

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Principal Facts and Complete Bouguer Gravity Anomaly  
Map for the Dillon 1° x 2° Quadrangle, Montana and Idaho

by  
Harold E. Kaufmann, Scott B. Sorensen, and Kelly J. O'Neill

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey.

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## Introduction

A gravity survey was conducted by the U.S. Geological Survey personnel in the Dillon 1° x 2° quadrangle, Montana and Idaho. The survey also included areas of the Middle Mountain, Tobacco Root Wilderness that extend into the Bozeman quadrangle, and of the Anaconda-Pintlar Wilderness that extend into the Butte quadrangle. This report presents the principal facts of the gravity stations obtained and a preliminary, computer-plotted complete Bouguer gravity anomaly map. The map includes station locations and contoured data from an earlier survey by Burfeind (1967) located in the eastern part of the quadrangle. Work by the U.S. Geological Survey was done in support of the Conterminous United States Mineral Appraisal Program (CUSMAP). The area covered is shown on figure 1.

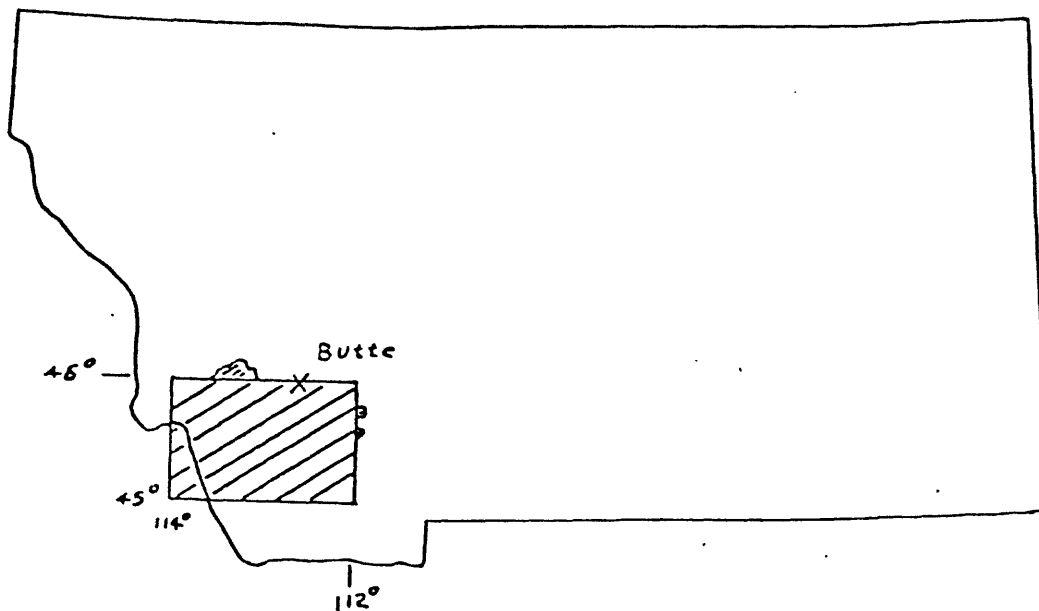


Figure 1.-- Hachured rectangle shows area of the gravity survey discussed in this report.

## Data Collection and Reduction

During the summers of 1978-1981, approximately 2050 gravity stations were measured by the authors in the Dillon quadrangle. LaCoste and Romberg gravimeter G-159 was used. Observed gravity values are referenced to two gravity base stations of the World Relative Gravity Reference Network (Defense Mapping Agency Aerospace Center, 1974); one at Butte, Montana, (Aeronautical Chart and Information Center code number 0443-0) and one at Grant, Montana, (ACIC code number 3945-1). Eight local bases were established in the area and are referenced to the DMA base stations. Data for the local bases are given in Appendix A.

Horizontal and vertical control for station locations were obtained from USGS topographic maps at scales of 1:24,000 and 1:62,500. Most stations were read at bench marks or spot elevations indicated on the maps, but elevations for a few stations were determined by interpolating between contour lines. These stations elevations could be in error by as much as  $\pm 13$  meters.

Data reduction was accomplished using programs existing on a Honeywell Multics computer. Observed gravity values were calculated from meter readings using an unpublished U.S. Geological Survey computer program that also corrects for earth tides and meter drift. Principal facts for the gravity stations are given in Table 1. The table was generated by program "bouguer" (R.H. Godson, unpub. program, 1978). Table 1 also includes corrections for the earth's curvature. Theoretical gravity values were calculated using the 1967 formula of the Geodetic Reference System (International Association of Geodesy, 1971). Terrain corrections were computed for each station to a distance of 166.7 km using the method of Plouff (1977). In addition, corrections for Hammer zones A through C (Hammer, 1939) were estimated in the field for each station. Corrections ranged from 0.31 mgal for station DQ763 located a

few miles northwest of Wisdom to 35.40 mgals at station D1055 on Baldy Mountain in the East Pioneer Mountains.

#### Complete Bouguer Gravity Anomaly Map

Plate 1 is a preliminary, computer-plotted, complete Bouguer gravity anomaly map of the Dillon  $1^{\circ} \times 2^{\circ}$  quadrangle, calculated using a density of 2.67 g/cc. The map was plotted using a gridding program by M.W. Webring (1981) and a contour program by R.H. Godson (1982). The data were gridded using 1.5 km spacing and UTM projection. Also included on the map are station locations and data from an earlier survey by Burfeind (1967) located in the eastern part of the quadrangle.

## References

- Burfeind, W. J., 1967, A gravity investigation of the Tobacco Root Mountains, Jefferson Basin, Boulder batholith, and areas of southwestern Montana: Bloomington, Indiana University, Ph.D. thesis, 90 p.
- Defense Mapping Agency Aerospace Center, 1974, World Relative Gravity Reference Network, North America, Part 2: DMAAC Ref. Pub. No. 25, with supplement updating gravity values to the International Gravity Standardization Net 1971, 1635 p.
- Godson, Richard H., and Webring, Michael W., 1982, CONTOUR: a modification of G.I. Evenden's general purpose contouring program: U.S. Geological Survey Open-File Report 82-797, 32 p.
- Hammer, S., 1939, Terrain corrections for gravimeter stations: Geophysics, v. 4, no. 3, p. 184-194.
- International Association of Geodesy, 1971, Geodetic reference system, 1967: International Association of Geodesy, Special Publication 3, 115 p.
- Plouff, D., 1977, Preliminary documentation for a Fortran program to compute gravity terrain corrections based on topography digitized on a geographic grid: U.S. Geological Survey Open-File Report 77-535, 45 p.
- Webring, Michael, 1981, MINC: a gridded program based on minimum curvature: U.S. Geological Survey Open-File Report 81-1224, 12 p.

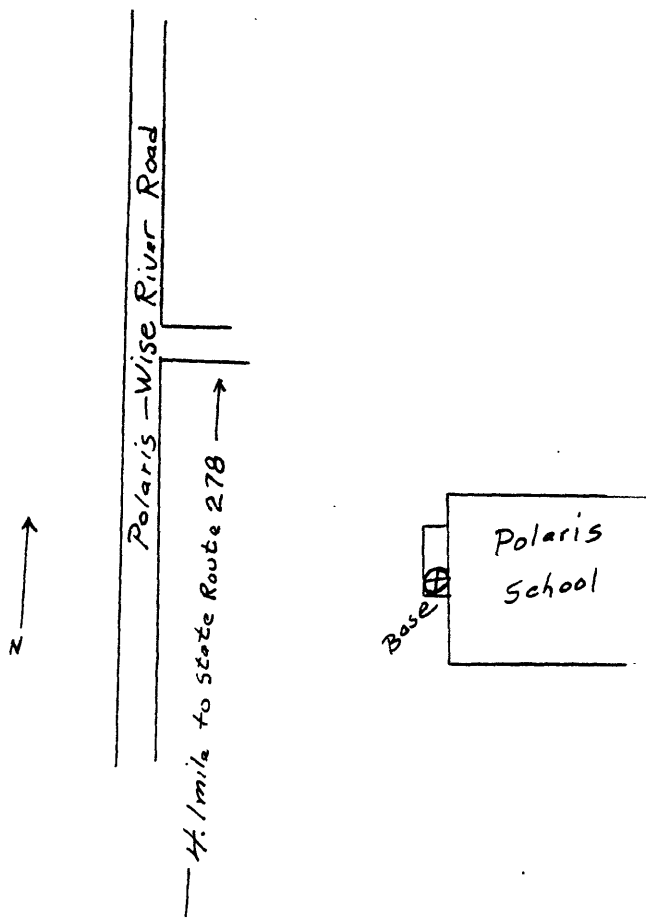
Appendix A

U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION

STATE/COUNTRY Montana		STATION DESIGNATION DQOB3		OBSERVED GRAVITY 980045.82 mgal
NEAREST TOWN Jackson		LONGITUDE 113° 07.16'		LATITUDE 45° 20.32'
ELEVATION 1915.97m		TOPOGRAPHIC MAP(S) Polaris 15min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
6/21/78	Kaufmann	G-159	Butte	980159.88 mgal
6/21/78	Kaufmann	G-159	Grant	980044.49 "

DESCRIPTION/SKETCH

Read on top of the USGS triangulation station marker 1DAD on the front steps of the Polaris grade school.

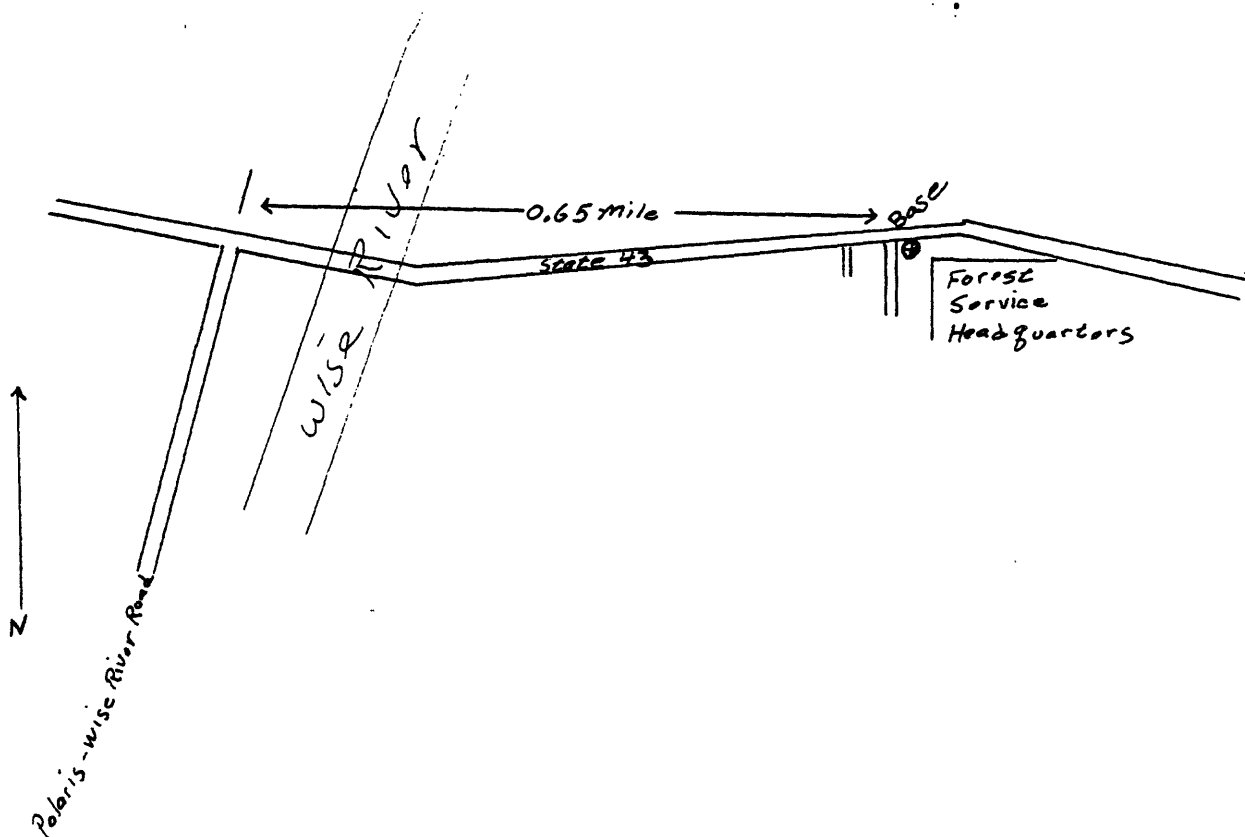


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Montana		STATION DESIGNATION DQOB5		OBSERVED GRAVITY 980145.88 mgal
NEAREST TOWN Wise River		LONGITUDE 112° 56.50'		LATITUDE 45° 47.54'
ELEVATION 1731.57m		TOPOGRAPHIC MAP(S) Wise River 7.5min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
6/21/78	Kaufmann	G-159	Butte	980159.88 mgal
6/21/78	Kaufmann	G-159	Grant	980044.49 "

**DESCRIPTION/SKETCH**

Read on the west side and adjacent to USGS bench marker 38WR at the front gate of Wise River Forest Service headquarters.

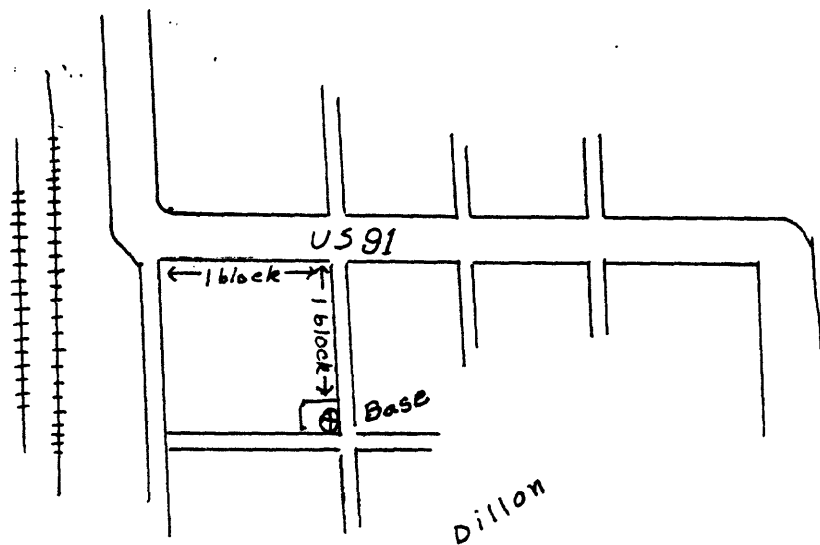


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Montana		STATION DESIGNATION DQOB7		OBSERVED GRAVITY 980153.15 mgal
NEAREST TOWN Dillon		LONGITUDE 112° 38.10'		LATITUDE 45° 13.08'
ELEVATION 1552.0m		TOPOGRAPHIC MAP(S) Dillon West 7.5min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
6/14/79	Kaufmann	G-159	Butte	980159.88 mgal
6/14/79	Kaufmann	G-159	Grant	980044.49 "

**DESCRIPTION/SKETCH**

Read on the sidewalk beneath the U.S. Coast and Geodetic Survey bench mark Dillon. Marker is 4.5 feet up on side of building.



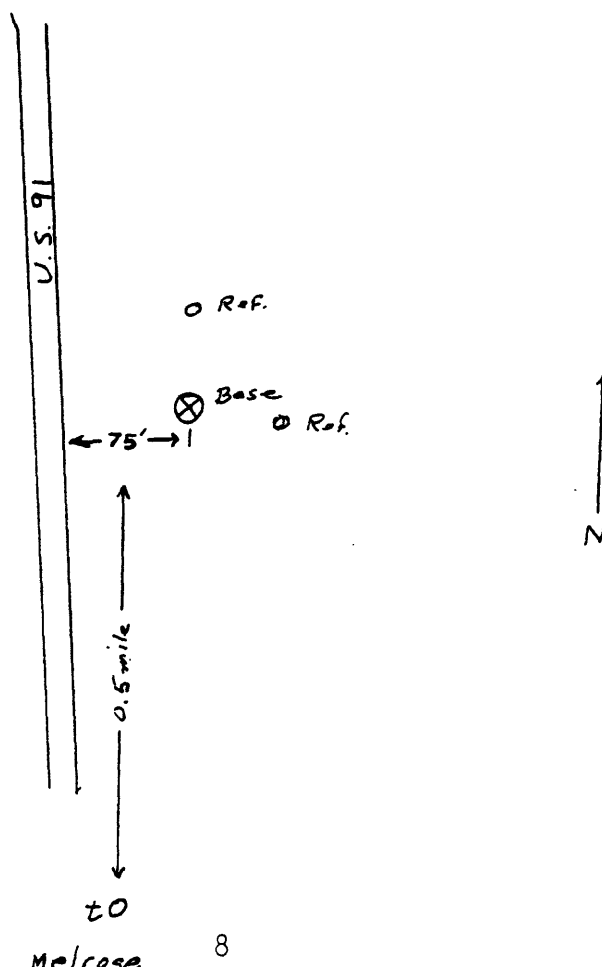


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Montana		STATION DESIGNATION DQOB8		OBSERVED GRAVITY 980171.95 mgal
NEAREST TOWN Melrose		LONGITUDE 112° 41.12'		LATITUDE 45° 38.34'
ELEVATION 1583.13m		TOPOGRAPHIC MAP(S) Melrose 7.5min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
6/14/79	Kaufmann	G-159	Butte	980159.88 mgal
6/14/79	Kaufmann	G-159	Grant	980044.49 "

**DESCRIPTION/SKETCH**

Read on top of U.S. Coast and Geodetic Survey triangulation station marker Melrose. Several reference markers are in the immediate area.

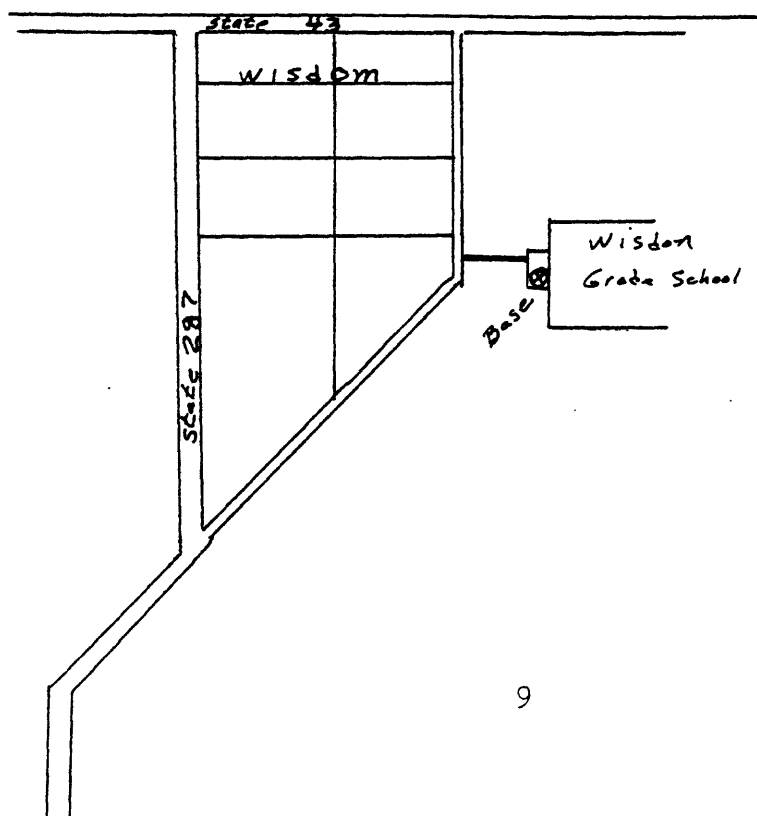


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Montana		STATION DESIGNATION DQ434		OBSERVED GRAVITY 980067.42 mgal
NEAREST TOWN Wisdom		LONGITUDE 113° 26.88'		LATITUDE 45° 36.86'
ELEVATION 1845.3m		TOPOGRAPHIC MAP(S) Wisdom 7.5min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
6/14/79	Kaufmann	G-159	Butte	980159.88 mgal
6/14/79	Kaufmann	G-159	Grant	980044.49 "

**DESCRIPTION/SKETCH**

Read on the steps of the Wisdom grade school beneath the U.S. Coast and Geodetic Survey bench mark Z66. Marker is 4.5 feet up on the wall on the southside of the door.

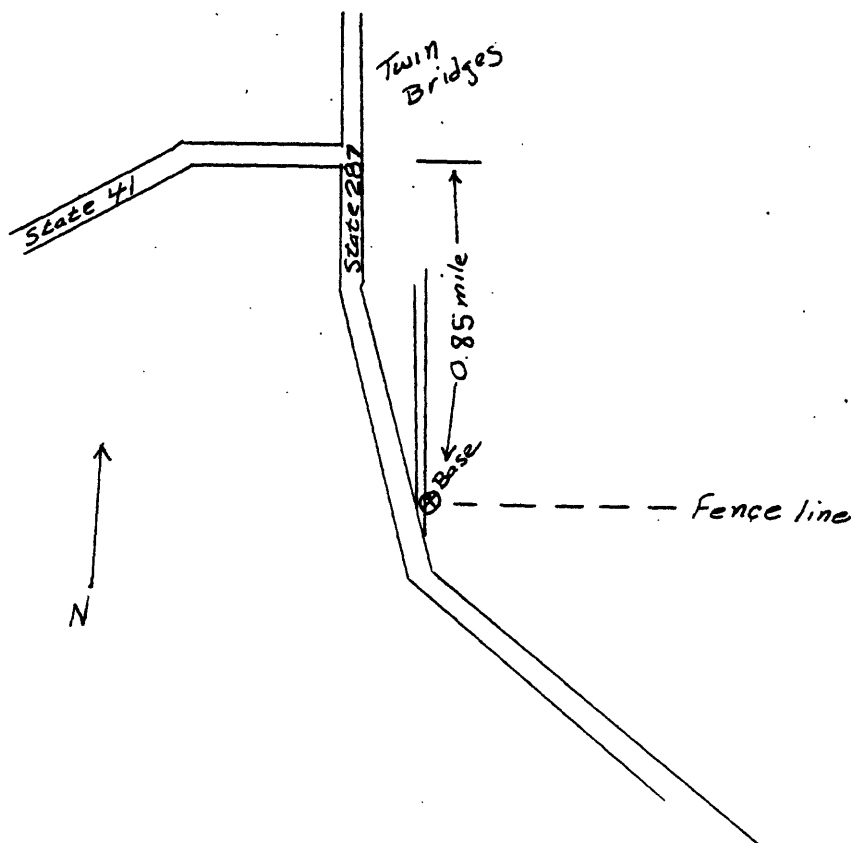


U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION

STATE/COUNTRY Montana		STATION DESIGNATION D1122		OBSERVED GRAVITY 980188.94 mgal
NEAREST TOWN Twin Bridges		LONGITUDE 112° 19.58'		LATITUDE 45° 13.96'
ELEVATION 1415.4m		TOPOGRAPHIC MAP(S) Twin Bridges 15min ;		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
7/28/80	Kaufmann	G-159	Butte	980159.88 mgal

DESCRIPTION/SKETCH

At road intersection of state route 287 and city street. Read on the east edge of the city street and in line with the E-W fence. No marker is present.

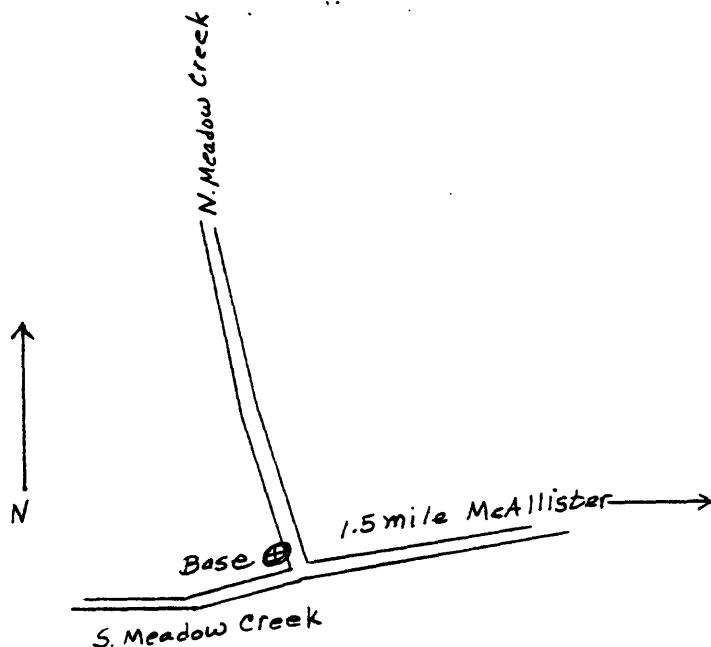


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Montana		STATION DESIGNATION D1165		OBSERVED GRAVITY 980164.94 mgal
NEAREST TOWN McAllister		LONGITUDE 111° 45.58'		LATITUDE 45° 26.72'
ELEVATION 1539.2m		TOPOGRAPHIC MAP(S) Virginia City 15min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
7/28/80	Kaufmann	G-159	Butte	980159.88 mgal

**DESCRIPTION/SKETCH**

At the intersection of the North Meadow Creek and South Meadow Creek roads. Read on the west edge of the North Meadow Creek road. No marker is present.

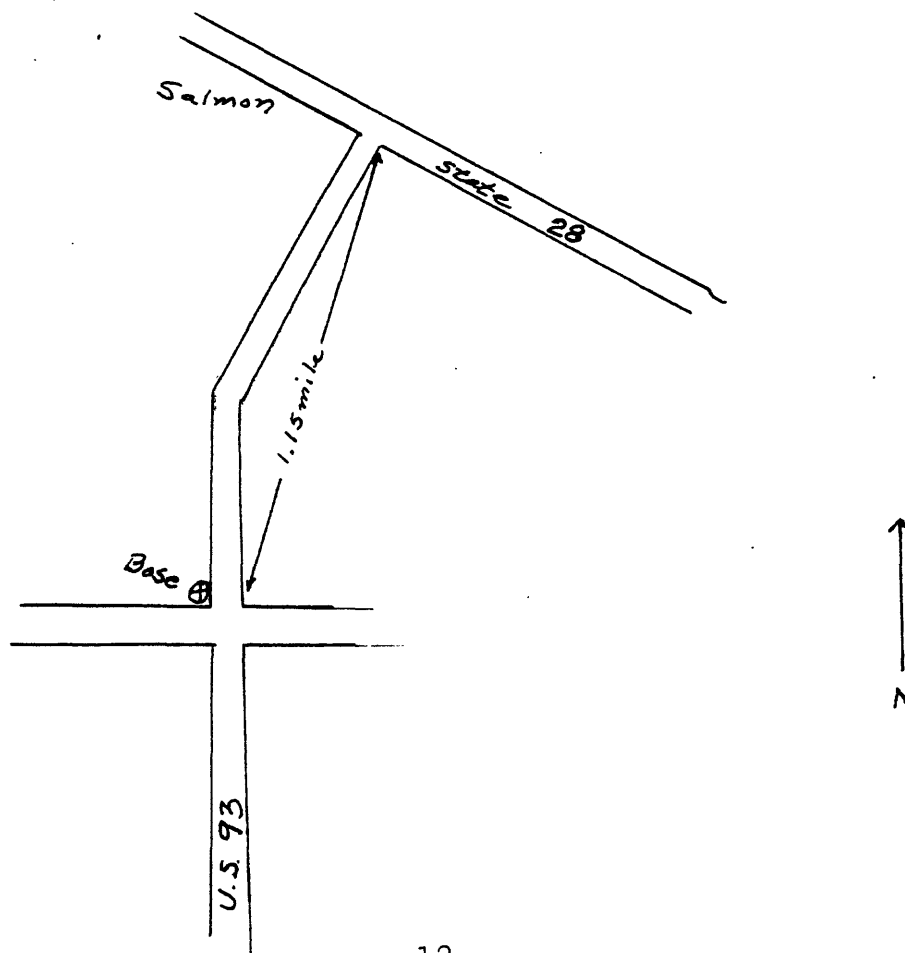


**U.S. GEOLOGICAL SURVEY  
GRAVITY BASE STATION**

STATE/COUNTRY Idaho		STATION DESIGNATION D1662		OBSERVED GRAVITY 980181.06mgal
NEAREST TOWN Salmon		LONGITUDE 113° 53.55'		LATITUDE 45° 09.42'
ELEVATION 1210.0m		TOPOGRAPHIC MAP(S) Salmon 15min		
DATE	OBSERVER	METER	REFERENCE STATION	REFERENCE VALUE
7/6/81	Kaufmann	G-159	Grant	980044.49 mgal

**DESCRIPTION/SKETCH**

Read on the ground one foot south of the Idaho Department of Highway marker Q292.



## Explanation of Table Headings

The computer printout lists the principal facts for the gravity stations. An explanation of the column headings follows:

IDENTIFICATION	Proj USGS Dillon CUSMAP sta-id for Gravity survey station number
LATITUDE	North latitude in degrees, minutes, and hundredths of minutes
LONGITUDE	West longitude in degrees, minutes, and hundredths of minutes
ELE	Elevation in feet above sea level
ST	State
OBSERVED GRAVITY	Observed gravity in milligals
THEORETICAL GRAVITY	Theoretical gravity computed using the "Geodetic Reference System 1967" (International Association of Geodesy, 1971)
TERRAIN CORRECTION	Corrections due to effects of topography at density of $2.67 \text{ g/cm}^3$ to a distance of 166.7 km, in milligals
BOUGUER CORRECTION	Elevation correction in milligals
CURV CORRECTION	Corrections in milligals due to curvature of the Earth
SPECIAL CORRECTIONS	Any other corrections, none used
FREE AIR ANOMALY	Free-air anomaly in milligals
BOUGUER ANOMALY	Complete Bouguer anomaly in milligals for densities of $2.67$ and $2.45 \text{ g/cm}^3$
SPEC FIELDS	Not used

Table 1.

RUIHQUEP GRAVITY DATA

dillon gravity by harold kaufmann

cus man project

Meter 10: 0-150 Date: 01/30/82

STATION IDENTIFICATION proj sta-id	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	SURVEYED THEORETICAL	CORRECTION		SPECIAL	ANOMALIES	
					IRRAIN BOUGUER	CURV		FREE AIR	COMPLETE-ROUGHER SPEC FIELDS
USGS : 00001	45 9.68	-112 42.28	5195.0	980132.03	0.46	-177.19	-1.43	-13.23	-191.39 -176.71
USGS : 00002	45 0.27	-113 12.50	6044.0	980619.45	0.93	-206.14	-1.50	-6.79	-213.50 -196.47
USGS : 00003	45 20.32	-113 7.16	6286.0	980649.70	2.55	-214.40	-1.51	-12.98	-226.33 -208.75
USGS : 00004	45 35.35	-113 27.21	6126.0	980059.20	0.51	-208.94	-1.50	-37.30	-247.23 -229.94
USGS : 00005	45 47.54	-112 56.50	5681.0	980145.88	2.84	-193.76	-1.48	-10.82	-203.22 -187.37
USGS : 00006	45 57.15	-112 29.82	5554.0	980705.25	1.09	-189.43	-1.47	-23.25	-213.06 -197.42
USGS : 00007	45 47.54	-112 56.50	5681.0	980145.88	2.84	-193.76	-1.48	-10.82	-203.22 -187.37
USGS : 00008	45 35.35	-113 27.21	6126.0	980059.17	0.51	-208.94	-1.50	-37.33	-247.27 -229.97
USGS : 00009	45 20.32	-113 7.16	6286.0	980045.82	2.55	-214.40	-1.51	-12.98	-226.33 -208.75
USGS : 00010	45 0.27	-113 12.50	6044.0	980044.49	0.93	-206.14	-1.50	-6.79	-213.50 -196.47
USGS : 00011	45 9.68	-112 42.28	5195.0	980131.97	0.46	-177.19	-1.43	-13.29	-191.45 -176.77
USGS : 00012	45 9.68	-112 42.28	5195.0	980131.99	0.46	-177.19	-1.43	-13.27	-191.43 -176.75
USGS : 00013	45 8.16	-112 44.14	5251.0	980123.70	0.89	-179.10	-1.44	-14.01	-193.65 -178.85
USGS : 00014	45 9.55	-112 44.55	5259.0	980126.24	0.60	-179.37	-1.44	-12.81	-193.02 -178.17
USGS : 00015	45 10.86	-112 44.56	5273.0	980131.86	0.47	-179.85	-1.44	-7.85	-188.67 -173.77
USGS : 00016	45 10.95	-112 43.31	5211.0	980141.21	0.44	-177.73	-1.43	-4.47	-183.19 -168.46
USGS : 00017	45 16.68	-113 7.19	6112.0	980044.27	2.03	-208.46	-1.50	-25.38	-233.31 -216.18
USGS : 00018	45 17.86	-113 7.18	6165.0	980645.99	1.83	-210.27	-1.50	-22.97	-232.91 -215.62
USGS : 00019	45 10.46	-113 7.19	6162.0	980041.74	2.00	-210.17	-1.50	-25.90	-235.57 -218.29
USGS : 00020	45 22.19	-113 7.08	6355.0	980652.52	2.93	-216.75	-1.51	-11.96	-227.29 -209.55
USGS : 00021	45 23.51	-113 7.22	6546.0	980031.91	2.67	-223.27	-1.51	-7.27	-229.38 -211.07
USGS : 00022	45 24.74	-113 6.82	6539.0	980035.67	3.43	-223.03	-1.51	-6.02	-227.13 -208.91
USGS : 00023	45 18.48	-113 9.04	6303.0	980031.13	2.17	-214.98	-1.51	-23.29	-237.61 -219.95
USGS : 00024	45 19.34	-113 10.70	6607.0	980021.00	1.76	-225.35	-1.52	-6.16	-231.26 -212.71
USGS : 00025	45 20.22	-113 10.77	6627.0	980026.37	1.88	-226.03	-1.52	-0.24	-225.90 -207.31
USGS : 00026	45 18.54	-113 14.12	8040.0	979941.24	4.29	-274.22	-1.47	49.92	-221.48 -199.12
USGS : 00027	45 19.73	-113 14.10	7380.0	979987.52	1.48	-251.71	-1.51	32.40	-219.33 -198.59
USGS : 00028	45 10.76	-112 41.51	5166.0	980139.85	0.42	-176.20	-1.43	-9.76	-186.97 -172.37
USGS : 00029	45 9.68	-112 42.28	5195.0	980131.97	0.46	-177.19	-1.43	-13.29	-191.45 -176.77
USGS : 00030	45 9.68	-112 42.28	5195.0	980131.98	0.46	-177.19	-1.43	-13.28	-191.44 -176.76
USGS : 00031	45 13.03	-112 30.55	5108.0	980153.22	1.80	-174.22	-1.42	-5.27	-179.12 -164.79
USGS : 00032	45 12.03	-112 40.24	5130.0	980149.63	1.01	-174.97	-1.43	-6.49	-181.88 -167.43
USGS : 00033	45 13.41	-112 41.28	5416.0	980131.44	0.85	-174.77	-1.45	1.32	-184.01 -168.74
USGS : 00034	45 14.08	-112 43.15	5540.0	980121.60	0.49	-188.95	-1.46	2.12	-187.81 -172.16
USGS : 00035	45 14.17	-112 45.28	5598.0	980116.88	0.41	-190.93	-1.47	2.72	-189.27 -173.45
USGS : 00036	45 13.97	-112 47.50	5628.0	980108.21	0.43	-191.95	-1.47	-2.84	-195.84 -179.94
USGS : 00037	45 13.54	-112 50.00	5695.0	980098.90	0.96	-194.24	-1.48	-5.17	-199.93 -183.88
USGS : 00038	45 13.74	-112 51.51	5898.0	980089.53	0.65	-201.16	-1.49	4.14	-197.86 -181.21
USGS : 00039	45 13.92	-112 53.09	6221.0	980071.89	0.91	-212.18	-1.51	16.64	-196.13 -178.60
USGS : 00040	45 13.99	-112 54.00	6345.0	980061.88	1.19	-217.77	-1.51	21.94	-196.16 -178.19

BOUGUER GRAVITY DATA

dillon gravity by harold kaufmann  
 cus map project  
 Meter 10: 0-150 Date: 01/30/82

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	prof sta-id	LATITUDE	LONGITUDE	EIE	ST	IRRAIN	BOUGUER	CURV	SPECIAL
		deg min	deg min	(in ft)					
usqs :	00033	45 13.98	-112 56.21	6646.0	MT	980046.58	980640.13	1.15	-226.68
usqs :	00034	45 13.89	-112 57.76	6540.0	MT	980050.60	980640.00	1.38	-223.06
usqs :	00035	45 14.20	-112 57.68	6642.0	MT	980045.17	980640.47	0.97	-226.54
usqs :	00036	45 13.87	-112 59.24	6398.0	MT	980058.81	980639.97	1.17	-218.22
usqs :	00037	45 16.16	-112 56.58	6717.0	MT	980045.69	980643.42	1.60	-229.10
usqs :	00038	45 16.53	-112 55.54	6683.0	MT	980051.28	980643.98	1.24	-227.94
usqs :	00039	45 15.67	-112 54.31	6395.0	MT	980067.80	980642.69	0.87	-218.12
usqs :	00040	45 15.95	-112 48.47	5823.0	MT	980097.94	980643.11	0.65	-198.61
usqs :	00041	45 14.80	-112 48.18	5731.0	MT	980103.04	980641.38	0.48	-195.47
usqs :	00042	45 15.67	-112 49.44	5881.0	MT	980095.55	980642.69	0.67	-200.58
usqs :	00043	45 16.19	-112 50.48	6003.0	MT	980090.51	980643.47	0.86	-204.74
usqs :	00044	45 14.36	-112 49.40	5749.0	MT	980097.04	980640.71	0.62	-196.08
usqs :	00045	45 9.68	-112 42.28	5195.0	MT	980131.99	980633.65	0.46	-177.19
usqs :	00046	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67
usqs :	00047	45 9.68	-112 42.28	5195.0	MT	980132.00	980633.65	0.46	-177.19
usqs :	00048	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67
usqs :	00049	45 14.36	-112 49.40	5749.0	MT	980097.04	980640.71	0.62	-196.08
usqs :	00050	45 17.42	-112 51.93	6462.0	MT	980066.69	980645.33	1.38	-220.40
usqs :	00051	45 18.80	-112 51.91	6872.0	MT	980042.81	980647.41	1.85	-234.38
usqs :	00052	45 20.96	-112 50.67	7466.0	MT	980006.95	980650.66	4.10	-253.96
usqs :	00053	45 18.76	-112 51.01	6719.0	MT	980053.44	980647.34	1.83	-229.17
usqs :	00054	45 18.28	-112 49.29	6380.0	MT	980072.38	980646.63	1.47	-217.60
usqs :	00055	45 19.74	-112 48.84	6675.0	MT	980052.89	980648.83	1.90	-227.67
usqs :	00056	45 20.96	-112 47.65	6124.0	MT	980086.92	980650.66	3.26	-208.87
usqs :	00057	45 21.36	-112 46.96	5956.0	MT	980098.32	980651.27	2.17	-203.14
usqs :	00058	45 32.04	-112 45.65	5809.0	MT	980106.77	980667.38	5.11	-198.13
usqs :	00059	45 20.04	-112 46.35	6002.0	MT	980106.75	980649.28	1.70	-204.71
usqs :	00060	45 19.14	-112 46.97	5953.0	MT	980097.02	980647.92	2.11	-203.04
usqs :	00061	45 18.02	-112 47.80	6026.0	MT	980093.45	980646.23	1.31	-205.43
usqs :	00062	45 16.76	-112 48.98	6026.0	MT	980088.53	980644.33	0.85	-205.53
usqs :	00063	45 17.05	-112 46.87	5700.0	MT	980113.85	980644.77	0.97	-194.41
usqs :	00064	45 16.82	-112 45.05	5473.0	MT	980127.60	980644.42	1.21	-186.67
usqs :	00065	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67
usqs :	00066	45 9.68	-112 42.28	5195.0	MT	980131.99	980633.65	0.46	-177.19
usqs :	00067	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67
usqs :	00068	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67

FREE AIR d1=2.67 d2=2.45

COMPLETE-ROUGHER SPEC FIELDS



# ROUGHER GRAVITY DATA

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dillon gravity by harold kaufmann  
cus map project  
Meter ID: a-159 Date: 01/30/82

STATION IDENTIFICATION	L prof	C sta-id	A LATITUDE	T LONGITUDE	I deg	N min	S (in ft)	GRAVITY UNSERVED THEORETICAL	CORRECTION BOUGUER CURV	SPECIAL	ANOMALIES	
											FREE AIR	COMPLETE-ROUGHER SPEC d1=2.67 d2=2.45 FIELDS
USGS :	00065	45	11.30	-112	39.65	5157.0	MT	980141.00	980636.09	0.39	-175.89	-1.43
USGS :	00066	45	11.99	-112	43.31	5323.0	MT	980139.01	980637.13	0.46	-181.55	-1.45
USGS :	00067	45	12.38	-112	42.04	5317.0	MT	980136.88	980637.73	0.71	-181.35	-1.44
USGS :	00068	45	12.61	-112	45.81	5422.0	MT	980122.73	980638.07	0.41	-184.93	-1.45
USGS :	00069	45	11.72	-112	48.49	5570.0	MT	980101.67	980636.73	0.67	-189.98	-1.47
USGS :	00070	45	12.25	-112	46.97	5447.0	MT	980113.22	980637.52	0.52	-185.78	-1.46
USGS :	00071	45	12.80	-112	51.33	5887.0	MT	980085.95	980638.36	0.69	-200.79	-1.49
USGS :	00072	45	11.44	-112	51.19	6075.0	MT	980073.86	980636.30	1.33	-207.20	-1.50
USGS :	00073	45	12.17	-112	52.50	6335.0	MT	980059.84	980637.41	1.02	-216.07	-1.51
USGS :	00074	45	10.84	-112	53.10	6749.0	MT	980033.40	980635.40	1.16	-230.19	-1.52
USGS :	00075	45	10.42	-112	53.10	6795.0	MT	980028.83	980634.77	1.28	-231.76	-1.52
USGS :	00076	45	9.54	-112	53.10	6501.0	MT	980048.51	980633.44	1.00	-221.73	-1.51
USGS :	00077	45	8.67	-112	53.09	6367.0	MT	980055.96	980632.13	0.89	-217.16	-1.51
USGS :	00078	45	9.55	-112	54.28	6579.0	MT	980044.79	980633.45	0.78	-224.39	-1.52
USGS :	00079	45	10.53	-112	55.58	6145.0	MT	980071.04	980634.93	1.47	-209.59	-1.50
USGS :	00080	45	8.03	-112	56.62	5656.0	MT	980096.02	980631.16	2.53	-192.91	-1.47
USGS :	00081	45	8.77	-112	56.44	5812.0	MT	980087.09	980632.27	2.77	-198.23	-1.48
USGS :	00082	45	11.63	-112	56.97	6759.0	MT	980037.57	980636.59	1.04	-230.53	-1.52
USGS :	00083	45	12.18	-112	56.02	6930.0	MT	980026.42	980637.42	1.66	-236.36	-1.52
USGS :	00084	45	12.58	-112	54.33	6274.0	MT	980064.77	980638.02	0.80	-213.99	-1.51
USGS :	00087	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42
USGS :	00087	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42
USGS :	00085	45	15.24	-112	46.96	5765.0	MT	980103.00	980642.04	0.48	-196.63	-1.48
USGS :	00086	45	15.66	-112	45.77	5560.0	MT	980110.92	980642.67	0.61	-189.64	-1.47
USGS :	00087	45	15.41	-112	52.32	6395.0	MT	980065.78	980642.30	2.20	-218.12	-1.51
USGS :	00088	45	15.66	-112	58.00	6832.0	MT	980036.18	980642.67	1.06	-233.02	-1.52
USGS :	00089	45	15.57	-112	59.32	6700.0	MT	980042.74	980642.53	1.45	-228.52	-1.52
USGS :	00090	45	16.54	-112	59.23	7128.0	MT	980017.54	980644.00	1.73	-243.12	-1.51
USGS :	00091	45	17.41	-112	59.23	7173.0	MT	980013.90	980645.31	1.64	-244.65	-1.51
USGS :	00092	45	16.86	-112	58.20	7707.0	MT	979970.98	980644.48	5.74	-262.86	-1.49
USGS :	00093	45	17.41	-112	58.00	7407.0	MT	980001.15	980645.31	2.37	-252.63	-1.50
USGS :	00094	45	18.05	-112	56.43	6641.0	MT	980048.51	980646.27	2.48	-226.51	-1.52
USGS :	00095	45	19.14	-112	58.01	7557.0	MT	979988.70	980647.92	3.18	-257.75	-1.50
USGS :	00096	45	18.73	-112	56.90	6885.0	MT	980037.47	980647.30	2.54	-234.83	-1.52
USGS :	00097	45	18.42	-112	58.08	7708.0	MT	979972.81	980646.84	6.84	-265.97	-1.48
USGS :	00098	45	19.14	-112	59.85	8080.0	MT	979952.04	980647.92	3.75	-275.59	-1.46
USGS :	00099	45	18.35	-112	55.50	6543.0	MT	980056.65	980646.73	2.77	-223.16	-1.51
USGS :	00100	45	18.02	-112	54.91	6463.0	MT	980063.21	980646.23	3.00	-220.43	-1.51
USGS :	00101	45	17.40	-112	53.08	6265.0	MT	980075.37	980645.30	2.65	-213.68	-1.51
USGS :	00107	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42

# ROUGHNER GRAVITY DATA

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dillon gravity by harold kaufmann  
cus map project  
Meter 10: 0-150 Date: 01/30/82

