0.7383 °
Total Corr Mag North->Grid North: -7.2297 °
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	0.00	0.00	-1482.00	0.00	0.00	0.00	N/A	N/A	N/A	368197.00	1673365.00	N 39 30 18.50	W 80 39 27.47
	100.00	0.23	17.75	100.00	-1382.00	-0.11	0.19	0.06	0.23	0.23	0.00	368197.19	1673365.06	N 39 30 18.50	W 80 39 27.47
	200.00	0.16	358.82	200.00	-1282.00	-0.33	0.53	0.12	0.09	-0.07	-18.93	368197.53	1673365.12	N 39 30 18.51	W 80 39 27.47
	300.00	0.24	342.20	300.00	-1182.00	-0.63	0.87	0.05	0.10	0.08	-16.62	368197.87	1673365.05	N 39 30 18.51	W 80 39 27.47
	320.00	0.19	333.88	320.00	-1162.00	-0.70	0.93	0.03	0.31	-0.27	-41.62	368197.93	1673365.03	N 39 30 18.51	W 80 39 27.47
Gyro Survey	400.00	0.16	350.89	400.00	-1082.00	-0.92	1.16	-0.05	0.07	-0.04	21.27	368198.16	1673364.95	N 39 30 18.51	W 80 39 27.47
	500.00	0.09	53.00	500.00	-982.00	-1.03	1.34	0.00	0.14	-0.06	62.11	368198.34	1673365.00	N 39 30 18.51	W 80 39 27.47
	600.00	0.36	83.28	600.00	-882.00	-0.86	1.43	0.37	0.28	0.27	30.28	368198.43	1673365.37	N 39 30 18.51	W 80 39 27.46
	700.00	0.57	94.95	699.99	-782.01	-0.34	1.42	1.18	0.23	0.21	11.67	368198.42	1673366.18	N 39 30 18.51	W 80 39 27.45
	800.00	0.92	99.12	799.99	-682.01	0.62	1.25	2.47	0.36	0.35	4.17	368198.25	1673367.47	N 39 30 18.51	W 80 39 27.44
	900.00	1.30	101.73	899.97	-582.03	2.12	0.89	4.38	0.38	0.38	2.61	368197.89	1673369.38	N 39 30 18.51	W 80 39 27.41
	1000.00	1.12	122.47	999.94	-482.06	3.94	0.13	6.32	0.47	-0.18	20.74	368197.13	1673371.32	N 39 30 18.50	W 80 39 27.39
	1100.00	1.32	125.60	1099.92	-382.08	5.98	-1.06	8.08	0.21	0.20	3.13	368195.94	1673373.08	N 39 30 18.49	W 80 39 27.37
	1170.00	0.91	123.86	1169.91	-312.09	7.29	-1.84	9.19	0.59	-0.59	-2.49	368195.16	1673374.19	N 39 30 18.48	W 80 39 27.35
	1387.00	0.89	166.35	1386.88	-95.12	10.45	-4.43	11.02	0.30	-0.01	19.58	368192.57	1673376.01	N 39 30 18.46	W 80 39 27.33
	1450.00	1.27	142.03	1449.87	-32.13	11.58	-5.45	11.56	0.93	0.60	-38.60	368191.55	1673376.56	N 39 30 18.45	W 80 39 27.32
	1545.00	2.12	117.96	1544.83	62.83	14.26	-7.11	13.76	1.15	0.89	-25.34	368189.89	1673378.76	N 39 30 18.43	W 80 39 27.29
	1640.00	3.12	107.69	1639.73	157.73	18.06	-8.72	17.78	1.16	1.05	-10.81	368188.28	1673382.77	N 39 30 18.42	W 80 39 27.24
	1736.00	4.34	87.68	1735.53	253.53	22.47	-9.36	23.89	1.84	1.27	-20.84	368187.64	1673388.89	N 39 30 18.41	W 80 39 27.16
	1831.00	5.72	81.53	1830.16	348.16	27.11	-8.52	32.17	1.56	1.45	-6.47	368188.48	1673397.17	N 39 30 18.42	W 80 39 27.06
	1927.00	6.48	77.93	1925.62	443.62	32.11	-6.68	42.20	0.89	0.79	-3.75	368190.32	1673407.20	N 39 30 18.44	W 80 39 26.93

