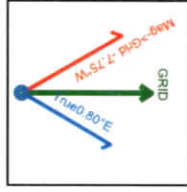


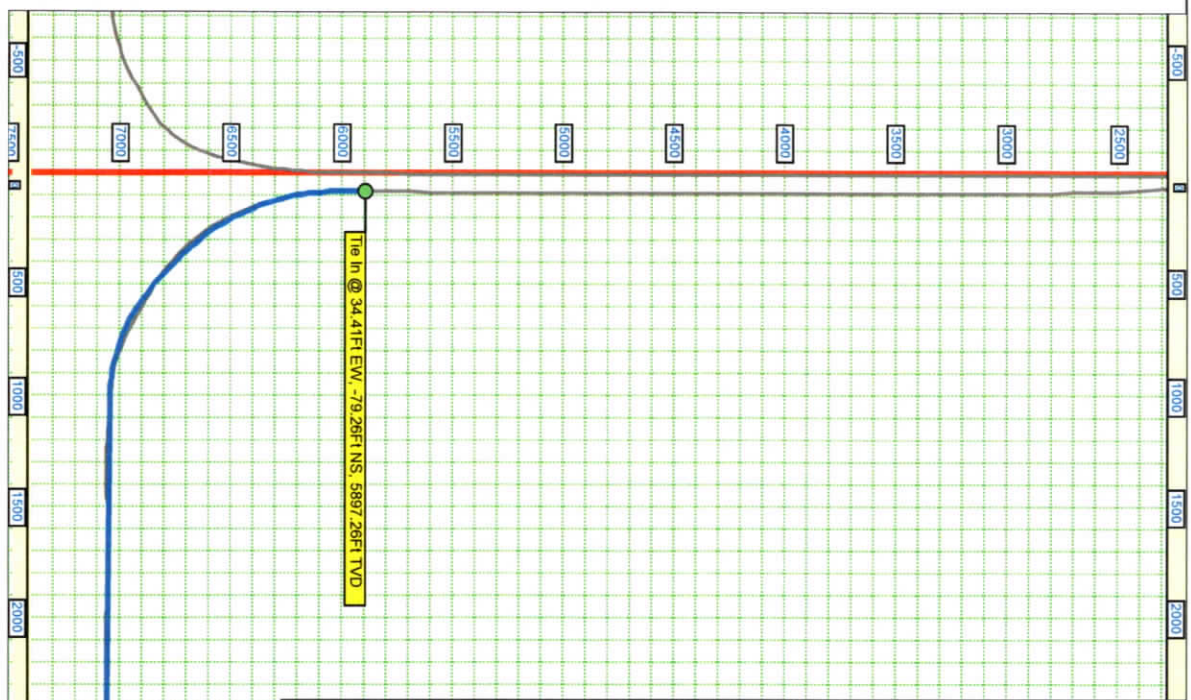


Job Number: Happy 2H Sv
 Company: Jay Bee Oil & Gas
 Lease/Well: Happy 2H
 Location: Northern
 Rig Name:
 State/County: West Virginia/ Tyler
 Country: USA
 API Number:

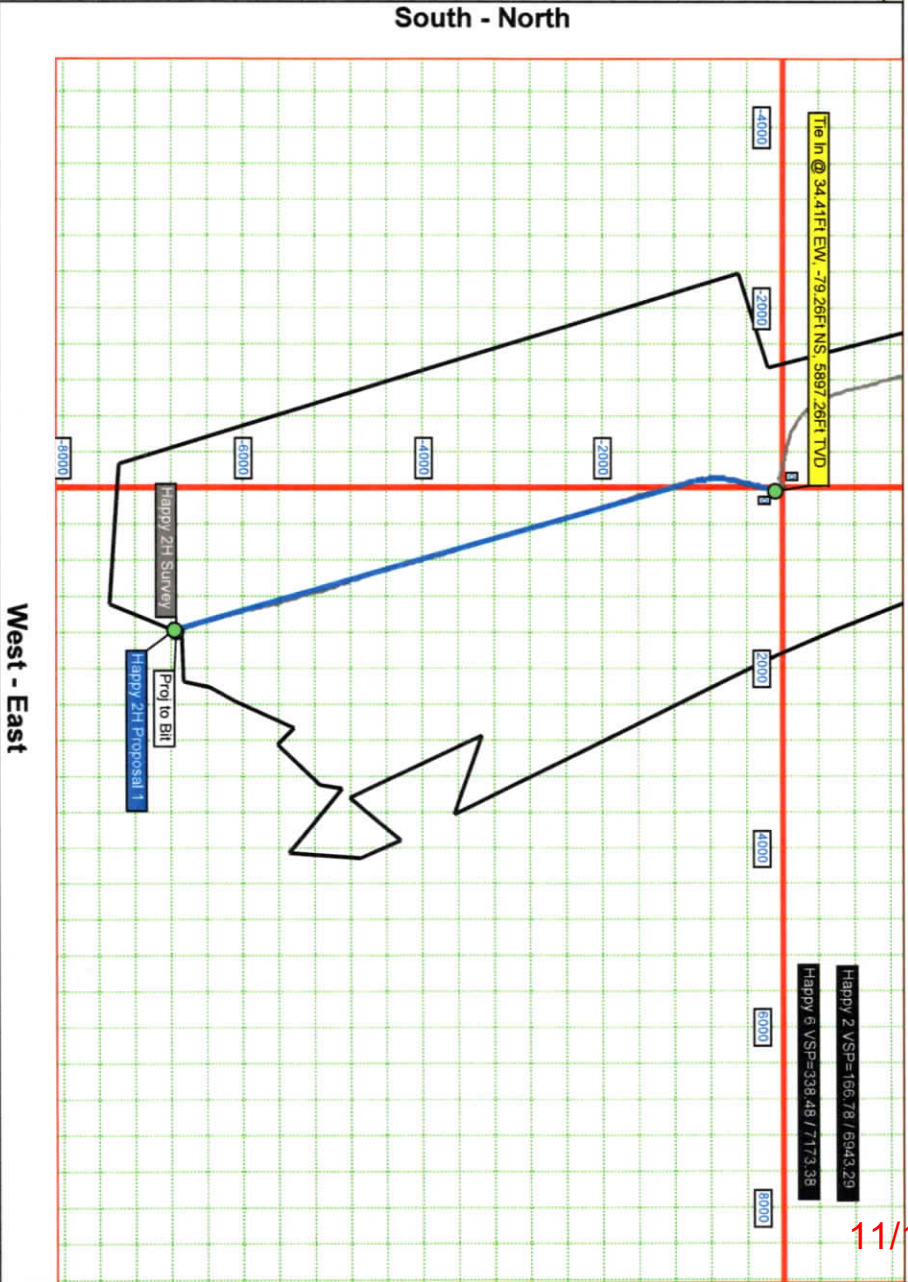
Elevation (To MSL): 1253.50 ft
 RKB: 16.00 ft
 Projection System: US State Plane 1927 (Exact solution)
 Projection Group: West Virginia North 4701
 Projection Datum: CLARKE 1866
 Magnetic Declination: -8.55
 Grid Convergence: -0.79778 W
 Date: Wednesday, March 18, 2015



