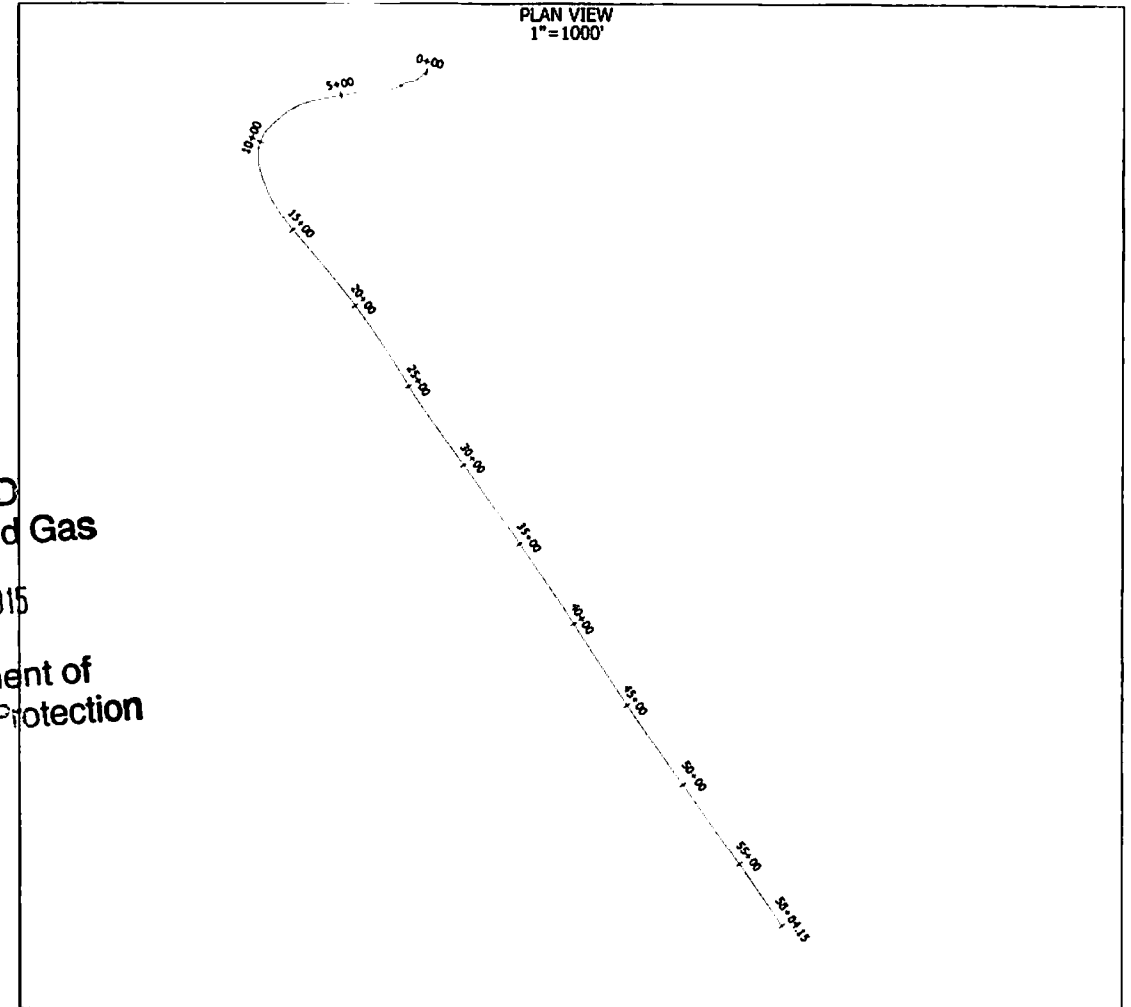
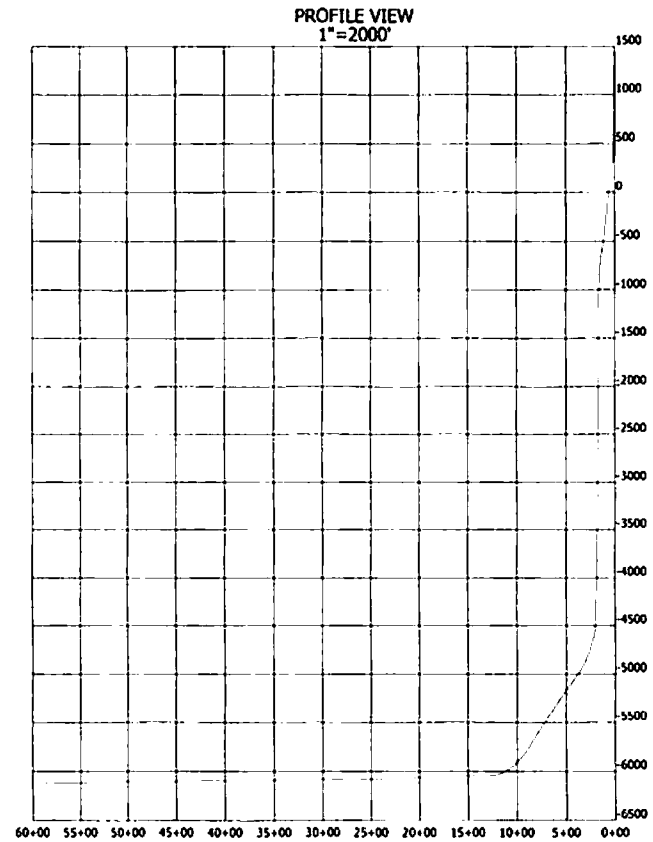


PLAN AND PROFILE VIEW FOR WVDNR #1410 API #47-103-02995

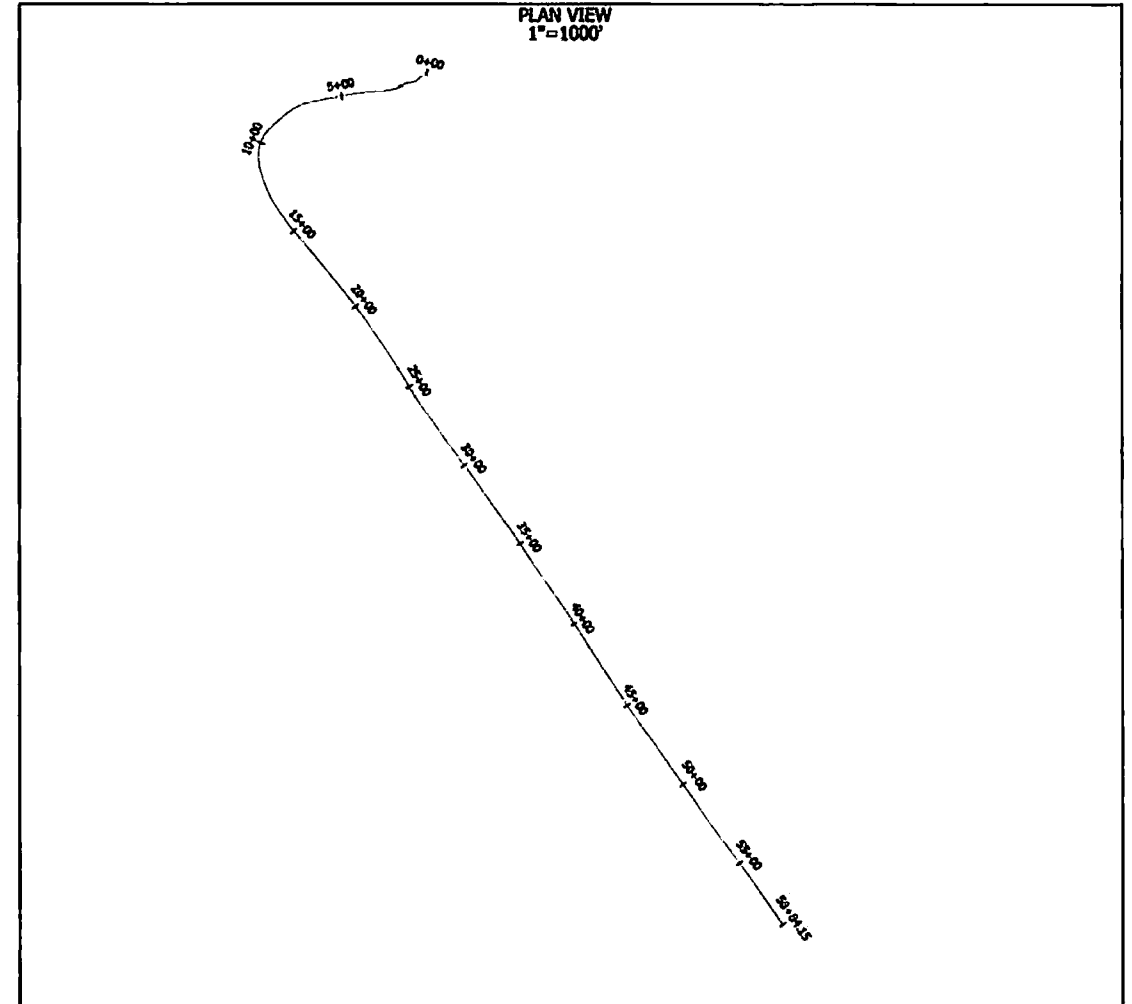
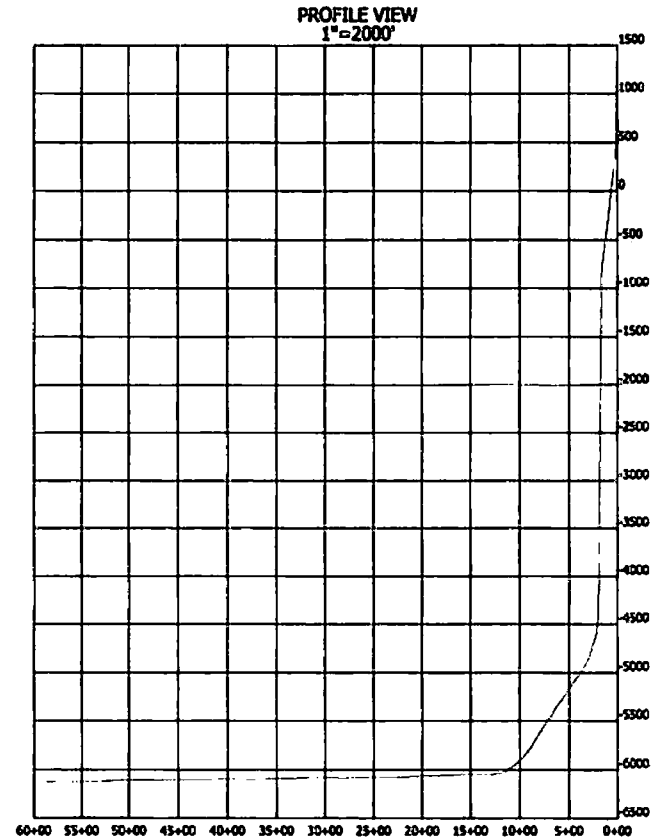


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NOTES

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 #1410 API #47-103-02995



NOTES

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Triad Hunter WVDNR #1410 Surveys 0ft to 12533ft MD Survey Geodetic Report (Def Survey)

Report Date: September 17, 2014 - 09:10 AM
Client: Triad Hunter
Field: WV Wetzel County (NAD 27)
Structure / Slot: Triad Hunter WVDNR Pad / WVDNR #1410
Well: WVDNR #1410
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Triad Hunter WVDNR #1410 Surveys 0ft to 12533ft MD
Survey Date: August 23, 2014
Tort / AHD / DDI / ERD Ratio: 295.669 ° / 5886.818 ft / 6.459 / 0.777
Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet
Location Lat / Long: N 39° 30' 18.24931", W 80° 39' 27.87283"
Location Grid N/E Y/X: N 368172.000 ftUS, E 1673333.000 ftUS
CRS Grid Convergence Angle: -0.7384 °
Grid Scale Factor: 0.99994296
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 157.522 ° (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: -7.969 °
Total Gravity Field Strength: 999.2977mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52599.836 nT
Magnetic Dip Angle: 67.069 °
Declination Date: August 23, 2014
Magnetic Declination Model: HDGM 2013
North Reference: Grid North
Grid Convergence Used: -0.7384 °
Total Corr Mag North->Grid North: -7.2307 °
Local Coord Referenced To: Well Head

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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 ° ' ")
SHL	0.00	0.00	0.00	0.00	-1482.00	0.00	0.00	0.00	N/A	N/A	N/A	368172.00	1673333.00	N 39 30 18.25	W 80 39 27.87
	100.00	0.48	103.25	100.00	-1382.00	0.24	-0.10	0.41	0.48	0.48	0.00	368171.90	1673333.41	N 39 30 18.25	W 80 39 27.87
	200.00	0.28	132.33	200.00	-1282.00	0.71	-0.36	1.00	0.27	-0.20	29.08	368171.64	1673334.00	N 39 30 18.25	W 80 39 27.86
	300.00	0.17	346.26	300.00	-1182.00	0.78	-0.38	1.14	0.43	-0.11	-146.07	368171.62	1673334.14	N 39 30 18.25	W 80 39 27.86
	400.00	0.16	1.56	400.00	-1082.00	0.51	-0.09	1.11	0.05	-0.01	15.30	368171.91	1673334.11	N 39 30 18.25	W 80 39 27.86
	500.00	0.21	70.22	500.00	-982.00	0.39	0.11	1.29	0.21	0.05	68.66	368172.11	1673334.29	N 39 30 18.25	W 80 39 27.86
	600.00	0.17	32.42	599.99	-882.01	0.32	0.30	1.54	0.13	-0.04	-37.80	368172.30	1673334.54	N 39 30 18.25	W 80 39 27.85
	700.00	0.10	254.10	699.99	-782.01	0.22	0.40	1.53	0.25	-0.07	-138.32	368172.40	1673334.53	N 39 30 18.25	W 80 39 27.85
