

Hart 4H

MD (usft)	CL (usft)	Inc (°)	Azi (°)	TVD (usft)	NS (usft)	EW (usft)	Northing (usft)	Easting (usft)	V.Sec (usft)	Dogleg (°/100usft)
0		0	0	0	0	0	516952.4	1644547	0	0
100	100	0.38	63.54	100	0.15	0.3	516952.5	1644547	-0.08	0.38
125	25	0.38	70.74	125	0.21	0.45	516952.6	1644547	-0.13	0.19
150	25	0.2	60.45	150	0.26	0.57	516952.6	1644548	-0.16	0.75
175	25	0.13	75.44	175	0.29	0.63	516952.7	1644548	-0.18	0.33
200	25	0.09	109.54	200	0.29	0.68	516952.7	1644548	-0.21	0.3
225	25	0.08	71.94	225	0.29	0.71	516952.7	1644548	-0.24	0.22
250	25	0.11	57.51	250	0.31	0.75	516952.7	1644548	-0.25	0.15
275	25	0.13	59.42	275	0.33	0.79	516952.7	1644548	-0.25	0.08
300	25	0.25	20.19	300	0.4	0.84	516952.8	1644548	-0.23	0.68
325	25	0.2	25.82	325	0.49	0.87	516952.9	1644548	-0.19	0.22
350	25	0.22	52.81	350	0.56	0.93	516952.9	1644548	-0.17	0.4
375	25	0.22	83.96	375	0.59	1.02	516953	1644548	-0.2	0.47
400	25	0.16	102.68	400	0.59	1.1	516953	1644548	-0.25	0.34
425	25	0.08	120.12	425	0.57	1.15	516952.9	1644548	-0.3	0.35
450	25	0.08	139.93	450	0.55	1.18	516952.9	1644548	-0.33	0.11
475	25	0.06	145.88	475	0.53	1.19	516952.9	1644548	-0.36	0.09
500	25	0.11	140.84	500	0.5	1.22	516952.9	1644548	-0.4	0.2
525	25	0.12	204.09	525	0.46	1.22	516952.8	1644548	-0.44	0.48
550	25	0.2	232.94	550	0.41	1.18	516952.8	1644548	-0.44	0.44
575	25	0.21	233.76	575	0.35	1.1	516952.7	1644548	-0.44	0.04
600	25	0.1	283.96	600	0.33	1.05	516952.7	1644548	-0.42	0.66
625	25	0.19	2.38	625	0.38	1.03	516952.7	1644548	-0.37	0.78
650	25	0.18	7.7	650	0.46	1.03	516952.8	1644548	-0.31	0.08
675	25	0.15	352.77	675	0.53	1.03	516952.9	1644548	-0.26	0.21
700	25	0.14	324.36	700	0.59	1.01	516952.9	1644548	-0.2	0.29
725	25	0.14	300.41	725	0.63	0.97	516953	1644548	-0.14	0.23
750	25	0.08	278.08	750	0.64	0.92	516953	1644548	-0.1	0.29
775	25	0.19	259.06	775	0.64	0.87	516953	1644548	-0.07	0.47
800	25	0.12	261.37	800	0.63	0.8	516953	1644548	-0.03	0.28
825	25	0.13	247.42	825	0.61	0.75	516953	1644548	-0.01	0.13
984	159	0.21	301.74	984	0.7	0.33	516953.1	1644547	0.32	0.11
1060	76	1.15	285.75	1059.99	0.98	-0.52	516953.4	1644546	1.08	1.25

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1107	47	1.86	274.63	1106.97	1.17	-1.73	516953.6	1644545	2.01	1.63
1155	48	2.68	269.29	1154.93	1.22	-3.63	516953.6	1644543	3.27	1.76
1201	46	3.48	265.51	1200.87	1.09	-6.1	516953.5	1644541	4.76	1.79
1249	48	4.37	262.59	1248.76	0.74	-9.37	516953.2	1644538	6.59	1.9
1296	47	5.16	256.05	1295.59	0	-13.19	516952.5	1644534	8.48	2.04
