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Principal Facts for Gravity Stations in and near the Whipple  
Mountains Wilderness Study Area (CDCA-312), San Bernardino County,  
California and Mohave County, Arizona

by  
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## Introduction

The principal facts contained in this report document 533 gravity stations located in and near the Whipple Mountains Bureau of Land Management (BLM) Wilderness Study Area. These stations are being used to prepare a complete Bouguer gravity map of the Whipple Mountains Study Area to aid in the assessment of its mineral potential in accordance with Public Law 94-579, October 21, 1976. Of these stations, 288 were collected by the U.S. Geological Survey (USGS) in 1980, 1981, and 1982. Of the remainder, 225 are from the California gravity data file of Snyder and others (1982), and 20 from the National Oceanic and Atmospheric Administration (NOAA) gravity data file (available from: NOAA, National Geophysical and Solar Terrestrial Data Center, Boulder, CO 80302). Complete Bouguer anomaly values have been calculated at all stations using the IGSN 71 datum (Morelli, 1974) and the Geodetic Reference System 1967 reference spheroid (International Association of Geodesy, 1971).

The study area extends over six 15' USGS quadrangles within the Needles 1° x 2° quadrangle (fig. 1). The primary topographic features are the Whipple Mountains, the Colorado River Valley, and Chemehuevi Valley.

## Discussion of Gravity Data

All of the new USGS gravity stations (1980-1982), prefixed by "BLM" in the Appendix, were established using Lacoste and Romberg gravity meters g17, g159, or g161. Calibration factors for these meters, in addition to those provided by the manufacturer, were applied to the readings. These factors had been obtained from runs through a USGS calibration loop at Mount Hamilton east