	800.00	0.67	256.60	799.99	-682.01	0.12	0.24	0.88	0.57	0.57	2.50	368172.24	1673333.88	N 39 30 18.25	W 80 39 27.86
	900.00	2.07	242.91	899.96	-582.04	0.17	-0.72	-1.30	1.43	1.40	-13.69	368171.28	1673331.70	N 39 30 18.24	W 80 39 27.89
	1000.00	4.07	240.84	999.81	-482.19	0.73	-3.27	-6.00	2.00	2.00	-2.07	368168.73	1673327.00	N 39 30 18.22	W 80 39 27.95
	1100.00	6.18	234.45	1099.41	-382.59	2.36	-8.13	-13.48	2.18	2.11	-6.39	368163.87	1673319.52	N 39 30 18.17	W 80 39 28.04
Final Gyro	1175.00	7.59	231.15	1173.87	-308.13	4.67	-13.59	-20.62	1.95	1.88	-4.40	368158.41	1673312.38	N 39 30 18.11	W 80 39 28.13
	1248.00	8.08	230.81	1246.18	-235.82	7.50	-19.85	-28.36	0.67	0.67	-0.47	368152.15	1673304.65	N 39 30 18.05	W 80 39 28.23
	1307.00	7.89	228.46	1304.61	-177.39	10.02	-25.16	-34.60	0.64	-0.32	-3.98	368146.84	1673298.40	N 39 30 18.00	W 80 39 28.31
	1357.00	8.01	225.72	1354.13	-127.87	12.43	-29.87	-39.66	0.79	0.24	-5.48	368142.14	1673293.34	N 39 30 17.95	W 80 39 28.37
	1452.00	5.99	224.47	1448.42	-33.58	16.83	-38.02	-47.87	2.13	-2.13	-1.32	368133.98	1673285.13	N 39 30 17.87	W 80 39 28.48
	1548.00	5.30	235.69	1543.96	61.96	19.70	-44.10	-55.05	1.35	-0.72	11.69	368127.90	1673277.96	N 39 30 17.81	W 80 39 28.57
	1643.00	5.65	255.24	1638.53	156.53	19.97	-47.76	-63.19	1.99	0.37	20.58	368124.24	1673269.81	N 39 30 17.77	W 80 39 28.67
	1742.00	6.17	265.37	1737.01	255.01	17.69	-49.43	-73.21	1.18	0.53	10.23	368122.57	1673259.80	N 39 30 17.75	W 80 39 28.80
	1837.00	6.85	263.27	1831.39	349.39	14.59	-50.51	-83.92	0.76	0.72	-2.21	368121.49	1673249.08	N 39 30 17.74	W 80 39 28.94

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 ° ' ")
	1932.00	7.90	261.26	1925.61	443.61	11.50	-52.17	-98.00	1.14	1.11	-2.12	368119.84	1673237.00	N 39 30 17.72	W 80 39 29.09
	2027.00	7.84	250.68	2019.72	537.72	9.59	-55.30	-108.57	1.52	-0.06	-11.14	368116.70	1673224.43	N 39 30 17.69	W 80 39 29.25
	2123.00	6.48	238.19	2114.97	632.97	10.11	-60.32	-119.36	2.15	-1.42	-13.01	368111.68	1673213.65	N 39 30 17.64	W 80 39 29.39
	2218.00	4.91	221.39	2209.51	727.51	12.77	-66.20	-126.60	2.39	-1.65	-17.68	368105.80	1673206.41	N 39 30 17.58	W 80 39 29.48
	2313.00	3.43	192.03	2304.26	822.26	16.90	-72.03	-129.88	2.69	-1.56	-30.91	368099.97	1673203.13	N 39 30 17.52	W 80 39 29.52
	2408.00	2.14	154.56	2399.16	917.16	21.02	-76.41	-129.71	2.28	-1.36	-39.44	368095.59	1673203.30	N 39 30 17.48	W 80 39 29.51
	2502.00	0.60	155.79	2493.13	1011.13	23.26	-78.45	-128.76	1.64	-1.64	1.31	368093.56	1673204.25	N 39 30 17.46	W 80 39 29.50
	2596.00	0.46	303.52	2587.12	1105.12	23.44	-78.69	-128.87	1.08	-0.15	157.16	368093.32	1673204.14	N 39 30 17.46	W 80 39 29.50
	2694.00	0.51	275.80	2685.12	1203.12	22.91	-78.43	-129.63	0.24	0.05	-28.29	368093.58	1673203.38	N 39 30 17.46	W 80 39 29.51
