

Company: HRM RESOURCES, LLC
WellName: BINDER #CSW-20
Location: 20-4N-67W

Vertical Section calculated on an Azimuth of: 216.8033

Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\Binder CSW-20\Binder #CSW-20 Directional Surveys.sr5

#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
0	0.00	0.00	216.80	0.00	4921.00	0.00	0.00	0.00	0.00	0.00	0.00	
1	100.00	0.00	216.80	100.00	4821.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	216.80	200.00	4721.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	300.00	0.00	216.80	300.00	4621.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	400.00	0.00	216.80	400.00	4521.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	500.00	0.00	216.80	500.00	4421.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	600.00	0.00	216.80	600.00	4321.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	700.00	0.00	216.80	700.00	4221.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	800.00	0.00	216.80	800.00	4121.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	850.00	0.00	216.80	850.00	4071.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	900.00	1.00	216.80	900.00	4021.00	-0.35	-0.26	0.44	2.00	2.00	0.00	
11	1000.00	3.00	216.80	999.93	3921.07	-3.14	-2.35	3.93	2.00	2.00	0.00	
12	1100.00	5.00	216.80	1099.68	3821.32	-8.73	-6.53	10.90	2.00	2.00	0.00	
13	1200.00	7.00	216.80	1199.13	3721.87	-17.10	-12.79	21.35	2.00	2.00	0.00	
14	1300.00	9.00	216.80	1298.15	3622.85	-28.24	-21.13	35.27	2.00	2.00	0.00	
15	1400.00	11.00	216.80	1396.63	3524.37	-42.14	-31.53	52.63	2.00	2.00	0.00	
16	1500.00	13.00	216.80	1494.44	3426.56	-58.79	-43.99	73.42	2.00	2.00	0.00	
17	1600.00	15.00	216.80	1591.46	3329.54	-78.16	-58.48	97.62	2.00	2.00	0.00	
18	1670.50	16.41	216.80	1659.33	3261.67	-93.44	-69.91	116.70	2.00	2.00	0.00	
19	1700.00	16.41	216.80	1687.63	3233.37	-100.11	-74.90	125.03	0.00	0.00	0.00	
20	1800.00	16.41	216.80	1783.55	3137.45	-122.73	-91.83	153.28	0.00	0.00	0.00	
21	1900.00	16.41	216.80	1879.48	3041.52	-145.35	-108.75	181.53	0.00	0.00	0.00	
22	2000.00	16.41	216.80	1975.41	2945.59	-167.97	-125.68	209.78	0.00	0.00	0.00	
23	2100.00	16.41	216.80	2071.33	2849.67	-190.59	-142.60	238.04	0.00	0.00	0.00	
24	2200.00	16.41	216.80	2167.26	2753.74	-213.21	-159.52	266.29	0.00	0.00	0.00	
25	2300.00	16.41	216.80	2263.19	2657.81	-235.84	-176.45	294.54	0.00	0.00	0.00	
26	2400.00	16.41	216.80	2359.11	2561.89	-258.46	-193.37	322.79	0.00	0.00	0.00	
27	2500.00	16.41	216.80	2455.04	2465.96	-281.08	-210.30	351.04	0.00	0.00	0.00	
28	2600.00	16.41	216.80	2550.97	2370.03	-303.70	-227.22	379.29	0.00	0.00	0.00	
29	2700.00	16.41	216.80	2646.89	2274.11	-326.32	-244.15	407.54	0.00	0.00	0.00	
30	2800.00	16.41	216.80	2742.82	2178.18	-348.94	-261.07	435.79	0.00	0.00	0.00	
31	2900.00	16.41	216.80	2838.74	2082.26	-371.56	-277.99	464.04	0.00	0.00	0.00	
32	3000.00	16.41	216.80	2934.67	1986.33	-394.18	-294.92	492.29	0.00	0.00	0.00	
33	3100.00	16.41	216.80	3030.60	1890.40	-416.80	-311.84	520.54	0.00	0.00	0.00	
34	3200.00	16.41	216.80	3126.52	1794.48	-439.42	-328.77	548.80	0.00	0.00	0.00	
35	3300.00	16.41	216.80	3222.45	1698.55	-462.04	-345.69	577.05	0.00	0.00	0.00	
36	3400.00	16.41	216.80	3318.38	1602.62	-484.66	-362.61	605.30	0.00	0.00	0.00	
37	3500.00	16.41	216.80	3414.30	1506.70	-507.28	-379.54	633.55	0.00	0.00	0.00	
38	3600.00	16.41	216.80	3510.23	1410.77	-529.90	-396.46	661.80	0.00	0.00	0.00	
39	3700.00	16.41	216.80	3606.16	1314.84	-552.52	-413.39	690.05	0.00	0.00	0.00	
40	3800.00	16.41	216.80	3702.08	1218.92	-575.14	-430.31	718.30	0.00	0.00	0.00	
41	3900.00	16.41	216.80	3798.01	1122.99	-597.76	-447.24	746.55	0.00	0.00	0.00	

