UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Gravity survey data and a Bouguer gravity anomaly map of the Lost Creek Wilderness and vicinity, Park and Jefferson Counties, Colorado

by

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Open-File Report 84-269

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Studies related to Wilderness

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the data from a gravity survey of the Lost Creek Wilderness and vicinity in Pike National Forest, Colorado. The Lost Creek Wilderness was established under Public Law 96-560 on December 22, 1980.

Introduction

This report presents part of the work undertaken by the U.S. Geological Survey to evaluate the mineral-resource potential of the Lost Creek Wilderness area. During the summer field seasons of 1980-1982, 66 new gravity stations were established in the Lost Creek Wilderness Area and vicinity, Park and Jefferson Counties, Colorado. The Lost Creek Wilderness is located in Pike National Forest and covers approximately 500 sq. mi (fig. 1). This report presents the principal facts for these data and includes a complete Bouguer gravity anomaly map (plate 1).

Data Collection

Gravity observations were made using LaCoste-Romberg gravity meters G-550 and G-551. The gravity stations were referenced to the U.S. Department of Defense (DOD) base at Bailey, Colorado (appendix A), which is part of the International Gravity Standardization Net (IGSN-71). Gravity loops were started and closed daily by making repeat observations at the primary base. Access was by helicopter and ground traverses into the roadless areas and by vehicle along highways and secondary roads outside of the wilderness area. Data collected previously (Cordell, 1982) are included in Appendix B.

Elevation Control

The survey area is bound by lat. 39°05′-39°20′N and long. 105°20°-105°45′W. The station elevations were obtained from benchmarks, spot elevations, and section corners on 1:24,000-scale USGS topographic maps. The uncertainty of elevations based on benchmarks is assumed to be 0.5 ft. For spot elevations and section corners with elevations in black, on 1:24,000-scale maps with a 40-ft contour interval, the uncertainty is assumed to be three ft . At a density of 2.67 g/cm^3, this elevation uncertainty translates to a maximum uncertainty in the Bouguer anomaly value of 0.18 mgals.

However, errors in the estimation of terrain corrections give rise to the greatest uncertainty in Bouguer values. Computer-generated terrain corrections in mountainous areas like the Lost Creek Wilderness are generally accurate to within 1 mgal, which is less than the 2-mgal contour interval used in this report.

Data Reduction

Computer programs existing on the USGS Honeywell Multics computer system were used to obtain principal facts and terrain-corrected gravity values. A program written by D. Dansereau and R. Wahl (USGS, unpub. program, 1979) was used to reduce gravity meter readings to observed gravity values by calculating and correcting for earth-tide and linear meter drift. The theoretical gravity value was calculated using the 1967 formula of the Geodetic Reference System (International Association of Geodesy, 1967). Complete terrain corrections were computed using a program by R. H. Godson (USGS, unpub. program, 1978), correcting for the gravity effects of terrain from each station to a radius 166.7 km away using the method of Plouff (1977). Godson's program also calculates earth curvature corrections and complete (terrain-corrected) Bouguer anomaly values. These computed terrain corrections use mean elevation data digitized on a 15-second grid for corrections from 0 to 5 km, 1-minute terrain data for corrections from 5 to 21 km, and 3-minute terrain data for corrections from 21 to 166.7 km. Densities of 2.67 g/cm^3 and 2.50 g/cm^3 were used to calculate terrain corrections, giving two complete Bouguer anomaly values per station. The corrections and anomaly values are listed in Appendix B.

A grid based on the Bouguer anomaly values was formed with 1 km grid spacing using program "MINC" (Webring, 1981). "MINC" forms a surface of minimum curvature (Briggs, 1974) through existing data points. Computer plotted contour maps of the gridded data were produced using program "CONTOUR" (Godson, 1982), which uses a linear interpolation technique for positioning contours, with optional contour smoothing using splines under tension. The contour maps produced for this report make use of the smoothing option with a spline factor of 1.

References

Briggs, I. C., 1974, Machine contouring using minimum curvature: Geophysics, v. 39, no. 1, p. 39-48.

Cordell, Lindrith, Keller, G. R., and Hildenbrand, T. G., 1982, Bouguer gravity map of the Rio Grande Rift, Colorado, New Mexico, and Texas: U.S. Geological Survey Geophysical Investigations Series, Map GP-949, scale 1:1,000,000.

Defense Mapping Agency Aerospace Center, 1974, World Relative Gravity Reference Network, North America, Part 2: DMAAC Reference Publication 25, with supplement updating gravity values to the International Gravity Standardization Net 1971, 1635 p.

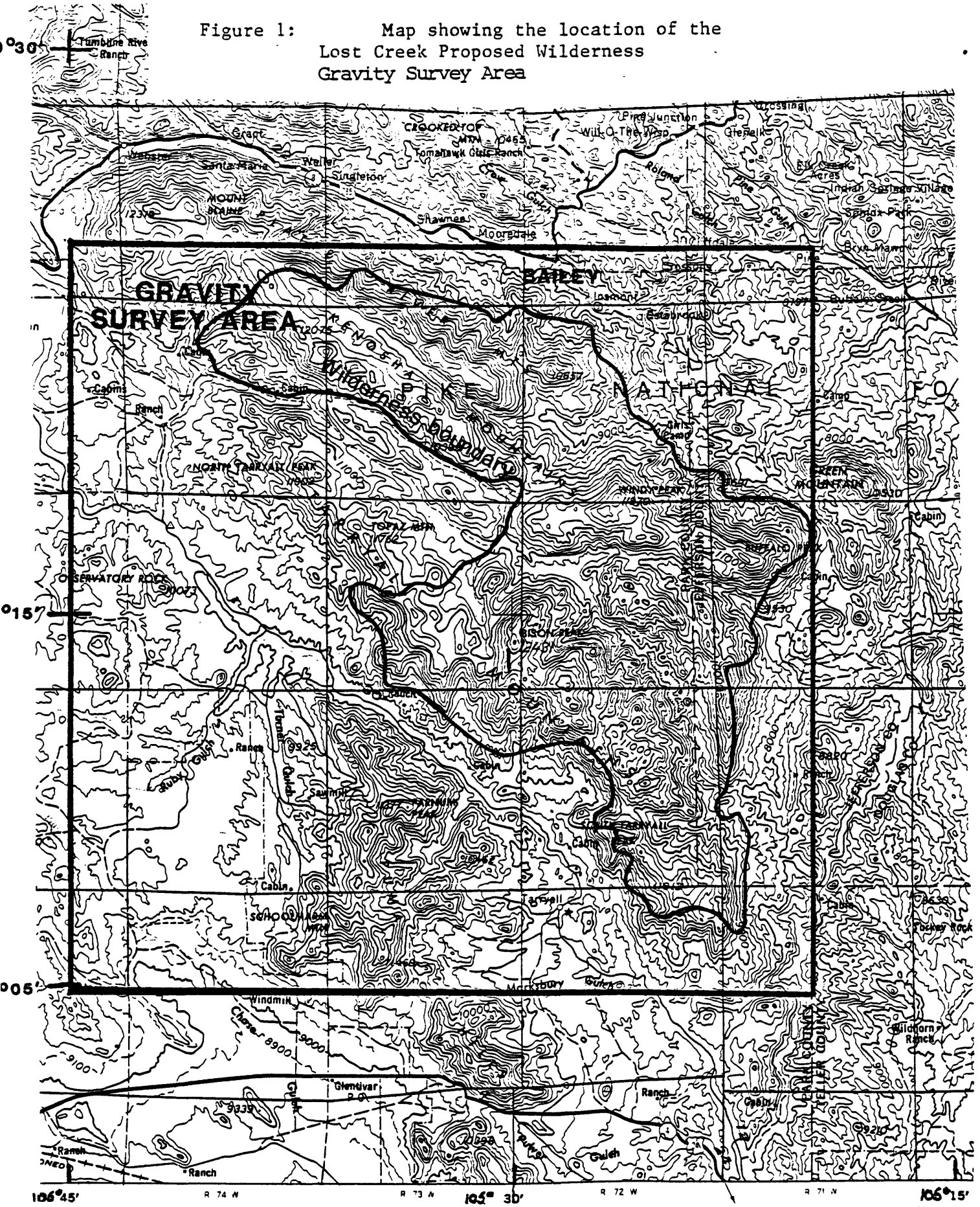
Godson, Richard, H., and Webring, Michael W., 1982, CONTOUR: U.S. Geological Survey Open-File Report 82-797.