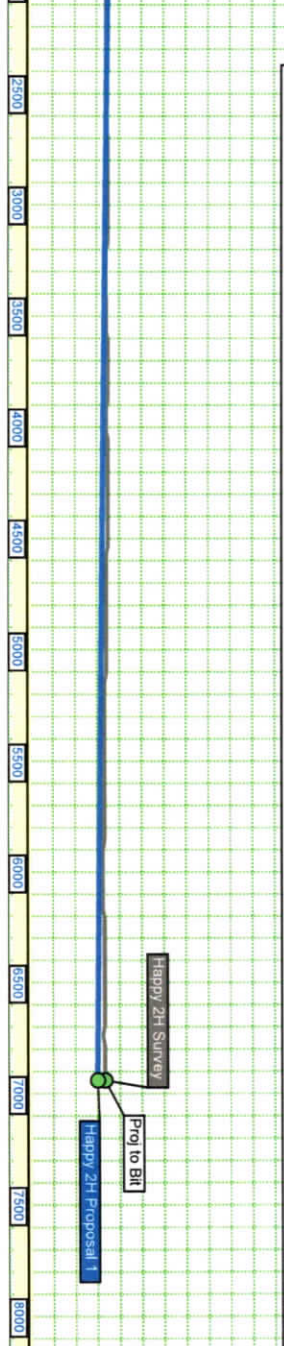
True Vertical Depth



South - North



West - East



Vertical Section (500 F/Div) VSP: 166.78°

Performance Drilling Technology, Inc. - HawkEye™ ©2014

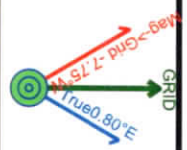
11/12/2021



Job Number: Happy 2H SW
Company: Jay Bee Oil & Gas
Lease/Well: Happy 2H
Location: Northern
Rig Name:
State/Country: West Virginia/ Tyler
Country: USA

Elev. GL: 1253.50 ft **RKB:** 16.00 ft
System: US State Plane 1927 (Exact solution)
Group: West Virginia North 4701
Datum: CLARKE 1866
Mag. Decl.: -8.55° (C:\Hawkeye\IGRF2010.MIF)
Grid Conv.: -0.79778 W
Date: Wednesday, March 18, 2015

Calculated by HawKeye Software
 Minimum Curvature Method
 Vertical Section Plane 166.78°
 Northing (US Ft): 355656.46 Easting (US Ft): 1646852.18
 Latitude: 39°28'11.0486" N Longitude: -80°45'3.4704" W
 Direction Reference: Grid North



#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US Ft)	Easting (US Ft)	DLS *100 Ft	LRI/EW From-Plan (Ft)	UDI/NS From-Plan (Ft)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	355656.46	1646852.18	0.00	-	-
2	100.00	0.97	123.70	100.00	100.00	0.62	-0.47	0.70	355655.99	1646852.88	0.97	-	-
3	200.00	1.05	178.39	100.00	199.98	2.13	-1.86	1.43	355654.60	1646853.61	0.93	-	-
4	300.00	1.04	270.97	100.00	299.97	2.81	-2.76	0.55	355653.70	1646852.73	1.51	-	-
5	400.00	0.55	313.93	100.00	399.96	2.18	-2.41	-0.70	355654.05	1646851.48	0.74	-	-
6	500.00	0.60	330.06	100.00	499.96	1.28	-1.62	-1.31	355654.84	1646850.87	0.17	-	-
7	600.00	0.35	327.92	100.00	599.95	0.49	-0.91	-1.73	355655.55	1646850.45	0.25	-	-
8	700.00	0.08	356.12	100.00	699.95	0.13	-0.58	-1.90	355655.88	1646850.28	0.28	-	-
9	800.00	0.82	164.61	100.00	799.95	0.78	-1.20	-1.71	355655.26	1646850.47	0.90	-	-
10	900.00	1.35	166.21	100.00	899.93	2.67	-3.03	-1.24	355653.43	1646850.94	0.53	-	-
11	1000.00	1.71	162.88	100.00	999.90	5.34	-5.60	-0.52	355650.86	1646851.66	0.37	-	-
12	1100.00	2.22	153.13	100.00	1099.84	8.71	-8.76	0.79	355647.70	1646852.97	0.61	-	-
13	1200.00	2.63	143.86	100.00	1199.75	12.70	-12.34	3.02	355644.12	1646855.20	0.57	-	-
14	1300.00	3.05	144.29	100.00	1299.62	17.27	-16.35	5.93	355640.11	1646858.11	0.42	-	-
15	1400.00	3.20	145.64	100.00	1399.48	22.33	-20.82	9.05	355635.64	1646861.23	0.17	-	-
16	1500.00	3.00	143.01	100.00	1499.33	27.33	-25.21	12.20	355631.25	1646864.38	0.25	-	-
17	1600.00	3.29	141.65	100.00	1599.18	32.33	-29.55	15.56	355626.91	1646867.74	0.30	-	-
18	1700.00	3.35	142.05	100.00	1699.01	37.58	-34.10	19.14	355622.36	1646871.32	0.06	-	-
19	1800.00	3.25	142.86	100.00	1798.84	42.82	-38.67	22.65	355617.79	1646874.83	0.11	-	-
20	1900.00	3.34	135.91	100.00	1898.68	47.91	-43.02	26.38	355613.44	1646878.56	0.41	-	-
21	2000.00	3.33	138.81	100.00	1998.51	52.98	-47.30	30.32	355609.16	1646882.50	0.17	-	-
22	2100.00	3.66	138.99	100.00	2098.32	58.37	-51.89	34.33	355604.57	1646886.51	0.33	-	-
23	2200.00	3.62	142.97	100.00	2198.12	64.08	-56.82	38.33	355599.64	1646890.51	0.26	-	-
24	2300.00	3.49	143.53	100.00	2297.93	69.76	-61.79	42.04	355594.67	1646894.22	0.13	-	-
25	2400.00	3.23	144.50	100.00	2397.76	75.17	-66.53	45.48	355589.93	1646897.66	0.27	-	-
26	2500.00	3.05	142.88	100.00	2497.61	80.21	-70.94	48.72	355585.52	1646900.90	0.20	-	-
27	2600.00	2.14	143.71	100.00	2597.50	84.36	-74.57	51.43	355581.89	1646903.61	0.91	-	-
28	2700.00	1.42	150.77	100.00	2697.46	87.27	-77.16	53.14	355579.30	1646905.32	0.75	-	-
29	2800.00	0.86	155.02	100.00	2797.44	89.19	-78.92	54.07	355577.54	1646906.25	0.57	-	-
30	2900.00	0.61	178.12	100.00	2897.43	90.45	-80.13	54.40	355576.33	1646906.58	0.38	-	-