1344	48	5.82	252.75	1343.37	-1.24	-17.61	516951.4	1644529	10.37	1.52
1439	95	4.46	236.19	1437.99	-4.72	-25.28	516948	1644522	12.64	2.1
1533	94	4.48	222.48	1531.71	-9.47	-30.8	516943.3	1644516	12.55	1.13
1628	95	4.09	205.67	1626.45	-15.26	-34.77	516937.6	1644512	10.67	1.38
1723	95	1.82	193.35	1721.32	-19.78	-36.59	516933.1	1644510	8.38	2.47
1817	94	0.52	122.75	1815.3	-21.46	-36.57	516931.4	1644510	7.08	1.83
1912	95	1.64	82.97	1910.28	-21.53	-34.86	516931.3	1644512	5.93	1.35
2006	94	2.18	77.25	2004.23	-20.97	-31.78	516931.8	1644515	4.38	0.61
2101	95	2.32	78.03	2099.15	-20.17	-28.14	516932.6	1644519	2.64	0.15
2167	66	2.08	80.41	2165.11	-19.69	-25.65	516933	1644521	1.41	0.39
2270	103	2.17	90.51	2268.04	-19.4	-21.86	516933.3	1644525	-0.8	0.37
2364	94	1.73	82.1	2361.98	-19.22	-18.67	516933.4	1644528	-2.71	0.56
2459	95	1.74	80.12	2456.94	-18.78	-15.83	516933.8	1644531	-4.2	0.06
2554	95	1.66	87.14	2551.9	-18.46	-13.04	516934.1	1644534	-5.76	0.23
2649	95	1.58	82.18	2646.86	-18.21	-10.36	516934.3	1644536	-7.29	0.17
2743	94	0.1	355.81	2740.85	-17.96	-9.09	516934.5	1644538	-7.91	1.68
2838	95	0.39	313.52	2835.84	-17.65	-9.33	516934.8	1644537	-7.52	0.34
2933	95	0.86	297.16	2930.84	-17.1	-10.2	516935.4	1644537	-6.54	0.52
3028	95	1.05	301.44	3025.83	-16.32	-11.57	516936.2	1644535	-5.06	0.21
3122	94	0.95	302.84	3119.81	-15.45	-12.96	516937.1	1644534	-3.5	0.11
3216	94	0.87	297.85	3213.8	-14.69	-14.25	516937.9	1644533	-2.09	0.12
3311	95	0.55	326.12	3308.79	-13.98	-15.14	516938.6	1644532	-0.97	0.49
3406	95	0.49	316.52	3403.79	-13.31	-15.67	516939.3	1644531	-0.11	0.11
3500	94	0.66	318.02	3497.78	-12.61	-16.31	516940	1644531	0.83	0.18
3595	95	1.05	322.61	3592.77	-11.51	-17.21	516941.1	1644530	2.25	0.42
3690	95	1.19	322.55	3687.75	-10.04	-18.34	516942.6	1644529	4.1	0.15
3785	95	1.27	303.89	3782.73	-8.67	-19.81	516944	1644527	6.1	0.43
3879	94	0.97	295.84	3876.72	-7.74	-21.39	516944.9	1644526	7.82	0.36
3974	95	1.35	295.17	3971.7	-6.91	-23.13	516945.8	1644524	9.57	0.4
4068	94	1.08	294.7	4065.67	-6.07	-24.93	516946.6	1644522	11.38	0.29
4163	95	1.1	307.21	4160.66	-5.15	-26.47	516947.6	1644520	13.08	0.25
4258	95	0.9	308.35	4255.64	-4.13	-27.78	516948.6	1644519	14.7	0.21

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4353	95	0.85	314.41	4350.63	-3.18	-28.87	516949.6	1644518	16.13	0.15
4447	94	0.73	314.07	4444.62	-2.27	-29.8	516950.5	1644517	17.42	0.15
4541	94	0.97	305.8	4538.61	-1.39	-30.88	516951.4	1644516	18.79	0.15
4636	95	1.1	299.79	4633.6	-0.47	-32.32	516952.3	1644515	20.42	0.15
