

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Principal Facts for Gravity Stations in
Gerlach and San Emidio Known Geothermal
Resource Areas (KGRA), Nevada

BY

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This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards and nomenclature.

PRINCIPAL FACTS FOR GRAVITY STATIONS
IN GERLACH AND SAN EMIDIO KNOWN
GEOTHERMAL RESOURCE AREAS (KGRA), NEVADA
BY DONALD L. PETERSON AND DANNY A. DANSEREAU

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

STATION	STATION DESIGNATION
LATITUDE	NORTH LATITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES
LONGITUDE	WEST LONGITUDE IN DEGREES, MINUTES, AND HUNDREDTHS OF MINUTES.
ELEV.	ELEVATION IN FEET ¹
OBSERVED GRAVITY	OBSERVED GRAVITY IN MILLIGALS
BOUGUER ANOMALY	SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR AN ASSUMED DENSITY OF 2.67 G PER CC

THESE DATA ARE REFERENCED TO THE GRAVITY BASE STATION IN GERLACH,
NEVADA, WITH AN OBSERVED GRAVITY VALUE OF 979829.16 MILLIGALS
(ACIC REFERENCE NO. 2350-1). (See fig. 1.)

¹To convert feet to metres, multiply by 0.3048.

GRAVITY BASE STATION

LATITUDE $40^{\circ} 39.1' N$ (1)	STATION DESIGNATION GERLACH	
LONGITUDE $119^{\circ} 21.2' W$ (1)		
ELEVATION 3934 ft (1)	COUNTRY/STATE USA/Nevada	
REFERENCE CODE NUMBERS		ADOPTED GRAVITY VALUE
ACIC 2350-1 IGB 15609J	$g = 979\ 829.16$ mgals	
		ESTIMATED ACCURACY ± 0.1 mgals
		DATE MONTH/YEAR Jan/1969

DESCRIPTION AND/OR SKETCH

Station is in Gerlach, on the east side of town, at the Western Pacific Railroad depot, which is 150 ft southeast of Nevada Highway 81 and across the street from a cafe and a hotel. Station is outside the depot building, on the east side of it, (i.e. facing the tracks), and at the southeast corner of it, 0.5 ft from the wall, on the concrete apron. Site is monumented with a standard "USAF Gravity Station" disc. (1)