STATION	L U C A T I	ION	GRAVITY	CORRECTED	ANOMALIES	FREE	COMPLETE	SPEC
IDENTIFICATION	LATITUDE	ELEVATION	THEORETICAL	BOUGUER	SPECIAL	AIR	d1=2.67	d2=2.45
proj sta-id	deg min	(in ft)						FIELDS
usqs :	00007	45 13.09	-112 38.10	5092.0 MT	980638.78	0.44	-173.67	-1.42
usqs :	00102	45 19.13	-112 53.08	7188.0 MT	980647.91	2.40	-245.16	-1.51
usqs :	00103	45 19.13	-112 56.16	6758.0 MT	980647.91	4.09	-230.50	-1.52
usqs :	00104	45 20.91	-112 56.78	7144.0 MT	980650.59	5.66	-243.66	-1.51
usqs :	00105	45 22.32	-112 58.31	7860.0 MT	980652.72	5.13	-268.08	-1.48
usqs :	00106	45 19.58	-112 56.78	7050.0 MT	980648.59	3.28	-240.46	-1.51
usqs :	00107	45 20.01	-112 55.54	7888.0 MT	980649.23	4.18	-269.04	-1.48
usqs :	00108	45 21.57	-112 55.38	8353.0 MT	980651.59	4.31	-284.90	-1.44
usqs :	00109	45 22.08	-112 55.95	8405.0 MT	980652.35	4.27	-286.67	-1.43
usqs :	00110	45 21.25	-112 54.09	7468.0 MT	980651.10	5.32	-254.71	-1.50
usqs :	00111	45 22.83	-112 54.14	8266.0 MT	980653.48	6.56	-281.93	-1.45
usqs :	00112	45 21.94	-112 52.54	8090.0 MT	980652.14	6.22	-275.93	-1.46
usqs :	00113	45 19.73	-112 54.07	6956.0 MT	980648.81	4.13	-237.25	-1.52
usqs :	00007	45 13.08	-112 38.10	5092.0 MT	980638.78	0.44	-173.67	-1.42
usqs :	00007	45 13.08	-112 38.10	5092.0 MT	980638.78	0.44	-173.67	-1.42
usqs :	00114	45 22.74	-112 54.46	5244.0 MT	980653.35	0.37	-178.86	-1.44
usqs :	00115	45 22.92	-112 42.43	5426.0 MT	980653.63	0.68	-185.06	-1.46
usqs :	00116	45 23.91	-112 49.28	6030.0 MT	980655.12	4.23	-207.82	-1.50
usqs :	00117	45 25.01	-112 51.18	6420.0 MT	980656.77	5.09	-218.97	-1.51
usqs :	00118	45 25.28	-112 53.36	7115.0 MT	980657.18	5.61	-242.67	-1.51
usqs :	00119	45 24.32	-112 52.44	7987.0 MT	980655.73	6.04	-272.41	-1.47
usqs :	00120	45 22.93	-112 53.25	8892.0 MT	980653.64	13.07	-303.28	-1.37
usqs :	00121	45 24.13	-112 53.42	9268.0 MT	980655.45	21.74	-316.11	-1.32
usqs :	00122	45 25.97	-112 51.92	6861.0 MT	980658.23	2.87	-234.01	-1.52
usqs :	00123	45 25.74	-112 54.20	7132.0 MT	980657.88	4.71	-243.25	-1.51
usqs :	00124	45 25.86	-112 56.07	7413.0 MT	980658.05	6.73	-252.84	-1.50
usqs :	00125	45 26.03	-112 58.32	8242.0 MT	980658.31	4.85	-281.11	-1.45
usqs :	00126	45 25.56	-112 50.42	8682.0 MT	980657.60	4.69	-296.12	-1.40
usqs :	00127	45 26.16	-112 57.35	7828.0 MT	980658.51	7.20	-266.99	-1.48
usqs :	00128	45 22.77	-112 47.81	5866.0 MT	980653.40	4.91	-200.07	-1.49
usqs :	00007	45 13.08	-112 38.10	5092.0 MT	980638.78	0.44	-173.67	-1.42
usqs :	00007	45 13.08	-112 38.10	5092.0 MT	980638.78	0.44	-173.67	-1.42
usqs :	00129	45 22.71	-112 45.21	5715.0 MT	980653.30	1.33	-148.92	-1.48
usqs :	00130	45 23.56	-112 46.41	5961.0 MT	980654.59	1.65	-203.31	-1.49
usqs :	00131	45 24.56	-112 45.33	5789.0 MT	980656.09	1.41	-197.45	-1.48
usqs :	00132	45 25.35	-112 46.51	6252.0 MT	980657.29	2.88	-213.24	-1.51
usqs :	00133	45 25.69	-112 47.88	6565.0 MT	980657.80	3.89	-223.91	-1.52
usqs :	00134	45 24.77	-112 48.20	7113.0 MT	980656.41	4.67	-242.60	-1.51
usqs :	00135	45 25.30	-112 48.88	6988.0 MT	980657.21	3.44	-238.30	-1.52
usqs :	00136	45 27.97	-112 49.50	6430.0 MT	980661.25	6.02	-219.31	-1.51

dillon gravity by harold kaufmann

cus map project

Meter ID: n-159 Date: 01/30/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L T E S	
IDENTIFICATION		LATITUDE LONGITUDE		ELE ST		OBSERVED THEORETICAL		TERRAIN BOUGUER CURV		FREE COMPLETIE-ROUGER	
prof	sta-id	deg	min	(in ft)						AIR	d1=2.67 d2=2.45 FIELDS
usqs :	n0137	45 26.94	-112 50.41	6185.0 MT		980073.23	980659.69	4.38	-210.95	-1.50	0.00
usqs :	n0138	45 27.58	-112 51.68	6615.0 MT		980045.41	980660.59	3.48	-225.62	-1.52	0.00
usqs :	n0139	45 29.40	-112 53.21	7362.0 MT		979997.84	980663.40	4.58	-251.10	-1.51	0.00
usqs :	n0140	45 29.58	-112 54.15	7439.0 MT		979992.66	980663.67	5.84	-253.72	-1.50	0.00
usqs :	n0141	45 31.70	-112 53.36	7750.0 MT		979981.83	980666.87	5.44	-264.33	-1.49	0.00
usqs :	n0142	45 30.78	-112 54.23	7877.0 MT		979970.68	980665.48	3.62	-268.66	-1.48	0.00
usqs :	n0143	45 28.58	-112 52.73	6923.0 MT		980024.27	980662.16	5.06	-236.12	-1.52	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0144	45 23.38	-112 50.50	6828.0 MT		980038.82	980654.31	4.33	-232.88	-1.52	0.00
usqs :	n0145	45 25.12	-112 55.82	8001.0 MT		979952.15	980656.94	6.65	-272.89	-1.47	0.00
usqs :	n0146	45 23.71	-112 57.68	8195.0 MT		979945.83	980654.81	3.57	-279.51	-1.45	0.00
usqs :	n0147	45 24.13	-112 58.30	8385.0 MT		979931.69	980655.45	4.40	-285.99	-1.43	0.00
usqs :	n0148	45 26.17	-112 54.65	7582.0 MT		979981.08	980658.52	3.49	-258.60	-1.50	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0149	45 27.13	-112 38.96	4957.0 MT		980170.24	980659.98	1.03	-169.07	-1.41	0.00
usqs :	n0150	45 31.41	-112 42.21	5080.0 MT		980162.10	980666.43	2.27	-171.90	-1.42	0.00
usqs :	n0151	45 31.88	-112 42.61	5110.0 MT		980157.65	980667.14	2.23	-174.29	-1.42	0.00
usqs :	n0152	45 30.84	-112 42.80	5055.0 MT		980154.77	980665.57	2.41	-172.41	-1.42	0.00
usqs :	n0153	45 30.78	-112 44.22	5417.0 MT		980138.98	980665.42	2.41	-184.76	-1.45	0.00
usqs :	n0154	45 30.50	-112 45.14	5683.0 MT		980124.21	980665.20	3.06	-193.83	-1.48	0.00
usqs :	n0155	45 28.35	-112 52.58	6812.0 MT		980031.25	980661.81	4.53	-232.34	-1.52	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0007	45 13.08	-112 38.10	5092.0 MT		980153.15	980638.78	0.44	-173.67	-1.42	0.00
usqs :	n0156	45 11.60	-112 37.82	5213.0 MT		980139.26	980636.55	0.34	-177.80	-1.43	0.00
usqs :	n0157	45 10.47	-112 37.52	5289.0 MT		980126.69	980634.88	0.39	-180.39	-1.44	0.00
usqs :	n0158	45 8.69	-112 42.11	5212.0 MT		980127.67	980632.16	0.59	-177.77	-1.43	0.00
usqs :	n0159	45 7.85	-112 40.88	5258.0 MT		980123.66	980630.89	0.85	-179.34	-1.44	0.00
usqs :	n0160	45 7.85	-112 39.65	5296.0 MT		980119.99	980630.89	0.66	-180.63	-1.44	0.00
usqs :	n0161	45 15.37	-112 38.84	5053.0 MT		980158.96	980642.23	0.58	-172.34	-1.42	0.00
usqs :	n0162	45 15.34	-112 40.40	5297.0 MT		980138.97	980642.19	0.62	-180.67	-1.44	0.00
usqs :	n0163	45 16.58	-112 38.46	5070.0 MT		980152.23	980644.06	0.37	-172.92	-1.42	0.00
usqs :	n0164	45 18.33	-112 38.45	5089.0 MT		980157.08	980646.70	0.35	-173.57	-1.42	0.00
usqs :	n0165	45 18.32	-112 39.86	5154.0 MT		980151.42	980646.68	0.49	-175.79	-1.43	0.00
usqs :	n0166	45 18.35	-112 42.77	5378.0 MT		980126.78	980646.73	0.90	-183.83	-1.45	0.00
usqs :	n0167	45 17.43	-112 44.60	5419.0 MT		980130.91	980645.34	1.24	-184.83	-1.45	0.00
usqs :	n0168	45 16.98	-112 41.60	5295.0 MT		980139.76	980644.66	0.75	-180.60	-1.44	0.00
usqs :	n0169	45 19.62	-112 43.50	5473.0 MT		980123.18	980648.68	1.40	-186.67	-1.46	0.00
usqs :	n0170	45 21.85	-112 43.92	5566.0 MT		980122.24	980652.01	0.83	-189.84	-1.47	0.00
usqs :	n0166	45 18.35	-112 42.77	5378.0 MT		980126.78	980646.73	0.90	-183.83	-1.45	0.00
usqs :	n0167	45 17.43	-112 44.60	5419.0 MT		980130.91	980645.34	1.24	-184.83	-1.45	0.00
usqs :	n0168	45 16.98	-112 41.60	5295.0 MT		980139.76	980644.66	0.75	-180.60	-1.44	0.00
usqs :	n0169	45 19.62	-112 43.50	5473.0 MT		980123.18	980648.68	1.40	-186.67	-1.46	0.00
usqs :	n0170	45 21.85	-112 43.92	5566.0 MT		980122.24	980652.01	0.83	-189.84	-1.47	0.00

ROUGHNER GRAVITY DATA

dillon gravity by harold kaufmann  
cus map project  
Meter ID: 0-159 Date: 01/30/82

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		SPECIAL		NORMAL		SPEC	
IDENTIFICATION	sta-id	deg	min	deg	min	ft	in	UNCORRECTED	THEOPETICAL	IRRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLIE	ROUGHNER	FIELDS
USGS :	00171	45	20.98	-112	43.56	5501.0	MT	980125.82	980650.70	0.79	-187.62	-1.46	0.00	-7.74	-196.03	-180.52	
USGS :	00172	45	20.08	-112	38.47	5084.0	MT	980159.53	980649.34	0.46	-173.40	-1.42	0.00	-11.85	-186.22	-171.85	
USGS :	00173	45	21.36	-112	37.71	5102.0	MT	980159.64	980651.27	0.43	-174.01	-1.42	0.00	-11.98	-186.99	-172.57	
USGS :	00174	45	20.98	-112	40.21	5211.0	MT	980149.21	980650.70	0.45	-177.73	-1.43	0.00	-11.60	-190.31	-175.59	
USGS :	00175	45	20.97	-112	41.78	5322.0	MT	980136.88	980650.68	0.60	-181.52	-1.45	0.00	-13.48	-195.84	-180.81	
USGS :	00176	45	22.22	-112	41.51	5353.0	MT	980135.41	980652.57	0.56	-182.57	-1.45	0.00	-13.92	-197.38	-182.27	
USGS :	00177	45	19.88	-112	40.41	5210.0	MT	980146.56	980648.98	0.43	-177.70	-1.43	0.00	-12.62	-191.32	-176.60	
USGS :	00007	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	
USGS :	00007	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	
USGS :	00178	45	14.67	-112	54.81	6319.0	MT	980070.06	980641.18	1.06	-215.52	-1.51	0.00	22.89	-193.08	-175.29	
USGS :	00179	45	13.90	-113	0.42	6321.0	MT	980055.78	980640.02	0.96	-215.59	-1.51	0.00	9.96	-206.18	-188.37	
USGS :	00180	45	14.28	-113	2.84	6071.0	MT	980062.91	980640.59	0.97	-207.06	-1.50	0.00	-6.97	-214.57	-197.46	
USGS :	00181	45	13.90	-113	4.74	5988.0	MT	980066.52	980640.02	1.16	-204.57	-1.50	0.00	-9.65	-214.56	-197.67	
USGS :	00182	45	12.76	-113	1.81	6005.0	MT	980063.69	980638.30	0.81	-204.81	-1.50	0.00	-10.11	-215.61	-198.67	
USGS :	00183	45	10.63	-113	1.05	5883.0	MT	980077.61	980635.09	0.85	-200.65	-1.49	0.00	-4.43	-205.73	-189.14	
USGS :	00184	45	9.65	-112	59.45	5750.0	MT	980089.97	980633.60	2.87	-196.12	-1.48	0.00	-3.09	-197.82	-181.78	
USGS :	00185	45	10.42	-112	59.25	6190.0	MT	980063.20	980634.77	1.39	-211.12	-1.50	0.00	10.32	-200.91	-183.51	
USGS :	00186	45	11.65	-112	58.74	6400.0	MT	980054.84	980636.63	1.07	-218.29	-1.51	0.00	19.84	-198.89	-180.86	
USGS :	00187	45	11.92	-112	57.81	6844.0	MT	980033.32	980637.03	2.00	-233.43	-1.52	0.00	39.63	-193.32	-174.13	
USGS :	00188	45	10.96	-112	57.64	7090.0	MT	980014.45	980635.58	2.91	-241.82	-1.51	0.00	45.32	-195.10	-175.29	
USGS :	00189	45	10.38	-112	57.23	6835.0	MT	980027.33	980634.65	2.72	-233.12	-1.52	0.00	35.17	-196.75	-177.64	
USGS :	00190	45	9.31	-112	57.92	6309.0	MT	980055.31	980633.09	1.89	-215.18	-1.51	0.00	15.29	-199.51	-181.81	
USGS :	00191	45	9.40	-113	1.68	5883.0	MT	980074.41	980633.23	0.78	-200.65	-1.49	0.00	-5.77	-207.14	-190.54	
USGS :	00192	45	9.08	-113	5.53	6173.0	MT	980046.60	980632.74	0.69	-210.54	-1.50	0.00	-5.85	-217.21	-199.80	
USGS :	00193	45	9.31	-113	4.10	6059.0	MT	980053.94	980633.09	0.63	-206.65	-1.50	0.00	-9.58	-217.10	-200.00	
USGS :	00007	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	
USGS :	00007	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	
USGS :	00194	45	14.90	-113	5.84	6036.0	MT	980049.00	980641.52	1.54	-205.87	-1.50	0.00	-25.11	-230.94	-213.98	
USGS :	00195	45	15.81	-113	3.74	6687.0	MT	980052.14	980642.95	2.68	-228.07	-1.52	0.00	37.78	-189.13	-170.43	
USGS :	00196	45	17.52	-113	2.83	6859.0	MT	980025.71	980645.48	2.93	-233.94	-1.52	0.00	24.98	-207.55	-188.39	
USGS :	00197	45	19.32	-113	2.91	7684.0	MT	979974.07	980648.20	2.53	-262.08	-1.49	0.00	48.13	-212.91	-191.40	
USGS :	00198	45	20.31	-113	1.88	8320.0	MT	979938.38	980649.60	6.44	-283.78	-1.44	0.00	66.69	-212.08	-189.11	
USGS :	00199	45	16.78	-113	1.94	6484.0	MT	980049.84	980644.36	3.00	-221.15	-1.51	0.00	14.99	-208.67	-186.57	
USGS :	00200	45	15.75	-113	1.94	6310.0	MT	980055.61	980642.80	1.48	-215.22	-1.51	0.00	5.96	-209.28	-191.55	
USGS :	00201	45	17.39	-113	0.45	7484.0	MT	979990.96	980645.28	2.87	-253.89	-1.50	0.00	45.38	-207.14	-186.34	
USGS :	00202	45	18.45	-113	0.46	7920.0	MT	979963.59	980646.88	3.92	-270.13	-1.48	0.00	61.14	-206.55	-184.49	
USGS :	00203	45	18.70	-113	0.65	7987.0	MT	979960.37	980647.26	4.07	-272.41	-1.47	0.00	63.83	-205.99	-183.76	
USGS :	00204	45	18.38	-113	1.81	7038.0	MT	980016.25	980646.77	3.36	-240.05	-1.52	0.00	31.04	-207.17	-187.54	
USGS :	00207	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	
USGS :	00207	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19	

dillon gravity by harold kaufmann

cus map project

meter 10: a-159 Date: 01/30/82

STATION IDENTIFICATION	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	STATION TYPE	GRAVITY UNCORRECTED	THEORETICAL	CORRECTIONS		SPECIAL	FREE AIR	ANOMALIES		
							TERRAIN	BOUGUER			CURV	COMPLIE-ROUGHER	SPEC FIELDS
usgs : 00205	45 18.60	-113 4.28	7220.0	MT	980002.58	980647.11	2.56	-246.25	-1.51	0.00	34.13	-211.07	-190.87
usgs : 00206	45 18.36	-113 5.91	6379.0	MT	980045.78	980646.74	2.17	-217.57	-1.51	0.00	-1.32	-218.23	-200.36
usgs : 00207	45 19.10	-113 5.99	6473.0	MT	980042.82	980647.86	3.19	-220.78	-1.51	0.00	3.44	-215.66	-197.61
usgs : 00208	45 17.02	-113 0.69	7182.0	MT	979998.89	980644.72	4.29	-244.96	-1.51	0.00	29.26	-212.92	-192.97
usgs : 00209	45 13.22	-113 6.57	6176.0	MT	980034.32	980638.99	1.25	-210.65	-1.50	0.00	-24.10	-235.00	-217.62
usgs : 00210	45 12.79	-113 8.06	6465.0	MT	980009.84	980638.30	1.69	-220.50	-1.51	0.00	-20.77	-241.10	-222.94
usgs : 00211	45 12.70	-113 9.64	6980.0	MT	979983.77	980638.20	2.79	-238.07	-1.52	0.00	1.68	-235.11	-215.60
usgs : 00212	45 13.30	-113 10.24	7260.0	MT	979978.43	980639.11	3.84	-247.62	-1.51	0.00	21.74	-223.55	-203.34
usgs : 00213	45 12.82	-113 5.17	6134.0	MT	980049.39	980638.39	0.87	-209.21	-1.50	0.00	-12.37	-222.22	-204.93
usgs : 00217	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usgs : 00218	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usgs : 00219	45 27.02	-113 7.14	6906.0	MT	980017.33	980659.80	4.47	-235.54	-1.52	0.00	6.68	-225.91	-206.75
usgs : 00215	45 28.30	-113 5.00	7782.0	MT	979066.07	980661.73	2.57	-265.42	-1.49	0.00	35.78	-228.55	-206.77
usgs : 00216	45 29.08	-113 5.68	7788.0	MT	979969.73	980662.91	1.76	-264.26	-1.49	0.00	35.08	-228.91	-207.16
usgs : 00217	45 30.09	-113 6.21	7622.0	MT	979978.06	980664.44	2.70	-259.96	-1.49	0.00	30.05	-228.71	-207.39
usgs : 00218	45 30.90	-113 5.99	7570.0	MT	979982.50	980665.66	2.78	-258.19	-1.50	0.00	28.38	-228.53	-207.36
usgs : 00219	45 31.81	-113 4.62	7030.0	MT	980012.82	980667.03	3.76	-239.77	-1.52	0.00	6.59	-230.94	-211.37
usgs : 00220	45 33.34	-113 5.38	6806.0	MT	980028.35	980669.34	6.98	-232.13	-1.52	0.00	-1.23	-227.90	-209.22
usgs : 00221	45 34.68	-113 6.38	6681.0	MT	980039.59	980671.36	4.64	-227.87	-1.52	0.00	-3.75	-228.50	-209.98
usgs : 00222	45 35.59	-113 6.07	6586.0	MT	980044.91	980672.73	4.15	-224.63	-1.52	0.00	-8.73	-230.73	-212.44
usgs : 00223	45 36.13	-113 5.58	6605.0	MT	980039.98	980673.55	4.54	-225.28	-1.52	0.00	-12.69	-234.94	-216.63
usgs : 00224	45 37.73	-113 4.83	6554.0	MT	980048.73	980675.96	7.00	-223.54	-1.51	0.00	-11.15	-229.20	-211.23
usgs : 00225	45 40.09	-113 3.81	6375.0	MT	980067.33	980679.52	6.85	-217.43	-1.51	0.00	-12.93	-225.02	-207.55
usgs : 00226	45 40.93	-113 3.66	6264.0	MT	980068.71	980680.79	6.05	-213.65	-1.51	0.00	-23.24	-232.35	-215.12
usgs : 00227	45 42.11	-113 2.17	6155.0	MT	980092.25	980682.57	9.07	-209.93	-1.50	0.00	-11.73	-214.09	-197.42
usgs : 00228	45 42.80	-113 1.47	6086.0	MT	980101.92	980683.61	7.65	-207.58	-1.50	0.00	-9.58	-211.01	-194.41
usgs : 00229	45 44.67	-113 0.49	5940.0	MT	980117.55	980686.43	5.53	-202.60	-1.49	0.00	-10.50	-209.05	-192.69
usgs : 00230	45 45.05	-112 59.97	5912.0	MT	980123.18	980687.00	4.20	-201.64	-1.49	0.00	-8.06	-207.00	-190.61
usgs : 00231	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00232	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00233	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00234	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00235	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00236	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00237	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00238	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00239	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00240	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00241	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00242	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00243	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00244	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00245	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00246	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00247	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00248	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00249	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00250	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00251	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00252	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00253	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00254	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00255	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00256	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00257	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00258	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00259	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00260	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00261	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00262	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00263	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00264	45 46.28	-112 58.64	5792.0	MT	980136.46	980688.86	2.55	-197.55	-1.48	0.00	-7.92	-204.40	-188.21
usgs : 00265	45 46.28												

dillon gravity by harold kaufmann  
cus map project  
Meter 10: n-150 Date: 01/30/82

STATION IDENTIFICATION proj sta-id	LATITUDE deg min	LONGITUDE deg min	ELEVATION ELE (in ft)	GRAVITY OBSERVED THEORETICAL	CORRECTIONS			ANOMALIES				
					FERRATIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER	SPEC	FIELDS		
usqs : 00241	45 34.28	-112 46.02	6510.0 MT	980092.89	980670.76	2.67	-215.22	-1.51	0.00	15.29	-198.77	-181.13
usqs : 00242	45 34.59	-112 48.20	6980.0 MT	980050.87	980671.21	4.67	-238.07	-1.52	0.00	39.76	-195.15	-175.79
usqs : 00037	45 13.08	-112 38.10	5092.0 MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs : 00037	45 13.08	-112 38.10	5092.0 MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs : 00243	45 24.07	-112 41.47	5393.0 MT	980138.94	980655.36	0.64	-183.94	-1.45	0.00	-9.43	-194.18	-178.96
usqs : 00244	45 25.58	-112 40.38	5170.0 MT	980155.53	980657.63	0.74	-176.33	-1.43	0.00	-16.07	-193.09	-178.51
usqs : 00245	45 25.58	-112 42.17	5277.0 MT	980145.26	980657.58	1.01	-179.98	-1.44	0.00	-16.23	-196.64	-181.78
usqs : 00246	45 25.70	-112 42.50	5292.0 MT	980143.74	980657.81	1.05	-180.49	-1.44	0.00	-16.57	-197.46	-192.56
usqs : 00247	45 27.29	-112 41.94	5032.0 MT	980162.89	980660.21	1.40	-171.63	-1.41	0.00	-24.26	-195.90	-181.76
usqs : 00248	45 27.08	-112 44.15	5477.0 MT	980138.35	980659.90	1.80	-186.80	-1.46	0.00	-10.66	-197.13	-181.76
usqs : 00249	45 29.12	-112 42.70	5035.0 MT	980154.94	980662.98	2.04	-171.73	-1.41	0.00	-34.69	-205.79	-191.70
usqs : 00250	45 29.73	-112 43.91	5283.0 MT	980142.09	980663.90	2.37	-180.19	-1.44	0.00	-25.15	-204.41	-189.64
usqs : 00251	45 29.47	-112 45.66	5720.0 MT	980116.10	980663.50	4.34	-195.09	-1.48	0.00	-9.68	-201.91	-186.07
usqs : 00252	45 29.32	-112 47.71	6833.0 MT	980047.83	980663.27	4.17	-233.05	-1.52	0.00	21.85	-208.55	-189.57
usqs : 00253	45 32.79	-112 43.09	5240.0 MT	980154.64	980668.51	2.32	-178.72	-1.44	0.00	-21.26	-199.10	-184.44
usqs : 00254	45 29.73	-112 41.84	5005.0 MT	980159.38	980663.90	1.91	-170.71	-1.41	0.00	-33.99	-204.19	-190.17
usqs : 00255	45 28.00	-112 40.80	4972.0 MT	980170.40	980661.29	1.35	-169.58	-1.41	0.00	-23.46	-193.10	-179.12
usqs : 00256	45 26.08	-112 43.93	5509.0 MT	980131.89	980658.39	1.93	-187.90	-1.46	0.00	-8.61	-196.04	-180.59
usqs : 00257	45 24.01	-112 43.38	5437.0 MT	980124.52	980655.27	0.97	-185.48	-1.46	0.00	-19.62	-205.54	-190.22
usqs : 00037	45 13.08	-112 38.10	5092.0 MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs : 00067	45 13.08	-112 38.10	5092.0 MT	980153.15	980638.78	0.76	-171.97	-1.42	0.00	-11.62	-184.25	-170.02
usqs : 00258	45 25.03	-112 37.99	5218.0 MT	980148.21	980656.80	0.51	-177.97	-1.43	0.00	-18.05	-196.94	-182.20
usqs : 00259	45 28.93	-112 38.88	5332.0 MT	980148.06	980662.69	2.17	-181.86	-1.45	0.00	-13.37	-194.50	-179.58
usqs : 00260	45 30.52	-112 38.43	6477.0 MT	980088.08	980665.09	6.50	-220.91	-1.51	0.00	27.84	-188.09	-170.29
usqs : 00261	45 29.87	-112 39.49	5425.0 MT	980145.30	980664.11	2.54	-185.03	-1.45	0.00	-8.81	-192.76	-177.60
usqs : 00262	45 30.39	-112 41.09	5077.0 MT	980158.67	980664.89	2.38	-173.16	-1.42	0.00	-28.92	-201.13	-186.94
usqs : 00263	45 37.59	-112 41.19	5171.0 MT	980178.48	980675.75	1.51	-176.37	-1.43	0.00	-11.14	-187.43	-172.90
usqs : 00264	45 37.36	-112 42.66	5286.0 MT	980168.91	980675.41	2.13	-180.29	-1.44	0.00	-9.56	-189.16	-174.36
usqs : 00265	45 37.89	-112 43.76	5402.0 MT	980160.11	980676.20	1.90	-184.25	-1.45	0.00	-8.26	-192.06	-176.91
usqs : 00266	45 38.12	-112 44.80	5480.0 MT	980152.40	980676.55	2.70	-186.91	-1.46	0.00	-8.99	-194.66	-179.36
usqs : 00267	45 38.58	-112 47.04	5709.0 MT	980136.09	980677.24	3.75	-198.72	-1.48	0.00	-4.47	-196.91	-181.06
usqs : 00268	45 40.23	-112 49.04	6117.0 MT	980111.43	980679.73	6.19	-208.63	-1.50	0.00	6.72	-197.23	-180.42
usqs : 00269	45 40.70	-112 52.78	6595.0 MT	980076.45	980680.44	9.41	-224.94	-1.52	0.00	15.95	-201.10	-183.21
usqs : 00270	45 40.26	-112 53.76	6848.0 MT	980060.23	980679.78	7.56	-233.22	-1.52	0.00	23.22	-203.96	-185.24
usqs : 00271	45 37.90	-112 55.74	7235.0 MT	980025.38	980676.22	9.70	-246.77	-1.51	0.00	29.23	-209.35	-189.69
usqs : 00272	45 41.15	-112 52.38	7429.0 MT	980029.94	980681.12	4.57	-253.38	-1.50	0.00	47.11	-203.21	-182.59
usqs : 00273	45 42.05	-112 51.88	8304.0 MT	979076.59	980682.48	7.69	-283.23	-1.44	0.00	74.60	-202.38	-179.56
usqs : 00274	45 42.00	-112 53.76	8057.0 MT	979099.13	980682.40	3.41	-274.80	-1.47	0.00	69.01	-203.84	-181.36
usqs : 00275	45 42.00	-112 55.00	8186.0 MT	979087.06	980682.40	3.26	-279.27	-1.45	0.00	74.25	-203.27	-180.35
usqs : 00276	45 41.16	-112 56.08	7994.0 MT	979097.81	980681.13	2.58	-272.65	-1.47	0.00	63.04	-208.50	-186.13

dillon gravity by harold kaufmann  
cus map project  
Meter Id: 0-159 Date: 01/30/82

STATION		L U C A T I		O N H S		G R A V I T Y		C O R P E C T I O N S		A N O M A L I E S						
IDENTIFICATION		LONGITUDE		ELE ST		THEORETICAL		BOUQUER CURV		FREE		COMPLIE-ROUGHER		SPEC.		
proj		deg min		deg min		(in ft)				SPECIAL		AIR		FIELDS		
usqs :	00277	45	00.14	-112	55.45	7123.0	MT	980006.55	980679.59	2.63	-263.41	-1.49	0.00	52.86	-209.41	-187.80
usqs :	00278	45	00.61	-112	51.07	6410.0	MT	980088.25	980680.30	9.07	-218.63	-1.51	0.00	10.50	-200.57	-183.18
usqs :	00279	45	39.64	-112	47.60	6255.0	MT	980106.25	980678.88	2.11	-213.34	-1.51	0.00	15.36	-197.37	-179.84
usqs :	00037	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs :	00067	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs :	00280	45	15.51	-112	43.49	5751.0	MT	980109.07	980642.45	0.45	-196.15	-1.44	0.00	7.26	-189.92	-173.67
usqs :	00281	45	9.55	-112	51.47	6654.0	MT	980035.45	980633.45	1.13	-226.95	-1.52	0.00	27.48	-199.85	-181.12
usqs :	00282	45	8.84	-112	50.97	6881.0	MT	980016.69	980632.38	4.18	-234.69	-1.52	0.00	31.12	-200.91	-181.79
usqs :	00283	45	9.12	-112	50.65	6782.0	MT	980023.85	980632.80	3.01	-231.31	-1.52	0.00	28.56	-201.27	-182.33
usqs :	00284	45	8.69	-112	49.20	6218.0	MT	980060.24	980632.16	1.92	-212.08	-1.51	0.00	12.60	-199.06	-181.62
usqs :	00285	45	10.41	-112	45.73	5378.0	MT	980115.08	980634.75	0.48	-183.43	-1.45	0.00	-14.09	-198.49	-183.29
usqs :	00286	45	10.38	-112	47.31	5574.0	MT	980098.92	980634.70	0.52	-190.11	-1.47	0.00	-11.78	-202.84	-187.10
usqs :	00287	45	9.11	-112	46.96	5573.0	MT	980099.79	980632.79	0.58	-190.08	-1.47	0.00	-9.09	-200.06	-184.32
usqs :	00087	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
usqs :	00088	45	18.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00089	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usqs :	00288	45	45.47	-112	57.48	6148.0	MT	980109.82	980687.63	3.56	-209.69	-1.50	0.00	0.12	-207.52	-190.41
usqs :	00089	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usqs :	00090	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00091	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00092	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usqs :	00289	45	44.11	-112	57.90	7680.0	MT	980017.97	980685.59	11.61	-261.94	-1.49	0.00	54.25	-197.57	-176.82
usqs :	00290	45	46.35	-112	56.24	6402.0	MT	980102.24	980688.96	3.57	-218.35	-1.51	0.00	15.08	-201.22	-183.40
usqs :	00291	45	46.69	-112	53.73	5995.0	MT	980130.24	980689.48	5.00	-204.47	-1.50	0.00	4.32	-196.64	-180.09
usqs :	00292	45	45.55	-112	53.79	6400.0	MT	980098.79	980687.76	4.91	-218.29	-1.51	0.00	12.64	-202.24	-184.54
usqs :	00293	45	45.20	-112	54.00	6460.0	MT	980096.50	980687.23	6.99	-220.33	-1.51	0.00	16.52	-198.34	-180.63
usqs :	00295	45	45.44	-112	51.66	5840.0	MT	980138.12	980687.59	9.47	-199.19	-1.49	0.00	-0.48	-191.68	-175.93
usqs :	00297	45	43.10	-112	52.34	7020.0	MT	980063.86	980684.06	5.60	-239.43	-1.52	0.00	39.66	-195.69	-176.29
usqs :	00298	45	42.93	-112	54.67	7456.0	MT	980036.93	980683.80	10.94	-254.30	-1.50	0.00	53.95	-190.92	-170.74
usqs :	00299	45	43.07	-112	53.36	7903.0	MT	980007.89	980685.22	6.16	-269.55	-1.48	0.00	65.48	-199.38	-177.56
usqs :	00300	45	42.73	-112	55.16	8222.0	MT	979986.41	980683.50	4.19	-280.43	-1.45	0.00	75.69	-202.00	-179.11
usqs :	00301	45	43.06	-112	56.25	8600.0	MT	979960.48	980684.00	9.20	-293.32	-1.41	0.00	84.77	-200.76	-177.23
usqs :	00088	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00089	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00088	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usqs :	00085	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usqs :	00294	45	46.55	-112	51.71	5530.0	MT	980163.33	980689.27	5.49	-188.61	-1.46	0.00	-6.08	-190.66	-175.45
usqs :	00296	45	44.34	-112	51.43	6259.0	MT	980109.84	980685.99	10.73	-213.44	-1.51	0.00	12.21	-192.04	-175.21
usqs :	00302	45	40.41	-112	54.44	9574.0	MT	979879.94	980680.61	20.05	-326.54	-1.26	0.00	99.10	-208.66	-183.30
usqs :	00303	45	39.67	-112	57.54	9064.0	MT	979915.53	980678.88	10.63	-309.15	-1.35	0.00	88.52	-211.35	-186.64
usqs :	00304	45	39.10	-112	54.23	6900.0	MT	980050.59	980678.03	7.88	-235.34	-1.52	0.00	21.16	-207.82	-188.95

ROUGHEN GRAVITY DATA

dillon gravity by harold kaufmann  
 cus map project  
 Meter ID: G-150 Date: 01/30/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION		LATITUDE		LONGITUDE		ELEVATION		THEORETICAL		FREE	
prof	sta-id	deg	min	deg	min	(in ft)	ST	UNSERVED	BOUGUER	CURV	AIR
usqs :	00305	45	38.62	-112	48.35	5900.0	MT	980116.35	980677.30	5.36	-201.23
usqs :	00306	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15
usqs :	00307	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15
usqs :	00308	45	37.04	-112	40.78	5187.0	MT	980175.39	980674.92	1.36	-176.91
usqs :	00309	45	38.41	-112	39.04	5303.0	MT	980167.58	980676.98	1.65	-182.23
usqs :	00310	45	39.61	-112	41.42	5232.0	MT	980171.19	980679.10	2.35	-178.45
usqs :	00311	45	42.48	-112	42.10	5517.0	MT	980162.85	980683.13	2.11	-198.17
usqs :	00312	45	48.97	-112	44.73	5395.0	MT	980165.83	980692.91	25.92	-184.01
usqs :	00313	45	45.85	-112	47.09	5429.0	MT	980171.23	980698.21	5.82	-185.17
usqs :	00314	45	46.40	-112	49.36	5512.0	MT	980166.25	980689.04	10.39	-188.00
usqs :	00315	45	42.88	-112	43.53	5809.0	MT	980145.21	980683.73	1.46	-198.13
usqs :	00316	45	42.09	-112	44.07	5320.0	MT	980172.36	980682.54	3.73	-181.45
usqs :	00317	45	38.96	-112	50.94	6300.0	MT	980091.31	980677.82	7.76	-214.87
usqs :	00318	45	38.54	-112	52.31	6880.0	MT	980056.57	980677.18	5.20	-234.66
usqs :	00319	45	37.38	-112	53.05	7200.0	MT	980033.61	980675.44	6.29	-245.57
usqs :	00320	45	36.41	-112	53.02	7440.0	MT	980018.85	980673.97	6.27	-253.76
usqs :	00321	45	36.15	-112	54.11	7840.0	MT	979991.52	980673.58	6.10	-267.40
usqs :	00322	45	36.17	-112	55.16	8240.0	MT	979966.00	980673.61	6.74	-281.04
usqs :	00323	45	35.80	-112	54.88	8340.0	MT	979963.53	980673.05	4.46	-284.45
usqs :	00324	45	35.48	-112	56.26	8990.0	MT	979921.83	980672.57	6.07	-306.62
usqs :	00325	45	36.42	-112	56.37	9644.0	MT	979867.55	980673.98	10.16	-328.93
usqs :	00326	45	36.01	-112	56.90	9240.0	MT	979896.51	980673.37	10.76	-315.15
usqs :	00327	45	35.64	-112	57.00	9793.0	MT	979853.44	980672.81	22.73	-334.01
usqs :	00328	45	35.34	-112	56.09	8800.0	MT	979928.16	980672.36	5.50	-300.14
usqs :	00329	45	35.56	-112	56.34	9040.0	MT	979910.84	980672.69	6.55	-309.69
usqs :	00330	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15
usqs :	00331	45	38.34	-112	41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15
usqs :	00332	45	36.32	-112	39.53	5289.0	MT	980166.34	980673.84	1.19	-180.39
usqs :	00333	45	35.27	-112	38.85	5269.0	MT	980165.03	980672.25	1.46	-179.71
usqs :	00334	45	34.18	-112	37.74	5717.0	MT	980141.96	980670.61	1.80	-194.99
usqs :	00335	45	33.26	-112	38.16	6425.0	MT	980098.69	980669.22	4.20	-219.14
usqs :	00336	45	35.25	-112	40.78	5119.0	MT	980177.63	980672.22	1.69	-174.59
usqs :	00337	45	33.94	-112	41.02	5096.0	MT	980174.16	980670.32	2.27	-173.81
usqs :	00338	45	31.94	-112	40.15	5673.0	MT	980134.69	980667.23	3.70	-193.49
usqs :	00339	45	36.18	-112	41.38	5150.0	MT	980176.25	980673.63	1.78	-175.65
usqs :	00340	45	36.05	-112	43.39	5805.0	MT	980129.56	980673.43	3.17	-197.99
usqs :	00341	45	35.40	-112	44.44	5595.0	MT	980139.96	980672.59	3.26	-190.83
usqs :	00342	45	35.60	-112	47.58	6210.0	MT	980099.19	980672.75	5.02	-211.81
usqs :	00343	45	35.60	-112	49.76	6580.0	MT	980066.81	980672.75	12.23	-224.42
usqs :	00344	45	35.33	-112	51.54	7070.0	MT	980031.58	980672.34	10.01	-241.14



dillon gravity by harold kaufmann  
cus map project  
Meter 1b: a-15a Date: 01/30/82

STATION IDENTIFICATION	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	GRAVITY UNRESERVED	THEORETICAL	TERRAIN BOUGUER CURV	ANOMALIES						
							FREE AIR	COMPLETE-BOUGUER d1=2.67 d2=2.45	SPECIAL				
usgs : 00341	45 34.34	-112 53.02	8340.0	MT	979957.83	980670.85	5.04	-204.45	-1.44	0.00	70.85	-210.00	-186.86
usgs : 00342	45 34.30	-112 54.24	8330.0	MT	979925.58	980670.79	7.11	-301.17	-1.38	0.00	84.68	-210.75	-186.41
usgs : 00343	45 34.57	-112 51.99	7490.0	MT	980001.18	980671.20	10.96	-255.46	-1.50	0.00	34.00	-212.00	-191.73
usgs : 00008	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.88	1.86	-177.15	-1.43	0.00	-16.64	-193.37	-178.80
usgs : 00005	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00344	45 52.39	-113 5.12	5756.0	MT	980146.90	980698.07	4.08	-196.32	-1.48	0.00	-10.08	-203.80	-187.84
usgs : 00345	45 51.06	-113 4.10	5725.0	MT	980148.29	980696.06	5.10	-195.26	-1.48	0.00	-9.59	-201.24	-185.44
usgs : 00346	45 51.18	-113 6.69	6025.0	MT	980122.76	980696.25	6.95	-205.50	-1.50	0.00	-7.12	-207.16	-190.68
usgs : 00347	45 50.88	-113 8.08	6620.0	MT	980087.88	980695.80	2.87	-225.79	-1.52	0.00	14.37	-210.07	-191.57
usgs : 00348	45 51.04	-113 10.04	7775.0	MT	980012.14	980696.04	6.37	-265.18	-1.49	0.00	46.89	-213.41	-191.96
usgs : 00349	45 50.18	-113 11.45	7432.0	MT	980034.01	980694.74	3.05	-253.48	-1.50	0.00	37.83	-214.10	-193.34
usgs : 00350	45 51.15	-113 13.59	6320.0	MT	980105.42	980696.20	1.99	-215.56	-1.51	0.00	3.31	-211.76	-194.04
usgs : 00351	45 50.61	-113 12.85	6840.0	MT	980070.62	980695.39	2.22	-213.29	-1.52	0.00	18.18	-214.41	-195.25
usgs : 00352	45 48.83	-113 9.47	6730.0	MT	980075.26	980692.70	6.11	-229.54	-1.52	0.00	15.17	-209.78	-191.24
usgs : 00353	45 49.51	-113 8.71	6580.0	MT	980088.24	980693.73	5.79	-224.42	-1.52	0.00	13.03	-207.12	-188.98
usgs : 00354	45 50.63	-113 5.24	6488.0	MT	980099.77	980695.41	2.45	-221.29	-1.51	0.00	14.23	-206.12	-187.96
usgs : 00355	45 49.93	-113 2.70	5697.0	MT	980147.44	980694.36	4.24	-194.31	-1.48	0.00	-11.37	-202.92	-187.13
usgs : 00356	45 49.30	-113 1.55	5724.0	MT	980144.75	980693.41	4.21	-195.23	-1.48	0.00	-10.57	-203.07	-187.21
usgs : 00357	45 48.39	-112 59.89	5664.0	MT	980148.33	980692.04	3.18	-193.18	-1.47	0.00	-11.26	-202.74	-186.96
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00358	45 46.82	-112 59.34	5870.0	MT	980127.69	980689.67	2.21	-200.21	-1.49	0.00	-10.17	-209.66	-193.22
usgs : 00359	45 46.38	-113 0.36	6152.0	MT	980113.80	980689.01	2.69	-209.83	-1.50	0.00	3.10	-205.54	-188.35
usgs : 00360	45 47.37	-113 0.69	5912.0	MT	980130.96	980690.50	2.75	-201.64	-1.49	0.00	-3.78	-204.17	-187.65
usgs : 00361	45 46.76	-113 1.71	6393.0	MT	980101.89	980689.58	3.43	-218.05	-1.51	0.00	13.26	-202.87	-185.06
usgs : 00362	45 46.07	-113 2.49	6940.0	MT	980071.11	980688.54	5.30	-216.70	-1.52	0.00	34.91	-198.01	-178.81
usgs : 00363	45 45.24	-113 1.51	7432.0	MT	980027.32	980687.29	8.72	-253.48	-1.50	0.00	38.60	-207.67	-187.38
usgs : 00364	45 49.16	-113 4.16	7070.0	MT	980058.47	980693.20	6.65	-241.14	-1.51	0.00	29.83	-206.17	-186.73
usgs : 00365	45 42.39	-112 58.91	9161.0	MT	979978.17	980692.99	9.98	-278.35	-1.46	0.00	62.23	-207.59	-185.36
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00366	45 47.94	-113 9.39	7580.0	MT	980028.55	980691.36	2.43	-258.53	-1.50	0.00	49.66	-207.94	-186.72
usgs : 00367	45 47.26	-113 8.47	7690.0	MT	980021.56	980690.34	3.17	-242.28	-1.49	0.00	50.03	-206.57	-185.10
usgs : 00368	45 46.65	-113 8.35	7780.0	MT	980016.51	980689.41	2.63	-245.35	-1.49	0.00	58.35	-205.86	-184.09
usgs : 00369	45 45.81	-113 8.74	7550.0	MT	980024.43	980688.15	5.16	-257.51	-1.50	0.00	45.94	-207.91	-187.00
usgs : 00370	45 48.00	-113 3.15	7340.0	MT	980042.68	980691.45	6.65	-250.35	-1.51	0.00	41.15	-204.05	-183.85
usgs : 00371	45 41.08	-113 1.06	6780.0	MT	980055.02	980681.02	4.74	-231.25	-1.52	0.00	11.32	-216.70	-197.91
usgs : 00372	45 41.18	-113 1.15	6725.0	MT	980057.34	980681.16	4.90	-229.37	-1.52	0.00	8.33	-217.66	-199.04
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42
usgs : 00085	45 47.54	-112 56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	0.00	-10.92	-203.26	-187.42

Date: 01/30/82

[illegible]

# BOUGUER GRAVITY DATA

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dillon gravity by harold kaufmann

cus map project

Meter ID: G-159 Date: 01/30/82

STATION IDENTIFICATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S						
prof	sta-id	lat	lon	ele	st	unsrved	theoretical	terrain	bouguer	curv	special	free	complete	spec
		deg	min	deg	min	(in ft)						air	d1=2.67	d2=2.45
usqs :	004003	45	35.86	-112	57.97	7760.0	MT	979989.71	980673.14	7.64	-264.67	-1.49	45.95	-212.56
usqs :	004004	45	36.76	-112	57.49	7480.0	MT	980004.07	980674.50	8.75	-255.12	-1.50	32.65	-215.22
usqs :	004005	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004006	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004007	45	44.06	-112	47.26	6390.0	MT	980111.35	980685.51	5.10	-217.94	-1.51	26.51	-187.84
usqs :	004008	45	44.66	-112	47.30	6250.0	MT	980118.33	980686.41	2.99	-213.17	-1.51	19.43	-192.26
usqs :	004009	45	42.85	-112	45.60	6352.0	MT	980105.41	980683.69	7.89	-216.65	-1.51	18.83	-191.44
usqs :	004010	45	36.16	-112	58.88	8350.0	MT	979948.84	980673.59	4.41	-284.79	-1.44	60.06	-221.77
usqs :	004011	45	35.76	-112	59.67	8480.0	MT	979937.12	980672.99	4.66	-289.23	-1.42	61.14	-224.85
usqs :	004012	45	34.90	-113	0.06	8600.0	MT	979920.18	980671.70	7.68	-293.32	-1.41	56.78	-230.28
usqs :	004013	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004014	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004015	45	33.58	-113	2.06	8330.0	MT	979938.44	980670.64	4.62	-284.11	-1.44	50.73	-230.20
usqs :	004016	45	34.00	-113	1.94	8380.0	MT	979935.61	980669.70	5.71	-285.82	-1.44	53.53	-228.01
usqs :	004017	45	34.00	-113	3.40	7790.0	MT	979971.26	980670.34	5.46	-265.69	-1.48	33.12	-228.59
usqs :	004018	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004019	45	47.54	-112	56.50	5680.0	MT	980145.88	980690.76	2.86	-193.73	-1.48	-10.92	-203.26
usqs :	004020	45	53.22	-113	7.04	5778.0	MT	980146.24	980699.32	2.61	-197.07	-1.48	-9.92	-205.86
usqs :	004021	45	53.00	-113	8.55	5790.0	MT	980140.61	980698.99	4.22	-197.48	-1.48	-14.09	-208.83
usqs :	004022	45	53.22	-113	10.21	5803.0	MT	980138.89	980699.32	3.86	-197.92	-1.48	-14.92	-210.47
usqs :	004023	45	52.79	-113	12.38	5867.0	MT	980131.25	980698.67	2.38	-200.11	-1.49	-15.90	-215.11
usqs :	004024	45	51.47	-113	14.56	5924.0	MT	980125.76	980696.69	1.48	-202.05	-1.49	-14.04	-216.11
usqs :	004025	45	50.44	-113	15.15	5865.0	MT	980127.67	980695.13	1.70	-200.04	-1.49	-16.12	-215.95
usqs :	004026	45	49.35	-113	16.17	5872.0	MT	980124.53	980693.48	1.78	-200.28	-1.49	-16.96	-216.94
usqs :	004027	45	49.25	-113	17.17	5881.0	MT	980122.71	980693.34	1.57	-200.58	-1.49	-17.78	-218.29
usqs :	004028	45	48.49	-113	18.71	5900.0	MT	980117.81	980692.19	1.27	-201.23	-1.49	-19.75	-221.20
usqs :	004029	45	47.29	-113	20.70	5925.0	MT	980111.37	980690.38	1.24	-202.08	-1.49	-22.04	-224.37
usqs :	004030	45	46.11	-113	21.53	5926.0	MT	980109.87	980688.60	1.11	-202.12	-1.49	-21.66	-224.16
usqs :	004031	45	44.39	-113	22.69	5956.0	MT	980101.75	980686.01	1.01	-203.14	-1.49	-24.36	-227.99
usqs :	004032	45	43.14	-113	23.82	5981.0	MT	980097.73	980684.13	0.63	-203.99	-1.49	-24.15	-228.81
usqs :	004033	45	41.92	-113	24.65	6071.0	MT	980085.20	980682.28	0.92	-207.06	-1.50	-26.38	-234.02
usqs :	004034	45	40.96	-113	26.17	6001.0	MT	980080.93	980680.84	0.56	-204.68	-1.50	-35.78	-241.40
usqs :	004035	45	39.72	-113	26.33	6072.0	MT	980073.96	980678.96	0.69	-207.10	-1.50	-34.21	-242.12
usqs :	004036	45	38.12	-113	26.56	6020.0	MT	980072.77	980676.55	0.61	-205.33	-1.50	-37.87	-244.08
usqs :	004037	45	36.86	-113	26.88	6054.0	MT	980067.82	980674.65	0.56	-206.48	-1.50	-38.13	-245.55
usqs :	004038	45	34.05	-113	27.56	6147.0	MT	980055.07	980670.41	0.50	-209.66	-1.50	-37.50	-248.16
usqs :	004039	45	31.36	-113	27.57	6193.0	MT	980050.12	980666.35	0.62	-211.21	-1.50	-38.07	-246.18