Comments	MD (ft)	Incl (°)	Azlm 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 ° ' '')
	2022.00	5.93	82.83	2020.06	538.06	37.24	-4.95	52.31	0.80	-0.58	5.16	368182.05	1673417.31	N 39 30 18.46	W 80 39 26.80
	2116.00	4.46	88.37	2113.67	631.67	42.11	-4.24	60.78	1.65	-1.56	5.89	368192.76	1673425.78	N 39 30 18.47	W 80 39 26.69
	2215.00	3.75	85.30	2212.42	730.42	46.34	-3.87	67.86	0.75	-0.72	-3.10	368193.13	1673432.85	N 39 30 18.47	W 80 39 26.60
	2309.00	5.05	80.79	2306.14	824.14	50.21	-2.95	75.00	1.43	1.38	-4.80	368194.05	1673440.00	N 39 30 18.48	W 80 39 26.51
	2403.00	5.51	77.06	2399.74	917.74	54.34	-1.28	83.49	0.61	0.49	-3.97	368195.72	1673448.48	N 39 30 18.50	W 80 39 26.40
	2496.00	6.07	88.08	2492.27	1010.27	59.37	-0.11	92.75	1.34	0.60	11.85	368196.89	1673457.75	N 39 30 18.51	W 80 39 26.29
	2591.00	7.11	94.18	2586.64	1104.64	66.52	-0.37	103.64	1.32	1.09	6.42	368196.63	1673468.63	N 39 30 18.51	W 80 39 26.15
	2684.00	6.87	95.96	2678.95	1198.95	74.50	-1.37	114.91	0.35	-0.26	1.91	368195.63	1673479.90	N 39 30 18.50	W 80 39 26.00
	2776.00	5.23	99.01	2772.43	1290.43	81.74	-2.63	124.73	1.78	-1.74	3.24	368194.37	1673489.72	N 39 30 18.49	W 80 39 25.88
	2873.00	3.20	104.80	2867.16	1385.16	87.15	-3.98	131.57	2.18	-2.14	6.09	368193.02	1673496.56	N 39 30 18.48	W 80 39 25.79
	2968.00	1.39	115.09	2962.08	1480.08	90.36	-5.15	135.18	1.95	-1.91	10.83	368191.85	1673500.17	N 39 30 18.47	W 80 39 25.74
	3063.00	0.72	213.80	3057.07	1575.07	91.57	-6.13	135.89	1.75	-0.71	103.91	368190.87	1673500.88	N 39 30 18.46	W 80 39 25.73
	3158.00	1.25	231.62	3152.06	1670.06	91.71	-7.27	134.75	0.64	0.56	18.76	368189.73	1673499.74	N 39 30 18.45	W 80 39 25.75
	3253.00	1.68	231.09	3247.03	1765.03	91.67	-8.79	132.85	0.45	0.45	-0.56	368188.21	1673497.84	N 39 30 18.43	W 80 39 25.77
	3348.00	1.38	235.10	3341.99	1859.99	91.55	-10.32	130.83	0.34	-0.32	4.22	368186.68	1673495.82	N 39 30 18.42	W 80 39 25.80
	3442.00	0.93	238.88	3435.97	1953.97	91.34	-11.36	129.25	0.49	-0.48	4.02	368185.64	1673494.24	N 39 30 18.40	W 80 39 25.82
	3537.00	0.58	242.87	3530.97	2048.97	91.12	-11.98	128.16	0.37	-0.37	4.20	368185.02	1673493.15	N 39 30 18.40	W 80 39 25.83
	3633.00	0.42	268.16	3626.96	2144.96	90.80	-12.21	127.38	0.28	-0.17	26.34	368184.79	1673492.37	N 39 30 18.40	W 80 39 25.84
	3728.00	0.32	272.89	3721.96	2239.96	90.41	-12.21	126.76	0.11	-0.11	4.98	368184.79	1673491.76	N 39 30 18.40	W 80 39 25.85
	3822.00	0.35	285.30	3815.96	2333.96	89.99	-12.12	126.22	0.08	0.03	13.20	368184.88	1673491.22	N 39 30 18.40	W 80 39 25.86
