

PRINCIPAL FACTS FOR GRAVITY STATIONS IN  
HEBER AND RHODES VALLEY, WASATCH COUNTY, UTAH

BY DONALD L. PETERSON

ABBREVIATIONS OF THE HEADINGS OF THE ACCOMPANYING TABLES OF PRINCIPAL FACTS  
ARE EXPLAINED IN THE FOLLOWING LIST:

GROUND WATER GEOP.	PROJECT DESIGNATION
HEBER RHODES VA UTAH	PROJECT AREA
51468	MONTH, DAY, AND YEAR THAT PROJECT STARTED
HEBER BM K85	GRAVITY BASE STATION AT WEST EDGE OF HEBER, UTAH ON U.S.C. AND G.S. BENCHMARK DESIGNATED K85 1934. OBSERVED GRAVITY IS 979669.76 MILLIGALS. THIS BASE STATION IS TIED TO BASE STATION WU29 AT LIBERTY PARK, SALT LAKE CITY, UTAH (BEHRENDT AND WOOLLARD, 1961).
PETERSON	PROJECT CHIEF
IDREF = 235	COMPUTER IDENTIFICATION NUMBER
STATION	STATION NUMBER
LAT	NORTH LATITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
LONG	WEST LONGITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
ELEV (F)	ELEVATION IN FEET
E	ELEVATION ACCURACY-NOT RECORDED
OBS G	OBSERVED GRAVITY IN MILLIGALS

FAA	FREE AIR ANOMALY IN MILLIGALS
BA 2.67	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED DENSITY OF 2.67 G PER CC
BA (OPT)	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED DENSITY OF 2.45 G PER CC
CB 2.67    CB (OPT)	COMPLETE BOUGUER ANOMALY-NOT COMPUTED
CC	CURVATURE CORRECTION IN MILLIGALS
TC TCM	TERRAIN CORRECTION-NOT COMPUTED
PG	POSITION AND ACCURACY CODES
DRIFT	GRAVITY METER DRIFT IN MILLIGALS
TIDE	EARTH TIDE CORRECTION-NOT COMPUTED
N	STATION COUNT

REFERENCE

BEHRENDT, J. C., AND WOOLLARD, G. P., 1961, AN EVALUATION OF THE GRAVITY  
CONTROL NETWORK IN NORTH AMERICA: GEOPHYSICS, V. 26, NO. 1, PP. 57-76.

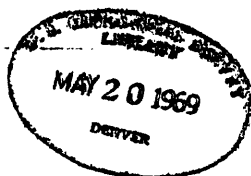
GRAVITY MEASUREMENTS WERE MADE WITH WORDEN GRAVITY METER NO. 177 WITH A  
SENSITIVITY OF 0.4902 MILLIGALS PER SCALE DIVISION.

GROUNDWATER GEOPHYSICAL RHOIDS VA UTAH 514688HERER HM K85  
 STATION LAT LONG ELEV(F) E ORS G FAA HA2.67 BA(OPT) CR2.67 CH(OPT) PETERSUN  
 INKRF= 235  
 TCM PG DRIFT TIDE