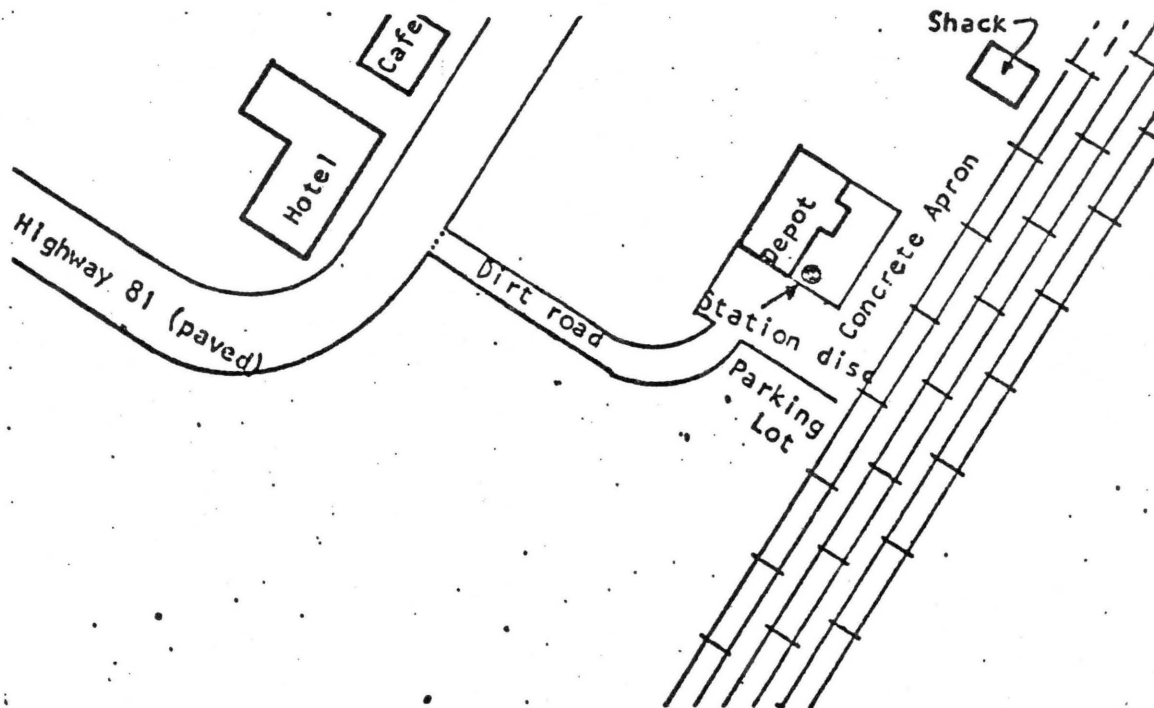


Figure 1. Location of gravity base station for Gerlach and San Emidio, Nevada, gravity surveys.

BOUGHER GRAVITY DATA

Gerlach KGRA, Nevada

PETERSON & DAMBEKHAU
 U.S.G.S. GRAVITY SURVEY
 DEMS1111 2.67

STATION	LATITUDE	LONGITUDE	LOCATION	ELEV.	OBSERVED GRAVITY	BOUGHER ANOMALY
BASE	40 39.10	-119 21.20		3933.9	979829.16	-163.46
GE01	40 41.37	-119 24.63		3945.4	979834.36	-160.97
GE02	40 41.16	-119 21.45		3943.6	979835.58	-159.54
GE03	40 41.00	-119 24.32		3947.0	979836.46	-156.22
GE04	40 40.88	-119 24.19		3954.1	979837.69	-156.39
GE05	40 40.68	-119 24.04		3962.2	979838.92	-154.39
GE06	40 40.51	-119 23.69		3978.2	979840.48	-151.61
GE08	40 40.10	-119 23.55		4020.5	979840.93	-148.02
GE09	40 39.94	-119 23.43		4038.9	979839.50	-148.11
GE10	40 39.73	-119 23.31		4067.2	979839.93	-145.69
GE11	40 39.54	-119 23.13		4083.3	979839.69	-144.68
GE12	40 39.15	-119 22.81		4033.6	979841.01	-146.19
GE13	40 39.28	-119 22.54		3991.9	979840.63	-148.81
GE14	40 39.38	-119 22.23		3977.2	979839.98	-150.50
GE15	40 39.34	-119 21.94		3978.2	979835.58	-154.77
GE16	40 39.30	-119 21.70		3954.9	979831.99	-159.39
GE17	40 39.13	-119 21.42		3953.2	979829.01	-162.51
BASE	40 39.10	-119 21.20		3933.9	979829.16	-163.46
GE18	40 39.25	-119 20.75		3918.0	979829.98	-163.83
GE19	40 39.05	-119 20.61		3917.1	979830.07	-163.51
GE20	40 39.07	-119 20.61		3916.3	979830.56	-163.09
GE21	40 38.62	-119 20.46		3913.7	979830.66	-162.46
GE22	40 39.41	-119 20.40		3908.0	979831.34	-161.81
GE23	40 39.20	-119 20.32		3910.2	979831.44	-161.27
GE24	40 37.97	-119 20.27		3930.0	979431.88	-159.31
GE25	40 37.81	-119 20.21		3930.9	979832.68	-158.22
GE26	40 37.55	-119 20.16		3931.6	979833.70	-156.76
GE27	40 37.37	-119 20.08		3945.5	979833.41	-155.95
GE28	40 37.18	-119 20.04		3967.2	979832.58	-155.21
GE29	40 37.16	-119 19.77		4001.5	979835.47	-150.27
GE30	40 37.20	-119 19.77		4052.0	979835.14	-147.61
GE31	40 37.01	-119 19.32		4115.1	979836.26	-142.44
GE32	40 37.04	-119 19.03		4211.6	979833.82	-139.15
GE33	40 37.12	-119 18.72		4383.1	979824.80	-136.06
GE34	40 41.49	-119 20.97		3906.0	979836.53	-161.33
GE35	40 38.89	-119 24.40		4092.0	979834.67	-148.21
GE36	40 39.13	-119 24.79		3899.0	979841.00	-153.77
GE37	40 38.89	-119 25.53		3882.0	979836.88	-158.55
GE38	40 37.77	-119 25.18		3956.0	979834.73	-154.61

