Principal Facts for Gravity Stations in the Elko, Steptoe Valley, Coyote Spring Valley, and Sheep Range Areas, Eastern and Southern Nevada

By David L. Berger, Donald H. Schaefer, and Elizabeth A. Frick

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CONVERSION FACTORS AND ABBREVIATIONS

"Inch-pound" units of measure used in this report may be converted to metric (International System) units by using the following factors:

Multiply	*By*	*To obtain*
Foot (ft)	0.3048	Meter (m)
Foot per mile (ft/mi)	0.1894	Meter per kilometer (m/km)
Mile (mi)	1.609	Kilometer (km)

SEA LEVEL

In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929), which is derived from a general adjustment of the first-order leveling networks of both the United States and Canada (formerly called "Sea-Level Datum of 1929").

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ABSTRACT

Principal facts for 537 gravity stations in the carbonate-rock province of eastern and southern Nevada are tabulated and presented. The gravity data were collected in support of ground-water studies in several valleys. The study areas include the Elko area, northern Steptoe Valley, Coyote Spring Valley, and the western Sheep Range area. The data for each site include values for latitude, longitude, altitude, observed gravity, free-air anomaly, terrain correction, and Bouguer anomaly (calculated at a bedrock density of 2.67 grams per cubic centimeter).

INTRODUCTION

During the period 1984-87, gravity measurements and associated data were collected in support of ground-water studies in several valleys in the carbonate-rock province of Nevada (as used by Thomas and others, 1986). The purpose of the gravity surveys was to determine the basin geometry in terms of depths to bedrock, and thus define the configuration of the unconsolidated aquifer. This report provides the gravity measurements and associated data in the four study areas--the area in and around the city of Elko in northeast Nevada, northern Steptoe Valley in eastern Nevada, Coyote Spring Valley in southern Nevada, and part of the western Sheep Range, also in southern Nevada (plate 1). The geophysical studies were made in cooperation with several Federal, State, and local agencies, as follows:

Elko area -- U.S. Bureau of Land Management

Northern Steptoe Valley -- Nevada Division of Water Resources

Coyote Spring Valley and western Sheep Range -- Nevada State Legislature; Las Vegas Valley Water District; and U.S. Bureau of Reclamation

GRAVITY METERS

The majority of the gravity measurements were made with a Worden[1] temperature-controlled Master model gravimeter, serial number 1098. This meter has a scale constant of 0.1907 milliGal (mGal) per scale division. The remaining 36 measurements were made with a LaCoste-Romberg model 'D' gravimeter (D-19). This meter has a scale constant of 1.3001 mGal per scale division. Measurements made adjacent to a deep carbonate well (CE-DT-6) and at stations SR43-SR55 (table 4; plate 1) were made with the LaCoste-Romberg gravimeter.

GRAVITY-DATA PROCESSING

The gravity data were reduced by a computer program developed by Plouff (1977) that makes the necessary corrections to gravity data for latitude, altitude, earth curvature, and terrain irregularities for a radius of 1.4 to 104 miles from each gravity station. Hand (manual) terrain corrections within a 1.4-mile radius were made using a template (Hayford and Bowie, 1912). Hand terrain corrections were made on all but the northern Steptoe Valley and Elko area data. The Bouguer gravity-anomaly values were computed using the 1967 gravity formula (International Association of Geodesy, 1967) and a Bouguer density of 2.76 grams per cubic centimeter.

STUDY AREAS

Elko

Between March and August 1984, 123 gravity measurements were taken in and around Elko, Nev. (table 1; plate 1). Gravity measurements were referenced to Department of Defense primary gravity base station number ACIC 2344-2 in Battle Mountain, Nev., (Jablonsky, 1974) which is on the IGSN71 (International Gravity Standardization Network, 1971) gravity datum. The gravity value for this base is 979,754.79 mGal.

Measurements were made at easily locatable landmarks, such as road intersections, bench marks, and section corners. Altitudes were estimated from contours on topographic maps with a scale of 1:24,000. Accuracy of these altitudes are one-half the contour interval (± 10 feet).

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[1] The use of trade names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

Northern Steptoe Valley

Between August and October 1984, 244 gravity measurements were made in northern Steptoe Valley in eastern Nevada (table 2; plate 1). These measurements were made primarily at road intersections and other landmarks shown on topographic maps. Altitudes were determined from marked locations on the maps or estimated from contours. Contour intervals on maps used for field locations are 20 or 30 feet depending on the map units resulting in accuracy of altitude estimates of about 10-15 feet.

All gravity measurements are referenced to a parent base station at the Ely airport (ACIC base no. 0390-0) using an observed gravity value of 979,479.91 mGal (Jablonsky, 1974).

Coyote Spring Valley

Gravity measurements were made at 116 locations in Coyote Spring Valley (table 3; plate 1). The valley is approximately 50 miles northeast of Las Vegas, Nev. (plate 1). Most measurements were made during the summer of 1985 with additional measurements made during 1986.

Gravity measurements were referenced to a local base station in Coyote Spring Valley (plate 1) established for this study at a bench mark (latitude 36° 46' 3", longitude 114° 56' 26"). The observed gravity value at this local base is 976,601.67 mGal and was established from measurements at the Indian Springs, Nev., network base (ACIC 4027-1) having an observed gravity value of 979,541.16 mGal (Jablonsky, 1974).

The measurements were taken at road intersections and section corners where locations and altitude could be made within one-half the contour interval (± 10 feet). Altitudes of approximately 40 stations were surveyed to acquire precise locations and altitudes near three deep carbonate wells CE-DT-4, CE-DT-5, and CE-DT-6 (table 3; plate 1).

In the area adjacent to well CE-DT-6, 23 gravity stations were established. In table 3, stations listed with prefixes A, B, C, or D are on four perpendicular lines that radiate outward from the well. Station BASE is approximately 500 feet from the well on a limestone outcrop. Station 0-0 is within CE-DT-6 pump house.

Western Sheep Range

Between 1985 and 1987, gravity measurements were made at 54 locations within and to the west of the Sheep Range (table 4; plate 1). The general area is 30 miles north of Las Vegas within the Desert National Wildlife Range. The stations were spaced along roads using an electronic odometer in the field vehicle. The stated accuracy of the odometer equipment is 1 to 3 feet per mile. Distances were frequently checked against known distances in the field. Where possible, stations were located at landmarks such as section corners, road intersections, and bench marks whose altitude estimations were one-half the contour interval (± 10 feet). Altitudes at some stations were made with an electronic barometer with ± 5 feet accuracy.

In the area near the Cow Camp well, stations were surveyed along the road at 150 feet intervals (table 4; plate 1). This was to aid in siting the location of that test well. With this one exception, no other surveying was done in the western Sheep Range area for gravity stations.

TABLE 1.--Principal facts for gravity stations in the Elko area

Site: Data are listed in order of increasing latitude (that is, from south to north).
Terrain correction: "Hand" indicates manual correction for the area within a radius of 1.42 miles; "Comp" indicates computer correction for the area between radii of 1.42 and 103.6 miles; both assume a bedrock density of 2.67 grams per cubic centimeter.
Bouguer anomaly: Complete Bouguer anomaly at a bedrock density of 2.67 grams per cubic centimeter.