# ROUGHNER GRAVITY DATA

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dillon gravity by harold kaufmann  
 cus map project  
 Meter 1p: 0-150      date: 01/30/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A M O M A L I F S				
IDENTIFICATION	lat	lon	deg	min	sec	THEORETICAL	IRRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLETE	ROUGHNER	SPEC
prof	sta-id	den	min	deg	min	(in ft)					AIR	d1=2.67	d2=2.45	FIELDS
usqs :	000137	45	30.64	-113	26.41	6248.0 MT	980665.27	1.29	-213.10	-1.51	0.00	-27.19	-240.51	-222.93
usqs :	000138	45	31.81	-113	25.68	6227.0 MT	980667.03	1.06	-212.39	-1.51	0.00	-24.57	-237.40	-219.87
usqs :	000139	45	33.04	-113	25.03	6167.0 MT	980668.89	1.04	-210.34	-1.50	0.00	-24.32	-235.13	-217.76
usqs :	000140	45	33.94	-113	25.77	6146.0 MT	980670.24	0.76	-209.62	-1.50	0.00	-30.49	-240.86	-223.52
usqs :	000141	45	30.12	-113	27.50	6224.0 MT	980664.44	0.83	-212.28	-1.51	0.00	-31.16	-244.12	-226.57
usqs :	000142	45	28.21	-113	27.49	6289.0 MT	980661.60	0.85	-214.50	-1.51	0.00	-28.92	-244.08	-226.35
usqs :	000143	45	26.95	-113	27.40	6330.0 MT	980659.70	0.77	-215.90	-1.51	0.00	-27.17	-243.80	-225.95
usqs :	000144	45	35.35	-113	27.21	6126.0 MT	980672.38	0.51	-208.94	-1.50	0.00	-37.30	-247.23	-229.94
usqs :	000145	45	35.35	-113	27.21	6126.0 MT	980672.38	0.51	-208.94	-1.50	0.00	-37.30	-247.23	-229.94
usqs :	000146	45	47.69	-113	17.71	6510.0 MT	980690.98	2.05	-222.04	-1.51	0.00	1.92	-219.59	-201.34
usqs :	000147	45	46.88	-113	17.98	6135.0 MT	980689.77	2.01	-209.25	-1.50	0.00	-11.79	-220.53	-203.33
usqs :	000148	45	46.56	-113	16.93	6450.0 MT	980689.28	1.86	-219.99	-1.51	0.00	-2.93	-222.58	-204.48
usqs :	000149	45	46.07	-113	15.46	6395.0 MT	980688.54	4.04	-218.12	-1.51	0.00	-6.66	-222.24	-204.48
usqs :	000150	45	46.35	-113	14.47	7068.0 MT	980688.96	2.51	-241.07	-1.51	0.00	19.16	-220.91	-201.13
usqs :	000151	45	46.95	-113	14.90	6940.0 MT	980692.33	2.90	-236.70	-1.52	0.00	14.80	-220.51	-201.12
usqs :	000152	45	49.36	-113	14.63	6209.0 MT	980693.50	2.02	-211.77	-1.51	0.00	-4.42	-215.67	-198.27
usqs :	000153	45	48.48	-113	13.66	6589.0 MT	980692.17	1.79	-224.73	-1.52	0.00	8.43	-216.03	-197.54
usqs :	000154	45	48.20	-113	14.88	6503.0 MT	980691.75	2.63	-221.80	-1.51	0.00	2.28	-218.40	-200.22
usqs :	000155	45	48.42	-113	15.78	6365.0 MT	980692.09	2.14	-217.09	-1.51	0.00	-1.23	-217.70	-199.86
usqs :	000156	45	49.01	-113	12.66	6380.0 MT	980692.98	2.82	-217.60	-1.51	0.00	2.97	-213.33	-195.51
usqs :	000157	45	49.95	-113	13.83	6390.0 MT	980694.39	2.63	-217.94	-1.51	0.00	1.28	-215.55	-197.68
usqs :	000158	45	35.35	-113	27.21	6126.0 MT	980672.38	0.51	-208.94	-1.50	0.00	-37.33	-247.26	-229.96
usqs :	000159	45	35.35	-113	27.21	6126.0 MT	980672.38	0.51	-208.94	-1.50	0.00	-37.33	-247.26	-229.96
usqs :	000160	45	44.50	-113	20.68	6620.0 MT	980686.17	1.72	-225.79	-1.52	0.00	0.94	-224.65	-206.06
usqs :	000161	45	44.05	-113	18.73	7173.0 MT	980685.49	2.74	-244.65	-1.51	0.00	17.85	-225.57	-205.51
usqs :	000162	45	43.26	-113	20.52	6370.0 MT	980684.30	1.69	-217.26	-1.51	0.00	-9.97	-227.05	-209.17
usqs :	000163	45	43.01	-113	18.83	6540.0 MT	980683.92	4.39	-223.06	-1.51	0.00	-5.13	-225.32	-207.17
usqs :	000164	45	42.37	-113	18.20	7254.0 MT	980682.96	3.14	-247.41	-1.51	0.00	21.50	-224.28	-204.03
usqs :	000165	45	41.88	-113	17.32	7734.0 MT	980682.22	4.39	-263.78	-1.49	0.00	46.94	-213.95	-192.45
usqs :	000166	45	41.65	-113	18.66	7152.0 MT	980681.88	3.54	-243.93	-1.51	0.00	16.29	-225.62	-205.69
usqs :	000167	45	36.42	-113	28.29	6160.0 MT	980673.98	0.92	-210.10	-1.50	0.00	-15.42	-226.10	-208.74
usqs :	000168	45	36.13	-113	21.96	6192.0 MT	980673.55	3.40	-215.19	-1.50	0.00	-8.68	-217.48	-200.28
usqs :	000169	45	35.97	-113	20.40	6305.0 MT	980673.30	4.59	-215.04	-1.51	0.00	-8.94	-220.91	-203.44
usqs :	000170	45	37.19	-113	21.47	6908.0 MT	980675.15	3.09	-238.68	-1.52	0.00	14.19	-222.92	-203.38
usqs :	000171	45	34.87	-113	23.16	6209.0 MT	980671.65	3.17	-211.77	-1.51	0.00	-6.87	-216.97	-199.66
usqs :	000172	45	34.05	-113	23.44	6190.0 MT	980670.41	2.62	-211.12	-1.50	0.00	-7.25	-217.26	-199.95
usqs :	000173	45	36.57	-113	20.75	6142.0 MT	980671.23	0.79	-209.49	-1.50	0.00	-25.34	-235.53	-218.22
usqs :	000174	45	38.90	-113	22.19	6915.0 MT	980677.73	2.68	-235.85	-1.52	0.00	9.66	-225.02	-205.69
usqs :	000175	45	38.10	-113	21.27	7607.0 MT	980676.52	8.23	-259.45	-1.50	0.00	27.31	-225.41	-204.59
usqs :	000176	45	37.90	-113	23.78	6210.0 MT	980676.22	1.09	-211.81	-1.51	0.00	-14.96	-227.18	-209.69

dillon gravity by harold kaufmann  
cus map project  
Meter ID: a-150 Date: 01/30/82

STATION		L U C A T I		O N S		C R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
prof	sta-id	LATITUDE	LONGITUDE	ELE	ST	UNSERVED	THEORETICAL	TERRAIN BOUGUER	CURV	SPECIAL	FREE
		deg min	deg min	(in ft)							AIR
usqs	00004	45 35.35	-113 27.21	6126.0	MT	980059.17	980672.38	0.51	-208.94	-1.50	-37.33
usqs	00073	45 42.44	-113 21.88	6542.0	MT	980062.65	980683.13	2.21	-223.13	-1.51	-5.52
usqs	00074	45 41.72	-113 19.96	7124.0	MT	980026.80	980681.98	2.97	-202.98	-1.51	14.45
usqs	00075	45 40.54	-113 19.48	7169.0	MT	980022.63	980680.20	2.14	-244.51	-1.51	16.29
usqs	00076	45 40.97	-113 21.96	6521.0	MT	980061.83	980680.85	1.70	-222.41	-1.51	-6.04
usqs	00077	45 39.91	-113 20.98	6940.0	MT	980037.26	980679.25	3.13	-236.70	-1.52	10.35
usqs	00078	45 40.04	-113 24.05	6130.0	MT	980077.06	980679.45	0.91	-209.08	-1.50	-26.14
usqs	00079	45 35.26	-113 20.73	6979.0	MT	980033.87	980672.23	2.18	-238.03	-1.52	17.64
usqs	00080	45 34.96	-113 24.98	6138.0	MT	980070.49	980671.78	0.89	-209.35	-1.50	-24.30
usqs	00081	45 25.10	-113 26.09	6383.0	MT	980042.65	980656.91	0.95	-217.71	-1.51	-10.24
usqs	00082	45 23.32	-113 25.26	6434.0	MT	980047.95	980654.23	0.96	-219.44	-1.51	-1.06
usqs	00083	45 21.97	-113 24.49	6475.0	MT	980048.15	980652.19	0.87	-220.84	-1.51	4.62
usqs	00087	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	-6.92
usqs	00087	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	-6.92
usqs	00088	45 19.74	-113 16.35	6838.0	MT	980020.42	980648.83	1.67	-233.22	-1.52	14.36
usqs	00085	45 18.95	-113 18.49	6716.0	MT	980018.79	980647.63	1.48	-229.06	-1.52	2.46
usqs	00086	45 20.46	-113 21.02	6621.0	MT	980023.99	980649.91	1.48	-225.82	-1.52	-3.54
usqs	00087	45 20.94	-113 22.86	6571.0	MT	980031.97	980650.63	0.76	-224.12	-1.52	-0.98
usqs	00088	45 21.65	-113 23.26	6534.0	MT	980039.26	980651.70	0.88	-222.86	-1.51	1.76
usqs	00089	45 22.07	-113 21.73	6600.0	MT	980031.68	980652.34	1.52	-225.11	-1.52	-0.25
usqs	00090	45 23.52	-113 20.56	6765.0	MT	980033.90	980654.53	2.94	-230.73	-1.52	15.28
usqs	00091	45 23.54	-113 18.29	7310.0	MT	979996.15	980654.55	1.49	-249.32	-1.51	28.70
usqs	00092	45 24.40	-113 17.05	7612.0	MT	979977.17	980655.85	1.35	-259.62	-1.50	36.80
usqs	00093	45 25.07	-113 18.36	7226.0	MT	980003.43	980656.87	4.63	-246.46	-1.51	25.78
usqs	00094	45 26.26	-113 19.07	6930.0	MT	980023.39	980658.66	4.10	-236.36	-1.52	16.14
usqs	00095	45 27.30	-113 17.78	7070.0	MT	980016.10	980660.23	3.11	-239.77	-1.52	16.68
usqs	00096	45 27.71	-113 16.90	7145.0	MT	980010.57	980660.85	2.23	-243.70	-1.51	21.33
usqs	00097	45 29.06	-113 16.61	7595.0	MT	979985.86	980662.88	1.53	-259.04	-1.50	36.86
usqs	00098	45 25.00	-113 19.80	8145.0	MT	979945.83	980656.76	5.42	-277.80	-1.46	54.62
usqs	00097	45 13.08	-112 38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	-6.92
usqs	00096	45 57.15	-112 29.82	5554.0	MT	980159.93	980705.25	1.09	-189.43	-1.47	-23.21
usqs	00097	45 13.08	-112 38.10	5092.0	MT	980153.14	980638.78	0.44	-173.67	-1.42	-6.93
usqs	00097	45 0.27	-113 12.50	6044.0	MT	980040.50	980619.45	0.93	-206.14	-1.50	-6.78
usqs	00093	45 20.32	-113 7.16	6286.0	MT	980045.83	980649.70	2.55	-248.40	-1.51	-12.97
usqs	00094	45 35.35	-113 27.21	6126.0	MT	980050.18	980672.38	0.51	-208.94	-1.50	-37.33
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36	1.40	-156.93	-1.36	-38.62
usqs	00091	45 41.16	-112 16.97	4518.0	MT	980218.08	980681.13	2.30	-154.10	-1.35	-42.30
usqs	00093	45 36.86	-113 26.80	6050.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	-38.13
usqs	00095	45 47.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	-10.82
usqs	00098	45 38.34	-112 41.12	5194.0	MT	980171.95	980676.08	1.86	-177.15	-1.43	-16.64
usqs	00090	45 34.68	-112 19.20	8601.0	MT	980200.18	980671.36				

dillon gravity by harold kaufmann  
 cus map project  
 Meter ID: 0-150 Date: 01/30/82

STATION		I. U. C. A. T. I. O. N. S.		G. R. A. V. I. T. Y.		C. O. R. R. E. C. T. I. O. N. S.		A. N. O. M. A. L. I. E. S.			
IDENTIFICATION	LATITUDE	LONGITUDE	ELE. ST	OBSERVED	THEORETICAL	TERRAIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER	SPEC. FIELDS	
proj	den	min	deg	min	(in ft)				d1=2.67	d2=2.45	
usqs :	00502	45 52.22	-112 6.45	4365.0	MT	980248.44	980697.81	0.00	-39.00	-188.48	-176.17
usqs :	00503	45 51.63	-111 57.09	4271.0	MT	980278.47	980696.92	0.00	-16.92	-162.70	-150.69
usqs :	00504	45 19.64	-112 6.52	5108.0	MT	980159.34	980648.67	0.00	-9.12	-183.21	-168.87
usqs :	00505	45 27.33	-112 11.32	5162.0	MT	980155.81	980660.27	0.00	-19.18	-195.15	-180.65
usqs :	00507	45 13.08	-112 38.10	5092.0	MT	980153.09	980638.78	0.00	-6.98	-181.63	-167.24
usqs :	00508	45 13.08	-112 38.10	5092.0	MT	980153.09	980638.78	0.00	-6.98	-181.63	-167.24
usqs :	00506	45 6.86	-112 42.07	5345.0	MT	980111.01	980629.40	0.00	-15.90	-198.59	-183.54
usqs :	00507	45 6.04	-112 40.87	5468.0	MT	980101.12	980628.16	0.00	-13.00	-199.53	-184.16
usqs :	00508	45 5.21	-112 39.63	5711.0	MT	980086.96	980626.91	0.00	-3.07	-197.55	-181.53
usqs :	00509	45 6.95	-112 38.39	5363.0	MT	980108.50	980629.53	0.00	-16.86	-200.44	-185.32
usqs :	00510	45 3.82	-112 37.23	5682.0	MT	980089.94	980624.81	0.00	-4.48	-195.16	-179.45
usqs :	00511	45 2.29	-112 35.01	6382.0	MT	980051.50	980622.50	0.00	25.17	-187.39	-169.88
usqs :	00512	45 3.23	-112 35.02	5848.0	MT	980077.09	980623.98	0.00	2.93	-195.36	-179.02
usqs :	00513	45 2.16	-112 32.97	5970.0	MT	980068.01	980622.30	0.00	6.92	-195.07	-178.43
usqs :	00514	45 1.63	-112 31.52	5856.0	MT	980079.05	980621.51	0.00	8.05	-190.78	-174.40
usqs :	00515	45 0.81	-112 30.11	5984.0	MT	980066.09	980620.27	0.00	8.36	-195.15	-178.38
usqs :	00516	45 0.37	-112 29.16	5975.0	MT	980067.22	980619.61	0.00	9.30	-193.86	-177.12
usqs :	00517	44 59.38	-112 27.44	6053.0	MT	980058.14	980618.11	0.00	9.04	-197.23	-180.24
usqs :	00518	44 58.31	-112 26.88	6197.0	MT	980050.31	980616.50	0.00	16.36	-194.32	-176.96
usqs :	00519	44 57.41	-112 27.42	6947.0	MT	980013.98	980615.14	0.00	51.86	-182.43	-163.12
usqs :	00520	44 58.32	-112 25.14	6078.0	MT	980054.52	980616.52	0.00	9.37	-198.02	-180.93
usqs :	00521	44 57.40	-112 22.82	6202.0	MT	980045.38	980615.13	0.00	13.27	-198.80	-181.33
usqs :	00522	45 13.08	-112 38.10	5092.0	MT	980153.12	980638.78	0.00	-6.96	-181.61	-167.22
usqs :	00523	45 13.08	-112 38.10	5092.0	MT	980153.07	980638.78	0.00	-7.00	-181.66	-167.27
usqs :	00524	45 6.97	-112 44.99	5271.0	MT	980126.72	980629.56	0.00	-7.31	-186.24	-171.50
usqs :	00525	45 6.62	-112 48.01	5358.0	MT	980113.38	980629.03	0.00	-11.94	-193.96	-178.96
usqs :	00526	45 6.50	-112 50.64	5482.0	MT	980107.53	980628.85	0.00	-9.72	-194.40	-179.18
usqs :	00527	45 6.69	-112 51.96	5510.0	MT	980105.06	980629.14	0.00	-6.09	-193.94	-178.46
usqs :	00528	45 6.77	-112 49.29	5525.0	MT	980108.62	980629.26	0.00	-1.24	-189.77	-174.24
usqs :	00529	45 6.13	-112 46.79	5307.0	MT	980116.69	980628.30	0.00	-12.69	-193.03	-178.18
usqs :	00530	45 5.16	-112 46.84	5324.0	MT	980113.62	980626.83	0.00	-12.70	-193.29	-178.41
usqs :	00531	45 3.51	-112 49.01	5432.0	MT	980104.29	980624.34	0.00	-9.39	-194.09	-178.87
usqs :	00532	45 3.98	-112 49.84	5999.0	MT	980070.36	980624.99	0.00	9.31	-194.69	-177.88
usqs :	00533	45 4.90	-112 49.78	6865.0	MT	980018.98	980626.44	0.00	33.85	-196.70	-177.70
usqs :	00534	45 5.02	-112 50.25	6929.0	MT	980008.10	980626.62	0.00	32.80	-197.75	-178.75
usqs :	00535	45 4.22	-112 48.60	6474.0	MT	980033.94	980625.41	0.00	17.10	-193.96	-176.57
usqs :	00536	45 2.81	-112 46.68	5990.0	MT	980067.99	980623.29	0.00	7.80	-195.68	-178.91
usqs :	00537	45 1.89	-112 45.18	6681.0	MT	980020.84	980621.90	0.00	26.97	-199.08	-180.45
usqs :	00538	45 1.40	-112 44.65	6720.0	MT	980015.26	980621.22	0.00	25.73	-202.46	-183.66
usqs :	00539	45 1.45	-112 42.98	7835.0	MT	979943.32	980621.23	0.00	58.53	-204.56	-182.88

dillon gravity by harold kaufmann  
cus map project  
Meter ID: a-150 Date: 01/30/82

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	LATITUDE	LONGITUDE	ELE ST	UNRESERVED	THEORETICAL	IFERRAIN BOUGUER CURV	SPECTAL	FREE AIR	COMPLIFIED-BOUGUER SPEC
prof sta-id	deg min	deg min	(in ft)						d1=2.67 d2=2.45 FIELDS
usgs :	00538	45 2.35 -112 42.36	7342.0 MT	97982.48	980622.59	4.44 -250.41 -1.51	0.00	50.02	-197.46 -177.07
usgs :	00539	45 2.95 -112 42.67	7162.0 MT	97995.12	980623.50	2.67 -244.28 -1.51	0.00	44.83	-198.28 -178.25
usgs :	00540	45 3.56 -112 43.85	7023.0 MT	98001.01	980624.41	3.41 -239.53 -1.52	0.00	46.75	-190.89 -171.31
usgs :	00541	45 4.88 -112 44.20	6547.0 MT	98004.11	980626.41	2.93 -223.30 -1.51	0.00	33.13	-188.75 -170.47
usgs :	00542	45 4.34 -112 43.29	6616.0 MT	98003.91	980625.59	1.96 -225.65 -1.52	0.00	30.24	-194.97 -176.42
usgs :	00543	45 5.92 -112 42.51	5620.0 MT	98009.44	980627.98	1.82 -191.68 -1.47	0.00	-1.21	-192.55 -176.78
usgs :	00544	45 13.08 -112 38.10	5092.0 MT	980153.19	980638.78	0.44 -173.67 -1.42	0.00	-6.88	-181.54 -167.15
usgs :	00545	45 47.54 -112 56.50	5681.0 MT	980145.93	980690.76	2.84 -193.76 -1.48	0.00	-10.78	-203.18 -187.32
usgs :	00546	45 52.94 -113 3.40	6076.0 MT	980130.30	980698.90	6.55 -207.23 -1.50	0.00	2.56	-199.62 -182.97
usgs :	00545	45 53.25 -113 2.63	6340.0 MT	980119.95	980699.37	3.41 -216.24 -1.51	0.00	16.56	-197.78 -180.12
usgs :	00546	45 53.83 -113 1.57	7335.0 MT	980064.17	980700.24	4.21 -250.18 -1.51	0.00	53.38	-194.09 -173.70
usgs :	00547	45 53.24 -113 0.88	7197.0 MT	980073.51	980699.35	3.31 -245.47 -1.51	0.00	50.64	-193.03 -172.95
usgs :	00548	45 53.42 -112 59.92	7910.0 MT	980028.65	980699.63	5.00 -269.79 -1.48	0.00	72.49	-193.77 -171.83
usgs :	00549	45 52.22 -112 59.90	7388.0 MT	980060.49	980697.81	4.36 -251.98 -1.51	0.00	57.11	-192.02 -171.49
usgs :	00550	45 51.61 -113 0.17	6730.0 MT	980098.89	980696.90	3.41 -229.54 -1.52	0.00	34.61	-193.04 -174.28
usgs :	00551	45 50.63 -113 0.43	6030.0 MT	980130.47	980695.41	7.41 -205.67 -1.50	0.00	1.89	-197.86 -181.40
usgs :	00552	45 54.93 -113 6.36	5863.0 MT	980140.61	980701.90	3.05 -199.97 -1.49	0.00	-10.14	-208.55 -192.20
usgs :	00553	45 56.08 -113 5.35	6019.0 MT	980128.56	980703.63	1.51 -205.29 -1.50	0.00	-9.27	-214.54 -197.63
usgs :	00554	45 57.30 -113 2.09	6114.0 MT	980129.29	980705.48	2.12 -208.53 -1.50	0.00	-1.45	-209.36 -192.23
usgs :	00555	45 55.85 -113 1.38	6599.0 MT	980103.08	980703.29	3.16 -225.07 -1.52	0.00	20.10	-203.33 -184.92
usgs :	00556	45 58.81 -113 1.28	6236.0 MT	980125.14	980707.75	1.84 -212.69 -1.51	0.00	3.58	-208.77 -191.28
usgs :	00557	45 59.31 -113 0.30	6403.0 MT	980119.98	980708.51	1.96 -218.39 -1.51	0.00	13.36	-204.57 -186.62
usgs :	00558	45 59.06 -113 1.38	6856.0 MT	980089.50	980709.03	2.44 -233.84 -1.52	0.00	24.92	-208.00 -188.81
usgs :	00559	45 57.02 -113 6.31	6155.0 MT	980114.83	980705.05	1.39 -209.93 -1.50	0.00	-11.64	-221.68 -204.37
usgs :	00560	45 47.54 -112 56.50	5681.0 MT	980145.94	980690.76	2.84 -193.76 -1.48	0.00	-10.77	-203.17 -187.32
usgs :	00565	45 47.54 -112 56.50	5681.0 MT	980145.96	980690.76	2.84 -193.76 -1.48	0.00	-10.75	-203.14 -187.29
usgs :	00560	45 48.06 -112 54.04	5697.0 MT	980149.70	980691.54	5.03 -194.31 -1.48	0.00	-6.28	-197.04 -181.32
usgs :	00561	45 48.93 -112 53.52	5809.0 MT	980144.84	980692.85	6.80 -198.13 -1.48	0.00	-1.93	-194.75 -178.86
usgs :	00562	45 51.68 -112 53.17	7785.0 MT	980031.45	980697.00	7.31 -245.52 -1.49	0.00	66.18	-193.52 -172.12
usgs :	00563	45 50.81 -112 52.85	7200.0 MT	980063.79	980695.69	4.23 -245.57 -1.51	0.00	44.87	-197.98 -177.97
usgs :	00564	45 50.37 -112 52.79	6685.0 MT	980100.00	980695.02	3.34 -228.01 -1.52	0.00	33.36	-192.82 -174.18
usgs :	00565	45 49.72 -112 52.94	6265.0 MT	980120.26	980694.05	4.35 -219.68 -1.51	0.00	15.14	-195.70 -178.53
usgs :	00566	45 49.09 -112 54.54	6614.0 MT	980100.30	980693.09	2.11 -225.58 -1.52	0.00	28.92	-196.07 -177.53
usgs :	00567	45 50.16 -112 54.81	6730.0 MT	980095.91	980694.71	2.58 -229.54 -1.52	0.00	33.82	-194.66 -175.83
usgs :	00568	45 50.09 -112 58.25	6720.0 MT	980093.61	980694.60	3.13 -229.20 -1.52	0.00	30.68	-196.90 -178.15
usgs :	00569	45 50.64 -112 59.62	6620.0 MT	980094.84	980695.43	3.19 -225.79 -1.52	0.00	21.69	-202.42 -183.96
usgs :	00570	45 52.40 -113 17.36	6202.0 MT	980095.50	980698.09	1.03 -211.53 -1.51	0.00	-19.58	-231.59 -214.12
usgs :	00571	45 52.95 -113 17.21	6197.0 MT	980097.19	980698.91	1.12 -211.36 -1.51	0.00	-19.19	-230.94 -213.49
usgs :	00572	45 52.85 -113 18.92	6353.0 MT	980083.50	980698.77	1.16 -216.68 -1.51	0.00	-18.07	-235.11 -217.22
usgs :	00573	45 52.97 -113 20.21	6486.0 MT	980078.62	980698.95	1.45 -221.22 -1.51	0.00	-14.64	-235.92 -217.69

ROUGHIER GRAVITY DATA

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION		LATITUDE LONGITUDE		ELE ST		UNSERVED THEORETICAL		TERRAIN BOUGUER CURV		FREF COMPLETE-BOUGUER SPEC	
proj	sta-id	deg min	deg min	(in ft)						AIR	d1=2.67 d2=2.45 FIELDS
usqs :	00574	45 53.69	-113 11.93	6004.0 MT		980126.49	980700.03	2.25	-204.78	-1.50	0.00
usqs :	00575	45 55.35	-113 13.15	6168.0 MT		980113.94	980702.53	2.06	-210.37	-1.50	0.00
usqs :	00576	45 54.32	-113 12.59	6025.0 MT		980122.54	980700.98	3.09	-205.50	-1.50	0.00
usqs :	00577	45 55.83	-113 8.34	6188.0 MT		980114.63	980703.26	1.08	-211.05	-1.50	0.00
usqs :	00578	45 55.86	-113 9.02	6125.0 MT		980117.83	980703.30	1.44	-208.91	-1.50	0.00
usqs :	00579	45 55.23	-113 8.62	6020.0 MT		980128.40	980702.35	1.63	-205.33	-1.50	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.95	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.93	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00580	45 52.32	-113 13.71	5866.0 MT		980129.30	980697.97	2.12	-200.07	-1.49	0.00
usqs :	00581	45 52.92	-113 18.91	5952.0 MT		980119.66	980698.87	1.58	-203.01	-1.49	0.00
usqs :	00582	45 53.40	-113 15.89	6040.0 MT		980111.61	980699.59	1.52	-206.01	-1.50	0.00
usqs :	00583	45 52.03	-113 15.28	6028.0 MT		980113.46	980697.53	1.10	-205.60	-1.50	0.00
usqs :	00585	45 55.76	-113 16.38	6644.0 MT		980084.17	980703.16	2.13	-226.61	-1.52	0.00
usqs :	00586	45 56.11	-113 16.99	6760.0 MT		980079.48	980703.68	3.32	-230.56	-1.52	0.00
usqs :	00587	45 56.66	-113 17.61	6960.0 MT		980064.89	980704.51	6.46	-237.39	-1.52	0.00
usqs :	00588	45 57.22	-113 19.31	7535.0 MT		980031.78	980705.35	7.21	-257.00	-1.50	0.00
usqs :	00589	45 57.57	-113 20.98	8210.0 MT		979992.16	980705.88	6.69	-280.02	-1.45	0.00
usqs :	00590	45 57.37	-113 21.58	8670.0 MT		979962.75	980705.58	6.04	-295.71	-1.40	0.00
usqs :	00591	45 56.65	-113 21.16	7930.0 MT		980011.28	980704.49	5.33	-270.47	-1.48	0.00
usqs :	00592	45 56.01	-113 20.42	7700.0 MT		980020.41	980703.53	4.14	-262.62	-1.49	0.00
usqs :	00593	45 55.61	-113 20.13	7602.0 MT		980023.86	980702.93	4.71	-259.28	-1.50	0.00
usqs :	00594	45 54.67	-113 19.66	6640.0 MT		980079.83	980701.51	2.66	-226.47	-1.52	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.97	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.94	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00595	45 57.11	-113 4.10	6132.0 MT		980120.80	980705.19	1.37	-209.14	-1.50	0.00
usqs :	00596	45 58.06	-113 3.68	6348.0 MT		980107.05	980706.63	1.61	-216.51	-1.51	0.00
usqs :	00597	45 59.44	-113 2.35	6632.0 MT		980096.34	980708.70	1.77	-226.20	-1.52	0.00
usqs :	00598	45 58.76	-113 2.56	6510.0 MT		980103.36	980707.68	1.76	-222.04	-1.51	0.00
usqs :	00599	45 57.02	-113 6.77	6245.0 MT		980108.82	980705.05	1.57	-213.00	-1.51	0.00
usqs :	00600	45 59.17	-113 11.01	6750.0 MT		980081.85	980708.30	3.67	-230.22	-1.52	0.00
usqs :	00601	45 57.99	-113 10.32	6545.0 MT		980087.87	980706.52	2.05	-223.23	-1.51	0.00
usqs :	00602	45 56.46	-113 9.73	6428.0 MT		980093.27	980704.21	1.71	-219.24	-1.51	0.00
usqs :	00603	45 55.36	-113 10.08	6148.0 MT		980118.59	980702.55	1.67	-209.89	-1.50	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.93	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00005	45 47.54	-112 56.50	5681.0 MT		980145.86	980690.76	2.84	-193.76	-1.48	0.00
usqs :	00604	45 59.31	-113 6.38	6468.0 MT		980096.04	980708.51	2.14	-220.61	-1.51	0.00
usqs :	00605	45 59.64	-113 5.80	6555.0 MT		980091.87	980709.00	2.14	-223.57	-1.51	0.00
usqs :	00606	45 58.44	-113 6.38	6366.0 MT		980101.74	980707.20	1.58	-217.13	-1.51	0.00
usqs :	00607	45 58.85	-113 7.58	6530.0 MT		980090.15	980707.81	2.06	-222.72	-1.51	0.00
usqs :	00608	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00609	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00610	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00611	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00612	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00613	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00614	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00615	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00616	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00617	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00618	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00619	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00620	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00621	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00622	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00623	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00624	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00625	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00626	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00627	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00628	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00629	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00630	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00631	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00632	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00633	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00634	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00635	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00636	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00637	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00638	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00639	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00640	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00641	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00642	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00643	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-230.39	-1.52	0.00
usqs :	00644	45 58.89	-113 8.80	6755.0 MT		980075.79	980707.88	2.02	-2		



dillon gravity by harold kaufmann

cus map project

Meter ID: 0-150 Date: 01/30/82

STATION IDENTIFICATION	lat deg	lon deg	TIME min	ELE (in ft)	GRAVITY OBSERVED	THEORETICAL	CORRECTION		SPECIAL	ANOMALIES		SPEC FIELDS
							IFRAIN	BOUGUER		FREE AIR	COMPLETE	
usgs : 00600	45 57.93	-113 7.65		6328.0	MT	980706.42	1.69	-215.83	-1.51	0.00	-8.35	-224.00 -206.23
usgs : 00610	45 57.59	-113 7.63		6330.0	MT	980705.91	1.45	-215.90	-1.51	0.00	-8.43	-224.39 -206.59
usgs : 00611	45 54.09	-113 10.83		6419.0	MT	980700.63	1.04	-218.93	-1.51	0.00	3.44	-215.96 -197.88
usgs : 00612	45 54.68	-113 11.34		6465.0	MT	980701.52	1.00	-220.50	-1.51	0.00	4.16	-216.86 -198.65
usgs : 00613	45 55.10	-113 11.96		6516.0	MT	980702.16	1.25	-222.24	-1.51	0.00	4.39	-218.12 -199.78
usgs : 00614	45 54.60	-113 15.79		6260.0	MT	980701.41	2.24	-213.51	-1.51	0.00	-13.55	-226.33 -208.80
usgs : 00615	45 54.10	-113 16.48		6323.0	MT	980700.65	1.46	-215.66	-1.51	0.00	-16.02	-231.73 -213.95
usgs : 00616	45 54.18	-113 17.90		6240.0	MT	980700.77	2.39	-212.83	-1.51	0.00	-16.49	-228.44 -210.97
usgs : 00630	45 36.86	-113 26.88		6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs : 00630	45 36.86	-113 26.88		6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs : 00617	45 48.85	-113 19.96		5913.0	MT	980692.73	1.11	-201.68	-1.49	0.00	-23.59	-225.64 -208.99
usgs : 00618	45 48.41	-113 20.73		5911.0	MT	980692.07	1.08	-201.61	-1.49	0.00	-22.70	-224.72 -208.08
usgs : 00619	45 47.20	-113 22.14		5924.0	MT	980690.24	1.07	-202.05	-1.49	0.00	-25.57	-228.04 -211.36
usgs : 00620	45 47.71	-113 24.20		6130.0	MT	980691.02	0.87	-209.08	-1.50	0.00	-27.49	-237.20 -219.92
usgs : 00621	45 48.28	-113 24.80		6192.0	MT	980691.88	0.76	-211.19	-1.50	0.00	-29.11	-241.04 -223.58
usgs : 00622	45 51.58	-113 26.44		6375.0	MT	980696.85	3.44	-217.43	-1.51	0.00	-5.05	-220.56 -202.80
usgs : 00623	45 50.29	-113 26.16		6301.0	MT	980694.91	1.96	-214.91	-1.51	0.00	-10.30	-224.76 -207.09
usgs : 00625	45 48.88	-113 25.30		6265.0	MT	980692.78	1.07	-213.68	-1.51	0.00	-26.01	-240.13 -222.49
usgs : 00624	45 49.29	-113 25.56		6269.0	MT	980693.40	1.40	-213.82	-1.51	0.00	-23.49	-237.41 -219.79
usgs : 00626	45 47.11	-113 24.77		6051.0	MT	980690.11	0.68	-206.38	-1.50	0.00	-31.55	-238.75 -221.68
usgs : 00627	45 47.12	-113 26.50		6131.0	MT	980690.13	0.64	-209.11	-1.50	0.00	-31.00	-240.95 -223.65
usgs : 00628	45 46.42	-113 27.11		6070.0	MT	980689.07	0.66	-207.03	-1.50	0.00	-33.60	-241.47 -224.34
usgs : 00629	45 45.21	-113 26.85		6028.0	MT	980687.24	0.56	-205.60	-1.50	0.00	-34.67	-241.21 -224.19
usgs : 00630	45 45.38	-113 27.13		5969.0	MT	980687.50	0.77	-203.59	-1.49	0.00	-27.47	-231.78 -214.94
usgs : 00631	45 45.40	-113 25.62		6055.0	MT	980685.77	0.70	-206.52	-1.50	0.00	-32.56	-239.88 -222.80
usgs : 00632	45 46.48	-113 25.12		6095.0	MT	980689.16	0.77	-207.88	-1.50	0.00	-31.10	-239.72 -222.53
usgs : 00633	45 50.62	-113 17.66		6212.0	MT	980695.40	0.85	-211.87	-1.51	0.00	-13.46	-225.99 -208.47
usgs : 00634	45 49.66	-113 18.51		6054.0	MT	980693.95	0.95	-206.48	-1.50	0.00	-17.75	-224.79 -207.73
usgs : 00635	45 49.95	-113 18.76		6133.0	MT	980699.98	0.86	-209.18	-1.50	0.00	-17.88	-227.71 -210.42
usgs : 00636	45 50.60	-113 18.91		6262.0	MT	980695.38	0.96	-213.58	-1.51	0.00	-16.74	-230.86 -213.22
usgs : 00637	45 51.79	-113 20.48		6476.0	MT	980697.16	1.17	-220.88	-1.51	0.00	-18.10	-239.32 -221.09
usgs : 00638	45 36.86	-113 26.88		6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs : 00639	45 36.86	-113 26.88		6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs : 00638	45 44.95	-113 35.12		6250.0	MT	980686.85	0.90	-213.17	-1.51	0.00	-13.66	-227.44 -209.83
usgs : 00639	45 43.75	-113 32.90		6135.0	MT	980695.04	0.49	-209.25	-1.50	0.00	-28.37	-238.63 -221.30
usgs : 00640	45 44.52	-113 20.30		6100.0	MT	980686.20	0.83	-208.05	-1.50	0.00	-34.74	-243.47 -226.27
usgs : 00641	45 45.05	-113 32.48		6157.0	MT	980687.00	0.61	-210.00	-1.50	0.00	-27.18	-238.07 -220.69
usgs : 00642	45 45.63	-113 33.64		6300.0	MT	980681.85	0.94	-214.87	-1.51	0.00	-13.81	-229.25 -211.50
usgs : 00643	45 45.72	-113 34.97		6350.0	MT	980688.02	0.90	-216.58	-1.51	0.00	-5.01	-222.20 -204.30
usgs : 00644	45 46.26	-113 35.08		6390.0	MT	980688.83	1.51	-217.94	-1.51	0.00	-0.12	-218.06 -200.11

allison gravity by harold kaufmann  
 cus map project  
 Meter ID: 9-159

Date: 01/30/82

# ROUGHER GRAVITY DATA

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STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		FREQUENCY		SPECIAL		ANOMALY		SPEC	
PROJ	STATION	deg	min	deg	min	ft	in	URSED	THEORETICAL	BRUGGER	CURV	AIR	COMPLIF	ROUGHER	FIELD	ANOMALY	COMPLIF	ROUGHER	FIELD
USGS	00645	45	47.46	-113	36.62	6510.0	MT	980088.12	980690.63	2.84	-222.04	-1.51	9.43	0.00	0.00	-211.29	-211.29	-193.10	
USGS	00646	45	46.91	-113	35.66	6480.0	MT	980088.42	980689.80	2.05	-221.01	-1.51	7.74	0.00	0.00	-212.74	-212.74	-194.57	
USGS	00647	45	46.12	-113	21.05	6170.0	MT	980095.23	980693.14	0.87	-210.44	-1.50	-17.91	0.00	0.00	-228.98	-228.98	-211.59	
USGS	00648	45	50.33	-113	21.12	6213.0	MT	980091.55	980694.96	1.54	-211.91	-1.51	-19.30	0.00	0.00	-231.25	-231.25	-213.80	
USGS	00649	45	51.23	-113	21.37	6441.0	MT	980070.43	980696.32	1.15	-221.05	-1.51	-16.67	0.00	0.00	-238.04	-238.04	-219.84	
USGS	00650	45	50.54	-113	20.17	6235.0	MT	980091.87	980695.28	0.94	-212.66	-1.51	-17.31	0.00	0.00	-230.53	-230.53	-212.96	
USGS	00651	45	51.78	-113	22.71	6745.0	MT	980056.00	980697.15	1.46	-230.05	-1.52	-7.13	0.00	0.00	-237.24	-237.24	-218.28	
USGS	00652	45	52.07	-113	23.97	6751.0	MT	980065.05	980697.59	2.81	-230.26	-1.52	2.04	0.00	0.00	-226.92	-226.92	-208.05	
USGS	00653	45	53.19	-113	21.17	6740.0	MT	980062.24	980699.28	1.53	-229.88	-1.52	-3.48	0.00	0.00	-233.35	-233.35	-214.41	
USGS	00654	45	53.43	-113	21.64	6919.0	MT	980054.06	980699.64	1.83	-235.90	-1.52	4.79	0.00	0.00	-230.88	-230.88	-211.46	
USGS	00655	45	53.56	-113	22.69	6985.0	MT	980053.57	980699.88	2.77	-238.24	-1.52	10.31	0.00	0.00	-226.68	-226.68	-207.15	
USGS	00656	45	54.10	-113	24.14	7621.0	MT	980020.74	980700.65	3.21	-259.93	-1.49	36.41	0.00	0.00	-221.80	-221.80	-200.53	
USGS	00657	45	54.60	-113	24.76	7636.0	MT	980022.10	980701.41	4.83	-260.44	-1.49	38.43	0.00	0.00	-218.68	-218.68	-197.49	
USGS	00658	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.44	-1.50	-38.13	0.00	0.00	-245.55	-245.55	-228.46	
USGS	00659	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.44	-1.50	-38.13	0.00	0.00	-245.55	-245.55	-228.46	
USGS	00660	45	38.67	-113	41.25	6263.0	MT	980094.38	980677.38	1.63	-213.61	-1.51	5.74	0.00	0.00	-207.75	-207.75	-190.16	
USGS	00661	45	39.72	-113	41.91	6391.0	MT	980088.79	980678.96	1.53	-217.98	-1.51	10.59	0.00	0.00	-207.37	-207.37	-189.41	
USGS	00662	45	40.62	-113	41.90	6662.0	MT	980074.22	980670.32	1.34	-227.22	-1.52	20.13	0.00	0.00	-207.27	-207.27	-188.53	
USGS	00663	45	41.92	-113	41.97	6391.0	MT	980092.58	980682.28	1.86	-217.98	-1.51	11.06	0.00	0.00	-206.57	-206.57	-188.63	
USGS	00664	45	42.18	-113	41.33	6347.0	MT	980094.60	980682.67	2.20	-216.44	-1.51	8.56	0.00	0.00	-207.23	-207.23	-189.45	
USGS	00665	45	42.86	-113	41.06	6565.0	MT	980083.98	980683.70	1.19	-223.91	-1.52	17.40	0.00	0.00	-206.84	-206.84	-188.36	
USGS	00666	45	43.29	-113	40.51	6542.0	MT	980085.07	980684.34	1.28	-223.13	-1.51	15.67	0.00	0.00	-207.69	-207.69	-189.28	
USGS	00667	45	44.10	-113	40.15	6458.0	MT	980090.62	980685.57	1.41	-220.26	-1.51	12.11	0.00	0.00	-208.26	-208.26	-190.10	
USGS	00668	45	44.53	-113	40.76	6427.0	MT	980092.58	980686.22	2.09	-219.21	-1.51	10.51	0.00	0.00	-208.12	-208.12	-190.11	
USGS	00669	45	45.42	-113	42.34	6510.0	MT	980087.01	980687.56	4.89	-222.04	-1.51	11.39	0.00	0.00	-207.27	-207.27	-189.25	
USGS	00670	45	46.24	-113	43.77	6740.0	MT	980071.11	980688.80	5.65	-231.25	-1.52	19.62	0.00	0.00	-207.49	-207.49	-188.77	
USGS	00671	45	46.62	-113	45.40	7656.0	MT	980021.31	980689.37	3.31	-241.12	-1.49	51.55	0.00	0.00	-207.75	-207.75	-186.39	
USGS	00672	45	46.95	-113	46.40	7565.0	MT	980026.09	980689.87	3.94	-258.02	-1.50	47.29	0.00	0.00	-208.29	-208.29	-187.23	
USGS	00673	45	46.84	-113	47.24	7940.0	MT	980003.88	980689.70	3.59	-270.81	-1.47	60.07	0.00	0.00	-208.62	-208.62	-186.48	
USGS	00674	45	47.87	-113	48.12	7740.0	MT	980013.05	980691.26	4.81	-265.35	-1.49	53.05	0.00	0.00	-208.98	-208.98	-187.39	
USGS	00675	45	49.55	-113	48.40	7204.0	MT	980049.80	980693.79	5.25	-245.71	-1.51	33.16	0.00	0.00	-208.81	-208.81	-188.88	
USGS	00676	45	49.83	-113	50.31	6630.0	MT	980087.03	980694.21	2.17	-226.13	-1.52	16.04	0.00	0.00	-209.44	-209.44	-190.86	
USGS	00677	45	50.62	-113	49.08	5995.0	MT	980128.49	980695.40	3.25	-224.47	-1.50	-7.35	0.00	0.00	-210.0	-210.0	-193.37	
USGS	00678	45	51.87	-113	48.09	6045.0	MT	980123.21	980697.29	2.21	-206.18	-1.50	-5.82	0.00	0.00	-211.29	-211.29	-194.36	
USGS	00679	45	52.60	-113	47.12	5500.0	MT	980157.48	980698.52	6.25	-187.59	-1.46	-24.00	0.00	0.00	-206.80	-206.80	-191.74	
USGS	00680	45	53.32	-113	45.88	5342.0	MT	980164.74	980699.48	7.23	-183.56	-1.45	-28.78	0.00	0.00	-206.57	-206.57	-191.92	
USGS	00681	45	54.49	-113	46.77	4907.0	MT	980190.54	980701.23	6.74	-170.43	-1.41	-40.93	0.00	0.00	-206.03	-206.03	-192.43	
USGS	00682	45	53.55	-113	49.80	4856.0	MT	980195.03	980699.82	6.46	-165.62	-1.39	-48.27	0.00	0.00	-208.83	-208.83	-195.60	
USGS	00683	45	53.26	-113	50.63	4822.0	MT	980196.25	980699.38	5.98	-164.47	-1.39	-49.81	0.00	0.00	-209.68	-209.68	-196.51	
USGS	00684	45	52.09	-113	52.09	4718.0	MT	980197.23	980697.62	8.34	-140.92	-1.37	-56.83	0.00	0.00	-210.78	-210.78	-198.10	