	2788.00	0.46	314.05	2779.12	1297.12	22.36	-78.12	-130.32	0.34	-0.05	40.69	368093.88	1673202.69	N 39 30 17.46	W 80 39 29.52
	2882.00	0.56	338.95	2873.11	1391.11	21.56	-77.43	-130.75	0.26	0.11	26.49	368094.57	1673202.25	N 39 30 17.47	W 80 39 29.53
	2975.00	0.36	343.10	2968.11	1484.11	20.81	-76.73	-131.00	0.22	-0.22	4.46	368095.28	1673202.01	N 39 30 17.47	W 80 39 29.53
	3070.00	0.49	313.18	3061.11	1579.11	20.15	-76.16	-131.38	0.27	0.14	-31.49	368095.84	1673201.62	N 39 30 17.48	W 80 39 29.54
	3164.00	0.44	319.49	3155.11	1673.11	19.44	-75.61	-131.91	0.08	-0.05	6.71	368096.39	1673201.10	N 39 30 17.49	W 80 39 29.54
	3259.00	0.50	306.86	3250.10	1768.10	18.73	-75.09	-132.48	0.13	0.06	-13.29	368096.92	1673200.53	N 39 30 17.49	W 80 39 29.55
	3354.00	0.64	312.81	3345.10	1863.10	17.89	-74.48	-133.20	0.16	0.15	6.26	368097.53	1673199.81	N 39 30 17.50	W 80 39 29.56
	3538.00	0.68	315.37	3529.09	2047.09	15.95	-73.00	-134.72	0.03	0.02	1.39	368099.00	1673198.29	N 39 30 17.51	W 80 39 29.58
	3633.00	0.53	318.13	3624.08	2142.08	15.01	-72.28	-135.41	0.16	-0.16	2.91	368099.73	1673197.60	N 39 30 17.52	W 80 39 29.59
	3727.00	0.49	319.18	3718.08	2236.08	14.22	-71.65	-135.96	0.04	-0.04	1.12	368100.36	1673197.04	N 39 30 17.52	W 80 39 29.60
	3822.00	0.44	319.78	3813.07	2331.07	13.49	-71.06	-136.47	0.05	-0.05	0.63	368100.94	1673196.54	N 39 30 17.53	W 80 39 29.60
	3918.00	0.35	331.94	3909.07	2427.07	12.84	-70.52	-136.84	0.13	-0.09	12.67	368101.48	1673196.17	N 39 30 17.53	W 80 39 29.61
	4012.00	0.28	303.73	4003.07	2521.07	12.37	-70.14	-137.17	0.18	-0.07	-30.01	368101.86	1673195.84	N 39 30 17.54	W 80 39 29.61
	4107.00	0.40	326.05	4098.07	2616.07	11.85	-69.74	-137.55	0.19	0.13	23.49	368102.27	1673195.46	N 39 30 17.54	W 80 39 29.62
	4202.00	0.40	328.87	4193.07	2711.07	11.20	-69.18	-137.90	0.02	0.00	2.97	368102.83	1673195.11	N 39 30 17.55	W 80 39 29.62
	4296.00	0.43	323.81	4287.06	2805.06	10.53	-68.61	-138.28	0.05	0.03	-5.38	368103.39	1673194.73	N 39 30 17.55	W 80 39 29.63
	4390.00	0.40	321.67	4381.06	2899.06	9.87	-68.07	-138.69	0.04	-0.03	-2.28	368103.93	1673194.32	N 39 30 17.56	W 80 39 29.63
	4485.00	0.45	322.31	4476.06	2994.06	9.19	-67.51	-139.13	0.05	0.05	0.67	368104.49	1673193.88	N 39 30 17.56	W 80 39 29.64
	4583.00	0.39	323.94	4574.06	3092.06	8.50	-66.94	-139.56	0.08	-0.06	1.66	368105.06	1673193.45	N 39 30 17.57	W 80 39 29.64
	4678.00	0.39	322.57	4669.05	3187.05	7.87	-66.42	-139.94	0.01	0.00	-1.44	368105.58	1673193.06	N 39 30 17.58	W 80 39 29.65
	4770.00	0.33	316.76	4761.05	3279.05	7.32	-65.98	-140.32	0.08	0.07	-6.32	368106.02	1673192.69	N 39 30 17.58	W 80 39 29.65
	4865.00	0.29	288.58	4856.05	3374.05	6.91	-65.70	-140.73	0.16	-0.04	-29.66	368106.30	1673192.28	N 39 30 17.58	W 80 39 29.66
