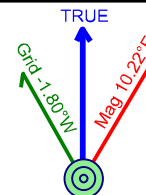




Job Number: 13020
Company: Black Hills Plateau Production
Lease/Well: WHF DHS3C-19
Location: Whittaker Flats Unit
Rig Name: H&P 319
State/County: CO/ Mesa
Country: USA
API Number:

Elevation : 5771.00 ft
RKB: 24.00 ft
Projection System: US State Plane 1983
Projection Group: Colorado Central Zone
Projection Datum: GRS80
Mag. Declination: 10.22°
Grid Convergence: -1.80252 W
Date: Tuesday, July 09, 2013

Calculated by HawkEye Software
 Minimum Curvature Method
 Vertical Section Plane 197.78°
 Northing (US ft): 1538694.02 Easting (US ft): 2190829.23
 Latitude: 39°16'38.9784" N Longitude: -108°21'32.2200" W
 Well Location: 975 FNL, 796 FWL, Section 17, T9S, R98W, Meridian 06, Mesa County, CO
 Direction Reference: True North



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	Subsea TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS %/100Ft
Surface	0.00	0.00	0.00	-5795.00	0.00	0.00	0.00	0.00	0.00	0.00
Conductor	120.00	0.00	0.00	120.00	-5675.00	0.00	0.00	0.00	0.00	0.00
172.00	0.30	141.10	172.00	-5623.00	0.09	-0.11	0.07	0.14	141.06	0.58
234.00	1.20	284.20	234.00	-5561.00	-0.44	-0.07	0.20	0.45	260.64	2.34
264.00	2.80	283.30	263.98	-5531.02	-1.46	0.17	0.28	1.47	276.75	5.33
295.00	4.40	283.10	294.91	-5500.09	-3.35	0.62	0.44	3.41	280.41	5.16
325.00	5.10	285.00	324.81	-5470.19	-5.76	1.22	0.60	5.89	281.97	2.39
356.00	6.40	282.60	355.65	-5439.35	-8.78	1.96	0.82	9.00	282.56	4.26
386.00	7.10	282.30	385.45	-5409.55	-12.22	2.72	1.15	12.52	282.53	2.34
417.00	8.40	281.90	416.16	-5378.84	-16.31	3.59	1.56	16.70	282.41	4.20
447.00	9.30	280.70	445.81	-5349.19	-20.84	4.49	2.09	21.32	282.17	3.06
478.00	10.00	279.40	476.37	-5318.63	-25.95	5.40	2.79	26.51	281.75	2.36
508.00	10.50	276.40	505.89	-5289.11	-31.24	6.13	3.70	31.84	281.10	2.44
538.00	11.20	275.70	535.35	-5259.65	-36.86	6.72	4.85	37.46	280.34	2.37
568.00	11.70	274.20	564.75	-5230.25	-42.79	7.23	6.18	43.40	279.60	1.94
598.00	12.30	272.20	594.10	-5200.90	-49.02	7.58	7.75	49.60	278.79	2.43
629.00	13.40	271.40	624.32	-5170.68	-55.91	7.79	9.65	56.45	277.94	3.59
659.00	14.30	269.90	653.45	-5141.55	-63.09	7.87	11.77	63.58	277.11	3.23
689.00	15.00	267.90	682.47	-5112.53	-70.67	7.72	14.23	71.09	276.24	2.88
720.00	15.80	267.70	712.36	-5082.64	-78.90	7.41	17.04	79.25	275.36	2.59
750.00	16.50	268.90	741.18	-5053.82	-87.24	7.16	19.82	87.53	274.69	2.58
781.00	16.90	268.30	770.87	-5024.13	-96.14	6.94	22.75	96.39	274.13	1.41
812.00	17.40	269.30	800.49	-4994.51	-105.28	6.75	25.72	105.50	273.67	1.87
842.00	17.80	268.90	829.09	-4965.91	-114.35	6.61	28.62	114.54	273.31	1.39
873.00	18.50	268.80	858.54	-4936.46	-124.01	6.42	31.76	124.17	272.96	2.26
903.00	19.30	268.50	886.93	-4908.07	-133.72	6.19	34.94	133.87	272.65	2.69