STATION			L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION			LATITUDE		LONGITUDE		OBSERVED		TERRAIN BOUGUER CURV		FREE	
prof	sta-id		deg	min	day	min	ele	ST	THEORETICAL	FERRAIN BOUGUER CURV	SPECIAL	COMPLETIE-BOUGUER
							(in ft)					SPEC
usgs :	00683	45 51.73	-113 53.32	4659.0	MT	980697.08	6.88	-158.90	-1.37	0.00	-56.20	-209.59 -196.96
usgs :	00684	45 51.43	-113 54.29	4609.0	MT	980696.63	6.20	-157.20	-1.36	0.00	-56.28	-208.64 -196.08
usgs :	00685	45 50.78	-113 56.56	4521.0	MT	980695.64	3.12	-154.20	-1.35	0.00	-56.36	-208.78 -196.22
usgs :	00686	45 51.04	-113 57.09	4502.0	MT	980696.04	2.97	-153.55	-1.34	0.00	-56.96	-208.88 -196.36
usgs :	00687	45 50.83	-113 58.33	4444.0	MT	980695.72	4.27	-151.57	-1.33	0.00	-63.93	-212.56 -200.32
usgs :	00688	45 49.94	-113 58.08	4442.0	MT	980694.38	4.68	-152.87	-1.34	0.00	-58.87	-208.39 -196.07
usgs :	00689	45 48.92	-113 57.29	4614.0	MT	980692.84	4.75	-157.37	-1.36	0.00	-54.15	-208.13 -195.44
usgs :	00690	45 47.07	-113 56.83	4842.0	MT	980690.05	5.56	-165.15	-1.39	0.00	-47.05	-208.03 -194.77
usgs :	00691	45 45.24	-113 56.61	5277.0	MT	980687.29	6.36	-178.28	-1.44	0.00	-35.20	-208.55 -194.27
usgs :	00692	45 43.93	-113 55.14	5853.0	MT	980685.31	8.81	-199.63	-1.49	0.00	-14.64	-206.95 -191.10
usgs :	00693	45 42.72	-113 55.68	6530.0	MT	980683.48	3.72	-222.72	-1.51	0.00	12.52	-208.00 -189.83
usgs :	00694	45 41.63	-113 56.82	7014.0	MT	980681.84	1.99	-239.23	-1.52	0.00	30.46	-208.29 -188.62
usgs :	00695	45 40.82	-113 54.38	6760.0	MT	980680.63	1.96	-230.56	-1.52	0.00	23.81	-206.31 -187.35
usgs :	00696	45 40.55	-113 52.93	6560.0	MT	980681.70	1.54	-223.74	-1.52	0.00	18.13	-205.59 -187.15
usgs :	00697	45 36.86	-113 26.88	6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs :	00698	45 36.86	-113 26.88	6054.0	MT	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55 -228.46
usgs :	00699	45 40.90	-113 49.90	6417.0	MT	980680.74	1.38	-218.87	-1.51	0.00	12.93	-206.07 -188.03
usgs :	00700	45 41.40	-113 50.77	6456.0	MT	980681.50	2.28	-220.20	-1.51	0.00	14.74	-204.69 -186.61
usgs :	00701	45 42.15	-113 51.73	6570.0	MT	980683.33	1.40	-224.08	-1.52	0.00	18.28	-205.92 -187.44
usgs :	00702	45 42.89	-113 52.46	6636.0	MT	980683.74	1.38	-226.33	-1.52	0.00	20.30	-206.17 -187.51
usgs :	00703	45 43.38	-113 53.44	6724.0	MT	980684.44	1.52	-229.34	-1.52	0.00	22.70	-206.63 -187.73
usgs :	00704	45 44.32	-113 54.22	6814.0	MT	980685.90	2.20	-232.41	-1.52	0.00	24.42	-207.30 -188.21
usgs :	00705	45 44.83	-113 54.81	6941.0	MT	980686.67	2.98	-236.74	-1.52	0.00	26.33	-208.94 -189.56
usgs :	00706	45 46.01	-113 54.92	6308.0	MT	980688.45	4.55	-215.15	-1.51	0.00	2.23	-209.88 -192.40
usgs :	00707	45 46.11	-113 56.07	5860.0	MT	980688.60	4.38	-199.87	-1.49	0.00	-12.07	-209.04 -192.81
usgs :	00708	45 50.14	-113 57.00	4961.0	MT	980684.68	5.81	-169.21	-1.41	0.00	-43.84	-208.64 -195.06
usgs :	00709	45 49.51	-113 56.82	5234.0	MT	980693.73	4.94	-178.52	-1.44	0.00	-33.29	-208.31 -193.89
usgs :	00710	45 48.43	-113 55.89	4940.0	MT	980692.10	4.57	-168.49	-1.40	0.00	-49.27	-214.59 -200.97
usgs :	00711	45 51.54	-113 58.66	4720.0	MT	980696.79	2.70	-160.99	-1.38	0.00	-50.45	-210.11 -196.95
usgs :	00712	45 53.05	-113 58.36	4910.0	MT	980699.07	1.94	-167.47	-1.40	0.00	-39.47	-206.40 -192.64
usgs :	00713	45 53.56	-113 58.38	4910.0	MT	980699.84	1.91	-167.47	-1.40	0.00	-39.07	-206.02 -192.27
usgs :	00714	45 52.12	-113 57.03	4550.0	MT	980697.66	2.75	-155.19	-1.35	0.00	-54.82	-208.61 -195.94
usgs :	00715	45 53.36	-113 57.12	4565.0	MT	980699.53	2.53	-155.70	-1.35	0.00	-52.07	-206.59 -193.86
usgs :	00716	45 54.37	-113 57.22	4599.0	MT	980701.05	2.35	-156.86	-1.36	0.00	-52.20	-208.07 -195.23
usgs :	00717	45 54.72	-113 56.78	4680.0	MT	980701.59	2.26	-159.62	-1.37	0.00	-49.69	-208.42 -195.34
usgs :	00718	45 55.18	-113 57.70	4659.0	MT	980702.28	2.24	-158.90	-1.37	0.00	-50.63	-208.66 -195.64
usgs :	00719	45 54.81	-113 58.94	4863.0	MT	980701.72	2.02	-145.86	-1.39	0.00	-48.23	-213.47 -199.85
usgs :	00720	45 55.70	-113 58.97	4789.0	MT	980703.06	1.91	-163.34	-1.38	0.00	-53.12	-215.93 -202.52
usgs :	00721	45 56.55	-113 59.17	4742.0	MT	980704.34	3.04	-163.10	-1.38	0.00	-44.41	-205.86 -192.55
usgs :	00722	45 55.84	-113 57.18	4825.0	MT	980703.27	1.95	-164.57	-1.39	0.00	-43.99	-207.99 -194.48

dillon gravity by harold kaufmann  
cus man project  
Meter ID: 0-150 Date: 01/30/82

STATION		L O C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S					
IDENTIFICATION	prof	LATITUDE	LONGITUDE	UNRESERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLIE	BOUGUER	SPEC
		deg	min	deg	min	(in ft)				AIR	d1=2.67	d2=2.45	FIELDS
usgs :	00734	45	36.86	-113	26.88	6054.0	MT	980674.65	0.00	-38.13	-245.55	-228.46	
usgs :	00734	45	36.86	-113	26.88	6054.0	MT	980674.65	0.00	-38.13	-245.55	-228.46	
usgs :	00721	45	54.60	-113	45.26	5080.0	MT	980185.59	0.00	-38.24	-208.09	-194.10	
usgs :	00722	45	55.18	-113	43.76	5210.0	MT	980179.10	0.00	-33.39	-207.78	-193.41	
usgs :	00723	45	55.81	-113	43.33	5249.0	MT	980177.54	0.00	-32.24	-206.80	-192.42	
usgs :	00724	45	57.15	-113	42.86	5528.0	MT	980165.19	0.00	-20.39	-206.50	-191.17	
usgs :	00725	45	58.42	-113	42.69	5670.0	MT	980153.90	0.00	-20.25	-206.91	-191.53	
usgs :	00726	45	58.01	-113	43.78	5998.0	MT	980134.47	0.00	-5.23	-205.29	-188.80	
usgs :	00727	45	55.68	-113	44.83	6219.0	MT	980120.53	0.00	2.10	-208.03	-190.72	
usgs :	00728	45	56.38	-113	45.37	6490.0	MT	980105.79	0.00	11.76	-205.45	-187.55	
usgs :	00729	45	56.80	-113	47.34	6738.0	MT	980091.85	0.00	20.49	-205.54	-186.91	
usgs :	00730	45	57.37	-113	49.23	7042.0	MT	980078.43	0.00	34.77	-203.72	-184.07	
usgs :	00731	45	58.17	-113	50.26	7393.0	MT	980056.09	0.00	44.21	-202.85	-182.49	
usgs :	00732	45	59.46	-113	51.31	6978.0	MT	980084.98	0.00	32.16	-205.24	-185.68	
usgs :	00733	45	58.83	-113	53.28	6545.0	MT	980110.46	0.00	17.91	-204.47	-186.14	
usgs :	00734	45	59.13	-113	53.57	6382.0	MT	980119.83	0.00	11.51	-204.77	-186.94	
usgs :	00735	45	58.73	-113	55.01	6429.0	MT	980117.69	0.00	14.39	-202.77	-184.88	
usgs :	00736	45	59.08	-113	56.49	6103.0	MT	980139.01	0.00	4.55	-201.94	-184.93	
usgs :	00737	45	58.41	-113	56.36	6184.0	MT	980132.95	0.00	7.11	-202.76	-185.47	
usgs :	00738	45	57.16	-113	57.49	5362.0	MT	980179.86	0.00	-21.33	-204.26	-189.19	
usgs :	00739	45	57.85	-113	59.40	4621.0	MT	980223.77	0.00	-48.10	-201.34	-188.71	
usgs :	00740	45	58.95	-113	59.39	5791.0	MT	980157.68	0.00	-5.90	-201.11	-185.02	
usgs :	00741	45	59.81	-113	58.32	6278.0	MT	980129.55	0.00	10.43	-201.53	-184.07	
usgs :	00742	45	57.30	-113	55.69	5573.0	MT	980167.14	0.00	-14.44	-204.03	-188.41	
usgs :	00743	45	57.23	-113	54.41	5425.0	MT	980144.93	0.00	-3.46	-204.26	-187.72	
usgs :	00744	45	58.15	-113	53.21	6537.0	MT	980109.53	0.00	17.25	-205.02	-186.71	
usgs :	00745	45	57.52	-113	50.60	7345.0	MT	980057.43	0.00	42.02	-204.15	-183.87	
usgs :	00746	45	56.32	-113	52.14	6815.0	MT	980087.26	0.00	23.86	-206.47	-187.49	
usgs :	00747	45	54.95	-113	52.99	6188.0	MT	980123.11	0.00	2.87	-206.94	-189.66	
usgs :	00748	45	36.86	-113	26.88	6054.0	MT	980067.42	0.00	-38.13	-245.55	-228.46	
usgs :	00749	45	36.86	-113	26.88	6054.0	MT	980067.42	0.00	-38.13	-245.55	-228.46	
usgs :	00748	45	54.19	-113	52.99	5844.0	MT	980143.20	0.00	-8.22	-207.43	-191.01	
usgs :	00749	45	53.36	-113	53.14	6060.0	MT	980127.11	0.00	-2.76	-207.06	-190.23	
usgs :	00750	45	53.00	-113	53.31	6325.0	MT	980108.05	0.00	3.62	-207.15	-189.78	
usgs :	00751	45	53.54	-113	53.12	5927.0	MT	980133.25	0.00	-9.39	-210.64	-194.05	
usgs :	00752	45	53.58	-113	54.86	5154.0	MT	980181.56	0.00	-33.78	-208.59	-194.19	
usgs :	00753	45	53.15	-113	54.14	5452.0	MT	980166.98	0.00	-22.72	-207.73	-192.48	
usgs :	00754	45	55.83	-113	55.33	5451.0	MT	980168.96	0.00	-21.86	-207.06	-191.80	
usgs :	00755	45	56.13	-113	53.26	6292.0	MT	980120.61	0.00	8.36	-205.20	-187.61	
usgs :	00756	45	55.37	-113	51.81	6460.0	MT	980109.91	0.00	14.59	-204.06	-186.04	

# BOUGUER GRAVITY DATA

dillon gravity by harold kaufmann  
cus map project  
Meter ID: n-15n Date: 01/30/82

STATION IDENTIFICATION proj	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	SURVEYED	GRAVITY THEORETICAL	FERRAIN BOUGUER CURV.	CORRECTIONS		FREE AIR	ANOMALIES	
							SPECIAL	BOUGUER		COMPLETE	SPEC
usgs :	00757	45 55.34	-113 49.64	6036.0 MT	980135.44	980702.52	0.00	4.04	-205.87	-1.50	0.00
usgs :	00758	45 56.01	-113 49.64	5780.0 MT	980150.16	980703.53	0.00	4.01	-197.14	-1.48	0.00
usgs :	00759	45 56.13	-113 49.39	5790.0 MT	980149.30	980703.01	0.00	5.11	-197.48	-1.48	0.00
usgs :	00760	45 55.72	-113 48.40	5841.0 MT	980146.29	980703.09	0.00	3.36	-199.22	-1.49	0.00
usgs :	00761	45 54.65	-113 50.91	5440.0 MT	980167.37	980701.48	0.00	4.33	-185.54	-1.46	0.00
usgs :	00762	45 36.86	-113 26.88	6054.0 MT	980067.42	980674.65	0.00	0.56	-206.48	-1.50	0.00
usgs :	00763	45 36.06	-113 26.88	6054.0 MT	980067.42	980674.65	0.00	0.56	-206.48	-1.50	0.00
usgs :	00764	45 38.77	-113 34.87	6180.0 MT	980067.99	980677.53	0.00	0.33	-210.78	-1.50	0.00
usgs :	00765	45 39.25	-113 33.30	6190.0 MT	980065.88	980678.26	0.00	0.31	-211.12	-1.50	0.00
usgs :	00766	45 40.10	-113 33.81	6115.0 MT	980073.61	980679.54	0.00	0.37	-208.56	-1.50	0.00
usgs :	00767	45 40.91	-113 32.67	6075.0 MT	980077.33	980680.76	0.00	0.39	-207.20	-1.50	0.00
usgs :	00768	45 49.06	-113 21.80	6082.0 MT	980098.78	980693.05	0.00	0.91	-207.44	-1.50	0.00
usgs :	00769	45 58.45	-113 0.05	6510.0 MT	980109.08	980707.21	0.00	1.77	-222.04	-1.51	0.00
usgs :	00770	45 56.73	-112 57.19	7260.0 MT	980069.82	980704.62	0.00	6.10	-247.62	-1.51	0.00
usgs :	00771	45 47.54	-112 56.50	5681.0 MT	980145.85	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00772	45 47.54	-112 56.50	5681.0 MT	980145.85	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00773	45 59.83	-112 59.59	6552.0 MT	980112.09	980709.29	0.00	1.38	-223.47	-1.51	0.00
usgs :	00774	45 59.32	-112 59.04	6423.0 MT	980119.43	980708.52	0.00	2.46	-219.07	-1.51	0.00
usgs :	00775	45 59.70	-112 58.01	6650.0 MT	980110.47	980709.09	0.00	1.66	-226.81	-1.52	0.00
usgs :	00776	45 59.16	-112 56.80	7514.0 MT	980060.16	980708.28	0.00	4.58	-256.28	-1.50	0.00
usgs :	00777	45 58.58	-112 56.22	7900.0 MT	980035.21	980707.41	0.00	5.32	-269.45	-1.48	0.00
usgs :	00778	45 58.33	-112 58.43	7061.0 MT	980078.11	980707.03	0.00	3.59	-240.83	-1.51	0.00
usgs :	00779	45 47.50	-112 56.50	5681.0 MT	980146.07	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00780	45 47.54	-112 56.50	5681.0 MT	980146.08	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00781	45 59.61	-113 11.96	7355.0 MT	980044.26	980708.96	0.00	2.95	-250.86	-1.51	0.00
usgs :	00782	45 59.56	-113 12.54	7620.0 MT	980031.27	980708.88	0.00	2.98	-259.90	-1.49	0.00
usgs :	00783	45 59.12	-113 13.77	7480.0 MT	980040.79	980708.22	0.00	3.68	-255.12	-1.50	0.00
usgs :	00784	46 0.36	-113 10.14	8839.0 MT	979955.37	980710.09	0.00	11.81	-301.47	-1.38	0.00
usgs :	00785	45 59.34	-113 13.13	7885.0 MT	980016.91	980708.61	0.00	3.68	-268.93	-1.48	0.00
usgs :	00786	45 56.83	-113 12.42	6560.0 MT	980049.46	980704.77	0.00	1.91	-223.74	-1.52	0.00
usgs :	00787	45 55.84	-113 11.43	6765.0 MT	980076.75	980703.27	0.00	2.20	-230.73	-1.52	0.00
usgs :	00788	45 47.54	-112 56.50	5681.0 MT	980146.09	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00789	45 47.54	-112 56.50	5681.0 MT	980145.91	980690.76	0.00	2.84	-193.76	-1.48	0.00
usgs :	00790	45 54.73	-113 23.24	6575.0 MT	980086.31	980701.60	0.00	8.88	-224.25	-1.52	0.00
usgs :	00791	45 55.66	-113 24.53	6930.0 MT	980062.55	980703.00	0.00	9.10	-236.36	-1.52	0.00
usgs :	00792	45 57.08	-113 25.12	7300.0 MT	980039.45	980705.14	0.00	12.53	-252.05	-1.51	0.00

# ROUGHER GRAVITY DATA

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dillon gravity by harold kaufmann  
cus map project  
Meter ID: 0-159  
date: 01/30/82

STATION IDENTIFICATION proj sta-id	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS		ANOMALIES	
						TERRAIN	BOUGUER	FREE AIR	COMPLIE-BOUGUER
						CURV	SPECIAL	FIELD	SPECIAL
usgs : 00709	45 57.52	-113 25.82	7560.0	MT 980032.55	980705.80	10.17	-257.85	-1.50	0.00
usgs : 00790	45 58.10	-113 27.38	8220.0	MT 979997.41	980706.68	7.04	-280.36	-1.45	0.00
usgs : 00791	45 57.54	-113 27.00	8212.0	MT 979998.52	980705.84	6.35	-280.09	-1.45	0.00
usgs : 00792	45 57.84	-113 26.52	7800.0	MT 980027.57	980706.29	7.03	-266.04	-1.48	0.00
usgs : 00793	45 57.67	-113 24.82	7880.0	MT 980009.05	980706.03	11.29	-268.76	-1.48	0.00
usgs : 00794	45 58.09	-113 24.79	8140.0	MT 979998.29	980706.66	9.39	-277.63	-1.46	0.00
usgs : 00795	45 58.56	-113 24.82	8465.0	MT 979981.20	980707.38	5.10	-268.72	-1.43	0.00
usgs : 00795	45 58.56	-113 24.82	8465.0	MT 979981.20	980707.38	5.10	-268.72	-1.43	0.00
usgs : 00796	45 59.32	-113 23.27	7315.0	MT 980047.83	980708.52	12.78	-249.49	-1.51	0.00
usgs : 00797	45 59.63	-113 22.71	7365.0	MT 980044.51	980708.99	9.60	-251.20	-1.51	0.00
usgs : 00798	45 58.76	-113 20.50	6690.0	MT 980073.05	980707.68	18.06	-228.18	-1.52	0.00
usgs : 00799	45 59.02	-113 21.09	6790.0	MT 980069.54	980708.07	16.50	-231.59	-1.52	0.00
usgs : 00800	45 58.24	-113 18.72	6520.0	MT 980085.96	980706.95	13.80	-222.38	-1.51	0.00
usgs : 00801	45 57.81	-113 16.84	6520.0	MT 980093.63	980706.24	9.27	-222.38	-1.51	0.00
usgs : 00802	45 57.16	-113 15.17	6280.0	MT 980106.66	980705.27	5.29	-214.19	-1.51	0.00
usgs : 00803	45 58.22	-113 14.91	6845.0	MT 980074.41	980706.86	5.65	-233.46	-1.52	0.00
usgs : 00805	45 47.54	-112 56.50	5681.0	MT 980145.87	980690.76	2.84	-193.76	-1.48	0.00
usgs : 00805	45 47.54	-112 56.50	5681.0	MT 980145.86	980690.76	2.84	-193.76	-1.48	0.00
usgs : 00804	45 52.25	-112 41.05	5756.0	MT 980137.41	980697.86	0.99	-196.32	-1.48	0.00
usgs : 00805	45 52.62	-112 42.35	5805.0	MT 980138.48	980698.42	1.20	-197.99	-1.48	0.00
usgs : 00806	45 52.46	-112 43.40	5888.0	MT 980139.19	980698.18	1.93	-200.82	-1.49	0.00
usgs : 00807	45 52.37	-112 45.17	6040.0	MT 980130.84	980698.04	4.13	-206.01	-1.50	0.00
usgs : 00808	45 52.73	-112 45.83	6145.0	MT 980126.90	980698.59	4.61	-209.59	-1.50	0.00
usgs : 00809	45 53.26	-112 46.71	6459.0	MT 980112.49	980699.38	2.22	-220.30	-1.51	0.00
usgs : 00810	45 53.55	-112 48.18	6840.0	MT 980092.78	980699.82	2.55	-233.29	-1.52	0.00
usgs : 00811	45 53.99	-112 48.87	7137.0	MT 980075.70	980700.48	2.32	-243.42	-1.51	0.00
usgs : 00812	45 53.65	-112 49.10	7231.0	MT 980070.16	980699.97	2.56	-246.63	-1.51	0.00
usgs : 00813	45 52.58	-112 49.31	7618.0	MT 980044.05	980698.36	3.52	-259.83	-1.50	0.00
usgs : 00814	45 53.02	-112 49.12	7484.0	MT 980052.16	980698.02	3.36	-255.26	-1.50	0.00
usgs : 00815	45 53.65	-112 50.25	7844.0	MT 980026.87	980699.97	5.45	-268.22	-1.48	0.00
usgs : 00816	45 54.52	-112 50.06	8187.0	MT 979999.84	980701.28	8.95	-279.24	-1.45	0.00
usgs : 00817	45 53.60	-112 51.03	8865.0	MT 980089.52	980699.90	5.88	-238.15	-1.52	0.00
usgs : 00818	45 53.33	-112 50.89	8835.0	MT 980090.73	980699.49	6.35	-233.12	-1.52	0.00
usgs : 00819	45 55.27	-112 51.13	7250.0	MT 980067.96	980702.41	5.45	-247.28	-1.51	0.00
usgs : 00820	45 55.03	-112 51.48	7140.0	MT 980074.67	980702.05	4.41	-243.52	-1.51	0.00
usgs : 00821	45 55.10	-112 54.02	8315.0	MT 980007.00	980702.16	4.31	-243.60	-1.44	0.00
usgs : 00822	45 55.20	-112 55.21	7000.0	MT 980039.51	980702.45	4.42	-246.04	-1.48	0.00
usgs : 00823	45 53.82	-112 55.22	7580.0	MT 980054.91	980700.23	3.35	-258.53	-1.50	0.00
usgs : 00825	45 47.54	-112 56.50	5681.0	MT 980145.87	980690.76	2.84	-193.76	-1.48	0.00
usgs : 00825	45 47.54	-112 56.50	5681.0	MT 980145.87	980690.76	2.84	-193.76	-1.48	0.00

dillon gravity by harold kaufmann  
cus map project,  
Meter ID: G-159 Date: 01/30/82

STATION IDENTIFICATION	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS			SPECIAL	FREE AIR	ANOMALIES		
						TERRAIN	BOUGUER	CURV			COMPLETE	ROUGHER	SPEC FIELDS
usgs : X0R10	45 41.13	-113 35.02	6095.0	MT	980082.12	980681.09	0.45	-207.88	-1.50	0.00	-26.02	-234.95	-217.74
usgs : X0R20	45 40.99	-113 35.78	6205.0	MT	980077.96	980680.88	0.47	-211.63	-1.51	0.00	-19.63	-232.30	-214.78
usgs : X0R21	45 41.17	-113 37.53	6124.0	MT	980095.55	980681.15	0.82	-208.87	-1.50	0.00	-9.92	-219.48	-202.21
usgs : X0R22	45 40.93	-113 34.17	6156.0	MT	980096.51	980680.79	1.08	-209.96	-1.50	0.00	-5.59	-215.98	-198.65
usgs : X0R23	45 41.34	-113 40.29	6234.0	MT	980099.25	980681.41	2.75	-212.62	-1.51	0.00	3.86	-207.52	-190.11
usgs : R0R24	45 41.79	-113 37.41	6184.0	MT	980092.04	980682.09	0.87	-210.92	-1.50	0.00	-8.73	-220.28	-202.85
usgs : R0R25	45 41.99	-113 37.93	6355.0	MT	980084.05	980682.39	1.01	-216.75	-1.51	0.00	-0.96	-218.21	-200.31
usgs : R0R26	45 42.10	-113 40.20	7325.0	MT	980027.45	980682.55	4.74	-249.83	-1.51	0.00	33.42	-213.18	-192.87
usgs : R0R27	45 41.86	-113 39.10	6760.0	MT	980063.95	980682.19	1.31	-230.56	-1.52	0.00	17.20	-213.57	-194.56
usgs : R0R28	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R29	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R28	45 46.35	-113 48.00	7740.0	MT	980015.08	980688.96	5.66	-263.99	-1.49	0.00	53.62	-206.20	-184.79
usgs : R0R29	45 45.42	-113 48.76	7335.0	MT	980041.36	980687.56	1.84	-250.18	-1.51	0.00	43.26	-206.59	-186.00
usgs : R0R30	45 44.99	-113 47.93	7320.0	MT	980042.38	980686.91	1.75	-249.66	-1.51	0.00	43.52	-205.90	-185.35
usgs : R0R31	45 44.83	-113 47.41	7310.0	MT	980040.67	980686.67	2.04	-249.32	-1.51	0.00	41.11	-207.68	-187.18
usgs : R0R32	45 44.56	-113 47.10	7210.0	MT	980047.54	980686.27	1.81	-245.91	-1.51	0.00	38.99	-206.63	-186.39
usgs : R0R33	45 44.21	-113 46.58	6985.0	MT	980059.57	980685.73	2.21	-238.24	-1.52	0.00	30.41	-207.13	-187.56
usgs : R0R34	45 44.06	-113 45.72	6840.0	MT	980068.05	980685.51	2.99	-233.29	-1.52	0.00	25.49	-206.33	-187.23
usgs : R0R35	45 43.84	-113 44.73	6800.0	MT	980069.79	980685.18	2.62	-231.93	-1.52	0.00	23.80	-207.02	-188.00
usgs : R0R36	45 43.63	-113 44.32	6740.0	MT	980072.84	980684.86	3.29	-229.88	-1.52	0.00	21.54	-206.57	-187.77
usgs : R0R37	45 43.15	-113 42.63	6480.0	MT	980088.03	980684.13	3.51	-221.01	-1.51	0.00	13.02	-206.00	-187.95
usgs : R0R38	45 43.68	-113 42.16	7020.0	MT	980055.20	980684.94	1.87	-239.43	-1.52	0.00	30.13	-208.95	-189.25
usgs : R0R39	45 44.78	-113 43.36	7435.0	MT	980040.11	980686.59	1.98	-253.59	-1.50	0.00	52.37	-200.74	-179.89
usgs : R0R40	45 44.25	-113 42.40	7140.0	MT	980050.98	980685.80	1.63	-243.52	-1.51	0.00	36.32	-207.08	-187.03
usgs : R0R34	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R34	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R41	45 45.51	-113 49.24	7585.0	MT	980027.75	980687.70	3.38	-257.38	-1.50	0.00	48.74	-206.72	-185.67
usgs : R0R42	45 45.03	-113 49.74	7610.0	MT	980022.64	980686.97	3.77	-259.56	-1.50	0.00	50.96	-206.32	-185.12
usgs : R0R43	45 44.49	-113 49.12	7590.0	MT	980024.66	980686.16	2.42	-258.87	-1.50	0.00	51.92	-206.03	-184.78
usgs : R0R44	45 43.68	-113 48.38	8010.0	MT	979996.39	980684.94	4.56	-273.20	-1.47	0.00	64.32	-205.79	-183.53
usgs : R0R45	45 43.35	-113 47.68	7975.0	MT	979997.45	980684.44	5.36	-272.00	-1.47	0.00	62.59	-205.52	-183.43
usgs : R0R46	45 42.98	-113 46.11	8050.0	MT	979991.68	980683.88	6.90	-274.56	-1.47	0.00	64.42	-204.70	-182.53
usgs : R0R47	45 42.48	-113 46.02	7810.0	MT	980008.14	980683.06	4.73	-266.38	-1.48	0.00	59.15	-203.98	-182.29
usgs : R0R48	45 41.98	-113 46.03	7770.0	MT	980009.33	980682.38	4.21	-265.01	-1.49	0.00	57.28	-205.01	-183.40
usgs : R0R49	45 41.66	-113 45.65	7692.0	MT	980010.39	980681.89	3.34	-262.35	-1.49	0.00	51.50	-209.01	-187.54
usgs : R0R34	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R34	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46
usgs : R0R50	45 38.87	-113 39.12	6224.0	MT	980080.13	980677.69	2.17	-212.28	-1.51	0.00	-3.47	-215.09	-197.65
usgs : R0R51	45 41.03	-113 40.03	7815.0	MT	980002.37	980680.98	8.50	-266.55	-1.48	0.00	55.98	-203.55	-182.17
usgs : R0R52	45 41.06	-113 42.68	7020.0	MT	980037.04	980680.98	3.48	-248.57	-1.51	0.00	41.15	-205.45	-185.13

Date: 01/30/82

STATION		LATITUDE		C A T I		N N S		G R A V I T Y		C O R R E C T I O N S		F R E E		A N O M A L I E S		S P E C	
IDENTIFICATION		LATITUDE		LONGITUDE		ELE		UNSERVED THEORETICAL		TERRAIN HOURUEK CURV		SPECIAL		COMPLETIE-RUQUER		FIELDS	
proj sta-id		deg min		deg min		(in ft)				TERRAIN HOURUEK CURV		AIR		d1=2.67 d2=2.45			
USGS :	0UA53	45	42.09	-113	55.95	7211.0	MT	980040.89	980682.54	3.47	-245.95	-1.51	0.00	36.16	-207.83	-187.72	
USGS :	0UA54	45	41.90	-113	54.90	7244.0	MT	980041.47	980682.25	1.93	-247.07	-1.51	0.00	40.12	-206.53	-186.20	
USGS :	0UA55	45	42.21	-113	54.00	7145.0	MT	980044.36	980682.72	1.60	-243.70	-1.51	0.00	37.25	-206.36	-186.29	
USGS :	0UA56	45	42.92	-113	54.11	6895.0	MT	980063.54	980683.79	1.76	-235.17	-1.52	0.00	27.87	-207.06	-187.70	
USGS :	0UA57	45	43.93	-113	52.80	6871.0	MT	980066.54	980685.31	1.69	-234.35	-1.52	0.00	27.09	-207.09	-187.79	
USGS :	0UA58	45	44.71	-113	52.82	7056.0	MT	980056.18	980686.49	3.25	-240.66	-1.51	0.00	32.94	-205.99	-186.30	
USGS :	0UA59	45	44.98	-113	51.71	7169.0	MT	980049.44	980686.90	1.97	-244.51	-1.51	0.00	36.40	-207.66	-187.55	
USGS :	0UA60	45	46.00	-113	51.53	7211.0	MT	980047.55	980688.44	2.12	-245.95	-1.51	0.00	36.92	-208.42	-188.20	
USGS :	0UA61	45	43.50	-113	52.14	6945.0	MT	980056.45	980684.78	2.37	-236.87	-1.52	0.00	24.49	-211.54	-192.09	
USGS :	0UA62	45	43.97	-113	51.50	7500.0	MT	980028.67	980685.38	3.11	-255.80	-1.50	0.00	48.26	-205.94	-184.99	
USGS :	0UA63	45	44.54	-113	50.95	7395.0	MT	980039.58	980686.23	2.20	-252.22	-1.51	0.00	48.44	-203.09	-182.36	
USGS :	0UA64	45	43.82	-113	50.20	6955.0	MT	980061.71	980685.15	2.26	-237.21	-1.52	0.00	30.32	-206.15	-186.67	
USGS :	0UA65	45	42.98	-113	50.08	6795.0	MT	980069.07	980683.88	2.82	-231.76	-1.52	0.00	23.91	-206.54	-187.55	
USGS :	0UA66	45	42.33	-113	49.79	6650.0	MT	980078.32	980682.90	3.04	-226.81	-1.52	0.00	20.52	-204.77	-186.21	
USGS :	0UA67	45	41.52	-113	49.52	6510.0	MT	980085.15	980681.68	2.48	-222.04	-1.51	0.00	15.62	-205.45	-187.24	
USGS :	0UA68	45	45.51	-113	53.13	6965.0	MT	980061.31	980687.70	2.86	-237.56	-1.52	0.00	28.31	-207.90	-188.44	
USGS :	0UA69	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
USGS :	0UA70	45	54.28	-113	43.43	5780.0	MT	980144.72	980700.92	2.76	-197.14	-1.48	0.00	-12.85	-208.71	-192.58	
USGS :	0UA70	45	53.28	-113	43.48	6415.0	MT	980103.97	980699.41	3.30	-218.80	-1.51	0.00	7.57	-209.44	-191.56	
USGS :	0UA71	45	53.06	-113	42.99	7115.0	MT	980057.15	980699.08	8.20	-242.67	-1.51	0.00	26.85	-209.13	-189.69	
USGS :	0UA72	45	51.75	-113	42.81	7896.0	MT	980008.36	980697.11	8.07	-269.31	-1.48	0.00	53.41	-209.31	-187.66	
USGS :	0UA73	45	51.29	-113	43.00	8142.0	MT	979989.90	980696.41	10.19	-277.70	-1.46	0.00	58.75	-210.22	-188.06	
USGS :	0UA73	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
USGS :	0UA73	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
USGS :	0UA74	45	48.29	-113	43.67	7750.0	MT	980015.49	980691.89	4.78	-264.33	-1.49	0.00	52.04	-208.99	-187.48	
USGS :	0UA75	45	47.99	-113	44.14	7390.0	MT	980035.47	980691.44	5.96	-252.05	-1.51	0.00	38.65	-208.94	-188.54	
USGS :	0UA76	45	47.42	-113	44.26	7175.0	MT	980043.99	980690.58	5.54	-244.72	-1.51	0.00	27.84	-212.85	-193.02	
USGS :	0UA77	45	46.71	-113	44.21	6985.0	MT	980060.52	980689.51	4.47	-238.24	-1.52	0.00	27.59	-207.69	-188.31	
USGS :	0UA78	45	45.88	-113	46.27	7970.0	MT	980001.59	980688.25	4.43	-271.83	-1.47	0.00	62.45	-206.43	-184.27	
USGS :	0UA79	45	46.01	-113	44.84	7530.0	MT	980026.30	980688.45	5.53	-256.83	-1.50	0.00	45.62	-207.18	-186.35	
USGS :	0UA80	45	47.74	-113	52.10	7240.0	MT	980045.17	980691.06	5.48	-246.94	-1.51	0.00	34.84	-208.13	-188.11	
USGS :	0UA81	45	47.24	-113	50.83	6780.0	MT	980074.11	980690.30	3.79	-231.25	-1.52	0.00	21.12	-207.86	-188.99	
USGS :	0UA82	45	46.68	-113	49.66	6120.0	MT	980107.92	980689.46	7.87	-208.74	-1.50	0.00	-6.24	-208.60	-191.93	
USGS :	0UA83	45	48.43	-113	50.39	6428.0	MT	980095.17	980692.10	4.07	-219.24	-1.51	0.00	7.31	-209.37	-191.52	
USGS :	0UA84	45	49.15	-113	50.39	6650.0	MT	980083.83	980693.19	3.30	-226.81	-1.52	0.00	15.74	-209.29	-190.75	
USGS :	0UA84	45	36.86	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
USGS :	0UA84	45	36.36	-113	26.88	6054.0	MT	980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
USGS :	0UA85	45	56.37	-113	39.42	7010.0	MT	980070.22	980704.07	3.48	-239.09	-1.52	0.00	25.07	-212.06	-192.52	
USGS :	0UA86	45	57.15	-113	38.82	7894.0	MT	980014.70	980705.25	8.53	-269.24	-1.48	0.00	51.42	-210.77	-189.17	



dillon gravity by harold kaufmann

cus map project

Meter ID: 0-150 Date: 01/30/02

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S				
IDENTIFICATION	prof	LATITUDE	LONGITUDE	ELE	THEORETICAL	TERRAIN	BOUGUER CURV	SPECIAL	FREE	COMPLIF	SPEC	
		deg	deg	(in ft)					AIR	d1=2.67	d2=2.45	
usgs :	00A87	45 57.76	-113 38.56	8160.0	979998.82	980706.17	10.04	-278.31	-1.46	59.60	-210.13	-187.90
usgs :	00A88	45 58.14	-113 37.54	7580.0	980043.50	980706.74	3.18	-258.53	-1.50	49.23	-207.62	-186.46
usgs :	00A89	45 58.02	-113 36.74	8280.0	979987.65	980706.56	13.82	-282.41	-1.45	59.31	-210.72	-188.47
usgs :	00A90	45 57.52	-113 36.74	8136.0	980000.63	980705.80	9.28	-277.50	-1.46	59.52	-210.15	-187.93
usgs :	00A91	45 57.20	-113 35.79	7940.0	980016.52	980705.33	4.43	-270.81	-1.47	57.48	-210.37	-188.30
usgs :	00A92	45 56.85	-113 35.07	7590.0	980039.31	980704.80	3.13	-258.87	-1.50	47.92	-209.32	-188.12
usgs :	00A93	45 56.93	-113 34.30	7480.0	980047.43	980704.91	6.69	-255.12	-1.45	45.58	-204.35	-183.75
usgs :	00A94	45 56.66	-113 33.50	8260.0	979996.27	980704.51	4.36	-281.73	-1.45	68.11	-210.70	-187.73
usgs :	00A95	45 56.42	-113 33.28	8010.0	980012.74	980704.15	3.90	-273.20	-1.47	61.46	-209.31	-187.00
usgs :	00A96	45 56.36	-113 32.51	7760.0	980027.16	980704.05	4.94	-264.67	-1.49	52.48	-208.73	-187.21
usgs :	00A97	45 55.85	-113 33.03	7375.0	980045.35	980703.29	5.65	-251.54	-1.51	35.27	-212.12	-191.74
usgs :	00A98	45 54.74	-113 34.01	6640.0	980084.33	980701.62	9.09	-226.47	-1.52	6.87	-212.03	-193.99
usgs :	00A99	45 54.66	-113 35.40	6375.0	980104.06	980701.49	8.58	-217.43	-1.51	1.83	-208.54	-191.20
usgs :	00900	45 54.85	-113 36.07	6075.0	980122.43	980701.78	11.63	-207.20	-1.50	-8.28	-205.35	-189.11
usgs :	00901	45 54.32	-113 37.75	5615.0	980142.23	980700.98	12.75	-191.51	-1.47	-30.90	-211.13	-196.28
usgs :	00902	45 54.33	-113 38.80	5570.0	980149.77	980701.00	7.92	-189.98	-1.47	-27.60	-211.13	-196.01
usgs :	00903	45 55.05	-113 38.58	5960.0	980126.93	980702.09	9.18	-203.28	-1.49	-14.89	-210.48	-194.36
usgs :	00904	45 55.95	-113 38.83	6330.0	980110.11	980703.44	3.77	-215.90	-1.51	1.70	-211.94	-194.34
usgs :	00434	45 36.86	-113 26.88	6054.0	980067.42	980674.65	0.56	-206.48	-1.50	-38.13	-245.55	-228.46
usgs :	00905	45 47.54	-112 56.50	5681.0	980145.89	980690.76	2.84	-193.76	-1.48	-10.82	-203.22	-187.36
usgs :	00905	45 59.87	-112 39.76	5349.0	980174.16	980709.35	0.63	-182.44	-1.45	-32.34	-215.59	-200.49
usgs :	00906	45 59.88	-112 41.57	5340.0	980170.17	980709.37	0.71	-182.13	-1.45	-37.19	-220.06	-204.99
usgs :	00907	45 59.00	-112 42.14	5450.0	980170.37	980708.04	0.85	-185.88	-1.46	-25.33	-211.82	-196.46
usgs :	00908	45 58.49	-112 43.14	5656.0	980159.79	980707.27	1.04	-192.91	-1.47	-15.78	-209.13	-193.20
usgs :	00909	45 58.38	-112 44.65	6314.0	980120.44	980707.05	2.95	-215.35	-1.51	6.92	-206.99	-189.37
usgs :	00910	45 58.16	-112 45.62	6604.0	980100.19	980706.77	3.55	-225.24	-1.52	14.19	-209.02	-190.63
usgs :	00911	45 57.71	-112 46.71	5893.0	980149.97	980706.09	2.81	-200.99	-1.49	-2.16	-201.83	-185.38
usgs :	00912	45 57.88	-112 47.26	5755.0	980155.51	980706.35	5.50	-196.29	-1.48	-9.84	-202.11	-186.27
usgs :	00913	45 59.26	-112 45.46	5665.0	980158.32	980708.43	2.49	-193.22	-1.47	-17.57	-209.77	-193.93
usgs :	00914	45 59.12	-112 46.54	6260.0	980123.08	980708.22	1.69	-213.51	-1.51	3.31	-210.02	-192.44
usgs :	00915	45 58.98	-112 48.23	5490.0	980168.65	980708.01	4.62	-187.25	-1.46	-23.26	-207.35	-192.18
usgs :	00916	45 59.67	-112 49.34	5840.0	980150.19	980709.05	2.58	-199.19	-1.49	-9.87	-207.97	-191.64
usgs :	00917	45 59.64	-112 50.53	6643.0	980103.04	980709.30	3.72	-226.57	-1.52	18.17	-206.20	-187.71
usgs :	00918	45 58.40	-112 49.03	5630.0	980160.67	980707.13	8.31	-192.02	-1.47	-17.21	-202.39	-187.13
usgs :	00919	45 58.06	-112 49.95	5880.0	980151.32	980706.63	6.68	-200.55	-1.49	-2.56	-197.91	-181.82
usgs :	00920	45 57.73	-112 51.51	6445.0	980121.26	980706.13	6.71	-219.82	-1.51	20.97	-193.65	-175.97
usgs :	00921	45 57.28	-112 52.71	6900.0	980094.87	980705.45	7.07	-235.34	-1.52	38.01	-191.78	-172.85
usgs :	00922	45 56.87	-112 53.69	7520.0	980055.75	980704.83	3.28	-256.49	-1.50	57.76	-196.95	-175.96
usgs :	00923	45 56.31	-112 54.48	7480.0	980053.86	980703.98	5.74	-255.12	-1.50	52.95	-197.93	-177.26
usgs :	00924	45 55.45	-112 50.81	8298.0	980009.53	980702.69	4.64	-283.02	-1.44	86.76	-193.06	-170.01

ROUGHER GRAVITY DATA

dillon gravity by harold kaufmann  
cus map project  
Meter ID: 0-150 Date: 01/30/82

STATION		L U C A T I O N S		GRAVITY		CORRECTIONS		ANOMALIES	
IDENTIFICATION	lat	lon	ele	observed	theoretical	terrain	rougher	free	spec
prof	sta-id	deg min	deg min	(in ft)				air	fields
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.79	-203.19
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.78	-203.18
usgs :	00025	45 36.36	-113 2.06	9760.0	MT	27.20	-332.89	80.10	-226.81
usgs :	00026	45 37.92	-112 50.32	10200.0	MT	22.31	-307.89	105.63	-221.09
usgs :	00027	45 34.13	-112 55.72	10520.0	MT	25.43	-358.81	112.37	-222.07
usgs :	00028	45 34.45	-112 55.38	10280.0	MT	20.94	-350.62	115.74	-215.06
usgs :	00029	45 32.79	-112 59.14	8680.0	MT	6.01	-296.05	70.91	-220.53
usgs :	00030	45 34.74	-113 1.27	9915.0	MT	19.26	-338.17	91.27	-228.85
usgs :	00031	45 29.34	-112 56.15	10100.0	MT	27.76	-344.48	97.83	-220.05
usgs :	00032	45 28.05	-112 55.88	10220.0	MT	34.76	-348.58	108.43	-206.52
usgs :	00033	45 28.16	-112 57.53	10220.0	MT	18.37	-348.58	106.34	-225.00
usgs :	00034	45 28.19	-112 58.23	8965.0	MT	8.50	-305.77	74.68	-223.95
usgs :	00035	45 26.32	-113 0.25	9800.0	MT	13.10	-334.25	99.08	-223.30
usgs :	00036	45 27.62	-113 2.60	10200.0	MT	24.68	-347.89	94.25	-230.10
usgs :	00037	45 25.92	-113 1.77	8511.0	MT	6.93	-290.29	60.61	-224.16
usgs :	00038	45 23.90	-113 4.88	7810.0	MT	6.78	-266.38	41.06	-220.02
usgs :	00039	45 21.59	-113 4.42	7917.0	MT	7.28	-270.03	46.40	-217.82
usgs :	00040	45 17.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.77	-203.17
usgs :	00041	45 17.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.82	-203.22
usgs :	00042	45 30.20	-113 12.94	7560.0	MT	3.56	-235.85	5.56	-228.25
usgs :	00043	45 33.46	-113 8.70	7145.0	MT	3.25	-243.70	12.37	-229.59
usgs :	00044	45 32.21	-113 9.77	7260.0	MT	3.42	-247.62	12.99	-232.72
usgs :	00045	45 31.44	-113 11.04	7260.0	MT	4.74	-247.62	15.17	-229.21
usgs :	00046	45 30.96	-113 11.94	7280.0	MT	3.48	-248.30	18.65	-227.68
usgs :	00047	45 30.20	-113 12.94	7560.0	MT	2.33	-257.85	30.86	-226.16
usgs :	00048	45 30.44	-113 14.38	7600.0	MT	3.35	-259.21	36.78	-220.58
usgs :	00049	45 31.48	-113 12.95	7640.0	MT	3.29	-260.58	37.48	-221.31
usgs :	00050	45 30.62	-113 9.90	7740.0	MT	3.00	-263.99	29.74	-232.74
usgs :	00051	45 30.96	-113 10.40	7780.0	MT	1.88	-265.35	32.97	-231.98
usgs :	00052	45 33.23	-113 11.12	7440.0	MT	6.04	-253.76	17.10	-232.12
usgs :	00053	45 47.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.82	-203.22
usgs :	00054	45 47.54	-112 56.50	5681.0	MT	2.84	-193.76	-10.72	-203.12
usgs :	00055	45 39.19	-113 6.58	8230.0	MT	8.42	-240.70	46.85	-226.88
usgs :	00056	45 42.68	-113 5.03	9010.0	MT	11.91	-307.31	81.76	-214.99
usgs :	00057	45 43.30	-113 6.85	9490.0	MT	14.59	-323.68	94.86	-215.50
usgs :	00058	45 45.11	-113 5.67	9320.0	MT	15.61	-317.88	97.95	-207.63
usgs :	00059	45 45.11	-113 11.17	8780.0	MT	6.76	-294.46	79.12	-214.96
usgs :	00060	45 45.31	-113 12.96	7040.0	MT	7.14	-240.11	21.26	-213.23
usgs :	00061	45 44.34	-113 10.30	7260.0	MT	4.01	-247.62	23.88	-221.24
usgs :	00062	45 43.08	-113 13.81	8950.0	MT	12.96	-305.26	70.99	-222.67

dillon gravity by harold kaufmann

cus map project

meter ID: a-15q Date: 01/30/82

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S		S P E C					
IDENTIFICATION	proj	sta-id	LATITUDE	LONGITUDE	ELE	ST	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLETE	BOUGUER	SPEC	
			deg	min	deg	min	(in ft)				AIR	d1=2.67	d2=2.45	FIELDS	
usgs :	00059	45	41.29	-113 15.41	8500.0	MT	979948.41	980681.33	5.15	-289.91	-1.42	0.00	65.98	-220.20	-196.62
usgs :	00060	45	42.00	-113 12.27	8170.0	MT	979970.04	980682.40	3.87	-278.66	-1.46	0.00	55.54	-220.71	-197.94
usgs :	00061	45	43.89	-113 10.97	7750.0	MT	980004.96	980685.25	3.82	-264.33	-1.49	0.00	48.15	-213.85	-192.26
usgs :	00062	45	44.96	-113 8.99	9190.0	MT	979912.81	980686.87	15.03	-313.44	-1.33	0.00	89.65	-210.10	-185.40
usgs :	00063	45	44.46	-113 9.34	9030.0	MT	979925.01	980686.11	7.54	-307.99	-1.35	0.00	87.57	-214.23	-189.36
usgs :	00064	45	39.13	-113 11.68	8190.0	MT	979964.01	980678.07	3.66	-279.34	-1.45	0.00	55.71	-221.42	-198.59
usgs :	00065	45	38.01	-113 13.80	8195.0	MT	979959.49	980676.38	3.86	-279.51	-1.45	0.00	53.36	-223.75	-200.91
usgs :	00066	45	40.85	-113 11.72	7200.0	MT	980034.21	980680.66	3.97	-285.57	-1.51	0.00	30.32	-212.80	-192.76
usgs :	00065	45	47.54	-112 56.50	5681.0	MT	980145.89	980690.76	2.84	-193.76	-1.48	0.00	-10.82	-203.22	-187.36
usgs :	00065	45	47.54	-112 56.50	5681.0	MT	980145.87	980690.76	2.84	-193.76	-1.48	0.00	-10.84	-203.24	-187.39
usgs :	00067	45	44.75	-113 3.04	8005.0	MT	979989.32	980686.55	6.91	-273.03	-1.47	0.00	55.17	-212.42	-190.37
usgs :	00068	45	48.55	-113 6.64	7180.0	MT	980053.55	980692.28	4.29	-244.89	-1.51	0.00	36.16	-205.95	-186.00
usgs :	00069	45	40.61	-113 16.52	8770.0	MT	979923.94	980680.30	8.52	-299.12	-1.39	0.00	67.89	-224.10	-200.04
usgs :	00070	45	37.96	-113 16.90	8285.0	MT	979951.00	980676.30	4.51	-282.58	-1.44	0.00	53.39	-226.12	-203.09
usgs :	00071	45	40.83	-113 4.78	6365.0	MT	980073.67	980680.64	7.06	-217.09	-1.51	0.00	-8.64	-220.19	-202.76
usgs :	00072	45	40.66	-113 5.56	6410.0	MT	980068.98	980680.38	8.28	-218.63	-1.51	0.00	-8.84	-220.70	-203.25
usgs :	00073	45	40.28	-113 6.76	6330.0	MT	980067.94	980679.80	9.96	-215.90	-1.51	0.00	-16.84	-224.29	-207.19
usgs :	00074	45	40.06	-113 7.43	6340.0	MT	980068.52	980679.48	8.21	-216.24	-1.51	0.00	-14.98	-224.52	-207.25
usgs :	00075	45	39.78	-113 8.09	6400.0	MT	980066.69	980679.05	8.03	-218.29	-1.51	0.00	-10.75	-222.52	-205.07
usgs :	00076	45	40.66	-113 10.93	6680.0	MT	980060.23	980680.38	7.90	-227.84	-1.52	0.00	7.77	-213.68	-195.43
usgs :	00077	45	40.43	-113 10.28	6600.0	MT	980062.14	980680.03	8.94	-225.11	-1.52	0.00	2.51	-215.17	-197.24
usgs :	00078	45	40.33	-113 9.69	6450.0	MT	980062.97	980679.88	11.06	-219.99	-1.51	0.00	-10.61	-221.05	-203.71
usgs :	00075	45	47.54	-112 56.50	5681.0	MT	980145.92	980690.76	2.84	-193.76	-1.48	0.00	-10.79	-203.18	-187.33
usgs :	00075	45	47.54	-112 56.50	5681.0	MT	980145.86	980690.76	2.84	-193.76	-1.48	0.00	-10.85	-203.25	-187.39
usgs :	00079	45	48.87	-113 26.40	6281.0	MT	980079.62	980692.77	0.96	-214.23	-1.51	0.00	-22.72	-237.49	-219.80
usgs :	00080	45	48.86	-113 27.65	6218.0	MT	980088.60	980692.75	1.58	-212.08	-1.51	0.00	-19.64	-231.64	-214.17
usgs :	00081	45	48.39	-113 30.98	6390.0	MT	980091.90	980692.04	1.51	-217.94	-1.51	0.00	0.53	-217.42	-199.46
usgs :	00082	45	49.58	-113 32.48	6730.0	MT	980089.15	980693.84	5.74	-229.54	-1.52	0.00	27.93	-197.39	-178.82
usgs :	00083	45	50.29	-113 33.11	6930.0	MT	980054.45	980694.91	7.36	-236.36	-1.52	0.00	10.95	-219.57	-200.57
usgs :	00084	45	50.55	-113 34.12	7660.0	MT	980019.58	980695.30	2.65	-261.26	-1.49	0.00	44.27	-215.84	-194.40
usgs :	00085	45	51.43	-113 34.32	7830.0	MT	980011.44	980696.63	2.90	-267.06	-1.48	0.00	50.77	-214.87	-192.98
usgs :	00086	45	52.14	-113 33.31	8075.0	MT	979995.84	980697.70	3.34	-275.41	-1.46	0.00	57.12	-216.42	-193.88
usgs :	00087	45	51.89	-113 33.09	7920.0	MT	980003.76	980697.32	3.10	-270.13	-1.48	0.00	50.85	-217.65	-195.53
usgs :	00088	45	50.92	-113 32.55	7960.0	MT	980002.75	980695.85	3.64	-271.49	-1.47	0.00	55.06	-214.26	-192.07
usgs :	00089	45	49.82	-113 31.22	7180.0	MT	980043.26	980694.20	3.45	-244.89	-1.51	0.00	23.95	-219.00	-198.98
usgs :	00090	45	48.98	-113 30.29	6340.0	MT	980091.26	980692.93	2.80	-216.24	-1.51	0.00	-5.70	-220.65	-202.94
usgs :	00091	45	47.98	-113 29.71	6260.0	MT	980095.34	980691.42	1.33	-213.51	-1.51	0.00	-7.62	-221.31	-203.70
usgs :	00095	45	47.54	-112 56.50	5681.0	MT	980145.78	980690.76	2.84	-193.76	-1.48	0.00	-10.93	-203.32	-187.47
usgs :	00095	45	47.54	-112 56.50	5681.0	MT	980145.83	980690.76	2.84	-193.76	-1.48	0.00	-10.88	-203.28	-187.42
usgs :	00092	45	52.48	-113 27.31	6440.0	MT	980087.97	980698.20	7.27	-219.65	-1.51	0.00	-4.87	-218.76	-201.18