	3917.00	0.29	272.13	3910.96	2428.96	89.60	-12.03	125.70	0.10	-0.06	-13.86	368184.97	1673490.70	N 39 30 18.40	W 80 39 25.86
	4012.00	0.32	312.63	4005.96	2523.96	89.17	-11.85	125.27	0.22	0.03	42.63	368185.15	1673490.26	N 39 30 18.40	W 80 39 25.87
	4106.00	0.38	318.31	4099.95	2617.95	88.60	-11.44	124.87	0.07	0.06	6.04	368185.57	1673489.86	N 39 30 18.40	W 80 39 25.87
	4200.00	0.32	289.64	4193.95	2711.95	88.06	-11.11	124.41	0.19	-0.06	-30.50	368185.89	1673489.41	N 39 30 18.41	W 80 39 25.88
	4295.00	0.41	311.06	4288.95	2806.95	87.50	-10.80	123.91	0.17	0.09	22.55	368186.20	1673488.90	N 39 30 18.41	W 80 39 25.89
	4390.00	0.20	311.76	4383.95	2901.95	87.00	-10.47	123.53	0.22	-0.22	0.74	368186.53	1673488.52	N 39 30 18.41	W 80 39 25.89
	4486.00	0.31	313.58	4479.95	2997.95	86.58	-10.18	123.21	0.11	0.11	1.90	368186.82	1673488.21	N 39 30 18.42	W 80 39 25.90
	4581.00	0.24	301.39	4574.95	3092.95	86.13	-9.90	122.86	0.10	-0.07	-12.83	368187.10	1673487.85	N 39 30 18.42	W 80 39 25.90
	4676.00	0.22	303.49	4669.95	3187.95	85.77	-9.69	122.54	0.02	-0.02	2.21	368187.31	1673487.53	N 39 30 18.42	W 80 39 25.90
	4771.00	0.12	298.96	4764.95	3282.95	85.50	-9.54	122.30	0.11	-0.11	-4.77	368187.46	1673487.29	N 39 30 18.42	W 80 39 25.91
	4865.00	0.15	302.11	4858.95	3376.95	85.30	-9.43	122.11	0.03	0.03	3.35	368187.57	1673487.10	N 39 30 18.42	W 80 39 25.91
	4960.00	0.34	281.13	4953.94	3471.94	84.96	-9.31	121.72	0.22	0.20	-22.08	368187.69	1673486.72	N 39 30 18.42	W 80 39 25.91
	5055.00	0.21	288.52	5048.94	3566.94	84.59	-9.20	121.28	0.14	-0.14	7.78	368187.80	1673486.28	N 39 30 18.42	W 80 39 25.92
	5119.00	0.28	273.44	5112.94	3630.94	84.38	-9.15	121.02	0.15	0.11	-23.56	368187.85	1673486.01	N 39 30 18.43	W 80 39 25.92
	5182.00	0.20	292.43	5175.94	3693.94	84.18	-9.10	120.76	0.18	-0.13	30.14	368187.90	1673485.75	N 39 30 18.43	W 80 39 25.93
	5245.00	0.24	267.31	5238.94	3756.94	84.01	-9.07	120.53	0.16	0.06	-39.87	368187.93	1673485.52	N 39 30 18.43	W 80 39 25.93
	5308.00	0.15	232.32	5301.94	3819.94	83.92	-9.12	120.33	0.23	-0.14	-55.54	368187.88	1673485.32	N 39 30 18.43	W 80 39 25.93
	5371.00	0.31	213.86	5364.94	3882.94	83.97	-9.32	120.17	0.28	0.25	-29.30	368187.69	1673485.16	N 39 30 18.42	W 80 39 25.93
	5435.00	0.25	209.03	5428.94	3946.94	84.07	-9.58	120.01	0.10	-0.09	-7.55	368187.42	1673485.00	N 39 30 18.42	W 80 39 25.94
	5498.00	0.32	176.38	5491.94	4009.94	84.26	-9.88	119.95	0.28	0.11	-51.83	368187.12	1673484.94	N 39 30 18.42	W 80 39 25.94