[Abbreviations: deg, degree; min, minute; mGal, milliGal]

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
ELKO096	40	45.40	115	45.67	6,330	979,668.36	27.06	0.00	1.47	-189.07
ELKO095	40	45.55	115	45.63	6,460	979,659.71	30.40	.00	1.95	-189.68
ELKO078	40	45.55	115	49.70	5,250	979,737.99	-5.03	.00	.22	-185.44
ELKO097	40	45.58	115	45.95	6,170	979,679.97	23.37	.00	.99	-187.77
ELKO098	40	45.82	115	46.23	6,010	979,693.60	21.60	.00	.65	-184.40
ELKO079	40	45.90	115	49.77	5,190	979,735.79	-13.39	.00	.25	-191.72
ELKO099	40	46.03	115	46.17	5,900	979,701.01	18.83	.00	.47	-183.76
ELKO080	40	46.25	115	49.85	5,150	979,735.80	-17.66	.00	.26	-194.61
ELKO100	40	46.37	115	46.12	5,720	979,714.19	14.59	.00	.28	-182.03
ELKO101	40	46.57	115	46.43	5,620	979,720.40	10.16	.00	.25	-182.72
ELKO081	40	46.60	115	49.87	5,090	979,738.23	-21.39	.00	.30	-196.24
ELKO102	40	46.82	115	46.73	5,480	979,728.23	5.40	.00	.24	-183.04
ELKO082	40	46.95	115	49.87	5,050	979,741.03	-22.88	.00	.33	-196.32
ELKO064	40	46.98	115	52.33	5,020	979,751.40	-15.37	.00	.41	-187.71
ELKO083	40	47.10	115	49.47	5,040	979,739.66	-25.41	.00	.37	-198.48
ELKO103	40	47.15	115	46.87	5,360	979,734.27	-0.33	.00	.27	-184.64
ELKO065	40	47.17	115	51.93	5,010	979,750.39	-17.61	.00	.41	-189.60
EAKO104	40	47.30	115	47.15	5,280	979,738.92	-3.99	.00	.30	-185.32
ELKO066	40	47.33	115	51.55	5,020	979,749.91	-17.38	.00	.39	-189.75
ELKO084	40	47.38	115	49.22	5,040	979,738.34	-27.15	.00	.37	-200.22
ELKO068	40	47.42	115	50.45	5,020	979,747.07	-19.89	.00	.35	-192.46
ELKO067	40	47.50	115	51.15	5,040	979,747.34	-18.79	.00	.36	-191.70
ELKO105	40	47.57	115	47.20	5,230	979,736.81	-11.10	.00	.31	-190.74
ELKO085	40	47.67	115	48.93	5,050	979,737.13	-27.85	.00	.35	-201.28
ELKO086	40	47.90	115	48.62	5,040	979,737.23	-29.03	.00	.37	-202.09
ELKO069	40	47.90	115	50.38	5,030	979,747.08	-20.12	.00	.36	-192.86
ELKO106	40	47.92	115	47.27	5,160	979,737.20	-17.34	.00	.32	-194.74
ELKO070	40	48.12	115	50.00	5,020	979,743.74	-24.26	.00	.37	-196.81
ELKO087	40	48.13	115	48.30	5,050	979,736.71	-29.14	.00	.37	-202.48
ELKO107	40	48.27	115	47.25	5,100	979,738.76	-21.95	.00	.36	-197.25
ELKO071	40	48.33	115	49.62	5,040	979,740.09	-27.28	.00	.36	-200.19
ELKO088	40	48.37	115	47.97	5,040	979,737.58	-29.38	.00	.39	-202.43
ELKO089	40	48.50	115	47.55	5,060	979,738.50	-27.24	.00	.38	-200.81
ELKO072	40	48.53	115	49.25	5,030	979,738.33	-29.82	.00	.37	-202.54
ELKO108	40	48.65	115	47.12	5,060	979,741.37	-24.23	.00	.39	-197.93
ELKO090	40	48.70	115	47.03	5,060	979,743.06	-22.52	.00	.39	-196.25
ELKO073	40	48.73	115	48.87	5,040	979,736.20	-31.11	.00	.36	-204.25
ELKO122	40	48.75	115	49.65	5,160	979,735.55	-20.23	.00	.25	-197.70
ELKO074	40	48.95	115	48.52	5,040	979,735.81	-32.02	.00	.37	-205.09
ELKO091	40	48.97	115	46.68	5,110	979,744.51	-16.77	.00	.32	-192.29
ELKO123	40	49.02	115	49.07	5,060	979,735.51	-30.54	.00	.36	-204.31
ELKO121	40	49.10	115	49.35	5,080	979,735.72	-28.10	.00	.35	-202.73
ELKO075	40	49.12	115	48.12	5,040	979,735.81	-32.28	.00	.37	-205.35
ELKO092	40	49.15	115	46.18	5,070	979,747.65	-17.66	.00	.38	-191.74
ELKO120	40	49.25	115	49.72	5,120	979,736.16	-24.13	.00	.35	-200.13
ELKO076	40	49.27	115	47.68	5,040	979,736.79	-31.51	.00	.38	-204.58
ELKO119	40	49.32	115	50.13	5,190	979,735.62	-18.66	.00	.33	-196.92
ELKO093	40	49.37	115	45.63	5,070	979,747.13	-18.51	.00	.39	-192.58
ELKO077	40	49.40	115	47.25	5,040	979,738.29	-29.74	.00	.37	-202.98
ELKO118	40	49.45	115	50.58	5,240	979,734.31	-15.46	.00	.35	-195.41
ELKO116	40	49.58	115	51.43	5,360	979,731.25	-6.97	.00	.38	-191.17
ELKO117	40	49.60	115	51.00	5,320	979,731.14	-11.34	.00	.36	-194.02
ELKO063	40	49.62	115	46.52	5,060	979,743.77	-23.37	.00	.37	-197.06
ELKO094	40	49.65	115	45.27	5,060	979,748.08	-18.73	.00	.40	-192.52
ELKO115	40	49.65	115	51.88	5,490	979,726.90	.32	.00	.37	-188.16
ELKO001	40	49.77	115	46.52	5,130	979,737.79	-22.52	.00	.27	-198.87
ELKO114	40	49.80	115	52.27	5,640	979,720.01	7.30	.00	.40	-186.29
ELKO013	40	49.82	115	45.72	5,060	979,745.37	-21.88	.00	.37	-195.63
ELKO014	40	49.85	115	45.57	5,060	979,745.81	-21.67	.00	.38	-195.34
ELKO113	40	49.85	115	52.73	5,740	979,716.92	13.53	.00	.43	-183.45