International Association of Geodesy, 1967, Geodetic Reference System, 1967: International Association of Geodesy Special Publication 3, 74 p.

Plouff, Donald, 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.

Webring, Michael, 1981, MINC: A gridding program based on minimum curvature: U.S. Geological Survey Open-File Report 81-1224.

Figure 1: Map showing the location of the Lost Creek Proposed Wilderness Gravity Survey Area



5 0 5 10 mi

5 0 5 10 15 km

contour interval=100 ft

scale 1:250,000

Appendix A: Gravity base station description

GRAVITY BASE STATION			
LATITUDE		STATION DESIGNATION	
39° 24.35'N (1)		BAILEY	
LONGITUDE			
105° 28.60'W (1)			
ELEVATION		COUNTRY/STATE	
2358.5 METERS (1)		USA/Colorado	
REFERENCE CODE NUMBERS		ADOPTED GRAVITY VALUE	
ACIC 3905-1		g= 979 436.27 mgals	
HUS 1911			
		ESTIMATED ACCURACY	DATE
		± 0.3 mgals	MONTH/YEAR 10/70

DESCRIPTION AND/OR SKETCH

T 7S, R 72W, S 29

On the south side of Highway 285, in the town of Bailey, at bureau of reclamation BM "M 14 Datum 7737.944". Station is at BM level, BM is on south end of culvert. (1)

Appendix B: Principal Facts of Gravity Data

Explanation of headings

Identification	
proj	Project name.
sta id	Gravity station identification number.
Location	
latitude	North latitude in degrees, decimal minutes.
longitude	West longitude in degrees, decimal minutes.
ele	Station elevation in feet.
st	State where station is located.
Gravity	
observed	Observed gravity in milligals.
theoretical	Theoretical gravity in milligals.
Corrections	
Terrain	Terrain correction, 166.7 km radius, in milligals.
Bouguer	Simple Bouguer slab correction in milligals.
curv	Curvature correction in milligals.
special	Not used.
Anomalies	
free-air	Free-air anomaly in milligals.
complete-Bouguer	Complete Bouguer anomaly in milligals for designated densities d1 and d2.
spec fields	Not used.

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE_BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	lc01	39	24.42	105	44.27	10051.0	co	979240.56	980116.25	5.00	-342.81	1.17	0.00	69.02	-269.96	-248.37	
	lc02	39	24.92	105	40.85	12323.0	co	979107.99	980116.98	16.67	-420.30	0.52	0.00	149.08	-255.07	-229.34	
	lc04	39	24.61	105	44.72	10047.0	co	979241.26	980116.53	2.84	-342.67	1.17	0.00	69.06	-271.94	-250.23	
	lc31	39	25.26	105	39.40	11872.0	co	979143.60	980117.49	15.33	-404.92	0.57	0.00	141.84	-248.43	-223.58	
	lc32	39	24.08	105	38.47	12094.0	co	979132.77	980115.74	13.72	-412.49	0.53	0.00	153.60	-245.77	-220.34	
	lc33	39	22.08	105	36.29	12429.0	co	979111.66	980112.79	18.93	-423.92	0.48	0.00	166.90	-238.56	-212.75	
	lc34	39	21.64	105	35.37	12274.0	co	979123.67	980112.14	16.47	-418.63	0.53	0.00	165.01	-237.69	-212.05	
	lc35	39	20.82	105	33.84	12067.0	co	979137.80	980110.93	15.40	-411.57	0.51	0.00	160.91	-235.87	-210.61	
	lc36	39	23.81	105	35.76	11922.0	co	979142.61	980115.34	21.31	-406.62	0.56	0.00	147.68	-238.29	-213.71	
	lc37	39	18.71	105	36.60	11902.0	co	979132.68	980107.80	17.53	-405.94	0.56	0.00	143.42	-245.66	-220.89	
	lc05	39	24.81	105	39.14	11659.0	co	979162.61	980116.83	8.67	-397.65	0.74	0.00	141.51	-248.22	-223.41	
	lc06	39	24.48	105	39.31	11760.0	co	979153.94	980116.34	9.87	-401.10	0.71	0.00	142.81	-249.13	-224.18	
	lc07	39	23.85	105	39.00	11189.0	co	979182.36	980115.41	10.12	-381.62	0.39	0.00	118.54	-253.85	-230.14	
	lc08	39	23.58	105	39.84	10556.0	co	979226.01	980115.01	6.01	-360.03	1.05	0.00	103.14	-251.94	-229.33	
	lc09	39	23.02	105	40.64	9972.0	co	979257.22	980114.18	5.97	-340.12	1.19	0.00	80.33	-255.00	-233.65	
	lc10	39	22.64	105	40.91	9838.0	co	979262.81	980113.62	4.91	-335.54	1.21	0.00	73.90	-257.95	-236.82	
	lc11	39	21.99	105	41.37	9762.0	co	979267.79	980112.66	3.17	-332.95	1.23	0.00	72.70	-258.31	-237.24	
	lc12	39	22.08	105	41.94	9599.0	co	979273.14	980112.79	4.08	-327.39	1.26	0.00	62.61	-261.97	-241.30	
	lc13	39	20.94	105	38.32	9759.0	co	979278.41	980111.11	5.59	-332.85	1.23	0.00	84.59	-243.90	-222.98	
	lc14	39	20.78	105	37.24	10016.0	co	979261.44	980110.87	6.29	-341.62	1.18	0.00	92.00	-244.51	-223.08	
	lc20	39	14.30	105	29.83	12431.0	co	979086.04	980101.30	24.57	-423.98	0.48	0.00	152.96	-246.93	-221.47	
	lc15	39	19.59	105	35.72	10670.0	co	979225.35	980109.11	3.96	-363.92	1.03	0.00	119.09	-241.90	-218.91	
	lc21	39	13.29	105	28.34	12164.0	co	979105.10	980099.80	19.55	-414.88	0.57	0.00	148.45	-247.46	-222.25	
	lc22	39	12.18	105	27.74	11762.0	co	979123.55	980098.16	22.90	-401.17	0.71	0.00	130.79	-248.19	-224.06	
	lc16	39	18.84	105	32.75	10481.0	co	979240.20	980108.00	3.60	-357.48	1.07	0.00	117.30	-237.65	-215.05	
	lc17	39	19.36	105	34.18	11096.0	co	979199.17	980108.77	8.38	-378.45	0.91	0.00	133.26	-237.73	-214.10	
	lc18	39	18.60	105	33.30	10172.0	co	979255.47	980107.65	3.71	-346.94	1.14	0.00	103.90	-240.47	-218.54	
	lc19	39	17.13	105	30.39	9961.0	co	979262.99	980105.48	4.15	-339.74	1.19	0.00	93.78	-243.00	-221.56	
	lc25	39	18.14	105	26.26	11970.0	co	979124.84	980106.97	26.75	-408.26	0.54	0.00	142.81	-239.34	-215.01	
	lc26	39	16.15	105	27.45	10172.0	co	979237.85	980104.03	6.30	-346.94	1.14	0.00	89.90	-251.88	-230.12	
	lc27	39	13.73	105	25.99	10110.0	co	979241.91	980100.45	9.39	-344.82	1.16	0.00	91.72	-244.87	-223.44	
	lc28	39	17.77	105	28.34	11246.0	co	979186.31	980106.42	8.96	-383.57	0.87	0.00	136.84	-238.64	-214.73	
	lc29	39	21.46	105	28.63	10657.0	co	979228.91	980111.88	16.04	-363.48	1.03	0.00	118.67	-229.80	-207.61	
	lc30	39	23.15	105	34.70	11762.0	co	979167.39	980114.37	16.34	-401.17	0.71	0.00	158.42	-227.12	-202.57	
bailey		39	24.35	105	28.60	7738.0	co	979422.57	980116.14	5.33	-263.92	1.49	0.00	33.85	-226.23	-209.67	
	lc50	39	17.84	105	20.03	8562.0	co	979356.92	980106.52	4.67	-292.03	1.42	0.00	55.24	-233.53	-215.14	
	lc51	39	16.92	105	19.16	8221.0	co	979376.07	980105.16	5.58	-280.39	1.45	0.00	43.71	-232.55	-214.96	
	lc52	39	15.57	105	19.28	7923.0	co	979391.83	980103.17	4.13	-270.23	1.48	0.00	33.47	-234.11	-217.07	
	lc53	39	15.09	105	20.07	8213.0	co	979372.84	980102.46	3.83	-280.12	1.45	0.00	42.44	-235.30	-217.62	
	lc54	39	13.78	105	20.08	7684.0	co	979402.95	980100.53	5.00	-262.08	1.49	0.00	24.78	-233.79	-217.33	