STATION	LAT	LONG	ELEV(F)	E	ORS	G	FAA	HA2.67	BA(OPT)	CR2.67	CH(OPT)	PETERSUN	TCM	PG	DRIFT	TIDE
1	40	30.40	111	25.92	5526.0	0	1671.63	-34.38	-222.85	-207.32	1.62	0.00			-0.010.0	1
2	40	30.41	111	26.51	5501.0	0	1674.97	-33.41	-221.03	-205.57	1.61	0.00			-0.010.0	2
3	40	30.71	111	27.77	5569.0	0	1671.69	-30.74	-220.68	-205.03	1.62	0.00			-0.020.0	3
4	40	31.08	111	27.70	5616.0	0	1668.56	-30.00	-221.54	-205.76	1.63	0.00			-0.020.0	4
5	40	31.70	111	27.70	5620.0	0	1670.67	-28.44	-220.11	-204.32	1.63	0.00			-0.030.0	5
6	40	32.08	111	27.10	5622.0	0	1670.82	-28.66	-220.41	-204.61	1.63	0.00			-0.030.0	6
7	40	26.57	111	28.99	5463.0	0	1678.49	-27.75	-214.07	-198.72	1.61	0.00			-0.110.0	7
8	40	27.34	111	28.27	5420.0	0	1680.70	-30.72	-215.58	-200.35	1.60	0.00			-0.110.0	8
9	40	28.61	111	28.65	5425.0	0	1678.85	-33.99	-219.02	-203.78	1.60	0.00			-0.110.0	9
10	40	29.20	111	28.26	5434.0	0	1678.75	-34.12	-219.45	-204.18	1.60	0.00			-0.120.0	10
11	40	29.20	111	28.87	5447.0	0	1679.05	-32.60	-218.38	-203.07	1.61	0.00			-0.120.0	11
12	40	30.12	111	29.20	5691.0	0	1663.27	-26.81	-220.91	-204.92	1.64	0.00			-0.130.0	12
13	40	31.80	111	29.20	5741.0	0	1661.96	-25.92	-221.73	-205.59	1.64	0.00			-0.140.0	13
14	40	32.40	111	29.64	5845.0	0	1658.43	-20.56	-219.92	-203.49	1.66	0.00			-0.140.0	14
15	40	31.75	111	28.70	5686.0	0	1664.71	-28.26	-222.19	-206.21	1.64	0.00			-0.150.0	15
16	40	31.32	111	28.27	5631.0	0	1666.53	-30.97	-223.03	-207.20	1.63	0.00			-0.150.0	16
17	40	30.99	111	27.64	5793.0	0	1657.32	-24.47	-222.05	-205.77	1.65	0.00			-0.160.0	17
18	40	31.30	111	26.50	5554.0	0	1673.36	-31.35	-220.78	-205.17	1.62	0.00			-0.170.0	18
19	40	31.75	111	26.50	5581.0	0	1672.63	-30.21	-220.56	-204.88	1.62	0.00			-0.180.0	19
20	40	31.75	111	25.92	5590.0	0	1671.60	-30.39	-221.05	-205.34	1.63	0.00			-0.180.0	20
21	40	31.30	111	25.90	5559.0	0	1672.44	-31.80	-221.40	-205.78	1.62	0.00			-0.180.0	21
22	40	31.31	111	25.35	5561.0	0	1672.20	-31.87	-221.54	-205.91	1.62	0.00			-0.180.0	22
23	40	31.75	111	25.35	5590.0	0	1670.19	-31.80	-222.46	-206.75	1.63	0.00			-0.190.0	23
24	40	30.86	111	25.35	5543.0	0	1672.16	-32.93	-221.99	-206.41	1.62	0.00			-0.190.0	24
TOTAL DRIFT = -.20																
25	40	30.44	111	23.66	5670.0	0	1664.87	-27.66	-221.04	-205.11	1.64	0.00			0.080.0	25
26	40	30.45	111	22.52	5825.0	0	1655.36	-22.62	-221.29	-204.92	1.65	0.00			0.090.0	26
27	40	29.57	111	22.33	5799.0	0	1654.66	-24.45	-222.24	-205.94	1.65	0.00			0.100.0	27
28	40	29.57	111	21.39	5922.0	0	1647.74	-19.81	-221.79	-205.15	1.67	0.00			0.100.0	28
29	40	29.57	111	20.80	5983.0	0	1643.92	-17.91	-221.97	-205.16	1.67	0.00			0.110.0	29
30	40	29.57	111	20.22	6060.0	0	1638.71	-15.88	-222.56	-205.53	1.68	0.00			0.110.0	30
31	40	29.87	111	20.05	6050.0	0	1639.49	-16.48	-222.83	-205.82	1.68	0.00			0.120.0	31
32	40	29.70	111	18.28	6375.0	0	1619.24	-5.94	-223.37	-205.46	1.71	0.00			0.130.0	32
33	40	28.70	111	21.40	5922.0	0	1645.25	-21.02	-223.00	-206.36	1.67	0.00			0.150.0	33
34	40	28.69	111	20.48	6062.0	0	1635.73	-17.36	-224.12	-207.08	1.68	0.00			0.160.0	34
35	40	27.30	111	19.46	6302.0	0	1617.00	-11.48	-226.42	-208.71	1.70	0.00			0.170.0	35
36	40	28.70	111	22.33	5815.0	0	1651.98	-24.34	-222.67	-206.33	1.65	0.00			0.180.0	36
37	40	29.57	111	23.68	5704.0	0	1660.94	-27.10	-221.65	-205.62	1.64	0.00			0.190.0	37
38	40	28.70	111	23.68	5768.0	0	1655.50	-25.24	-221.97	-205.76	1.65	0.00			0.190.0	38
39	40	27.82	111	22.69	5964.0	0	1644.07	-16.94	-220.35	-203.59	1.67	0.00			0.200.0	39
40	40	28.25	111	23.68	5804.0	0	1654.21	-22.48	-220.43	-204.12	1.65	0.00			0.210.0	40
41	40	29.13	111	24.83	5664.0	0	1662.38	-28.77	-221.95	-206.03	1.64	0.00			0.220.0	41
42	40	28.25	111	24.84	5711.0	0	1659.88	-25.55	-220.33	-204.29	1.64	0.00			0.230.0	42
43	40	28.25	111	25.39	5666.0	0	1663.60	-26.06	-219.31	-203.38	1.64	0.00			0.230.0	43
44	40	27.40	111	25.36	5681.0	0	1661.83	-25.15	-218.91	-202.95	1.64	0.00			0.230.0	44
45	40	28.25	111	25.98	5618.0	0	1665.84	-28.33	-219.94	-204.15	1.63	0.00			0.240.0	45
46	40	28.53	111	25.98	5603.0	0	1666.42	-29.57	-220.67	-204.92	1.63	0.00			0.250.0	46
47	40	28.68	111	26.55	5547.0	0	1669.61	-31.87	-221.06	-205.47	1.62	0.00			0.250.0	47
48	40	28.68	111	27.10	5500.0	0	1672.30	-33.60	-221.18	-205.73	1.61	0.00			0.260.0	48
49	40	29.01	111	27.16	5484.0	0	1674.79	-33.10	-220.14	-204.73	1.61	0.00			0.260.0	49
50	40	29.35	111	26.55	5522.0	0	1671.01	-33.81	-222.15	-206.63	1.62	0.00			0.270.0	50