TABLE 1.--Principal facts for gravity stations in the Elko area--Continued

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
ELK0062	40	49.88	115	46.92	5,100	979,736.29	-27.28	0.00	0.31	-202.47
ELK0004	40	49.95	115	46.10	5,120	979,740.33	-21.94	.00	.29	-197.66
ELK0012	40	49.97	115	45.67	5,060	979,744.21	-22.88	.00	.37	-196.78
ELK0015	40	49.98	115	45.42	5,060	979,745.21	-22.28	.00	.38	-196.02
ELK0011	40	50.10	115	45.58	5,070	979,743.84	-22.69	.00	.36	-196.87
ELK0005	40	50.10	115	45.87	5,080	979,742.42	-22.99	.00	.33	-197.60
ELK0003	40	50.10	115	46.30	5,120	979,738.88	-22.86	.00	.29	-198.86
ELK0112	40	50.12	115	53.00	5,890	979,709.53	19.84	.00	.49	-182.22
ELK0016	40	50.17	115	45.20	5,060	979,745.20	-22.48	.00	.38	-196.26
ELK0061	40	50.20	115	47.30	5,180	979,728.29	-27.78	.00	.25	-205.93
ELK0002	40	50.22	115	46.42	5,140	979,735.58	-24.27	.00	.27	-201.04
ELK0010	40	50.23	115	45.78	5,100	979,742.70	-21.87	.00	.32	-196.87
ELK0006	40	50.23	115	46.05	5,110	979,740.73	-22.71	.00	.31	-198.14
ELK0017	40	50.30	115	45.28	5,080	979,744.19	-22.17	.00	.35	-196.53
ELK0060	40	50.33	115	47.75	5,180	979,727.76	-28.97	.00	.29	-206.92
ELK0009	40	50.37	115	45.95	5,120	979,740.87	-21.74	.00	.30	-197.56
ELK0007	40	50.37	115	46.23	5,140	979,737.72	-23.21	.00	.28	-199.65
ELK0059	40	50.40	115	48.22	5,220	979,726.24	-26.37	.00	.29	-205.86
ELK0018	40	50.43	115	45.45	5,090	979,744.07	-21.45	.00	.33	-196.20
ELK0008	40	50.43	115	46.05	5,120	979,739.62	-22.43	.00	.29	-198.49
ELK0111	40	50.43	115	53.23	5,960	979,703.63	20.05	.00	.50	-184.39
ELK0109	40	50.45	115	51.15	5,440	979,731.63	-.85	.00	.42	-187.57
ELK0021	40	50.52	115	46.50	5,170	979,733.95	-24.00	.00	.26	-201.63
ELK0020	40	50.53	115	45.70	5,100	979,744.47	-19.70	.00	.32	-195.01
ELK0058	40	50.53	115	48.88	5,290	979,725.36	-21.33	.00	.30	-203.03
ELK0019	40	50.62	115	45.75	5,120	979,743.03	-19.49	.00	.30	-195.47
ELK0057	40	50.70	115	49.45	5,360	979,724.95	-15.41	.00	.32	-199.49
ELK0110	40	50.73	115	53.43	6,030	979,699.94	22.49	.00	.51	-184.34
ELK0022	40	50.78	115	46.97	5,250	979,727.46	-23.36	.00	.24	-203.76
ELK0056	40	50.88	115	50.00	5,450	979,725.94	-6.24	.00	.34	-193.38
ELK0023	40	51.06	115	47.33	5,300	979,725.53	-20.83	.00	.25	-203.00
ELK0050	40	51.10	115	44.59	5,130	979,744.38	-18.19	.00	.31	-194.40
ELK0055	40	51.17	115	50.53	5,540	979,726.05	1.91	.00	.39	-188.27
ELK0049	40	51.26	115	45.03	5,240	979,735.72	-16.76	.00	.23	-196.82
ELK0054	40	51.38	115	51.08	5,660	979,723.39	9.74	.00	.42	-184.34
ELK0024	40	51.40	115	47.77	5,340	979,723.99	-19.49	.00	.29	-202.84
ELK0048	40	51.46	115	45.22	5,370	979,725.87	-14.69	.00	.20	-199.23
ELK0053	40	51.68	115	51.48	5,730	979,719.30	12.24	.00	.45	-184.38
ELK0025	40	51.72	115	48.18	5,410	979,722.99	-14.19	.00	.32	-199.99
ELK0052	40	51.93	115	51.95	5,840	979,713.00	15.92	.00	.46	-184.46
ELK0026	40	51.95	115	48.63	5,450	979,723.14	-10.63	.00	.37	-197.75
ELK0047	40	52.06	115	45.38	5,360	979,723.81	-18.58	.00	.24	-202.74
ELK0027	40	52.17	115	49.13	5,490	979,725.08	-5.26	.00	.43	-193.69
ELK0051	40	52.17	115	52.48	5,960	979,708.42	22.25	.00	.45	-182.25
ELK0035	40	52.23	115	48.05	5,560	979,714.85	-8.81	.00	.33	-199.81
ELK0046	40	52.30	115	45.59	5,350	979,723.59	-20.10	.00	.27	-203.88
ELK0045	40	52.51	115	46.04	5,380	979,725.53	-16.13	.00	.31	-200.74
ELK0028	40	52.53	115	49.37	5,580	979,725.07	2.18	.00	.46	-189.13
ELK0029	40	52.90	115	49.62	5,670	979,721.46	6.95	.00	.49	-187.58
ELK0044	40	53.09	115	46.15	5,390	979,724.47	-16.64	.00	.39	-201.68
ELK0043	40	53.14	115	46.40	5,630	979,723.08	4.45	.00	.35	-188.86
ELK0042	40	53.26	115	47.01	5,780	979,721.47	16.29	.00	.42	-181.91
ELK0030	40	53.28	115	49.80	5,760	979,715.64	9.49	.00	.52	-188.27
ELK0041	40	53.45	115	47.16	5,740	979,720.75	12.46	.00	.41	-184.71
ELK0031	40	53.72	115	49.65	5,930	979,709.49	18.19	.00	.53	-185.20
ELK0040	40	54.04	115	47.17	5,880	979,719.13	22.18	.00	.49	-179.36
ELK0032	40	54.07	115	49.57	6,040	979,703.54	21.58	.00	.57	-185.36
ELK0039	40	54.25	115	47.17	5,890	979,717.69	21.84	.00	.51	-180.20
ELK0033	40	54.28	115	49.43	6,050	979,703.68	22.82	.00	.58	-184.62
ELK0038	40	54.42	115	47.28	5,860	979,717.62	19.16	.00	.52	-182.01
ELK0037	40	54.47	115	47.53	5,850	979,714.70	14.76	.00	.54	-185.89
ELK0034	40	54.47	115	49.07	6,670	979,660.68	37.79	.00	1.64	-189.78
ELK0036	40	55.01	115	48.10	5,930	979,711.79	18.56	.00	.63	-184.73

TABLE 2.--Principal facts for gravity stations in northern Steptoe Valley

Site: Data are listed in order of increasing latitude (that is, from south to north).
Terrain correction: "Hand" indicates manual correction for the area within a radius of 1.42 miles; "Comp" indicates computer correction for the area between radii of 1.42 and 103.6 miles; both assume a bedrock density of 2.67 grams per cubic centimeter.
Bouguer anomaly: Complete Bouguer anomaly at a bedrock density of 2.67 grams per cubic centimeter.

[Abbreviations: deg, degree; min, minute; mGal, milliGal]

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
SPVL104	39	12.08	114	30.00	5,880	979,508.29	-36.78	0.00	2.25	-236.74
SPVL105	39	12.27	114	31.08	6,000	979,500.81	-33.27	.00	2.75	-236.83
SPVL106	39	12.37	114	32.18	6,180	979,491.79	-25.52	.00	3.42	-234.57
SPVL085	39	15.17	114	20.23	6,300	979,505.11	-5.06	.00	3.43	-218.20
SPVL084	39	15.22	114	20.93	6,100	979,513.23	-15.80	.00	3.17	-222.36
SPVL083	39	15.27	114	21.93	5,950	979,521.84	-21.37	.00	2.62	-223.36
SPVL082	39	15.72	114	22.85	5,810	979,527.84	-29.18	.00	2.12	-226.88
SPVL081	39	16.37	114	23.60	5,700	979,534.96	-33.37	.00	1.92	-227.49
SPVL080	39	17.10	114	24.42	5,600	979,534.85	-43.95	.00	1.79	-234.79
SPVL076	39	17.10	114	28.75	5,670	979,532.10	-39.75	.00	4.06	-230.85
SPVL079	39	17.12	114	25.48	5,560	979,529.82	-52.77	.00	1.85	-242.18
SPVL078	39	17.12	114	26.55	5,550	979,525.02	-58.52	.00	2.16	-247.27
SPVL077	39	17.17	114	27.68	5,560	979,529.69	-52.97	.00	2.85	-241.37
ELYARPRT	39	18.02	114	50.02	6,240	979,479.91	-40.39	.00	1.32	-253.49
STEP001	39	25.53	114	46.45	6,180	979,514.80	-21.96	.00	2.29	-232.14
STEP002	39	27.05	114	46.33	6,220	979,509.63	-25.61	.00	1.61	-237.85
STEP003	39	27.75	114	46.32	6,270	979,509.33	-22.26	.00	1.33	-236.47
STEP004	39	28.70	114	46.25	6,300	979,508.63	-21.45	.00	1.11	-236.94
STEP005	39	29.23	114	46.18	6,300	979,509.18	-21.77	.00	1.07	-237.27
STEP006	39	30.12	114	46.20	6,300	979,511.19	-21.08	.00	.98	-236.67
084	39	30.28	114	45.92	6,260	979,512.58	-23.41	.00	1.09	-237.63
STEP007	39	30.98	114	46.15	6,280	979,514.30	-21.13	.00	1.01	-236.00
STEP008	39	31.87	114	46.10	6,210	979,517.58	-25.74	.00	1.10	-238.13
083	39	32.27	114	45.78	6,200	979,516.09	-28.67	.00	1.23	-240.62
002	39	32.58	114	54.92	6,160	979,534.03	-14.57	.00	1.51	-225.02
STEP009	39	32.65	114	46.07	6,210	979,517.01	-27.46	.00	1.11	-239.85
082	39	32.92	114	45.73	6,200	979,518.28	-27.81	.00	1.25	-239.62
STEP010	39	33.55	114	46.00	6,180	979,520.64	-27.99	.00	1.19	-239.26
STEP011	39	34.40	114	45.92	6,170	979,526.82	-24.00	.00	1.29	-234.84
085	39	34.42	114	31.82	5,900	979,550.93	-25.68	.00	2.73	-225.70
081	39	35.23	114	45.55	6,140	979,532.70	-21.70	.00	1.41	-231.57
STEP012	39	35.35	114	45.85	6,190	979,532.98	-17.37	.00	1.22	-228.96
SPVL100	39	35.50	114	17.40	6,310	979,536.56	-2.74	.00	.80	-218.85
SPVL099	39	35.53	114	18.47	6,250	979,543.14	-1.83	.00	.73	-215.97
SPVL101	39	35.57	114	16.37	6,390	979,535.18	3.30	.00	.85	-215.50
SPVL098	39	35.57	114	19.53	6,110	979,550.66	-7.54	.00	.70	-216.91
SPVL097	39	35.62	114	20.22	6,000	979,553.81	-14.80	.00	.70	-220.41
SPVL103	39	35.63	114	14.88	6,600	979,520.80	8.57	.00	.88	-217.38
SPVL096	39	35.65	114	21.33	5,870	979,561.59	-19.28	.00	.71	-220.43
003	39	35.65	114	52.55	6,160	979,529.00	-24.15	.00	1.12	-234.99
SPVL095	39	35.75	114	22.38	5,850	979,565.85	-17.05	.00	.63	-217.60
SPVL102	39	35.78	114	15.30	6,500	979,525.15	3.30	.00	.87	-219.24
SPVL086	39	35.80	114	32.12	5,920	979,547.03	-29.36	.00	2.77	-230.16
SPVL094	39	35.82	114	23.13	5,820	979,569.85	-15.96	.00	.64	-215.48
004	39	35.82	114	52.43	6,190	979,528.10	-23.13	.00	1.12	-234.76
SPVL088	39	35.87	114	30.00	5,770	979,553.49	-37.10	.00	1.39	-234.15
SPVL087	39	35.95	114	31.17	5,830	979,551.62	-33.45	.00	1.96	-231.99
086	39	35.97	114	31.85	5,970	979,545.74	-26.19	.00	2.32	-229.16
SPVL093	39	36.05	114	24.13	5,780	979,567.70	-22.21	.00	.83	-220.17
SPVL089	39	36.05	114	28.95	5,760	979,550.91	-40.89	.00	1.06	-237.93
SPVL090	39	36.23	114	27.82	5,800	979,552.41	-35.89	.00	.83	-234.52
SPVL092	39	36.32	114	25.55	5,800	979,558.93	-29.51	.00	.69	-228.28
SPVL091	39	36.32	114	26.67	5,800	979,551.25	-37.19	.00	.74	-235.92
080	39	36.40	114	45.45	6,120	979,536.91	-21.10	.00	1.42	-230.27
STEP013	39	36.50	114	45.75	6,140	979,537.29	-19.84	.00	1.29	-229.51
087	39	37.43	114	31.52	5,830	979,551.73	-35.53	.00	2.15	-233.88