Date: 01/30/82

STATION IDENTIFICATION		L U C A T I O N H S		G R A V I T Y		C O R R E C T I O N S		A N M A L I E S				
proj	sta-id	LATITUDE deg min	LONGITUDE deg min	ELE (in ft)	ST	UNOBSERVED	THEORETICAL	TERRAIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER	SPEC FIELDS
											d1=2.67	d2=2.45
usgs :	00993	45 53.27	-113 29.56	6840.0	MT	980063.03	980699.40	8.92	-233.29	-1.52	6.58	-219.31
usgs :	00994	45 53.48	-113 29.64	7170.0	MT	980050.51	980699.72	6.23	-244.55	-1.51	24.75	-215.09
usgs :	00995	45 55.09	-113 30.37	8375.0	MT	979978.66	980702.14	4.95	-245.65	-1.44	63.67	-218.46
usgs :	00996	45 55.66	-113 29.47	7420.0	MT	980039.22	980703.00	7.94	-253.08	-1.50	33.66	-212.98
usgs :	00997	45 56.46	-113 29.44	8140.0	MT	980001.80	980704.21	7.73	-277.63	-1.46	62.66	-208.70
usgs :	00998	45 56.48	-113 30.18	8363.0	MT	979990.06	980704.24	6.01	-285.24	-1.44	71.84	-208.82
usgs :	00999	45 56.68	-113 30.52	8780.0	MT	979965.07	980704.54	6.16	-299.46	-1.39	85.72	-208.97
usgs :	01000	45 57.48	-113 29.38	7645.0	MT	980035.58	980705.75	7.02	-260.75	-1.49	48.41	-206.82
usgs :	01001	45 58.92	-113 29.55	7215.0	MT	980059.36	980707.92	11.37	-246.08	-1.51	29.62	-206.61
usgs :	01002	45 58.87	-113 28.88	7860.0	MT	980023.37	980707.84	9.49	-268.08	-1.48	54.30	-205.78
usgs :	01002	45 58.87	-113 28.88	7860.0	MT	980023.30	980707.84	9.49	-268.08	-1.48	54.23	-205.85
usgs :	01003	45 57.16	-113 29.38	7740.0	MT	980026.81	980705.27	9.17	-263.99	-1.49	49.05	-207.26
usgs :	01004	45 56.54	-113 29.07	8738.0	MT	979963.50	980704.33	6.63	-298.03	-1.39	80.41	-212.38
usgs :	01005	45 54.89	-113 28.27	8120.0	MT	979993.98	980701.84	4.75	-276.95	-1.46	55.34	-218.32
usgs :	01006	45 53.93	-113 27.13	7820.0	MT	980009.95	980700.39	3.72	-266.72	-1.48	44.58	-219.90
usgs :	01007	45 53.12	-113 26.22	7620.0	MT	980022.26	980699.17	2.90	-259.90	-1.49	39.31	-219.18
usgs :	01008	45 51.92	-113 25.19	7305.0	MT	980036.29	980697.36	3.05	-249.15	-1.51	25.56	-222.05
usgs :	01009	45 51.49	-113 25.27	6940.0	MT	980055.78	980696.71	2.09	-236.70	-1.52	11.41	-224.72
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	980145.87	980690.76	2.84	-193.76	-1.48	-10.84	-203.24
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	980145.83	980690.76	2.84	-193.76	-1.48	-10.88	-203.28
usgs :	01010	45 48.35	-113 37.66	6530.0	MT	980084.78	980691.98	6.48	-222.72	-1.51	6.62	-211.13
usgs :	01011	45 48.53	-113 38.12	6540.0	MT	980084.24	980692.25	6.70	-223.06	-1.51	6.75	-211.12
usgs :	01012	45 48.69	-113 40.09	6690.0	MT	980072.24	980692.49	10.23	-228.18	-1.52	8.61	-210.86
usgs :	01013	45 49.29	-113 41.10	6990.0	MT	980056.17	980693.40	7.69	-238.41	-1.52	19.82	-212.42
usgs :	01014	45 49.54	-113 42.13	7440.0	MT	980028.17	980693.77	10.95	-253.76	-1.50	33.72	-210.59
usgs :	01015	45 49.32	-113 42.98	8110.0	MT	979991.59	980693.45	4.87	-276.61	-1.46	60.41	-212.79
usgs :	01016	45 49.08	-113 43.00	8450.0	MT	979969.64	980693.08	6.96	-288.21	-1.43	70.76	-211.92
usgs :	01017	45 48.38	-113 42.90	8030.0	MT	979998.06	980692.02	3.57	-273.88	-1.47	60.78	-211.00
usgs :	01018	45 47.16	-113 41.91	7360.0	MT	980028.58	980690.19	5.17	-251.03	-1.51	30.20	-217.17
usgs :	01019	45 46.80	-113 40.95	7040.0	MT	980048.14	980689.64	5.24	-240.11	-1.52	20.24	-216.15
usgs :	01020	45 46.62	-113 40.65	6935.0	MT	980060.82	980689.37	5.93	-236.53	-1.52	23.33	-208.79
usgs :	01021	45 45.82	-113 39.41	6520.0	MT	980085.14	980688.16	5.24	-222.38	-1.51	9.86	-208.79
usgs :	01022	45 46.22	-113 38.32	6470.0	MT	980087.74	980688.77	4.29	-220.67	-1.51	7.16	-210.73
usgs :	01023	45 45.31	-113 37.52	6700.0	MT	980070.92	980687.39	1.22	-228.52	-1.52	13.32	-215.49
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	980145.82	980690.76	2.84	-193.76	-1.48	-10.89	-203.29
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	980145.81	980690.76	2.84	-193.76	-1.48	-10.89	-203.29
usgs :	01024	45 56.63	-112 40.17	5481.0	MT	980153.64	980704.47	0.98	-186.94	-1.46	35.57	-223.03
usgs :	01025	45 56.66	-112 41.53	5573.0	MT	980149.56	980704.51	0.97	-190.08	-1.47	31.05	-221.63
usgs :	01026	45 56.97	-112 42.87	5760.0	MT	980149.43	980704.98	1.67	-196.46	-1.48	14.08	-210.35
usgs :	01027	45 55.83	-112 42.16	5636.0	MT	980151.99	980703.26	1.72	-192.23	-1.47	22.35	-214.33
usgs :	01027	45 55.83	-112 42.16	5636.0	MT	980151.99	980703.26	1.72	-192.23	-1.47	22.35	-214.33
usgs :	01028	45 55.83	-112 42.16	5636.0	MT	980151.99	980703.26	1.72	-192.23	-1.47	22.35	-214.33

# ROUGHER GRAVITY DATA

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dillon gravity by harold kaufmann  
cus map project,  
Meter Id: 0-159 Date: 01/30/82

STATION IDENTIFICATION prof sta-id	LATITUDE deg	LONGITUDE deg min	ELEVATION (in ft)	STATION ST	OBSERVED THEORETICAL	TEMPERATURE	CORRECTION	SPECIAL	FREE AIR	ANOMALY	SPEC
USGS : 01028	45 55.79	-112 45.27	6935.0	MT	980082.91	980703.20	2.23	-236.53	-1.52	0.00	0.00
USGS : 01029	45 55.44	-112 46.51	6590.0	MT	980702.67	980702.67	2.31	-224.77	-1.52	0.00	0.00
USGS : 01030	45 54.87	-112 45.67	6720.0	MT	980095.71	980701.81	2.62	-229.20	-1.52	0.00	0.00
USGS : 01031	45 54.47	-112 46.83	6500.0	MT	980109.96	980701.21	1.99	-221.70	-1.51	0.00	0.00
USGS : 01032	45 51.58	-112 43.90	6066.0	MT	980127.12	980696.85	1.51	-206.89	-1.50	0.00	0.00
USGS : 01033	45 50.65	-112 45.45	7070.0	MT	980067.68	980695.45	4.11	-241.14	-1.51	0.00	0.00
USGS : 01034	45 49.41	-112 45.64	7170.0	MT	980061.89	980693.58	4.40	-244.55	-1.51	0.00	0.00
USGS : 01035	45 48.72	-112 46.02	7060.0	MT	980068.82	980692.54	4.12	-240.80	-1.51	0.00	0.00
USGS : 01036	45 48.75	-112 47.33	7740.0	MT	980026.62	980692.58	7.07	-263.99	-1.49	0.00	0.00
USGS : 01037	45 49.62	-112 49.92	8461.0	MT	979981.66	980693.89	11.12	-288.58	-1.43	0.00	0.00
USGS : 01038	45 49.00	-112 49.00	8550.0	MT	979977.25	980692.96	10.08	-291.62	-1.42	0.00	0.00
USGS : 01039	45 47.22	-112 45.90	6108.0	MT	980127.35	980690.27	2.59	-208.33	-1.50	0.00	0.00
USGS : 01040	45 46.57	-112 46.46	5950.0	MT	980139.95	980689.30	2.91	-202.94	-1.49	0.00	0.00
USGS : 01041	45 45.69	-112 45.92	5490.0	MT	980165.07	980687.97	3.15	-187.25	-1.46	0.00	0.00
USGS : 01042	45 47.54	-112 56.50	5681.0	MT	980145.73	980690.76	2.84	-193.76	-1.48	0.00	0.00
USGS : 01043	45 47.54	-112 56.50	5681.0	MT	980145.87	980690.76	2.84	-193.76	-1.48	0.00	0.00
USGS : 01044	45 55.86	-112 44.03	6320.0	MT	980117.80	980703.30	2.58	-215.56	-1.51	0.00	0.00
USGS : 01045	45 54.91	-112 42.07	5660.0	MT	980149.35	980701.88	1.50	-193.05	-1.47	0.00	0.00
USGS : 01046	45 54.02	-112 42.42	5756.0	MT	980145.17	980700.53	1.56	-196.32	-1.48	0.00	0.00
USGS : 01047	45 51.82	-112 45.72	6610.0	MT	980099.62	980697.21	1.80	-225.45	-1.52	0.00	0.00
USGS : 01048	45 51.79	-112 47.23	7020.0	MT	980077.61	980697.16	2.94	-239.43	-1.52	0.00	0.00
USGS : 01049	45 51.29	-112 48.11	7675.0	MT	980037.36	980696.41	5.24	-261.77	-1.49	0.00	0.00
USGS : 01050	45 51.13	-112 48.60	8115.0	MT	980008.55	980696.17	5.94	-276.78	-1.46	0.00	0.00
USGS : 01051	45 50.80	-112 48.81	8220.0	MT	980000.26	980695.67	6.81	-280.36	-1.45	0.00	0.00
USGS : 01052	45 49.98	-112 48.73	8280.0	MT	979990.19	980694.44	10.79	-282.41	-1.45	0.00	0.00
USGS : 01053	45 52.01	-112 49.50	7470.0	MT	980050.78	980697.50	2.44	-254.78	-1.50	0.00	0.00
USGS : 01054	45 47.54	-112 56.50	5681.0	MT	980145.79	980690.76	2.84	-193.76	-1.48	0.00	0.00
USGS : 01055	45 47.54	-112 56.50	5681.0	MT	980145.83	980690.76	2.84	-193.76	-1.48	0.00	0.00
USGS : 01056	45 31.93	-113 2.28	7035.0	MT	980010.23	980667.21	9.29	-239.94	-1.52	0.00	0.00
USGS : 01057	45 29.66	-113 1.37	9460.0	MT	979855.24	980663.79	12.73	-322.65	-1.29	0.00	0.00
USGS : 01058	45 24.05	-112 59.58	8780.0	MT	979900.89	980655.33	6.88	-299.46	-1.39	0.00	0.00
USGS : 01059	45 21.17	-113 1.36	10405.0	MT	979775.75	980650.98	35.40	-357.95	-1.07	0.00	0.00
USGS : 01060	45 20.04	-112 58.84	8617.0	MT	979918.78	980649.28	7.24	-293.90	-1.41	0.00	0.00
USGS : 01061	45 20.16	-113 3.88	7520.0	MT	979906.39	980649.46	3.48	-256.49	-1.50	0.00	0.00
USGS : 01062	45 22.06	-113 13.29	7920.0	MT	979941.78	980652.33	2.83	-270.13	-1.48	0.00	0.00
USGS : 01063	45 23.63	-113 11.27	8775.0	MT	979900.88	980654.70	8.62	-299.29	-1.39	0.00	0.00
USGS : 01064	45 24.67	-113 8.91	8217.0	MT	979934.19	980656.27	8.93	-280.26	-1.45	0.00	0.00
USGS : 01065	45 26.31	-113 8.52	8452.0	MT	979923.03	980650.73	8.93	-288.27	-1.43	0.00	0.00
USGS : 01066	45 27.06	-113 9.78	8700.0	MT	979906.29	980659.87	6.72	-296.73	-1.40	0.00	0.00
USGS : 01067	45 28.60	-113 11.48	7680.0	MT	979964.84	980662.19	2.72	-261.94	-1.49	0.00	0.00

dillon gravity by harold kaufmann  
cus map project  
Meter ID: a-159 Date: 01/30/82

# ROUGHER GRAVITY DATA

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STATION		L U C A T I P M S		G P A V I T Y		C O R R E C T I O N S		A N O M A L I E S					
IDENTIFICATION	proj	LATITUDE	LONGITUDE	UNOBSERVED	THEORETICAL	ERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLETE	BOUGUER	SPECIAL
		deg	min	deg	min	(in ft)				AIR	d1=2.67	d2=2.45	FIELDS
usgs :	01064	45	31.18	-113	3.86	7390.0	MT	979991.58	980666.08	3.31	-252.05	-1.51	0.00
usgs :	01065	45	30.05	-113	2.51	7405.0	MT	979985.81	980664.38	8.38	-252.56	-1.50	0.00
usgs :	01066	45	29.58	-113	2.30	7421.0	MT	979982.11	980663.67	11.12	-253.11	-1.50	0.00
usgs :	01067	45	29.47	-113	3.28	8073.0	MT	979942.79	980664.11	2.87	-275.35	-1.46	0.00
usgs :	01068	45	29.31	-113	2.77	8200.0	MT	979941.40	980663.26	4.14	-279.68	-1.45	0.00
usgs :	01069	45	27.54	-112	56.50	5681.0	MT	980145.85	980690.76	2.84	-193.76	-1.48	0.00
usgs :	01070	45	27.50	-112	56.50	5681.0	MT	980145.87	980690.76	2.84	-193.76	-1.48	0.00
usgs :	01071	45	27.37	-113	10.57	7510.0	MT	980029.03	980690.50	3.28	-256.14	-1.50	0.00
usgs :	01072	45	39.08	-113	18.70	8093.0	MT	979962.83	980678.00	5.51	-276.03	-1.46	0.00
usgs :	01073	45	37.79	-113	19.06	7780.0	MT	979981.69	980676.05	4.63	-265.35	-1.49	0.00
usgs :	01074	45	36.31	-113	16.51	8560.0	MT	979930.68	980673.82	5.13	-291.96	-1.42	0.00
usgs :	01075	45	34.63	-113	15.34	9405.0	MT	979871.50	980671.29	11.83	-320.78	-1.29	0.00
usgs :	01076	45	33.58	-113	15.29	8240.0	MT	979947.66	980669.70	3.02	-281.04	-1.45	0.00
usgs :	01077	45	33.66	-113	18.67	7820.0	MT	979979.26	980669.82	2.57	-266.72	-1.48	0.00
usgs :	01078	45	37.16	-113	13.87	9165.0	MT	979889.84	980675.10	12.24	-312.59	-1.33	0.00
usgs :	01079	45	41.30	-113	12.90	7200.0	MT	980027.57	980681.34	10.79	-245.57	-1.51	0.00
usgs :	01080	45	41.55	-113	12.14	8355.0	MT	979961.73	980681.73	5.58	-284.96	-1.44	0.00
usgs :	01081	45	26.67	-113	6.36	7265.0	MT	979993.84	980659.28	2.80	-247.79	-1.51	0.00
usgs :	01082	45	27.21	-113	5.09	7850.0	MT	979959.64	980660.09	3.31	-267.74	-1.48	0.00
usgs :	01083	45	27.30	-113	3.89	8560.0	MT	979912.53	980660.23	5.67	-291.96	-1.42	0.00
usgs :	01084	45	27.55	-113	3.17	9360.0	MT	979847.31	980660.61	11.23	-319.24	-1.30	0.00
usgs :	01085	45	47.54	-112	56.50	5681.0	MT	980145.95	980690.76	2.84	-193.76	-1.48	0.00
usgs :	01086	45	47.54	-112	56.50	5681.0	MT	980145.88	980690.76	2.84	-193.76	-1.48	0.00
usgs :	01087	45	52.25	-112	57.12	9058.0	MT	979953.53	980697.86	12.99	-308.94	-1.35	0.00
usgs :	01088	45	51.92	-112	56.15	9152.0	MT	979942.04	980697.36	18.83	-312.15	-1.34	0.00
usgs :	01089	45	46.91	-112	39.96	6520.0	MT	980101.49	980689.80	2.07	-222.38	-1.51	0.00
usgs :	01090	45	45.88	-112	36.92	6830.0	MT	980086.21	980688.25	1.73	-232.95	-1.52	0.00
usgs :	01091	45	44.99	-112	39.80	6000.0	MT	980120.89	980686.91	2.87	-204.64	-1.50	0.00
usgs :	01092	45	42.06	-113	12.90	8820.0	MT	979921.79	980682.49	9.51	-300.83	-1.38	0.00
usgs :	01093	45	38.06	-113	9.29	7220.0	MT	980017.13	980676.46	4.49	-246.25	-1.51	0.00
usgs :	01094	45	35.60	-113	19.23	6780.0	MT	980042.01	980672.75	4.34	-231.25	-1.52	0.00
usgs :	01095	45	32.22	-113	19.26	8680.0	MT	979923.74	980667.65	7.35	-296.05	-1.40	0.00
usgs :	01096	45	31.21	-113	16.27	7500.0	MT	979997.71	980666.13	2.16	-255.80	-1.50	0.00
usgs :	01097	45	30.61	-113	19.59	8530.0	MT	979931.84	980665.22	5.97	-299.93	-1.42	0.00
usgs :	01098	45	28.68	-113	29.33	8785.0	MT	979908.67	980662.31	8.25	-299.63	-1.39	0.00
usgs :	01099	45	26.24	-113	16.74	8400.0	MT	979930.69	980658.63	7.63	-246.50	-1.43	0.00
usgs :	01100	45	25.97	-113	11.92	7670.0	MT	979978.78	980658.23	2.68	-261.60	-1.49	0.00
usgs :	01101	45	24.20	-113	13.94	7430.0	MT	979987.59	980655.55	2.59	-253.42	-1.50	0.00
usgs :	01102	45	27.03	-113	13.32	7420.0	MT	979992.10	980660.73	3.15	-253.08	-1.50	0.00
usgs :	01103	45	29.66	-113	13.16	7610.0	MT	979970.54	980663.79	3.04	-259.56	-1.50	0.00

Meter ID: a-159 Date: 01/30/82

STATION IDENTIFICATION		LATITUDE		LONGITUDE		TIME		GRAVITY		CORRECTION		SPECIAL		NOMINALS		SPEC	
proj	sta-id	deg	min	deg	min	sec	min	observed	theoretical	terrain	hour	curv	free	air	d1=2.67	d2=2.45	fields
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	01100	45	32.04	-113	24.42			980065.46	980667.38	1.61	-214.02	-1.51	0.00	-12.05	-225.97	-208.34	
usgs	01101	45	31.68	-113	24.53			980063.43	980666.84	1.65	-214.87	-1.51	0.00	-11.19	-225.92	-208.23	
usgs	01102	45	31.34	-113	23.16			980045.86	980666.32	1.72	-230.43	-1.52	0.00	14.60	-215.63	-196.66	
usgs	01103	45	30.78	-113	21.67			980024.45	980665.48	4.14	-241.14	-1.51	0.00	23.94	-214.58	-194.92	
usgs	01104	45	30.84	-113	22.03			980026.86	980665.57	2.85	-240.29	-1.51	0.00	23.51	-215.44	-195.76	
usgs	01105	45	31.00	-113	22.58			980029.71	980665.81	2.03	-238.41	-1.52	0.00	20.95	-216.95	-197.33	
usgs	01106	45	31.47	-113	23.57			980060.19	980666.52	2.02	-223.74	-1.52	0.00	10.32	-212.92	-194.53	
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	01107	45	51.23	-113	52.73			980169.54	980696.32	5.73	-177.70	-1.43	0.00	-36.99	-210.40	-196.11	
usgs	01108	45	50.45	-113	52.91			980132.92	980695.15	4.51	-198.50	-1.49	0.00	-15.11	-210.59	-194.48	
usgs	01109	45	50.09	-113	51.40			980092.44	980694.60	3.50	-223.06	-1.51	0.00	12.60	-208.48	-190.26	
usgs	01110	45	50.93	-113	50.41			980101.35	980695.87	3.10	-217.60	-1.51	0.00	5.21	-210.80	-193.01	
usgs	01111	45	57.21	-113	44.15			980142.16	980705.34	3.29	-202.22	-1.49	0.00	-5.82	-206.25	-189.73	
usgs	01112	45	58.00	-113	44.69			980137.78	980706.53	4.14	-206.01	-1.50	0.00	-0.97	-204.33	-187.58	
usgs	01113	45	57.92	-113	45.31			980137.66	980706.41	3.61	-206.01	-1.50	0.00	-0.97	-204.33	-187.58	
usgs	01114	45	56.24	-113	41.25			980112.43	980703.88	3.65	-216.24	-1.51	0.00	4.52	-209.58	-191.94	
usgs	01115	45	57.02	-113	41.36			980119.25	980705.05	3.10	-214.87	-1.51	0.00	6.41	-206.88	-189.30	
usgs	01116	45	57.04	-113	40.44			980066.49	980705.09	8.31	-241.00	-1.51	0.00	25.59	-208.62	-189.32	
usgs	01117	45	54.49	-113	42.17			980164.51	980701.23	7.20	-184.86	-1.45	0.00	-27.21	-206.32	-191.56	
usgs	01118	45	54.35	-113	40.47			980157.46	980701.02	8.28	-186.57	-1.46	0.00	-29.34	-209.09	-194.28	
usgs	01119	45	48.94	-113	55.04			980132.91	980692.87	3.45	-198.88	-1.49	0.00	-11.81	-208.72	-192.50	
usgs	01120	45	48.41	-113	53.92			980081.72	980692.07	6.27	-225.96	-1.52	0.00	12.40	-208.81	-190.58	
usgs	01121	45	49.61	-113	54.83			980129.51	980693.88	6.30	-200.21	-1.49	0.00	-12.56	-207.96	-191.86	
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	00434	45	36.86	-113	26.88			980067.42	980674.65	0.56	-206.48	-1.50	0.00	-38.13	-245.55	-228.46	
usgs	00008	46	39.75	-113	9.25			980365.70	980769.45	0.19	-134.65	-1.25	0.00	-32.58	-168.29	-157.11	
usgs	00006	45	57.15	-112	29.82			980159.93	980705.25	1.09	-189.40	-1.47	0.00	-23.30	-213.07	-197.44	
usgs	00005	45	47.54	-112	56.50			980145.91	980690.76	2.84	-193.76	-1.48	0.00	-10.79	-203.19	-187.34	
usgs	01202	45	51.94	-112	54.06			980047.55	980697.39	3.38	-259.90	-1.49	0.00	66.38	-191.63	-170.37	
usgs	01203	45	52.94	-112	56.00			980018.95	980698.90	5.90	-244.01	-1.44	0.00	102.69	-176.86	-153.82	
usgs	00005	45	47.54	-112	56.50			980145.88	980690.76	2.84	-193.76	-1.48	0.00	-10.82	-203.22	-187.37	
usgs	00005	45	47.54	-112	56.50			980145.91	980690.76	2.84	-193.76	-1.48	0.00	-10.79	-203.19	-187.34	
usgs	FED09	39	43.38	-105	6.64			979586.71	980144.31	0.00	-189.70	-1.47	0.00	-34.66	-225.83	-210.08	
usgs	00002	45	0.27	-113	12.50			980044.44	980619.45	0.93	-206.14	-1.50	0.00	-6.85	-213.56	-196.53	
usgs	01205	45	5.81	-113	23.69			979058.17	980627.81	2.41	-260.07	-1.49	0.00	47.07	-212.08	-190.73	
usgs	01206	45	4.42	-113	24.95			979999.15	980625.72	2.61	-235.51	-1.52	0.00	22.50	-211.92	-192.60	
usgs	01207	45	6.16	-113	25.55			979094.93	980628.34	2.40	-236.19	-1.52	0.00	21.54	-213.77	-194.38	
usgs	01208	45	6.34	-113	28.32			979067.00	980628.61	2.91	-257.68	-1.50	0.00	48.52	-207.75	-186.63	

usgs :	01209	45	7.37	-113	27.11	7067.0	MT	979992.60	980630.16	3.74	-241.03	-1.51	0.00	26.72	-212.09	-192.41
usgs :	01209	45	7.37	-113	27.11	7067.0	MT	979992.53	980630.16	3.74	-241.03	-1.51	0.00	26.65	-212.16	-192.46
usgs :	01210	45	7.58	-113	27.66	7180.0	MT	979989.98	980630.48	2.49	-244.89	-1.51	0.00	34.41	-209.51	-189.41
usgs :	01211	45	8.92	-113	28.55	7224.0	MT	979986.00	980632.50	6.04	-246.39	-1.51	0.00	32.54	-209.33	-189.40
usgs :	01212	45	9.63	-113	29.91	7480.0	MT	979973.61	980633.58	2.35	-255.12	-1.50	0.00	43.12	-211.15	-190.20
usgs :	01213	45	9.64	-113	30.51	7630.0	MT	979966.66	980633.59	2.11	-260.24	-1.49	0.00	50.25	-209.37	-187.98
usgs :	01214	45	8.89	-113	33.57	8830.0	MT	979893.83	980632.46	6.40	-301.17	-1.38	0.00	91.27	-204.88	-180.47
usgs :	01215	45	9.80	-113	34.12	8020.0	MT	979945.05	980633.83	6.47	-273.54	-1.47	0.00	65.03	-203.50	-181.38
usgs :	01216	45	11.62	-113	30.85	7330.0	MT	979984.46	980636.59	3.03	-250.00	-1.51	0.00	36.88	-211.60	-191.13
usgs :	01217	45	13.07	-113	29.74	7157.0	MT	979995.09	980638.77	1.88	-244.10	-1.51	0.00	29.07	-214.67	-194.58
usgs :	01218	45	14.86	-113	29.90	7160.0	MT	979989.98	980641.46	1.16	-244.21	-1.51	0.00	21.54	-223.02	-202.87
usgs :	01219	45	14.74	-113	28.26	6990.0	MT	980008.76	980641.28	1.06	-238.41	-1.52	0.00	24.53	-214.34	-194.66
usgs :	01220	45	15.18	-113	26.75	6955.0	MT	980009.17	980641.95	1.03	-237.21	-1.52	0.00	20.99	-216.71	-197.13
usgs :	01221	45	15.70	-113	24.70	6990.0	MT	980004.98	980642.73	1.02	-238.41	-1.52	0.00	19.30	-219.60	-199.92
usgs :	01222	45	16.98	-113	24.71	6885.0	MT	980015.99	980644.66	0.88	-234.83	-1.52	0.00	18.52	-216.95	-197.55
usgs :	01223	45	17.47	-113	26.94	6737.0	MT	980024.83	980645.40	0.99	-229.78	-1.52	0.00	12.71	-217.60	-198.62
usgs :	01224	45	18.79	-113	26.77	6657.0	MT	980028.21	980647.39	0.78	-227.05	-1.52	0.00	6.58	-221.21	-202.44
usgs :	01225	45	21.97	-113	24.49	6475.0	MT	980048.08	980652.19	0.87	-220.84	-1.51	0.00	4.55	-216.94	-198.69
usgs :	01226	45	21.97	-113	24.49	6475.0	MT	980048.09	980652.19	0.87	-220.84	-1.51	0.00	4.57	-216.92	-198.67
usgs :	01227	45	17.32	-113	22.63	7054.0	MT	980006.40	980645.17	1.16	-240.59	-1.51	0.00	24.29	-216.66	-196.81
usgs :	01228	45	18.32	-113	23.05	6780.0	MT	980024.22	980646.68	0.88	-231.25	-1.52	0.00	14.85	-217.03	-197.92
usgs :	01229	45	19.24	-113	23.79	6620.0	MT	980030.89	980648.07	0.86	-225.79	-1.52	0.00	5.11	-221.34	-202.68
usgs :	01230	45	17.87	-113	24.19	7160.0	MT	980000.51	980646.01	1.50	-244.21	-1.51	0.00	27.53	-216.69	-196.57
usgs :	01231	45	14.85	-113	25.91	7100.0	MT	980001.41	980641.45	1.15	-242.16	-1.51	0.00	27.35	-215.17	-195.19
usgs :	01232	45	14.85	-113	24.52	7170.0	MT	979996.66	980641.45	1.37	-244.55	-1.51	0.00	29.18	-215.51	-195.35



# ROUGHNER GRAVITY DATA

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dillon gravity by harold kaufmann  
cus map project  
Meter ID: 0-150

Date: 01/30/82

STATION IDENTIFICATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S							
proj	sta-id	LATITUDE deg	LONGITUDE min	ELE (in ft)	ST	UNSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLETE	ROUGHER	SPEC FIELDS
usgs :	01231	45	13.98	-113 23.16	7235.0	MT	979986.81	980640.13	1.52	-246.77	-1.51	0.00	26.80	-219.95	-199.62
usgs :	01232	45	13.64	-113 22.99	7370.0	MT	979979.05	980639.63	1.16	-251.37	-1.51	0.00	32.18	-219.54	-198.80
usgs :	01233	45	13.15	-113 23.46	7420.0	MT	979978.57	980638.88	1.72	-253.08	-1.50	0.00	37.14	-215.72	-194.69
usgs :	01234	45	13.43	-113 22.05	7110.0	MT	979986.83	980639.30	1.47	-242.50	-1.51	0.00	15.85	-226.70	-206.71
usgs :	01235	45	14.41	-113 21.82	7070.0	MT	979994.90	980640.79	1.07	-241.14	-1.51	0.00	18.68	-222.90	-203.00
usgs :	01236	45	15.29	-113 21.82	6920.0	MT	980006.95	980642.11	1.55	-236.02	-1.52	0.00	15.32	-220.67	-201.23
usgs :	01237	45	12.30	-113 21.93	7355.0	MT	979979.01	980637.60	1.45	-250.86	-1.51	0.00	32.75	-218.17	-197.49
usgs :	01238	45	11.40	-113 20.92	7600.0	MT	979960.09	980636.24	2.00	-259.21	-1.50	0.00	38.21	-220.50	-199.18
usgs :	01239	45	13.74	-113 20.80	7092.0	MT	979986.17	980639.77	1.41	-241.89	-1.51	0.00	13.03	-228.96	-209.02
usgs :	01240	45	13.12	-113 20.22	7155.0	MT	979981.01	980638.84	1.39	-244.04	-1.51	0.00	14.72	-229.44	-209.32
usgs :	01241	45	12.63	-113 19.27	7250.0	MT	979976.36	980638.10	2.50	-247.28	-1.51	0.00	19.74	-226.55	-206.26
usgs :	01242	45	12.51	-113 17.83	7390.0	MT	979977.68	980637.92	2.10	-252.05	-1.51	0.00	34.39	-217.07	-196.35
usgs :	01243	45	12.09	-113 18.81	7325.0	MT	979977.29	980637.29	2.14	-249.83	-1.51	0.00	28.53	-220.67	-200.14
usgs :	01244	45	12.27	-113 20.03	7470.0	MT	979962.42	980637.55	1.46	-254.78	-1.50	0.00	27.01	-227.81	-206.81
usgs :	01245	45	11.07	-113 22.97	7805.0	MT	979950.20	980635.75	1.47	-266.21	-1.48	0.00	48.07	-218.15	-196.21
usgs :	01246	45	9.78	-113 24.30	7390.0	MT	979976.87	980633.80	1.49	-252.05	-1.51	0.00	37.70	-214.37	-193.60
usgs :	01247	45	7.78	-113 24.42	7072.0	MT	979990.60	980630.78	1.81	-241.21	-1.51	0.00	24.58	-216.33	-196.48
usgs :	01248	45	7.03	-113 25.12	6990.0	MT	979999.01	980629.66	2.16	-238.41	-1.52	0.00	26.41	-211.36	-191.77
usgs :	01209	45	7.37	-113 27.11	7067.0	MT	979992.54	980630.16	3.74	-241.03	-1.51	0.00	26.66	-212.15	-192.47
usgs :	01209	45	7.37	-113 27.11	7067.0	MT	979992.53	980630.16	3.74	-241.03	-1.51	0.00	26.65	-212.16	-192.48
usgs :	01249	45	7.32	-113 28.74	7260.0	MT	979984.63	980630.09	3.76	-247.62	-1.51	0.00	36.96	-208.40	-188.19
usgs :	01250	45	7.73	-113 29.40	7465.0	MT	979973.39	980630.71	5.37	-254.61	-1.50	0.00	44.36	-206.38	-185.72
usgs :	01251	45	4.50	-113 26.52	6925.0	MT	980001.73	980625.84	4.22	-236.19	-1.52	0.00	26.85	-206.64	-187.40
usgs :	01252	45	3.23	-113 24.92	6683.0	MT	980012.35	980623.92	3.76	-227.94	-1.52	0.00	16.64	-209.05	-190.46
usgs :	01253	45	2.52	-113 25.66	6970.0	MT	979995.15	980622.85	4.08	-237.73	-1.52	0.00	27.48	-207.69	-188.31
usgs :	01254	45	2.68	-113 23.71	6918.0	MT	979992.08	980623.09	2.62	-235.95	-1.52	0.00	19.28	-215.57	-196.22
usgs :	01255	45	2.35	-113 22.76	7620.0	MT	979951.24	980622.59	5.56	-259.90	-1.49	0.00	44.89	-210.94	-189.86
usgs :	01256	45	1.23	-113 23.68	6542.0	MT	980020.05	980620.91	3.14	-223.13	-1.51	0.00	14.11	-207.40	-189.15
usgs :	01257	45	0.42	-113 22.01	6453.0	MT	980024.68	980619.68	3.93	-220.09	-1.51	0.00	11.60	-206.08	-188.14
usgs :	01258	45	1.58	-113 21.14	7110.0	MT	979981.36	980621.37	3.18	-242.50	-1.51	0.00	28.32	-212.52	-192.67
usgs :	01259	44	59.75	-113 20.83	6397.0	MT	980027.23	980618.67	3.06	-218.18	-1.51	0.00	9.90	-206.73	-188.88
usgs :	01260	44	59.83	-113 18.97	6297.0	MT	980023.93	980618.79	1.48	-214.77	-1.51	0.00	-2.92	-217.72	-200.02
usgs :	01261	44	59.19	-113 18.86	6299.0	MT	980017.91	980617.83	1.23	-214.84	-1.51	0.00	-7.78	-222.90	-205.17
usgs :	01262	44	58.76	-113 18.18	6286.0	MT	980011.28	980617.18	0.84	-214.40	-1.51	0.00	-14.99	-230.05	-212.33
usgs :	01263	44	58.76	-113 17.46	6318.0	MT	980007.85	980617.18	0.78	-215.49	-1.51	0.00	-15.41	-231.63	-213.81
usgs :	01264	44	58.69	-113 17.03	6301.0	MT	980009.58	980617.07	0.77	-214.91	-1.51	0.00	-15.18	-230.82	-213.05
usgs :	01265	44	58.12	-113 18.85	6370.0	MT	980011.11	980616.21	0.67	-217.26	-1.51	0.00	-6.30	-224.20	-206.25
usgs :	01266	44	58.65	-113 15.52	6223.0	MT	980023.59	980617.01	0.72	-212.25	-1.51	0.00	-8.43	-221.46	-203.91
usgs :	01267	45	0.27	-113 17.50	6044.0	MT	980044.49	980619.45	0.93	-206.14	-1.50	0.00	-6.79	-213.50	-196.47
usgs :	01267	45	0.90	-113 13.95	6079.0	MT	980043.62	980620.54	1.25	-207.34	-1.50	0.00	-5.46	-213.05	-195.95

ROUGHER GRAVITY DATA

dillon gravity by harold kaufmann

cus map project

date: 01/30/82

meter 10: 0-150

STATION		L		C		A		T		I		O		N		S		A		N		O		M		A		L		I		E		S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
IDENTIFICATION		LATITUDE		LONGITUDE		ELEVATION		STATION		THEORETICAL		GRAVITY		CORRECTION		CURVATURE		SPECIAL		FREE		COMPLETE		ROUGH		SPEC		FIELDS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
proj	station	deg	min	deg	min	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
usgs	01268	45	1.00	-113	15.17	6135.0	MT	980620.55	0.88	-209.25	-1.50	0.00	-13.90	-223.77	-206.47	0.00	-17.29	-229.37	-211.89	0.00	-15.37	-230.15	-212.45	0.00	2.61	-225.55	-206.75	0.00	27.43	-214.72	-194.76	0.00	27.46	-214.69	-194.73	0.00	25.24	-223.32	-202.84	0.00	72.86	-213.27	-189.69	0.00	22.03	-225.26	-204.88	0.00	11.35	-215.63	-196.92	0.00	29.18	-215.84	-195.65	0.00	49.33	-215.20	-193.40	0.00	75.81	-215.51	-191.51	0.00	57.65	-214.87	-192.42	0.00	36.87	-215.33	-194.55	0.00	10.35	-218.50	-199.64	0.00	-6.08	-223.23	-205.34	0.00	-6.79	-213.50	-196.47	0.00	-6.79	-213.50	-196.47	0.00	17.65	-213.02	-194.02	0.00	-5.32	-222.89	-204.96	0.00	-2.75	-225.47	-207.11	0.00	14.97	-220.39	-201.00	0.00	0.36	-226.51	-207.81	0.00	1.30	-217.39	-199.37	0.00	-3.66	-214.92	-197.51	0.00	0.24	-213.56	-195.95	0.00	29.57	-210.59	-190.80	0.00	17.56	-211.49	-192.61	0.00	36.72	-204.13	-184.29	0.00	8.31	-212.62	-194.41	0.00	9.11	-217.50	-198.82	0.00	4.25	-218.52	-200.16	0.00	-0.21	-216.31	-198.51	0.00	5.61	-224.80	-205.81	0.00	-6.92	-181.58	-167.19	0.00	-6.92	-181.58	-167.19	0.00	-2.68	-211.50	-194.30	0.00	-14.00	-219.19	-202.28	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.67	-220.62	-202.99	0.00	-6.6

dillon gravity by harold knufmann  
cus map project  
Meter ID: a-15b Date: 01/30/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
prof	sta-id	LATITUDE	LONGITUDE	ELE	ST	UNSERVED	THEORETICAL	TERRAIN	BOUGUER	SPECIAL	FREE
		deg min	deg min	(in ft)							AIR
usgs :	01303	45 10.64	-113 8.04	6559.0	MT	980011.91	980635.10	1.07	-223.71	-1.52	-6.63
usgs :	01304	45 11.13	-113 6.59	6460.0	MT	980029.55	980635.84	0.97	-220.33	-1.51	0.97
usgs :	01305	45 10.01	-113 9.92	6820.0	MT	979992.32	980634.15	1.91	-232.61	-1.52	-0.75
usgs :	01306	45 11.45	-113 9.67	6990.0	MT	979990.31	980636.32	2.23	-238.41	-1.52	0.00
usgs :	01307	45 10.04	-113 11.58	7996.0	MT	979930.85	980634.20	7.35	-272.72	-1.47	48.22
usgs :	01308	45 9.25	-113 10.32	6984.0	MT	979982.59	980633.00	1.47	-238.20	-1.52	6.08
usgs :	01309	45 8.58	-113 11.97	7607.0	MT	979956.19	980631.99	5.23	-259.45	-1.50	39.21
usgs :	01310	45 9.04	-113 12.94	7890.0	MT	979940.25	980632.69	3.39	-269.10	-1.48	49.17
usgs :	01311	45 7.10	-113 11.84	6941.0	MT	979990.35	980629.76	1.32	-236.74	-1.52	13.04
usgs :	01312	45 7.54	-113 13.99	7752.0	MT	979948.02	980630.42	3.46	-264.40	-1.49	46.24
usgs :	01312	45 7.54	-113 13.99	7752.0	MT	979948.04	980630.42	3.46	-264.40	-1.49	46.26
usgs :	01313	45 2.75	-113 9.04	6018.0	MT	980051.89	980623.20	0.75	-205.26	-1.50	-5.58
usgs :	01314	45 2.75	-113 6.60	5843.0	MT	980065.34	980623.20	0.74	-199.29	-1.49	-8.57
usgs :	01315	45 3.65	-113 6.61	5952.0	MT	980058.14	980624.55	0.70	-203.01	-1.49	-6.89
usgs :	01316	45 5.41	-113 6.05	6039.0	MT	980055.24	980627.21	0.77	-205.97	-1.50	-4.27
usgs :	01317	45 7.14	-113 6.61	6365.0	MT	980029.91	980629.82	0.78	-217.09	-1.51	-1.57
usgs :	01318	45 7.59	-113 5.32	6122.0	MT	980048.56	980630.50	1.07	-208.80	-1.50	-6.44
usgs :	01319	45 7.82	-113 2.82	6035.0	MT	980057.02	980630.84	0.66	-205.84	-1.50	-6.50
usgs :	01320	45 6.28	-113 1.34	6435.0	MT	980041.32	980628.52	1.37	-219.48	-1.51	17.71
usgs :	01321	45 5.03	-113 3.55	6024.0	MT	980059.81	980626.63	0.75	-205.46	-1.50	-0.53
usgs :	01322	45 3.31	-113 2.21	5920.0	MT	980061.42	980624.04	0.71	-201.91	-1.49	-6.10
usgs :	01323	45 1.92	-113 3.37	5757.0	MT	980067.90	980621.95	0.55	-196.35	-1.48	-12.85
usgs :	01324	45 0.40	-113 3.05	5771.0	MT	980065.43	980619.65	0.57	-196.83	-1.48	-11.70
usgs :	01325	45 0.97	-113 1.02	5700.0	MT	980072.13	980620.51	0.60	-194.41	-1.48	-12.53
usgs :	01326	45 1.84	-113 1.02	5791.0	MT	980067.21	980621.82	0.57	-197.51	-1.48	-10.21
usgs :	01327	45 59.92	-113 1.05	5705.0	MT	980070.14	980618.93	0.68	-194.58	-1.48	-12.47
usgs :	01328	45 0.54	-113 5.89	5888.0	MT	980059.82	980619.86	0.75	-200.82	-1.49	-6.53
usgs :	01329	45 0.23	-113 8.60	5966.0	MT	980053.55	980619.39	0.75	-204.16	-1.50	-3.13
usgs :	01330	45 0.27	-113 12.50	6044.0	MT	980044.49	980619.45	0.93	-206.14	-1.50	-6.79
usgs :	01330	45 1.88	-113 12.71	6142.0	MT	980036.60	980621.88	0.69	-209.49	-1.50	-7.90
usgs :	01331	45 2.72	-113 19.59	7170.0	MT	979976.65	980623.15	3.91	-244.55	-1.51	27.46
usgs :	01332	45 2.07	-113 17.27	6390.0	MT	980009.61	980622.17	1.17	-217.94	-1.51	-11.88
usgs :	01332	45 13.81	-113 26.84	7300.0	MT	979991.73	980639.68	1.65	-248.98	-1.51	38.03
usgs :	01333	45 12.40	-113 24.26	7970.0	MT	979943.32	980637.75	3.71	-271.83	-1.47	54.69
usgs :	01334	45 12.95	-113 25.52	8060.0	MT	979940.08	980638.59	3.49	-274.90	-1.46	59.07
usgs :	01335	45 12.62	-113 26.22	7430.0	MT	979981.43	980638.09	2.48	-253.42	-1.50	41.73
usgs :	01336	45 11.38	-113 25.33	7904.0	MT	979949.61	980636.21	1.64	-269.58	-1.48	56.31
usgs :	01337	45 11.17	-113 26.46	8070.0	MT	979937.65	980635.90	2.22	-275.24	-1.46	60.26
usgs :	01338	45 10.14	-113 21.07	8337.0	MT	979915.87	980634.34	4.35	-284.35	-1.44	65.12
usgs :	01339	45 9.70	-113 19.35	9100.0	MT	979868.99	980633.68	7.07	-310.37	-1.34	90.57