	5562.00	0.49	174.85	5555.94	4073.94	84.63	-10.33	119.99	0.27	0.27	-2.39	368186.67	1673484.98	N 39 30 18.41	W 80 39 25.94
	5625.00	0.45	183.05	5618.94	4136.94	85.03	-10.84	120.00	0.12	-0.06	13.02	368186.16	1673484.99	N 39 30 18.41	W 80 39 25.94
	5689.00	0.41	179.05	5682.93	4200.93	85.40	-11.32	119.99	0.08	-0.06	-6.25	368185.68	1673484.98	N 39 30 18.40	W 80 39 25.94
	5752.00	0.48	191.98	5745.93	4263.93	85.74	-11.81	119.94	0.19	0.11	20.52	368185.19	1673484.93	N 39 30 18.40	W 80 39 25.94
	5815.00	0.42	182.27	5808.93	4326.93	86.07	-12.30	119.87	0.15	-0.10	-15.41	368184.71	1673484.86	N 39 30 18.39	W 80 39 25.94

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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 ° ' ")
	5878.00	0.49	196.13	5871.93	4389.93	86.39	-12.79	119.79	0.21	0.11	22.00	368184.22	1673484.78	N 39 30 18.39	W 80 39 25.94
	5941.00	0.44	197.99	5934.93	4452.93	86.67	-13.27	119.64	0.08	-0.08	2.95	368183.73	1673484.63	N 39 30 18.38	W 80 39 25.94
	6004.00	0.39	207.70	5997.92	4515.92	86.89	-13.69	119.46	0.14	-0.08	15.41	368183.31	1673484.46	N 39 30 18.38	W 80 39 25.94
	6068.00	0.18	195.71	6061.92	4579.92	87.03	-13.98	119.34	0.34	-0.33	-18.73	368183.02	1673484.33	N 39 30 18.38	W 80 39 25.94
	6132.00	0.30	208.49	6125.92	4643.92	87.14	-14.23	119.23	0.20	0.19	19.97	368182.77	1673484.22	N 39 30 18.38	W 80 39 25.95
	6195.00	0.39	176.44	6188.92	4706.92	87.38	-14.59	119.16	0.33	0.14	-50.87	368182.41	1673484.16	N 39 30 18.37	W 80 39 25.95
	6258.00	0.66	144.77	6251.92	4769.92	87.91	-15.10	119.39	0.61	-0.43	-50.27	368181.90	1673484.38	N 39 30 18.37	W 80 39 25.94
	6322.00	0.78	151.49	6315.91	4833.91	88.71	-15.78	119.81	0.23	0.19	10.50	368181.22	1673484.80	N 39 30 18.36	W 80 39 25.94
	6385.00	0.79	141.21	6378.91	4896.91	89.56	-16.50	120.28	0.22	0.02	-16.32	368180.50	1673485.28	N 39 30 18.35	W 80 39 25.93
	6461.00	0.86	148.40	6454.90	4972.90	90.65	-17.39	120.91	0.16	0.09	9.46	368179.61	1673485.90	N 39 30 18.34	W 80 39 25.92
	6555.00	1.53	47.56	6548.89	5066.89	91.29	-17.14	122.21	2.01	0.71	-107.28	368179.86	1673487.20	N 39 30 18.35	W 80 39 25.91
	6588.00	4.96	40.78	6581.83	5099.83	91.03	-15.77	123.46	10.44	10.39	-20.55	368181.23	1673488.46	N 39 30 18.36	W 80 39 25.89
	6650.00	11.82	39.93	6643.13	5161.13	89.45	-8.86	129.30	11.07	11.06	-1.37	368188.14	1673494.29	N 39 30 18.43	W 80 39 25.82
	6745.00	19.77	57.88	6734.52	5252.52	89.83	7.18	149.19	9.73	8.37	18.89	368204.18	1673514.18	N 39 30 18.59	W 80 39 25.57
	6840.00	23.18	70.75	6822.96	5340.96	98.51	21.90	180.48	6.10	3.59	13.55	368218.90	1673545.47	N 39 30 18.74	W 80 39 25.17