TABLE 2.--Principal facts for gravity stations in northern Steptoe Valley--Continued

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
078	39	37.57	114	42.98	6,580	979,517.00	-.17	0.00	2.38	-223.87
STEP014	39	37.62	114	45.67	6,120	979,537.60	-23.06	.00	1.44	-231.91
077	39	37.83	114	44.65	6,220	979,533.48	-18.01	.00	1.66	-230.08
079	39	37.87	114	45.30	6,120	979,536.81	-23.94	.00	1.54	-232.79
STEP015	39	37.98	114	45.63	6,120	979,536.80	-24.11	.00	1.40	-233.10
005	39	38.20	114	49.98	6,080	979,542.40	-22.22	.00	1.49	-229.88
006	39	38.65	114	49.55	6,060	979,545.45	-21.72	.00	1.49	-228.70
STEP016	39	39.18	114	45.47	6,100	979,538.10	-26.19	.00	1.25	-234.74
070	39	39.22	114	44.57	6,180	979,536.32	-20.61	.00	1.59	-231.52
020	39	39.30	114	47.10	5,960	979,540.65	-37.35	.00	1.20	-241.03
017	39	39.32	114	45.72	6,060	979,539.05	-29.40	.00	1.23	-236.54
018	39	39.32	114	46.18	6,030	979,539.64	-31.63	.00	1.18	-237.79
019	39	39.33	114	46.43	6,000	979,539.45	-34.28	.00	1.19	-239.54
016	39	39.35	114	45.25	6,100	979,538.21	-26.34	.00	1.30	-234.83
021	39	39.48	114	47.78	5,960	979,541.96	-36.15	.00	1.26	-239.83
088	39	39.70	114	31.28	6,030	979,548.92	-22.73	.00	1.31	-228.83
008	39	39.73	114	48.50	6,000	979,547.63	-26.69	.00	1.41	-231.73
007	39	39.73	114	48.88	6,070	979,546.94	-21.55	.00	1.47	-228.65
089	39	39.97	114	33.25	6,360	979,527.91	-13.21	.00	1.89	-229.98
009	39	40.23	114	48.77	6,060	979,547.65	-21.87	.00	1.54	-228.79
STEP017	39	40.43	114	45.33	6,070	979,540.13	-28.84	.00	1.24	-236.37
010	39	40.53	114	49.60	6,300	979,536.95	-10.83	.00	1.86	-225.51
090	39	40.77	114	35.18	6,870	979,504.66	10.47	.00	2.85	-222.83
071	39	40.83	114	44.23	6,160	979,538.42	-23.34	.00	1.60	-233.35
011	39	41.07	114	49.27	6,160	979,545.05	-16.78	.00	2.00	-226.50
072	39	41.20	114	43.65	6,260	979,535.33	-17.48	.00	1.66	-230.90
STEP018	39	41.30	114	45.23	6,070	979,541.29	-29.15	.00	1.19	-236.67
091	39	41.45	114	31.45	6,100	979,545.95	-21.58	.00	1.20	-230.23
STEP019	39	42.13	114	45.13	6,070	979,542.88	-29.17	.00	1.17	-236.57
073	39	42.87	114	44.03	6,140	979,542.50	-23.88	.00	1.43	-233.48
STEP020	39	42.90	114	45.05	6,070	979,543.51	-29.30	.00	1.12	-236.89
092	39	42.92	114	31.80	6,180	979,539.83	-22.58	.00	1.21	-233.87
012	39	43.00	114	48.68	6,020	979,549.59	-27.69	.00	2.08	-232.74
093	39	43.10	114	30.62	6,050	979,552.15	-23.12	.00	1.05	-230.00
074	39	43.38	114	44.00	6,160	979,542.02	-23.51	.00	1.35	-233.78
076	39	43.63	114	41.20	6,780	979,515.61	8.25	.00	2.22	-222.43
075	39	43.77	114	43.95	6,160	979,543.07	-23.04	.00	1.32	-233.33
STEP021	39	43.78	114	44.95	6,080	979,545.34	-27.55	.00	1.05	-235.65
094	39	44.02	114	32.18	6,230	979,542.61	-16.45	.00	1.26	-229.50
013	39	44.03	114	48.72	6,030	979,553.63	-24.89	.00	2.05	-230.08
014	39	44.38	114	48.80	6,030	979,554.15	-24.61	.00	2.06	-229.90
STEP022	39	44.78	114	44.80	6,070	979,546.96	-29.01	.00	1.15	-236.42
015	39	44.97	114	48.95	6,020	979,555.33	-25.25	.00	2.05	-230.19
095	39	44.98	114	32.15	6,160	979,551.17	-15.73	.00	1.36	-226.35
022	39	45.58	114	49.15	5,960	979,557.85	-29.46	.00	2.13	-232.21
STEP023	39	45.62	114	44.78	6,070	979,547.10	-30.12	.00	1.06	-237.63
032	39	45.62	114	58.57	6,790	979,521.69	12.23	.00	1.09	-219.89
023	39	46.42	114	49.45	5,980	979,557.20	-29.19	.00	1.84	-233.02
STEP024	39	46.48	114	44.70	6,080	979,548.35	-29.20	.00	1.01	-237.11
033	39	47.33	114	57.27	6,640	979,535.77	10.20	.00	1.12	-216.97
024	39	47.50	114	50.17	6,010	979,558.36	-26.90	.00	1.53	-232.03
STEP025	39	47.73	114	44.58	6,090	979,549.85	-28.61	.00	.94	-236.93
025	39	48.20	114	50.53	6,000	979,560.94	-26.21	.00	1.30	-231.26
STEP026	39	48.70	114	44.53	6,080	979,554.48	-26.36	.00	.94	-234.34
026	39	49.30	114	49.52	5,900	979,556.04	-41.77	.00	1.01	-243.82
031	39	49.33	114	56.62	6,510	979,545.97	4.62	.00	1.29	-217.71
STEP027	39	49.58	114	44.43	6,080	979,555.27	-26.59	.00	1.07	-234.54
027	39	50.40	114	51.53	5,920	979,559.72	-38.12	.00	1.19	-240.57
030	39	50.53	114	56.52	6,430	979,553.27	2.86	.00	1.20	-216.91
028	39	50.78	114	52.75	5,960	979,565.34	-29.39	.00	1.51	-232.86
STEP028	39	50.83	114	44.28	6,130	979,552.25	-26.77	.00	1.04	-236.46
STEP029	39	51.70	114	44.22	6,150	979,553.74	-24.79	.00	1.02	-235.14
029	39	52.07	114	54.30	6,110	979,568.32	-14.47	.00	1.42	-223.07