934.00	20.40	269.30	916.08	-4878.92	-144.25	5.99	38.35	144.37	272.38	3.65
946.00	20.90	269.90	927.31	-4867.69	-148.48	5.96	39.67	148.60	272.30	4.52
1060.00	22.50	271.50	1033.23	-4761.77	-190.62	6.49	52.03	190.73	271.95	1.50
1092.00	22.70	269.70	1062.77	-4732.23	-202.92	6.62	55.66	203.02	271.87	2.25
1123.00	23.90	269.30	1091.25	-4703.75	-215.18	6.51	59.51	215.28	271.73	3.90
1154.00	25.00	269.30	1119.47	-4675.53	-228.01	6.36	63.57	228.10	271.60	3.55
1249.00	24.50	268.30	1205.74	-4589.26	-267.77	5.53	76.50	267.83	271.18	0.69
1344.00	25.90	269.70	1291.70	-4503.30	-308.21	4.83	89.51	308.25	270.90	1.60
1438.00	25.20	267.20	1376.51	-4418.49	-348.73	3.75	102.92	348.75	270.62	1.37
1532.00	26.60	268.30	1461.06	-4333.94	-389.75	2.15	116.97	389.76	270.32	1.57
1626.00	27.10	270.40	1544.93	-4250.07	-432.20	1.67	130.39	432.20	270.22	1.14
1721.00	26.60	270.00	1629.69	-4165.31	-475.11	1.82	143.34	475.11	270.22	0.56
1815.00	27.30	271.50	1713.48	-4081.52	-517.70	2.39	155.81	517.71	270.26	1.04
1910.00	26.90	269.30	1798.05	-3996.95	-560.97	2.69	168.73	560.98	270.28	1.14
2004.00	27.80	270.40	1881.55	-3913.45	-604.15	2.59	182.02	604.16	270.25	1.10

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	Subsea TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS %/100Ft
2098.00	27.40	267.20	1964.85	-3830.15	-647.68	1.68	196.17	647.68	270.15	1.63
2192.00	27.40	268.30	2048.31	-3746.69	-690.90	-0.01	210.99	690.90	270.00	0.54
2286.00	27.30	271.10	2131.80	-3663.20	-734.08	-0.24	224.39	734.08	269.98	1.37
2381.00	26.90	267.20	2216.38	-3578.62	-777.33	-0.87	238.20	777.33	269.94	1.92
2475.00	27.60	271.50	2299.96	-3495.04	-820.34	-1.34	251.78	820.34	269.91	2.22
2569.00	26.90	273.90	2383.53	-3411.47	-863.32	0.67	262.99	863.32	270.04	1.39
2663.00	26.40	271.10	2467.54	-3327.46	-905.44	2.52	274.09	905.44	270.16	1.44
2757.00	26.20	273.90	2551.82	-3243.18	-947.03	4.33	285.06	947.04	270.26	1.34
2852.00	26.90	273.20	2636.80	-3158.20	-989.41	6.96	295.50	989.44	270.40	0.81
2946.00	27.40	271.80	2720.44	-3074.56	-1032.26	8.83	306.81	1032.30	270.49	0.86
3040.00	28.30	270.00	2803.55	-2991.45	-1076.17	9.51	319.57	1076.21	270.51	1.31
3134.00	27.30	267.90	2886.70	-2908.30	-1119.99	8.72	333.70	1120.03	270.45	1.49
3229.00	27.60	268.60	2971.01	-2823.99	-1163.77	7.38	348.34	1163.79	270.36	0.46
3323.00	27.80	271.50	3054.24	-2740.76	-1207.45	7.42	361.64	1207.47	270.35	1.45
3417.00	26.90	269.70	3137.73	-2657.27	-1250.63	7.88	374.39	1250.65	270.36	1.30
3511.00	26.90	268.60	3221.56	-2573.44	-1293.15	7.25	387.97	1293.17	270.32	0.53
3606.00	26.90	267.90	3306.28	-2488.72	-1336.11	5.94	402.34	1336.12	270.25	0.33
3700.00	27.40	271.50	3389.93	-2405.07	-1378.99	5.73	415.64	1379.00	270.24	1.83