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US Ft)	Easting (US Ft)	DLS +/-100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
31	3000.00	0.13	206.22	100.00	2997.43	91.06	-80.77	54.37	355575.69	1646906.55	0.50	-	-
32	3100.00	0.28	218.73	100.00	3097.42	91.30	-81.06	54.16	355575.40	1646906.34	0.16	-	-
33	3200.00	0.40	175.31	100.00	3197.42	91.79	-81.60	54.04	355574.86	1646906.22	0.28	-	-
34	3300.00	0.32	182.20	100.00	3297.42	92.41	-82.22	54.06	355574.24	1646906.24	0.09	-	-
35	3400.00	0.07	156.30	100.00	3397.42	92.74	-82.56	54.07	355573.90	1646906.25	0.26	-	-
36	3500.00	0.31	202.86	100.00	3497.42	93.01	-82.86	53.99	355573.60	1646906.17	0.27	-	-
37	3600.00	0.09	170.53	100.00	3597.42	93.31	-83.19	53.90	355573.27	1646906.08	0.24	-	-
38	3700.00	0.36	211.33	100.00	3697.42	93.61	-83.54	53.75	355572.92	1646905.93	0.30	-	-
39	3800.00	0.11	258.02	100.00	3797.42	93.84	-83.82	53.49	355572.64	1646905.67	0.30	-	-
40	3900.00	0.23	218.79	100.00	3897.42	93.96	-84.00	53.27	355572.46	1646905.45	0.16	-	-
41	4000.00	0.22	241.04	100.00	3997.42	94.13	-84.25	52.98	355572.21	1646905.16	0.09	-	-
42	4100.00	0.24	261.62	100.00	4097.42	94.17	-84.37	52.60	355572.09	1646904.78	0.08	-	-
43	4200.00	0.20	265.52	100.00	4197.41	94.12	-84.42	52.22	355572.04	1646904.40	0.04	-	-
44	4300.00	0.11	157.31	100.00	4297.41	94.19	-84.52	52.08	355571.94	1646904.26	0.26	-	-
45	4400.00	0.10	254.46	100.00	4397.41	94.29	-84.63	52.04	355571.83	1646904.22	0.16	-	-
46	4500.00	0.42	240.43	100.00	4497.41	94.40	-84.84	51.63	355571.62	1646903.81	0.32	-	-
47	4600.00	0.15	270.13	100.00	4597.41	94.47	-85.02	51.18	355571.44	1646903.36	0.30	-	-
48	4700.00	0.38	266.30	100.00	4697.41	94.38	-85.04	50.72	355571.42	1646902.90	0.23	-	-
49	4800.00	0.61	269.59	100.00	4797.41	94.21	-85.06	49.86	355571.40	1646902.04	0.23	-	-
50	4900.00	0.68	262.52	100.00	4897.40	94.03	-85.14	48.74	355571.32	1646900.92	0.11	-	-
51	5000.00	0.79	266.76	100.00	4997.39	93.85	-85.26	47.46	355571.20	1646899.64	0.12	-	-
52	5100.00	0.76	267.94	100.00	5097.38	93.61	-85.32	46.11	355571.14	1646898.29	0.03	-	-
53	5200.00	0.70	284.84	100.00	5197.38	93.19	-85.19	44.86	355571.27	1646897.04	0.22	-	-
54	5300.00	0.90	298.66	100.00	5297.37	92.38	-84.66	43.58	355571.80	1646895.76	0.28	-	-
55	5400.00	0.97	299.09	100.00	5397.35	91.29	-83.87	42.15	355572.59	1646894.33	0.07	-	-
56	5500.00	1.21	294.05	100.00	5497.33	90.08	-83.03	40.45	355573.43	1646892.63	0.26	-	-
57	5600.00	1.47	301.82	100.00	5597.31	88.53	-81.92	38.39	355574.54	1646890.57	0.32	-	-
58	5700.00	1.13	299.04	100.00	5697.28	86.96	-80.77	36.44	355575.69	1646888.62	0.35	-	-
59	5800.00	0.70	309.34	100.00	5797.27	85.81	-79.90	35.11	355576.56	1646887.29	0.46	-	-
60	5900.00	0.38	318.64	100.00	5897.26	85.03	-79.26	34.41	355577.20	1646886.59	0.33	0.00 (E)	0.00 (S)
61	6006.00	0.20	325.00	106.00	6003.26	84.55	-78.85	34.08	355577.61	1646886.26	0.17	0.15 (E)	-0.02 (S)
62	6048.00	2.70	190.30	42.00	6045.25	85.39	-79.76	33.86	355576.70	1646886.04	6.77	0.40 (E)	0.05 (N)
63	6093.00	5.80	185.10	45.00	6090.12	88.52	-83.07	33.46	355573.39	1646885.64	6.93	-0.97 (L)	0.24 (U)
64	6135.00	9.10	184.70	42.00	6131.76	93.70	-88.50	33.00	355567.96	1646885.18	7.86	-1.91 (L)	0.86 (U)
65	6179.00	11.70	181.90	44.00	6175.03	101.32	-96.42	32.57	355560.04	1646884.75	6.02	-3.29 (L)	2.15 (U)
66	6224.00	12.70	182.90	45.00	6219.01	110.47	-105.92	32.17	355550.54	1646884.35	2.27	-5.33 (L)	2.43 (U)
67	6268.00	12.80	179.30	44.00	6261.93	119.88	-115.63	31.98	355540.83	1646884.16	1.82	-7.74 (L)	1.81 (U)
68	6313.00	12.30	176.40	45.00	6305.86	129.47	-125.40	32.35	355531.06	1646884.53	1.79	-11.54 (L)	-0.99 (D)
69	6357.00	14.50	182.00	44.00	6348.66	139.41	-135.58	32.45	355520.88	1646884.63	5.80	-14.97 (L)	-6.70 (D)
70	6401.00	19.10	188.00	44.00	6390.77	151.44	-148.22	31.25	355508.24	1646883.43	11.16	-16.51 (L)	-12.49 (D)
71	6444.00	22.60	189.70	43.00	6430.95	165.61	-163.34	28.88	355493.12	1646881.06	8.26	-17.67 (L)	-15.99 (D)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US Ft)	Easting (US Ft)	DLS ¹ /100 Ft	LR/EW (Ft)	UD/NS (Ft)
72	6488.00	25.80	188.00	44.00	6471.08	182.33	-181.16	26.12	355475.30	1646878.30	7.44	-19.90 (L)	-18.03 (D)
73	6532.00	29.10	188.40	44.00	6510.12	201.21	-201.23	23.23	355455.23	1646875.41	7.51	-21.88 (L)	-20.19 (D)
74	6577.00	33.10	194.00	45.00	6548.65	222.32	-223.99	18.65	355432.47	1646870.83	10.96	-21.01 (L)	-23.18 (D)