TABLE 2.--Principal facts for gravity stations in northern Steptoe Valley--Continued

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
069	39	52.08	114	54.05	6,060	979,568.76	-18.32	.00	1.47	-225.32
047	39	52.83	114	43.83	6,060	979,561.42	-27.43	0.00	1.22	-234.44
STEP030	39	52.95	114	44.10	6,060	979,562.08	-26.95	.00	1.09	-234.08
048	39	53.32	114	48.90	5,880	979,560.82	-45.11	.00	.73	-246.65
049	39	53.70	114	51.60	5,940	979,569.50	-31.73	.00	1.24	-234.68
115	39	53.73	114	32.58	6,550	979,532.75	-11.12	.00	.89	-235.31
STEP031	39	53.82	114	43.70	6,010	979,567.18	-27.74	.00	1.18	-233.12
055	39	53.93	114	53.87	6,410	979,554.45	-2.67	.00	1.52	-221.52
046	39	54.15	114	43.25	6,020	979,566.89	-26.93	.00	1.27	-232.79
066	39	54.23	114	51.50	5,970	979,571.71	-27.48	.00	1.40	-231.30
114	39	54.45	114	32.47	6,580	979,535.80	-6.68	.00	.90	-231.75
STEP032	39	54.63	114	43.32	6,050	979,567.31	-25.05	.00	1.10	-231.87
054	39	54.67	114	55.80	6,830	979,530.69	12.22	.00	1.43	-221.17
053	39	54.67	114	56.25	6,910	979,529.61	17.90	.00	1.30	-218.07
065	39	54.70	114	51.18	5,980	979,574.50	-24.46	.00	1.49	-228.53
067	39	54.70	114	52.32	6,170	979,566.30	-14.80	.00	1.85	-225.01
052	39	55.12	114	56.30	7,080	979,523.10	26.80	.00	1.47	-214.84
068	39	55.38	114	52.67	6,670	979,547.80	12.58	.00	2.20	-214.33
STEP033	39	55.43	114	42.88	6,030	979,568.80	-26.64	.00	1.08	-232.79
045	39	56.10	114	41.57	6,120	979,568.64	-18.86	.00	1.28	-228.07
044	39	56.18	114	42.17	6,030	979,571.27	-25.27	.00	1.14	-231.37
STEP034	39	56.28	114	42.47	6,030	979,571.75	-24.95	.00	1.04	-231.14
051	39	56.62	114	57.92	6,660	979,545.49	7.50	.00	1.40	-219.88
043	39	56.78	114	41.82	6,020	979,574.27	-23.45	.00	1.16	-229.43
STEP035	39	57.15	114	42.00	6,020	979,574.58	-24.06	.00	1.04	-230.02
113	39	57.20	114	31.45	6,730	979,544.88	12.88	.00	1.00	-217.38
064	39	57.22	114	48.10	5,880	979,578.06	-33.94	.00	1.28	-234.83
050	39	57.83	114	57.70	6,580	979,554.00	7.06	.00	1.76	-217.35
STEP036	39	57.98	114	41.55	6,010	979,577.53	-23.56	.00	1.07	-229.05
112	39	58.10	114	31.15	6,810	979,538.28	12.81	.00	.99	-220.32
STEP037	39	58.80	114	41.13	6,010	979,580.45	-21.21	.00	1.07	-226.94
063	39	58.92	114	48.03	5,980	979,587.43	-17.79	.00	1.66	-221.69
096	39	59.08	114	30.90	6,890	979,536.87	17.36	.00	.98	-218.48
039	39	59.45	114	40.50	6,000	979,584.45	-19.77	.00	1.19	-224.79
062	39	59.45	114	47.68	6,010	979,588.95	-14.33	.00	1.62	-219.26
STEP038	39	59.55	114	40.77	6,000	979,583.97	-20.46	.00	1.07	-225.57
040	39	59.80	114	41.33	5,890	979,586.28	-28.20	.00	1.00	-229.86
097	39	59.98	114	31.05	6,760	979,552.93	20.12	.00	.95	-211.40
041	40	0.05	114	42.15	5,850	979,584.34	-34.46	.00	.92	-234.77
133	40	0.17	114	15.75	5,920	979,610.20	-2.80	.00	.53	-205.67
038	40	0.22	114	39.97	5,980	979,589.70	-16.78	.00	1.25	-221.33
STEP039	40	0.33	114	40.23	5,980	979,589.37	-17.26	.00	1.11	-221.96
042	40	0.43	114	43.17	5,850	979,581.84	-37.50	.00	.87	-237.86
098	40	0.93	114	30.90	6,650	979,561.82	17.00	.00	.94	-210.68
132	40	1.00	114	16.13	5,900	979,610.48	-5.53	.00	.56	-207.72
037	40	1.02	114	39.42	5,970	979,595.87	-12.81	.00	1.25	-216.99
STEP040	40	1.12	114	39.70	5,970	979,595.60	-13.22	.00	1.11	-217.55
134	40	1.48	114	16.92	5,860	979,614.12	-5.70	.00	.62	-206.71
099	40	1.57	114	30.70	6,580	979,569.56	16.72	.00	.95	-208.37
135	40	1.88	114	21.07	6,420	979,582.51	14.15	.00	1.01	-205.41
STEP041	40	1.93	114	39.15	5,980	979,604.94	-4.77	.00	1.04	-209.29
131	40	2.03	114	16.58	5,900	979,614.75	-2.22	.00	.54	-204.64
100	40	2.28	114	30.75	6,480	979,579.63	16.87	.00	.91	-205.05
101	40	2.38	114	30.28	6,600	979,575.05	23.24	.00	.86	-202.76
128	40	2.42	114	18.45	6,000	979,602.28	-5.69	.00	.61	-211.53
130	40	2.45	114	16.78	5,900	979,617.02	-.58	.00	.53	-203.01
129	40	2.47	114	17.33	5,910	979,612.12	-4.85	.00	.55	-207.50
036	40	2.62	114	38.35	5,980	979,611.04	.29	.00	.94	-204.32
STEP042	40	2.73	114	38.65	5,980	979,610.67	-.23	.00	.85	-204.93
108	40	2.75	114	35.88	6,510	979,576.56	15.27	.00	.98	-207.36
102	40	3.15	114	31.23	6,380	979,585.67	12.15	.00	.77	-206.46
110	40	3.22	114	34.20	6,590	979,576.18	22.18	0.00	0.88	-203.46

TABLE 2.--Principal facts for gravity stations in northern Steptoe Valley--Continued