51	40	29.98	111	26.66	5493.0	0	1674.38	-34.10	-221.45	-206.01	1.61	0.00	0.280.0	51
				TOTAL DRIFT = 0.34			DRIFT PER HOUR = 0.06887668							
81	40	30.40	111	25.92	5526.0	0	1671.73	-34.28	-222.75	-207.22	1.62	0.00	-0.000.0	52
52	40	31.28	111	24.58	5580.0	0	1672.17	-30.06	-220.38	-204.70	1.62	0.00	-0.010.0	53
53	40	31.85	111	24.50	5622.0	0	1667.72	-31.42	-223.17	-207.37	1.63	0.00	-0.020.0	54
54	40	32.64	111	25.30	5654.0	0	1667.43	-29.88	-222.72	-206.83	1.63	0.00	-0.020.0	55
55	40	32.65	111	24.98	5659.0	0	1666.64	-30.21	-223.21	-207.31	1.63	0.00	-0.020.0	56
56	40	32.75	111	25.92	5695.0	0	1667.63	-25.99	-220.23	-204.22	1.64	0.00	-0.020.0	57
57	40	32.84	111	27.25	5829.0	0	1658.96	-22.20	-221.00	-204.62	1.66	0.00	-0.030.0	58
58	40	33.82	111	27.20	6284.0	0	1632.64	-7.21	-221.54	-203.88	1.70	0.00	-0.040.0	59
59	40	33.60	111	31.69	6749.0	0	1609.72	13.89	-216.29	-197.33	1.73	0.00	-0.060.0	60
60	40	28.70	111	31.17	6253.0	0	1638.09	2.93	-210.34	-192.77	1.70	0.00	-0.090.0	61
61	40	32.60	111	23.17	6287.0	0	1625.33	-12.43	-226.86	-209.19	1.70	0.00	-0.130.0	62
				TOTAL DRIFT = -0.15			DRIFT PER HOUR = -0.3587411							
62	40	33.40	111	25.37	5713.0	0	1664.05	-28.84	-223.69	-207.63	1.64	0.00	-0.030.0	63
63	40	34.11	111	25.55	5759.0	0	1661.06	-28.56	-224.98	-208.79	1.65	0.00	-0.030.0	64
64	40	35.67	111	25.60	5874.0	0	1659.11	-22.03	-222.37	-205.86	1.66	0.00	-0.030.0	65
65	40	36.17	111	21.55	6121.0	0	1642.98	-15.68	-224.45	-207.25	1.69	0.00	-0.040.0	66
66	40	36.25	111	20.04	6203.0	0	1637.30	-13.78	-225.34	-207.91	1.69	0.00	-0.040.0	67
67	40	36.61	111	18.30	6327.0	0	1630.83	-9.13	-224.92	-207.14	1.70	0.00	-0.040.0	68
68	40	36.67	111	17.47	6390.0	0	1628.87	-5.21	-223.15	-205.19	1.71	0.00	-0.040.0	69
69	40	35.19	111	15.68	6558.0	0	1613.82	-2.27	-225.94	-207.51	1.72	0.00	-0.050.0	70
70	40	35.75	111	15.63	6657.0	0	1609.91	2.24	-224.81	-206.10	1.72	0.00	-0.050.0	71
71	40	36.65	111	15.68	6614.0	0	1616.58	3.53	-222.05	-203.47	1.72	0.00	-0.050.0	72
72	40	36.67	111	17.46	6560.0	0	1617.66	-0.50	-224.24	-205.80	1.72	0.00	-0.050.0	73
73	40	37.01	111	16.80	6546.0	0	1618.83	-1.14	-224.40	-206.00	1.72	0.00	-0.060.0	74
74	40	36.20	111	16.80	6570.0	0	1615.65	-0.86	-224.94	-206.48	1.72	0.00	-0.060.0	75
75	40	30.46	111	23.68	5592.0	0	1669.14	-30.75	-221.47	-205.76	1.63	0.00	-0.070.0	76
76	40	27.09	111	22.21	6024.0	0	1638.86	-15.43	-220.89	-203.96	1.68	0.00	-0.080.0	77
77	40	25.63	111	20.77	6230.0	0	1618.71	-14.05	-226.53	-209.02	1.70	0.00	-0.080.0	78
78	40	30.22	111	28.60	5518.0	0	1674.51	-31.98	-220.18	-204.68	1.62	0.00	-0.090.0	79
				TOTAL DRIFT = -0.10			DRIFT PER HOUR = -0.2115453							
79	40	37.52	111	16.80	6513.0	0	1622.15	-1.68	-223.82	-205.52	1.72	0.00	0.010.0	80
80	40	37.53	111	15.92	6548.0	0	1621.75	1.19	-222.14	-203.73	1.72	0.00	0.020.0	81
81	40	37.51	111	17.95	6463.0	0	1622.92	-5.59	-226.02	-207.86	1.71	0.00	0.020.0	82
82	40	38.40	111	16.83	6484.0	0	1626.06	-1.81	-222.96	-204.73	1.71	0.00	0.030.0	83
83	40	38.39	111	17.63	6430.0	0	1628.50	-4.42	-223.73	-205.66	1.71	0.00	0.030.0	84
84	40	38.38	111	18.05	6406.0	0	1628.99	-6.17	-224.66	-206.66	1.71	0.00	0.030.0	85
85	40	38.14	111	19.20	6457.0	0	1625.80	-4.22	-224.44	-206.30	1.71	0.00	0.040.0	86
86	40	37.74	111	20.09	6540.0	0	1615.11	-6.51	-229.57	-211.19	1.72	0.00	0.040.0	87
87	40	38.17	111	18.80	6435.0	0	1626.28	-5.85	-225.32	-207.24	1.71	0.00	0.050.0	88
88	40	39.37	111	18.81	6382.0	0	1631.77	-7.12	-224.79	-206.85	1.71	0.00	0.050.0	89
89	40	40.05	111	18.78	6326.0	0	1633.44	-11.73	-227.49	-209.71	1.70	0.00	0.050.0	90
90	40	40.35	111	18.86	6303.0	0	1634.36	-13.41	-228.38	-210.67	1.70	0.00	0.050.0	91
91	40	40.85	111	19.10	6293.0	0	1635.10	-14.36	-228.99	-211.30	1.70	0.00	0.050.0	92
92	40	41.46	111	19.10	6306.0	0	1632.43	-15.71	-230.79	-213.07	1.70	0.00	0.060.0	93
93	40	42.05	111	19.03	6330.0	0	1632.15	-15.61	-231.50	-213.72	1.70	0.00	0.060.0	94
94	40	42.43	111	19.97	6278.0	0	1639.80	-13.42	-227.54	-209.89	1.70	0.00	0.060.0	95
95	40	42.76	111	20.27	6235.0	0	1644.70	-13.05	-225.70	-208.18	1.70	0.00	0.060.0	96
96	40	43.47	111	20.45	6192.0	0	1648.08	-14.77	-225.95	-208.55	1.69	0.00	0.070.0	97
97	40	43.86	111	20.72	6157.0	0	1650.77	-15.94	-225.94	-208.63	1.69	0.00	0.070.0	98
98	40	44.25	111	21.56	6109.0	0	1654.10	-17.70	-226.06	-208.89	1.68	0.00	0.070.0	99
99	40	43.20	111	23.36	6537.0	0	1628.26	-1.76	-224.71	-206.34	1.72	0.00	0.070.0	100
100	40	43.57	111	19.94	6256.0	0	1645.07	-11.91	-225.28	-207.70	1.70	0.00	0.080.0	101
101	40	43.43	111	18.80	6464.0	0	1631.78	-5.44	-225.91	-207.74	1.71	0.00	0.090.0	102

