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77-67D

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Principal Facts for a Gravity Survey of
Salt Wells Basin, Churchill County, Nevada

Churchill Co (?)

By

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U.S. Geological Survey

Open-file Report 77-67D
1977

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

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PRINCIPAL FACTS FOR GRAVITY STATIONS

Explanation of the headings of the accompanying table of principal facts:

Sta. no.	Gravity station number.
Latitude	North latitude in degrees, minutes, and hundredths of minutes.
Longitude	West longitude in degrees, minutes, and hundredths of minutes.
Elev, f	Elevation in feet (to convert to meters, multiply by 0.3048).
Observed gravity	Observed gravity in milligals.
Standard gravity	Theoretical gravity in milligals. The Geodetic Reference System of 1967 was used.
Corrections: Fr.-air	Free-air correction in milligals.
Bouguer	Bouguer correction in milligals for a density of 2.67 g per cc.
Anomalies: Fr.-air	Free-air anomaly in milligals.
Bouguer	Bouguer anomaly in milligals for a density of 2.67 g per cc.

These data are referenced to a U.S. Air Force gravity base station at the Fallon, Nevada municipal airport (fig. 1).

Elevations for twelve stations were obtained from altimetry and are considered accurate to within ten feet or less. Elevations for the remaining stations were taken from benchmarks or spot elevations shown on U.S. Geological Survey topographic maps at scales of 1:62,500 and 1:24,000. Gravity observations were made with a Worden meter having a scale factor of about 0.5 milligal per division. For meter drift control the base station was occupied at the beginning of each day, at mid-day, and at the end of the day. Maximum drift for any four-hour period was 0.4 milligal. No terrain corrections have been applied to the data. Corrections made for several stations for Hammer zones E through H were less than 0.2 milligal.

GRAVITY BASE STATION

LATITUDE	39° 29.71' N	(1)	STATION DESIGNATION	
LONGITUDE	118° 45.25' W	(1)	FALLON	
ELEVATION	1208	METERS (1)	COUNTRY/STATE	
			USA/Nevada	
REFERENCE CODE NUMBERS			ADOPTED GRAVITY VALUE	
ACIC 2351-1			g = 979 744.67 mgals	
IGB 12098J				
			ESTIMATED ACCURACY	DATE
			± 0.1 mgals	MONTH/YEAR Jan/1969

DESCRIPTION AND/OR SKETCH

Station is at the Fallon Municipal Airport (1.5 miles north of town) on porch of administration building, southwest corner of building, northwest corner of porch, on the concrete porch. Site is monumented with a "USAF Gravity Station" disc. (1)

□ ⊙ — Beacon and BM

REFERENCE SOURCE

(1) Personal Communication 1st GSS (23 Jan 69)