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
107	40	3.22	114	36.70	6,190	979,594.48	2.61	.00	.82	-209.31
035	40	3.27	114	37.65	5,970	979,607.68	-4.31	.00	.82	-208.93
109	40	3.33	114	35.77	6,460	979,578.86	12.39	.00	.87	-208.78
STEP043	40	3.40	114	37.93	5,970	979,607.52	-4.66	.00	.77	-209.34
106	40	3.50	114	36.85	6,110	979,597.80	-2.19	.00	.75	-211.38
127	40	3.60	114	19.87	6,000	979,601.54	-8.84	.00	.69	-214.36
103	40	3.78	114	31.67	6,320	979,589.60	9.32	.00	.68	-207.26
034	40	3.87	114	36.82	5,970	979,605.33	-7.89	.00	.74	-212.47
111	40	3.95	114	33.62	6,450	979,592.67	24.62	.00	.70	-196.48
STEP044	40	3.97	114	37.07	5,970	979,605.36	-8.00	.00	.68	-212.65
104	40	4.68	114	32.23	6,220	979,597.57	6.67	.00	.57	-206.64
105	40	5.20	114	32.58	6,170	979,600.39	3.73	.00	.50	-207.84
125	40	6.07	114	15.27	5,920	979,623.53	1.77	.00	.41	-201.23
122	40	6.13	114	19.52	6,010	979,617.29	4.09	.00	.58	-201.88
124	40	6.15	114	17.37	5,800	979,618.28	-14.40	.00	.47	-213.40
126	40	6.18	114	16.02	5,850	979,623.85	-4.18	.00	.41	-204.95
123	40	6.18	114	18.45	5,860	979,618.59	-8.22	.00	.53	-209.31
121	40	7.20	114	22.22	6,440	979,595.02	20.64	.00	.64	-199.98
119	40	7.75	114	24.53	6,560	979,585.37	21.54	.00	.64	-203.22
120	40	8.12	114	24.07	6,480	979,591.43	20.01	.00	.61	-202.21
118	40	8.30	114	25.18	6,670	979,582.74	28.33	.00	.70	-200.08
DVM066	40	8.47	114	32.07	6,150	979,608.30	4.87	.00	.37	-206.13
136	40	9.12	114	18.50	5,820	979,629.25	-6.25	.00	.66	-205.65
DVM065	40	9.47	114	32.25	6,200	979,606.13	5.92	.00	.36	-206.81
116	40	9.55	114	28.30	6,490	979,591.37	18.76	.00	.53	-203.87
117	40	9.67	114	27.73	6,520	979,589.07	19.00	.00	.56	-204.60
137	40	9.80	114	16.17	5,940	979,634.91	9.49	.00	.41	-194.19
061	40	9.88	114	44.67	6,020	979,612.35	-5.48	.00	.94	-211.44
DVM064	40	10.30	114	32.22	6,160	979,609.07	3.58	.00	.38	-207.66
060	40	10.37	114	44.55	6,030	979,613.27	-3.79	.00	.83	-210.41
059	40	10.60	114	44.48	6,040	979,614.45	-2.57	.00	.78	-209.37
DVM063	40	11.10	114	32.62	6,140	979,611.78	3.60	.00	.39	-207.08
DVM062	40	11.30	114	33.53	6,100	979,614.41	2.18	.00	.39	-207.13
DVM061	40	12.18	114	33.82	6,170	979,613.52	6.74	.00	.42	-205.00
138	40	12.42	114	16.92	5,870	979,648.81	13.30	.00	.48	-188.06
DVM060	40	12.70	114	34.37	6,250	979,612.52	12.11	.00	.42	-202.23
DVM059	40	13.53	114	34.32	6,410	979,605.23	19.28	.00	.44	-200.74
058	40	13.58	114	44.05	5,890	979,629.55	-5.81	.00	.56	-207.76
057	40	13.87	114	44.03	5,870	979,633.37	-3.93	.00	.54	-205.36
DVM058	40	13.98	114	35.52	6,480	979,599.81	19.01	.00	.47	-203.10
056	40	14.17	114	43.87	5,840	979,637.64	-3.49	.00	.55	-203.68
DVM057	40	14.28	114	36.22	6,440	979,605.42	20.51	.00	.45	-200.29
DVM056	40	14.87	114	37.53	6,350	979,611.56	17.42	.00	.40	-200.39
DVM045	40	15.18	114	44.00	5,910	979,637.76	1.62	.00	.46	-201.02
DVM046	40	15.48	114	43.20	5,890	979,640.73	2.55	.00	.42	-199.55
DVM051	40	15.57	114	41.90	5,970	979,638.86	8.25	.00	.34	-196.74
DVM055	40	15.73	114	38.60	6,200	979,622.53	13.58	.00	.36	-199.35
DVM052	40	16.01	114	40.70	6,050	979,634.89	11.05	.00	.32	-196.66
DVM047	40	16.27	114	43.02	5,930	979,640.96	5.64	.00	.36	-197.99
DVM053	40	16.53	114	39.55	6,120	979,625.16	6.75	.00	.34	-203.20
DVM048	40	17.13	114	43.23	5,890	979,646.41	5.49	.00	.37	-196.56
DVM067	40	17.33	114	23.38	5,620	979,649.02	-17.48	.00	.39	-210.30
DVM054	40	17.48	114	39.27	6,010	979,629.31	-.76	.00	.37	-206.95
DVM068	40	18.20	114	29.52	5,610	979,659.76	-8.32	.00	2.05	-199.37
DVM049	40	18.30	114	42.98	5,770	979,656.59	2.84	.00	.40	-195.13
DVM069	40	18.98	114	25.45	5,670	979,662.80	-.90	.00	.56	-195.46
DVM050	40	19.08	114	42.00	5,800	979,646.69	-5.50	.00	.35	-204.52
DVM070	40	19.72	114	25.92	5,800	979,657.50	4.73	.00	.50	-194.27
DVM071	40	20.82	114	26.40	5,810	979,651.51	-1.67	.00	.48	-201.14
DVM072	40	21.63	114	26.63	5,820	979,651.84	-1.98	.00	.44	-201.69
DVM073	40	22.48	114	26.83	5,770	979,653.23	-6.74	.00	.43	-204.69
DVM074	40	23.32	114	27.08	5,740	979,657.27	-6.77	.00	.40	-203.71
DVM075	40	24.22	114	27.25	5,690	979,663.54	-6.72	.00	.39	-201.90

TABLE 3.--Principal facts for gravity stations in Coyote Spring Valley

Site: Data are listed in order of increasing latitude (that is, from south to north).
Terrain correction: "Hand" indicates manual correction for the area within a radius of 1.42 miles; "Comp" indicates computer correction for the area between radii of 1.42 and 103.6 miles; both assume a bedrock density of 2.67 grams per cubic centimeter.
Bouguer anomaly: Complete Bouguer anomaly at a bedrock density of 2.67 grams per cubic centimeter.

[Abbreviations: deg, degree; min, minute; mGal, milliGal]