102	40	43.44	111	17.97	6477.0	0	1629.38	-6.64	-227.55	-209.35	1.71	0.00	0.090.0	10
103	40	43.45	111	15.85	6525.0	0	1626.04	-5.48	-228.02	-209.69	1.72	0.00	0.090.0	10
104	40	43.93	111	15.96	6617.0	0	1619.57	-4.02	-229.71	-211.11	1.72	0.00	0.100.0	10
105	40	43.92	111	15.34	6622.0	0	1618.49	-4.62	-230.47	-211.86	1.72	0.00	0.100.0	10
106	40	45.05	111	13.50	6772.0	0	1609.36	-1.33	-232.29	-213.26	1.73	0.00	0.100.0	10
107	40	43.20	111	15.65	6568.0	0	1617.99	-9.12	-233.13	-214.68	1.72	0.00	0.110.0	10
108	40	42.36	111	15.66	6505.0	0	1618.86	-12.91	-234.78	-216.50	1.72	0.00	0.110.0	10
109	40	42.35	111	16.84	6464.0	0	1625.53	-10.09	-230.55	-212.39	1.71	0.00	0.110.0	110
110	40	42.35	111	17.98	6402.0	0	1629.35	-12.09	-230.44	-212.45	1.71	0.00	0.110.0	111
111	40	41.92	111	17.98	6382.0	0	1628.47	-14.22	-231.89	-213.95	1.71	0.00	0.120.0	112
112	40	41.92	111	16.84	6434.0	0	1624.59	-13.20	-232.65	-214.56	1.71	0.00	0.120.0	113
113	40	41.36	111	15.73	6627.0	0	1615.13	-3.70	-229.72	-211.10	1.72	0.00	0.120.0	114
114	40	41.48	111	16.84	6456.0	0	1623.36	-11.71	-231.90	-213.76	1.71	0.00	0.120.0	115
115	40	41.27	111	17.90	6354.0	0	1629.44	-14.91	-231.63	-213.77	1.71	0.00	0.130.0	116
116	40	41.18	111	16.82	6452.0	0	1624.58	-10.43	-230.48	-212.35	1.71	0.00	0.130.0	117
TOTAL DRIFT = 0.15								DRIFT PER HOUR = 0.02690557						
117	40	40.97	111	16.82	6444.0	0	1625.64	-9.80	-229.58	-211.47	1.71	0.00	-0.050.0	118
118	40	40.75	111	17.95	6322.0	0	1631.73	-14.86	-230.48	-212.71	1.70	0.00	-0.050.0	119
119	40	40.33	111	16.82	6400.0	0	1628.55	-10.07	-228.36	-210.37	1.71	0.00	-0.070.0	120
120	40	39.95	111	16.82	6378.0	0	1631.25	-8.88	-226.41	-208.48	1.71	0.00	-0.070.0	121
121	40	39.52	111	16.80	6410.0	0	1630.86	-5.62	-224.24	-206.23	1.71	0.00	-0.070.0	122
122	40	39.60	111	17.50	6376.0	0	1629.31	-7.60	-225.07	-207.15	1.71	0.00	-0.080.0	123
123	40	39.16	111	19.82	6440.0	0	1632.19	-3.82	-223.47	-205.37	1.71	0.00	-0.090.0	124
124	40	39.19	111	17.29	6404.0	0	1632.26	-4.30	-222.72	-204.72	1.71	0.00	-0.100.0	125
125	40	38.38	111	15.64	6609.0	0	1619.43	3.34	-222.07	-203.50	1.72	0.00	-0.110.0	126
126	40	37.50	111	13.50	6811.0	0	1608.94	13.14	-219.16	-200.02	1.73	0.00	-0.110.0	127
127	40	38.21	111	36.37	6538.0	0	1623.95	1.44	-221.55	-203.18	1.72	0.00	-0.120.0	128
R54	40	32.64	111	25.30	5654.0	0	1667.45	-29.86	-222.69	-206.81	1.63	0.00	-0.140.0	129
TOTAL DRIFT = -0.15								DRIFT PER HOUR = -0.04123846						