sta. no.	latitude	longitude	elev. f	observed gravity	standard gravity	corrections		anomalies	
						fr.-air	bouguer	fr.-air	bouguer
sw01	39 24.10	-118 39.61	3922.0	979734.16	-980115.78	368.80	-135.01	-12.82	-147.83
sw02	39 23.22	-118 37.30	3938.0	979743.61	-980114.48	370.30	-135.56	-0.57	-136.13
sw03	39 22.36	-118 37.78	3949.0	979743.47	-980113.20	371.34	-135.94	1.61	-134.33
sw04	39 22.72	-118 37.86	3933.0	979742.83	-980113.74	369.83	-135.39	-1.08	-136.47
sw05	39 22.80	-118 38.97	3921.0	979740.77	-980113.85	368.70	-134.98	-4.38	-139.36
sw06	39 23.40	-118 38.00	3961.0	979740.99	-980114.74	372.46	-136.35	-1.29	-137.64
sw07	39 22.99	-118 36.50	3957.0	979740.35	-980114.14	372.09	-136.21	-1.70	-137.91
sw08	39 22.48	-118 34.98	3957.0	979737.65	-980113.38	372.09	-136.21	-3.64	-139.85
sw09	39 21.42	-118 32.81	3924.0	979723.90	-980111.81	368.99	-135.08	-18.92	-154.00
sw10	39 21.89	-118 32.99	3929.0	979730.28	-980112.66	369.46	-135.25	-12.92	-148.17
sw11	39 22.22	-118 32.94	3937.0	979732.15	-980113.00	370.21	-135.53	-10.64	-146.17
sw12	39 22.49	-118 32.95	3954.0	979733.65	-980113.40	371.81	-136.11	-7.94	-144.05
sw13	39 22.91	-118 32.57	4000.0	979735.64	-980114.02	376.13	-137.69	-2.25	-139.94
sw14	39 23.30	-118 32.40	4031.0	979737.01	-980114.59	379.04	-138.75	1.46	-137.29
sw15	39 24.61	-118 37.50	3951.0	979743.86	-980116.53	371.52	-136.01	-1.15	-137.16
sw16	39 24.10	-118 36.70	4052.0	979740.10	-980115.78	381.02	-139.47	5.34	-134.13
sw18	39 24.04	-118 33.60	4264.0	979725.89	-980115.69	400.95	-146.74	11.15	-135.59
sw19	39 24.10	-118 34.50	4213.0	979728.47	-980115.78	396.15	-144.99	8.84	-136.15
sw20	39 24.44	-118 36.30	4079.0	979737.60	-980116.28	383.56	-140.40	4.80	-135.52
sw21	39 22.60	-118 34.80	3950.0	979730.65	-980112.67	371.43	-135.97	-10.59	-146.56
sw22	39 21.20	-118 34.80	3967.0	979727.95	-980111.49	373.03	-136.56	-10.51	-147.07
sw23	39 20.58	-118 35.08	3977.0	979728.34	-980110.57	373.97	-136.90	-8.26	-145.16
sw24	39 19.65	-118 35.17	3978.0	979731.17	-980109.20	374.06	-136.93	-3.97	-140.90
sw25	39 20.14	-118 35.56	4065.0	979725.37	-980109.92	382.24	-139.92	-2.31	-142.23
sw26	39 20.73	-118 36.56	3955.0	979732.84	-980110.79	371.90	-136.14	-6.05	-142.19
sw27	39 21.48	-118 37.39	3936.0	979736.47	-980111.90	370.11	-135.49	-5.32	-140.81
sw28	39 21.98	-118 36.30	3936.0	979733.79	-980112.64	370.11	-135.49	-8.74	-144.23
sw29	39 25.72	-118 41.19	3931.0	979731.56	-980118.17	369.64	-135.32	-16.97	-152.29
sw30	39 27.60	-118 41.20	3934.0	979737.87	-980120.95	369.92	-135.42	-13.16	-148.58
sw31	39 28.50	-118 41.20	3933.0	979739.98	-980122.28	369.83	-135.39	-12.47	-147.86
sw32	39 29.38	-118 41.20	3929.0	979741.45	-980123.58	369.45	-135.25	-12.68	-147.93
sw33	39 21.49	-118 37.87	3939.0	979736.52	-980111.92	370.40	-135.60	-5.00	-140.60
sw34	39 20.25	-118 31.34	3919.0	979718.75	-980110.08	368.51	-134.91	-22.82	-157.73
sw35	39 18.06	-118 28.88	3918.0	979717.52	-980106.85	368.42	-134.88	-20.91	-155.79
sw36	39 17.90	-118 28.05	3903.0	979717.27	-980106.61	367.01	-134.36	-22.33	-156.69
sw37	39 17.45	-118 26.77	3894.0	979713.22	-980105.95	366.17	-134.05	-26.56	-160.61
sw38	39 16.19	-118 24.10	4063.0	979710.96	-980104.09	382.05	-139.85	-11.08	-150.93
sw39	39 15.88	-118 22.51	4372.0	979694.32	-980103.63	411.10	-150.44	1.79	-148.65
sw40	39 18.40	-118 27.08	3998.0	979715.50	-980107.35	375.94	-137.62	-15.91	-153.53
sw41	39 18.61	-118 26.61	4038.0	979714.23	-980107.66	379.70	-138.99	-13.73	-152.72

sta. no.	latitude	longitude	elev. f	observed gravity	standard gravity	corrections		anomalies	
						fr.-air	bouguer	fr.-air	bouguer
sw42	39 18.81	-118 25.44	4066.0	979711.77	-980107.96	382.34	-139.95	-13.85	-153.80
sw43	39 15.87	-118 27.28	3895.0	979707.11	-980103.61	366.26	-134.09	-30.24	-164.33
sw44	39 21.50	-118 31.14	3965.0	979725.55	-980111.93	372.84	-136.49	-13.54	-150.03
sw45	39 20.99	-118 30.73	3970.0	979722.75	-980111.18	373.31	-136.66	-15.12	-151.78
sw46	39 19.63	-118 29.70	3982.0	979720.07	-980109.24	374.44	-137.07	-14.73	-151.80
sw47	39 23.17	-118 29.50	4213.0	979716.40	-980114.40	396.15	-144.99	0.15	-144.84