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Vertical Section calculated on an Azimuth of: 216.8033

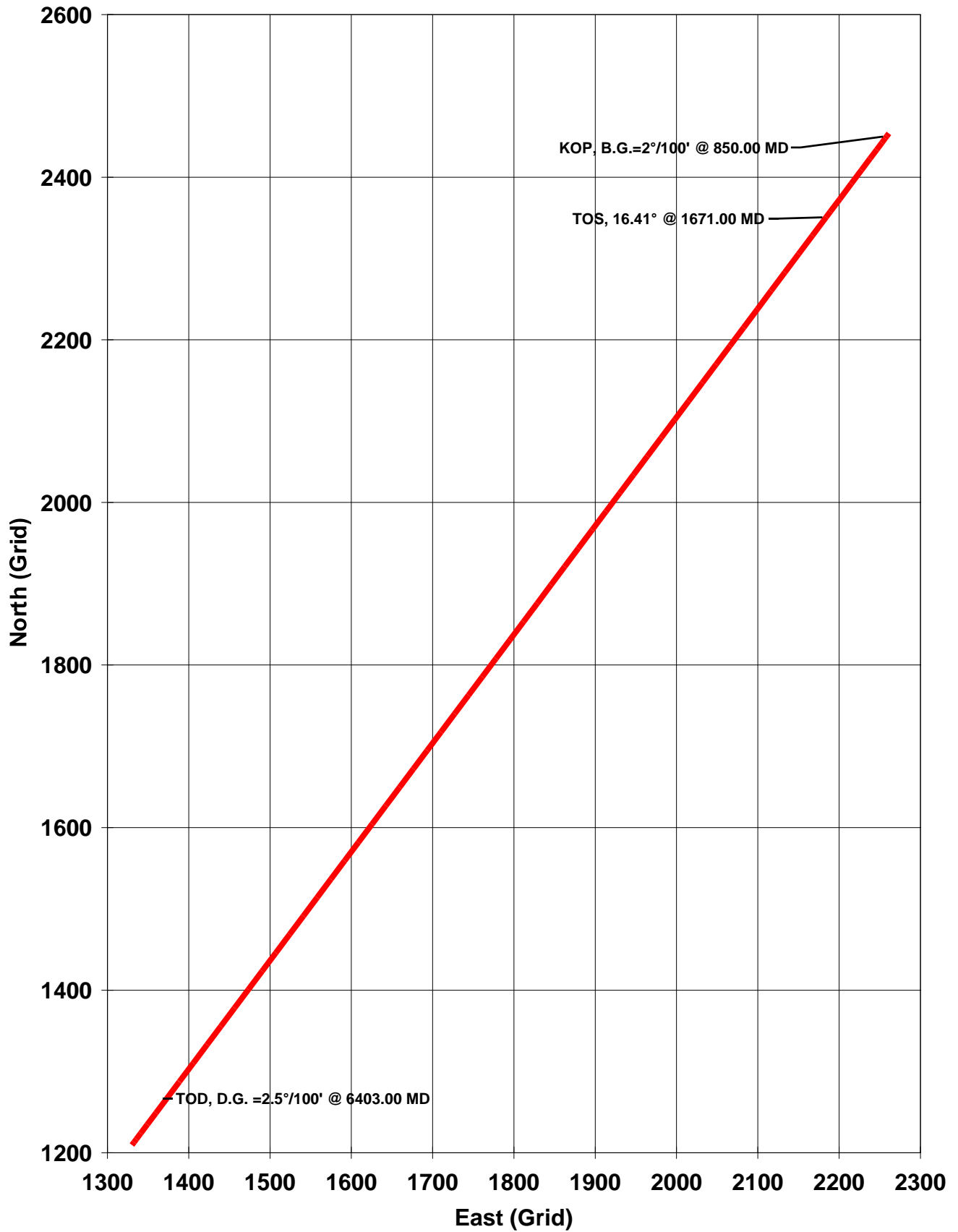
Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\Binder CSW-20\Binder #CSW-20 Directional Surveys.sr5