3794.00	27.60	271.80	3473.31	-2321.69	-1422.37	6.98	427.69	1422.39	270.28	0.26
3888.00	26.00	270.00	3557.21	-2237.79	-1464.74	7.66	439.98	1464.76	270.30	1.91
3983.00	26.60	271.80	3642.38	-2152.62	-1506.82	8.33	452.20	1506.85	270.32	1.05
4077.00	27.40	271.10	3726.13	-2068.87	-1549.48	9.41	464.20	1549.51	270.35	0.92
4171.00	26.40	269.00	3809.96	-1985.04	-1592.01	9.46	477.13	1592.03	270.34	1.47
4265.00	26.40	269.70	3894.16	-1900.84	-1633.80	8.98	490.35	1633.82	270.32	0.33
4360.00	26.00	271.80	3979.40	-1815.60	-1675.73	9.53	502.64	1675.76	270.33	1.06
4454.00	26.60	270.00	4063.67	-1731.33	-1717.37	10.17	514.73	1717.40	270.34	1.06
4548.00	27.30	268.60	4147.46	-1647.54	-1759.97	9.65	528.24	1759.99	270.31	1.01
4642.00	25.50	266.50	4231.66	-1563.34	-1801.72	7.88	542.67	1801.74	270.25	2.16
4737.00	25.70	267.60	4317.33	-1477.67	-1842.71	5.77	557.20	1842.72	270.18	0.54
4831.00	27.30	268.30	4401.46	-1393.54	-1884.62	4.28	571.42	1884.63	270.13	1.73
4926.00	27.40	268.30	4485.84	-1309.16	-1928.25	2.99	585.97	1928.25	270.09	0.11
5020.00	27.30	269.00	4569.33	-1225.67	-1971.42	1.97	600.13	1971.42	270.06	0.36
5114.00	26.60	269.70	4653.12	-1141.88	-2014.02	1.48	613.60	2014.02	270.04	0.82
5208.00	26.40	270.00	4737.24	-1057.76	-2055.96	1.37	626.51	2055.96	270.04	0.26
5303.00	26.60	270.00	4822.26	-972.74	-2098.35	1.37	639.45	2098.35	270.04	0.21
5397.00	25.90	270.00	4906.57	-888.43	-2139.93	1.37	652.15	2139.93	270.04	0.74
5491.00	25.90	270.70	4991.13	-803.87	-2180.99	1.62	664.45	2180.99	270.04	0.33
5585.00	25.30	267.90	5075.90	-719.10	-2221.59	1.14	677.31	2221.59	270.03	1.44
5680.00	25.70	266.90	5161.65	-633.35	-2262.44	-0.72	691.55	2262.44	269.98	0.62
5726.00	25.20	265.10	5203.18	-591.82	-2282.16	-2.10	698.88	2282.16	269.95	2.00
5814.00	24.80	266.50	5282.94	-512.06	-2319.25	-4.82	712.81	2319.25	269.88	0.81
5845.00	25.20	270.00	5311.04	-483.96	-2332.34	-5.22	717.18	2332.34	269.87	4.94
5876.00	25.20	272.90	5339.09	-455.91	-2345.53	-4.89	720.89	2345.53	269.88	3.98
5906.00	25.00	273.90	5366.26	-428.74	-2358.23	-4.13	724.05	2358.24	269.90	1.56
5938.00	23.90	275.00	5395.39	-399.61	-2371.44	-3.11	727.11	2371.44	269.92	3.72
5969.00	24.10	273.60	5423.71	-371.29	-2384.01	-2.16	730.05	2384.01	269.95	1.95
6000.00	24.80	270.40	5451.93	-343.07	-2396.83	-1.72	733.54	2396.83	269.96	4.83
6031.00	24.60	268.30	5480.09	-314.91	-2409.78	-1.87	737.63	2409.78	269.96	2.90
6062.00	25.30	265.80	5508.20	-286.80	-2422.83	-2.54	742.27	2422.84	269.94	4.08
6093.00	25.70	260.20	5536.18	-258.82	-2436.07	-4.17	747.86	2436.07	269.90	7.88
6124.00	26.90	253.20	5563.98	-231.02	-2449.41	-7.34	754.95	2449.42	269.83	10.72
6155.00	28.30	248.60	5591.45	-203.55	-2462.97	-12.05	763.58	2462.99	269.72	8.22