	6935.00	26.00	79.71	6909.37	5427.37	115.29	31.79	218.64	4.91	2.97	9.43	368228.79	1673583.63	N 39 30 18.84	W 80 39 24.68
	7030.00	30.01	88.54	6993.26	5511.26	140.26	36.12	262.91	6.06	4.22	9.29	368233.11	1673627.90	N 39 30 18.89	W 80 39 24.12
	7125.00	32.35	89.35	7074.53	5592.53	171.00	37.01	312.08	2.50	2.46	0.85	368234.01	1673677.07	N 39 30 18.91	W 80 39 23.49
	7220.00	35.06	92.70	7153.57	5671.57	205.44	36.01	364.77	3.46	2.85	3.53	368233.01	1673729.75	N 39 30 18.90	W 80 39 22.82
	7315.00	41.19	101.63	7228.32	5746.32	248.35	28.41	422.76	8.67	6.45	9.40	368225.41	1673787.74	N 39 30 18.84	W 80 39 22.08
	7410.00	46.63	108.21	7296.77	5814.77	302.12	11.29	486.28	7.47	5.73	6.93	368208.29	1673851.26	N 39 30 18.67	W 80 39 21.27
	7503.00	51.30	113.98	7357.84	5875.84	363.36	-14.05	551.62	6.86	5.02	6.20	368182.95	1673916.59	N 39 30 18.43	W 80 39 20.43
	7598.00	55.83	119.48	7414.27	5932.27	433.41	-48.49	619.77	6.66	4.77	5.79	368148.51	1673984.73	N 39 30 18.10	W 80 39 19.55
	7693.00	60.41	126.39	7464.48	5982.48	510.36	-92.40	687.33	7.83	4.82	7.27	368104.61	1674052.29	N 39 30 17.67	W 80 39 18.69
	7788.00	69.65	132.08	7504.57	6022.57	594.77	-146.90	753.82	11.13	9.73	5.99	368050.10	1674118.78	N 39 30 17.14	W 80 39 17.83
	7883.00	77.75	134.77	7531.21	6049.21	685.23	-209.56	819.95	8.95	8.53	2.83	367987.46	1674184.90	N 39 30 16.53	W 80 39 16.97
	7977.00	83.01	138.05	7546.92	6064.92	777.65	-276.66	883.81	6.57	5.60	3.49	367920.35	1674248.76	N 39 30 15.88	W 80 39 16.15
	8072.00	87.11	147.10	7555.11	6073.11	872.10	-351.75	941.24	10.42	4.32	9.53	367845.28	1674306.18	N 39 30 15.14	W 80 39 15.40
	8167.00	88.59	147.18	7558.68	6076.68	966.35	-431.49	992.74	1.56	1.56	0.08	367765.54	1674357.68	N 39 30 14.36	W 80 39 14.73
	8262.00	90.48	148.29	7559.45	6077.45	1060.54	-511.81	1043.45	2.31	1.99	1.17	367685.22	1674408.39	N 39 30 13.58	W 80 39 14.07
	8357.00	91.17	145.40	7558.08	6076.08	1154.89	-591.33	1095.40	3.13	0.73	-3.04	367605.71	1674460.33	N 39 30 12.80	W 80 39 13.40
	8451.00	90.31	145.70	7556.87	6074.87	1248.48	-668.83	1148.57	0.97	-0.91	0.32	367528.21	1674513.50	N 39 30 12.04	W 80 39 12.71
	8546.00	88.80	145.78	7557.61	6075.61	1343.05	-747.35	1202.04	1.59	-1.59	0.08	367449.70	1674566.97	N 39 30 11.27	W 80 39 12.01
	8641.00	87.94	145.83	7560.31	6078.31	1437.56	-825.89	1255.41	0.91	-0.91	0.05	367371.16	1674620.34	N 39 30 10.50	W 80 39 11.32
	8736.00	88.59	145.83	7563.18	6081.18	1532.07	-904.45	1308.75	0.68	0.68	0.00	367292.60	1674673.67	N 39 30 9.73	W 80 39 10.63