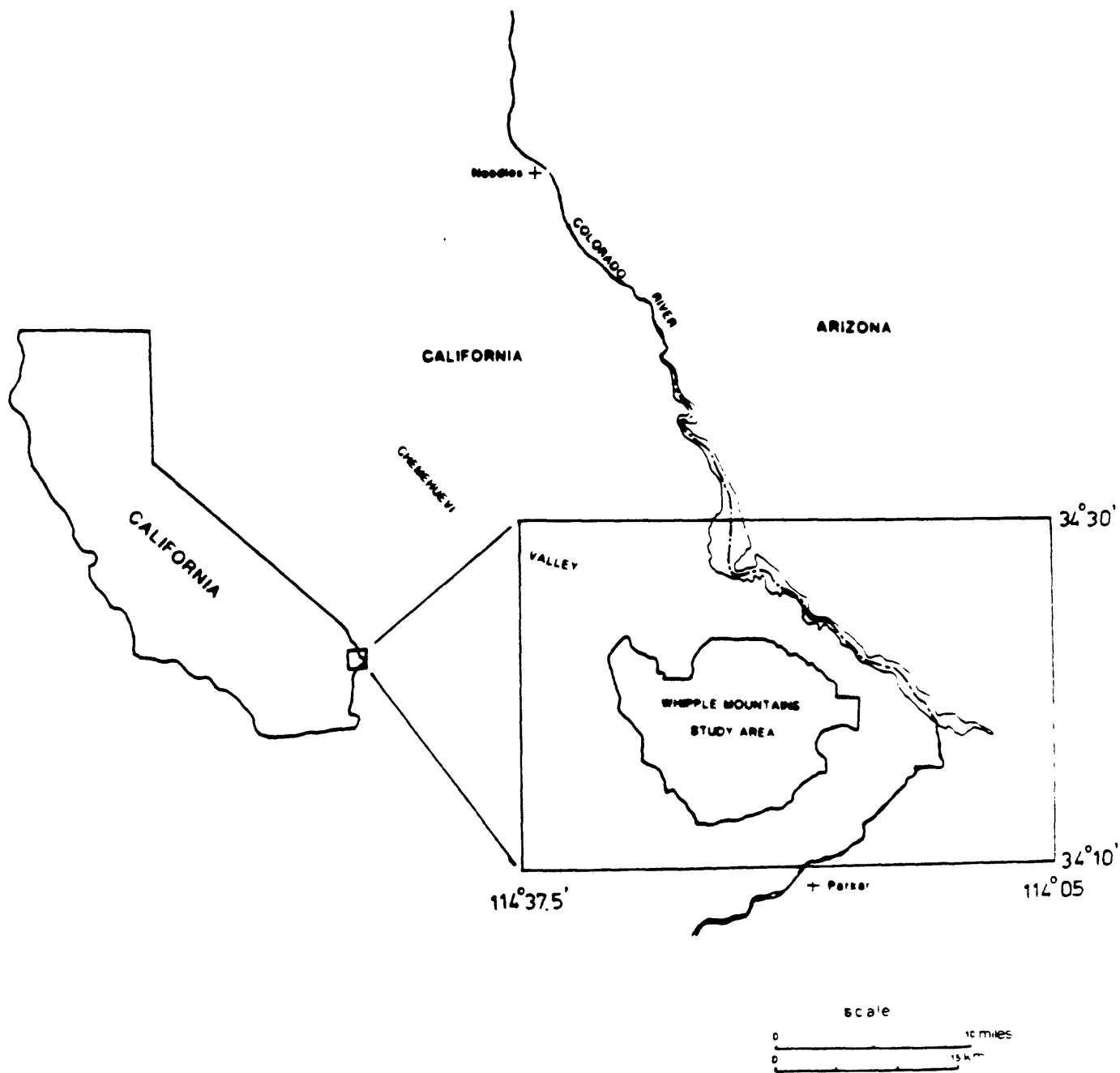


Figure 1. Map showing area of gravity coverage and boundary for Whipple Mountains Wilderness Study Area.

of San Jose, California (Barnes and others, 1969). These additional calibration factors are 1.00025, 1.00028, and 1.00057 for g17, g159, and g161 respectively. The new USGS gravity stations were tied to base stations at Parker, Arizona and Needles, California (figs. 2a and 2b). Observed gravity values are estimated to have a precision better than 0.1 milligal.

Terrain corrections were calculated for all gravity stations to a distance of 166.7 km from each station by using a computer program (Plouff, 1977) and topographic data digitized on a 15 second geographic grid. Inner zone terrain corrections from 0.0 - 0.59 km were obtained manually using a Hayford-Bowie ring template (Hayford and Bowie, 1912) for stations in areas of rugged topography; computer generated inner zone corrections were used in areas of gentler topography. Terrain corrections for most stations are believed to be accurate to within 10%.

The largest source of error in the Bouguer anomaly value is the uncertainty in the elevations of the stations. Elevations for many of the new USGS stations were obtained by interpolating between contours on topographic maps and by using stereopairs of aerial photos in a stereoptical device designed to give elevations from properly registered overlapping aerial photographs. We estimate from comparisons of the two techniques that most of the stations have elevations accurate to better than 40 feet (equivalent to 2.4 milligals error in the Bouguer anomaly). Stations with identifiers starting with "BLM R" were surveyed from USGS benchmarks and have elevations accurate to 5 feet or better (considering the distance of some of the sightings). The combined effect of errors in elevation and in terrain correction could result in a worst case error of 4 milligals in the Bouguer anomaly value. However, we estimate that most stations have uncertainties in Bouguer values less than 2 milligals.

<b>GRAVITY BASE STATION</b> # Parker Airport	
<b>CITY</b> Parker	<b>STATE</b> Arizona
<b>LATITUDE</b> 34° 09.23'N	<b>LONGITUDE</b> 114° 16.17'W
<b>ELEVATION</b> 394 ft	
<b>OBSERVED GRAVITY</b> 979,583.42 mGals (IGSN 71)	
<b>LOCATION</b>	<b>DESCRIPTION:</b>
<p>Station used is located in Parker Municipal Airport terminal building, on floor, 3 feet from southeast wall and 3 feet southwest of door frame. This is Department of Defence (DOD) base station ACIC 3204-1, reference source 03035 (Jablonski, H. M., 1974).</p>	

Figure 2a. Description of gravity base station used at Parker, Arizona.