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Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE_BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	lc55	39	13.33	105	20.26	7970.0	co	979386.22	980099.87	3.54	-271.83	1.47	0.00	35.59	-234.18	-217.00	
	lc56	39	12.28	105	20.68	7825.0	co	979391.82	980098.32	4.13	-266.89	1.48	0.00	29.11	-235.13	-218.30	
	lc57	39	12.87	105	21.58	8421.0	co	979352.66	980099.19	6.64	-287.22	1.43	0.00	45.08	-236.93	-218.97	
	lc58	39	11.07	105	22.14	8416.0	co	979351.70	980096.52	4.36	-287.05	1.43	0.00	46.31	-237.81	-219.72	
	lc59	39	6.31	105	23.63	8852.0	co	979318.05	980089.51	5.92	-301.92	1.38	0.00	60.64	-236.74	-217.80	
	lc60	39	4.80	105	24.92	8224.0	co	979354.04	980087.27	3.15	-280.50	1.45	0.00	39.86	-238.94	-221.19	
	lc61	39	5.66	105	31.35	9042.0	co	979303.41	980088.54	2.98	-308.40	1.35	0.00	64.81	-241.96	-222.42	
	lc62	39	5.73	105	32.04	9172.0	co	979295.95	980088.65	3.19	-312.83	1.33	0.00	69.46	-241.51	-221.71	
	lc63	39	6.14	105	31.14	9065.0	co	979302.96	980089.25	2.68	-309.18	1.35	0.00	65.81	-242.04	-222.44	
	lc65	39	10.36	105	35.00	10007.0	co	979248.14	980095.48	6.12	-341.31	1.18	0.00	93.25	-243.12	-221.71	
	lc66	39	9.71	105	34.40	10954.0	co	979197.19	980094.52	7.59	-373.61	0.95	0.00	132.19	-234.78	-211.41	
	bailey	39	24.35	105	28.60	7738.0	co	979422.57	980116.14	5.33	-263.92	1.49	0.00	33.85	-226.23	-209.67	
	RFT13471	39	5.81	105	20.33	7233.9	co	979418.03	980088.77	5.45	-246.73	1.51	0.00	9.33	-233.45	-263.46	
	RFT13523	39	11.21	105	20.65	7630.9	co	979399.42	980096.73	3.57	-260.27	1.49	0.00	20.06	-238.14	-270.05	
	RFT13609	39	20.88	105	21.23	7563.0	co	979424.03	980111.02	3.00	-257.95	1.50	0.00	24.00	-232.45	-264.14	
	RFT13497	39	8.64	105	21.49	8210.0	co	979363.13	980092.94	3.15	-280.02	1.45	0.00	41.97	-236.35	-270.75	
	RFT13588	39	19.03	105	21.83	8032.1	co	979390.46	980108.29	4.07	-273.95	1.47	0.00	37.24	-234.11	-267.65	
	RFT13664	39	24.70	105	22.20	7043.3	co	979462.50	980116.66	3.46	-240.23	1.52	0.00	7.99	-230.29	-259.74	
	RFT13613	39	21.06	105	22.42	7789.0	co	979410.56	980111.28	2.82	-265.66	1.48	0.00	31.50	-232.83	-265.50	
	RFT13591	39	19.44	105	22.78	7971.1	co	979392.32	980108.89	4.45	-271.87	1.47	0.00	32.76	-236.13	-269.37	
	RFT13480	39	6.69	105	23.00	10226.9	co	979222.22	980090.06	11.24	-348.81	1.13	0.00	93.40	-245.30	-287.16	
	RFT13625	39	21.71	105	23.38	8023.0	co	979400.04	980112.24	2.22	-273.64	1.47	0.00	42.00	-230.89	-264.62	
	RFT13595	39	19.89	105	23.43	8090.9	co	979388.42	980109.55	3.83	-275.96	1.46	0.00	39.45	-234.14	-267.95	
	RFT13601	39	20.55	105	24.47	8404.9	co	979373.34	980110.53	3.12	-286.67	1.43	0.00	52.90	-232.08	-267.30	
	NOAA	39	21.08	105	24.54	8280.8	co	979383.38	980111.31	2.72	-282.43	1.45	0.00	50.49	-230.66	-265.41	
	RFT13615	39	21.09	105	24.54	8281.2	co	979383.56	980111.33	2.71	-282.45	1.45	0.00	50.70	-230.49	-265.24	
	RFT13632	39	22.49	105	24.82	7987.9	co	979406.32	980113.39	2.41	-272.44	1.47	0.00	43.83	-227.67	-261.23	
	RFT13464	39	5.17	105	25.39	8267.1	co	979351.25	980087.82	2.12	-281.97	1.45	0.00	40.57	-240.72	-275.49	
	RFT13642	39	23.20	105	25.70	7383.9	co	979442.10	980114.45	5.36	-251.84	1.51	0.00	21.81	-226.18	-256.83	
	RFT13637	39	23.06	105	26.12	7570.9	co	979431.71	980114.23	4.64	-258.22	1.50	0.00	29.20	-225.88	-257.41	
	RFT13572	39	18.15	105	26.39	11970.1	co	979124.89	980106.98	21.16	-408.26	0.54	0.00	142.85	-244.90	-292.82	
	RFT13468	39	5.52	105	26.44	8429.1	co	979341.17	980088.34	1.76	-287.49	1.43	0.00	45.20	-241.97	-277.46	
	RFT13648	39	23.80	105	27.00	7658.0	co	979426.39	980115.34	4.47	-261.19	1.49	0.00	30.98	-227.24	-259.16	
	RFT13470	39	5.77	105	27.28	8524.8	co	979336.28	980088.71	1.69	-290.76	1.42	0.00	48.94	-241.55	-277.45	
	RFT13643	39	23.38	105	27.43	7776.8	co	979419.35	980114.72	4.66	-265.25	1.49	0.00	35.72	-226.35	-258.74	
	RFT13494	39	8.00	105	27.74	8506.9	co	979336.20	980091.99	3.05	-290.14	1.42	0.00	43.88	-244.64	-280.30	
	RFT13476	39	6.24	105	27.92	8633.9	co	979331.18	980089.40	1.65	-294.48	1.41	0.00	53.38	-240.85	-277.22	
	RFT13649	39	23.81	105	28.22	7867.1	co	979414.57	980115.34	4.39	-268.32	1.48	0.00	38.78	-226.63	-259.44	
	RFT13486	39	7.20	105	28.30	8690.9	co	979327.61	980090.81	1.82	-296.42	1.40	0.00	53.75	-242.25	-278.83	
	RFT13500	39	8.88	105	28.30	8528.8	co	979333.89	980093.30	3.42	-290.89	1.42	0.00	42.33	-246.56	-282.27	