	4960.00	0.27	273.19	4951.05	3469.05	6.65	-65.62	-141.18	0.08	0.02	-16.20	368106.39	1673191.83	N 39 30 17.58	W 80 39 29.66
	5054.00	0.24	243.06	5045.05	3563.05	6.57	-65.69	-141.58	0.14	-0.03	-32.05	368106.31	1673191.43	N 39 30 17.58	W 80 39 29.67
	5149.00	0.24	234.18	5140.05	3658.05	6.63	-65.90	-141.92	0.04	0.00	-9.35	368106.10	1673191.09	N 39 30 17.58	W 80 39 29.67
	5244.00	0.34	208.26	5235.05	3753.05	6.86	-66.26	-142.21	0.11	0.11	-27.28	368105.74	1673190.80	N 39 30 17.58	W 80 39 29.68
	5342.00	0.32	227.89	5333.04	3851.04	7.13	-66.70	-142.55	0.12	-0.02	20.03	368105.30	1673190.45	N 39 30 17.57	W 80 39 29.68
	5434.00	0.76	249.53	5425.04	3943.04	7.20	-67.09	-143.32	0.52	0.52	23.52	368104.91	1673189.69	N 39 30 17.57	W 80 39 29.69
	5529.00	1.70	184.49	5520.02	4038.02	8.43	-68.71	-144.02	0.52	0.99	-68.46	368103.29	1673188.99	N 39 30 17.55	W 80 39 29.70
	5623.00	2.78	175.16	5613.95	4131.95	11.85	-72.38	-143.93	0.52	1.15	-9.93	368099.63	1673189.07	N 39 30 17.52	W 80 39 29.70
	5649.00	2.97	174.16	5639.92	4157.92	13.09	-73.67	-143.81	0.76	0.73	-3.85	368098.33	1673189.20	N 39 30 17.50	W 80 39 29.70
	5678.00	3.80	177.22	5668.86	4186.86	14.72	-75.38	-143.69	2.93	2.86	10.55	368098.62	1673189.32	N 39 30 17.49	W 80 39 29.69
	5725.00	2.31	212.46	5715.80	4233.80	16.73	-77.74	-144.12	4.96	-3.17	74.98	368094.27	1673188.89	N 39 30 17.46	W 80 39 29.70
	5772.00	1.60	224.39	5762.77	4280.77	17.53	-79.00	-145.09	1.73	-1.51	25.38	368093.00	1673187.92	N 39 30 17.45	W 80 39 29.71
	5819.00	0.49	196.96	5809.76	4327.76	17.94	-79.67	-145.61	2.52	-2.36	-58.36	368092.34	1673187.40	N 39 30 17.44	W 80 39 29.72
	5867.00	1.90	358.59	5857.76	4375.76	17.36	-79.07	-145.69	4.94	2.94	336.73	368092.94	1673187.32	N 39 30 17.45	W 80 39 29.72

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (%/100ft)	RR (%/100ft)	TR (%/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5914.00	1.24	268.26	5904.74	4422.74	16.45	-78.30	-146.21	4.67	3.31	-103.77	368093.70	1673186.79	N 39 30 17.46	W 80 39 29.73
	5962.00	2.83	218.45	5952.72	4470.72	16.84	-79.25	-147.47	10.39	9.49	53.91	368092.76	1673185.54	N 39 30 17.45	W 80 39 29.74
	6009.00	7.29	243.79	5999.53	4517.53	17.60	-81.47	-150.87	11.22	10.64	23.27	368090.53	1673182.14	N 39 30 17.42	W 80 39 29.78
	6057.00	12.35	254.96	6046.81	4564.81	17.14	-84.15	-158.56	2.88	2.57	5.74	368087.85	1673174.45	N 39 30 17.40	W 80 39 29.88
	6104.00	13.56	257.66	6092.61	4610.61	15.52	-86.63	-168.80	6.73	6.67	2.77	368085.37	1673164.21	N 39 30 17.37	W 80 39 30.01
	6152.00	16.76	258.99	6138.94	4656.94	13.15	-89.16	-181.09	0.79	0.79	0.94	368082.85	1673151.92	N 39 30 17.35	W 80 39 30.17