6187.00	28.70	245.40	5619.58	-175.42	-2477.01	-18.02	773.55	2477.08	269.58	4.93
6218.00	29.40	239.80	5646.68	-148.32	-2490.36	-24.95	784.22	2490.49	269.43	9.05
6249.00	31.00	234.50	5673.48	-121.52	-2503.44	-33.41	796.27	2503.66	269.24	10.03
6280.00	32.40	231.40	5699.86	-95.14	-2516.43	-43.23	809.59	2516.80	269.02	6.93

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	Subsea TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100Ft
6311.00	32.90	228.90	5725.96	-69.04	-2529.27	-53.95	823.72	2529.84	268.78	4.64
6342.00	34.30	225.00	5751.78	-43.22	-2541.79	-65.66	838.69	2542.64	268.52	8.30
6373.00	36.80	221.50	5777.00	-18.00	-2554.12	-78.79	854.96	2555.34	268.23	10.40
6404.00	38.40	220.10	5801.56	6.56	-2566.48	-93.11	872.37	2568.17	267.92	5.85
6435.00	39.20	218.40	5825.72	30.72	-2578.76	-108.16	890.45	2581.03	267.60	4.30
6466.00	41.30	216.30	5849.38	54.38	-2590.91	-124.08	909.32	2593.88	267.26	8.06
6497.00	44.30	214.10	5872.13	77.13	-2603.04	-141.29	929.42	2606.87	266.89	10.81
6528.00	45.90	213.40	5894.01	99.01	-2615.23	-159.55	950.53	2620.10	266.51	5.40
6559.00	47.70	211.30	5915.23	120.23	-2627.32	-178.64	972.40	2633.39	266.11	7.62
6590.00	50.30	209.20	5935.57	140.57	-2639.10	-198.85	995.24	2646.58	265.69	9.82
6621.00	53.10	207.10	5954.78	159.78	-2650.56	-220.30	1019.17	2659.70	265.25	10.48
6653.00	54.40	205.70	5973.70	178.70	-2662.03	-243.42	1044.68	2673.14	264.78	5.38
6684.00	56.30	205.00	5991.33	196.33	-2672.95	-266.47	1069.96	2686.20	264.31	6.40
6715.00	58.40	202.20	6008.05	213.05	-2683.39	-290.38	1095.92	2699.06	263.82	10.18
6746.00	60.70	201.10	6023.76	228.76	-2693.25	-315.22	1122.58	2711.63	263.32	8.03
6777.00	62.80	199.40	6038.44	243.44	-2702.69	-340.84	1149.86	2724.10	262.81	8.32
6808.00	64.60	198.00	6052.17	257.17	-2711.60	-367.16	1177.65	2736.35	262.29	7.08
6839.00	67.00	197.30	6064.88	269.88	-2720.17	-394.10	1205.92	2748.57	261.76	8.01
6870.00	68.40	196.60	6076.64	281.64	-2728.53	-421.54	1234.60	2760.90	261.22	4.98
6901.00	70.60	195.20	6087.50	292.50	-2736.48	-449.46	1263.62	2773.15	260.67	8.26
6932.00	72.50	193.80	6097.31	302.31	-2743.84	-477.93	1292.97	2785.16	260.12	7.48
6963.00	74.40	192.70	6106.14	311.14	-2750.65	-506.85	1322.59	2796.96	259.56	7.01
6994.00	75.70	191.30	6114.14	319.14	-2756.88	-536.15	1352.39	2808.53	258.99	6.05
7025.00	78.30	190.20	6121.11	326.11	-2762.51	-565.82	1382.36	2819.86	258.42	9.07
7056.00	80.20	189.90	6126.89	331.89	-2767.83	-595.81	1412.54	2831.23	257.85	6.20
7087.00	82.20	188.80	6131.63	336.63	-2772.80	-626.03	1442.84	2842.60	257.28	7.34
7118.00	84.50	187.80	6135.22	340.22	-2777.25	-656.50	1473.21	2853.78	256.70	8.08
7149.00	87.60	186.40	6137.36	342.36	-2781.07	-687.19	1503.60	2864.71	256.12	10.97