COMPLIE-BOUQUER SPEC  
d1=2.67 d2=2.45 FIELDS

# BUIQUER GRAVITY DATA

page 38

dillon gravity by harold kaufmann  
cus map project  
Meter ID: 9-159 Date: 01/30/82

STATION IDENTIFICATION proj sta-id	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	OBSERVED	GRAVITY THEORETICAL	FERRAIN BOUQUER CURV	SPECIAL	ANOMALIES	
								FREE AIR	COMPLETE-BUIQUER SPEC
								d1=2.67	d2=2.45
usgs : 01340	45 9.20	-113 19.34	9805.0	MT	979813.06	980632.93	0.00	101.61	-214.16
usgs : 00434	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.00	-38.13	-245.55
usgs : 00434	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.00	-38.13	-245.55
usgs : 01341	45 20.79	-113 29.44	6670.0	MT	980024.09	980650.41	0.00	0.67	-227.68
usgs : 01342	45 19.45	-113 34.59	6968.0	MT	980006.88	980648.59	0.00	13.48	-222.70
usgs : 01343	45 18.88	-113 30.68	8326.0	MT	980000.09	980645.89	0.00	35.83	-203.89
usgs : 01345	45 17.58	-113 39.16	8008.0	MT	979957.41	980645.57	0.00	64.53	-202.76
usgs : 01346	45 15.92	-113 40.35	8032.0	MT	979952.85	980643.06	0.00	64.73	-198.48
usgs : 01347	45 16.64	-113 39.35	7840.0	MT	979964.91	980644.15	0.00	57.67	-200.01
usgs : 01348	45 17.35	-113 38.32	7525.0	MT	979985.96	980645.22	0.00	48.05	-202.60
usgs : 01349	45 21.45	-113 33.16	6972.0	MT	980007.30	980651.41	0.00	11.25	-227.03
usgs : 01350	45 20.79	-113 34.38	7118.0	MT	980001.98	980650.41	0.00	20.65	-222.05
usgs : 01351	45 19.62	-113 36.58	7670.0	MT	979985.98	980648.64	0.00	58.28	-201.66
usgs : 01352	45 22.19	-113 34.31	6990.0	MT	980002.99	980652.52	0.00	7.52	-231.17
usgs : 01353	45 21.73	-113 36.21	7195.0	MT	980004.41	980651.83	0.00	28.90	-215.33
usgs : 01354	45 19.39	-113 31.31	6930.0	MT	980003.07	980648.30	0.00	6.18	-230.62
usgs : 01355	45 18.37	-113 32.41	7210.0	MT	979906.81	980646.76	0.00	17.77	-228.47
usgs : 01356	45 19.16	-113 30.33	6835.0	MT	980009.29	980647.95	0.00	3.83	-229.95
usgs : 01357	45 17.94	-113 31.28	7040.0	MT	979993.84	980646.11	0.00	9.48	-231.00
usgs : 01358	45 17.59	-113 33.71	7310.0	MT	979988.16	980645.59	0.00	29.70	-219.20
usgs : 01359	45 15.45	-113 37.47	7830.0	MT	979963.72	980642.35	0.00	57.33	-202.93
usgs : 01360	45 15.11	-113 38.30	8092.0	MT	979948.30	980641.84	0.00	67.03	-202.84
usgs : 01361	45 15.80	-113 36.04	7660.0	MT	979974.36	980642.88	0.00	51.47	-205.87
usgs : 01362	45 16.77	-113 34.07	7540.0	MT	979979.94	980644.34	0.00	44.31	-212.44
usgs : 00434	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.00	-38.13	-245.55
usgs : 00434	45 36.86	-113 26.88	6054.0	MT	980067.42	980674.65	0.00	-38.13	-245.55
usgs : 01363	45 13.70	-113 19.06	7191.0	MT	979977.45	980639.71	0.00	13.68	-231.41
usgs : 01364	45 11.63	-113 16.68	7491.0	MT	979968.99	980636.59	0.00	36.52	-216.41
usgs : 01365	45 10.61	-113 17.13	7635.0	MT	979957.95	980635.05	0.00	40.55	-215.58
usgs : 01366	45 11.74	-113 14.33	8974.0	MT	979871.69	980636.76	0.00	78.36	-219.89
usgs : 01367	45 11.92	-113 15.67	7730.0	MT	979953.43	980637.03	0.00	42.97	-217.49
usgs : 01368	45 13.57	-113 17.20	7876.0	MT	979951.29	980639.52	0.00	52.06	-215.45
usgs : 01369	45 14.63	-113 14.34	7670.0	MT	979961.23	980641.12	0.00	41.05	-216.49
usgs : 01370	45 13.82	-113 12.66	8734.0	MT	979892.64	980639.90	0.00	73.63	-219.25
usgs : 01371	45 12.91	-113 11.74	8980.0	MT	979870.26	980638.52	0.00	75.72	-219.56
usgs : 01372	45 14.50	-113 16.52	7810.0	MT	979949.67	980640.92	0.00	42.84	-222.68
usgs : 01272	45 2.72	-113 19.59	7170.0	MT	979976.71	980623.15	0.00	27.53	-214.62
usgs : 01272	45 2.72	-113 19.59	7170.0	MT	979976.75	980623.15	0.00	27.51	-214.58
usgs : 01373	45 6.90	-113 14.62	7705.0	MT	979947.56	980629.45	0.00	42.33	-218.56

## BOUGUER GRAVITY DATA

dillon gravity by harold kaufmann

cus map project

Meter ID: 0-150 Date: 01/30/82

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	prof sta-id	LATITUDE	LONGITUDE	ELEVATION (in ft)	UNRESERVED THEORETICAL	ERRAIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER SPEC FIELDS
usgs :	01374	45 7.66	-113 15.48	8053.0 MT	979928.56	5.67	0.00	54.88	-215.58 -193.30
usgs :	01375	45 8.50	-113 16.14	8697.0 MT	979888.88	7.43	0.00	74.03	-216.57 -192.63
usgs :	01376	45 9.07	-113 17.02	9357.0 MT	979844.08	13.77	0.00	90.75	-215.93 -190.66
usgs :	01377	45 7.24	-113 16.45	7395.0 MT	979869.06	3.65	0.00	34.20	-215.88 -195.27
usgs :	01378	45 7.99	-113 17.80	7790.0 MT	979944.57	5.44	0.00	49.68	-212.06 -190.49
usgs :	01402	45 0.27	-113 12.50	6044.0 MT	980044.49	0.93	0.00	-6.79	-213.50 -196.47
usgs :	01403	45 36.86	-113 26.48	6054.0 MT	980067.42	0.56	0.00	-38.13	-245.55 -228.46
usgs :	01379	45 33.13	-113 29.44	6137.0 MT	980051.91	0.42	0.00	-40.21	-250.61 -233.27
usgs :	01380	45 29.24	-113 36.27	6497.0 MT	980035.86	0.83	0.00	-16.57	-238.85 -220.53
usgs :	01381	45 28.90	-113 36.35	6580.0 MT	980029.86	0.85	0.00	-14.26	-239.35 -220.80
usgs :	01382	45 27.27	-113 36.82	6792.0 MT	980023.08	1.05	0.00	1.34	-230.78 -211.66
usgs :	01383	45 26.86	-113 38.17	6995.0 MT	980020.24	1.35	0.00	18.20	-220.55 -200.88
usgs :	01384	45 26.88	-113 35.70	6685.0 MT	980026.52	0.88	0.00	-4.68	-233.32 -214.48
usgs :	01385	45 25.14	-113 35.65	6830.0 MT	980019.72	1.02	0.00	4.76	-228.69 -209.45
usgs :	01386	45 24.08	-113 35.02	6805.0 MT	980014.84	0.95	0.00	-0.86	-233.53 -214.36
usgs :	01387	45 23.30	-113 36.90	7015.0 MT	980017.35	1.97	0.00	22.55	-216.25 -196.58
usgs :	01388	45 22.23	-113 38.27	7190.0 MT	980017.65	3.12	0.00	41.21	-202.41 -182.34
usgs :	01389	45 21.68	-113 39.59	7308.0 MT	980009.52	5.36	0.00	44.70	-200.71 -180.49
usgs :	01390	45 21.18	-113 41.41	7498.0 MT	980000.76	8.19	0.00	54.54	-194.51 -173.99
usgs :	01391	45 20.85	-113 42.33	7670.0 MT	979991.06	9.85	0.00	61.50	-191.75 -170.88
usgs :	01392	45 20.47	-113 42.83	7856.0 MT	979976.89	8.64	0.00	65.37	-195.41 -173.93
usgs :	01393	45 19.86	-113 43.47	8522.0 MT	979934.43	7.82	0.00	86.39	-197.87 -174.45
usgs :	01394	45 22.04	-113 39.56	7710.0 MT	979988.11	3.23	0.00	60.51	-200.72 -179.20
usgs :	01395	45 22.25	-113 39.63	7553.0 MT	979995.37	3.66	0.00	52.70	-202.75 -181.70
usgs :	01396	45 21.86	-113 43.11	8567.0 MT	979938.49	7.58	0.00	91.66	-194.37 -170.80
usgs :	01397	45 21.76	-113 42.22	8175.0 MT	979959.53	8.07	0.00	76.03	-196.18 -173.75
usgs :	01398	45 26.13	-113 36.90	6845.0 MT	980026.84	1.12	0.00	11.81	-222.05 -202.79
usgs :	01399	45 25.08	-113 43.13	7310.0 MT	980016.84	8.70	0.00	47.08	-195.06 -175.10
usgs :	01400	45 24.53	-113 41.02	7242.0 MT	980024.54	3.38	0.00	49.21	-195.92 -175.72
usgs :	01401	45 24.44	-113 39.58	7054.0 MT	980031.71	2.76	0.00	38.86	-200.49 -180.77
usgs :	01402	45 25.43	-113 38.02	6890.0 MT	980032.61	2.05	0.00	22.85	-211.61 -192.29
usgs :	01403	45 35.34	-113 36.44	6265.0 MT	980056.40	0.48	0.00	-27.03	-241.74 -224.05
usgs :	01404	45 32.77	-113 40.28	6578.0 MT	980069.97	3.14	0.00	19.82	-202.91 -184.55
usgs :	01405	45 31.71	-113 43.90	6815.0 MT	980053.06	1.74	0.00	26.79	-205.43 -186.30
usgs :	01406	45 31.33	-113 39.35	6820.0 MT	980033.24	0.92	0.00	8.01	-225.20 -205.98
usgs :	01407	45 30.58	-113 41.82	7260.0 MT	980022.65	1.09	0.00	39.89	-207.55 -187.16
usgs :	01408	45 31.21	-113 40.62	6930.0 MT	980034.03	1.12	0.00	19.31	-217.45 -197.94
usgs :	01409	45 32.49	-113 40.64	6881.0 MT	980042.27	0.84	0.00	2.23	-226.32 -207.48
usgs :	01410	45 32.64	-113 38.45	6636.0 MT	980036.72	0.71	0.00	-7.78	-234.92 -216.20
usgs :	01411	45 29.70	-113 38.73	6942.0 MT	980023.24	1.25	0.00	11.93	-225.11 -205.58

dillon gravity by harold kaufmann  
cus map project  
Meter ID: G-159 Date: 01/30/82

STATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	proj	lat	long	ele	observed	terrain	special	free	complete
sta-id		deg	min	(in ft)		Bouguer		air	dl=2.67 ds=2.45
									fields
usgs :	01412	45 30.07	-113 41.12	7100.0 MT	980028.60	980664.41	2.12 -242.16 -1.51	0.00	31.58 -209.98 -190.08
usgs :	01413	45 29.64	-113 41.35	7195.0 MT	980030.70	980663.76	1.94 -245.40 -1.51	0.00	43.25 -201.72 -181.54
usgs :	01414	45 29.48	-113 41.50	7220.0 MT	980031.39	980663.52	2.09 -246.25 -1.51	0.00	46.53 -199.15 -178.90
usgs :	01415	45 28.76	-113 42.21	7320.0 MT	980025.63	980662.43	3.68 -249.66 -1.51	0.00	51.25 -196.24 -175.85
usgs :	01416	45 28.40	-113 42.83	7340.0 MT	980022.54	980661.89	5.41 -250.35 -1.51	0.00	50.58 -195.86 -175.56
usgs :	01417	45 28.18	-113 44.32	7580.0 MT	980008.52	980661.55	7.15 -258.53 -1.50	0.00	59.44 -193.44 -172.60
usgs :	01418	45 27.33	-113 46.65	8860.0 MT	979929.38	980660.27	8.88 -302.19 -1.38	0.00	101.82 -192.86 -168.58
usgs :	01419	45 27.02	-113 45.55	8650.0 MT	979943.76	980659.80	6.25 -295.03 -1.40	0.00	96.94 -193.24 -169.33
usgs :	01420	45 26.71	-113 44.61	7785.0 MT	979996.19	980659.34	7.55 -265.52 -1.49	0.00	68.58 -190.88 -169.50
usgs :	01422	45 27.02	-113 43.30	7600.0 MT	980005.22	980659.80	7.57 -259.21 -1.50	0.00	59.77 -193.37 -172.51
usgs :	01423	45 27.51	-113 41.86	7400.0 MT	980014.91	980660.55	5.18 -252.39 -1.51	0.00	49.93 -198.78 -178.29
usgs :	01424	45 27.57	-113 40.62	7270.0 MT	980025.53	980660.64	3.63 -247.96 -1.51	0.00	48.25 -197.59 -177.33
usgs :	01425	45 27.67	-113 39.37	7195.0 MT	980020.16	980660.79	1.94 -245.40 -1.51	0.00	35.69 -209.29 -189.10
usgs :	01426	45 27.85	-113 38.17	6990.0 MT	980016.38	980661.06	1.44 -238.41 -1.52	0.00	12.37 -226.11 -206.46
usgs :	01434	45 36.86	-113 26.88	6054.0 MT	980067.42	980674.65	0.56 -206.48 -1.50	0.00	-38.13 -245.55 -228.46
usgs :	01434	45 36.86	-113 26.88	6054.0 MT	980067.42	980674.65	0.56 -206.48 -1.50	0.00	-38.13 -245.55 -228.46
usgs :	01435	45 15.51	-113 3.47	6330.0 MT	980052.16	980642.45	1.43 -215.90 -1.51	0.00	4.76 -211.22 -193.42
usgs :	01454	45 15.85	-113 3.73	6687.0 MT	980031.99	980642.96	2.69 -228.07 -1.52	0.00	17.62 -209.28 -190.59
usgs :	01458	45 15.89	-113 3.42	6380.0 MT	980050.73	980642.72	1.63 -217.60 -1.51	0.00	7.75 -204.73 -191.81
usgs :	01127	45 31.96	-112 19.58	4644.0 MT	980168.94	980667.26	0.93 -158.39 -1.36	0.00	-41.72 -200.55 -187.46
usgs :	01122	45 31.96	-112 19.58	4644.0 MT	980168.94	980667.26	0.93 -158.39 -1.36	0.00	-41.72 -200.55 -187.46
usgs :	01427	45 41.96	-112 9.02	4769.0 MT	980213.16	980682.34	4.41 -162.66 -1.38	0.00	-20.83 -180.46 -167.31
usgs :	01428	45 38.68	-112 5.93	8580.0 MT	980088.82	980678.83	12.10 -296.09 -1.80	0.00	118.98 -168.89 -148.88
usgs :	01430	45 39.54	-112 6.29	6830.0 MT	980094.99	980678.70	13.08 -232.95 -1.52	0.00	58.31 -163.08 -144.83
usgs :	01431	45 40.17	-112 6.76	6440.0 MT	980130.88	980679.64	10.70 -219.65 -1.51	0.00	56.61 -153.85 -136.51
usgs :	01432	45 40.47	-112 7.82	5580.0 MT	980166.08	980680.09	12.04 -190.32 -1.47	0.00	10.54 -169.20 -154.39
usgs :	01433	45 41.90	-112 8.11	4910.0 MT	980209.34	980682.25	6.45 -167.47 -1.40	0.00	-11.31 -173.73 -160.34
usgs :	01434	45 42.01	-112 6.60	5310.0 MT	980189.41	980682.41	12.89 -181.11 -1.44	0.00	6.19 -163.48 -149.50
usgs :	01435	45 42.42	-112 5.36	5910.0 MT	980161.95	980683.04	7.08 -201.57 -1.49	0.00	34.49 -161.50 -145.35
usgs :	01436	45 41.86	-112 4.79	6500.0 MT	980124.30	980682.19	10.52 -221.70 -1.51	0.00	53.11 -159.58 -142.05
usgs :	01437	45 42.32	-112 4.04	6540.0 MT	980122.93	980682.88	10.23 -224.42 -1.52	0.00	58.57 -157.14 -139.37
usgs :	01438	45 42.83	-112 6.88	5460.0 MT	980184.54	980683.66	9.04 -186.23 -1.46	0.00	14.17 -164.47 -149.75
usgs :	01439	45 42.57	-112 7.83	5050.0 MT	980207.17	980683.26	6.72 -172.24 -1.42	0.00	-1.34 -168.27 -154.52
usgs :	01440	45 43.36	-112 8.27	4880.0 MT	980214.39	980684.45	7.63 -176.44 -1.40	0.00	-11.29 -171.49 -158.29
usgs :	01441	45 41.53	-112 3.31	7650.0 MT	980059.77	980681.70	6.14 -260.92 -1.49	0.00	97.13 -159.14 -138.03
usgs :	01442	45 42.22	-112 2.76	8892.0 MT	979968.96	980682.73	25.89 -303.28 -1.37	0.00	121.94 -156.82 -133.85
usgs :	01443	45 42.87	-112 2.71	9283.0 MT	979937.08	980683.71	34.61 -316.62 -1.31	0.00	125.80 -157.52 -134.17
usgs :	01444	45 43.30	-112 10.28	4476.0 MT	980217.53	980684.36	2.72 -152.66 -1.34	0.00	-46.02 -197.31 -184.84
usgs :	01445	45 41.98	-112 12.83	4486.0 MT	980203.07	980682.38	2.31 -153.00 -1.34	0.00	-57.55 -209.59 -197.06

dillon gravity by harold kaufmann  
cus map project  
Meter ID: G-1501 Date: 01/30/82

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTIONS		ANOMALIES	
proj	station	deg	min	deg	min	ft	in	observed	theoretical	frain	bourguer	free air	complete-rougher
usgs	:	45	40.97	-112	15.36	4504.0	MT	980203.27	980680.85	1.97	-153.62	-54.13	-207.13
usgs	:	45	31.96	-112	19.58	4644.0	MT	980180.94	980667.26	0.93	-158.39	-41.72	-200.55
usgs	:	45	31.96	-112	19.58	4644.0	MT	980180.94	980667.26	0.93	-158.39	-41.72	-200.55
usgs	:	45	34.07	-112	14.14	5502.0	MT	980148.37	980670.44	3.36	-187.66	-41.84	-190.60
usgs	:	45	33.87	-112	12.88	6020.0	MT	980118.26	980670.14	8.84	-205.33	14.03	-183.96
usgs	:	45	33.91	-112	11.43	7030.0	MT	980058.76	980670.20	10.31	-239.77	49.36	-181.62
usgs	:	45	36.27	-112	13.56	5480.0	MT	980153.09	980673.76	3.29	-186.91	-5.50	-190.58
usgs	:	45	35.83	-112	11.61	6245.0	MT	980104.83	980673.09	12.81	-213.00	18.78	-182.91
usgs	:	45	36.02	-112	9.07	7860.0	MT	980015.00	980673.38	10.86	-268.08	80.40	-178.31
usgs	:	45	35.69	-112	8.01	8580.0	MT	979969.46	980672.88	12.25	-292.64	102.99	-178.82
usgs	:	45	36.11	-112	7.14	8940.0	MT	979952.03	980673.52	11.61	-304.92	118.74	-175.94
usgs	:	45	36.85	-112	7.69	8225.0	MT	979998.69	980674.63	11.02	-280.53	97.12	-173.84
usgs	:	45	37.39	-112	8.21	7830.0	MT	980022.77	980675.45	10.20	-267.06	83.28	-175.06
usgs	:	45	37.08	-112	10.34	6830.0	MT	980080.22	980674.98	9.18	-232.95	47.25	-178.04
usgs	:	45	37.51	-112	11.30	6050.0	MT	980125.14	980675.63	7.57	-206.35	18.24	-182.04
usgs	:	45	38.46	-112	12.84	5282.0	MT	980164.88	980677.06	3.11	-180.15	-15.62	-194.11
usgs	:	45	39.55	-112	11.57	5294.0	MT	980169.68	980678.41	4.15	-180.56	-11.04	-188.90
usgs	:	45	38.92	-112	10.33	5950.0	MT	980136.65	980677.76	9.94	-202.94	18.22	-176.27
usgs	:	45	38.14	-112	9.35	7660.0	MT	980029.31	980676.58	10.35	-261.26	72.72	-179.68
usgs	:	45	47.48	-112	4.93	4837.0	MT	980233.00	980690.66	2.01	-164.98	-2.93	-167.29
usgs	:	45	46.36	-112	4.83	5145.0	MT	980210.17	980688.98	3.32	-175.48	4.88	-168.71
usgs	:	45	45.77	-112	4.46	5417.0	MT	980195.36	980688.09	4.93	-184.76	16.51	-164.77
usgs	:	45	44.58	-112	4.92	6380.0	MT	980138.37	980686.30	4.02	-217.60	51.80	-163.29
usgs	:	45	45.24	-112	2.23	6765.0	MT	980117.30	980687.29	4.48	-230.73	65.91	-161.86
usgs	:	45	44.07	-112	3.73	6560.0	MT	980126.03	980685.52	5.38	-223.74	57.15	-162.73
usgs	:	45	44.40	-112	5.06	6720.0	MT	980114.43	980686.02	5.76	-229.20	60.09	-164.87
usgs	:	45	48.48	-112	5.79	4502.0	MT	980250.58	980692.17	1.61	-153.55	-18.34	-171.63
usgs	:	45	49.80	-112	4.48	4379.0	MT	980257.02	980694.16	1.00	-149.36	-25.45	-175.13
usgs	:	45	52.22	-112	6.45	4365.0	MT	980248.39	980697.81	0.72	-148.88	-39.05	-188.53
usgs	:	45	52.22	-112	6.45	4365.0	MT	980248.39	980697.81	0.72	-148.88	-39.05	-188.53
usgs	:	45	38.41	-112	2.67	7290.0	MT	980056.71	980676.98	10.42	-248.64	64.95	-174.78
usgs	:	45	37.56	-112	4.84	8580.0	MT	979982.74	980675.70	7.57	-292.64	113.45	-173.04
usgs	:	45	36.13	-112	4.70	9190.0	MT	979942.41	980676.56	13.58	-313.44	129.55	-171.64
usgs	:	45	38.60	-112	4.18	10050.0	MT	979875.98	980677.27	34.41	-342.78	143.18	-166.35
usgs	:	45	40.17	-112	3.05	8020.0	MT	980026.30	980679.64	9.01	-273.54	100.46	-165.53
usgs	:	45	40.65	-112	2.07	6860.0	MT	980049.92	980680.37	6.92	-233.98	64.39	-164.18
usgs	:	45	41.93	-112	0.47	5769.0	MT	980167.61	980682.30	11.20	-196.76	27.63	-159.41
usgs	:	45	42.84	-111	59.25	5570.0	MT	980187.75	980683.67	8.48	-189.98	27.70	-155.26
usgs	:	45	43.76	-112	1.17	6470.0	MT	980131.35	980685.05	11.24	-220.67	54.48	-156.46
usgs	:	45	43.72	-111	58.32	5360.0	MT	980209.40	980688.99	4.34	-182.81	28.29	-151.63

ROUGHNER GRAVITY DATA

dillon gravity by harold kaufmann

cus map project

meter 10: 0-159 Date: 01/30/82

STATION		L O C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION		E L E . S T		UNRSERVED		TERRAIN BOUGUER CURV		COMPLETE-BOUGUER	
prof	sta-id	LATITUDE	LONGITUDE	deg	min	(in ft)	FREE AIR	d1=2.67	d2=2.45
FIELDS									
usgs :	01402	45 46.26	-111 56.77	4089.0	MT	980688.83	0.00	2.32	-156.72
usgs :	01403	45 49.25	-111 55.90	4087.0	MT	980693.34	0.00	1.50	-162.70
usgs :	00502	45 52.22	-112 6.45	4365.0	MT	980697.81	0.00	0.72	-188.53
usgs :	01404	45 52.66	-112 10.69	7200.0	MT	980668.31	0.00	8.79	-178.13
usgs :	01405	45 51.97	-112 10.70	6560.0	MT	980667.27	0.00	6.92	-180.80
usgs :	01406	45 51.42	-112 12.18	5840.0	MT	980666.45	0.00	4.55	-185.53
usgs :	01122	45 51.96	-112 19.58	4644.0	MT	980667.26	0.00	0.93	-200.55
usgs :	00005	45 47.54	-112 56.50	5681.0	MT	980690.76	0.00	2.84	-203.22
usgs :	01001	45 34.45	-112 54.08	8935.0	MT	979921.82	0.00	6.00	-209.45
usgs :	01002	45 34.85	-112 54.17	8950.0	MT	979921.86	0.00	6.57	-208.65
usgs :	01003	45 34.98	-112 54.24	8980.0	MT	980671.81	0.00	6.63	-209.03
usgs :	01004	45 35.02	-112 54.07	8960.0	MT	979921.55	0.00	6.20	-208.99
usgs :	01005	45 35.10	-112 54.25	9000.0	MT	979916.76	0.00	6.83	-210.87
usgs :	01006	45 35.18	-112 54.31	8900.0	MT	979923.81	0.00	6.94	-209.82
usgs :	01007	45 35.59	-112 53.77	8910.0	MT	979924.51	0.00	10.19	-205.89
usgs :	01008	45 35.71	-112 53.59	8820.0	MT	979929.75	0.00	9.55	-206.87
usgs :	01009	45 35.86	-112 52.77	8382.0	MT	979958.50	0.00	6.59	-207.56
usgs :	01010	45 35.46	-112 52.78	8640.0	MT	979937.85	0.00	7.61	-211.12
usgs :	01011	45 35.70	-112 53.22	8920.0	MT	979920.45	0.00	13.83	-205.87
usgs :	01012	45 35.33	-112 53.31	8990.0	MT	979916.42	0.00	8.84	-210.14
usgs :	01013	45 35.12	-112 53.68	9273.0	MT	980672.02	0.00	11.36	-210.22
usgs :	01014	45 34.98	-112 53.79	9135.0	MT	980671.81	0.00	8.00	-210.95
usgs :	01001	45 34.45	-112 54.08	8935.0	MT	979921.99	0.00	6.00	-209.38
usgs :	01001	45 34.45	-112 54.08	8935.0	MT	979921.96	0.00	6.00	-209.41
usgs :	01015	45 34.82	-112 54.58	9405.0	MT	979888.31	0.00	10.12	-211.31
usgs :	01016	45 34.63	-112 54.79	9925.0	MT	979847.75	0.00	17.83	-212.68
usgs :	01017	45 34.59	-112 54.84	9980.0	MT	979843.12	0.00	17.51	-214.27
usgs :	01018	45 34.62	-112 54.99	10160.0	MT	979831.16	0.00	21.12	-211.86
usgs :	01019	45 34.50	-112 55.11	10245.0	MT	979820.61	0.00	21.00	-217.25
usgs :	01020	45 34.45	-112 55.52	10390.0	MT	979807.33	0.00	25.63	-217.12
usgs :	01021	45 34.33	-112 55.63	10270.0	MT	979818.21	0.00	21.20	-217.69
usgs :	01022	45 34.17	-112 55.69	10580.0	MT	979790.50	0.00	27.46	-220.29
usgs :	01023	45 34.12	-112 55.72	10520.0	MT	979797.75	0.00	25.39	-218.64
usgs :	01024	45 34.05	-112 55.83	10623.0	MT	979786.71	0.00	30.34	-218.43
usgs :	01025	45 34.02	-112 55.93	10490.0	MT	979798.35	0.00	26.01	-219.07
usgs :	01026	45 33.90	-112 56.36	10130.0	MT	979825.83	0.00	17.06	-221.97
usgs :	01027	45 33.99	-112 56.84	10110.0	MT	979827.78	0.00	18.03	-220.38
usgs :	01028	45 34.46	-112 54.92	10000.0	MT	979839.09	0.00	16.99	-217.42
usgs :	01029	45 34.31	-112 54.56	9415.0	MT	979883.29	0.00	10.38	-214.71
usgs :	01030	45 34.11	-112 54.19	8960.0	MT	979914.70	0.00	5.94	-214.72



Meter ID: n-150 Date: 01/30/87

STATION IDENTIFICATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S				
proj	sta-id	LATITUDE deg	LONGITUDE deg	ELE (in ft)	ST	UNSERVED	THEORETICAL	TERRAIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER	SPEC FIELDS
											di=2.67	d2=2.45
usgs	GL031	45 34.15	-112 53.96	8620.0	MT	979923.77	980670.56	5.56 -300.83	-1.38	0.00	82.17	-214.48 -190.04
usgs	GL032	45 34.46	-112 54.03	8910.0	MT	979920.49	980671.03	5.88 -303.89	-1.37	0.00	86.87	-212.51 -187.85
usgs	GL033	45 34.58	-112 54.27	9030.0	MT	979914.98	980671.21	6.86 -307.99	-1.35	0.00	92.45	-210.03 -185.11
usgs	GL034	45 34.64	-112 54.41	9000.0	MT	979916.27	980671.30	8.67 -306.96	-1.36	0.00	90.83	-208.82 -184.13
usgs	GL035	45 34.72	-112 54.32	8930.0	MT	979922.13	980671.42	7.68 -304.58	-1.37	0.00	90.00	-208.27 -183.69
usgs	GL036	45 34.67	-112 54.14	8931.0	MT	979921.87	980671.34	6.28 -304.61	-1.37	0.00	89.90	-209.80 -185.10
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.87	980671.02	6.00 -304.75	-1.37	0.00	90.61	-209.51 -184.78
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.92	980671.02	6.00 -304.75	-1.37	0.00	90.66	-209.45 -184.72
usgs	GL037	45 34.34	-112 53.81	8670.0	MT	979936.42	980670.85	5.66 -295.71	-1.40	0.00	80.44	-211.01 -187.00
usgs	GL038	45 34.43	-112 54.29	8830.0	MT	979925.83	980670.98	8.08 -301.17	-1.38	0.00	84.74	-209.73 -185.47
usgs	GL039	45 33.84	-112 54.30	8830.0	MT	979923.18	980670.09	6.21 -301.17	-1.38	0.00	82.98	-213.36 -188.94
usgs	GL040	45 34.07	-112 54.61	8830.0	MT	979922.56	980670.44	9.30 -301.17	-1.38	0.00	82.01	-211.23 -187.07
usgs	GL041	45 33.72	-112 54.48	8795.0	MT	979922.66	980669.91	6.15 -299.97	-1.39	0.00	79.36	-215.85 -191.53
usgs	GL042	45 33.74	-112 54.76	8740.0	MT	979925.94	980669.95	8.38 -298.10	-1.39	0.00	77.43	-213.68 -189.69
usgs	GL043	45 33.60	-112 55.43	8950.0	MT	979907.70	980669.73	10.55 -305.26	-1.37	0.00	79.14	-216.94 -192.54
usgs	GL044	45 33.53	-112 54.67	8680.0	MT	979929.01	980669.63	7.22 -296.05	-1.40	0.00	75.18	-215.05 -191.13
usgs	GL045	45 33.52	-112 54.20	8740.0	MT	979925.24	980669.61	6.52 -298.10	-1.39	0.00	77.07	-215.90 -191.76
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.83	980671.02	6.00 -304.75	-1.37	0.00	90.57	-209.54 -184.82
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.77	980671.02	6.00 -304.75	-1.37	0.00	90.52	-209.60 -184.87
usgs	GL046	45 34.67	-112 53.72	8930.0	MT	979921.47	980671.34	5.98 -304.58	-1.37	0.00	89.41	-210.56 -185.84
usgs	GL047	45 34.65	-112 53.48	8940.0	MT	979920.16	980671.31	7.26 -304.92	-1.37	0.00	89.07	-209.95 -185.31
usgs	GL048	45 34.58	-112 53.58	8620.0	MT	979939.03	980671.21	6.59 -294.00	-1.41	0.00	77.99	-210.83 -187.03
usgs	GL049	45 34.56	-112 52.86	8735.0	MT	979929.39	980671.18	7.57 -297.93	-1.39	0.00	79.18	-212.57 -188.53
usgs	GL050	45 34.75	-112 52.71	8640.0	MT	979935.30	980671.47	7.74 -294.69	-1.41	0.00	75.88	-212.48 -188.72
usgs	GL051	45 34.33	-112 52.64	8570.0	MT	979937.54	980670.84	7.53 -292.30	-1.41	0.00	72.18	-214.00 -190.42
usgs	GL041	45 34.34	-112 53.02	8340.0	MT	979957.58	980670.85	5.04 -284.45	-1.44	0.00	70.60	-210.25 -187.11
usgs	GL052	45 33.82	-112 53.01	8820.0	MT	979921.04	980670.06	6.82 -300.83	-1.38	0.00	79.93	-215.46 -191.12
usgs	GL053	45 33.83	-112 53.28	8825.0	MT	979921.99	980670.08	5.72 -301.00	-1.38	0.00	81.34	-215.32 -190.88
usgs	GL054	45 33.79	-112 53.47	8740.0	MT	979927.73	980670.02	4.99 -298.10	-1.39	0.00	79.16	-215.34 -191.08
usgs	GL055	45 33.82	-112 53.95	8900.0	MT	979916.11	980670.06	5.68 -303.55	-1.37	0.00	82.51	-216.73 -192.07
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.74	980671.02	6.00 -304.75	-1.37	0.00	90.48	-209.63 -184.90
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979921.70	980671.02	6.00 -304.75	-1.37	0.00	90.45	-209.67 -184.94
usgs	GL036	45 33.97	-112 55.37	10000.0	MT	979839.96	980670.29	16.90 -341.07	-1.18	0.00	109.45	-215.90 -189.10
usgs	GL037	45 33.95	-112 55.29	9910.0	MT	979845.14	980670.26	15.68 -338.00	-1.20	0.00	106.21	-217.31 -190.66
usgs	GL058	45 33.89	-112 54.98	9400.0	MT	979881.35	980670.17	10.48 -320.61	-1.30	0.00	94.61	-216.81 -191.15
usgs	GL059	45 33.93	-112 54.83	9230.0	MT	979894.69	980670.23	8.63 -314.81	-1.32	0.00	91.92	-215.58 -190.24
usgs	GL001	45 34.45	-112 54.08	8935.0	MT	979922.09	980671.02	6.00 -304.75	-1.37	0.00	90.84	-209.28 -184.55
usgs	GL005	45 37.54	-112 56.50	5681.0	MT	980145.88	980690.76	2.84 -193.76	-1.48	0.00	-10.82	-203.22 -187.37
usgs	GL060	45 35.09	-112 55.94	8520.0	MT	979943.05	980671.98	7.01 -290.59	-1.42	0.00	71.84	-213.16 -189.68
usgs	GL061	45 34.86	-112 56.03	8630.0	MT	979935.30	980671.63	7.67 -294.34	-1.41	0.00	74.77	-213.11 -189.39
usgs	GL062	45 34.71	-112 56.12	8640.0	MT	979932.66	980671.41	10.01 -294.69	-1.41	0.00	73.30	-212.78 -189.21

STATION IDENTIFICATION proj	LATITUDE deg	LONGITUDE deg min	C A T I I N S EIE (in ft)	GRAVITY SURVED THEORETICAL	IRPATN BOURGER CURV	C N R F C T I O N S SPECIAL	FREE AIR	A N M A L I F S COMPLIE-ROUGHER d1=2.67 d2=2.45	SPEC FIELDS						
d1100:	40	43.38	-105	6.64	5562.0	CM	979586.68	980144.31	0.00	-189.70	-1.47	0.00	-34.69	-225.86	-210.11
d1101:	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.00	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
d1102:	45	1.03	-112	50.25	5439.0	MT	980098.33	980620.60	0.00	-185.51	-1.46	0.00	-10.95	-195.73	-180.50
d1103:	40	59.21	-112	48.69	6324.0	MT	980035.13	980617.86	0.00	-215.69	-1.51	0.00	11.76	-203.59	-185.85
d1104:	40	59.62	-112	50.28	5775.0	MT	980073.32	980618.48	0.00	-196.97	-1.48	0.00	-2.26	-199.53	-183.28
d1105:	40	59.72	-112	52.20	5619.0	MT	980087.34	980618.63	0.00	-191.65	-1.47	0.00	-3.05	-194.84	-179.03
d1106:	40	59.66	-112	53.36	5635.0	MT	980088.01	980618.53	0.00	-192.19	-1.47	0.00	-0.79	-193.41	-177.54
d1107:	40	58.60	-112	57.03	5601.0	MT	980080.04	980616.94	0.00	-191.03	-1.47	0.00	-10.36	-201.50	-185.75
d1108:	40	59.40	-112	58.64	5684.0	MT	980073.55	980618.14	0.00	-193.86	-1.48	0.00	-10.25	-204.83	-188.80
d1109:	40	58.72	-112	55.07	5569.0	MT	980085.87	980617.12	0.00	-189.94	-1.47	0.00	-7.71	-197.15	-181.54
d1110:	45	0.51	-112	54.19	5859.0	MT	980077.38	980619.82	0.00	-199.83	-1.49	0.00	8.35	-192.11	-175.59
d1111:	45	2.02	-112	54.69	6244.0	MT	980054.60	980622.09	0.00	-212.96	-1.51	0.00	19.47	-194.41	-176.79
d1112:	45	1.36	-112	52.19	6190.0	MT	980058.24	980621.10	0.00	-211.12	-1.50	0.00	19.03	-192.68	-175.23
d1113:	45	2.29	-112	52.88	6053.0	MT	980032.25	980622.50	0.00	-226.91	-1.52	0.00	35.14	-190.90	-172.28
d1114:	45	5.19	-112	51.81	5765.0	MT	980087.82	980626.88	0.00	-196.63	-1.48	0.00	2.90	-192.71	-176.60
d1115:	45	3.09	-112	52.40	6285.0	MT	980054.51	980624.91	0.00	-214.36	-1.51	0.00	20.41	-194.47	-176.77
d1116:	45	4.06	-112	54.16	6903.0	MT	980017.09	980625.17	0.00	-235.44	-1.52	0.00	40.80	-193.12	-173.84
d1117:	45	4.00	-112	56.06	6653.0	MT	980035.92	980625.08	0.00	-226.91	-1.52	0.00	36.23	-191.27	-172.52
d1118:	45	4.70	-112	57.67	7396.0	MT	979980.47	980626.14	0.00	-252.26	-1.51	0.00	49.53	-198.06	-177.66
d1119:	45	3.81	-112	57.76	7349.0	MT	979982.07	980624.80	0.00	-250.65	-1.51	0.00	48.06	-196.89	-176.71
d1120:	45	2.95	-112	55.39	6319.0	MT	980054.90	980623.50	0.00	-215.52	-1.51	0.00	25.41	-190.70	-172.90
d1121:	45	1.76	-112	55.92	5915.0	MT	980069.68	980621.70	0.00	-201.74	-1.49	0.00	4.02	-197.66	-181.04
d1122:	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.00	-173.67	-1.42	0.00	-6.92	-181.58	-167.19
d1123:	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.00	-173.67	-1.42	0.00	-6.92	-181.58	-167.19

# ROUGHNER GRAVITY DATA

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Cusma  
Summer 81  
Meter 10: 0-150

Date: 01/24/82

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		TERRAIN		SPECIAL		FREE AIR		ANOMALIES	
IDENTIFICATION	STATION	deg	min	deg	min	deg	min	UPSRVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLIF-ROUGHNER	SPEC	FI	LD	FIELD
d110n:	01519	44	59.42	-112	45.34	6464.0	MT	980023.25	980618.17	3.15	-220.47	-1.51	0.00	12.71	-206.12	-188.09			
d110n:	01520	45	0.12	-112	47.09	6045.0	MT	980047.41	980619.23	3.97	-206.18	-1.50	0.00	-3.55	-207.26	-190.47			
d110n:	01521	45	0.66	-112	49.26	5620.0	MT	980082.79	980620.05	3.01	-191.68	-1.47	0.00	-8.93	-199.07	-183.40			
d110n:	01522	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19			
d110n:	01523	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19			
d110n:	01524	45	8.72	-112	37.23	5315.0	MT	980120.42	980632.20	0.59	-181.28	-1.44	0.00	-12.12	-194.25	-179.24			
d110n:	01525	45	7.05	-112	36.38	5408.0	MT	980108.59	980629.68	0.82	-184.45	-1.45	0.00	-12.68	-197.77	-182.52			
d110n:	01526	45	5.27	-112	35.93	5409.0	MT	980101.23	980627.00	1.25	-187.56	-1.46	0.00	-8.81	-196.57	-181.10			
d110n:	01527	45	4.31	-112	32.06	5965.0	MT	980085.77	980625.55	1.63	-203.45	-1.49	0.00	20.97	-182.34	-165.59			
d110n:	01528	45	4.13	-112	29.95	6576.0	MT	980048.66	980625.28	1.68	-224.29	-1.52	0.00	41.54	-182.58	-164.11			
d110n:	01529	45	2.18	-112	28.65	5877.0	MT	980087.96	980622.34	1.90	-200.45	-1.49	0.00	18.10	-181.84	-165.37			
d110n:	01530	45	2.11	-112	26.66	6035.0	MT	980077.89	980622.23	2.00	-205.84	-1.50	0.00	22.98	-182.35	-165.43			
d110n:	01531	45	3.68	-112	24.71	7135.0	MT	980020.91	980624.60	1.69	-243.35	-1.51	0.00	66.99	-176.18	-156.15			
d110n:	01532	45	5.32	-112	25.64	7808.0	MT	979983.10	980627.07	4.05	-266.31	-1.48	0.00	89.93	-173.81	-152.08			
d110n:	01533	45	5.57	-112	24.48	7795.0	MT	979986.15	980627.45	3.30	-265.87	-1.48	0.00	91.38	-172.67	-150.91			
d110n:	01534	45	6.83	-112	23.56	6861.0	MT	980042.40	980629.35	1.14	-234.01	-1.52	0.00	57.98	-176.41	-157.09			
d110n:	01535	45	4.87	-112	23.19	7477.0	MT	980022.27	980626.39	1.93	-255.02	-1.50	0.00	78.69	-175.90	-154.93			
d110n:	01536	45	4.66	-112	22.11	7449.0	MT	980004.63	980626.08	1.92	-254.06	-1.50	0.00	78.73	-174.91	-154.01			
d110n:	01537	45	3.92	-112	20.63	7388.0	MT	980004.39	980624.96	1.82	-251.98	-1.51	0.00	73.88	-177.79	-157.06			
d110n:	01538	45	9.94	-112	22.78	7092.0	MT	980028.89	980634.04	4.44	-241.89	-1.51	0.00	57.48	-181.48	-161.79			
d110n:	01539	45	1.80	-112	24.55	6454.0	MT	980060.55	980621.77	0.98	-220.13	-1.51	0.00	45.48	-175.18	-157.00			
d110n:	01540	45	1.10	-112	25.41	6201.0	MT	980067.45	980620.70	0.88	-211.50	-1.51	0.00	29.86	-182.26	-164.78			
d110n:	01541	45	1.13	-112	27.17	5918.0	MT	980078.80	980620.75	1.50	-201.85	-1.49	0.00	14.38	-187.46	-170.83			
d110n:	01542	45	0.50	-112	26.16	5973.0	MT	980069.72	980619.80	1.47	-203.72	-1.49	0.00	11.42	-192.33	-175.54			
d110n:	01543	45	58.85	-112	23.26	6175.0	MT	980057.90	980617.31	1.06	-210.61	-1.50	0.00	21.07	-189.99	-172.60			
d110n:	01544	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19			
d110n:	01545	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58	-167.19			
d110n:	01546	45	7.05	-112	34.55	5589.0	MT	980102.50	980629.68	1.03	-190.63	-1.47	0.00	-1.77	-192.83	-177.09			
d110n:	01547	45	6.10	-112	33.50	5755.0	MT	980098.85	980628.25	1.53	-196.29	-1.48	0.00	11.61	-184.62	-168.45			
d110n:	01548	45	5.22	-112	33.48	5729.0	MT	980101.15	980626.92	1.57	-195.26	-1.48	0.00	12.42	-182.75	-166.67			
d110n:	01549	45	4.84	-112	31.19	6220.0	MT	980068.10	980626.35	3.33	-212.15	-1.51	0.00	26.46	-183.86	-166.53			
d110n:	01550	45	5.53	-112	29.40	6900.0	MT	980029.37	980627.39	7.44	-235.34	-1.52	0.00	50.58	-178.84	-159.94			
d110n:	01551	45	3.19	-112	28.36	6040.0	MT	980078.80	980623.86	1.94	-206.31	-1.50	0.00	22.73	-182.83	-165.90			
d110n:	01552	45	3.95	-112	28.54	6660.0	MT	980048.03	980625.01	2.26	-227.15	-1.52	0.00	45.07	-181.34	-162.68			
d110n:	01553	45	4.96	-112	27.76	7770.0	MT	979976.89	980626.53	5.29	-265.01	-1.49	0.00	80.69	-180.51	-158.99			
d110n:	01554	45	4.20	-112	27.00	6906.0	MT	980032.24	980625.38	2.29	-235.54	-1.52	0.00	56.02	-178.75	-159.40			
d110n:	01555	45	2.99	-112	27.19	6205.0	MT	980069.34	980623.55	1.65	-213.00	-1.51	0.00	32.84	-180.01	-162.47			
d110n:	01556	45	1.05	-112	22.81	6411.0	MT	980061.09	980620.63	1.05	-218.64	-1.51	0.00	43.12	-176.01	-157.95			
d110n:	01557	45	1.44	-112	20.40	6735.0	MT	980041.34	980621.28	0.91	-229.71	-1.52	0.00	53.16	-177.16	-158.18			
d110n:	01558	45	2.10	-112	18.72	7148.0	MT	980020.79	980622.27	1.05	-243.80	-1.51	0.00	70.41	-173.85	-153.72			