	6199.00	17.13	259.15	6183.90	4701.90	10.41	-91.76	-194.54	0.79	0.79	0.94	368080.25	1673138.47	N 39 30 17.32	W 80 39 30.34
	6247.00	20.43	262.86	6229.34	4747.34	6.76	-94.13	-209.80	6.88	6.88	7.73	368077.88	1673123.21	N 39 30 17.29	W 80 39 30.53
	6294.00	20.11	264.53	6273.43	4791.43	2.23	-95.92	-225.99	1.41	-0.68	3.55	368076.09	1673107.03	N 39 30 17.27	W 80 39 30.74
	6341.00	23.70	268.12	6317.03	4835.03	-3.46	-97.00	-243.48	8.15	7.64	7.64	368075.01	1673089.54	N 39 30 17.26	W 80 39 30.96
	6388.00	27.25	267.19	6359.45	4877.45	-10.40	-97.84	-263.67	7.60	7.55	-1.98	368074.17	1673069.34	N 39 30 17.25	W 80 39 31.22
	6436.00	30.76	264.26	6401.43	4919.43	-17.64	-99.60	-286.87	7.89	7.31	-6.10	368072.40	1673046.15	N 39 30 17.23	W 80 39 31.52
	6531.00	35.51	264.24	6480.96	4998.96	-32.58	-104.81	-338.52	5.00	5.00	-0.02	368067.20	1672994.50	N 39 30 17.17	W 80 39 32.17
	6626.00	35.35	260.51	6558.37	5076.37	-46.70	-112.11	-393.08	2.28	-0.17	-3.93	368059.90	1672939.94	N 39 30 17.09	W 80 39 32.87
	6721.00	34.96	259.07	6636.05	5154.05	-58.32	-121.80	-446.92	0.96	-0.41	-1.52	368050.21	1672886.11	N 39 30 16.99	W 80 39 33.55
	6816.00	34.27	258.65	6714.23	5232.23	-68.93	-132.22	-499.86	0.77	-0.73	-0.44	368039.78	1672833.17	N 39 30 16.88	W 80 39 34.23
	6911.00	33.18	258.63	6793.24	5311.24	-79.10	-142.61	-551.57	1.15	-1.15	-0.02	368029.40	1672781.46	N 39 30 16.77	W 80 39 34.89
	7006.00	31.78	257.20	6873.38	5391.38	-88.32	-153.28	-601.46	1.68	-1.47	-1.51	368018.73	1672731.58	N 39 30 16.66	W 80 39 35.52
	7101.00	32.32	245.47	6953.98	5471.98	-91.62	-169.38	-649.00	6.57	0.57	-12.35	368002.63	1672684.04	N 39 30 16.49	W 80 39 36.12
	7196.00	33.13	236.65	7033.95	5551.95	-85.81	-194.21	-693.82	5.09	0.85	-9.28	367977.80	1672639.22	N 39 30 16.24	W 80 39 36.69
	7289.00	31.96	231.01	7112.36	5630.36	-74.02	-223.68	-734.19	3.50	-1.26	-6.06	367948.33	1672598.85	N 39 30 15.95	W 80 39 37.20
	7383.00	31.99	226.25	7192.11	5710.11	-57.91	-256.56	-771.52	2.68	0.03	-5.06	367915.46	1672561.53	N 39 30 15.62	W 80 39 37.67
	7444.00	34.15	230.58	7243.23	5761.23	-47.06	-278.61	-796.42	5.25	3.54	7.10	367893.41	1672536.62	N 39 30 15.39	W 80 39 37.99
	7538.00	39.39	214.75	7318.68	5836.68	-23.15	-319.99	-833.92	11.48	5.57	-16.84	367852.03	1672499.13	N 39 30 14.98	W 80 39 38.46
	7631.00	47.31	193.67	7386.61	5904.61	20.72	-377.84	-858.99	17.65	8.52	-22.67	367794.18	1672474.06	N 39 30 14.41	W 80 39 38.77
	7679.00	52.86	183.45	7417.44	5935.44	52.25	-414.17	-864.32	19.99	11.56	-21.29	367757.86	1672468.73	N 39 30 14.05	W 80 39 38.83
	7726.00	58.47	174.91	7443.97	5961.97	88.28	-452.90	-863.67	19.16	11.94	-18.17	367719.13	1672469.38	N 39 30 13.66	W 80 39 38.82