7180.00	89.70	186.00	6138.09	343.09	-2784.41	-717.99	1533.96	2875.50	255.54	6.90
7211.00	90.30	183.90	6138.09	343.09	-2787.09	-748.88	1564.18	2885.94	254.96	7.05
7242.00	90.30	180.40	6137.93	342.93	-2788.25	-779.85	1594.03	2895.26	254.37	11.29
7273.00	90.40	179.70	6137.74	342.74	-2788.28	-810.85	1623.56	2903.79	253.79	2.28
7304.00	91.10	179.30	6137.33	342.33	-2788.01	-841.85	1652.99	2912.33	253.20	2.60
7335.00	91.70	179.70	6136.58	341.58	-2787.74	-872.83	1682.42	2921.18	252.61	2.33
7398.00	90.60	179.00	6135.31	340.31	-2787.02	-935.82	1742.17	2939.94	251.44	2.07
7429.00	90.60	177.90	6134.99	339.99	-2786.18	-966.80	1771.42	2949.16	250.86	3.55
7491.00	91.10	178.30	6134.07	339.07	-2784.13	-1028.76	1829.79	2968.12	249.72	1.03
7584.00	92.60	177.90	6131.06	336.06	-2781.05	-1121.66	1917.31	2998.72	248.03	1.67
7677.00	91.80	179.00	6127.49	332.49	-2778.53	-1214.55	2005.00	3032.39	246.39	1.46
7770.00	92.20	180.40	6124.25	329.25	-2778.05	-1307.49	2093.36	3070.36	244.80	1.56
7863.00	91.10	178.60	6121.57	326.57	-2777.24	-1400.45	2181.62	3110.35	243.24	2.27
7956.00	91.80	179.30	6119.22	324.22	-2775.53	-1493.40	2269.61	3151.80	241.72	1.06
8050.00	92.20	180.70	6115.94	320.94	-2775.53	-1587.34	2359.07	3197.38	240.23	1.55
8144.00	90.80	180.00	6113.48	318.48	-2776.11	-1681.30	2448.72	3245.54	238.80	1.67
8237.00	91.50	179.30	6111.61	316.61	-2775.54	-1774.28	2537.08	3294.19	237.41	1.06
8330.00	92.60	177.90	6108.28	313.28	-2773.27	-1867.19	2624.86	3343.26	236.05	1.91
8423.00	92.60	178.60	6104.06	309.06	-2770.43	-1960.05	2712.42	3393.68	234.72	0.75
8517.00	94.30	180.70	6098.41	303.41	-2769.86	-2053.87	2801.58	3448.26	233.44	2.87
8610.00	94.10	181.10	6091.59	296.59	-2771.31	-2146.61	2890.33	3505.44	232.24	0.48
8703.00	94.70	181.50	6084.46	289.46	-2773.42	-2239.31	2979.25	3564.60	231.08	0.77
8796.00	93.60	182.50	6077.73	282.73	-2776.65	-2332.01	3068.51	3626.03	229.97	1.60
8889.00	92.90	182.20	6072.46	277.46	-2780.46	-2424.78	3158.01	3689.24	228.91	0.82
8983.00	92.20	181.50	6068.28	273.28	-2783.49	-2518.64	3248.31	3753.85	227.86	1.05
9076.00	92.70	181.10	6064.30	269.30	-2785.60	-2611.53	3337.41	3818.33	226.85	0.69
9169.00	94.00	179.70	6058.87	263.87	-2786.25	-2704.36	3426.01	3882.88	225.85	2.05
9263.00	92.60	179.70	6053.45	258.45	-2785.76	-2798.20	3515.22	3948.47	224.87	1.49

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	Subsea TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS %/100Ft
9356.00	93.10	179.70	6048.83	253.83	-2785.27	-2891.08	3603.51	4014.49	223.93	0.54
9450.00	91.70	179.70	6044.89	249.89	-2784.78	-2985.00	3692.79	4082.31	223.01	1.49
9543.00	92.40	179.00	6041.57	246.57	-2783.73	-3077.93	3780.96	4150.04	222.13	1.06
9636.00	92.90	177.90	6037.27	242.27	-2781.21	-3170.80	3868.63	4217.71	221.26	1.30