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
CC19	36	34.07	115	22.07	4,160	979,479.59	3.33	0.86	2.61	-136.40
CC20	36	34.07	115	22.10	4,150	979,479.89	2.74	.76	2.55	-136.82
CC16	36	34.08	115	21.98	4,180	979,479.00	5.01	1.16	2.65	-135.21
CC17	36	34.08	115	22.00	4,170	979,479.21	4.47	1.06	2.64	-135.59
CC18	36	34.08	115	22.03	4,170	979,479.43	3.93	.96	2.63	-135.96
CC14	36	34.10	115	21.92	4,200	979,478.10	5.76	1.36	2.68	-134.84
CC15	36	34.10	115	21.95	4,190	979,478.59	5.39	1.26	2.67	-135.02
CC1	36	34.12	115	21.53	4,300	979,473.31	10.46	2.65	2.93	-132.08
CC2	36	34.12	115	21.57	4,300	979,473.48	10.01	2.56	2.91	-132.42
CC3	36	34.12	115	21.58	4,290	979,473.88	9.70	2.46	2.89	-132.58
CC13	36	34.12	115	21.88	4,210	979,477.73	6.10	1.46	2.71	-134.64
CC4	36	34.13	115	21.62	4,280	979,474.27	9.32	2.36	2.87	-132.81
CC5	36	34.13	115	21.65	4,270	979,474.63	8.99	2.26	2.85	-133.01
CC6	36	34.13	115	21.68	4,260	979,474.89	8.57	2.16	2.83	-133.30
CC7	36	34.13	115	21.72	4,250	979,475.26	8.15	2.06	2.80	-133.55
CC8	36	34.13	115	21.73	4,250	979,475.58	7.71	1.96	2.80	-133.82
CC9	36	34.13	115	21.77	4,240	979,476.06	7.41	1.86	2.77	-133.96
CC10	36	34.13	115	21.80	4,230	979,476.48	7.10	1.76	2.76	-134.12
CC12	36	34.13	115	21.87	4,220	979,477.55	6.57	1.56	2.72	-134.31
CC11	36	34.15	115	21.83	4,220	979,476.92	6.82	1.66	2.74	-134.27
CSVL0113	36	41.45	114	55.50	2,420	979,614.59	-35.41	.03	2.94	-115.98
CSVL0093	36	44.62	114	43.23	1,860	979,665.52	-41.75	.05	.44	-105.50
CSVL0094	36	44.93	114	43.12	1,890	979,663.27	-41.96	.05	.41	-106.65
CSVL0050	36	45.00	114	58.53	3,000	979,571.52	-29.25	.29	1.85	-130.55
CSVL0111	36	45.02	114	51.72	2,160	979,636.18	-43.89	.03	1.30	-116.98
CSVL0095	36	45.13	114	43.08	1,920	979,662.20	-40.39	.36	.39	-105.86
CAVL0042	36	45.25	114	49.18	2,040	979,647.96	-43.83	.54	.83	-112.71
CSVL0049	36	45.25	114	58.03	2,900	979,578.87	-31.63	.25	1.70	-129.70
CSVL0048	36	45.45	114	57.65	2,800	979,585.44	-34.63	.19	2.68	-128.37
CSVL0018	36	45.47	114	45.95	2,100	979,651.73	-34.54	.28	.41	-106.24
CSVL0096	36	45.50	114	43.03	1,950	979,660.47	-39.66	.06	.40	-106.53
CSVL0047	36	45.65	114	57.25	2,700	979,591.55	-38.48	.17	2.46	-128.93
CSVL0041	36	45.72	114	50.55	2,080	979,640.61	-48.37	.17	1.01	-118.71
CSVL0097	36	45.80	114	43.10	1,990	979,659.80	-37.18	.21	.40	-105.21
CSVL0017	36	45.82	114	46.80	2,220	979,644.89	-30.23	.26	.34	-106.28
CSVL0046	36	45.92	114	56.73	2,560	979,598.76	-44.38	.16	2.28	-130.35
D3	36	45.98	114	47.12	2,280	979,642.85	-27.63	.00	.33	-105.71
D2	36	46.00	114	47.13	2,280	979,642.78	-27.73	.00	.33	-105.82
D1	36	46.02	114	47.14	2,280	979,642.75	-27.78	.00	.33	-105.87
A1	36	46.03	114	47.17	2,276.2	979,642.98	-27.50	.00	.33	-105.62
A2	36	46.03	114	47.20	2,277.4	979,643.03	-27.32	.00	.33	-105.49
A3	36	46.03	114	47.22	2,278.2	979,643.08	-27.20	.00	.33	-105.39
A4	36	46.03	114	47.23	2,278.5	979,643.03	-27.29	.00	.33	-105.49
A5	36	46.03	114	47.25	2,265.8	979,643.83	-27.68	.00	.34	-105.43
D.3	36	46.04	114	47.15	2,280	979,642.75	-27.82	.00	.33	-105.90
C1	36	46.05	114	47.12	2,271.2	979,642.91	-28.04	.00	.33	-105.99
C.3	36	46.05	114	47.13	2,274.1	979,642.74	-27.94	.00	.33	-105.99
A.3	36	46.05	114	47.15	2,275.4	979,642.88	-27.70	.00	.33	-105.79
B.3	36	46.05	114	47.15	2,275.2	979,642.78	-27.81	.00	.33	-105.90
0-0	36	46.05	114	47.23	2,275.0	979,642.70	-27.79	.00	.34	-105.87
BASE	36	46.05	114	47.23	2,406.2	979,641.24	-17.05	.00	.28	-99.70
CSVL0001	36	46.05	114	56.43	2,510	979,601.12	-47.72	.07	2.14	-131.91
C4	36	46.07	114	47.07	2,258.8	979,643.80	-28.44	.00	.34	-105.95
C3	36	46.07	114	47.08	2,252.0	979,644.25	-28.53	.00	.35	-105.80
C2	36	46.07	114	47.10	2,260.2	979,643.63	-28.38	.00	.34	-105.94

TABLE 3.--Principal facts for gravity stations in Coyote Spring Valley--Continued

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
B1	36	46.07	114	47.15	2,272.3	979,643.06	-27.83	0.00	0.34	-105.81
CSVL0040	36	46.07	114	51.70	2,100	979,640.29	-47.23	.25	1.20	-118.03
CSVL0098	36	46.08	114	43.18	2,020	979,657.11	-37.22	.14	.40	-106.44
B2	36	46.08	114	47.17	2,276.8	979,642.95	-27.52	.00	.33	-105.66
B3	36	46.10	114	47.17	2,276.4	979,643.02	-27.51	.00	.34	-105.64
B4	36	46.12	114	47.17	2,274.3	979,643.05	-27.80	.00	.34	-105.85
B5	36	46.13	114	47.18	2,275.4	979,643.10	-27.66	.00	.34	-105.75
CSVL0016	36	46.15	114	47.25	2,270	979,641.24	-29.59	.23	.34	-107.42
CSVL0015	36	46.35	114	47.65	2,260	979,641.49	-31.48	.15	.40	-108.65
CSVL0099	36	46.38	114	43.15	2,060	979,655.05	-35.87	.20	.39	-106.44
CSVL0006	36	46.42	114	55.78	2,370	979,608.18	-54.17	.03	1.97	-133.82
CSVL0100	36	46.70	114	43.17	2,120	979,651.26	-34.84	.52	.34	-107.09
CSVL0007	36	46.78	114	55.17	2,300	979,612.58	-56.59	.00	1.65	-134.28
CSVL0101	36	46.83	114	43.33	2,180	979,649.08	-31.23	1.11	.30	-105.11
CSVL0112	36	46.90	114	51.25	2,240	979,631.03	-44.42	.07	.74	-120.72
CSVL0044	36	47.00	114	57.60	2,460	979,607.53	-47.29	.03	2.99	-128.99
CSVL0008	36	47.30	114	54.07	2,200	979,628.22	-51.30	.06	1.37	-125.70
CSVL0043	36	47.37	114	47.92	2,360	979,634.49	-29.61	.18	.42	-110.52
CSVL0011	36	47.45	114	52.90	2,160	979,637.35	-46.23	.17	1.09	-119.39
CSVL0013	36	47.52	114	50.47	2,380	979,626.54	-35.90	.06	.51	-117.53
CSVL0012	36	47.60	114	51.40	2,350	979,624.33	-41.61	.11	.63	-121.83
CSVL0014	36	47.70	114	48.62	2,230	979,638.84	-38.34	.04	.69	-114.50
CSVL0010	36	47.70	114	53.38	2,170	979,636.27	-46.73	.14	1.14	-120.21
CSVL0009	36	47.70	114	53.48	2,170	979,637.09	-45.58	.14	1.20	-119.13
CSVL0039	36	47.75	114	53.88	2,232.5	979,628.05	-49.06	.02	1.22	-124.77
CSVL0038	36	47.78	114	54.27	2,263.8	979,626.83	-47.46	.00	1.27	-124.19
CSVL0037	36	47.82	114	54.68	2,277.1	979,624.00	-49.01	.00	1.43	-126.07
CSVL0036	36	47.85	114	55.10	2,301.4	979,616.32	-54.45	.00	1.52	-132.26
CSVL0035	36	47.87	114	55.50	2,335.9	979,613.06	-54.50	.01	1.61	-133.39
CAVL0034	36	47.90	114	55.92	2,390.7	979,611.48	-50.97	.04	1.68	-131.65
CSVL0033	36	47.93	114	56.32	2,457.8	979,609.03	-47.15	.04	1.74	-130.08
CSVL0005	36	47.95	114	56.75	2,530	979,605.75	-43.48	.12	1.84	-128.78
CSVL0020	36	47.98	114	53.70	2,186.0	979,634.11	-47.70	.04	1.24	-121.77
CSVL0114	36	48.00	114	57.08	2,620	979,599.52	-41.68	.11	1.92	-129.88
CSVL0115	36	48.02	114	57.58	2,710	979,594.40	-38.59	.10	2.09	-129.64
CSVL0116	36	48.05	114	57.97	2,790	979,589.21	-36.21	.11	2.18	-129.95
CSVL0117	36	48.07	114	58.38	2,880	979,583.65	-33.12	.13	2.30	-129.90
CSVL0021	36	48.28	114	53.95	2,191.2	979,633.60	-48.16	.02	1.28	-122.38
CSVL0022	36	48.55	114	54.12	2,204.4	979,632.41	-48.49	.01	1.28	-123.18
CSVL0002	36	48.65	114	56.90	2,560	979,605.20	-42.69	.08	1.79	-128.94
CSVL0057	36	48.80	114	56.92	2,540	979,606.40	-43.49	.10	1.81	-129.05
CSVL0023	36	48.85	114	54.30	2,197.5	979,632.93	-49.05	.05	1.36	-123.39
CSVL0056	36	49.13	114	56.98	2,530	979,608.02	-43.04	.06	1.82	-128.37
CSVL0024	36	49.17	114	54.27	2,202.2	979,634.02	-47.99	.07	1.34	-122.49
CSVL0025	36	49.50	114	54.22	2,207.4	979,634.87	-47.12	.06	1.32	-121.82
CSVL0055	36	49.50	114	57.03	2,520	979,609.80	-42.82	.05	1.84	-127.77
CSVL0054	36	49.83	114	57.10	2,510	979,611.42	-42.87	.04	1.86	-127.37
CSVL0026	36	49.88	114	54.22	2,227.2	979,632.95	-47.74	.02	1.33	-123.16
CSVL0027	36	50.18	114	54.30	2,232.5	979,632.36	-48.26	.01	1.33	-123.88
CSVL0053	36	50.18	114	57.15	2,500	979,612.16	-43.55	.03	1.88	-127.71
CSVL0052	36	50.50	114	57.22	2,500	979,613.15	-42.63	.02	1.84	-126.99
CSVL0028	36	50.52	114	54.38	2,240.1	979,632.30	-48.10	.00	1.32	-123.99
CSVL0029	36	50.83	114	54.57	2,252.0	979,632.13	-47.60	.01	1.34	-123.87
CSVL0051	36	50.83	114	57.27	2,510	979,613.52	-41.68	.00	1.84	-126.45
CSVL0019	36	50.97	114	52.30	2,420	979,612.52	-52.08	.70	1.02	-133.60
CSVL0030	36	51.15	114	54.70	2,250.8	979,632.13	-48.18	.03	1.41	-124.32
CSVL0032	36	51.18	114	56.43	2,421.6	979,617.96	-46.33	.00	1.52	-128.27
CSVL0031	36	51.20	114	55.38	2,351.5	979,624.40	-46.50	.00	1.33	-126.22
CSVL0003	36	51.58	114	57.37	2,560	979,612.62	-39.70	.03	1.22	-126.50
CSVL0004	36	52.43	114	57.52	2,590	979,613.31	-36.86	.08	1.13	-124.94
CSVL0045	36	52.53	114	56.75	2,460	979,615.80	-46.43	.01	1.54	-129.81