	7776.00	65.42	167.22	7467.50	5985.50	131.13	-496.40	-856.73	19.42	13.90	-15.38	367675.63	1672476.32	N 39 30 13.23	W 80 39 38.72
	7821.00	70.96	162.61	7484.22	6002.22	172.54	-536.70	-845.84	15.55	12.31	-10.24	367635.33	1672487.21	N 39 30 12.84	W 80 39 38.57
	7850.00	74.00	160.86	7492.95	6010.95	200.11	-562.95	-837.17	11.96	10.48	-6.03	367609.08	1672495.88	N 39 30 12.58	W 80 39 38.46
	7897.00	80.33	158.45	7503.39	6021.39	245.88	-605.89	-821.23	14.37	13.47	-5.13	367566.14	1672511.82	N 39 30 12.16	W 80 39 38.25
	7945.00	88.42	153.42	7508.09	6026.09	293.57	-649.45	-801.76	19.81	16.85	-10.48	367522.59	1672531.28	N 39 30 11.73	W 80 39 37.99
	8040.00	91.62	144.46	7508.06	6026.06	387.40	-730.74	-752.81	10.01	3.37	-9.43	367441.31	1672580.24	N 39 30 10.93	W 80 39 37.36
	8084.00	92.06	144.03	7506.65	6024.65	430.20	-766.43	-727.11	1.40	1.00	-0.98	367405.62	1672605.93	N 39 30 10.58	W 80 39 37.02
	8136.00	90.69	141.03	7505.40	6023.40	480.41	-807.68	-695.49	6.34	-2.63	-5.77	367364.37	1672637.55	N 39 30 10.18	W 80 39 36.61
	8184.00	89.07	138.87	7505.50	6023.50	526.17	-844.42	-664.60	5.62	-3.38	-4.50	367327.63	1672668.43	N 39 30 9.82	W 80 39 36.21
	8232.00	85.97	139.44	7507.58	6025.58	571.67	-880.69	-633.25	6.57	-6.46	1.19	367291.36	1672699.79	N 39 30 9.47	W 80 39 35.81
	8279.00	86.60	139.72	7510.62	6028.62	616.29	-916.40	-602.84	1.47	1.34	0.60	367255.66	1672730.20	N 39 30 9.12	W 80 39 35.41
	8327.00	87.73	139.66	7513.00	6031.00	661.93	-952.96	-571.82	2.36	2.35	-0.13	367219.10	1672761.21	N 39 30 8.76	W 80 39 35.01
	8422.00	89.66	139.55	7515.16	6033.16	752.30	-1025.28	-510.28	2.03	2.03	-0.12	367146.78	1672822.75	N 39 30 8.05	W 80 39 34.21
	8517.00	89.00	141.84	7516.27	6034.27	843.22	-1098.78	-450.11	2.51	-0.69	2.41	367073.28	1672882.92	N 39 30 7.33	W 80 39 33.43
	8612.00	87.76	140.99	7518.96	6036.96	934.45	-1173.01	-390.88	1.58	-1.31	-0.89	366999.06	1672942.14	N 39 30 6.61	W 80 39 32.67
	8707.00	85.42	144.77	7524.61	6042.61	1026.18	-1248.61	-333.66	4.67	-2.46	3.98	366923.47	1672999.36	N 39 30 5.87	W 80 39 31.92
	8803.00	88.01	145.83	7530.11	6048.11	1119.84	-1327.40	-279.11	2.91	2.70	1.10	366844.68	1673053.91	N 39 30 5.10	W 80 39 31.21
	8898.00	91.20	146.24	7530.77	6048.77	1212.92	-1406.17	-226.04	3.39	3.36	0.43	366765.91	1673106.97	N 39 30 4.32	W 80 39 30.53

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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 ° ' ")
	8993.00	88.42	145.91	7531.08	6049.08	1306.02	-1484.99	-173.03	2.95	-2.93	-0.35	366687.09	1673159.98	N 39 30 3.55	W 80 39 29.84
	9088.00	88.83	149.30	7533.36	6051.36	1399.56	-1565.18	-122.15	3.59	0.43	3.57	366606.92	1673210.85	N 39 30 2.77	W 80 39 29.17
	9183.00	86.84	149.15	7536.95	6054.95	1493.49	-1646.74	-73.58	2.10	-2.09	-0.16	366525.36	1673259.42	N 39 30 1.97	W 80 39 28.54