PRINCIPAL FACTS FOR GRAVITY STATIONS IN  
HEBER AND RHODES VALLEY, WASATCH COUNTY, UTAH

BY DONALD L. PETERSON

ABBREVIATIONS OF THE HEADINGS OF THE ACCOMPANYING TABLES OF PRINCIPAL FACTS  
ARE EXPLAINED IN THE FOLLOWING LIST:

GROUND WATER GEOP.	PROJECT DESIGNATION
HEBER RHODES VA UTAH	PROJECT AREA
51468	MONTH, DAY, AND YEAR THAT PROJECT STARTED
HEBER BM K85	GRAVITY BASE STATION AT WEST EDGE OF HEBER, UTAH ON U.S.C. AND G.S. BENCHMARK DESIGNATED K85 1934. OBSERVED GRAVITY IS 979669.76 MILLIGALS. THIS BASE STATION IS TIED TO BASE STATION WU29 AT LIBERTY PARK, SALT LAKE CITY, UTAH (BEHRENDT AND WOOLLARD, 1961).
PETERSON	PROJECT CHIEF
IDREF = 235	COMPUTER IDENTIFICATION NUMBER
STATION	STATION NUMBER
LAT	NORTH LATITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
LONG	WEST LONGITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
ELEV (F)	ELEVATION IN FEET
E	ELEVATION ACCURACY-NOT RECORDED
OBS G	OBSERVED GRAVITY IN MILLIGALS

FAA	FREE AIR ANOMALY IN MILLIGALS
BA 2.67	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED DENSITY OF 2.67 G PER CC
BA (OPT)	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED DENSITY OF 2.45 G PER CC
CB 2.67 CB (OPT)	COMPLETE BOUGUER ANOMALY-NOT COMPUTED
CC	CURVATURE CORRECTION IN MILLIGALS
TC TCM	TERRAIN CORRECTION-NOT COMPUTED
PG	POSITION AND ACCURACY CODES
DRIFT	GRAVITY METER DRIFT IN MILLIGALS
TIDE	EARTH TIDE CORRECTION-NOT COMPUTED
N	STATION COUNT

REFERENCE

BEHRENDT, J. C., AND WOOLLARD, G. P., 1961, AN EVALUATION OF THE GRAVITY  
CONTROL NETWORK IN NORTH AMERICA: GEOPHYSICS, V. 26, NO. 1, PP. 57-76.

GRAVITY MEASUREMENTS WERE MADE WITH WORDEN GRAVITY METER NO. 177 WITH A  
SENSITIVITY OF 0.4902 MILLIGALS PER SCALE DIVISION.

GROUNDWATER GEOPHYSICAL SURVEY VA UTAH 51468HERNER RM K85

PETERSUN

HA2.67

BA(OPT)

CR2.67

CR(OPT)