BOUGUER GRAVITY DATA

Gerlach KGRA, Nevada

STATION	LATITUDE	LOCATION LONGITUDE	ELEV.	OBSERVED GRAVITY	BOUGUER ANOMALY
GE39	40 38.00	-119 24.39	3920.0	979832.27	-159.56
GE40	40 38.21	-119 24.25	3922.8	979833.41	-158.56
GE41	40 38.36	-119 24.01	3916.5	979834.48	-158.09
GE42	40 38.48	-119 23.75	3919.8	979833.89	-158.67
GE43	40 38.58	-119 23.44	3935.9	979832.97	-158.78
GE44	40 38.75	-119 23.18	3933.3	979835.81	-156.34
GE45	40 38.91	-119 23.01	3930.9	979839.64	-152.90
GE46	40 39.06	-119 22.83	3939.6	979838.84	-153.40
BASE	40 39.10	-119 21.20	3933.9	979829.16	-163.48

BOUGUER GRAVITY DATA

SAN EMIDIO KGRA, NEVADA

PETERSON & DANSEUREAU
U.S.G.S. GRAVITY SURVEY
DENSITY: 2.67

STATION	LATITUDE	LOCATION LONGITUDE	ELEV.	OBSERVED GRAVITY	BOUGUER ANOMALI
SEC20	40 22.15	-119 25.73	4032.3	979813.26	-148.26
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.48
SEC001	40 22.11	-119 22.62	4518.1	979805.66	-126.79
BASE2	40 22.05	-119 22.72	4430.7	979812.12	-125.45
SEC003	40 22.09	-119 22.99	4237.0	979818.31	-130.69
SEC004	40 22.06	-119 23.26	4159.5	979817.92	-135.67
SEC005	40 22.06	-119 23.68	4100.1	979815.91	-141.43
SEC006	40 22.10	-119 23.88	4071.7	979817.89	-141.21
SEC007	40 22.13	-119 24.21	4047.5	979818.56	-142.02
SEC008	40 22.13	-119 24.46	4043.6	979817.01	-143.80
SEC009	40 22.14	-119 24.81	4039.7	979816.22	-144.65
SEC010	40 22.11	-119 25.05	4035.8	979815.25	-146.00
SEC011	40 21.28	-119 25.01	4042.0	979816.88	-142.77
SEC012	40 20.95	-119 24.13	4165.0	979810.83	-134.99
SEC013	40 20.52	-119 24.67	4195.0	979813.40	-135.98
SEC014	40 20.77	-119 29.32	4223.0	979810.46	-137.62
SEC015	40 20.40	-119 28.42	4111.0	979813.46	-140.76
SEC016	40 20.75	-119 28.22	4088.0	979812.49	-143.63
SEC017	40 21.19	-119 28.13	4086.0	979812.45	-144.44
SEC018	40 21.61	-119 28.19	4087.0	979812.89	-144.56
SEC019	40 22.03	-119 28.20	4060.0	979815.58	-144.11
SEC020	40 22.48	-119 28.20	4048.0	979816.03	-145.04
SEC021	40 22.81	-119 28.47	4066.0	979815.75	-144.73
SEC022	40 23.71	-119 28.71	4208.0	979815.76	-137.59
SEC023	40 24.46	-119 28.72	4149.0	979812.08	-145.91
SEC024	40 25.12	-119 28.91	4281.0	979808.60	-144.49
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.48
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.48
BASE2	40 22.05	-119 22.72	4430.7	979812.12	-125.45
SEC025	40 22.17	-119 25.41	4033.0	979814.15	-147.36
SEC027	40 22.14	-119 25.93	4031.3	979813.22	-148.35
SEC028	40 22.13	-119 26.28	4025.8	979813.71	-148.17
SEC029	40 22.10	-119 26.54	4026.8	979813.28	-148.50
SEC030	40 22.09	-119 26.67	4028.8	979812.95	-148.69
SEC031	40 22.05	-119 27.16	4030.7	979813.13	-148.33
SEC032	40 22.07	-119 27.45	4030.1	979813.92	-147.61
SEC033	40 22.04	-119 27.82	4042.3	979815.34	-145.42
SEC034	40 22.06	-119 28.61	4122.9	979813.18	-142.80
SEC035	40 22.05	-119 28.97	4162.0	979813.08	-140.54
SEC036	40 22.04	-119 29.21	4200.5	979813.21	-138.10