75	6621.00	36.70	199.30	44.00	6584.74	244.10	-248.07	11.40	355408.39	1646863.58	10.69	-17.88 (L)	-25.05 (D)
76	6666.00	38.90	199.80	45.00	6620.29	267.29	-274.06	2.17	355382.40	1646854.35	4.94	-14.92 (L)	-25.04 (D)
77	6710.00	42.70	199.30	44.00	6653.60	291.46	-301.15	-7.45	355355.31	1646844.73	8.67	-12.23 (L)	-24.67 (D)
78	6754.00	46.80	198.90	44.00	6684.84	317.64	-330.42	-17.58	355326.04	1646834.60	9.34	-9.56 (L)	-23.24 (D)
79	6797.00	51.10	199.20	43.00	6713.07	345.05	-361.06	-28.16	355295.40	1646824.02	10.01	-6.64 (L)	-20.68 (D)
80	6841.00	54.40	197.20	44.00	6739.70	374.94	-394.33	-39.09	355262.13	1646813.09	8.33	-4.42 (L)	-17.02 (D)
81	6884.00	54.90	196.80	43.00	6764.58	405.24	-427.87	-49.34	355228.59	1646802.84	1.39	-2.48 (L)	-13.34 (D)
82	6928.00	55.40	194.70	44.00	6789.72	436.83	-462.62	-59.14	355193.84	1646793.04	4.08	-1.39 (L)	-9.32 (D)
83	6973.00	55.50	194.10	45.00	6815.25	469.67	-498.52	-68.36	355157.94	1646783.82	1.12	-0.89 (L)	-5.02 (D)
84	7017.00	58.00	191.80	44.00	6839.37	502.70	-534.37	-76.59	355122.09	1646775.59	7.17	-1.28 (L)	0.20 (U)
85	7062.00	60.80	190.20	45.00	6862.28	538.02	-572.39	-83.97	355084.07	1646768.21	6.93	-1.77 (L)	6.54 (U)
86	7106.00	60.90	188.10	44.00	6883.71	573.55	-610.33	-90.08	355046.13	1646762.10	4.17	-1.67 (L)	11.91 (U)
87	7149.00	61.50	184.80	43.00	6904.43	609.03	-647.76	-94.31	355008.70	1646757.87	6.87	-1.24 (L)	15.16 (U)
88	7193.00	61.90	182.30	44.00	6925.29	646.12	-686.42	-96.71	354970.04	1646755.47	5.08	-1.26 (L)	16.85 (U)
89	7238.00	64.90	180.20	45.00	6945.44	685.07	-726.64	-97.58	354929.82	1646754.60	7.86	-1.19 (L)	17.48 (U)
90	7283.00	63.70	180.50	45.00	6964.96	724.49	-767.19	-97.82	354889.27	1646754.36	2.73	-0.54 (L)	16.61 (U)
91	7327.00	65.30	178.00	44.00	6983.90	763.26	-806.89	-97.30	354849.57	1646754.88	6.29	1.30 (R)	13.42 (U)
92	7372.00	69.10	176.30	45.00	7001.34	804.06	-848.32	-95.23	354808.14	1646756.95	9.13	2.95 (R)	10.02 (U)
93	7417.00	73.60	174.10	45.00	7015.72	846.22	-890.79	-91.65	354765.67	1646760.53	11.02	4.77 (R)	7.27 (U)
94	7461.00	78.50	171.80	44.00	7026.33	888.66	-933.15	-86.40	354723.31	1646765.78	12.24	6.18 (R)	6.03 (U)
95	7503.00	82.30	170.40	42.00	7033.33	929.95	-974.06	-79.99	354682.40	1646772.19	9.63	7.60 (R)	5.73 (U)
96	7548.00	84.90	167.80	45.00	7038.35	974.62	-1017.96	-71.54	354638.50	1646780.64	8.15	8.89 (R)	5.69 (U)
97	7592.00	86.50	165.00	44.00	7041.65	1018.49	-1060.60	-61.22	354595.86	1646790.96	7.31	9.52 (R)	4.88 (U)
98	7637.00	86.90	164.70	45.00	7044.24	1063.39	-1103.96	-49.48	354552.50	1646802.70	1.11	10.05 (R)	2.99 (U)
99	7678.00	86.10	162.90	41.00	7046.74	1104.26	-1143.26	-38.06	354513.20	1646814.12	4.80	9.94 (R)	0.84 (U)
100	7720.00	86.00	163.20	42.00	7049.64	1146.07	-1183.34	-25.85	354473.12	1646826.33	0.75	9.28 (R)	-1.68 (D)
101	7762.00	85.60	162.70	42.00	7052.71	1187.86	-1223.39	-13.57	354433.07	1646838.61	1.52	8.55 (R)	-4.40 (D)
102	7806.00	85.70	162.80	44.00	7056.05	1231.63	-1265.29	-0.56	354391.17	1646851.62	0.32	7.62 (R)	-7.36 (D)
103	7851.00	87.90	165.00	45.00	7058.56	1276.50	-1308.45	11.90	354348.01	1646864.08	6.91	7.60 (R)	-9.46 (D)
104	7895.00	90.20	166.20	44.00	7059.29	1320.48	-1351.06	22.84	354305.40	1646875.02	5.90	8.87 (R)	-9.80 (D)
105	7940.00	91.20	167.90	45.00	7058.74	1365.47	-1394.91	32.93	354261.55	1646885.11	4.38	11.31 (R)	-8.85 (D)
106	7984.00	91.40	167.00	44.00	7057.74	1409.46	-1437.84	42.48	354218.62	1646894.66	2.09	13.99 (R)	-7.47 (D)
107	8028.00	91.80	164.20	44.00	7056.51	1453.43	-1480.44	53.42	354176.02	1646905.60	6.43	15.24 (R)	-5.86 (D)
108	8072.00	91.90	163.40	44.00	7055.09	1497.34	-1522.67	65.69	354133.79	1646917.87	1.83	15.13 (R)	-4.05 (D)
109	8117.00	91.80	163.20	45.00	7053.64	1542.24	-1565.75	78.61	354090.71	1646930.79	0.50	14.62 (R)	-2.20 (D)
110	8161.00	90.60	161.70	44.00	7052.72	1586.10	-1607.69	91.88	354048.77	1646944.06	4.37	13.48 (R)	-0.90 (D)
111	8205.00	90.80	161.50	44.00	7052.18	1629.92	-1649.44	105.77	354007.02	1646957.95	0.64	11.67 (R)	0.03 (U)
112	8250.00	90.30	160.80	45.00	7051.75	1674.70	-1692.02	120.30	353964.44	1646972.48	1.91	9.48 (R)	0.86 (U)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS ¹ /100 Ft	LRIEW From-Plan (Ft)	UD/NS From-Plan (Ft)
113	8294.00	90.20	159.90	44.00	7051.56	1718.42	-1733.46	135.10	353923.00	1646987.28	2.06	6.72 (R)	1.43 (U)