IDREF= 235

STATION	LAT	LONG	ELEV(F)	E	DRIFT PER HOUR	DRIFT	CC	TC	TCA	PG	DRIFT	TIME
1	40 30.40	111 25.92	5526.0	0	1671.63	-34.38	-222.85	-207.32	1.62	0.00	-0.010.0	1
2	40 30.41	111 26.51	5501.0	0	1674.97	-33.41	-221.03	-205.57	1.61	0.00	-0.010.0	2
3	40 30.71	111 27.77	5569.0	0	1671.69	-30.74	-220.68	-205.03	1.62	0.00	-0.020.0	3
4	40 31.08	111 27.70	5616.0	0	1668.56	-30.00	-221.54	-205.76	1.63	0.00	-0.020.0	4
5	40 31.70	111 27.70	5620.0	0	1670.67	-28.44	-220.11	-204.32	1.63	0.00	-0.030.0	5
6	40 32.08	111 27.10	5622.0	0	1670.82	-28.66	-220.41	-204.61	1.63	0.00	-0.030.0	6
7	40 26.57	111 28.99	5463.0	0	1678.49	-27.75	-214.07	-198.72	1.61	0.00	-0.110.0	7
8	40 27.34	111 28.27	5420.0	0	1680.70	-30.72	-215.58	-200.35	1.60	0.00	-0.110.0	8
9	40 28.61	111 28.65	5425.0	0	1678.85	-33.99	-219.02	-203.78	1.60	0.00	-0.110.0	9
10	40 29.20	111 28.26	5434.0	0	1678.75	-34.12	-219.45	-204.18	1.60	0.00	-0.120.0	10
11	40 29.20	111 28.87	5447.0	0	1679.05	-32.60	-218.38	-203.07	1.61	0.00	-0.120.0	11
12	40 30.12	111 29.20	5691.0	0	1663.27	-26.81	-220.91	-204.92	1.64	0.00	-0.130.0	12
13	40 31.80	111 29.20	5741.0	0	1661.96	-25.92	-221.73	-205.59	1.64	0.00	-0.140.0	13
14	40 32.40	111 29.64	5845.0	0	1658.43	-20.56	-219.92	-203.49	1.66	0.00	-0.140.0	14
15	40 31.75	111 28.70	5686.0	0	1664.71	-28.26	-222.19	-206.21	1.64	0.00	-0.150.0	15
16	40 31.32	111 28.27	5631.0	0	1666.53	-30.97	-223.03	-207.20	1.63	0.00	-0.150.0	16
17	40 30.99	111 27.64	5793.0	0	1657.32	-24.47	-222.05	-205.77	1.65	0.00	-0.160.0	17
18	40 31.30	111 26.50	5554.0	0	1673.36	-31.35	-220.78	-205.17	1.62	0.00	-0.170.0	18
19	40 31.75	111 26.50	5581.0	0	1672.63	-30.21	-220.56	-204.88	1.62	0.00	-0.180.0	19
20	40 31.75	111 25.92	5590.0	0	1671.60	-30.39	-221.05	-205.34	1.63	0.00	-0.180.0	20
21	40 31.30	111 25.90	5559.0	0	1672.44	-31.80	-221.40	-205.78	1.62	0.00	-0.180.0	21
22	40 31.31	111 25.35	5561.0	0	1672.20	-31.87	-221.54	-205.91	1.62	0.00	-0.180.0	22
23	40 31.75	111 25.35	5590.0	0	1670.19	-31.80	-222.46	-206.75	1.63	0.00	-0.190.0	23
24	40 30.86	111 25.35	5543.0	0	1672.16	-32.93	-221.99	-206.41	1.62	0.00	-0.190.0	24
TOTAL DRIFT = -.20												
25	40 30.44	111 23.66	5670.0	0	1664.87	-27.66	-221.04	-205.11	1.64	0.00	0.080.0	25
26	40 30.45	111 22.52	5825.0	0	1655.36	-22.62	-221.29	-204.92	1.65	0.00	0.090.0	26
27	40 29.57	111 22.33	5799.0	0	1654.66	-24.45	-222.24	-205.94	1.65	0.00	0.100.0	27
28	40 29.57	111 21.39	5922.0	0	1647.74	-19.81	-221.79	-205.15	1.67	0.00	0.100.0	28
29	40 29.57	111 20.80	5983.0	0	1643.92	-17.91	-221.97	-205.16	1.67	0.00	0.110.0	29
30	40 29.57	111 20.22	6060.0	0	1638.71	-15.88	-222.56	-205.53	1.68	0.00	0.110.0	30
31	40 29.87	111 20.05	6050.0	0	1639.49	-16.48	-222.83	-205.82	1.68	0.00	0.120.0	31
32	40 29.70	111 18.28	6375.0	0	1619.24	-5.94	-223.37	-205.46	1.71	0.00	0.130.0	32
33	40 28.70	111 21.40	5922.0	0	1645.25	-21.02	-223.00	-206.36	1.67	0.00	0.150.0	33
34	40 28.69	111 20.48	6062.0	0	1635.73	-17.36	-224.12	-207.08	1.68	0.00	0.160.0	34
35	40 27.30	111 19.46	6302.0	0	1617.00	-11.48	-226.42	-208.71	1.70	0.00	0.170.0	35
36	40 28.70	111 22.33	5815.0	0	1651.98	-24.34	-222.67	-206.33	1.65	0.00	0.180.0	36
37	40 29.57	111 23.68	5704.0	0	1660.94	-27.10	-221.65	-205.62	1.64	0.00	0.190.0	37
38	40 28.70	111 23.68	5768.0	0	1655.50	-25.24	-221.97	-205.76	1.65	0.00	0.190.0	38
39	40 27.82	111 22.69	5964.0	0	1644.07	-16.94	-220.35	-203.59	1.67	0.00	0.200.0	39
40	40 28.25	111 23.68	5804.0	0	1654.21	-22.48	-220.43	-204.12	1.65	0.00	0.210.0	40
41	40 29.13	111 24.83	5664.0	0	1662.38	-28.77	-221.95	-206.03	1.64	0.00	0.220.0	41
42	40 28.25	111 24.84	5711.0	0	1659.88	-25.55	-220.33	-204.29	1.64	0.00	0.230.0	42
43	40 28.25	111 25.39	5666.0	0	1663.60	-26.06	-219.31	-203.38	1.64	0.00	0.230.0	43
44	40 27.40	111 25.36	5681.0	0	1661.83	-25.15	-218.91	-202.95	1.64	0.00	0.230.0	44
45	40 28.25	111 25.98	5618.0	0	1665.84	-28.33	-219.94	-204.15	1.63	0.00	0.240.0	45
46	40 28.53	111 25.98	5603.0	0	1666.42	-29.57	-220.67	-204.92	1.63	0.00	0.250.0	46
47	40 28.68	111 26.55	5547.0	0	1669.61	-31.87	-221.06	-205.47	1.62	0.00	0.250.0	47
48	40 28.68	111 27.10	5500.0	0	1672.30	-33.60	-221.18	-205.73	1.61	0.00	0.260.0	48
49	40 29.01	111 27.16	5484.0	0	1674.79	-33.10	-220.14	-204.73	1.61	0.00	0.260.0	49
50	40 29.35	111 26.55	5522.0	0	1671.01	-33.81	-222.15	-206.63	1.62	0.00	0.270.0	50