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	RFT13479	39	6.63	105	28.34	8770.0	co	979322.85	980089.98	1.57	-299.12	1.39	0.00	57.26	-241.67	-278.62	
	RFT13655	39	24.30	105	28.40	7730.0	co	979423.67	980116.07	4.77	-263.65	1.49	0.00	34.28	-226.09	-258.27	
	RFT13487	39	7.21	105	28.42	8690.9	co	979327.82	980090.84	1.84	-296.42	1.40	0.00	53.95	-242.03	-278.62	
	HW 62366	39	24.35	105	28.60	7738.0	co	979423.06	980116.14	4.88	-263.92	1.49	0.00	34.34	-226.19	-258.39	
	RFT13657	39	24.35	105	28.60	7737.9	co	979422.57	980116.14	4.88	-263.92	1.49	0.00	33.84	-226.68	-258.88	
	RFT13659	39	24.50	105	28.60	7743.1	co	979422.29	980116.37	4.76	-264.09	1.49	0.00	33.83	-227.00	-259.23	
	RFT13624	39	21.46	105	28.65	10657.1	co	979229.17	980111.88	12.15	-363.48	1.03	0.00	118.93	-233.43	-276.98	
	RFT13505	39	9.21	105	28.75	8607.9	co	979329.82	980093.78	2.99	-293.59	1.41	0.00	45.20	-246.81	-282.90	
	RFT13564	39	17.40	105	28.76	11413.9	co	979170.15	980105.88	10.11	-389.30	0.32	0.00	136.99	-243.01	-289.98	
	RFT13513	39	9.66	105	29.29	8587.9	co	979330.54	980094.45	3.30	-292.91	1.41	0.00	43.37	-247.65	-283.61	
	RFT13661	39	24.51	105	29.53	7792.0	co	979417.71	980116.38	5.45	-265.76	1.48	0.00	33.83	-227.97	-260.32	
	RFT13481	39	6.74	105	29.97	8803.1	co	979320.36	980090.13	2.07	-300.25	1.39	0.00	57.72	-241.84	-278.87	
	RFT13537	39	13.60	105	30.21	11962.9	co	979117.71	980100.27	14.19	-408.02	0.54	0.00	141.72	-252.76	-301.51	
	RFT13516	39	9.99	105	30.27	8641.1	co	979330.89	980094.93	3.50	-294.72	1.41	0.00	48.23	-244.39	-280.56	
	RFT13665	39	24.74	105	30.39	7852.0	co	979412.21	980116.72	5.93	-267.81	1.48	0.00	33.62	-229.73	-262.28	
	RFT13517	39	10.41	105	31.15	8704.1	co	979326.67	980095.55	3.86	-296.87	1.40	0.00	49.31	-245.10	-281.48	
	RFT13666	39	24.89	105	31.39	7938.0	co	979405.85	980116.95	6.30	-270.74	1.47	0.00	35.12	-230.79	-263.66	
	RFT13522	39	11.05	105	31.94	8681.1	co	979328.02	980096.50	4.95	-296.09	1.40	0.00	47.56	-244.98	-281.13	
	RFT13606	39	20.72	105	32.94	11936.0	co	979149.74	980110.78	11.75	-407.10	0.55	0.00	160.70	-235.31	-284.25	
	RFT13525	39	12.15	105	33.71	8817.9	co	979323.28	980098.13	5.35	-300.75	1.38	0.00	54.05	-242.74	-279.42	
	RFT13551	39	15.66	105	34.28	11523.0	co	979152.07	980103.30	10.68	-393.02	0.79	0.00	131.72	-251.40	-298.75	
	RFT13532	39	13.01	105	35.30	8840.9	co	979321.40	980099.39	4.30	-301.54	1.38	0.00	53.05	-245.56	-282.47	
	RFT13534	39	13.26	105	36.14	8853.9	co	979320.81	980099.76	3.22	-301.98	1.38	0.00	53.33	-246.81	-283.91	
	RFT13531	39	12.90	105	36.19	8834.0	co	979321.92	980099.23	3.52	-301.30	1.38	0.00	53.09	-246.07	-283.05	
	NOAA	39	5.05	105	36.21	9219.8	co	979287.63	980087.65	1.94	-314.46	1.33	0.00	66.63	-247.21	-286.00	
	RFT13584	39	18.71	105	36.58	11901.8	co	979132.68	980107.80	12.78	-405.94	0.56	0.00	143.40	-250.42	-299.09	
	NOAA	39	13.43	105	36.98	9031.8	co	979310.38	980100.01	1.93	-308.05	1.35	0.00	59.35	-248.12	-286.12	
	NOAA	39	8.66	105	37.28	9716.9	co	979260.68	980092.97	1.79	-331.41	1.24	0.00	81.05	-249.82	-290.71	
	NOAA	39	7.75	105	37.31	9607.8	co	979265.38	980091.63	2.06	-327.70	1.25	0.00	76.85	-250.04	-290.45	
	RFT13544	39	14.40	105	37.69	8893.0	co	979318.84	980101.45	2.24	-303.31	1.37	0.00	53.34	-249.11	-286.49	
	NOAA	39	5.70	105	38.01	9247.7	co	979281.18	980088.60	1.62	-315.41	1.32	0.00	61.84	-253.27	-292.22	
	RFT13530	39	12.67	105	38.25	9045.9	co	979306.21	980098.89	1.51	-308.53	1.35	0.00	57.63	-250.74	-288.86	
	NOAA	39	12.68	105	38.25	9045.9	co	979306.11	980098.90	1.51	-308.53	1.35	0.00	57.51	-250.86	-288.97	
	RFT13477	39	6.24	105	38.33	9301.2	co	979261.07	980089.40	1.56	-317.24	1.31	0.00	45.96	-271.03	-310.21	
	NOAA	39	6.45	105	38.33	9357.8	co	979274.81	980089.71	1.54	-319.17	1.30	0.00	64.72	-254.22	-293.63	
	NOAA	39	6.88	105	38.33	9293.0	co	979280.00	980090.34	1.62	-316.96	1.31	0.00	63.17	-253.48	-292.61	
	NOAA	39	5.58	105	38.35	9131.9	co	979287.88	980088.42	1.50	-311.46	1.34	0.00	57.84	-253.46	-291.93	
	NOAA	39	5.15	105	38.36	9041.0	co	979292.56	980087.79	1.33	-308.36	1.35	0.00	54.62	-253.77	-291.88	
	NOAA	39	5.30	105	38.38	9086.0	co	979290.18	980088.01	1.37	-309.90	1.35	0.00	56.24	-253.63	-291.93	
	NOAA	39	8.20	105	38.38	9492.8	co	979272.38	980092.30	1.38	-323.77	1.28	0.00	72.38	-251.29	-291.30	