	8831.00	89.14	145.75	7565.07	6083.07	1626.61	-983.00	1362.15	0.59	0.58	-0.08	367214.06	1674727.07	N 39 30 8.96	W 80 39 9.93
	8925.00	87.90	145.59	7567.49	6085.49	1720.16	-1060.60	1415.14	1.33	-1.32	-0.17	367136.46	1674780.06	N 39 30 8.20	W 80 39 9.24
	9021.00	88.38	145.75	7570.61	6088.61	1815.69	-1139.84	1469.25	0.53	0.50	0.17	367057.23	1674834.16	N 39 30 7.42	W 80 39 8.54
	9114.00	89.35	145.02	7572.45	6090.45	1908.30	-1216.36	1522.07	1.31	1.04	-0.78	366980.71	1674886.98	N 39 30 6.67	W 80 39 7.85
	9209.00	89.76	144.84	7573.19	6091.19	2002.98	-1294.11	1576.65	0.47	0.43	-0.19	366902.97	1674941.56	N 39 30 5.91	W 80 39 7.14
	9304.00	90.14	143.59	7573.27	6091.27	2097.76	-1371.17	1632.20	1.38	0.40	-1.32	366825.91	1674997.11	N 39 30 5.16	W 80 39 6.42
	9399.00	88.69	144.26	7574.24	6092.24	2192.55	-1447.95	1688.14	1.68	-1.53	0.71	366749.14	1675053.04	N 39 30 4.41	W 80 39 5.70
	9493.00	88.80	144.17	7576.30	6094.30	2286.31	-1524.18	1743.09	0.15	0.12	-0.10	366672.91	1675107.99	N 39 30 3.66	W 80 39 4.98
	9586.00	89.31	144.39	7577.83	6095.83	2379.07	-1599.68	1797.38	0.60	0.55	0.24	366597.42	1675162.27	N 39 30 2.92	W 80 39 4.28
	9681.00	89.97	145.60	7578.43	6096.43	2473.74	-1677.49	1851.87	1.45	0.69	1.27	366519.61	1675216.76	N 39 30 2.16	W 80 39 3.57

WV Department of
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JUN 18 2015

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Comments	MD (ft)	Incl (°)	Azlm Grd (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northling (ftUS)	Eastling (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	9774.00	90.31	143.90	7578.20	6096.20	2566.45	-1753.43	1905.54	1.86	0.37	-1.83	366443.67	1675270.43	N 39 30 1.41	W 80 39 2.87
	9889.00	88.66	145.03	7579.06	6097.06	2681.19	-1830.73	1960.75	2.11	-1.74	1.19	366368.37	1675325.64	N 39 30 0.66	W 80 39 2.16
	9984.00	88.45	146.56	7581.45	6099.45	2755.72	-1909.28	2014.14	1.63	-0.22	1.61	366287.84	1675379.02	N 39 29 59.89	W 80 39 1.46
	10059.00	88.18	146.42	7584.25	6102.25	2850.12	-1988.45	2066.56	0.32	-0.28	-0.15	366208.67	1675431.44	N 39 29 59.11	W 80 39 0.78
	10154.00	88.18	146.24	7587.26	6105.26	2944.54	-2067.47	2119.21	0.19	0.00	-0.19	366129.65	1675484.08	N 39 29 58.34	W 80 39 0.10
	10249.00	88.93	146.16	7589.68	6107.66	3039.00	-2146.39	2172.04	0.79	0.79	-0.08	366050.73	1675536.91	N 39 29 57.56	W 80 38 59.41
	10343.00	88.76	144.24	7591.56	6109.56	3132.63	-2223.56	2225.67	2.05	-0.18	-2.04	365973.57	1675590.54	N 39 29 56.81	W 80 38 58.71
	10438.00	88.69	145.18	7593.67	6111.67	3227.32	-2301.08	2280.54	0.99	-0.07	0.99	365896.05	1675645.41	N 39 29 56.05	W 80 38 58.00