114	8338.00	90.20	159.40	44.00	7051.40	1762.08	-1774.71	150.40	353881.75	1647002.58	1.14	3.41 (R)	1.98 (U)
115	8383.00	88.70	162.10	45.00	7051.84	1806.82	-1817.19	165.23	353839.27	1647017.41	6.86	0.89 (R)	1.94 (U)
116	8425.00	88.60	162.00	42.00	7052.83	1848.67	-1857.14	178.17	353799.32	1647030.35	0.34	-0.50 (L)	1.32 (U)
117	8469.00	88.90	162.40	44.00	7053.79	1892.52	-1899.02	191.62	353757.44	1647043.80	1.14	-1.85 (L)	0.75 (U)
118	8514.00	88.80	163.90	45.00	7054.69	1937.42	-1942.08	204.66	353714.38	1647056.84	3.34	-2.47 (L)	0.24 (U)
119	8558.00	88.60	163.70	44.00	7055.69	1981.34	-1984.32	216.94	353672.14	1647069.12	0.64	-2.59 (L)	-0.37 (D)
120	8600.00	90.00	163.10	42.00	7056.20	2023.27	-2024.56	228.93	353631.90	1647081.11	3.63	-2.99 (L)	-0.52 (D)
121	8645.00	90.10	162.70	45.00	7056.16	2068.16	-2067.58	242.17	353588.88	1647094.35	0.92	-3.82 (L)	-0.08 (D)
122	8688.00	90.00	162.20	43.00	7056.12	2111.04	-2108.57	255.13	353547.89	1647107.31	1.19	-4.95 (L)	0.34 (U)
123	8732.00	89.80	161.80	44.00	7056.20	2154.89	-2150.42	268.73	353506.04	1647120.91	1.02	-6.44 (L)	0.65 (U)
124	8776.00	88.60	164.20	44.00	7056.81	2198.78	-2192.49	281.59	353463.97	1647133.77	6.10	-7.17 (L)	0.42 (U)
125	8820.00	88.60	162.90	44.00	7057.89	2242.70	-2234.67	294.05	353421.79	1647146.23	2.95	-7.48 (L)	-0.27 (D)
126	8865.00	89.70	164.90	45.00	7058.56	2287.63	-2277.90	306.52	353378.56	1647158.70	5.07	-7.52 (L)	-0.54 (D)
127	8909.00	89.80	164.30	44.00	7058.75	2331.60	-2320.32	318.21	353336.14	1647170.39	1.38	-7.02 (L)	-0.35 (D)
128	8954.00	90.60	165.40	45.00	7058.59	2376.58	-2363.76	329.97	353292.70	1647182.15	3.02	-6.31 (L)	0.20 (U)
129	8998.00	90.40	163.80	44.00	7058.21	2420.54	-2406.17	341.65	353250.29	1647193.83	3.66	-5.81 (L)	0.98 (U)
130	9042.00	89.90	162.70	44.00	7058.09	2464.46	-2448.31	354.33	353208.15	1647206.51	2.75	-6.35 (L)	1.48 (U)
131	9087.00	89.60	161.50	45.00	7058.29	2509.30	-2491.13	368.16	353165.33	1647220.34	2.75	-7.81 (L)	1.68 (U)
132	9131.00	90.50	162.30	44.00	7058.25	2553.14	-2532.95	381.83	353123.51	1647234.01	2.74	-9.38 (L)	2.10 (U)
133	9176.00	90.10	161.00	45.00	7058.02	2597.96	-2575.66	396.00	353080.80	1647248.18	3.02	-11.20 (L)	2.74 (U)
134	9220.00	92.50	163.30	44.00	7057.02	2641.80	-2617.52	409.48	353038.94	1647261.66	7.55	-12.57 (L)	4.12 (U)
135	9264.00	92.30	163.30	44.00	7055.17	2685.68	-2659.63	422.11	352996.83	1647274.29	0.45	-13.07 (L)	6.35 (U)
136	9309.00	91.80	166.00	45.00	7053.56	2730.62	-2702.99	434.02	352953.47	1647286.20	6.10	-12.51 (L)	8.35 (U)
137	9353.00	91.70	165.00	44.00	7052.22	2774.59	-2745.57	445.03	352910.89	1647297.21	2.28	-11.32 (L)	10.09 (U)
138	9398.00	91.30	164.30	45.00	7051.04	2819.54	-2788.95	456.94	352867.51	1647309.12	1.79	-10.78 (L)	11.66 (U)
139	9443.00	91.40	163.40	45.00	7049.98	2864.47	-2832.16	469.45	352824.30	1647321.63	2.01	-10.86 (L)	13.12 (U)
140	9487.00	90.60	165.70	44.00	7049.21	2908.42	-2874.56	481.17	352781.90	1647333.35	5.53	-10.40 (L)	14.27 (U)
141	9531.00	89.90	165.90	44.00	7049.02	2952.42	-2917.22	491.96	352739.24	1647344.14	1.65	-8.98 (L)	14.84 (U)
142	9573.00	88.80	165.30	42.00	7049.50	2994.40	-2957.90	502.40	352698.56	1647354.58	2.98	-7.77 (L)	14.74 (U)
143	9617.00	88.50	165.40	44.00	7050.54	3038.38	-3000.45	513.53	352656.01	1647365.71	0.72	-6.70 (L)	14.09 (U)
144	9660.00	88.20	164.80	43.00	7051.77	3081.34	-3041.99	524.58	352614.47	1647376.76	1.56	-5.84 (L)	13.23 (U)
145	9702.00	88.30	164.60	42.00	7053.06	3123.29	-3082.48	535.66	352573.98	1647387.84	0.53	-5.28 (L)	12.31 (U)
146	9747.00	88.10	165.20	45.00	7054.47	3168.25	-3125.91	547.38	352530.55	1647399.56	1.40	-4.54 (L)	11.30 (U)
147	9791.00	89.30	164.90	44.00	7055.47	3212.22	-3168.41	558.72	352488.05	1647410.90	2.81	-3.69 (L)	10.68 (U)
148	9835.00	89.20	164.30	44.00	7056.04	3256.18	-3210.82	570.41	352445.64	1647422.59	1.38	-3.19 (L)	10.49 (U)
149	9880.00	89.00	164.10	45.00	7056.75	3301.13	-3254.12	582.66	352402.34	1647434.84	0.63	-2.99 (L)	10.18 (U)
150	9924.00	90.90	164.90	44.00	7056.70	3345.09	-3296.51	594.42	352359.95	1647446.60	4.69	-2.57 (L)	10.53 (U)
151	9969.00	90.60	164.20	45.00	7056.29	3390.05	-3339.88	606.40	352316.58	1647458.58	1.69	-2.10 (L)	11.52 (U)
152	10014.00	90.20	163.70	45.00	7055.89	3435.00	-3383.13	618.84	352273.33	1647471.02	1.42	-2.10 (L)	12.23 (U)
153	10058.00	89.70	162.80	44.00	7055.92	3478.91	-3425.26	631.52	352231.20	1647483.70	2.34	-2.64 (L)	12.58 (U)