9729.00	92.40	178.30	6032.97	237.97	-2778.13	-3263.65	3956.10	4285.95	220.41	0.69
9823.00	93.30	178.30	6028.29	233.29	-2775.35	-3357.49	4044.61	4356.06	219.58	0.96
9916.00	92.70	177.20	6023.43	228.43	-2771.70	-3450.29	4131.86	4425.70	218.78	1.35
10009.00	94.70	175.80	6017.42	222.42	-2766.04	-3542.91	4218.33	4494.80	217.98	2.62
10103.00	94.30	176.90	6010.05	215.05	-2760.07	-3636.43	4305.56	4565.26	217.20	1.24
10196.00	94.10	177.20	6003.24	208.24	-2755.30	-3729.06	4392.31	4636.54	216.46	0.39
10289.00	93.30	177.20	5997.24	202.24	-2750.76	-3821.75	4479.19	4708.77	215.75	0.86
10352.00	93.10	178.60	5993.72	198.72	-2748.46	-3884.61	4538.34	4758.60	215.28	2.24
10414.00	93.40	178.60	5990.20	195.20	-2746.95	-3946.49	4596.81	4808.38	214.84	0.48
10476.00	94.10	180.00	5986.15	191.15	-2746.19	-4008.35	4655.48	4858.85	214.42	2.52
10570.00	94.30	182.20	5979.26	184.26	-2747.99	-4102.08	4745.28	4937.46	213.82	2.34
10664.00	93.40	183.60	5972.95	177.95	-2752.74	-4195.74	4835.92	5018.15	213.27	1.77
10756.00	92.20	183.60	5968.46	173.46	-2758.51	-4287.45	4925.01	5098.19	212.76	1.30
10850.00	92.70	183.20	5964.44	169.44	-2764.08	-4381.20	5015.98	5180.25	212.25	0.68
10943.00	94.00	182.20	5959.01	164.01	-2768.45	-4473.93	5105.62	5261.22	211.75	1.76
11059.00	94.50	182.20	5950.41	155.41	-2772.89	-4589.53	5217.05	5362.15	211.14	0.43
11152.00	91.80	182.50	5945.30	150.30	-2776.70	-4682.30	5306.56	5443.71	210.67	2.92
11245.00	92.00	182.20	5942.22	147.22	-2780.51	-4775.17	5396.15	5525.71	210.21	0.39
11339.00	93.10	181.50	5938.03	143.03	-2783.54	-4869.03	5486.45	5608.52	209.76	1.39
11432.00	94.00	180.00	5932.27	137.27	-2784.76	-4961.84	5575.20	5689.88	209.30	1.88
11525.00	93.80	179.70	5925.95	130.95	-2784.51	-5054.62	5663.48	5770.85	208.85	0.39
11619.00	92.20	179.00	5921.03	126.03	-2783.45	-5148.48	5752.53	5852.73	208.40	1.86
11712.00	93.60	179.00	5916.32	121.32	-2781.83	-5241.35	5840.47	5933.83	207.96	1.51
11806.00	93.10	178.30	5910.83	115.83	-2779.62	-5335.16	5929.12	6015.83	207.52	0.91
11899.00	92.60	179.30	5906.21	111.21	-2777.67	-5428.02	6016.96	6097.45	207.10	1.20
11992.00	92.40	180.40	5902.15	107.15	-2777.43	-5520.93	6105.35	6180.19	206.71	1.20
12086.00	94.10	180.00	5896.82	101.82	-2777.76	-5614.78	6194.82	6264.32	206.32	1.86
12179.00	93.40	180.70	5890.74	95.74	-2778.32	-5707.57	6283.36	6347.87	205.96	1.06
12272.00	93.30	179.70	5885.30	90.30	-2778.65	-5800.41	6371.86	6431.62	205.60	1.08
12366.00	94.50	179.70	5878.91	83.91	-2778.16	-5894.19	6461.01	6516.11	205.24	1.28
12459.00	92.90	179.70	5872.91	77.91	-2777.67	-5987.00	6549.23	6599.97	204.89	1.72
12552.00	92.40	179.70	5868.61	73.61	-2777.18	-6079.89	6637.54	6684.15	204.55	0.54
12646.00	92.90	180.40	5864.26	69.26	-2777.27	-6173.79	6726.98	6769.71	204.22	0.91