	10532.00	88.32	144.43	7596.12	6114.12	3321.00	-2377.87	2334.70	0.89	-0.39	-0.80	365819.27	1675699.56	N 39 29 55.30	W 80 38 57.30
	10627.00	89.52	147.02	7597.91	6115.91	3415.54	-2456.35	2388.18	3.00	1.26	2.73	365740.79	1675753.04	N 39 29 54.53	W 80 38 56.60
	10720.00	90.58	147.39	7597.83	6115.83	3507.86	-2534.53	2438.56	1.21	1.14	0.40	365662.62	1675803.41	N 39 29 53.76	W 80 38 55.95
	10815.00	90.34	146.83	7597.07	6115.07	3602.18	-2614.30	2490.14	0.64	-0.25	-0.59	365582.85	1675854.99	N 39 29 52.98	W 80 38 55.28
	10910.00	89.90	145.23	7596.87	6114.87	3696.70	-2693.08	2543.22	1.75	-0.46	-1.68	365504.08	1675908.07	N 39 29 52.21	W 80 38 54.59
	11004.00	91.44	146.03	7595.77	6113.77	3790.28	-2770.66	2596.28	1.85	1.64	0.85	365426.50	1675961.13	N 39 29 51.45	W 80 38 53.90
	11099.00	90.14	146.91	7594.46	6112.46	3884.71	-2849.84	2648.75	1.65	-1.37	0.93	365347.32	1676013.59	N 39 29 50.67	W 80 38 53.21
	11194.00	89.62	148.22	7594.66	6112.66	3978.94	-2930.02	2699.70	1.48	-0.55	1.38	365267.15	1676064.54	N 39 29 49.89	W 80 38 52.55
	11289.00	89.31	148.48	7595.55	6113.55	4072.99	-3010.89	2749.55	0.43	-0.33	0.27	365186.29	1676114.39	N 39 29 49.09	W 80 38 51.90
	11384.00	89.11	148.38	7596.88	6114.86	4167.02	-3091.82	2799.28	0.24	-0.21	-0.11	365105.36	1676164.12	N 39 29 48.30	W 80 38 51.26
	11479.00	89.72	148.57	7597.83	6115.83	4261.04	-3172.80	2848.95	0.67	0.64	0.20	365024.39	1676213.78	N 39 29 47.51	W 80 38 50.61
	11572.00	88.97	145.42	7598.89	6116.89	4353.39	-3250.77	2899.60	3.48	-0.81	-3.39	364946.42	1676264.43	N 39 29 46.74	W 80 38 49.95
	11667.00	89.21	145.16	7600.40	6118.40	4448.01	-3328.86	2953.69	0.37	0.25	-0.27	364868.34	1676318.51	N 39 29 45.98	W 80 38 49.25
	11761.00	87.14	145.37	7603.39	6121.39	4541.60	-3406.06	3007.22	2.21	-2.20	0.22	364791.14	1676372.04	N 39 29 45.22	W 80 38 48.55
	11856.00	87.80	146.31	7607.59	6125.59	4636.06	-3484.59	3060.51	1.21	0.69	0.99	364712.61	1676425.33	N 39 29 44.45	W 80 38 47.86
	11951.00	86.84	144.89	7612.03	6130.03	4730.54	-3562.89	3114.12	1.80	-1.01	-1.49	364634.32	1676478.93	N 39 29 43.68	W 80 38 47.16
	12045.00	88.97	145.83	7615.46	6133.46	4824.10	-3640.17	3167.51	2.48	2.27	1.00	364557.04	1676532.32	N 39 29 42.93	W 80 38 46.47
	12140.00	90.89	145.43	7615.58	6133.58	4918.68	-3718.58	3221.14	2.06	2.02	-0.42	364478.64	1676585.95	N 39 29 42.16	W 80 38 45.77
	12235.00	91.27	144.83	7613.79	6131.79	5013.32	-3796.51	3275.44	0.75	0.40	-0.63	364400.71	1676640.25	N 39 29 41.40	W 80 38 45.07