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Meter ID: G-159

Date: 01/24/82

STATION		LATITUDE		LONGITUDE		ELEVATION		CORRECTIONS		GRAVITY		BOUGUER CORRECTION		ANOMALY		SPEC	
IDENTIFICATION	STATION	deg	min	deg	min	ft	in	ST	FT	UPPER	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLTF-ROUGHER
prol	sta-id	deg	min	deg	min	ft	in	ST	FT	UPPER	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	AIR	FIELD
d11000	01555	45	2.78	-112	19.40	7199.0	MT			980019.98	980623.24	1.07	-245.20	-1.51	0.00	72.50	-173.14
d11000	01556	45	0.92	-112	17.83	7004.0	MT			980015.74	980620.44	0.76	-238.89	-1.52	0.00	53.68	-185.96
d11000	01557	45	0.06	-112	16.27	7201.0	MT			979995.09	980619.14	1.08	-245.60	-1.51	0.00	52.83	-193.20
d11000	01558	44	59.54	-112	15.44	7244.0	MT			979988.12	980618.35	1.04	-247.07	-1.51	0.00	50.68	-196.86
d11000	01559	44	58.49	-112	14.09	7201.0	MT			979982.98	980616.77	1.09	-245.60	-1.51	0.00	43.09	-202.93
d11000	01560	45	0.05	-112	18.75	6867.0	MT			980020.12	980619.13	0.90	-234.21	-1.52	0.00	46.49	-188.34
d11000	01561	44	59.31	-112	18.13	6785.0	MT			980018.16	980618.01	0.65	-231.42	-1.52	0.00	37.95	-194.33
d11000	01562	44	58.30	-112	20.01	6589.0	MT			980027.46	980616.48	0.61	-224.73	-1.52	0.00	30.36	-195.28
d11000	01563	45	13.08	-112	38.10	5092.0	MT			980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58
d11000	01564	45	13.08	-112	38.10	5092.0	MT			980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58
d11000	01565	45	13.79	-112	18.72	7110.0	MT			980033.73	980639.85	5.34	-242.50	-1.51	0.00	62.21	-176.46
d11000	01566	45	14.81	-112	18.45	8070.0	MT			979974.96	980641.39	7.02	-275.24	-1.46	0.00	92.09	-177.60
d11000	01567	45	12.63	-112	20.63	6305.0	MT			980084.10	980638.10	6.18	-215.04	-1.51	0.00	38.69	-171.68
d11000	01568	45	11.56	-112	19.06	6990.0	MT			980040.31	980636.48	1.36	-238.41	-1.52	0.00	60.88	-177.69
d11000	01569	45	10.85	-112	20.64	7510.0	MT			980012.60	980635.41	2.43	-256.14	-1.50	0.00	83.09	-172.12
d11000	01570	45	10.34	-112	22.23	7450.0	MT			980015.84	980634.65	2.45	-254.10	-1.50	0.00	81.47	-171.68
d11000	01571	45	9.87	-112	22.74	7477.0	MT			980012.35	980633.94	2.61	-255.02	-1.50	0.00	81.22	-172.69
d11000	01572	45	9.19	-112	24.19	7173.0	MT			980029.89	980632.91	1.84	-244.65	-1.51	0.00	71.23	-173.10
d11000	01573	45	7.40	-112	11.25	5688.0	MT			980090.51	980630.21	1.64	-194.00	-1.48	0.00	-4.99	-198.82
d11000	01574	45	8.18	-112	12.27	5958.0	MT			980078.75	980631.39	0.91	-203.21	-1.49	0.00	7.45	-196.34
d11000	01575	45	8.56	-112	13.49	6095.0	MT			980075.90	980631.96	0.99	-207.88	-1.50	0.00	16.90	-191.49
d11000	01576	45	8.96	-112	14.58	6193.0	MT			980075.59	980632.56	1.44	-211.23	-1.50	0.00	25.20	-186.09
d11000	01577	45	9.28	-112	16.27	6560.0	MT			980058.58	980633.05	1.46	-223.74	-1.52	0.00	42.18	-181.61
d11000	01578	45	9.90	-112	15.13	6270.0	MT			980079.62	980633.98	1.65	-213.85	-1.51	0.00	35.04	-178.67
d11000	01579	45	10.10	-112	17.23	6727.0	MT			980054.33	980634.28	1.43	-229.44	-1.52	0.00	52.39	-177.14
d11000	01580	45	8.84	-112	17.46	7144.0	MT			980027.72	980632.38	1.57	-243.66	-1.51	0.00	66.86	-176.75
d11000	01581	45	8.98	-112	19.50	6851.0	MT			980047.44	980632.59	1.18	-233.67	-1.52	0.00	58.84	-175.17
d11000	01582	45	8.35	-112	19.58	6680.0	MT			980056.15	980631.64	1.45	-227.84	-1.52	0.00	52.43	-175.47
d11000	01583	45	7.98	-112	17.16	6906.0	MT			980040.95	980631.09	1.00	-235.54	-1.52	0.00	59.03	-177.03
d11000	01584	45	6.77	-112	15.00	6921.0	MT			980037.44	980629.26	1.68	-236.06	-1.52	0.00	58.75	-177.14
d11000	01585	45	7.14	-112	14.31	6952.0	MT			980033.85	980629.82	2.38	-237.11	-1.52	0.00	57.52	-178.77
d11000	01586	45	5.92	-112	15.14	6720.0	MT			980044.06	980627.98	0.95	-229.20	-1.52	0.00	47.77	-182.00
d11000	01587	45	5.78	-112	15.19	6685.0	MT			980051.59	980627.77	0.97	-228.01	-1.52	0.00	52.23	-176.33
d11000	01588	45	4.43	-112	14.07	6110.0	MT			980081.47	980625.73	3.35	-208.39	-1.50	0.00	30.11	-176.44
d11000	01589	45	13.08	-112	38.10	5092.0	MT			980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58
d11000	01590	45	13.08	-112	38.10	5092.0	MT			980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58
d11000	01591	45	3.71	-112	14.66	6006.0	MT			980082.84	980624.64	3.46	-204.85	-1.50	0.00	22.80	-180.08
d11000	01592	45	1.80	-112	13.79	6358.0	MT			980051.32	980621.77	1.48	-216.85	-1.51	0.00	27.23	-189.65
d11000	01593	45	1.02	-112	13.82	6425.0	MT			980049.25	980620.59	2.31	-219.18	-1.51	0.00	32.63	-185.71
d11000	01594	44	59.88	-112	13.56	6638.0	MT			980029.22	980618.87	2.13	-226.40	-1.52	0.00	34.33	-191.45

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CUSMAP  
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Meter 10: 0-150

Date: 01/24/82

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		FREE AIR		SPEC. FIELDS	
IDENTIFICATION	station	lat deg	lat min	lon deg	lon min	ft	in	observed	theoretical	frain	rougher	curv	special	complete-rougher	spec. fields
01591	01591	44	59.43	-112	12.41	7026.0	MT	979998.16	980618.19	1.08	-239.64	-1.52	0.00	40.41	-199.66 -179.88
01592	01592	45	0.20	-112	11.40	6610.0	MT	980022.73	980619.35	2.09	-225.45	-1.52	0.00	24.74	-200.14 -181.61
01593	01593	44	59.23	-112	11.58	6781.0	MT	980011.44	980617.88	1.48	-231.28	-1.52	0.00	31.38	-199.94 -180.88
01594	01594	44	59.04	-112	10.35	7034.0	MT	979988.48	980617.60	1.09	-239.91	-1.52	0.00	31.97	-208.36 -188.56
01595	01595	45	1.30	-112	9.78	6666.0	MT	980011.52	980621.01	0.97	-227.36	-1.52	0.00	17.13	-210.77 -192.00
01596	01596	45	2.23	-112	9.90	6252.0	MT	980041.25	980622.41	1.91	-213.24	-1.51	0.00	6.55	-206.28 -188.75
01597	01597	45	4.36	-112	7.81	5892.0	MT	980053.40	980625.63	1.50	-200.96	-1.49	0.00	-18.34	-219.29 -202.73
01598	01598	45	3.54	-112	10.12	6261.0	MT	980040.02	980624.39	1.58	-213.54	-1.51	0.00	4.20	-209.28 -191.69
01599	01599	45	1.47	-112	12.65	6845.0	MT	980013.89	980621.27	0.86	-233.46	-1.52	0.00	36.06	-198.06 -178.77
01600	01600	45	3.34	-112	12.25	6847.0	MT	980008.67	980624.09	1.44	-233.53	-1.52	0.00	28.21	-205.40 -186.15
01601	01601	45	4.66	-112	10.88	6615.0	MT	980020.70	980626.08	1.35	-225.62	-1.52	0.00	16.45	-209.34 -190.73
01602	01602	45	5.49	-112	10.07	6354.0	MT	980036.10	980627.13	0.95	-216.72	-1.51	0.00	6.07	-211.21 -193.30
01603	01603	45	11.74	-112	8.90	5401.0	MT	980120.89	980636.76	2.42	-184.21	-1.45	0.00	-8.12	-191.37 -176.27
01604	01604	45	11.10	-112	11.02	5754.0	MT	980102.50	980635.79	1.82	-196.25	-1.48	0.00	7.63	-188.29 -172.15
01605	01605	45	10.52	-112	12.48	5902.0	MT	980092.08	980634.91	2.29	-201.30	-1.49	0.00	11.99	-188.52 -171.99
01606	01606	45	10.83	-112	13.49	6222.0	MT	980081.77	980635.38	3.62	-212.21	-1.51	0.00	31.28	-178.82 -161.51
01607	01607	45	11.73	-112	14.74	6673.0	MT	980059.10	980636.74	3.10	-227.60	-1.52	0.00	49.63	-176.39 -157.76
01608	01608	45	12.98	-112	15.98	7105.0	MT	980031.41	980638.63	4.12	-242.33	-1.51	0.00	60.64	-179.08 -159.33
01609	01609	45	13.75	-112	16.57	7355.0	MT	980015.97	980639.79	5.05	-250.86	-1.51	0.00	67.52	-179.79 -159.82
01610	01610	45	14.08	-112	17.50	7830.0	MT	979988.35	980640.29	6.91	-267.06	-1.48	0.00	84.03	-177.60 -156.04
01607	01607	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58 -167.19
01607	01607	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58 -167.19
01611	01611	45	1.82	-112	16.82	6449.0	MT	980058.82	980621.80	2.33	-219.96	-1.51	0.00	43.25	-175.89 -157.83
01612	01612	45	2.50	-112	15.82	6240.0	MT	980067.04	980622.82	2.13	-212.83	-1.51	0.00	30.81	-181.40 -163.91
01613	01613	45	5.98	-112	22.62	6795.0	MT	980040.48	980628.07	1.44	-231.76	-1.52	0.00	51.15	-180.69 -161.58
01614	01614	45	5.18	-112	4.26	5783.0	MT	980060.65	980626.86	1.55	-197.24	-1.48	0.00	-22.57	-219.74 -203.50
01615	01615	45	4.43	-112	5.32	5809.0	MT	980055.22	980625.73	1.57	-198.13	-1.48	0.00	-24.43	-222.47 -206.15
01616	01616	45	3.06	-112	6.23	5979.0	MT	980045.01	980623.66	1.24	-203.93	-1.49	0.00	-16.59	-220.77 -203.95
01617	01617	45	2.21	-112	6.08	6100.0	MT	980037.33	980622.38	1.69	-208.05	-1.50	0.00	-11.62	-219.49 -202.36
01618	01618	45	0.79	-112	5.95	6222.0	MT	980029.49	980620.24	2.79	-212.21	-1.51	0.00	-5.85	-216.78 -199.40
01619	01619	44	59.07	-112	6.78	6503.0	MT	980017.24	980617.65	2.75	-221.80	-1.51	0.00	10.90	-209.67 -191.49
01620	01620	44	59.55	-112	7.73	6898.0	MT	979988.73	980618.37	1.51	-235.27	-1.52	0.00	18.78	-216.50 -197.11
01621	01621	45	0.02	-112	8.67	6438.0	MT	980022.71	980619.08	1.87	-219.58	-1.51	0.00	8.82	-210.40 -192.34
01622	01622	45	1.66	-112	7.78	6301.0	MT	980028.99	980621.55	1.01	-214.91	-1.51	0.00	-0.24	-215.65 -197.90
01623	01623	45	2.75	-112	8.03	6060.0	MT	980045.08	980623.20	1.53	-206.69	-1.50	0.00	-8.44	-215.10 -198.07
01607	01607	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58 -167.19
01607	01607	45	13.08	-112	38.10	5092.0	MT	980153.15	980638.78	0.44	-173.67	-1.42	0.00	-6.92	-181.58 -167.19
01624	01624	45	6.18	-112	21.65	6695.0	MT	980046.36	980628.37	0.91	-228.35	-1.52	0.00	47.33	-181.63 -162.76
01625	01625	45	5.50	-112	17.57	6360.0	MT	980071.67	980627.34	0.99	-216.92	-1.51	0.00	42.19	-175.25 -157.34
01626	01626	45	3.92	-112	17.90	6470.0	MT	980060.04	980624.96	1.27	-220.67	-1.51	0.00	43.28	-177.64 -159.44

# BOUGUER GRAVITY DATA

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CUSMAD  
Summer 81  
Meter 10: 0-150

Date: 01/24/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	lat	lon	TIME	ELE	ST	UNRESERVED THEORETICAL	TERRAIN BOUGUER CURV	SPECIAL	FREE AIR	COMPLTF-ROUGHER	SPEC
proj	sta-id	deg	min	(in ft)						d1=2.67 d2=2.45	FIELDS
dillon:	01627	45	2.55	-112	5.12	6278.0	MT	1.35	-214.12	-1.51	0.00
dillon:	01628	45	1.74	-112	4.76	6516.0	MT	1.82	-222.24	-1.51	0.00
dillon:	01629	45	0.75	-112	4.46	6600.0	MT	2.39	-227.84	-1.52	0.00
dillon:	01630	44	59.90	-112	4.22	7005.0	MT	3.56	-238.92	-1.52	0.00
dillon:	01631	45	1.47	-112	3.11	6546.0	MT	4.73	-223.27	-1.51	0.00
dillon:	01632	45	1.16	-112	1.72	7640.0	MT	4.66	-260.58	-1.49	0.00
dillon:	01633	45	3.57	-112	3.70	6025.0	MT	3.87	-205.50	-1.50	0.00
dillon:	01634	45	4.19	-112	3.22	5830.0	MT	2.56	-198.84	-1.49	0.00
dillon:	01635	45	5.92	-112	1.62	6240.0	MT	3.43	-212.83	-1.51	0.00
dillon:	01636	45	6.68	-112	0.70	7335.0	MT	4.92	-250.18	-1.51	0.00
dillon:	01637	45	4.75	-112	2.77	5811.0	MT	2.39	-198.20	-1.48	0.00
dillon:	01638	45	4.92	-112	0.47	6260.0	MT	6.03	-213.51	-1.51	0.00
dillon:	01639	45	5.12	-112	0.00	6710.0	MT	6.22	-228.86	-1.52	0.00
dillon:	01640	45	4.36	-112	1.86	5860.0	MT	3.89	-199.87	-1.49	0.00
dillon:	01641	45	3.02	-112	0.54	5915.0	MT	6.67	-201.74	-1.49	0.00
dillon:	01642	45	13.09	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00
dillon:	01643	45	13.04	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00
dillon:	01644	45	6.10	-112	4.66	5826.0	MT	1.66	-198.71	-1.49	0.00
dillon:	01645	45	7.65	-112	2.00	6315.0	MT	9.05	-215.39	-1.51	0.00
dillon:	01646	45	8.50	-112	0.66	6790.0	MT	9.83	-231.59	-1.52	0.00
dillon:	01647	45	6.98	-112	2.74	6055.0	MT	5.43	-206.52	-1.50	0.00
dillon:	01648	45	7.58	-112	3.35	6620.0	MT	5.26	-225.79	-1.52	0.00
dillon:	01649	45	6.51	-112	3.35	5945.0	MT	3.13	-202.77	-1.49	0.00
dillon:	01650	45	8.80	-112	5.19	6080.0	MT	2.62	-207.37	-1.50	0.00
dillon:	01651	45	8.72	-112	6.43	5810.0	MT	1.77	-198.16	-1.48	0.00
dillon:	01652	45	8.90	-112	7.87	5586.0	MT	1.47	-190.52	-1.47	0.00
dillon:	01653	45	9.61	-112	6.41	5915.0	MT	1.59	-201.74	-1.49	0.00
dillon:	01654	45	9.73	-112	5.04	6165.0	MT	2.59	-210.27	-1.50	0.00
dillon:	01655	45	10.20	-112	3.96	6865.0	MT	3.20	-234.15	-1.52	0.00
dillon:	01656	45	13.09	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00
dillon:	01657	45	13.09	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00
dillon:	01658	45	11.62	-112	7.04	5673.0	MT	1.48	-193.49	-1.48	0.00
dillon:	01659	45	11.19	-112	5.40	5885.0	MT	2.41	-204.72	-1.49	0.00
dillon:	01660	45	11.02	-112	4.34	6063.0	MT	4.62	-206.79	-1.50	0.00
dillon:	01661	45	11.05	-112	2.64	6600.0	MT	10.47	-225.11	-1.52	0.00
dillon:	01662	45	11.50	-112	1.54	7030.0	MT	5.83	-239.77	-1.52	0.00
dillon:	01663	45	11.76	-112	0.02	7320.0	MT	5.04	-249.66	-1.51	0.00
dillon:	01664	45	12.87	-112	4.69	5740.0	MT	5.01	-195.77	-1.48	0.00
dillon:	01665	45	13.15	-112	3.04	6065.0	MT	8.07	-206.86	-1.50	0.00
dillon:	01666	45	13.09	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00
dillon:	01667	45	11.50	-112	1.54	7030.0	MT	5.83	-239.77	-1.52	0.00
dillon:	01668	45	11.76	-112	0.02	7320.0	MT	5.04	-249.66	-1.51	0.00
dillon:	01669	45	12.87	-112	4.69	5740.0	MT	5.01	-195.77	-1.48	0.00
dillon:	01670	45	13.15	-112	3.04	6065.0	MT	8.07	-206.86	-1.50	0.00
dillon:	01671	45	13.09	-112	38.10	5092.0	MT	0.44	-173.67	-1.42	0.00

CUSMAP  
Summer 81  
Meter (D): 0-150

Date: 01/24/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S	
IDENTIFICATION	lat	lon	deg	min	sec	THEORETICAL	BOUGUER	SPECIAL	FREE AIR	COMPLIE-ROUGER	SPEC
prof	sta-id	lat	lon	deg	min	(in ft)				d1=2.67 d2=2.45	FIELDS
dillon:	00007	45 13.08	-112 38.10	5092.0	MT	980638.78	0.44	-173.67	-1.42	-6.92	-181.58 -167.19
dillon:	00001	45 58.82	-112 6.49	4790.0	MT	980247.13	1.68	-163.37	-1.38	-10.32	-173.40 -159.96
dillon:	00002	46 1.27	-112 6.52	4794.0	MT	980245.71	2.32	-163.51	-1.38	-15.06	-177.63 -164.24
dillon:	00003	46 0.21	-112 6.71	4716.0	MT	980251.56	2.27	-160.85	-1.37	-14.94	-174.89 -161.71
dillon:	00004	45 58.59	-112 18.90	6148.0	MT	980150.21	2.01	-209.69	-1.50	20.72	-188.46 -171.23
dillon:	00007	46 2.23	-112 27.56	6368.0	MT	980124.88	3.35	-217.19	-1.51	10.57	-204.78 -187.04
dillon:	00006	46 3.18	-112 26.72	6358.0	MT	980127.46	2.15	-216.85	-1.51	10.78	-205.43 -187.62
dillon:	00008	46 2.13	-112 36.25	5667.0	MT	980155.90	0.84	-193.28	-1.47	-24.13	-218.05 -202.07
dillon:	00010	46 0.13	-112 41.13	5309.0	MT	980168.26	0.85	-181.07	-1.44	-42.40	-224.06 -209.10
dillon:	00009	46 0.58	-112 41.55	5279.0	MT	980177.74	1.14	-180.05	-1.44	-36.41	-216.76 -201.90
dillon:	00012	46 0.66	-112 49.16	5600.0	MT	980166.90	2.87	-191.00	-1.47	-17.21	-206.81 -191.18
dillon:	00011	46 0.29	-112 49.14	6108.0	MT	980131.58	2.91	-208.33	-1.50	-4.24	-211.15 -194.10
dillon:	00014	46 1.19	-112 59.01	6772.0	MT	980097.10	1.67	-230.97	-1.52	22.32	-208.50 -189.48
dillon:	00013	46 0.19	-112 59.04	6528.0	MT	980113.41	1.64	-222.65	-1.51	17.21	-205.31 -186.98
dillon:	00017	45 13.08	-112 38.10	5092.0	MT	980153.15	0.44	-173.67	-1.42	-6.92	-181.58 -167.19
dillon:	00002	45 0.27	-113 12.50	6084.0	MT	980044.49	0.93	-206.14	-1.50	-6.79	-213.50 -196.47
dillon:	01662	45 9.42	-113 53.55	3970.0	IN	980181.06	3.87	-135.41	-1.25	-78.94	-211.73 -200.79
dillon:	00002	45 0.27	-113 12.50	6084.0	MT	980044.49	0.93	-206.14	-1.50	-6.79	-213.50 -196.47
dillon:	01663	44 57.23	-113 22.85	6590.0	MT	980010.71	2.16	-224.77	-1.52	15.32	-208.81 -190.34
dillon:	01664	44 57.55	-113 23.85	6688.0	MT	980000.72	1.51	-228.11	-1.52	14.05	-214.07 -195.27
dillon:	01665	44 57.81	-113 25.26	6833.0	MT	979994.88	2.03	-233.05	-1.52	21.05	-211.49 -192.33
dillon:	01666	44 58.20	-113 25.99	6954.0	MT	979990.68	2.25	-237.18	-1.52	28.02	-208.43 -188.94
dillon:	01667	44 58.44	-113 26.64	7333.0	MT	979968.24	2.38	-251.47	-1.51	44.53	-206.07 -185.42
dillon:	01668	44 59.02	-113 27.54	6635.0	IN	980010.43	6.55	-226.30	-1.52	16.56	-204.70 -186.47
dillon:	01669	44 58.40	-113 28.78	5924.0	IN	980049.92	7.73	-202.05	-1.49	-9.82	-205.63 -189.49
dillon:	01670	44 58.75	-113 30.12	5760.0	IN	980062.96	6.68	-196.46	-1.48	-12.72	-203.97 -188.22
dillon:	01671	44 58.14	-113 32.06	5510.0	IN	980073.24	7.63	-187.93	-1.46	-25.01	-206.77 -191.79
dillon:	01672	44 56.95	-113 34.01	5256.0	IN	980088.20	10.34	-179.27	-1.44	-36.12	-206.49 -192.45
dillon:	01673	44 57.59	-113 38.44	4836.0	IN	980101.74	3.01	-164.94	-1.39	-59.02	-222.34 -208.88
dillon:	01662	45 9.42	-113 53.55	3970.0	IN	980181.06	3.87	-135.41	-1.25	-78.94	-211.73 -200.79
dillon:	01662	45 9.42	-113 53.55	3970.0	IN	980181.06	3.87	-135.41	-1.25	-78.94	-211.73 -200.79
dillon:	01674	45 7.65	-113 53.53	4018.0	IN	980175.71	3.81	-137.04	-1.26	-77.11	-211.60 -200.52
dillon:	01675	45 5.88	-113 53.52	4041.0	IN	980168.86	5.07	-137.83	-1.27	-79.13	-213.15 -202.11
dillon:	01676	45 4.42	-113 54.27	4084.0	IN	980160.36	8.98	-139.29	-1.27	-81.38	-212.97 -202.13
dillon:	01677	45 3.20	-113 54.72	4110.0	IN	980153.98	11.60	-140.18	-1.28	-83.47	-213.33 -202.63
dillon:	01678	45 1.68	-113 54.91	4152.0	IN	980156.67	14.56	-141.61	-1.29	-74.55	-202.89 -192.31
dillon:	01679	45 0.28	-113 55.84	4227.0	IN	980151.19	12.11	-144.17	-1.30	-70.87	-204.23 -193.24
dillon:	01680	44 59.69	-113 56.55	4222.0	IN	980146.64	16.06	-144.00	-1.30	-74.99	-204.23 -193.58
dillon:	01681	44 58.55	-113 56.56	4240.0	IN	980142.81	18.14	-144.61	-1.30	-75.41	-203.19 -192.66
dillon:	01682	45 11.26	-113 53.78	3927.0	IN	980189.91	4.51	-133.94	-1.25	-76.91	-207.58 -196.81

CUSMAP

Summer 81

Meter ID: 0-150 Date: 01/24/82

STATION IDENTIFICATION		L U C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S							
prof	sta-id	LATITUDE deg	LONGITUDE deg	ELE (in ft)	ST	UNSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLTF	ROUGHER	SPEC FIELDS
dillion:	01683	45 12.85	-113 53.88	3895.0	10	980196.83	980638.43	5.38	-132.85	-1.24	0.00	-75.40	-204.10	-193.50	
dillion:	01684	45 14.80	-113 53.64	3850.0	10	980201.94	980641.38	5.66	-131.31	-1.23	0.00	-77.46	-204.34	-193.89	
dillion:	01685	45 15.52	-113 53.52	3829.0	10	980201.79	980642.46	5.74	-130.60	-1.23	0.00	-80.67	-206.75	-196.36	
dillion:	01686	45 16.76	-113 53.51	3798.0	10	980207.63	980644.53	6.20	-129.54	-1.22	0.00	-79.61	-204.17	-193.91	
dillion:	01687	45 17.67	-113 53.52	3786.0	10	980212.05	980645.70	6.81	-129.13	-1.22	0.00	-77.70	-201.23	-191.06	
dillion:	01688	45 18.64	-113 54.28	3777.0	10	980214.97	980647.16	8.70	-128.82	-1.22	0.00	-77.08	-198.42	-188.43	
dillion:	01689	45 19.39	-113 54.14	3810.0	10	980210.36	980648.30	7.04	-129.95	-1.22	0.00	-79.72	-203.85	-193.63	
dillion:	01690	45 19.98	-113 54.68	3784.0	10	980216.42	980649.19	8.12	-129.06	-1.22	0.00	-76.80	-198.96	-188.89	
dillion:	01691	45 21.23	-113 55.54	3722.0	10	980221.98	980651.07	9.25	-126.95	-1.21	0.00	-79.14	-198.05	-188.25	
dillion:	01692	45 21.93	-113 56.56	3686.0	10	980224.13	980652.13	9.50	-125.72	-1.20	0.00	-81.44	-198.85	-189.18	
dillion:	01693	45 23.06	-113 57.43	3665.0	10	980224.43	980653.84	10.47	-125.00	-1.19	0.00	-84.82	-200.55	-191.01	
dillion:	01694	45 24.47	-113 59.70	3620.0	10	980227.80	980655.96	11.40	-123.47	-1.19	0.00	-87.81	-201.06	-191.73	
dillion:	01695	45 26.53	-113 59.18	3794.0	10	980219.89	980659.07	13.60	-129.40	-1.22	0.00	-82.47	-199.49	-189.85	
dillion:	01696	45 28.11	-113 59.37	3910.0	10	980215.51	980661.45	11.61	-133.36	-1.24	0.00	-78.33	-201.32	-191.19	
dillion:	01697	45 28.98	-113 58.84	4009.0	10	980212.15	980662.77	10.16	-136.74	-1.26	0.00	-73.70	-201.53	-191.00	
dillion:	01698	45 30.05	-113 57.29	4193.0	10	980206.26	980664.38	7.22	-143.01	-1.29	0.00	-63.91	-200.99	-189.70	
dillion:	01699	45 30.33	-113 56.61	4220.0	10	980204.94	980664.80	8.21	-143.93	-1.30	0.00	-63.61	-200.63	-189.34	
dillion:	01700	45 31.38	-113 55.96	4318.0	10	980200.51	980666.38	8.70	-147.27	-1.31	0.00	-59.91	-199.80	-188.28	
dillion:	01701	45 32.74	-113 55.74	4469.0	10	980196.38	980668.44	7.51	-152.42	-1.34	0.00	-51.90	-198.15	-186.10	
dillion:	01702	45 34.25	-113 56.98	4706.0	10	980180.09	980670.71	9.12	-160.51	-1.37	0.00	-48.19	-200.95	-188.37	
dillion:	01703	45 35.62	-113 57.70	4954.0	10	980163.55	980672.78	13.72	-168.97	-1.41	0.00	-43.50	-200.15	-187.24	
dillion:	01704	45 37.14	-113 57.98	5216.0	10	980155.63	980675.07	6.49	-177.90	-1.43	0.00	-29.08	-201.93	-187.69	
dillion:	01705	45 38.03	-113 58.07	5391.0	10	980146.16	980676.41	5.81	-183.87	-1.45	0.00	-23.45	-202.96	-188.17	
dillion:	01706	45 39.65	-113 58.60	5810.0	10	980118.84	980678.86	7.86	-198.16	-1.48	0.00	-13.84	-205.63	-189.83	
dillion:	01707	45 40.12	-113 57.38	6138.0	10	980101.28	980679.56	6.24	-209.35	-1.50	0.00	-1.29	-205.90	-189.04	
dillion:	01708	45 40.83	-113 56.49	6636.0	10	980073.49	980680.68	3.97	-226.33	-1.52	0.00	16.64	-207.24	-188.79	
dillion:	01662	45 9.42	-113 53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillion:	01662	45 9.42	-113 53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillion:	01709	45 9.43	-113 51.12	4043.0	10	980168.87	980633.27	3.37	-137.90	-1.27	0.00	-84.29	-220.08	-208.89	
dillion:	01710	45 8.19	-113 48.62	4146.0	10	980162.01	980631.39	3.19	-141.41	-1.29	0.00	-79.58	-219.08	-207.59	
dillion:	01711	45 6.76	-113 45.75	4263.0	10	980153.46	980629.24	3.40	-145.40	-1.31	0.00	-74.99	-218.29	-206.48	
dillion:	01712	45 5.76	-113 43.81	4359.0	10	980151.48	980627.73	3.63	-148.67	-1.32	0.00	-66.43	-212.80	-200.74	
dillion:	01713	45 3.79	-113 42.53	4497.0	10	980133.29	980624.77	3.63	-153.38	-1.34	0.00	-68.69	-219.78	-207.33	
dillion:	01714	45 4.54	-113 41.56	4534.0	10	980135.56	980625.90	4.14	-154.64	-1.35	0.00	-64.07	-215.88	-203.37	
dillion:	01715	45 3.16	-113 40.07	4690.0	10	980126.30	980623.81	3.48	-159.96	-1.37	0.00	-56.59	-214.44	-201.44	
dillion:	01716	45 1.55	-113 39.17	4647.0	10	980126.12	980621.38	3.78	-158.50	-1.36	0.00	-58.38	-214.46	-201.60	
dillion:	01717	45 0.22	-113 38.65	4706.0	10	980118.24	980619.39	3.34	-160.51	-1.37	0.00	-58.70	-217.25	-204.18	
dillion:	01718	45 0.65	-113 36.78	5240.0	10	980093.98	980620.03	4.29	-178.72	-1.44	0.00	-33.43	-209.29	-194.80	
dillion:	01719	45 0.97	-113 35.67	5640.0	10	980071.76	980620.51	3.22	-193.73	-1.48	0.00	-14.79	-206.77	-190.95	
dillion:	01720	45 1.73	-113 34.80	6440.0	10	980034.05	980621.66	4.27	-220.33	-1.51	0.00	19.65	-197.93	-180.00	



## ROUGHNER GRAVITY DATA

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		FREE AIR		NOMINAL		SPEC	
IDENTIFICATION	sta-id	deg	min	deg	min	ft	ft	UNCORRECTED	THEORETICAL	TERRAIN	BOUGER	CURV	SPECIAL	FREE AIR	COMPLETE	BOUGER	SPEC
prof	sta-id	deg	min	deg	min	(in ft)	(in ft)								d1=2.67	d2=2.45	FIELDS
dillon:	01721	45	2-11	-113	33.62	7090.0	10	979992.24	980622.23	6.15	-241.82	-1.51	0.00	36.46	-200.72	-181.18	
dillon:	01722	45	3-21	-113	32.44	8130.0	10	979925.74	980623.89	13.75	-277.29	-1.46	0.00	66.00	-199.00	-177.16	
dillon:	01723	45	3-47	-113	30.77	7750.0	10	979957.74	980624.28	4.54	-264.33	-1.49	0.00	61.91	-199.36	-177.83	
dillon:	01724	45	3-47	-113	29.48	7535.0	10	979964.02	980624.28	5.45	-257.00	-1.50	0.00	48.00	-205.05	-184.20	
dillon:	01725	45	3-52	-113	27.92	7925.0	10	979943.19	980624.05	2.83	-270.30	-1.48	0.00	64.03	-204.92	-182.76	
dillon:	01726	45	2-48	-113	28.45	8605.0	10	979895.22	980622.79	7.40	-293.49	-1.41	0.00	81.20	-206.30	-182.61	
dillon:	01727	45	2-14	-113	26.96	8305.0	10	979915.00	980622.27	4.86	-283.26	-1.44	0.00	73.31	-206.53	-183.47	
dillon:	01728	45	1-12	-113	27.57	8580.0	10	979900.06	980620.73	7.13	-292.64	-1.41	0.00	85.75	-201.17	-177.53	
dillon:	01729	45	0-30	-113	26.57	8330.0	10	979913.73	980619.50	5.08	-284.11	-1.44	0.00	77.17	-203.30	-180.19	
dillon:	01730	45	4-75	-113	29.50	8545.0	10	979905.27	980626.21	5.09	-291.45	-1.42	0.00	82.20	-205.58	-181.87	
dillon:	01731	45	5-85	-113	30.94	8510.0	10	979902.26	980627.88	5.71	-290.25	-1.42	0.00	74.23	-211.73	-188.17	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01732	45	6-52	-113	30.29	8830.0	10	979888.70	980628.88	9.27	-301.17	-1.38	0.00	89.72	-203.56	-179.39	
dillon:	01733	45	6-74	-113	32.20	9404.0	10	979849.23	980629.22	16.35	-320.74	-1.29	0.00	103.83	-201.85	-176.67	
dillon:	01734	45	7-42	-113	34.22	9635.0	10	979835.55	980630.24	15.89	-328.62	-1.25	0.00	110.82	-203.17	-177.30	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01735	44	58.67	-113	36.07	5020.0	10	980099.12	980617.04	4.65	-171.22	-1.41	0.00	-45.98	-213.96	-200.12	
dillon:	01736	44	59.36	-113	34.03	5270.0	10	980089.37	980618.09	8.24	-179.74	-1.44	0.00	-33.28	-206.22	-191.97	
dillon:	01737	44	59.56	-113	32.19	6904.0	10	979994.77	980618.38	6.26	-235.48	-1.52	0.00	25.37	-205.37	-186.36	
dillon:	01738	45	0-10	-113	31.40	6860.0	10	980003.01	980619.20	3.95	-233.98	-1.52	0.00	28.65	-202.89	-183.81	
dillon:	01739	45	0-33	-113	30.46	7600.0	10	979960.39	980619.55	7.03	-259.21	-1.50	0.00	55.21	-198.47	-177.57	
dillon:	01740	45	0-97	-113	30.17	7900.0	10	979940.21	980620.51	5.47	-269.45	-1.48	0.00	62.25	-203.21	-181.33	
dillon:	01741	45	1-89	-113	30.14	8480.0	10	979907.09	980621.90	8.07	-287.86	-1.43	0.00	78.47	-202.76	-179.58	
dillon:	01742	45	5-06	-113	35.41	6600.0	10	980029.07	980626.68	8.36	-225.11	-1.52	0.00	22.80	-195.46	-177.48	
dillon:	01743	45	6-31	-113	34.67	7810.0	10	979959.86	980628.56	12.41	-266.38	-1.48	0.00	65.38	-190.07	-169.02	
dillon:	01744	45	4-56	-113	36.52	5895.0	10	980067.56	980625.93	4.70	-201.06	-1.49	0.00	-4.19	-202.05	-185.74	
dillon:	01745	45	5-01	-113	37.77	5080.0	10	980067.56	980626.60	4.77	-199.19	-1.49	0.00	-10.04	-205.95	-189.80	
dillon:	01746	45	4-46	-113	38.27	5370.0	10	980097.39	980625.77	3.90	-183.16	-1.45	0.00	-23.55	-204.26	-189.37	
dillon:	01747	45	5-65	-113	39.81	5235.0	10	980100.53	980627.57	4.25	-178.55	-1.44	0.00	-34.89	-210.63	-196.15	
dillon:	01748	45	6-56	-113	38.58	5710.0	10	980066.48	980628.95	15.28	-194.75	-1.48	0.00	-25.48	-206.43	-191.52	
dillon:	01749	45	7-33	-113	38.02	6480.0	10	980028.51	980630.10	13.72	-221.01	-1.51	0.00	7.54	-201.27	-184.06	
dillon:	01750	45	8-28	-113	37.00	7360.0	10	979977.85	980631.54	13.18	-251.03	-1.51	0.00	38.13	-201.27	-181.54	
dillon:	01751	45	8-47	-113	35.27	8250.0	10	979920.51	980631.83	8.60	-281.38	-1.45	0.00	73.11	-201.13	-178.53	
dillon:	01752	45	8-58	-113	33.97	9090.0	10	979876.73	980631.99	8.31	-310.03	-1.35	0.00	99.07	-204.00	-179.03	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01662	45	9-42	-113	53.55	3970.0	10	980181.06	980633.26	3.87	-135.41	-1.25	0.00	-78.94	-211.73	-200.79	
dillon:	01753	45	6-99	-113	41.48	8730.0	10	980132.67	980629.59	5.41	-161.33	-1.38	0.00	-52.23	-209.53	-196.57	
dillon:	01754	45	8-79	-113	42.85	8860.0	10	980129.27	980632.30	4.37	-165.76	-1.39	0.00	-46.13	-208.91	-195.50	

# ROUGHNER GRAVITY DATA

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CUSMAP  
Summer 81  
Meter ID: 0-1509

Date: 01/24/82

STATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		CORRECTION		ANOMALIES	
IDENTIFICATION	PROJ	DEG	MIN	DEG	MIN	FEET	IN FT	THEORETICAL	OBSERVED	IRRAIN	ROUGHNER	CURV	SPECIAL
01755	01755	45	10.01	-113	41.86	5240.0	IN	980634.15	980111.35	6.18	-178.72	-1.44	0.00
01756	01756	45	9.29	-113	42.01	4940.0	IN	980633.06	980124.18	7.01	-168.49	-1.40	0.00
01757	01757	45	9.17	-113	40.13	6248.0	IN	980632.88	980050.06	5.80	-213.10	-1.51	0.00
01758	01758	45	10.58	-113	39.08	7445.0	IN	980635.01	979979.78	9.52	-293.93	-1.50	0.00
01759	01759	45	11.62	-113	38.09	8000.0	IN	980636.58	979947.05	8.53	-272.86	-1.47	0.00
01760	01760	45	11.22	-113	37.33	7810.0	IN	980635.98	979955.66	13.94	-266.38	-1.44	0.00
01761	01761	45	7.85	-113	46.85	4290.0	IN	980630.89	980154.21	3.03	-146.32	-1.31	0.00
01762	01762	45	8.93	-113	45.65	4545.0	IN	980632.52	980138.09	2.96	-156.39	-1.36	0.00
01763	01763	45	10.48	-113	44.71	4830.0	IN	980634.86	980129.07	8.43	-164.74	-1.39	0.00
01764	01764	45	11.21	-113	43.78	5230.0	IN	980635.96	980112.19	5.69	-178.38	-1.44	0.00
01765	01765	45	12.29	-113	43.53	5606.0	IN	980637.59	980093.76	8.12	-191.20	-1.47	0.00
01766	01766	45	14.56	-113	40.61	7990.0	IN	980640.71	979954.78	13.25	-272.52	-1.47	0.00
01767	01767	45	13.81	-113	41.54	7140.0	IN	980639.88	980001.81	15.83	-243.52	-1.51	0.00
01768	01768	45	13.11	-113	42.77	6220.0	IN	980638.82	980053.55	12.68	-212.15	-1.51	0.00
01769	01769	45	11.47	-113	44.71	5570.0	IN	980636.35	980086.58	3.70	-189.98	-1.47	0.00
01662	01662	45	9.42	-113	53.55	3790.0	IN	980633.26	980181.06	6.07	-129.27	-1.22	0.00
01662	01662	45	9.42	-113	53.55	3790.0	IN	980633.26	980181.06	6.07	-129.27	-1.22	0.00
01770	01770	45	11.07	-113	35.48	7775.0	IN	979827.12	979827.12	21.98	-333.40	-1.23	0.00
01771	01771	45	10.04	-113	35.27	8940.0	MT	980634.20	979887.22	6.78	-304.92	-1.37	0.00
01772	01772	45	9.80	-113	35.06	8720.0	MT	980633.83	979893.39	6.82	-297.41	-1.40	0.00
01773	01773	45	11.31	-113	37.00	8130.0	IN	980636.11	979939.11	11.37	-277.29	-1.46	0.00
01774	01774	45	3.95	-113	44.56	4770.0	IN	980625.01	980117.56	3.67	-162.69	-1.38	0.00
01775	01775	45	2.95	-113	46.27	5100.0	IN	980623.50	980101.14	7.93	-173.95	-1.42	0.00
01776	01776	45	2.50	-113	47.76	5450.0	IN	980622.82	980082.18	8.89	-185.88	-1.46	0.00
01777	01777	45	0.99	-113	49.25	6850.0	IN	980620.54	980000.60	11.09	-233.63	-1.52	0.00
01778	01778	45	2.70	-113	50.11	6610.0	IN	980623.12	980017.03	6.77	-225.45	-1.52	0.00
01779	01779	45	3.58	-113	50.91	7750.0	IN	980624.39	979942.35	14.79	-264.33	-1.49	0.00
01780	01780	45	3.08	-113	51.13	8280.0	IN	980623.70	979905.17	22.62	-282.41	-1.45	0.00
01662	01662	45	9.42	-113	53.55	3790.0	IN	980633.26	980181.06	6.07	-129.27	-1.22	0.00
01662	01662	45	9.42	-113	53.55	3790.0	IN	980633.26	980181.06	6.07	-129.27	-1.22	0.00
01781	01781	45	59.92	-113	43.66	5355.0	IN	980618.93	980081.33	7.01	-182.64	-1.45	0.00
01782	01782	45	1.49	-113	45.92	6860.0	IN	980621.30	979992.04	6.56	-233.98	-1.52	0.00
01783	01783	45	59.98	-113	46.62	7171.0	IN	980619.02	979979.50	8.46	-244.58	-1.51	0.00
01784	01784	45	0.70	-113	46.74	7700.0	IN	980620.10	979943.19	9.05	-262.62	-1.49	0.00
01785	01785	45	1.57	-113	45.44	6500.0	IN	980621.41	980018.24	4.37	-221.70	-1.51	0.00
01786	01786	45	2.23	-113	43.21	5125.0	IN	980622.41	980094.47	3.28	-174.80	-1.42	0.00
01787	01787	45	0.94	-113	43.99	5970.0	IN	980620.47	980040.47	4.24	-203.62	-1.49	0.00
01788	01788	45	58.01	-113	40.38	7115.0	IN	980616.95	979981.71	4.70	-202.67	-1.51	0.00
01789	01789	45	0.55	-113	41.51	4965.0	IN	980619.88	980104.08	4.88	-169.34	-1.41	0.00
01790	01790	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01791	01791	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01792	01792	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01793	01793	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01794	01794	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01795	01795	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01796	01796	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01797	01797	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01798	01798	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01799	01799	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01800	01800	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01801	01801	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01802	01802	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01803	01803	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01804	01804	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01805	01805	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01806	01806	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01807	01807	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01808	01808	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01809	01809	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01810	01810	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01811	01811	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01812	01812	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01813	01813	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01814	01814	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01815	01815	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01816	01816	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01817	01817	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01818	01818	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01819	01819	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.03	-1.39	0.00
01820	01820	45	0.95	-113	41.27	8868.0	IN	980620.48	980100.49	4.44	-166.		