#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
42	4000.00	16.41	216.80	3893.94	1027.06	-620.38	-464.16	774.80	0.00	0.00	0.00	
43	4100.00	16.41	216.80	3989.86	931.14	-643.00	-481.08	803.05	0.00	0.00	0.00	
44	4200.00	16.41	216.80	4085.79	835.21	-665.62	-498.01	831.30	0.00	0.00	0.00	
45	4300.00	16.41	216.80	4181.72	739.28	-688.24	-514.93	859.56	0.00	0.00	0.00	
46	4400.00	16.41	216.80	4277.64	643.36	-710.86	-531.86	887.81	0.00	0.00	0.00	
47	4500.00	16.41	216.80	4373.57	547.43	-733.48	-548.78	916.06	0.00	0.00	0.00	
48	4600.00	16.41	216.80	4469.49	451.51	-756.10	-565.71	944.31	0.00	0.00	0.00	
49	4700.00	16.41	216.80	4565.42	355.58	-778.73	-582.63	972.56	0.00	0.00	0.00	
50	4800.00	16.41	216.80	4661.35	259.65	-801.35	-599.55	1000.81	0.00	0.00	0.00	
51	4900.00	16.41	216.80	4757.27	163.73	-823.97	-616.48	1029.06	0.00	0.00	0.00	
52	5000.00	16.41	216.80	4853.20	67.80	-846.59	-633.40	1057.31	0.00	0.00	0.00	
53	5100.00	16.41	216.80	4949.13	-28.13	-869.21	-650.33	1085.56	0.00	0.00	0.00	
54	5200.00	16.41	216.80	5045.05	-124.05	-891.83	-667.25	1113.81	0.00	0.00	0.00	
55	5300.00	16.41	216.80	5140.98	-219.98	-914.45	-684.18	1142.06	0.00	0.00	0.00	
56	5400.00	16.41	216.80	5236.90	-315.90	-937.07	-701.10	1170.32	0.00	0.00	0.00	
57	5500.00	16.41	216.80	5332.83	-411.83	-959.69	-718.02	1198.57	0.00	0.00	0.00	
58	5600.00	16.41	216.80	5428.76	-507.76	-982.31	-734.95	1226.82	0.00	0.00	0.00	
59	5700.00	16.41	216.80	5524.68	-603.68	-1004.93	-751.87	1255.07	0.00	0.00	0.00	
60	5800.00	16.41	216.80	5620.61	-699.61	-1027.55	-768.80	1283.32	0.00	0.00	0.00	
61	5900.00	16.41	216.80	5716.54	-795.54	-1050.17	-785.72	1311.57	0.00	0.00	0.00	
62	6000.00	16.41	216.80	5812.46	-891.46	-1072.79	-802.65	1339.82	0.00	0.00	0.00	
63	6100.00	16.41	216.80	5908.39	-987.39	-1095.41	-819.57	1368.07	0.00	0.00	0.00	
64	6200.00	16.41	216.80	6004.31	-1083.31	-1118.03	-836.49	1396.32	0.00	0.00	0.00	
65	6300.00	16.41	216.80	6100.24	-1179.24	-1140.65	-853.42	1424.57	0.00	0.00	0.00	
66	6400.00	16.41	216.80	6196.17	-1275.17	-1163.27	-870.34	1452.82	0.00	0.00	0.00	
67	6402.80	16.41	216.80	6198.85	-1277.85	-1163.91	-870.82	1453.61	0.00	0.00	0.00	
68	6500.00	13.98	216.80	6292.65	-1371.65	TOD, D.G. =2.5"/100' -1184.30	-886.08	1479.09	2.50	2.50	0.00	
69	6600.00	11.48	216.80	6390.18	-1469.18	-1201.95	-899.28	1501.12	2.50	2.50	0.00	
70	6700.00	8.98	216.80	6488.58	-1567.58	-1216.16	-909.92	1518.88	2.50	2.50	0.00	
71	6800.00	6.48	216.80	6587.67	-1666.67	-1226.93	-917.97	1532.33	2.50	2.50	0.00	
72	6900.00	3.98	216.80	6687.24	-1766.24	-1234.23	-923.43	1541.45	2.50	2.50	0.00	
73	7000.00	1.48	216.80	6787.12	-1866.12	-1238.05	-926.29	1546.21	2.50	2.50	0.00	
74	7059.20	0.00	216.80	6846.32	-1925.32	-1238.66	-926.74	1546.97	2.50	2.50	0.00	
75	7100.00	0.00	216.80	6887.12	-1966.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
76	7200.00	0.00	216.80	6987.12	-2066.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
77	7300.00	0.00	216.80	7087.12	-2166.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
78	7400.00	0.00	216.80	7187.12	-2266.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
79	7500.00	0.00	216.80	7287.12	-2366.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
80	7600.00	0.00	216.80	7387.12	-2466.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	
81	7680.00	0.00	216.80	7467.12	-2546.12	-1238.66	-926.74	1546.97	0.00	0.00	0.00	

Closure is 1546.9733 feet on an Azimuth of 216.8033

Plan View
BINDER #CSW-20



**Section View
BINDER #CSW-20**