TABLE 4.--Principal facts for gravity stations in the western Sheep Range area

Site: Data are listed in order of increasing latitude (that is, from south to north).
Terrain correction: "Hand" indicates manual correction for the area within a radius of 1.42 miles; "Comp" indicates computer correction for the area between radii of 1.42 and 103.6 miles; both assume a bedrock density of 2.67 grams per cubic centimeter.
Bouguer anomaly: Complete Bouguer anomaly at a bedrock density of 2.67 grams per cubic centimeter.

[Abbreviations: deg, degree; min, minute; mGal, milliGal]

Site	Latitude (deg	Latitude min)	Longitude (deg	Longitude min)	Altitude (feet above sea level)	Observed gravity (mGal)	Free-air anomaly (mGal)	Terrain correction Hand (mGal)	Terrain correction Comp (mGal)	Bouguer anomaly (mGal)
SHRN0012	36	26.23	115	17.78	3,590	979,499.59	-18.64	0.22	2.45	-139.70
SHRN0013	36	26.70	115	15.70	3,960	979,481.76	-2.65	2.26	3.18	-133.55
SR51	36	27.27	115	21.58	2,990	979,528.18	-48.53	.22	2.14	-149.05
SHRN0014	36	27.57	115	14.25	4,520	979,447.09	13.80	.50	3.39	-137.78
SR50	36	28.13	115	21.77	3,080	979,528.12	-40.80	.26	2.22	-144.51
SHRN0015	36	28.57	115	13.82	4,990	979,422.66	32.20	.71	3.93	-134.78
SHRN0016	36	28.65	115	12.47	4,840	979,427.22	22.69	.20	3.41	-140.23
SHRN0017	36	28.78	115	11.27	4,910	979,426.17	28.36	.33	3.22	-137.14
SR49	36	29.00	115	21.95	3,220	979,519.08	-37.65	.78	2.30	-145.68
SR52	36	29.48	115	21.07	3,560	979,498.37	-27.64	.78	2.65	-146.81
SR53	36	29.95	115	20.15	4,010	979,471.58	-13.00	.73	3.31	-146.94
SR48	36	30.07	115	22.48	3,340	979,512.02	-35.06	.18	2.20	-147.88
SHRN0020	36	30.10	115	9.83	5,260	979,412.42	45.33	.29	3.47	-131.86
SR54	36	30.40	115	19.18	4,510	979,445.10	6.97	1.01	4.36	-142.84
SR47	36	30.77	115	23.15	3,390	979,506.44	-37.41	.19	1.96	-152.02
SR55	36	30.80	115	18.33	5,000	979,421.53	28.61	2.62	5.46	-135.21
SR46	36	31.48	115	23.82	3,430	979,509.29	-31.73	.25	1.76	-147.89
SR45	36	32.23	115	24.12	3,450	979,513.52	-26.99	.43	1.71	-143.59
SR44	36	32.73	115	23.56	3,490	979,505.89	-31.02	.20	2.03	-149.11
SHRN0001	36	33.20	115	23.73	3,580	979,501.44	-28.15	.16	1.91	-149.33
SHRN0021	36	33.45	115	23.35	3,670	979,495.70	-25.88	.32	2.08	-149.79
SHRN0018	36	33.60	115	5.72	6,000	979,379.60	76.64	.38	4.85	-124.27
SR28	36	33.62	115	23.57	3,650	979,499.23	-23.82	.13	2.00	-147.56
SR22	36	33.72	115	22.85	3,810	979,490.61	-17.73	.36	2.25	-146.42
SR23	36	33.88	115	22.50	3,980	979,485.21	-7.19	.49	2.34	-141.56
SR29	36	34.03	115	23.38	3,740	979,497.34	-18.69	.36	2.06	-144.91
SR24	36	34.10	115	21.93	4,160	979,479.41	2.77	.68	2.69	-136.93
SR25	36	34.12	115	21.50	4,300	979,472.32	9.09	2.28	2.96	-133.65
SR26	36	34.28	115	20.92	4,520	979,459.58	16.90	.73	3.40	-134.54
SR30	36	34.45	115	23.18	3,790	979,494.96	-16.13	.23	2.15	-144.42
SR27	36	34.50	115	20.18	4,760	979,444.99	24.84	.38	4.00	-134.69
SR31	36	34.85	115	22.97	3,870	979,489.98	-14.73	.21	2.21	-145.52
SHRN0002	36	34.95	115	19.02	5,140	979,418.85	33.39	1.45	5.09	-136.87
SR32	36	35.65	115	22.52	4,010	979,483.86	-8.37	.27	2.25	-144.05
SR43	36	35.95	115	22.47	4,130	979,483.43	1.78	.78	2.19	-137.47
SR33	36	36.43	115	22.10	4,170	979,480.44	1.48	.43	2.31	-139.24
SR34	36	37.23	115	21.65	4,340	979,467.44	3.39	.23	2.37	-143.33
SHRN0006	36	37.73	115	17.22	5,850	979,378.27	55.72	1.76	5.73	-137.97
SR37	36	37.80	115	18.25	5,460	979,405.12	45.90	1.11	4.58	-136.27
SHRN0005	36	37.98	115	19.52	5,000	979,432.14	29.34	.45	3.30	-138.98
SR36	36	38.02	115	20.33	4,700	979,447.51	16.92	.28	2.73	-142.02
SR35	36	38.02	115	21.20	4,470	979,460.69	7.82	.15	2.39	-143.46
SHRN0004	36	38.08	115	21.15	4,490	979,458.44	7.55	.38	2.38	-144.26
SHRN0007	36	39.00	115	20.88	4,500	979,458.97	7.32	.12	2.32	-145.02
SR38	36	39.22	115	19.80	4,660	979,453.88	17.32	.25	2.67	-140.16
SR39	36	39.47	115	18.95	4,840	979,443.77	23.68	.42	3.11	-139.33
SHRN0008	36	39.82	115	20.55	4,410	979,466.50	5.58	.17	2.33	-143.75
SR40	36	39.85	115	18.00	4,940	979,435.93	24.79	.39	3.66	-141.17
SR42	36	39.90	115	16.65	5,570	979,401.48	49.38	2.37	4.85	-134.96
SR41	36	40.13	115	17.15	5,230	979,418.33	34.42	.92	4.22	-140.52
SHRN0019	36	41.57	115	5.48	5,560	979,413.18	57.83	1.78	5.16	-126.48
SHRN0009	36	42.07	115	19.22	4,250	979,480.86	1.46	.08	2.40	-142.32
SHRN0010	36	42.40	115	19.63	4,180	979,483.53	-2.45	.05	2.21	-144.23
SHRN0011	36	42.72	115	18.83	4,230	979,483.40	1.37	.14	2.42	-141.72

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