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION		LOCATIONS				GRAVITY		CORRECTIONS				ANOMALIES		
		LATITUDE	LONGITUDE	ELE	ST	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLETE BOUGUER d1=2.67	BOUGUER d2=2.50
proj	sta-id	deg min	deg min	(in ft)										
	NOAA	39 16.46	105 38.40	9337.9	co	979293.00	980104.48	2.17	-318.49	1.31	0.00	66.25	-251.38	-290.63
	NOAA	39 8.63	105 38.41	9495.7	co	979273.31	980092.92	1.33	-323.87	1.28	0.00	72.94	-250.88	-290.90
	NOAA	39 9.51	105 38.42	9423.9	co	979278.31	980094.23	1.29	-321.42	1.29	0.00	69.90	-251.52	-291.25
	RFT13557	39 16.47	105 38.42	9337.9	co	979293.28	980104.50	2.16	-318.49	1.31	0.00	66.51	-251.12	-290.38
	NOAA	39 7.75	105 38.44	9082.9	co	979275.31	980091.63	2.23	-309.79	1.35	0.00	37.48	-271.43	-309.61
	NOAA	39 13.88	105 38.44	8990.8	co	979310.43	980100.67	1.56	-306.65	1.36	0.00	54.88	-251.57	-289.44
	NOAA	39 11.28	105 38.48	9334.9	co	979285.50	980096.84	1.25	-318.39	1.31	0.00	66.12	-252.32	-291.68
	NOAA	39 12.11	105 38.48	9265.7	co	979291.81	980098.06	1.27	-316.02	1.32	0.00	64.70	-251.37	-290.44
	RFT13512	39 9.65	105 38.62	9382.8	co	979280.57	980094.43	1.23	-320.02	1.33	0.00	68.10	-251.99	-291.55
	NOAA	39 5.02	105 38.71	9010.8	co	979293.18	980087.60	1.16	-307.33	1.36	0.00	52.59	-254.94	-292.95
	NOAA	39 6.90	105 38.90	9290.0	co	979278.81	980090.38	1.29	-316.85	1.31	0.00	61.68	-255.20	-294.37
	NOAA	39 15.08	105 38.92	9132.8	co	979304.75	980102.45	1.60	-311.50	1.34	0.00	60.78	-250.46	-288.93
	RFT13548	39 15.08	105 38.92	9133.9	co	979304.68	980102.45	1.60	-311.53	1.34	0.00	60.80	-250.47	-288.94
	NOAA	39 16.46	105 38.94	9235.9	co	979298.56	980104.48	2.06	-315.01	1.32	0.00	62.23	-252.04	-290.89
	RFT13558	39 16.47	105 38.98	9235.9	co	979298.89	980104.50	2.04	-315.01	1.32	0.00	62.54	-251.75	-290.60
	RFT13566	39 17.58	105 39.00	9451.1	co	979287.68	980106.14	2.56	-322.35	1.29	0.00	69.90	-251.17	-290.86
	NOAA	39 7.75	105 39.01	9324.8	co	979279.75	980091.63	1.25	-318.04	1.31	0.00	64.63	-253.47	-292.79
	NOAA	39 11.28	105 39.05	9312.0	co	979286.93	980096.84	1.15	-317.60	1.31	0.00	65.39	-252.37	-291.65
	NOAA	39 13.01	105 39.05	9114.8	co	979301.25	980099.39	1.26	-310.88	1.34	0.00	58.64	-252.32	-290.76
	NOAA	39 11.61	105 39.35	9255.8	co	979289.81	980097.33	1.13	-315.69	1.32	0.00	62.52	-253.36	-292.40
	NOAA	39 6.90	105 39.42	9191.9	co	979283.81	980090.38	1.16	-313.51	1.33	0.00	57.46	-256.22	-294.99
	NOAA	39 6.03	105 39.44	9090.9	co	979287.43	980089.09	1.13	-310.06	1.34	0.00	52.87	-257.40	-295.75
	NOAA	39 6.46	105 39.44	9197.8	co	979281.81	980089.73	1.12	-313.71	1.33	0.00	56.66	-257.26	-296.05
	NOAA	39 16.46	105 39.51	9145.0	co	979302.50	980104.48	1.97	-311.91	1.34	0.00	57.63	-253.65	-292.12
	NOAA	39 13.85	105 39.53	9105.9	co	979301.56	980100.63	1.29	-310.58	1.34	0.00	56.88	-253.75	-292.14
	NOAA	39 14.71	105 39.53	8997.7	co	979309.93	980101.91	1.54	-306.88	1.36	0.00	53.80	-252.90	-290.81
	NOAA	39 7.75	105 39.56	9271.0	co	979281.00	980091.63	1.14	-316.21	1.32	0.00	60.83	-255.56	-294.66
	RFT13556	39 16.46	105 39.57	9145.0	co	979302.84	980104.48	1.94	-311.91	1.34	0.00	57.97	-253.34	-291.81
	NOAA	39 12.16	105 39.60	9148.0	co	979294.50	980098.14	1.14	-312.01	1.34	0.00	56.26	-255.95	-294.53
	NOAA	39 6.01	105 40.00	9099.7	co	979284.50	980089.06	0.99	-310.36	1.34	0.00	50.80	-259.92	-298.32
	NOAA	39 6.90	105 40.00	9126.9	co	979285.25	980090.38	1.07	-311.29	1.34	0.00	52.80	-258.76	-297.27
	NOAA	39 8.60	105 40.13	9364.8	co	979275.25	980092.88	1.03	-319.41	1.33	0.00	62.63	-257.05	-296.56
	NOAA	39 11.13	105 40.16	9257.8	co	979285.88	980096.62	1.03	-315.76	1.32	0.00	59.49	-256.56	-295.62
	NOAA	39 13.00	105 40.16	9161.7	co	979295.75	980099.38	1.14	-312.48	1.33	0.00	57.56	-255.12	-293.76
	NOAA	39 12.16	105 40.17	9132.8	co	979296.25	980098.14	1.11	-311.50	1.34	0.00	56.59	-255.13	-293.66
	NOAA	39 16.08	105 40.23	8988.8	co	979309.06	980103.92	1.91	-306.58	1.36	0.00	50.08	-255.96	-293.78
	NOAA	39 16.08	105 40.25	8988.8	co	979309.38	980103.92	1.90	-306.58	1.36	0.00	50.40	-255.64	-293.47
	RFT13553	39 16.08	105 40.25	8990.2	co	979309.03	980103.92	1.90	-306.63	1.36	0.00	50.18	-255.91	-293.74
	NOAA	39 6.70	105 40.31	9092.8	co	979285.13	980090.08	1.01	-310.13	1.34	0.00	49.77	-260.70	-299.07
	RFT13620	39 21.34	105 40.46	9415.0	co	979289.82	980111.70	3.04	-321.12	1.29	0.00	63.10	-256.27	-295.75