4731	95	0.87	290.08	4728.58	0.23	-33.79	516953	1644513	21.9	0.3
4825	94	1.16	288.79	4822.57	0.78	-35.36	516953.6	1644512	23.34	0.31
4919	94	1.05	283.46	4916.55	1.29	-37.1	516954.1	1644510	24.84	0.16
5014	95	0.91	298.48	5011.54	1.85	-38.61	516954.7	1644508	26.24	0.31
5108	94	0.93	278.24	5105.52	2.32	-40.02	516955.2	1644507	27.51	0.34
5203	95	0.79	283.3	5200.51	2.58	-41.42	516955.5	1644506	28.61	0.17
5297	94	0.73	296.24	5294.51	2.99	-42.59	516955.9	1644504	29.68	0.19
5392	95	0.65	289.37	5389.5	3.44	-43.64	516956.4	1644503	30.69	0.12
5487	95	0.84	295.93	5484.49	3.92	-44.77	516956.9	1644502	31.79	0.22
5581	94	0.61	278.99	5578.48	4.3	-45.89	516957.3	1644501	32.8	0.33
5676	95	0.9	292.43	5673.48	4.67	-47.08	516957.6	1644500	33.84	0.36
5761	85	1.41	306.73	5758.46	5.55	-48.53	516958.5	1644499	35.45	0.68
5855	94	8.64	327.39	5852.04	12.2	-53.27	516965.3	1644494	43.59	7.81
5950	95	14.45	331.1	5945.08	28.6	-62.85	516981.8	1644485	62.31	6.16
6045	95	20.75	332.06	6035.59	53.87	-76.48	517007.2	1644471	90.43	6.64
6139	94	26.55	337.73	6121.66	88.05	-92.26	517041.6	1644456	126.76	6.62
6234	95	35.04	345.34	6203.23	134.19	-107.24	517087.9	1644441	171.72	9.82
6328	94	43.64	348.05	6275.86	192.14	-120.81	517146.1	1644429	224.84	9.33
6422	94	46.84	344.9	6342.05	257	-136.47	517211.1	1644414	284.57	4.15
6517	95	52.92	341.85	6403.25	326.53	-157.32	517280.9	1644394	351.24	6.85
6611	94	59.89	338.89	6455.24	400.2	-183.68	517354.9	1644368	424.61	7.86
6706	95	68.58	335.96	6496.5	479.08	-216.56	517434.2	1644337	506.16	9.56
6800	94	74.49	331.58	6526.27	558.97	-255.99	517514.6	1644298	592.7	7.68
6895	95	81.48	326.21	6546.05	638.42	-303.99	517594.7	1644251	684.42	9.2
6989	94	90.28	322.28	6552.8	714.41	-358.73	517671.3	1644197	777.81	10.25
7084	95	90.43	323.37	6552.21	790.1	-416.13	517747.8	1644141	872.69	1.16
7179	95	90.58	321.3	6551.37	865.29	-474.17	517823.7	1644084	967.6	2.18
7273	94	90.62	320.97	6550.39	938.48	-533.15	517897.6	1644026	1061.57	0.35
7368	95	90.89	319.21	6549.14	1011.34	-594.1	517971.3	1643966	1156.56	1.87
7462	94	91.63	320	6547.07	1082.91	-655	518043.6	1643906	1250.54	1.15
7557	95	91.51	320.94	6544.47	1156.16	-715.44	518117.6	1643846	1345.5	1
7652	95	91.42	315.74	6542.04	1227.09	-778.54	518189.4	1643784	1440.39	5.47
7746	94	91.26	310.23	6539.84	1291.13	-847.26	518254.3	1643716	1533.63	5.86

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7840	94	90.43	309.13	6538.45	1351.14	-919.6	518315.2	1643645	1626.1	1.47