51	40	29.98	111	26.66	5493.0	0	1674.38	-34.10	-221.45	-206.01	1.61	0.00	0.280.0	51
				TOTAL DRIFT = 0.34			DRIFT PER HOUR = 0.06887668							
81	40	30.40	111	25.92	5526.0	0	1671.73	-34.28	-222.75	-207.22	1.62	0.00	-0.000.0	52
52	40	31.28	111	24.58	5580.0	0	1672.17	-30.06	-220.38	-204.70	1.62	0.00	-0.010.0	53
53	40	31.85	111	24.50	5622.0	0	1667.72	-31.42	-223.17	-207.37	1.63	0.00	-0.020.0	54
54	40	32.64	111	25.30	5654.0	0	1667.43	-29.88	-222.72	-206.83	1.63	0.00	-0.020.0	55
55	40	32.65	111	24.98	5659.0	0	1666.64	-30.21	-223.21	-207.31	1.63	0.00	-0.020.0	56
56	40	32.75	111	25.92	5695.0	0	1667.63	-25.99	-220.23	-204.22	1.64	0.00	-0.020.0	57
57	40	32.84	111	27.25	5829.0	0	1658.96	-22.20	-221.00	-204.62	1.64	0.00	-0.030.0	58
58	40	33.82	111	27.20	6284.0	0	1632.64	-7.21	-221.54	-203.88	1.70	0.00	-0.040.0	59
59	40	33.60	111	31.69	6749.0	0	1609.72	13.89	-216.29	-197.33	1.73	0.00	-0.060.0	60
60	40	28.70	111	31.17	6253.0	0	1638.09	2.93	-210.34	-192.77	1.70	0.00	-0.090.0	61
61	40	32.60	111	23.17	6287.0	0	1625.33	-12.43	-226.86	-209.19	1.70	0.00	-0.130.0	62
				TOTAL DRIFT = -.15			DRIFT PER HOUR = -.03587411							
62	40	33.40	111	25.37	5713.0	0	1664.05	-28.84	-223.69	-207.63	1.64	0.00	-0.030.0	63
63	40	34.11	111	25.55	5759.0	0	1661.06	-28.56	-224.98	-208.79	1.65	0.00	-0.030.0	64
64	40	35.67	111	25.60	5874.0	0	1659.11	-22.03	-222.37	-205.86	1.66	0.00	-0.030.0	65
65	40	36.17	111	21.55	6121.0	0	1642.98	-15.68	-224.45	-207.25	1.69	0.00	-0.040.0	66
66	40	36.25	111	20.04	6203.0	0	1637.30	-13.78	-225.34	-207.91	1.69	0.00	-0.040.0	67
67	40	36.61	111	18.30	6327.0	0	1630.83	-9.13	-224.92	-207.14	1.70	0.00	-0.040.0	68
68	40	36.67	111	17.47	6390.0	0	1628.92	-5.21	-223.15	-205.19	1.71	0.00	-0.040.0	69
69	40	35.19	111	15.68	6558.0	0	1613.87	-2.27	-225.94	-207.51	1.72	0.00	-0.050.0	70
70	40	35.75	111	15.63	6657.0	0	1609.91	2.24	-224.81	-206.10	1.72	0.00	-0.050.0	71
71	40	36.65	111	15.68	6614.0	0	1616.58	3.53	-222.05	-203.47	1.72	0.00	-0.050.0	72
72	40	36.67	111	17.46	6560.0	0	1617.66	-0.50	-224.24	-205.80	1.72	0.00	-0.050.0	73
73	40	37.01	111	16.80	6546.0	0	1618.83	-1.14	-224.40	-206.00	1.72	0.00	-0.060.0	74
74	40	36.20	111	16.80	6570.0	0	1615.65	-0.86	-224.94	-206.48	1.72	0.00	-0.060.0	75
75	40	30.46	111	23.68	5922.0	0	1669.14	-30.75	-221.47	-205.76	1.63	0.00	-0.070.0	76
76	40	27.09	111	22.21	6024.0	0	1638.86	-15.43	-220.89	-203.96	1.68	0.00	-0.080.0	77
77	40	25.63	111	20.77	6230.0	0	1618.71	-14.05	-226.53	-209.02	1.70	0.00	-0.080.0	78
78	40	30.22	111	28.60	5518.0	0	1674.51	-31.98	-220.18	-204.68	1.62	0.00	-0.090.0	79
				TOTAL DRIFT = -.10			DRIFT PER HOUR = -.02115453							
79	40	37.52	111	16.80	6513.0	0	1622.15	-1.68	-223.82	-205.52	1.72	0.00	0.010.0	80
80	40	37.53	111	15.92	6548.0	0	1621.75	1.19	-222.14	-203.73	1.72	0.00	0.020.0	81
81	40	37.51	111	17.95	6463.0	0	1622.92	-5.59	-226.02	-207.86	1.71	0.00	0.020.0	82
82	40	38.40	111	16.83	6484.0	0	1626.06	-1.81	-222.96	-204.73	1.71	0.00	0.030.0	83
83	40	38.39	111	17.63	6430.0	0	1628.50	-4.42	-223.73	-205.66	1.71	0.00	0.030.0	84
84	40	38.38	111	18.05	6406.0	0	1628.99	-6.17	-224.66	-206.66	1.71	0.00	0.030.0	85
85	40	38.14	111	19.20	6457.0	0	1625.80	-4.22	-224.44	-206.30	1.71	0.00	0.040.0	86
86	40	37.74	111	20.09	6540.0	0	1615.11	-6.51	-229.57	-211.19	1.72	0.00	0.040.0	87
87	40	38.17	111	18.80	6435.0	0	1626.28	-5.85	-225.32	-207.24	1.71	0.00	0.050.0	88
88	40	39.37	111	18.81	6382.0	0	1631.77	-7.12	-224.79	-206.85	1.71	0.00	0.050.0	89
89	40	40.05	111	18.78	6326.0	0	1633.44	-11.73	-227.49	-209.71	1.70	0.00	0.050.0	90
90	40	40.35	111	18.86	6303.0	0	1634.36	-13.41	-228.38	-210.67	1.70	0.00	0.050.0	91
91	40	40.85	111	19.10	6293.0	0	1635.10	-14.36	-228.99	-211.30	1.70	0.00	0.050.0	92
92	40	41.46	111	19.10	6306.0	0	1633.43	-15.71	-230.79	-213.07	1.70	0.00	0.060.0	93
93	40	42.05	111	19.03	6330.0	0	1632.15	-15.61	-231.50	-213.72	1.70	0.00	0.060.0	94
94	40	42.43	111	19.97	6278.0	0	1639.80	-13.42	-227.54	-209.89	1.70	0.00	0.060.0	95
95	40	42.76	111	20.27	6235.0	0	1644.70	-13.05	-225.95	-208.18	1.70	0.00	0.060.0	96
96	40	43.47	111	20.45	6192.0	0	1648.08	-14.77	-225.95	-208.55	1.69	0.00	0.070.0	97
97	40	43.86	111	20.72	6157.0	0	1650.77	-15.94	-225.94	-208.63	1.69	0.00	0.070.0	98
98	40	44.25	111	21.56	6109.0	0	1654.10	-17.70	-226.06	-208.89	1.68	0.00	0.070.0	99
99	40	43.20	111	23.36	6537.0	0	1628.26	-1.76	-224.71	-206.34	1.72	0.00	0.070.0	100
100	40	43.57	111	19.94	6256.0	0	1645.07	-11.91	-225.28	-207.70	1.70	0.00	0.080.0	101
101	40	43.43	111	18.80	6464.0	0	1631.78	-5.44	-225.91	-207.74	1.71	0.00	0.090.0	102