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BOUGUER GRAVITY DATA

SAN EMIDIO KGRA, NEVADA

STATION	LATITUDE	LONGITUDE	ELEV.	OBSERVED GRAVITY	BOUGUER ANOMALY
SE037	40 22.06	-119 29.35	4394.8	979803.21	-136.53
BASE2	40 22.05	-119 22.72	4430.7	979812.12	-125.45
SE038	40 24.20	-119 27.64	4051.5	979814.52	-148.90
SE039	40 24.19	-119 27.32	4020.3	979815.16	-150.11
SE040	40 24.20	-119 27.06	4011.3	979815.00	-150.83
SE041	40 24.20	-119 26.71	4007.3	979814.28	-151.78
SE042	40 24.25	-119 26.37	4013.1	979813.84	-151.96
SE043	40 24.21	-119 28.21	4112.0	979811.77	-148.00
SE044	40 24.09	-119 29.14	4391.4	979802.16	-140.80
SE045	40 23.96	-119 26.41	4015.0	979813.64	-151.60
SE046	40 23.71	-119 26.47	4015.0	979813.39	-151.48
SE047	40 23.41	-119 26.50	4015.0	979813.49	-150.94
SE048	40 23.16	-119 26.51	4015.0	979813.49	-150.56
SE049	40 22.91	-119 26.57	4015.0	979812.77	-150.91
SE050	40 24.20	-119 26.05	4018.5	979812.78	-152.61
SE051	40 24.29	-119 25.75	4014.0	979812.44	-153.36
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.48
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.45
SE052	40 24.23	-119 25.45	4023.4	979811.71	-153.64
SE053	40 24.22	-119 25.04	4039.0	979811.16	-153.02
SE054	40 24.23	-119 24.73	4042.7	979811.06	-152.94
SE055	40 24.29	-119 24.54	4044.9	979811.64	-152.32
SE056	40 24.36	-119 24.23	4046.6	979813.60	-150.36
SE057	40 24.38	-119 23.75	4165.6	979815.49	-141.39
SE058	40 24.87	-119 24.34	4063.0	979815.58	-148.16
SE059	40 23.50	-119 23.59	4237.2	979807.79	-143.50
SE060	40 26.48	-119 24.54	4073.0	979820.34	-145.20
SE061	40 25.93	-119 26.86	4022.0	979817.92	-149.84
SE062	40 26.23	-119 25.77	4010.0	979816.68	-152.24
BASE1	40 39.10	-119 21.20	3933.9	979829.16	-163.48