7935	95	90.37	309.12	6537.79	1411.09	-993.29	518376.1	1643572	1719.4	0.06
8030	95	90.34	309.92	6537.2	1471.54	-1066.58	518437.5	1643499	1812.81	0.84
8124	94	89.75	314.4	6537.12	1534.62	-1136.24	518501.5	1643431	1905.92	4.81
8219	95	89.94	318.41	6537.38	1603.4	-1201.73	518571.1	1643366	2000.71	4.23
8314	95	89.91	319.64	6537.51	1675.13	-1264.03	518643.6	1643305	2095.69	1.3
8408	94	90.28	319.94	6537.35	1746.91	-1324.71	518716.2	1643245	2189.69	0.51
8503	95	90.31	319.36	6536.86	1819.31	-1386.22	518789.4	1643184	2284.69	0.61
8597	94	90.28	319.22	6536.38	1890.57	-1447.53	518861.4	1643124	2378.68	0.15
8692	95	89.94	319.05	6536.19	1962.41	-1509.68	518934	1643063	2473.67	0.4
8786	94	89.91	320	6536.32	2033.91	-1570.7	519006.3	1643003	2567.67	1.01
8881	95	89.94	320.39	6536.44	2106.89	-1631.52	519080.1	1642943	2662.67	0.41
8975	94	89.85	321.25	6536.61	2179.76	-1690.9	519153.7	1642884	2756.66	0.92
9070	95	90	320.27	6536.74	2253.34	-1750.99	519228	1642825	2851.65	1.04
9164	94	90.34	319.69	6536.46	2325.32	-1811.44	519300.8	1642766	2945.64	0.72
9259	95	90.31	319.28	6535.92	2397.54	-1873.16	519373.8	1642705	3040.64	0.43
9353	94	90.31	319.39	6535.41	2468.84	-1934.41	519445.9	1642644	3134.63	0.12
9448	95	90.43	318.76	6534.8	2540.62	-1996.64	519518.5	1642583	3229.62	0.68
9542	94	90.34	319.25	6534.17	2611.57	-2058.3	519590.2	1642522	3323.6	0.53
9637	95	91.02	321.33	6533.04	2684.64	-2118.99	519664	1642463	3418.59	2.3
9731	94	90.89	319.65	6531.47	2757.15	-2178.78	519737.3	1642404	3512.57	1.79
9826	95	90.95	316.37	6529.95	2827.74	-2242.32	519808.7	1642341	3607.49	3.45
9921	95	90.34	315.99	6528.88	2896.28	-2308.09	519878.1	1642276	3702.27	0.76
10015	94	90.43	316.64	6528.25	2964.25	-2373.02	519946.9	1642212	3796.07	0.7
10205	190	90.43	315.12	6526.82	3100.64	-2505.28	520085	1642082	3985.58	0.8
10299	94	90.46	318.18	6526.09	3168.99	-2569.8	520154.1	1642018	4079.4	3.26
10489	190	91.02	323.16	6523.63	3315.9	-2690.17	520302.6	1641900	4269.31	2.64
10583	94	91.05	320.71	6521.94	3389.89	-2748.11	520377.3	1641843	4363.24	2.61
10678	95	90.34	318.89	6520.78	3462.44	-2809.42	520450.6	1641782	4458.22	2.06
10772	94	90.52	319.15	6520.08	3533.4	-2871.06	520522.4	1641722	4552.21	0.34
10866	94	90.22	320.48	6519.47	3605.21	-2931.72	520595	1641662	4646.2	1.45
10961	95	90.34	319.85	6519.01	3678.16	-2992.57	520668.7	1641602	4741.2	0.68
11056	95	90.28	320.17	6518.49	3750.94	-3053.62	520742.3	1641542	4836.2	0.34
11245	189	90.34	316.9	6517.47	3892.55	-3178.75	520885.5	1641419	5025.11	1.73