#	Measured Depth (ft)	INC Deg	AZM Deg	CL (ft)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	Northing (US ft)	Eastng (US ft)	DLS *100 Ft	LRIEW From-Plan (ft)	UD/INS From-Plan (ft)
154	10101.00	89.40	162.60	43.00	7056.26	3521.80	-3466.31	644.31	352190.15	1647496.49	0.84	-3.58 (L)	12.62 (U)
155	10145.00	91.10	163.50	44.00	7056.07	3565.71	-3508.40	657.14	352148.06	1647509.32	4.37	-4.27 (L)	13.20 (U)
156	10190.00	90.90	162.90	45.00	7055.28	3610.61	-3551.47	670.14	352104.99	1647522.32	1.41	-4.86 (L)	14.38 (U)
157	10234.00	90.90	162.30	44.00	7054.59	3654.49	-3593.45	683.30	352063.01	1647535.48	1.36	-5.90 (L)	15.46 (U)
158	10278.00	90.40	161.50	44.00	7054.09	3698.33	-3635.27	696.97	352021.19	1647549.15	2.14	-7.48 (L)	16.34 (U)
159	10323.00	89.90	160.80	45.00	7053.98	3743.11	-3677.86	711.51	351978.60	1647563.69	1.91	-9.68 (L)	16.86 (U)
160	10367.00	89.70	162.00	44.00	7054.13	3786.91	-3719.56	725.54	351936.90	1647577.72	2.76	-11.63 (L)	17.09 (U)
161	10411.00	89.70	161.90	44.00	7054.36	3830.76	-3761.39	739.17	351895.07	1647591.35	0.23	-13.17 (L)	17.24 (U)
162	10455.00	89.10	163.20	44.00	7054.82	3874.63	-3803.37	752.37	351853.09	1647604.55	3.25	-14.23 (L)	17.17 (U)
163	10500.00	88.70	162.50	45.00	7055.69	3919.52	-3846.36	765.63	351810.10	1647617.81	1.79	-15.10 (L)	16.70 (U)
164	10544.00	89.70	165.20	44.00	7056.30	3963.45	-3888.61	777.87	351767.85	1647630.05	6.54	-15.18 (L)	16.47 (U)
165	10589.00	90.90	165.20	45.00	7056.06	4008.43	-3932.12	789.36	351724.34	1647641.54	2.67	-14.19 (L)	17.10 (U)
166	10633.00	92.10	165.20	44.00	7054.91	4052.40	-3974.64	800.60	351681.82	1647652.78	2.73	-13.22 (L)	18.66 (U)
167	10677.00	91.90	166.10	44.00	7053.38	4096.37	-4017.24	811.50	351639.22	1647663.68	2.09	-11.91 (L)	20.58 (U)
168	10722.00	91.30	166.40	45.00	7052.12	4141.35	-4060.94	822.19	351595.52	1647674.37	1.49	-10.11 (L)	22.22 (U)
169	10766.00	89.90	166.80	44.00	7051.66	4185.34	-4103.74	832.39	351552.72	1647684.57	3.31	-8.10 (L)	23.06 (U)
170	10808.00	89.50	166.40	42.00	7051.88	4227.34	-4144.59	842.12	351511.87	1647694.30	1.35	-6.17 (L)	23.21 (U)
171	10852.00	89.40	165.50	44.00	7052.30	4271.33	-4187.27	852.80	351469.19	1647704.98	2.06	-4.62 (L)	23.17 (U)
172	10897.00	89.20	165.70	45.00	7052.85	4316.32	-4230.86	863.99	351425.60	1647716.17	0.63	-3.33 (L)	23.02 (U)
173	10941.00	88.90	164.40	44.00	7053.58	4360.29	-4273.36	875.34	351383.10	1647727.52	3.03	-2.48 (L)	22.68 (U)
174	10986.00	89.70	164.50	45.00	7054.13	4405.25	-4316.71	887.40	351339.75	1647739.58	1.79	-2.08 (L)	22.52 (U)
175	11030.00	89.00	164.40	44.00	7054.63	4449.21	-4359.10	899.20	351297.36	1647751.38	1.61	-1.70 (L)	22.41 (U)
176	11074.00	89.80	164.30	44.00	7055.09	4493.17	-4401.46	911.07	351255.00	1647763.25	1.83	-1.39 (L)	22.34 (U)
177	11117.00	89.70	163.30	43.00	7055.28	4536.11	-4442.75	923.06	351213.71	1647775.24	2.34	-1.50 (L)	22.53 (U)
178	11161.00	89.20	163.50	44.00	7055.70	4580.03	-4484.92	935.63	351171.54	1647787.81	1.22	-1.93 (L)	22.49 (U)
179	11206.00	89.20	163.50	45.00	7056.33	4624.96	-4528.06	948.41	351128.40	1647800.59	0.00	-2.28 (L)	22.26 (U)
180	11250.00	88.80	163.70	44.00	7057.10	4668.88	-4570.26	960.83	351086.20	1647813.01	1.02	-2.55 (L)	21.88 (U)
181	11294.00	88.50	162.70	44.00	7058.13	4712.78	-4612.37	973.55	351044.09	1647825.73	2.37	-3.12 (L)	21.23 (U)
182	11339.00	89.50	161.70	45.00	7058.92	4757.63	-4655.21	987.30	351001.25	1647839.48	3.14	-4.50 (L)	20.84 (U)
183	11381.00	89.30	160.60	42.00	7059.36	4799.42	-4694.96	1000.87	350961.50	1647853.05	2.66	-6.55 (L)	20.77 (U)
184	11425.00	89.80	160.10	44.00	7059.70	4843.15	-4736.39	1015.66	350920.07	1647867.84	1.61	-9.33 (L)	20.81 (U)
185	11470.00	89.50	160.70	45.00	7059.98	4887.87	-4778.78	1030.76	350877.68	1647882.94	1.49	-12.11 (L)	20.93 (U)
186	11514.00	89.40	160.40	44.00	7060.40	4931.60	-4820.27	1045.41	350836.19	1647897.59	0.72	-14.73 (L)	20.90 (U)
187	11558.00	89.40	159.70	44.00	7060.86	4975.30	-4861.63	1060.42	350794.83	1647912.60	1.59	-17.74 (L)	20.83 (U)
188	11602.00	89.30	161.60	44.00	7061.36	5019.04	-4903.14	1075.00	350753.32	1647927.18	4.32	-20.24 (L)	20.71 (U)
189	11647.00	89.10	161.40	45.00	7061.99	5063.85	-4945.81	1089.28	350710.65	1647941.46	0.63	-22.17 (L)	20.48 (U)
190	11691.00	88.70	161.10	44.00	7062.83	5107.63	-4987.46	1103.42	350669.00	1647955.60	1.14	-24.24 (L)	20.02 (U)
191	11735.00	88.10	164.20	44.00	7064.06	5151.50	-5029.44	1116.53	350627.02	1647968.71	7.17	-25.23 (L)	19.17 (U)
192	11779.00	87.60	163.90	44.00	7065.71	5195.42	-5071.72	1128.61	350584.74	1647980.79	1.32	-25.15 (L)	17.92 (U)