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE_BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	RFT13583	39	18.70	105	41.84	9119.8	co	979299.67	980107.80	1.91	-311.05	1.34	0.00	49.12	-261.36	-299.73	
	RFT13589	39	19.13	105	41.84	9157.8	co	979298.07	980108.43	1.96	-312.34	1.33	0.00	50.45	-261.27	-299.80	
	RFT13596	39	19.99	105	41.85	9299.8	co	979291.18	980109.70	1.89	-317.19	1.31	0.00	55.64	-260.98	-300.11	
	NOAA	39	10.11	105	41.86	9261.8	co	979276.81	980095.11	0.95	-315.89	1.32	0.00	52.29	-263.97	-303.06	
	NOAA	39	11.26	105	41.86	9334.0	co	979276.18	980096.81	0.97	-318.35	1.31	0.00	56.74	-261.95	-301.34	
	NOAA	39	13.46	105	41.86	9265.7	co	979284.50	980100.05	1.18	-316.02	1.32	0.00	55.40	-260.77	-299.84	
	NOAA	39	13.90	105	41.86	9361.9	co	979278.88	980100.71	1.17	-319.31	1.30	0.00	58.16	-261.27	-300.76	
	NOAA	39	17.53	105	41.88	9034.8	co	979303.31	980106.07	1.81	-308.15	1.35	0.00	46.50	-261.19	-299.22	
	NOAA	39	5.80	105	42.00	9157.8	co	979271.86	980088.75	0.86	-312.34	1.33	0.00	43.93	-268.89	-307.56	
	NOAA	39	21.31	105	42.00	9537.7	co	979277.61	980111.66	2.06	-325.30	1.27	0.00	62.46	-262.06	-302.17	
	RFT13618	39	21.31	105	42.00	9537.7	co	979277.96	980111.66	2.06	-325.30	1.27	0.00	62.81	-261.71	-301.82	
	NOAA	39	5.18	105	42.21	9029.9	co	979269.06	980087.84	0.80	-307.98	1.35	0.00	30.03	-278.51	-316.64	
	NOAA	39	10.36	105	42.21	9242.8	co	979276.31	980095.48	0.96	-315.24	1.32	0.00	49.63	-265.97	-304.98	
	NOAA	39	6.71	105	42.31	9118.8	co	979272.56	980090.09	0.88	-311.02	1.34	0.00	39.63	-271.85	-310.35	
	NOAA	39	6.90	105	42.33	9145.0	co	979272.50	980090.38	0.89	-311.91	1.34	0.00	41.74	-270.61	-309.22	
	NOAA	39	5.05	105	42.38	9086.9	co	979267.31	980087.65	0.79	-309.93	1.35	0.00	33.83	-276.66	-315.03	
	NOAA	39	6.53	105	42.56	9090.9	co	979272.06	980089.82	0.88	-310.06	1.34	0.00	36.77	-273.76	-312.14	
	NOAA	39	6.50	105	42.70	9111.9	co	979270.25	980089.78	0.87	-310.78	1.34	0.00	36.97	-274.28	-312.75	
	NOAA	39	6.13	105	42.71	9113.8	co	979271.00	980089.24	0.84	-310.84	1.34	0.00	38.45	-272.90	-311.38	
	NOAA	39	9.63	105	42.71	9301.8	co	979268.38	980094.40	0.92	-317.26	1.31	0.00	48.32	-269.32	-308.58	
	NOAA	39	21.41	105	42.71	9559.7	co	979272.68	980111.80	1.97	-326.05	1.27	0.00	59.44	-265.91	-306.12	
	RFT13621	39	21.42	105	42.72	9559.7	co	979272.97	980111.81	1.98	-326.05	1.27	0.00	59.72	-265.62	-305.83	
	NOAA	39	6.11	105	42.75	9126.9	co	979269.56	980089.20	0.84	-311.29	1.34	0.00	38.28	-273.52	-312.05	
	NOAA	39	5.81	105	42.81	9093.8	co	979271.00	980088.77	0.83	-310.16	1.34	0.00	37.04	-273.64	-312.03	
	NOAA	39	12.16	105	42.88	9279.9	co	979276.88	980098.14	1.05	-316.51	1.32	0.00	51.03	-265.74	-304.89	
	NOAA	39	5.56	105	42.90	9095.8	co	979269.50	980088.40	0.82	-310.23	1.34	0.00	36.10	-274.66	-313.07	
	NOAA	39	6.90	105	42.90	9152.9	co	979268.81	980090.38	0.89	-312.18	1.34	0.00	38.80	-273.83	-312.46	
	NOAA	39	8.58	105	42.90	9415.0	co	979250.18	980092.85	0.92	-321.12	1.29	0.00	42.31	-279.18	-318.92	
	NOAA	39	9.04	105	42.90	9303.8	co	979260.38	980093.53	0.92	-317.32	1.31	0.00	41.38	-276.33	-315.60	
	NOAA	39	11.26	105	42.90	9418.0	co	979266.88	980096.81	0.97	-321.22	1.29	0.00	55.33	-266.21	-305.95	
	NOAA	39	13.05	105	42.90	9497.7	co	979266.31	980099.45	1.16	-323.94	1.28	0.00	59.60	-264.45	-304.50	
	NOAA	39	18.26	105	42.90	9342.8	co	979281.68	980107.14	1.33	-318.65	1.31	0.00	52.73	-265.90	-305.29	
	RFT13576	39	18.28	105	42.90	9342.8	co	979281.99	980107.18	1.33	-318.65	1.31	0.00	53.01	-265.62	-305.00	
	NOAA	39	6.35	105	42.91	9184.7	co	979266.00	980089.56	0.86	-313.26	1.33	0.00	39.78	-273.95	-312.73	
	NOAA	39	7.73	105	42.91	9230.9	co	979266.68	980091.59	0.92	-314.84	1.32	0.00	42.77	-272.47	-311.43	
	NOAA	39	10.40	105	42.91	9328.7	co	979266.93	980095.54	0.91	-318.17	1.31	0.00	48.26	-270.31	-309.68	
	NOAA	39	5.50	105	42.93	9125.0	co	979267.18	980088.31	0.82	-311.23	1.34	0.00	36.61	-275.14	-313.67	
	NOAA	39	7.31	105	42.96	9178.8	co	979266.81	980090.98	0.92	-313.06	1.33	0.00	38.62	-274.85	-313.59	
	NOAA	39	5.75	105	43.00	9124.0	co	979267.25	980088.67	0.83	-311.19	1.34	0.00	36.22	-275.49	-314.01	
	RFT13485	39	7.15	105	43.00	9211.0	co	979268.57	980090.74	0.89	-314.16	1.33	0.00	43.64	-270.95	-309.83	