<b>GRAVITY BASE STATION #</b> Needles R.R. Station	
<b>CITY</b> Needles	<b>STATE</b> California
<b>LATITUDE</b> 34° 50.44'N	<b>LONGITUDE</b> 114° 36.25'W
<b>ELEVATION</b> 484.4 ft	
<b>OBSERVED GRAVITY</b> 979,608.10 mGals (IGSN 71)*	
<b>LOCATION</b>	<b>DESCRIPTION:</b>
<p>At Needles, reading is on brick side walk, 2 ft below USC&amp;GS Q-6 benchmark, located at the top of the base of the northeast concrete column of the Santa Fe Railroad Depot.</p> <p>*This value was obtained by subtracting 14.6 milligals (C. W. Roberts, oral commun., 1981) from a value of 979622.70 milligals given by Chapman (1966).</p>	

Figure 2b. Description of gravity base station used at Needles, California.

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## Appendix

Principal facts for gravity stations in the Whipple Mountains Wilderness Study Area and vicinity. Column headings are described below.

Station Identification	Stations prefixed with BLM are new gravity stations obtained in 1980 through 1982 by the USGS.
Latitude	North latitude in degrees and minutes.
Longitude	West longitude in degrees and minutes.
Ele	Elevation in feet.
St	State; AZ = Arizona, CA = California.
Observed Gravity	Measured gravity value. New BLM stations have values relative to IGSN71 base station values at Parker, Arizona, and Needles, California (see Figure 2a and 2b).
Theoretical Gravity	Sea level value calculated using the Geodetic Reference System 1967 formula (International Association of Geodesy, 1971).
Terrain Correction	Terrain corrections have been calculated out to a distance of 166.7 km from a station using a reduction density of $2.67 \text{ g/cm}^3$ .
Bouguer Correction	Bouguer correction to sea level using a density of $2.67 \text{ g/cm}^3$ .
Curv Correction	Adjustment of Bouguer correction for curvature of the earth (Lambert, 1930). Correction calculated to a distance of 166.7 km from a station using a $2.67 \text{ g/cm}^3$ assumed density.
Special Correction	Not used.
Free Air Anomaly	Free air gravity anomaly in milligals.
Complete Bouguer Anomaly	Bouguer gravity anomaly in milligals calculated using densities of $2.67 \text{ g/cm}^3$ and $2.50 \text{ g/cm}^3$ .