193	11824.00	89.80	165.30	45.00	7066.74	5240.37	-5115.09	1140.56	350541.37	1647992.74	5.79	-24.65 (L)	17.28 (U)
194	11868.00	89.20	164.70	44.00	7067.12	5284.34	-5157.59	1151.95	350498.87	1648004.13	1.93	-23.84 (L)	17.28 (U)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Eastng (US ft)	DLS *1000 Ft	LR/EW From/Plan (Ft)	UD/NS From/Plan (Ft)
195	11913.00	89.20	163.90	45.00	7067.75	5329.30	-5200.90	1164.12	350455.56	1648016.30	1.78	-23.56 (L)	17.05 (U)
196	11957.00	89.10	166.10	44.00	7068.40	5373.27	-5243.40	1175.51	350413.06	1648027.69	5.00	-22.78 (L)	16.78 (U)
197	12002.00	89.10	165.40	45.00	7069.11	5418.26	-5287.01	1186.58	350369.45	1648038.76	1.56	-21.36 (L)	16.47 (U)
198	12046.00	90.10	165.50	44.00	7069.41	5462.24	-5329.59	1197.64	350326.87	1648049.82	2.28	-20.20 (L)	16.55 (U)
199	12091.00	90.00	164.70	45.00	7069.38	5507.22	-5373.08	1209.21	350283.38	1648061.39	1.79	-19.29 (L)	16.99 (U)
200	12135.00	89.80	164.20	44.00	7069.45	5551.19	-5415.47	1221.00	350240.99	1648073.18	1.22	-18.91 (L)	17.30 (U)
201	12180.00	90.00	163.10	45.00	7069.53	5596.12	-5458.65	1233.67	350197.81	1648085.85	2.48	-19.14 (L)	17.62 (U)
202	12224.00	89.50	161.60	44.00	7069.72	5639.98	-5500.57	1247.01	350155.89	1648099.19	3.59	-20.38 (L)	17.82 (U)
203	12269.00	90.00	163.40	45.00	7069.92	5684.86	-5543.49	1260.54	350112.97	1648112.72	4.15	-21.51 (L)	18.01 (U)
204	12313.00	89.60	163.90	44.00	7070.07	5728.79	-5585.71	1272.93	350070.75	1648125.11	1.46	-21.74 (L)	18.24 (U)
205	12356.00	89.70	164.80	43.00	7070.34	5771.75	-5627.11	1284.53	350029.35	1648136.71	2.11	-21.44 (L)	18.35 (U)
206	12400.00	89.30	164.30	44.00	7070.72	5815.72	-5669.52	1296.25	349986.94	1648148.43	1.46	-20.98 (L)	18.36 (U)
207	12444.00	89.10	163.60	44.00	7071.33	5859.66	-5711.80	1308.41	349944.66	1648160.59	1.65	-20.98 (L)	18.13 (U)
208	12489.00	88.20	167.60	45.00	7072.39	5904.63	-5755.37	1319.60	349901.09	1648171.78	9.11	-19.76 (L)	17.46 (U)
209	12531.00	88.20	167.70	42.00	7073.71	5946.60	-5796.38	1328.58	349860.08	1648180.76	0.24	-17.05 (L)	16.51 (U)
210	12576.00	89.30	169.50	45.00	7074.69	5991.56	-5840.48	1337.47	349815.98	1648189.65	4.69	-13.41 (L)	15.92 (U)
211	12620.00	90.00	169.60	44.00	7074.96	6035.51	-5883.74	1345.45	349772.72	1648197.63	1.61	-9.08 (L)	16.04 (U)
212	12664.00	90.70	169.50	44.00	7074.69	6079.46	-5927.01	1353.43	349729.45	1648205.61	1.61	-4.75 (L)	16.70 (U)
213	12709.00	91.70	171.40	45.00	7073.75	6124.35	-5971.38	1360.89	349685.08	1648213.07	4.77	0.42 (R)	18.05 (U)
214	12753.00	91.80	171.00	44.00	7072.41	6168.20	-6014.84	1367.62	349641.62	1648219.80	0.94	6.02 (R)	19.79 (U)
215	12798.00	91.60	167.20	45.00	7071.07	6213.14	-6059.00	1376.13	349597.46	1648228.31	8.45	9.99 (R)	21.51 (U)
216	12842.00	91.70	167.10	44.00	7069.81	6257.12	-6101.88	1385.91	349554.58	1648238.09	0.32	12.45 (R)	23.17 (U)
217	12884.00	91.90	166.40	42.00	7068.49	6299.10	-6142.74	1395.53	349513.72	1648247.71	1.73	14.49 (R)	24.86 (U)
218	12929.00	90.60	163.20	45.00	7067.51	6344.05	-6186.15	1407.32	349470.31	1648259.50	7.67	15.10 (R)	26.21 (U)
219	12973.00	90.40	162.90	44.00	7067.12	6387.96	-6228.24	1420.15	349428.22	1648272.33	0.82	14.41 (R)	26.98 (U)
220	13017.00	90.10	162.30	44.00	7066.93	6431.84	-6270.22	1433.31	349386.24	1648285.49	1.52	13.38 (R)	27.56 (U)
221	13061.00	89.70	161.60	44.00	7067.01	6475.68	-6312.06	1446.94	349344.40	1648299.12	1.83	11.86 (R)	27.87 (U)
222	13104.00	89.10	160.80	43.00	7067.46	6518.48	-6352.76	1460.80	349303.70	1648312.98	2.33	9.82 (R)	27.79 (U)
223	13148.00	88.90	161.10	44.00	7068.22	6562.24	-6394.34	1475.16	349262.12	1648327.34	0.82	7.51 (R)	27.41 (U)
224	13192.00	88.40	160.60	44.00	7069.26	6606.00	-6435.90	1489.59	349220.56	1648341.77	1.61	5.15 (R)	26.77 (U)
225	13237.00	88.10	160.10	45.00	7070.64	6650.69	-6478.26	1504.71	349178.20	1648356.89	1.30	2.34 (R)	25.79 (U)
226	13280.00	88.30	160.20	43.00	7071.99	6693.38	-6518.68	1519.31	349137.78	1648371.49	0.52	-0.53 (L)	24.82 (U)
227	13324.00	90.50	162.30	44.00	7072.45	6737.17	-6560.34	1533.45	349096.12	1648385.63	6.91	-2.65 (L)	24.74 (U)
228	13366.00	90.60	162.30	42.00	7072.04	6779.04	-6600.35	1546.22	349056.11	1648398.40	0.24	-3.87 (L)	25.52 (U)
229	13411.00	90.20	161.60	45.00	7071.73	6823.88	-6643.13	1560.16	349013.33	1648412.34	1.79	-5.44 (L)	26.22 (U)
230	13456.00	89.80	160.90	45.00	7071.73	6868.67	-6685.75	1574.62	348970.71	1648426.80	1.79	-7.55 (L)	26.62 (U)
231	13476.00	89.90	160.70	20.00	7071.78	6888.56	-6704.63	1581.20	348951.83	1648433.38	1.12	-8.66 (L)	26.74 (U)
232	13531.00	89.90	160.70	55.00	7071.88	6943.25	-6756.54	1599.38	348899.92	1648451.56	0.00	-	-