11339	94	90.22	317.32	6517.01	3961.42	-3242.73	520955.2	1641355	5118.99	0.46
11434	95	90.03	316.07	6516.8	4030.55	-3307.88	521025.1	1641291	5213.83	1.33
11529	95	90.09	316.28	6516.7	4099.09	-3373.67	521094.5	1641226	5308.62	0.23

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11623	94	90.12	317.51	6516.53	4167.72	-3437.9	521163.9	1641163	5402.48	1.31
11718	95	90.12	316.94	6516.33	4237.45	-3502.41	521234.5	1641099	5497.37	0.6
11812	94	90.4	314.86	6515.91	4304.95	-3567.83	521302.8	1641035	5591.13	2.23
11907	95	90.34	315.94	6515.29	4372.59	-3634.53	521371.3	1640969	5685.82	1.14
12001	94	90.43	315.91	6514.66	4440.12	-3699.91	521439.7	1640904	5779.58	0.1
12095	94	90.52	316.65	6513.88	4508.05	-3764.88	521508.5	1640840	5873.38	0.79
12190	95	90.95	319.62	6512.66	4578.79	-3828.27	521580	1640778	5968.31	3.16
12284	94	90.65	322.42	6511.35	4651.84	-3887.38	521653.8	1640720	6062.28	3
12379	95	90.37	321.36	6510.5	4726.59	-3946.01	521729.3	1640662	6157.22	1.15
12474	95	90.49	319.67	6509.79	4799.9	-4006.42	521803.4	1640603	6252.21	1.78
12568	94	90.37	321.81	6509.09	4872.68	-4065.9	521876.9	1640544	6346.19	2.28
12663	95	90.4	321.04	6508.45	4946.95	-4125.13	521951.9	1640486	6441.16	0.81
12852	189	90.52	318.27	6506.93	5090.98	-4247.47	522097.5	1640365	6630.13	1.47
12946	94	90.43	314.06	6506.15	5158.77	-4312.56	522166.2	1640301	6723.9	4.48
13041	95	90.65	312.83	6505.25	5224.09	-4381.53	522232.4	1640233	6818.28	1.32
13135	94	90.86	313.7	6504.02	5288.51	-4449.97	522297.7	1640165	6911.62	0.95
13230	95	90.83	317.27	6502.61	5356.23	-4516.56	522366.2	1640100	7006.3	3.76
13325	95	90.8	319.83	6501.26	5427.42	-4579.43	522438.2	1640038	7101.26	2.69
13419	94	90.8	318.16	6499.95	5498.35	-4641.1	522509.9	1639977	7195.23	1.78
13514	95	90.71	321.53	6498.7	5570.94	-4702.35	522583.3	1639917	7290.21	3.55
13609	95	90.8	320.12	6497.45	5644.58	-4762.35	522657.7	1639858	7385.19	1.49
13703	94	90.77	318.89	6496.16	5716.06	-4823.39	522730	1639797	7479.17	1.31
13798	95	90.83	319.8	6494.83	5788.12	-4885.27	522802.8	1639737	7574.16	0.96
13892	94	90.71	320.16	6493.57	5860.1	-4945.71	522875.6	1639677	7668.15	0.4
13987	95	90.58	320.83	6492.5	5933.39	-5006.14	522949.6	1639618	7763.14	0.72
14082	95	90.52	323.92	6491.59	6008.62	-5064.13	523025.6	1639561	7858.04	3.25
14176	94	90.49	324.33	6490.76	6084.79	-5119.21	523102.5	1639506	7951.79	0.44
14286	110	90.49	324.33	6489.82	6174.15	-5183.36	523192.6	1639443	8061.47	0

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