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE_BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	NOAA	39	21.35	105	40.46	9415.0	co	979289.50	980111.71	3.06	-321.12	1.29	0.00	62.76	-256.59	-296.06	
	NOAA	39	6.90	105	40.55	9078.7	co	979283.18	980090.38	1.02	-309.65	1.35	0.00	46.19	-263.78	-302.09	
	NOAA	39	6.01	105	40.56	9058.7	co	979284.06	980089.06	0.91	-308.97	1.35	0.00	46.51	-262.89	-301.13	
	NOAA	39	7.05	105	40.58	9097.8	co	979283.13	980090.59	1.02	-310.30	1.34	0.00	47.72	-262.90	-301.30	
	NOAA	39	8.60	105	40.66	9334.0	co	979274.81	980092.88	0.98	-318.35	1.31	0.00	59.30	-259.38	-298.77	
	NOAA	39	9.50	105	40.66	9293.0	co	979279.50	980094.20	0.98	-316.96	1.31	0.00	58.81	-258.48	-297.70	
	NOAA	39	13.86	105	40.66	9186.0	co	979293.88	980100.65	1.18	-313.31	1.33	0.00	56.70	-256.76	-295.50	
	NOAA	39	18.26	105	40.66	9419.9	co	979286.13	980107.14	1.80	-321.28	1.29	0.00	64.42	-256.36	-296.00	
	NOAA	39	6.41	105	40.67	9092.8	co	979282.81	980089.65	0.94	-310.13	1.34	0.00	47.87	-262.66	-301.04	
	NOAA	39	7.73	105	40.67	9168.0	co	979282.43	980091.59	1.04	-312.69	1.33	0.00	52.61	-260.38	-299.06	
	RFT13575	39	18.27	105	40.67	9419.9	co	979286.43	980107.16	1.80	-321.28	1.29	0.00	64.70	-256.07	-295.72	
	NOAA	39	5.76	105	40.73	8996.7	co	979285.00	980088.69	0.91	-306.85	1.36	0.00	41.99	-265.31	-303.29	
	NOAA	39	11.70	105	40.75	9186.0	co	979289.93	980097.46	1.03	-313.31	1.33	0.00	55.94	-257.67	-296.43	
	NOAA	39	12.15	105	40.75	9179.8	co	979291.61	980098.13	1.06	-313.10	1.33	0.00	56.37	-257.00	-295.73	
	NOAA	39	20.96	105	40.85	9412.7	co	979288.81	980111.13	2.46	-321.04	1.29	0.00	62.44	-257.44	-296.97	
	RFT13612	39	20.99	105	40.85	9412.7	co	979289.15	980111.18	2.47	-321.04	1.29	0.00	62.73	-257.14	-296.67	
	NOAA	39	6.13	105	41.01	9014.8	co	979284.18	980089.24	0.91	-307.47	1.35	0.00	42.33	-265.59	-303.64	
	RFT13473	39	6.13	105	41.01	9015.1	co	979282.18	980089.24	0.91	-307.48	1.36	0.00	40.36	-267.57	-305.63	
	NOAA	39	10.61	105	41.01	9183.7	co	979286.63	980095.84	1.01	-313.23	1.33	0.00	54.04	-259.51	-298.27	
	RFT13521	39	11.04	105	41.17	9145.0	co	979289.10	980096.48	1.05	-311.91	1.34	0.00	52.23	-259.96	-298.55	
	NOAA	39	18.23	105	41.18	9205.7	co	979299.25	980107.10	1.82	-313.98	1.33	0.00	57.46	-256.02	-294.77	
	RFT13573	39	18.24	105	41.20	9205.7	co	979299.59	980107.12	1.81	-313.98	1.33	0.00	57.79	-255.71	-294.45	
	NOAA	39	11.26	105	41.31	9225.7	co	979284.25	980096.81	0.97	-314.66	1.32	0.00	54.64	-260.38	-299.31	
	NOAA	39	11.70	105	41.35	9188.0	co	979288.18	980097.46	1.02	-313.38	1.33	0.00	54.38	-259.31	-298.08	
	NOAA	39	5.83	105	41.40	9192.9	co	979272.68	980088.80	0.93	-313.54	1.33	0.00	48.00	-265.94	-304.74	
	NOAA	39	6.06	105	41.50	9149.0	co	979275.68	980089.13	0.87	-312.04	1.34	0.00	46.54	-265.97	-304.60	
	RFT13499	39	8.86	105	41.54	9328.1	co	979272.85	980093.27	0.93	-318.15	1.31	0.00	56.40	-262.13	-301.50	
	NOAA	39	8.88	105	41.55	9327.8	co	979272.13	980093.30	0.93	-318.14	1.31	0.00	55.63	-262.90	-302.26	
	NOAA	39	5.58	105	41.71	9041.0	co	979277.31	980088.42	0.82	-308.36	1.35	0.00	38.73	-270.16	-308.34	
	NOAA	39	17.21	105	41.71	9020.0	co	979304.43	980105.59	1.85	-307.64	1.35	0.00	46.70	-260.45	-298.41	
	RFT13563	39	17.23	105	41.71	9020.0	co	979304.46	980105.63	1.85	-307.64	1.36	0.00	46.71	-260.45	-298.41	
	NOAA	39	17.22	105	41.72	9020.0	co	979304.75	980105.61	1.85	-307.64	1.36	0.00	47.01	-260.14	-298.10	
	NOAA	39	5.91	105	41.76	9136.8	co	979275.25	980088.91	0.85	-311.63	1.34	0.00	45.18	-266.93	-305.51	
	NOAA	39	9.50	105	41.78	9311.0	co	979273.75	980094.20	0.93	-317.57	1.31	0.00	54.75	-263.20	-302.50	
	NOAA	39	7.71	105	41.80	9308.7	co	979269.06	980091.57	0.94	-317.49	1.31	0.00	52.49	-265.38	-304.66	
	NOAA	39	18.25	105	41.80	9093.8	co	979300.56	980107.13	1.85	-310.16	1.34	0.00	48.23	-261.42	-299.70	
	NOAA	39	18.68	105	41.81	9119.8	co	979299.36	980107.77	1.91	-311.05	1.34	0.00	48.84	-261.64	-300.02	
	RFT13574	39	18.25	105	41.82	9093.8	co	979300.85	980107.13	1.85	-310.16	1.34	0.00	48.52	-261.13	-299.41	
	NOAA	39	19.10	105	41.83	9157.8	co	979297.75	980108.38	1.95	-312.34	1.33	0.00	50.18	-261.55	-300.08	
	NOAA	39	19.98	105	41.83	9299.8	co	979290.88	980109.69	1.90	-317.19	1.31	0.00	55.36	-261.25	-300.38	