	9278.00	87.56	144.91	7541.59	6059.59	1586.77	-1726.32	-21.96	4.52	0.76	-4.46	366445.78	1673311.04	N 39 30 1.19	W 80 39 27.87
	9373.00	90.55	145.34	7543.16	6081.16	1679.53	-1804.24	32.35	3.18	3.15	0.45	366367.87	1673365.35	N 39 30 0.42	W 80 39 27.16
	9467.00	91.20	144.65	7541.72	6059.72	1771.28	-1881.23	86.27	1.01	0.69	-0.73	366290.89	1673419.26	N 39 29 59.67	W 80 39 26.46
	9562.00	92.10	143.50	7538.99	6056.99	1863.64	-1958.12	141.98	1.54	0.95	-1.21	366213.99	1673474.97	N 39 29 58.92	W 80 39 25.74
	9657.00	91.07	144.90	7536.36	6054.36	1956.04	-2035.14	197.53	1.83	-1.08	1.47	366136.98	1673530.52	N 39 29 58.16	W 80 39 25.02
	9752.00	87.80	145.11	7537.30	6055.30	2048.77	-2112.95	252.00	3.45	-3.44	0.22	366059.17	1673584.98	N 39 29 57.40	W 80 39 24.31
	9847.00	87.35	144.56	7541.32	6059.32	2141.37	-2190.54	306.66	0.75	-0.47	-0.58	365981.59	1673639.65	N 39 29 56.64	W 80 39 23.60
	9942.00	87.97	145.30	7545.19	6063.19	2234.00	-2268.23	361.20	1.02	0.65	0.78	365903.90	1673694.18	N 39 29 55.88	W 80 39 22.89
	9983.00	88.52	144.27	7546.45	6064.45	2273.97	-2301.71	384.83	2.85	1.34	-2.51	365870.43	1673717.81	N 39 29 55.55	W 80 39 22.59
	10078.00	89.76	145.86	7547.88	6065.88	2366.72	-2379.58	439.23	2.12	1.31	1.67	365792.56	1673772.20	N 39 29 54.79	W 80 39 21.88
	10173.00	86.56	147.45	7550.93	6068.93	2459.96	-2458.88	491.41	3.76	-3.37	1.67	365713.26	1673824.38	N 39 29 54.01	W 80 39 21.20
	10267.00	88.21	146.46	7555.22	6073.22	2552.26	-2537.59	542.61	2.05	1.76	-1.05	365634.56	1673875.58	N 39 29 53.24	W 80 39 20.53
	10361.00	89.76	145.28	7556.88	6074.88	2644.30	-2615.39	595.34	2.07	1.65	-1.26	365556.77	1673928.31	N 39 29 52.48	W 80 39 19.85
	10456.00	90.21	144.91	7556.91	6074.91	2737.08	-2693.30	649.70	0.61	0.47	-0.39	365478.86	1673982.67	N 39 29 51.72	W 80 39 19.14
	10551.00	90.58	146.86	7556.25	6074.25	2830.12	-2771.94	702.98	2.09	0.39	2.05	365400.22	1674035.94	N 39 29 50.94	W 80 39 18.45
	10642.00	91.68	149.13	7554.46	6072.46	2919.84	-2849.09	751.20	2.77	1.21	2.49	365323.08	1674084.15	N 39 29 50.19	W 80 39 17.82
	10737.00	89.83	148.41	7553.20	6071.20	3013.72	-2930.31	800.45	2.09	-1.95	-0.76	365241.86	1674133.40	N 39 29 49.39	W 80 39 17.18
	10832.00	88.38	147.11	7554.69	6072.69	3107.33	-3010.65	851.12	2.05	-1.53	-1.37	365161.53	1674184.07	N 39 29 48.60	W 80 39 16.52
	10927.00	88.66	146.89	7557.14	6075.14	3200.70	-3090.30	902.84	0.37	0.29	-0.23	365081.88	1674235.79	N 39 29 47.82	W 80 39 15.85
	11022.00	88.21	146.93	7559.74	6077.74	3294.04	-3169.86	954.69	0.48	-0.47	0.04	365002.33	1674287.63	N 39 29 47.04	W 80 39 15.17
	11117.00	88.87	147.07	7562.16	6080.16	3387.41	-3249.51	1006.41	0.71	0.69	0.15	364922.68	1674339.35	N 39 29 46.26	W 80 39 14.50