# ROUGHER GRAVITY DATA

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CUSMAP

Summer 81

Meter ID: 0-159 Date: 01/24/82

STATION		LATITUDE		LONGITUDE		ELEVATION (in ft)	CORRECTION	TERRAIN	BOUGHER	CURV	SPECIAL	FREE AIR		ANOMALIES		SPEC
IDENTIFICATION	station	deg	min	deg	min							d1=2.67	d2=2.45	FIELDS		
d1100:	01791	45	7.27	-113	51.86	4278.0	10	980152.84	980630.02	3.12	-145.91	-1.31	0.00	-74.97	-219.06	-207.19
d1100:	01792	45	4.45	-113	51.66	5350.0	10	980088.57	980625.76	11.58	-182.47	-1.45	0.00	-34.24	-206.58	-192.39
d1100:	01793	45	4.66	-113	49.99	6110.0	10	980044.03	980626.08	6.01	-208.39	-1.50	0.00	-7.67	-211.56	-194.76
d1100:	01794	45	4.02	-113	49.27	5600.0	10	980078.09	980625.11	8.01	-191.00	-1.47	0.00	-20.57	-205.03	-189.83
d1100:	01795	45	6.16	-113	50.90	4510.0	10	980140.88	980628.34	3.83	-153.82	-1.34	0.00	-63.45	-214.78	-202.31
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01796	45	4.94	-113	56.84	4403.0	10	980143.05	980626.50	12.31	-150.17	-1.33	0.00	-69.50	-208.69	-197.22
d1100:	01797	45	4.91	-113	59.19	4939.0	10	980113.57	980626.45	13.69	-168.46	-1.40	0.00	-48.55	-204.72	-191.85
d1100:	01798	45	0.83	-113	57.96	5253.0	10	980091.67	980620.30	6.01	-179.16	-1.44	0.00	-34.79	-209.38	-195.00
d1100:	01799	45	0.98	-113	59.31	5254.0	10	980085.98	980620.47	11.65	-179.20	-1.44	0.00	-40.55	-209.53	-195.61
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01800	45	43.51	-113	56.52	6849.0	MT	980063.76	980684.68	3.96	-233.60	-1.52	0.00	22.88	-208.28	-189.23
d1100:	01801	45	43.23	-113	57.50	6640.0	MT	980075.22	980684.26	3.68	-226.47	-1.52	0.00	15.12	-209.19	-190.70
d1100:	01802	45	44.61	-113	56.83	5992.0	MT	980114.21	980686.34	5.22	-204.37	-1.50	0.00	-8.85	-209.50	-192.97
d1100:	01803	45	41.46	-113	57.93	7776.0	10	979999.22	980681.59	5.32	-265.22	-1.49	0.00	48.52	-212.87	-191.33
d1100:	01804	45	42.28	-113	59.38	7830.0	10	979999.98	980682.82	4.86	-267.06	-1.48	0.00	53.12	-210.56	-188.84
d1100:	01805	45	43.16	-113	59.79	8004.0	MT	979981.23	980684.15	7.48	-272.99	-1.47	0.00	49.39	-217.60	-195.60
d1100:	01806	45	41.89	-113	58.19	7936.0	10	979993.55	980682.22	6.61	-270.67	-1.47	0.00	57.24	-208.30	-186.42
d1100:	01807	45	40.39	-113	55.83	7382.0	10	980030.08	980679.98	4.74	-251.78	-1.51	0.00	43.98	-204.57	-184.09
d1100:	01808	45	39.91	-113	55.36	7476.0	10	980025.66	980679.25	5.02	-254.98	-1.50	0.00	49.12	-202.35	-181.63
d1100:	01809	45	39.13	-113	54.27	7476.0	10	980022.42	980678.07	4.79	-254.98	-1.50	0.00	47.05	-204.65	-183.91
d1100:	01810	45	38.25	-113	54.09	7605.0	10	980114.13	980676.74	7.01	-259.38	-1.50	0.00	52.21	-201.66	-180.74
d1100:	01811	45	37.36	-113	54.13	7850.0	10	979996.25	980675.41	7.91	-267.74	-1.48	0.00	58.68	-202.63	-181.10
d1100:	01812	45	36.88	-113	54.51	8034.0	10	979977.94	980674.68	14.87	-274.02	-1.47	0.00	58.38	-202.23	-180.76
d1100:	01813	45	37.07	-113	59.44	6180.0	10	980103.07	980674.97	4.39	-210.78	-1.50	0.00	9.04	-198.85	-181.72
d1100:	01814	45	36.09	-113	58.56	5580.0	10	980134.26	980673.48	5.17	-190.32	-1.47	0.00	-14.67	-201.29	-185.91
d1100:	01815	45	35.04	-113	59.39	5910.0	10	980110.96	980671.91	11.34	-201.57	-1.49	0.00	-5.37	-197.10	-181.30
d1100:	01816	45	34.12	-113	58.51	5440.0	10	980139.13	980670.52	6.32	-185.54	-1.46	0.00	-19.98	-200.66	-185.77
d1100:	01817	45	35.49	-113	56.60	6180.0	10	980098.03	980672.59	6.78	-209.42	-1.50	0.00	2.63	-201.51	-184.69
d1100:	01818	45	33.10	-113	58.11	5780.0	10	980123.02	980668.98	2.67	-194.41	-1.48	0.00	-10.12	-203.33	-187.41
d1100:	01819	45	33.33	-113	59.77	6040.0	10	980101.78	980669.33	4.42	-208.68	-1.50	0.00	2.12	-201.65	-184.86
d1100:	01820	45	32.24	-113	58.20	5702.0	10	980119.36	980667.68	3.29	-192.48	-1.48	0.00	-12.30	-204.96	-189.09
d1100:	01821	45	31.79	-113	56.82	4940.0	10	980166.31	980667.00	5.13	-188.49	-1.40	0.00	-36.27	-201.03	-187.46
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100:	01822	45	34.47	-113	55.17	4940.0	10	980168.06	980671.05	10.57	-168.49	-1.40	0.00	-38.56	-197.89	-184.76
d1100:	01823	45	34.19	-113	55.35	4820.0	10	980174.97	980670.63	10.10	-164.40	-1.39	0.00	-42.51	-198.20	-185.37
d1100:	01824	45	33.44	-113	54.52	4635.0	10	980184.82	980669.49	10.13	-158.09	-1.36	0.00	-48.92	-198.24	-185.93

cusmap  
summer H1  
Meter ID: 7-159

Date: 01/24/82

STATION IDENTIFICATION proj	LATITUDE deg min	LONGITUDE deg min	C A T I deg min	ELE (in ft)	ST	G R A V I T Y		TERRAIN	C O R R E C T I O N S		FREE AIR	A N N A L I E S		SPEC FIELDS
						UNRESERVED	THEORETICAL		BOUGUER	CURV		SPECIAL	COMPLETE	
01A25	45 33.43	-113 53.67	4705.0	10	980179.53	980669.48	10.08	-160.47	-1.37	0.00	-47.61	-198.58	-186.14	
01A26	45 33.68	-113 52.10	4865.0	10	980172.69	980669.85	8.92	-165.93	-1.39	0.00	-39.80	-198.20	-185.15	
01A27	45 34.04	-113 52.10	5145.0	10	980151.04	980671.60	11.67	-175.48	-1.43	0.00	-33.98	-199.22	-185.60	
01A28	45 35.69	-113 53.80	6140.0	10	980100.95	980672.88	6.26	-209.47	-1.50	0.00	5.25	-199.41	-182.55	
01A29	45 34.16	-113 54.12	6060.0	10	980103.04	980670.58	5.22	-206.69	-1.50	0.00	2.13	-200.84	-184.12	
01A30	45 35.66	-113 53.11	6000.0	10	980107.85	980672.84	15.43	-204.68	-1.50	0.00	-0.96	-191.67	-175.96	
01A31	45 33.58	-113 50.55	5110.0	10	980155.21	980669.64	10.75	-174.20	-1.42	0.00	-34.04	-199.00	-185.40	
01A32	45 33.85	-113 49.34	6600.0	10	980072.50	980670.11	4.84	-225.11	-1.52	0.00	22.87	-198.91	-180.63	
01A33	45 32.62	-113 48.64	6889.0	MT	980055.34	980668.26	2.50	-234.96	-1.52	0.00	34.65	-199.33	-180.05	
01A34	45 32.91	-113 47.68	6763.0	MT	980057.77	980668.70	1.77	-230.67	-1.52	0.00	24.80	-205.61	-186.63	
01A35	45 32.80	-113 45.77	6636.0	MT	980066.49	980668.52	3.41	-226.33	-1.52	0.00	21.75	-202.69	-184.19	
01A36	45 35.10	-113 42.05	6520.0	MT	980072.50	980671.90	2.76	-222.38	-1.51	0.00	13.39	-207.74	-189.52	
01A37	45 36.33	-113 41.06	6325.0	MT	980085.97	980673.85	1.97	-215.73	-1.51	0.00	6.68	-208.58	-190.85	
01A38	45 33.71	-113 43.00	6520.0	MT	980075.42	980669.90	2.01	-222.38	-1.51	0.00	18.41	-203.47	-185.19	
01A39	45 33.63	-113 46.00	6692.0	MT	980063.76	980669.78	2.72	-228.24	-1.52	0.00	23.03	-204.01	-185.31	
01A40	45 32.84	-113 49.23	7180.0	10	980034.13	980668.59	6.10	-204.89	-1.51	0.00	40.44	-199.86	-180.06	
01A41	45 32.00	-113 49.60	7402.0	10	980020.10	980667.32	6.53	-252.46	-1.51	0.00	48.54	-198.90	-178.51	
01A42	45 30.75	-113 49.74	7944.0	10	979981.69	980665.43	11.38	-270.95	-1.47	0.00	62.92	-198.12	-176.61	
01A43	45 30.28	-113 50.04	8025.0	10	979971.74	980664.73	17.13	-273.71	-1.47	0.00	61.30	-196.75	-175.49	
01A44	45 31.59	-113 50.80	7580.0	10	980001.00	980666.70	13.42	-258.53	-1.50	0.00	46.77	-199.83	-179.51	
01A45	45 32.10	-113 52.02	6600.0	10	980069.81	980667.60	4.78	-225.11	-1.52	0.00	22.61	-199.23	-180.95	
01A46	45 32.44	-113 53.26	6095.0	10	980101.33	980667.98	4.11	-207.88	-1.50	0.00	6.30	-198.97	-182.06	
01A47	45 31.84	-113 54.09	4875.0	10	980168.96	980667.08	9.09	-166.27	-1.40	0.00	-39.81	-198.38	-185.32	
01A62	45 9.42	-113 53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02	
01A62	45 9.42	-113 53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02	
01A48	45 37.07	-113 42.51	6400.0	MT	980081.66	980674.97	3.30	-218.29	-1.51	0.00	8.31	-208.19	-190.35	
01A49	45 37.26	-113 43.58	6470.0	MT	980081.29	980675.25	2.58	-220.67	-1.51	0.00	14.23	-205.38	-187.29	
01A50	45 37.27	-113 40.28	6505.0	MT	980078.10	980675.27	2.50	-221.87	-1.51	0.00	14.31	-206.57	-187.37	
01A51	45 37.31	-113 45.44	6615.0	MT	980071.28	980675.33	3.01	-225.62	-1.52	0.00	17.77	-206.36	-187.89	
01A52	45 37.06	-113 47.46	7335.0	MT	980030.91	980674.95	2.15	-250.18	-1.51	0.00	45.42	-204.11	-183.55	
01A53	45 36.00	-113 46.89	7922.0	MT	979991.87	980673.48	7.31	-270.20	-1.48	0.00	62.98	-201.38	-179.60	
01A54	45 36.55	-113 45.54	6780.0	MT	980061.33	980674.18	2.99	-231.25	-1.52	0.00	24.46	-205.31	-186.38	
01A62	45 9.42	-113 53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02	
01A62	45 9.42	-113 53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02	
01A55	45 29.83	-113 59.38	4125.0	10	980206.92	980664.05	10.06	-140.69	-1.28	0.00	-69.30	-201.22	-190.35	
01A56	45 30.49	-114 0.08	4270.0	10	980199.93	980665.04	9.22	-145.64	-1.31	0.00	-63.66	-201.39	-190.04	
01A57	45 30.69	-113 59.99	4410.0	10	980195.22	980665.34	6.18	-150.41	-1.33	0.00	-55.52	-201.08	-189.08	
01A58	45 32.09	-113 59.67	5065.0	10	980159.39	980667.45	4.69	-172.75	-1.42	0.00	-31.90	-201.43	-187.46	
01A59	45 31.12	-113 58.14	5970.0	10	980097.13	980665.99	7.93	-203.62	-1.49	0.00	-7.65	-204.83	-188.58	
01A60	45 29.99	-113 55.64	4300.0	10	980191.50	980664.29	9.71	-149.73	-1.33	0.00	-60.06	-201.41	-189.76	

# ROUGHNER GRAVITY DATA

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CUSMAN  
Summer 81  
Meter ID: n-159

Date: 01/24/82

STATION TOPEIFICATION	LATITUDE deg min	LONGITUDE deg min	ELEVATION (in ft)	STATION ID	G P A V I T Y UPSERVED THEORETICAL	C O R R E C T I O N S		FREE AIR	A N O M A L I E S COMPLETE-ROUGHNER SPEC d1=2.67 d2=2.45 FIELDS
						TERRAIN BOUGUER CURV	SPECIAL		
d110n:	01861	45 28.60	-113 55.66	5170.0	10	9.48 -176.33	-1.43	0.00	-200.37 -186.50
d110n:	01862	45 27.90	-113 56.22	6080.0	10	2.97 -207.37	-1.50	0.00	-198.31 -181.34
d110n:	01863	45 30.13	-113 53.45	4680.0	10	11.61 -159.62	-1.37	0.00	-197.86 -185.55
d110n:	01864	45 30.53	-113 52.83	4875.0	10	19.58 -166.27	-1.40	0.00	-193.24 -181.04
d110n:	01865	45 28.57	-113 57.16	6156.0	10	10.04 -209.96	-1.50	0.00	-201.89 -185.29
d110n:	01866	45 27.91	-113 57.87	6000.0	10	6.90 -204.64	-1.50	0.00	-217.52 -201.10
d110n:	01867	45 26.97	-113 56.68	5860.0	10	3.67 -109.87	-1.49	0.00	-200.02 -183.73
d110n:	01868	45 27.03	-113 55.59	6165.0	10	3.66 -210.27	-1.50	0.00	-204.19 -187.04
d110n:	01869	45 26.21	-113 55.94	6060.0	10	4.76 -206.69	-1.50	0.00	-204.55 -187.79
d110n:	01862	45 9.42	-113 53.55	3790.0	10	6.07 -129.27	-1.22	0.00	-220.27 -210.02
d110n:	01662	45 9.42	-113 53.55	3790.0	10	6.07 -129.27	-1.22	0.00	-220.27 -210.02
d110n:	01870	45 23.53	-113 55.59	5261.0	10	5.89 -179.44	-1.44	0.00	-196.51 -182.09
d110n:	01871	45 23.85	-113 56.43	4075.0	10	10.47 -138.99	-1.27	0.00	-199.10 -188.40
d110n:	01872	45 23.57	-113 57.28	3880.0	10	9.63 -132.34	-1.24	0.00	-202.55 -192.34
d110n:	01873	45 22.66	-113 54.44	4135.0	10	6.98 -141.03	-1.28	0.00	-201.91 -190.75
d110n:	01874	45 23.07	-113 52.90	4551.0	10	9.61 -155.22	-1.35	0.00	-201.35 -189.24
d110n:	01875	45 23.96	-113 51.97	4906.0	10	12.73 -167.33	-1.40	0.00	-199.29 -186.43
d110n:	01876	45 25.13	-113 51.36	5461.0	10	12.16 -186.26	-1.46	0.00	-199.59 -185.13
d110n:	01877	45 25.69	-113 50.05	6212.0	10	10.68 -211.87	-1.51	0.00	-197.79 -181.09
d110n:	01878	45 26.49	-113 50.21	6780.0	10	7.91 -231.25	-1.52	0.00	-194.84 -176.31
d110n:	01879	45 27.42	-113 49.60	7520.0	10	5.53 -256.49	-1.50	0.00	-195.93 -175.13
d110n:	01880	45 26.77	-113 48.07	7655.0	10	6.26 -261.09	-1.49	0.00	-194.38 -173.26
d110n:	01881	45 26.90	-113 48.35	7655.0	10	5.58 -261.09	-1.49	0.00	-195.37 -174.20
d110n:	01882	45 27.42	-113 50.60	7875.0	10	10.74 -268.59	-1.48	0.00	-193.91 -172.54
d110n:	01883	45 26.72	-113 51.50	8332.0	10	13.27 -284.18	-1.44	0.00	-198.04 -175.60
d110n:	01884	45 27.53	-113 52.80	8554.0	10	27.03 -291.75	-1.42	0.00	-197.96 -176.03
d110n:	01662	45 9.42	-113 53.55	3790.0	10	6.07 -129.27	-1.22	0.00	-220.27 -210.02
d110n:	01885	45 21.52	-113 54.70	4077.0	10	8.54 -139.05	-1.27	0.00	-201.85 -190.99
d110n:	01886	45 22.01	-113 52.87	4940.0	10	5.99 -168.49	-1.40	0.00	-203.02 -189.52
d110n:	01887	45 22.08	-113 53.37	4720.0	10	5.24 -160.99	-1.38	0.00	-204.02 -191.07
d110n:	01888	45 19.99	-113 52.52	4135.0	10	6.72 -141.03	-1.28	0.00	-207.17 -196.00
d110n:	01889	45 21.28	-113 51.85	4532.0	10	7.80 -154.57	-1.35	0.00	-204.16 -191.96
d110n:	01890	45 21.85	-113 51.52	4710.0	10	9.21 -160.64	-1.37	0.00	-205.13 -192.54
d110n:	01891	45 20.40	-113 50.93	4463.0	10	9.15 -152.22	-1.34	0.00	-203.33 -191.43
d110n:	01892	45 21.21	-113 50.46	4830.0	10	9.66 -164.78	-1.39	0.00	-201.67 -188.78
d110n:	01893	45 20.25	-113 50.13	4726.0	10	9.77 -161.19	-1.38	0.00	-202.02 -189.43
d110n:	01894	45 20.20	-113 49.02	5590.0	10	10.07 -190.66	-1.47	0.00	-199.49 -184.48
d110n:	01895	45 17.68	-113 50.95	4620.0	10	3.71 -157.58	-1.36	0.00	-213.99 -201.20
d110n:	01896	45 18.05	-113 50.11	4980.0	10	3.62 -169.85	-1.41	0.00	-211.13 -197.32

# ROUGHEN GRAVITY DATA

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CUSMAP  
Summer 81  
Meter ID: 0-150

Date: 01/24/82

STATION		L O C A T I O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S		SPEC						
IDENTIFICATION		LATITUDE		ELEV		UNSERVED		TERRAIN		COMPLIF		ROUGHEN		FIELDS		
proj	sta-id	deg	min	deg	min	(in ft)	ST	THEORETICAL	BOUGUER	CURV	SPECIAL	AIR	d1=2.67	d2=2.45	FIELDS	
d1100n:	01897	45	17.30	-113	52.46	3870.0	10	980200.85	980645.15	6.26	-132.00	-1.24	0.00	-80.44	-207.41	-196.94
d1100n:	01898	45	14.47	-113	52.51	3900.0	10	980186.45	980640.88	4.27	-136.09	-1.26	0.00	-79.29	-212.36	-201.40
d1100n:	01899	45	15.30	-113	51.11	4149.0	10	980174.93	980642.13	4.21	-141.51	-1.29	0.00	-77.12	-215.70	-204.28
d1100n:	01900	45	15.57	-113	50.35	4256.0	10	980168.87	980642.53	4.56	-145.16	-1.30	0.00	-73.53	-215.44	-203.74
d1100n:	01901	45	16.13	-113	49.50	4373.0	10	980165.83	980643.38	5.17	-149.15	-1.32	0.00	-66.82	-212.12	-200.15
d1100n:	01902	45	17.25	-113	48.54	4583.0	10	980157.61	980645.07	6.31	-156.31	-1.36	0.00	-56.59	-207.95	-195.48
d1100n:	01903	45	18.84	-113	48.10	4893.0	10	980143.86	980647.47	11.95	-166.89	-1.40	0.00	-43.60	-199.94	-187.06
d1100n:	01904	45	18.84	-113	49.31	5792.0	10	980087.88	980647.53	7.23	-197.55	-1.48	0.00	-15.16	-206.96	-191.16
d1100n:	01905	45	19.12	-113	49.89	5130.0	10	980129.24	980647.89	5.27	-174.97	-1.43	0.00	-36.37	-207.50	-193.40
d1100n:	01906	45	20.70	-113	47.30	5783.0	10	980095.65	980650.27	16.15	-197.24	-1.48	0.00	-10.98	-193.56	-178.52
d1100n:	01907	45	19.89	-113	47.70	5640.0	10	980101.20	980649.05	12.62	-192.36	-1.47	0.00	-17.65	-198.86	-183.93
d1100n:	01662	45	9.42	-113	53.55	3700.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100n:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100n:	01908	45	21.31	-113	46.65	6150.0	10	980077.81	980651.20	14.71	-209.76	-1.50	0.00	4.74	-191.81	-175.61
d1100n:	01909	45	22.42	-113	46.05	6545.0	10	980052.85	980652.87	13.84	-223.23	-1.51	0.00	15.22	-195.68	-178.30
d1100n:	01910	45	23.44	-113	44.67	7710.0	10	979991.81	980654.41	8.37	-262.97	-1.49	0.00	62.10	-193.99	-172.89
d1100n:	01912	45	23.38	-113	45.58	7150.0	10	980026.46	980654.31	9.48	-243.87	-1.51	0.00	44.23	-191.67	-172.24
d1100n:	01913	45	16.45	-113	46.48	9280.0	10	980137.20	980643.86	10.53	-168.08	-1.40	0.00	-43.37	-202.32	-189.22
d1100n:	01914	45	15.96	-113	45.65	5349.0	10	980113.22	980643.13	12.05	-182.44	-1.45	0.00	-27.05	-198.88	-184.72
d1100n:	01915	45	16.46	-113	45.15	6303.0	10	980057.28	980643.88	9.01	-214.98	-1.51	0.00	5.91	-201.57	-184.47
d1100n:	01916	45	16.53	-113	44.74	6722.0	10	980031.59	980643.98	9.17	-229.27	-1.52	0.00	19.48	-202.13	-183.87
d1100n:	01917	45	16.62	-113	43.76	7420.0	10	979990.59	980644.12	10.65	-253.08	-1.50	0.00	43.93	-200.00	-179.91
d1100n:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100n:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d1100n:	01918	45	16.79	-113	42.67	7800.0	10	979966.23	980644.38	13.01	-266.04	-1.48	0.00	55.01	-199.50	-178.53
d1100n:	01919	45	16.88	-113	41.62	8340.0	10	979936.12	980644.51	11.61	-284.45	-1.44	0.00	75.48	-198.80	-176.20
d1100n:	01920	45	14.15	-113	50.17	4720.0	10	980136.73	980640.39	3.55	-160.99	-1.38	0.00	-59.91	-218.72	-205.64
d1100n:	01921	45	14.19	-113	48.97	4920.0	10	980125.03	980640.45	3.36	-167.81	-1.40	0.00	-52.88	-218.73	-205.06
d1100n:	01922	45	14.47	-113	47.83	5380.0	10	980104.18	980640.88	3.66	-183.50	-1.45	0.00	-30.93	-212.21	-197.27
d1100n:	01923	45	15.31	-113	46.80	5920.0	10	980076.24	980642.14	4.79	-201.91	-1.49	0.00	-9.38	-208.00	-191.64
d1100n:	01924	45	15.08	-113	47.77	5820.0	10	980076.73	980641.80	4.89	-198.50	-1.49	0.00	-17.94	-213.04	-196.97
d1100n:	01925	45	15.08	-113	46.04	6659.0	10	980031.04	980641.80	8.56	-227.12	-1.52	0.00	15.19	-204.88	-186.75
d1100n:	01926	45	13.52	-113	49.53	4680.0	10	980139.78	980639.45	2.92	-159.62	-1.37	0.00	-59.68	-217.75	-204.72
d1100n:	01927	45	12.60	-113	47.98	5146.0	10	980108.34	980638.05	3.55	-175.52	-1.43	0.00	-45.93	-219.32	-205.04
d1100n:	01928	45	12.47	-113	47.00	4780.0	10	980135.86	980637.86	3.92	-163.03	-1.38	0.00	-52.62	-213.11	-199.89
d1100n:	01929	45	13.57	-113	45.26	5140.0	10	980121.80	980639.52	7.68	-175.99	-1.43	0.00	-32.62	-202.37	-188.38
d1100n:	01930	45	15.16	-113	45.24	5960.0	10	980077.63	980641.91	6.88	-203.28	-1.49	0.00	-4.01	-201.90	-185.60
d1100n:	01931	45	11.56	-113	48.04	4520.0	10	980146.90	980636.48	3.15	-154.16	-1.35	0.00	-64.64	-217.00	-204.44
d1100n:	01932	45	10.29	-113	49.72	4165.0	10	980160.81	980634.57	2.84	-142.06	-1.29	0.00	-82.17	-222.68	-211.10
d1100n:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02

CUSMAD  
summer 81  
Meter ID: 0-159

Date: 01/24/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I E S						
IDENTIFICATION	lat	lon	deg	min	sec	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLTFE-BOUGUER	SPEC			
prol	deg	deg	deg	deg	deg	in ft)					AIR	d1=2.67	d2=2.45	FIELDS		
d11100:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d11100:	01933	45	14.41	-113	55.02	4519.0	10	980165.05	980640.79	6.63	-154.13	-1.35	0.00	-50.88	-199.73	-187.47
d11100:	01934	45	14.38	-113	56.04	5537.0	10	980104.00	980640.74	6.57	-188.85	-1.46	0.00	-16.21	-199.96	-184.82
d11100:	01935	45	13.81	-113	58.50	6800.0	10	980028.01	980639.88	7.23	-231.93	-1.52	0.00	27.33	-198.89	-180.25
d11100:	01936	45	13.06	-113	57.43	6420.0	10	980041.60	980638.75	7.20	-218.97	-1.51	0.00	6.35	-206.93	-189.36
d11100:	01937	45	14.74	-113	57.03	6258.0	10	980061.58	980641.28	6.30	-213.44	-1.51	0.00	8.57	-200.08	-182.89
d11100:	01938	45	16.00	-113	57.62	6244.0	10	980064.14	980643.19	5.73	-212.96	-1.51	0.00	7.92	-200.83	-183.63
d11100:	01939	45	16.86	-113	58.89	7156.0	10	980011.01	980644.48	6.20	-244.07	-1.51	0.00	39.17	-200.21	-180.49
d11100:	01940	45	18.03	-113	58.98	7660.0	10	979980.17	980646.24	9.08	-261.26	-1.49	0.00	53.92	-199.75	-178.85
d11100:	01941	45	16.61	-113	59.88	8098.0	10	979952.51	980644.10	8.50	-276.20	-1.46	0.00	69.55	-199.62	-177.44
d11100:	01942	45	18.98	-113	59.26	7660.0	10	979978.53	980647.68	9.96	-261.26	-1.49	0.00	50.85	-201.95	-181.12
d11100:	01943	45	19.87	-113	59.72	7529.0	10	979986.17	980649.02	11.22	-256.79	-1.50	0.00	44.84	-202.23	-181.88
d11100:	01944	45	20.07	-113	57.98	6459.0	10	980052.70	980649.25	10.88	-220.30	-1.51	0.00	10.61	-200.32	-182.94
d11100:	01945	45	19.28	-113	57.22	6121.0	10	980076.13	980648.07	7.55	-208.77	-1.50	0.00	3.46	-199.26	-182.55
d11100:	01946	45	17.89	-113	56.88	6220.0	10	980071.67	980646.03	5.77	-212.15	-1.51	0.00	10.34	-197.58	-180.41
d11100:	01947	45	17.01	-113	56.55	5900.0	10	980087.82	980644.71	5.79	-201.23	-1.49	0.00	-2.25	-199.18	-182.96
d11100:	01948	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02
d11100:	01949	45	0.27	-113	12.50	6044.0	MT	980044.49	980619.45	0.93	-206.14	-1.50	0.00	-6.79	-213.50	-196.47
d11100:	01950	45	20.32	-113	7.16	6286.0	MT	980045.82	980649.70	2.55	-214.40	-1.51	0.00	-12.98	-226.33	-208.75
d11100:	01951	45	17.94	-113	20.89	6734.0	MT	980019.43	980646.11	0.76	-229.68	-1.52	0.00	6.32	-224.12	-205.13
d11100:	01952	45	15.74	-113	20.51	6979.0	MT	980003.32	980642.79	0.87	-238.03	-1.52	0.00	16.55	-222.13	-202.47
d11100:	01953	45	15.47	-113	18.90	7192.0	MT	979989.13	980642.38	0.95	-245.30	-1.51	0.00	22.78	-223.08	-202.82
d11100:	01954	45	15.03	-113	17.68	7380.0	MT	979976.28	980641.72	1.44	-251.71	-1.51	0.00	28.25	-223.52	-202.78
d11100:	01955	45	16.63	-113	21.74	6820.0	MT	980014.99	980644.13	1.78	-232.61	-1.52	0.00	11.94	-220.41	-201.27
d11100:	01956	45	21.07	-113	21.26	6830.0	MT	980012.81	980650.83	1.24	-232.95	-1.52	0.00	4.00	-229.23	-210.01
d11100:	01957	45	21.39	-113	20.12	7375.0	MT	979998.74	980651.31	2.01	-251.54	-1.51	0.00	40.65	-210.39	-189.70
d11100:	01958	45	21.68	-113	18.82	7910.0	MT	979959.69	980651.75	3.05	-269.79	-1.48	0.00	51.42	-216.80	-194.70
d11100:	01959	45	22.82	-113	17.83	7325.0	MT	979996.25	980653.47	1.18	-249.83	-1.51	0.00	31.30	-218.86	-198.25
d11100:	01960	45	21.81	-113	17.37	7090.0	MT	980009.16	980651.95	1.95	-241.82	-1.51	0.00	23.66	-217.72	-197.83
d11100:	01961	45	21.36	-113	16.33	6970.0	MT	980016.52	980651.27	1.68	-237.73	-1.52	0.00	20.43	-217.14	-197.56
d11100:	01962	45	25.51	-113	12.76	8033.0	MT	979951.97	980657.53	1.76	-273.98	-1.47	0.00	49.47	-224.22	-201.67
d11100:	01963	45	23.27	-113	13.82	8014.0	MT	979950.73	980654.15	2.74	-273.33	-1.47	0.00	49.83	-222.23	-199.81
d11100:	01964	45	22.12	-113	14.77	7800.0	MT	979965.30	980652.41	3.47	-266.04	-1.48	0.00	46.03	-218.02	-196.27
d11100:	01965	45	20.32	-113	7.16	6286.0	MT	980045.82	980649.70	2.55	-214.40	-1.51	0.00	-12.98	-226.33	-208.75
d11100:	01966	45	20.32	-113	7.16	6286.0	MT	980045.82	980649.70	2.55	-214.40	-1.51	0.00	-12.98	-226.33	-208.75
d11100:	01967	45	17.67	-113	8.27	6231.0	MT	980030.55	980646.01	1.94	-212.52	-1.51	0.00	-29.72	-241.81	-224.33
d11100:	01968	45	17.03	-113	8.09	6590.0	MT	980011.18	980644.73	2.31	-274.77	-1.52	0.00	-14.09	-238.06	-219.61
d11100:	01969	45	15.96	-113	12.88	8600.0	MT	979903.06	980643.13	5.71	-293.32	-1.41	0.00	68.24	-220.79	-196.97
d11100:	01970	45	16.12	-113	12.16	8240.0	MT	979925.00	980643.37	4.30	-281.04	-1.45	0.00	56.12	-222.08	-199.15
d11100:	01971	45	16.11	-113	11.44	7850.0	MT	979937.39	980643.35	5.25	-267.74	-1.48	0.00	31.89	-232.09	-210.34

CUSMAP

Summer 81

Meter ID: 0-159 Date: 01/24/82

STATION		L U C A T I		O N S		G R A V I T Y		C O R R E C T I O N S		A N O M A L I F S	
IDENTIFICATION		LATITUDE LONGITUDE		ELE		UNRESERVED THEORETICAL		FERRATIN BOUGUER CURV		FREE COMPLTFIF-ROUGHER SPEC	
proj	sta-id	deg	min	deg	min	(in ft)				AIR	d1=2.67 d2=2.45 FIELDS
dillon:	01967	45	16.42	-113	10.23	7280.0 MT	979982.25	980643.82	4.18	-248.30	-1.51
dillon:	01968	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01969	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01968	45	15.26	-113	30.40	7156.0 MT	979988.55	980642.07	1.28	-244.07	-1.51
dillon:	01969	45	15.82	-113	31.52	7415.0 MT	979972.96	980642.91	1.74	-252.90	-1.50
dillon:	01970	45	13.05	-113	37.64	8720.0 MT	979902.42	980638.73	8.04	-297.41	-1.40
dillon:	01971	45	13.53	-113	37.35	8110.0 MT	979942.61	980639.46	9.15	-276.61	-1.46
dillon:	01972	45	14.00	-113	37.06	8010.0 MT	979950.84	980640.16	7.09	-273.20	-1.47
dillon:	01973	45	15.34	-113	34.18	7620.0 MT	979976.52	980642.19	2.86	-259.90	-1.49
dillon:	01974	45	15.08	-113	33.07	7595.0 MT	979969.63	980641.80	1.98	-259.04	-1.50
dillon:	01975	45	13.99	-113	30.41	7250.0 MT	979989.16	980640.15	1.74	-247.28	-1.51
dillon:	01976	45	13.29	-113	31.55	7340.0 MT	979984.77	980639.09	2.40	-250.35	-1.51
dillon:	01977	45	12.78	-113	32.50	7510.0 MT	979977.11	980638.33	3.66	-256.14	-1.50
dillon:	01978	45	13.37	-113	34.27	8150.0 MT	979942.15	980639.22	4.38	-277.97	-1.46
dillon:	01979	45	12.59	-113	35.30	8200.0 MT	979940.53	980637.73	7.34	-279.68	-1.45
dillon:	01980	45	12.91	-113	33.51	7595.0 MT	979973.20	980638.52	5.05	-259.04	-1.50
dillon:	01981	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01982	45	21.54	-113	8.80	6525.0 MT	980031.08	980651.54	2.18	-222.55	-1.51
dillon:	01983	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01984	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01985	45	17.73	-113	18.20	6925.0 MT	980003.99	980645.80	1.40	-236.19	-1.52
dillon:	01986	45	16.35	-113	16.83	6965.0 MT	980004.81	980646.73	1.28	-237.56	-1.52
dillon:	01987	45	20.04	-113	38.04	7597.0 MT	979993.42	980649.28	4.33	-259.11	-1.50
dillon:	01988	45	19.98	-113	38.94	7638.0 MT	979989.06	980649.19	6.36	-260.51	-1.49
dillon:	01989	45	19.92	-113	40.09	7658.0 MT	979982.96	980649.09	8.68	-261.19	-1.49
dillon:	01990	45	19.22	-113	41.48	8100.0 MT	979958.13	980648.04	7.78	-276.27	-1.46
dillon:	01991	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01992	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01993	45	20.32	-113	7.16	6286.0 MT	980045.82	980649.70	2.55	-214.40	-1.51
dillon:	01994	45	11.83	-113	34.02	7970.0 MT	979949.11	980636.89	6.47	-271.83	-1.47
dillon:	01995	45	11.97	-113	33.24	7800.0 MT	979956.57	980637.10	6.27	-266.04	-1.48
dillon:	01996	45	10.00	-113	32.13	7550.0 MT	979969.10	980634.13	5.34	-257.51	-1.50
dillon:	01997	45	9.17	-113	32.01	8200.0 MT	979935.18	980632.88	4.14	-279.68	-1.45
dillon:	01998	45	9.42	-113	53.55	3790.0 MT	980181.06	980633.26	6.07	-179.27	-1.22
dillon:	01999	45	9.42	-113	53.55	3790.0 MT	980181.06	980633.26	6.07	-179.27	-1.22
dillon:	02000	45	0.37	-113	52.80	5190.0 MT	980098.88	980619.61	13.97	-177.02	-1.43



Date: 01/24/82

ROUGHNER GRAVITY DATA

STATION IDENTIFICATION		LATITUDE		LONGITUDE		ELEVATION		GRAVITY		TERRAIN		CORRECTION		SPECIAL		FREE AIR		ANOMALY		SPEC FIELDS	
proj	sta-id	deg	min	deg	min	deg	min	URS	THEORETICAL	ROUGHNER	CURV	ROUGHNER	CURV	SPECIAL	AIR	d1=2.67	d2=2.45	SPEC FIELDS			
d11000:	01995	45	0.75	-113	56.70	4400.0	10	980137.51	980620.18	12.10	-151.44	-1.33	0.00	-65.24	-205.91	-194.32					
d11000:	01996	45	3.20	-113	56.32	4560.0	10	980129.42	980623.88	8.29	-155.53	-1.35	0.00	-65.74	-214.33	-202.09					
d11000:	01997	45	2.90	-113	57.93	5320.0	10	980106.18	980623.42	10.81	-181.45	-1.45	0.00	-17.11	-189.19	-175.01					
d11000:	01998	45	2.95	-113	57.84	5580.0	10	980087.10	980623.50	6.27	-190.32	-1.47	0.00	-11.83	-197.34	-182.06					
d11000:	01999	45	6.21	-113	55.20	4270.0	10	980154.52	980628.41	4.61	-145.64	-1.31	0.00	-72.44	-214.77	-203.04					
d11000:	02000	45	6.78	-113	57.17	5380.0	10	980093.19	980629.27	5.40	-183.50	-1.45	0.00	-30.32	-209.86	-195.07					
d11000:	02001	45	6.63	-113	57.89	5905.0	10	980067.07	980629.05	6.23	-201.40	-1.49	0.00	-6.87	-203.54	-187.33					
d11000:	02002	45	7.07	-113	58.02	6370.0	10	980042.66	980629.71	8.46	-217.26	-1.51	0.00	11.75	-198.56	-181.23					
d11000:	02003	45	7.41	-113	59.80	7040.0	10	979998.63	980630.23	8.39	-240.11	-1.52	0.00	30.16	-203.08	-183.86					
d11000:	02004	45	7.33	-114	0.58	8160.0	10	979931.06	980630.10	15.56	-278.31	-1.46	0.00	67.93	-196.28	-174.51					
d11000:	02005	45	8.69	-114	0.50	9149.0	10	979864.89	980632.16	21.95	-312.05	-1.34	0.00	92.60	-198.83	-174.82					
d11000:	02006	45	13.27	-114	2.58	8558.0	10	979916.97	980639.06	7.66	-291.89	-1.42	0.00	82.26	-203.39	-179.85					
d11000:	02007	45	13.08	-114	0.80	7635.0	10	979976.56	980638.78	5.72	-260.41	-1.49	0.00	55.43	-200.75	-179.64					
d11000:	02008	45	11.91	-113	58.25	6350.0	10	980049.06	980637.02	5.42	-216.58	-1.51	0.00	8.97	-203.70	-186.18					
d11000:	02009	45	11.38	-113	56.54	5300.0	10	980111.54	980636.21	6.98	-180.77	-1.44	0.00	-26.42	-201.65	-187.21					
d11000:	02010	45	11.15	-113	55.14	4280.0	10	980173.37	980635.87	5.14	-144.61	-1.30	0.00	-63.87	-204.64	-193.04					
d11000:	02011	45	11.85	-113	55.49	4420.0	10	980164.90	980636.92	5.66	-150.75	-1.33	0.00	-56.47	-202.90	-190.83					
d11000:	02012	45	12.67	-113	55.76	4790.0	10	980145.72	980638.16	5.96	-163.37	-1.38	0.00	-42.12	-200.91	-187.83					
d11000:	02013	45	15.51	-113	54.75	4338.0	10	980177.71	980642.45	6.74	-147.96	-1.32	0.00	-56.89	-199.43	-187.68					
d11000:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02					
d11000:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02					
d11000:	02014	45	10.41	-113	54.74	4220.0	10	980167.95	980634.75	4.89	-143.93	-1.30	0.00	-70.04	-210.38	-198.82					
d11000:	02015	45	9.37	-113	55.91	4680.0	10	980139.11	980633.18	5.48	-159.62	-1.37	0.00	-54.09	-209.60	-196.78					
d11000:	02016	45	8.45	-113	55.88	4520.0	10	980144.84	980631.80	5.31	-154.16	-1.35	0.00	-62.00	-212.20	-199.82					
d11000:	02017	45	7.85	-113	55.66	4380.0	10	980151.15	980630.89	5.02	-149.39	-1.32	0.00	-67.95	-213.64	-201.64					
d11000:	02018	45	10.93	-113	52.75	4020.0	10	980178.51	980635.54	3.51	-137.11	-1.26	0.00	-79.07	-213.94	-202.82					
d11000:	02019	45	11.31	-113	52.53	4150.0	10	980172.58	980636.11	3.20	-141.54	-1.29	0.00	-73.36	-212.99	-201.48					
d11000:	02020	45	10.96	-113	50.72	4150.0	10	980168.43	980635.58	2.94	-141.54	-1.29	0.00	-80.98	-220.87	-209.34					
d11000:	02021	45	12.39	-113	50.06	4650.0	10	980140.94	980637.73	2.48	-158.60	-1.37	0.00	-59.63	-217.12	-204.14					
d11000:	02022	45	11.75	-113	52.45	4160.0	10	980169.99	980636.77	3.36	-141.89	-1.29	0.00	-75.67	-215.48	-203.96					
d11000:	02023	45	12.26	-113	52.33	4115.0	10	980175.86	980637.54	3.40	-140.35	-1.28	0.00	-74.80	-213.03	-201.64					
d11000:	02024	45	12.21	-113	40.84	4780.0	10	980014.24	980637.47	21.35	-231.25	-1.52	0.00	14.10	-197.32	-179.90					
d11000:	02025	45	11.20	-113	41.94	5700.0	10	980086.44	980635.95	8.07	-198.41	-1.48	0.00	-13.66	-201.48	-186.00					
d11000:	02026	45	13.02	-113	52.26	3905.0	10	980178.98	980638.69	4.16	-136.26	-1.26	0.00	-84.10	-217.45	-206.47					
d11000:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02					
d11000:	01662	45	9.42	-113	53.55	3790.0	10	980181.06	980633.26	6.07	-129.27	-1.22	0.00	-95.86	-220.27	-210.02					
d11000:	02027	46	0.68	-113	19.82	9500.0	MT	979913.40	980710.57	11.86	-324.02	-1.28	0.00	95.64	-217.80	-191.97					
d11000:	02028	45	57.65	-113	22.78	9582.0	MT	979902.61	980706.00	13.25	-326.81	-1.26	0.00	97.12	-217.71	-191.77					
d11000:	02029	45	59.86	-113	26.44	8180.0	MT	980003.66	980709.34	4.52	-279.00	-1.45	0.00	63.16	-212.77	-190.04					
d11000:	02030	45	58.88	-113	30.98	8460.0	MT	979980.77	980707.86	14.80	-288.55	-1.43	0.00	68.05	-207.04	-184.37					

Date: 01/24/82

STATION IDENTIFICATION	LATITUDE deg min	LONGITUDE deg min	C A Y I ELE (in ft)	N H S ST	G R A V I T Y UNSERVED THEORETICAL	C O N F E C T I O N S			F R E E A I R	A N M A L I E S			
						I F F R A I N B O U G U E R C U R V	S P E C I A L	C O M P L I F - R O U G U E R		S P E C F I E L D S			
dillon:	02031	45 58.75	-113 33.16	8712.0 MT	979960.25	980707.66	17.64	-297.14	-1.40	0.00	71.39	-209.51	-186.36
dillon:	02032	45 59.18	-113 30.43	8425.0 MT	979084.28	980708.31	12.07	-287.35	-1.43	0.00	67.82	-208.90	-186.10
dillon:	02033	45 57.66	-113 48.31	6880.0 MT	980092.15	980706.02	4.49	-234.66	-1.52	0.00	32.83	-198.85	-179.76
dillon:	02034	45 51.87	-113 46.27	6650.0 MT	980086.74	980697.20	4.40	-226.81	-1.52	0.00	14.55	-209.38	-190.92
dillon:	02035	45 49.85	-113 46.86	7600.0 MT	980022.60	980694.24	5.64	-259.21	-1.50	0.00	42.71	-212.36	-191.34
dillon:	02036	45 51.78	-113 39.03	7920.0 MT	980000.70	980697.15	7.88	-270.40	-1.48	0.00	48.71	-215.28	-193.53
dillon:	02037	45 51.41	-113 36.08	7857.0 MT	980006.99	980696.50	5.28	-267.98	-1.48	0.00	48.89	-215.29	-193.52
dillon:	02038	45 59.90	-113 24.12	9460.0 MT	979012.90	980709.40	19.59	-322.65	-1.29	0.00	92.56	-211.79	-186.71
dillon:	02039	46 00.00	-113 23.58	9570.0 MT	979908.43	980710.89	14.74	-326.41	-1.27	0.00	96.93	-216.00	-190.22
dillon:	02040	46 1.07	-113 23.91	9620.0 MT	979904.47	980711.16	18.33	-328.11	-1.26	0.00	97.39	-213.65	-188.02
dillon:	08168	46 10.58	-113 15.56	6322.0 MT	980151.90	980725.50	1.53	-218.01	-1.51	0.00	27.25	-190.74	-172.78
dillon:	08086	45 57.15	-112 29.82	5554.0 MT	980159.88	980705.25	1.09	-189.43	-1.47	0.00	-23.25	-213.06	-197.42
usgs :	D1122	45 31.46	-112 19.58	4644.0 MT	980188.94	980667.26	0.93	-158.39	-1.36	0.00	-41.72	-200.55	-187.46
usgs :	D1122	45 31.96	-112 19.58	4644.0 MT	980188.94	980667.26	0.93	-158.39	-1.36	0.00	-41.72	-200.55	-187.46
usgs :	D1123	45 27.61	-112 9.82	5371.0 MT	980154.56	980660.70	1.99	-183.19	-1.45	0.00	-1.21	-183.86	-168.81
usgs :	D1124	45 28.05	-112 7.73	5708.0 MT	980142.47	980661.36	4.50	-194.68	-1.48	0.00	17.70	-173.96	-158.17
usgs :	D1125	45 28.62	-112 5.44	6291.0 MT	980108.92	980662.22	8.36	-214.57	-1.51	0.00	34.08	-173.64	-156.53
usgs :	D1126	45 28.86	-112 2.89	6780.0 MT	980070.61	980662.59	12.74	-231.25	-1.52	0.00	45.34	-174.68	-156.55
usgs :	D1127	45 29.28	-112 0.97	7340.0 MT	980037.46	980663.22	15.03	-250.35	-1.51	0.00	64.17	-172.65	-153.14
usgs :	D1128	45 29.41	-111 59.84	7700.0 MT	980015.71	980663.41	8.48	-262.62	-1.49	0.00	76.05	-179.59	-158.52
usgs :	D1129	45 30.16	-111 59.41	8200.0 MT	979985.24	980664.55	7.77	-279.68	-1.45	0.00	91.42	-181.94	-159.42
usgs :	D1130	45 30.47	-111 59.44	8500.0 MT	979968.39	980665.01	7.35	-289.91	-1.42	0.00	102.28	-181.70	-158.31



Meter ID: F-159

usgs :	01168	45	27.13	-111	53.00	7370.0	MT	980035.39	980659.98	7.93	-251.37	-1.51	0.00	68.17	-176.78	-156.60
usgs :	01169	45	27.34	-111	55.19	8680.0	MT	979956.58	980660.29	8.41	-296.05	-1.40	0.00	112.09	-176.95	-153.13
usgs :	01170	45	28.28	-111	52.07	7240.0	MT	980042.08	980661.71	5.92	-246.94	-1.51	0.00	60.91	-181.62	-161.64
usgs :	01171	45	28.56	-111	53.77	8600.0	MT	979951.27	980662.13	11.55	-293.32	-1.41	0.00	97.44	-185.75	-162.41
usgs :	01172	45	28.80	-111	53.06	8080.0	MT	979990.27	980662.49	7.97	-275.59	-1.46	0.00	87.23	-181.85	-159.68
usgs :	01173	45	28.88	-111	49.92	5800.0	MT	980126.61	980659.59	4.70	-197.82	-1.48	0.00	12.25	-182.36	-166.32
usgs :	01174	45	28.93	-111	46.55	5191.0	MT	980156.97	980662.69	1.83	-177.05	-1.43	0.00	-17.71	-194.36	-179.81
usgs :	01175	45	30.91	-111	49.10	5693.0	MT	980121.16	980665.67	2.51	-194.17	-1.48	0.00	-9.33	-202.47	-186.55
usgs :	01176	45	30.36	-111	54.50	7520.0	MT	980015.39	980664.84	6.59	-256.49	-1.50	0.00	57.39	-194.01	-173.30
usgs :	01177	45	30.82	-111	55.64	8080.0	MT	979981.32	980665.54	5.94	-275.59	-1.46	0.00	75.23	-195.88	-173.54
usgs :	01178	45	30.52	-111	55.21	7900.0	MT	979994.55	980665.09	5.65	-269.45	-1.48	0.00	72.00	-193.28	-171.42
usgs :	01179	45	30.17	-111	56.12	8340.0	MT	979972.54	980664.55	6.99	-284.45	-1.44	0.00	91.85	-187.05	-164.07
usgs :	01180	45	32.08	-111	52.88	6000.0	MT	980059.01	980667.44	5.29	-225.11	-1.52	0.00	11.97	-209.36	-191.12
usgs :	01181	45	31.84	-111	51.07	6360.0	MT	980079.81	980667.08	3.43	-216.92	-1.51	0.00	10.59	-204.41	-186.70
usgs :	01185	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01185	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01186	45	26.72	-111	45.58	7660.0	MT	980002.89	980673.59	12.73	-268.08	-1.48	0.00	68.08	-188.76	-167.59
usgs :	01187	45	37.76	-112	2.09	6860.0	MT	980072.12	980676.01	12.70	-233.98	-1.52	0.00	111.52	-182.76	-158.51
usgs :	01183	45	34.41	-112	3.73	9060.0	MT	979936.32	980670.95	9.06	-309.01	-1.35	0.00	116.86	-184.44	-159.61
usgs :	01184	45	36.52	-112	3.25	7560.0	MT	980030.99	980674.13	9.77	-257.85	-1.50	0.00	67.45	-182.13	-161.56
usgs :	01185	45	35.91	-112	5.60	8640.0	MT	979968.53	980673.22	9.41	-294.69	-1.41	0.00	107.36	-179.32	-155.70
usgs :	01186	45	36.16	-112	1.74	7660.0	MT	980002.89	980673.59	12.73	-268.08	-1.48	0.00	68.08	-188.76	-167.59
usgs :	01187	45	37.76	-112	2.09	6860.0	MT	980072.12	980676.01	12.70	-233.98	-1.52	0.00	40.94	-181.85	-163.49
usgs :	01188	45	38.86	-112	1.48	6390.0	MT	980108.39	980677.66	14.51	-218.22	-1.51	0.00	32.15	-173.07	-156.16
usgs :	01189	45	41.02	-112	0.90	5840.0	MT	980156.09	980680.92	13.55	-199.19	-1.49	0.00	24.16	-162.96	-147.54
usgs :	01185	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01185	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01190	45	38.06	-111	50.94	5419.0	MT	980174.55	980676.46	3.05	-184.83	-1.45	0.00	7.52	-175.71	-160.61
usgs :	01191	45	36.74	-111	53.15	5795.0	MT	980124.19	980674.47	10.53	-197.65	-1.48	0.00	-5.52	-194.12	-178.58
usgs :	01192	45	34.61	-111	54.45	6190.0	MT	980082.08	980671.26	9.04	-211.12	-1.50	0.00	-7.30	-210.88	-194.11
usgs :	01193	45	35.41	-111	53.90	6080.0	MT	980094.14	980672.46	8.10	-207.37	-1.50	0.00	-6.78	-207.55	-191.01
usgs :	01194	45	34.15	-111	55.19	6390.0	MT	980070.22	980670.56	8.64	-217.94	-1.51	0.00	0.33	-210.49	-193.12
usgs :	01195	45	33.64	-111	57.35	6760.0	MT	980045.24	980669.79	12.68	-230.56	-1.52	0.00	10.89	-208.51	-190.44
usgs :	01196	45	34.23	-111	58.67	7260.0	MT	980016.56	980670.68	14.09	-247.62	-1.51	0.00	28.29	-206.74	-187.38
usgs :	01197	45	33.13	-111	58.86	7260.0	MT	980015.63	980669.02	13.83	-247.62	-1.51	0.00	29.02	-206.27	-186.89
usgs :	01198	45	32.77	-111	59.39	8000.0	MT	979987.41	980668.48	10.11	-272.86	-1.47	0.00	70.86	-193.55	-171.58
usgs :	01199	45	32.18	-112	0.00	8820.0	MT	979939.20	980667.59	9.56	-300.83	-1.38	0.00	100.57	-192.08	-167.97
usgs :	01200	45	32.76	-111	56.37	8540.0	MT	979941.00	980668.47	11.60	-291.27	-1.42	0.00	75.19	-205.90	-182.74
usgs :	01201	45	32.96	-111	54.78	7280.0	MT	980016.79	980668.77	4.45	-248.30	-1.51	0.00	32.31	-213.05	-192.83
usgs :	01165	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01165	45	26.72	-111	45.58	5050.0	MT	980164.94	980659.35	1.59	-172.24	-1.42	0.00	-19.66	-191.73	-177.55
usgs :	01122	45	31.96	-112	19.58	4644.0	MT	980188.94	980667.26	0.93	-158.34	-1.36	0.00	-41.72	-200.55	-187.46