	12329.00	91.51	145.09	7611.51	6129.51	5106.98	-3873.45	3329.39	0.38	0.26	0.28	364323.78	1676694.20	N 39 29 40.64	W 80 38 44.37
	12424.00	89.69	144.78	7610.51	6128.51	5201.86	-3951.20	3383.97	1.94	-1.92	-0.33	364246.03	1676748.77	N 39 29 39.88	W 80 38 43.66
	12519.00	89.90	143.72	7610.85	6128.85	5296.43	-4028.30	3439.47	1.14	0.22	-1.12	364168.94	1676804.27	N 39 29 39.13	W 80 38 42.94
	12615.00	89.73	144.50	7611.16	6129.16	5392.21	-4106.07	3495.75	0.83	-0.18	0.81	364091.17	1676860.54	N 39 29 38.36	W 80 38 42.21
	12710.00	89.00	145.48	7612.22	6130.22	5486.88	-4183.88	3550.25	1.29	-0.77	1.03	364013.37	1676915.04	N 39 29 37.60	W 80 38 41.50
	12804.00	88.66	144.95	7614.14	6132.14	5580.51	-4261.06	3603.86	0.67	-0.36	-0.56	363936.19	1676968.65	N 39 29 36.85	W 80 38 40.80
	12899.00	88.45	144.89	7616.53	6134.53	5675.17	-4338.78	3658.44	0.23	-0.22	-0.06	363858.48	1677023.23	N 39 29 36.09	W 80 38 40.09
	12994.00	88.73	144.48	7618.87	6138.87	5769.86	-4416.27	3713.34	0.52	0.29	-0.43	363780.99	1677078.12	N 39 29 35.33	W 80 38 39.38
	13089.00	89.97	146.42	7619.95	6137.95	5864.46	-4494.51	3767.21	2.42	1.31	2.04	363702.76	1677131.99	N 39 29 34.56	W 80 38 38.68
	13184.00	89.45	145.83	7620.43	6138.43	5958.96	-4573.38	3820.16	0.83	-0.55	-0.62	363623.89	1677184.94	N 39 29 33.79	W 80 38 37.99
	13279.00	88.35	145.05	7622.25	6140.25	6053.56	-4651.60	3874.04	1.42	-1.16	-0.82	363545.67	1677238.81	N 39 29 33.02	W 80 38 37.29
	13309.00	88.11	145.18	7623.18	6141.18	6083.44	-4676.20	3891.19	0.91	-0.80	0.43	363521.08	1677255.96	N 39 29 32.78	W 80 38 37.07
	13371.00	88.11	145.18	7625.22	6143.22	6145.17	-4727.07	3928.57	0.00	0.00	0.00	363470.21	1677291.34	N 39 29 32.28	W 80 38 36.61

Survey Type: Def Survey

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Comments	MD (ft)	Incl (°)	Azlm 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 ° ' ")
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 #1412 Gyro+MWD 0ft to 13371ft MD
	1	22.000	1170.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Triad Hunter WVDNR #1412 Gyro+MWD 0ft to
	1	1170.000	1387.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Triad Hunter WVDNR #1412 Gyro+MWD 0ft to
	1	1387.000	1450.000	Act Stns	30.000	30.000	SLB_INC_ONLY<10	Original Borehole / Triad Hunter WVDNR #1412 Gyro+MWD 0ft to
	1	1450.000	13309.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Triad Hunter WVDNR #1412 Gyro+MWD 0ft to
	1	13309.000	13371.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Triad Hunter WVDNR #1412 Gyro+MWD 0ft to

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