102	40	43.44	111	17.97	6477.0	0	1629.38	-6.64	-227.55	-209.35	1.71	0.00	0.090.0	1C
103	40	43.45	111	15.85	6525.0	0	1626.04	-5.48	-228.02	-209.69	1.72	0.00	0.090.0	1C
104	40	43.93	111	15.96	6617.0	0	1619.57	-4.02	-229.71	-211.11	1.72	0.00	0.100.0	10
105	40	43.92	111	15.34	6622.0	0	1618.49	-4.62	-230.47	-211.86	1.72	0.00	0.100.0	10
106	40	45.05	111	13.50	6772.0	0	1609.36	-1.33	-232.29	-213.26	1.73	0.00	0.100.0	1C
107	40	43.20	111	15.65	6568.0	0	1617.99	-9.12	-233.13	-214.68	1.72	0.00	0.110.0	10
108	40	42.36	111	15.66	6505.0	0	1618.86	-12.91	-234.78	-216.50	1.72	0.00	0.110.0	10
109	40	42.35	111	16.84	6464.0	0	1625.53	-10.09	-230.55	-212.39	1.71	0.00	0.110.0	110
110	40	42.35	111	17.98	6402.0	0	1629.35	-12.09	-230.44	-212.45	1.71	0.00	0.110.0	111
111	40	41.92	111	17.98	6382.0	0	1628.47	-14.22	-231.89	-213.95	1.71	0.00	0.120.0	112
112	40	41.92	111	16.84	6434.0	0	1624.59	-13.20	-232.65	-214.56	1.71	0.00	0.120.0	113
113	40	41.36	111	15.73	6627.0	0	1615.13	-3.70	-229.72	-211.10	1.72	0.00	0.120.0	114
114	40	41.48	111	16.84	6456.0	0	1623.36	-11.71	-231.90	-213.76	1.71	0.00	0.120.0	115
115	40	41.27	111	17.90	6354.0	0	1629.44	-14.91	-231.63	-213.77	1.71	0.00	0.130.0	116
116	40	41.18	111	16.82	6452.0	0	1624.58	-10.43	-230.48	-212.35	1.71	0.00	0.130.0	117
TOTAL DRIFT = 0.15										DRIFT PER HOUR = 0.02690557				
117	40	40.97	111	16.82	6444.0	0	1625.64	-9.80	-229.58	-211.47	1.71	0.00	-0.050.0	118
118	40	40.75	111	17.95	6322.0	0	1631.73	-14.86	-230.48	-212.71	1.70	0.00	-0.050.0	119
119	40	40.33	111	16.82	6400.0	0	1628.55	-10.07	-228.36	-210.37	1.71	0.00	-0.070.0	120
120	40	39.95	111	16.82	6378.0	0	1631.25	-8.88	-226.41	-208.48	1.71	0.00	-0.070.0	121
121	40	39.52	111	16.80	6410.0	0	1630.86	-5.62	-224.24	-206.23	1.71	0.00	-0.070.0	122
122	40	39.60	111	17.50	6376.0	0	1632.19	-7.60	-225.07	-207.15	1.71	0.00	-0.080.0	123
123	40	39.16	111	19.82	6440.0	0	1629.31	-3.82	-223.47	-205.37	1.71	0.00	-0.090.0	124
124	40	39.19	111	17.29	6404.0	0	1632.26	-4.30	-222.72	-204.72	1.71	0.00	-0.100.0	125
125	40	38.38	111	15.64	6609.0	0	1619.43	3.34	-222.07	-203.50	1.72	0.00	-0.110.0	126
126	40	37.50	111	13.50	6811.0	0	1608.94	13.14	-219.16	-200.02	1.73	0.00	-0.110.0	127
127	40	38.21	111	36.37	6538.0	0	1623.95	1.44	-221.55	-203.18	1.72	0.00	-0.120.0	128
R54	40	32.64	111	25.30	5654.0	0	1667.45	-29.86	-222.69	-206.81	1.63	0.00	-0.140.0	129
TOTAL DRIFT = -.15										DRIFT PER HOUR = -.04123846				