Latitude: 39°28'11.0486" N
 Dec. Latitude: 39.46973573
 Longitude: -80°45'3.4704" W
 Dec. Longitude: -80.75096399
 Geodetic Group: US State Plane 1927 (Exact solution)

Geodetic Zone: West Virginia North 4701
 Geodetic Datum: NAD27
 Easting: 1646852.18
 Northing: 355656.46
 Convergence: -0.80

MAGNETICS INFORMATION

Magnetic Model: C:\HawkEye\GRF2010.MIF
 Date for Magnetics: 02/11/2015
 Latitude: 39°28'11.0486" N
 Longitude: -80°45'3.4704" W
 Magnetic Declination: -8.55
 Total Correction(Mag to Grid): -7.75

Field Strength (nt): 52305
 B-X Component (nt): 20304
 B-Y Component (nt): -3053
 B-Z Component (nt): 48107
 B-Horiz Component (nt): 20533
 Dip Angle: 66.89

TARGET DATA

Name	Shape	Easting (Ft)	Northing (Ft)	Subsea (Ft)	TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Diameter (Ft)
Happy 2 VSP=166.78 / 6943.29	POINT	1646840.4	355665.8	-1269.5	0.0	9.4	-11.8	-	-	-
Happy 2H PT1	POINT	1646762.5	354762.9	5754.8	7024.3	-893.5	-89.7	-	-	-
Happy 2H TD	POINT	1648440.1	348897.2	5829.5	7099.0	-6759.3	1587.9	-	-	-
Happy 2H AI KOP	POINT	1646885.4	355576.4	7000.0	8269.5	-80.1	33.3	-	-	-

LEASE LINE DATA

#	X Point (Ft)	Y Point (Ft)	Direction (Deg)	Quad	Deg	Min	Sec	Distance (Ft)	Easting (Ft)	Northing (Ft)	Latitude (Deg)	Longitude (Deg)
Name: Lease Lines												
0	-2643.4	6682.6	88.68144002	1	88	40	53.1841	367.6	1644208.8	362339.1	39.48797985	-80.76065877
1	-2275.9	6691.0	124.29830233	2	55	42	6.1116	668.6	1644576.3	362347.5	39.48801723	-80.75935704
2	-1723.5	6314.3	155.41697621	2	24	34	58.8857	371.0	1645128.6	361970.8	39.48700419	-80.75738157
3	-1569.2	5976.9	90.42370198	2	89	34	34.6729	289.2	1645283.0	361633.4	39.48608400	-80.75681810
4	-1177.1	5974.0	143.95837064	2	36	2	29.8657	289.6	1645675.1	361630.5	39.48609109	-80.75542868
5	-1006.7	5739.9	54.85780436	1	54	51	28.0957	561.7	1645845.5	361396.4	39.48545482	-80.75481349
6	-547.4	6063.2	158.74270583	2	21	15	26.2590	5834.0	1646304.8	361719.7	39.48635997	-80.75320236
7	1567.8	626.1	157.50231183	2	22	29	51.6774	769.1	1648419.9	356282.6	39.47151449	-80.74544194
8	1862.1	-84.4	153.73843700	2	26	15	41.6288	3978.4	1648714.2	355572.1	39.46957500	-80.74436471
9	3622.4	-3652.1	289.05551327	4	70	56	40.1522	921.2	1650474.5	352004.3	39.45984734	-80.73795852
10	2751.7	-3351.4	154.89546272	2	25	6	16.3342	1618.4	1649603.8	352305.1	39.46064000	-80.74105401
11	3438.3	-4816.9	40.25295782	1	40	15	10.6481	735.8	1650290.5	350839.5	39.45664263	-80.73855070
12	3913.7	-4255.4	154.19586567	2	25	48	14.8836	498.4	1650765.9	351401.1	39.45820218	-80.73689452
13	4060.0	-4704.1	185.11342564	3	5	6	48.3323	792.8	1650982.9	350952.4	39.45697856	-80.73610438
14	4060.0	-5493.8	310.22453648	4	49	46	31.6667	930.7	1650912.2	350162.7	39.45480810	-80.73631611
15	3349.4	-4892.8	189.09669761	3	9	5	47.7514	254.2	1650201.6	350763.7	39.45643114	-80.73886167
16	3309.3	-5143.8	223.94054840	3	43	56	25.9742	662.8	1650161.4	350512.7	39.45574053	-80.73899173
17	2849.4	-5621.0	317.96333430	4	42	2	11.9965	261.8	1649701.6	350035.5	39.45441299	-80.74059694
18	2674.1	-5426.5	204.21970551	3	24	13	10.9399	708.4	1649256.3	350229.9	39.45494014	-80.74122721
19	2383.5	-6072.6	209.25678702	3	29	15	24.4333	359.2	1649235.7	349583.9	39.45315560	-80.74222462
20	2207.9	-6385.9	189.42744935	3	9	25	38.8177	289.0	1649060.1	349270.5	39.45228861	-80.74283090
21	2160.6	-6671.1	269.02670126	3	89	1	36.1245	541.6	1649012.8	348985.4	39.45150410	-80.74298456
22	1619.1	-6680.3	201.44305913	3	21	26	35.0129	871.4	1648471.2	348976.2	39.45145826	-80.74490163

LEASE LINE DATA (cont.)													
#	X Point (Ft)	Y Point (Ft)	Direction (Deg)	Quad	Deg	Min	Sec	Distance (Ft)	Easting (Ft)	Northing (Ft)	Latitude (Deg)	Longitude (Deg)	
Name: Lease Lines													
23	1300.5	-7491.4	273.58812598	4	86	24	42.7465	1564.0	1648152.7	348165.1	39.44921943	-80.74598983	
24	-260.4	-7393.5	342.90017978	4	17	5	59.3528	7212.1	1646591.7	348263.0	39.44942857	-80.75152160	
25	-2381.1	-500.2	72.45052311	1	72	27	1.8832	1101.7	1644471.1	355156.3	39.46827118	-80.75937254	
26	-1330.6	-168.0	345.69581534	4	14	18	15.0648	2148.2	1645521.6	355488.5	39.46922353	-80.75566855	
27	-1861.4	1913.6	345.69544318	4	14	18	16.4046	1760.4	1644990.8	357570.0	39.47491767	-80.75765159	
28	-2296.3	3619.4	345.69560221	4	14	18	15.8320	1825.7	1644555.9	359275.8	39.47958386	-80.75927694	
29	-2747.4	5388.5	0.42356454	1	0	25	24.8323	600.6	1644104.8	361044.9	39.48442313	-80.76096280	
30	-2743.0	5989.1	8.16768852	1	8	10	3.6787	700.6	1644109.2	361645.5	39.48607209	-80.76097693	
31	-2643.4	6682.6	88.68144002	1	88	40	53.1841	0.0	1644208.8	362339.1	39.48797985	-80.76065877	