12739.00	94.50	180.00	5858.26	63.26	-2777.59	-6266.60	6815.45	6854.58	203.90	1.77
12833.00	92.90	180.70	5852.20	57.20	-2778.16	-6360.39	6904.94	6940.66	203.60	1.86
12926.00	92.70	180.00	5847.65	52.65	-2778.73	-6453.28	6993.57	7026.11	203.30	0.78
13019.00	92.20	180.40	5843.68	48.68	-2779.06	-6546.19	7082.14	7111.67	203.00	0.69
13113.00	93.60	180.00	5838.92	43.92	-2779.38	-6640.07	7171.64	7198.30	202.71	1.55
13206.00	93.60	178.60	5833.08	38.08	-2778.25	-6732.88	7259.66	7283.56	202.42	1.50
13300.00	93.30	178.60	5827.43	32.43	-2775.96	-6826.68	7348.28	7369.50	202.13	0.32
13393.00	93.60	180.00	5821.83	26.83	-2774.82	-6919.50	7436.33	7455.14	201.85	1.54
13487.00	93.60	180.70	5815.93	20.93	-2775.40	-7013.31	7525.83	7542.51	201.59	0.74
13580.00	92.70	181.10	5810.82	15.82	-2776.85	-7106.16	7614.69	7629.45	201.34	1.06
13673.00	92.20	180.70	5806.84	11.84	-2778.31	-7199.06	7703.60	7716.58	201.10	0.69
13767.00	92.00	180.40	5803.40	8.40	-2779.22	-7293.00	7793.32	7804.60	200.86	0.38
13860.00	93.60	180.00	5798.85	3.85	-2779.54	-7385.88	7881.87	7891.58	200.62	1.77
13953.00	93.60	179.70	5793.01	-1.99	-2779.30	-7478.70	7970.18	7978.43	200.39	0.32
14047.00	94.00	178.60	5786.78	-8.22	-2777.91	-7572.48	8059.06	8065.93	200.15	1.24
14140.00	93.60	178.60	5780.62	-14.38	-2775.64	-7665.25	8146.70	8152.31	199.91	0.43
14233.00	93.80	179.00	5774.62	-20.38	-2773.69	-7758.03	8234.46	8238.96	199.67	0.48
14327.00	92.00	179.70	5769.86	-25.14	-2772.63	-7851.90	8323.52	8327.05	199.45	2.05
14420.00	92.00	179.30	5766.62	-28.38	-2771.82	-7944.84	8411.77	8414.48	199.23	0.43

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	Subsea TVD (Ft)	EW (Ft)	NS (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS %/100Ft
14514.00	92.90	180.00	5762.60	-32.40	-2771.25	-8038.75	8501.02	8503.02	199.02	1.21
14607.00	94.80	181.50	5756.36	-38.64	-2772.46	-8131.53	8589.74	8591.17	198.83	2.60
14700.00	94.30	181.10	5748.98	-46.02	-2774.56	-8224.21	8678.64	8679.62	198.64	0.69
14794.00	93.10	180.00	5742.91	-52.09	-2775.46	-8318.01	8768.23	8768.83	198.45	1.73
14887.00	92.90	179.70	5738.04	-56.96	-2775.22	-8410.88	8856.59	8856.90	198.26	0.39
14980.00	93.30	181.10	5733.01	-61.99	-2775.87	-8503.74	8945.21	8945.33	198.08	1.56
15074.00	92.60	180.40	5728.18	-66.82	-2777.09	-8597.60	9034.97	9034.99	197.90	1.05
15167.00	94.00	180.00	5722.82	-72.18	-2777.42	-8690.45	9123.48	9123.48	197.72	1.57
15260.00	93.80	180.70	5716.50	-78.50	-2777.99	-8783.23	9212.00	9212.07	197.55	0.78
Last NOVA MWD Survey										
15302.00	94.50	180.70	5713.46	-81.54	-2778.50	-8825.12	9252.04	9252.17	197.48	1.67
Projection to TD										
15350.00	94.50	180.70	5709.69	-85.31	-2779.08	-8872.96	9297.78	9298.00	197.39	0.00