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	NOAA	39	9.45	105	43.00	9309.7	co	979264.00	980094.13	0.91	-317.53	1.31	0.00	44.95	-272.98	-312.27	
	NOAA	39	5.28	105	43.01	9213.9	co	979260.63	980087.98	0.87	-314.26	1.33	0.00	38.74	-275.98	-314.87	
	NOAA	39	5.13	105	43.08	9103.9	co	979266.68	980087.77	0.81	-310.51	1.34	0.00	34.68	-276.36	-314.81	
	NOAA	39	5.35	105	43.10	9157.8	co	979263.43	980088.09	0.82	-312.34	1.33	0.00	36.16	-276.70	-315.37	
	RFT13617	39	21.23	105	43.11	9713.9	co	979261.36	980111.53	1.74	-331.31	1.24	0.00	62.87	-267.94	-308.82	
	NOAA	39	21.23	105	43.13	9713.9	co	979261.06	980111.53	1.74	-331.31	1.24	0.00	62.58	-268.23	-309.12	
	NOAA	39	7.65	105	43.15	9233.9	co	979261.75	980091.48	0.92	-314.94	1.32	0.00	38.24	-277.11	-316.08	
	NOAA	39	6.23	105	43.23	9262.8	co	979258.93	980089.38	0.91	-315.93	1.32	0.00	40.23	-276.11	-315.20	
	NOAA	39	7.03	105	43.30	9188.0	co	979264.06	980090.57	0.91	-313.38	1.33	0.00	37.15	-276.64	-315.43	
	NOAA	39	19.35	105	43.36	9506.9	co	979270.68	980108.76	1.38	-324.25	1.28	0.00	55.53	-268.62	-308.68	
	NOAA	39	19.56	105	43.36	9544.9	co	979269.00	980109.07	1.44	-325.55	1.27	0.00	57.11	-268.27	-308.49	
	RFT13590	39	19.36	105	43.37	9506.9	co	979270.97	980108.77	1.39	-324.25	1.28	0.00	55.80	-268.33	-308.40	
	NOAA	39	18.00	105	43.38	9226.7	co	979285.93	980106.76	1.32	-314.69	1.32	0.00	46.45	-268.25	-307.14	
	NOAA	39	22.15	105	43.38	9732.8	co	979259.38	980112.90	2.05	-331.96	1.23	0.00	61.32	-269.82	-310.75	
	RFT13571	39	18.00	105	43.39	9228.0	co	979285.89	980106.76	1.32	-314.74	1.32	0.00	46.54	-268.21	-307.11	
	RFT13630	39	22.17	105	43.39	9732.8	co	979259.70	980112.92	2.06	-331.96	1.23	0.00	61.61	-269.52	-310.45	
	NOAA	39	18.28	105	43.46	9324.8	co	979279.93	980107.18	1.28	-318.04	1.31	0.00	49.25	-268.81	-308.13	
	NOAA	39	6.13	105	43.48	9246.7	co	979256.50	980089.24	0.89	-315.38	1.32	0.00	36.43	-279.38	-318.41	
	RFT13577	39	18.28	105	43.48	9324.8	co	979280.22	980107.18	1.28	-318.04	1.31	0.00	49.54	-268.53	-307.84	
	NOAA	39	7.96	105	43.50	9263.8	co	979259.31	980091.94	0.94	-315.96	1.32	0.00	38.15	-278.19	-317.29	
	NOAA	39	19.41	105	43.53	9467.8	co	979272.18	980108.84	1.37	-322.92	1.28	0.00	53.27	-269.56	-309.47	
	NOAA	39	9.13	105	43.55	9309.7	co	979256.13	980093.66	0.92	-317.53	1.31	0.00	37.55	-280.36	-319.65	
	NOAA	39	8.36	105	43.66	9292.0	co	979258.56	980092.52	0.94	-316.92	1.31	0.00	39.46	-277.84	-317.05	
	NOAA	39	22.65	105	43.68	9940.0	co	979246.63	980113.63	2.09	-339.02	1.19	0.00	67.29	-270.84	-312.63	
	NOAA	39	7.11	105	43.73	9251.0	co	979255.25	980090.68	0.92	-315.52	1.32	0.00	34.14	-281.78	-320.83	
	RFT13599	39	20.46	105	43.74	9792.0	co	979253.09	980110.40	1.71	-333.98	1.22	0.00	63.08	-270.41	-311.63	
	NOAA	39	20.45	105	43.75	9792.0	co	979252.75	980110.38	1.71	-333.98	1.22	0.00	62.75	-270.74	-311.95	
	NOAA	39	8.75	105	43.76	9295.9	co	979255.81	980093.10	0.95	-317.06	1.31	0.00	36.50	-280.92	-320.15	
	RFT13608	39	20.79	105	43.80	9784.8	co	979253.29	980110.88	1.66	-333.73	1.22	0.00	62.11	-271.18	-312.38	
	NOAA	39	20.78	105	43.81	9784.8	co	979253.00	980110.87	1.66	-333.73	1.22	0.00	61.84	-271.46	-312.65	
	NOAA	39	20.21	105	43.83	9695.9	co	979258.13	980110.02	1.54	-330.70	1.24	0.00	59.47	-270.94	-311.77	
	NOAA	39	5.93	105	43.85	9412.7	co	979245.18	980088.94	1.10	-321.04	1.29	0.00	41.00	-280.23	-319.93	
	NOAA	39	7.73	105	44.01	9399.8	co	979249.93	980091.59	0.93	-320.60	1.30	0.00	41.89	-279.08	-318.75	
	NOAA	39	8.60	105	44.01	9355.9	co	979248.38	980092.88	0.93	-319.10	1.30	0.00	34.94	-284.54	-324.03	
	NOAA	39	9.48	105	44.01	9403.8	co	979252.25	980094.18	0.89	-320.74	1.29	0.00	42.00	-279.14	-318.83	
	NOAA	39	10.38	105	44.01	9469.8	co	979253.68	980095.51	0.93	-322.99	1.28	0.00	48.30	-275.04	-315.01	
	NOAA	39	11.25	105	44.01	9416.0	co	979262.31	980096.79	0.92	-321.15	1.29	0.00	50.59	-270.93	-310.67	
	NOAA	39	18.26	105	44.03	9385.8	co	979272.81	980107.14	1.24	-320.12	1.30	0.00	47.90	-272.28	-311.85	
	RFT13578	39	18.28	105	44.04	9385.8	co	979273.15	980107.18	1.23	-320.12	1.30	0.00	48.21	-271.98	-311.56	
	NOAA	39	13.03	105	44.05	9590.9	co	979255.86	980099.42	1.14	-327.12	1.26	0.00	57.94	-269.30	-309.75	

BOUGUER GRAVITY DATA

Lost Creek Bouguer Gravity
M. Sherrard, V. Bankey
Meter ID: d-999 Date: 1-1-83

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE_BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
	NOAA	39	13.91	105	44.06	9776.8	co	979245.88	980100.72	1.35	-333.46	1.23	0.00	64.13	-269.21	-310.41	
	NOAA	39	7.15	105	44.08	9255.8	co	979254.50	980090.74	0.97	-315.69	1.32	0.00	33.79	-282.25	-321.31	
	NOAA	39	9.04	105	44.10	9337.9	co	979248.75	980093.53	0.93	-318.49	1.31	0.00	32.96	-285.91	-325.32	
	NOAA	39	7.73	105	44.13	9378.0	co	979250.31	980091.59	0.93	-319.86	1.30	0.00	40.22	-280.01	-319.59	
	NOAA	39	5.80	105	44.18	9295.9	co	979250.50	980088.75	0.89	-317.06	1.31	0.00	35.54	-281.94	-321.18	
	NOAA	39	8.75	105	44.20	9405.8	co	979243.43	980093.10	0.92	-320.80	1.29	0.00	34.44	-286.74	-326.44	
	RFT13634	39	22.64	105	44.21	9940.0	co	979246.95	980113.62	1.99	-339.02	1.19	0.00	67.62	-270.61	-312.41	
	NOAA	39	17.88	105	44.50	9133.9	co	979284.86	980106.59	1.43	-311.53	1.34	0.00	36.84	-274.59	-313.09	
	NOAA	39	9.28	105	44.51	9375.0	co	979246.31	980093.89	0.94	-319.75	1.30	0.00	33.65	-286.46	-326.03	
	NOAA	39	8.55	105	44.53	9430.8	co	979245.25	980092.80	0.93	-321.66	1.29	0.00	38.90	-283.11	-322.91	
	RFT13570	39	17.89	105	44.53	9133.9	co	979284.90	980106.60	1.43	-311.53	1.34	0.00	36.87	-274.57	-313.06	
	NOAA	39	18.26	105	44.61	9223.8	co	979279.31	980107.14	1.32	-314.60	1.32	0.00	39.18	-275.42	-314.30	
	RFT13579	39	18.28	105	44.62	9223.8	co	979279.64	980107.18	1.32	-314.60	1.32	0.00	39.48	-275.12	-314.00	
	NOAA	39	7.20	105	44.68	9334.9	co	979249.93	980090.81	0.95	-318.39	1.31	0.00	36.58	-282.17	-321.56	
	NOAA	39	23.10	105	44.70	9626.0	co	979259.00	980114.30	2.39	-328.31	1.26	0.00	49.49	-277.69	-318.12	
	RFT13639	39	23.10	105	44.71	9626.0	co	979259.32	980114.30	2.38	-328.31	1.26	0.00	49.81	-277.38	-317.82	
	NOAA	39	11.06	105	44.75	9385.8	co	979258.13	980096.51	0.93	-320.12	1.30	0.00	43.86	-276.63	-316.25	
	RFT13568	39	17.80	105	44.80	9121.1	co	979288.71	980106.47	1.47	-311.09	1.34	0.00	39.61	-271.35	-309.79	
	NOAA	39	9.55	105	44.88	9387.8	co	979249.38	980094.29	0.96	-320.19	1.30	0.00	37.52	-283.01	-322.62	
	NOAA	39	8.58	105	44.90	9635.8	co	979232.31	980092.85	1.12	-328.65	1.25	0.00	45.18	-283.60	-324.24	
	NOAA	39	7.20	105	44.95	9411.7	co	979243.43	980090.81	0.92	-321.00	1.29	0.00	37.28	-284.10	-323.82	