	11212.00	89.31	145.39	7563.67	6081.67	3480.56	-3328.47	1059.21	1.83	0.46	-1.77	364843.73	1674392.15	N 39 29 45.49	W 80 39 13.82
	11307.00	90.21	145.02	7564.06	6082.06	3573.37	-3406.48	1113.42	1.02	0.95	-0.39	364765.72	1674446.35	N 39 29 44.73	W 80 39 13.11
	11401.00	90.48	144.51	7563.50	6081.50	3665.05	-3483.26	1167.65	0.61	0.29	-0.54	364688.95	1674500.58	N 39 29 43.97	W 80 39 12.41
	11496.00	89.31	144.57	7563.67	6081.67	3757.62	-3560.63	1222.76	1.23	-1.23	0.06	364611.58	1674555.69	N 39 29 43.22	W 80 39 11.69
	11591.00	90.03	143.88	7564.22	6082.22	3850.07	-3637.71	1278.30	1.05	0.76	-0.73	364534.51	1674611.22	N 39 29 42.46	W 80 39 10.97
	11686.00	88.83	144.00	7565.16	6083.16	3942.40	-3714.50	1334.21	1.27	-1.26	0.13	364457.72	1674667.13	N 39 29 41.71	W 80 39 10.24
	11779.00	86.60	144.66	7568.87	6086.87	4032.87	-3789.99	1388.40	2.50	-2.40	0.71	364382.24	1674721.31	N 39 29 40.97	W 80 39 9.54
	11874.00	87.80	144.96	7573.51	6091.51	4125.43	-3867.53	1443.08	1.30	1.26	0.32	364304.70	1674775.99	N 39 29 40.21	W 80 39 8.83
	11969.00	89.38	144.04	7575.85	6093.85	4217.95	-3944.84	1498.22	1.92	1.66	-0.97	364227.39	1674831.14	N 39 29 39.45	W 80 39 8.12
	12063.00	89.97	143.14	7576.38	6094.38	4309.19	-4020.49	1554.02	1.14	0.63	-0.96	364151.74	1674886.93	N 39 29 38.71	W 80 39 7.39
	12158.00	90.21	143.30	7576.23	6094.23	4401.24	-4096.58	1610.90	0.30	0.25	0.17	364075.66	1674943.80	N 39 29 37.97	W 80 39 6.65
	12253.00	88.97	144.51	7576.91	6094.91	4493.57	-4173.34	1666.86	1.82	-1.31	1.27	363998.91	1674999.76	N 39 29 37.22	W 80 39 5.93
	12349.00	88.83	145.13	7578.76	6096.76	4587.20	-4251.79	1722.16	0.66	-0.15	0.65	363920.46	1675055.06	N 39 29 36.45	W 80 39 5.21
	12443.00	89.42	146.17	7580.19	6098.19	4679.18	-4329.39	1775.19	1.27	0.63	1.11	363842.87	1675108.09	N 39 29 35.69	W 80 39 4.52
Final Survey	12475.00	90.14	146.03	7580.31	6098.31	4710.54	-4355.95	1793.04	2.29	2.25	-0.44	363816.31	1675125.93	N 39 29 35.43	W 80 39 4.29
Projection to TD	12533.00	90.14	146.03	7580.17	6098.17	4767.38	-4404.05	1825.45	0.00	0.00	0.00	363768.21	1675158.34	N 39 29 34.96	W 80 39 3.87

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 ° ' ")
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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 #1410 Surveys 0ft to 12533ft MD
	1	22.000	1175.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Triad Hunter WVDNR #1410 Surveys 0ft to
	1	1175.000	12475.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Triad Hunter WVDNR #1410 Surveys 0ft to
	1	12475.000	12533.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Triad Hunter WVDNR #1410 Surveys 0ft to

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