## Whipple Mountains Wilderness Study Area

station identification proj sta-id	latitude deg	longitude deg min	ele m (in ft)	observed	theoretical	terrain	correc	curv	special	free air	anom complete-bouguer d1=2.67 d2=2.50
WHIP :NDL HT24	34 10.00	-114 28.30	765.0 CA	979564.50	979663.51	0.06	-26.09	-0.32	0.00	-26.05	-52.40 -50.72
WHIP :NDL HT25	34 10.00	-114 28.03	792.0 CA	979562.68	979662.51	0.06	-27.01	-0.33	0.00	-25.33	-52.61 -50.88
WHIP :NDL HT30	34 10.00	-114 27.76	769.0 CA	979564.59	979663.51	0.06	-26.23	-0.32	0.00	-25.58	-52.07 -50.38
WHIP :NDL HT56	34 10.00	-114 30.42	812.0 CA	979557.84	979662.51	0.03	-27.70	-0.34	0.00	-28.28	-50.29 -54.50
WHIP :NDL HT60	34 10.00	-114 31.42	808.0 CA	979556.27	979662.51	0.03	-27.56	-0.34	0.00	-30.23	-58.10 -56.32
WHIP :NDL HT73	34 10.00	-114 29.36	802.0 CA	979561.87	979662.51	0.05	-27.35	-0.34	0.00	-25.20	-52.84 -51.08
WHIP :NDL HT416	34 10.01	-114 33.31	832.0 CA	979553.99	979662.52	0.02	-28.38	-0.35	0.00	-30.27	-58.97 -57.15
WHIP :NDL HT40	34 10.02	-114 27.50	764.0 CA	979565.23	979662.54	0.07	-26.06	-0.32	0.00	-25.43	-51.74 -50.07
WHIP :NDL HT64	34 10.02	-114 32.51	820.0 CA	979554.87	979662.54	0.02	-27.97	-0.34	0.00	-30.54	-58.83 -57.03
WHIP :NDL HT31	34 10.03	-114 27.23	779.0 CA	979563.86	979662.55	0.07	-26.57	-0.33	0.00	-25.41	-52.24 -50.53
WHIP :X 271	34 10.05	-114 17.70	372.0 CA	979587.35	979662.58	0.38	-12.69	-0.16	0.00	-40.23	-52.70 -51.91
WHIP :X 401	34 10.17	-114 15.96	366.0 AZ	979589.18	979662.74	0.16	-12.48	-0.16	0.00	-39.14	-51.62 -50.83
WHIP :NDL HT23	34 10.21	-114 28.30	783.0 CA	979563.43	979662.80	0.16	-26.71	-0.33	0.00	-25.72	-52.69 -50.98
WHIP :NDL HT26	34 10.21	-114 28.03	791.0 CA	979563.23	979662.80	0.37	-26.98	-0.33	0.00	-25.16	-52.40 -50.67
WHIP :NDL HT29	34 10.21	-114 27.76	791.0 CA	979563.36	979662.80	0.07	-26.98	-0.33	0.00	-25.04	-52.28 -50.54
WHIP :NDL HT39	34 10.23	-114 27.50	785.0 CA	979563.75	979662.83	0.07	-26.77	-0.33	0.00	-25.24	-52.27 -50.55
WHIP :NDL HT32	34 10.24	-114 27.23	782.0 CA	979563.33	979662.84	0.08	-26.67	-0.33	0.00	-25.96	-52.88 -51.16
WHIP :NDL V57	34 10.29	-114 25.66	786.0 CA	979560.23	979662.91	0.09	-26.81	-0.33	0.00	-28.74	-55.79 -54.07
WHIP :NDL HT16	34 10.42	-114 27.76	807.0 CA	979562.39	979663.09	0.08	-27.52	-0.34	0.00	-24.79	-52.58 -50.81
WHIP :NDL HT22	34 10.42	-114 28.10	801.0 CA	979562.58	979663.09	0.07	-27.32	-0.34	0.00	-25.17	-52.76 -51.00
WHIP :NDL HT27	34 10.42	-114 28.03	812.0 CA	979561.94	979663.09	0.07	-27.70	-0.34	0.00	-24.78	-52.74 -50.96
WHIP :NDL HT38	34 10.44	-114 27.50	811.0 CA	979561.70	979663.13	0.08	-27.66	-0.34	0.00	-25.13	-53.05 -51.28
WHIP :NDL HT3	34 10.45	-114 23.30	748.0 CA	979562.44	979663.14	0.13	-25.51	-0.32	0.00	-30.34	-50.04 -54.40
WHIP :NDL HT33	34 10.45	-114 27.23	808.0 CA	979561.57	979663.14	0.38	-27.56	-0.34	0.00	-25.56	-53.38 -51.61
WHIP :X 153	34 10.62	-114 23.43	745.0 CA	979563.69	979663.38	0.10	-25.41	-0.31	0.00	-29.61	-55.23 -53.60
WHIP :X 400	34 10.62	-114 14.45	374.0 AZ	979589.39	979663.38	0.24	-12.76	-0.16	0.00	-38.80	-51.48 -50.68
WHIP :NDL HT17	34 10.63	-114 27.76	828.0 CA	979560.94	979663.39	0.09	-28.24	-0.35	0.00	-24.57	-53.06 -51.25
WHIP :NDL HT21	34 10.63	-114 28.30	831.0 CA	979560.47	979663.39	0.08	-28.34	-0.35	0.00	-24.75	-53.36 -51.54
WHIP :NDL HT28	34 10.63	-114 28.03	836.0 CA	979560.74	979663.39	0.08	-28.51	-0.35	0.00	-24.51	-53.29 -51.46
WHIP :NDL HT37	34 10.65	-114 27.50	835.0 CA	979560.47	979663.41	0.39	-28.48	-0.35	0.00	-24.40	-53.14 -51.31
WHIP :NDL HT34	34 10.66	-114 27.23	842.0 CA	979559.75	979663.43	0.10	-28.72	-0.35	0.00	-24.48	-53.45 -51.60
WHIP :NDL Z420	34 10.70	-114 37.05	974.0 CA	979539.13	979663.48	0.06	-33.22	-0.40	0.00	-32.74	-60.30 -64.16
WHIP :NDL HT57	34 10.75	-114 30.42	878.0 CA	979549.57	979663.55	0.05	-29.95	-0.37	0.00	-31.40	-61.66 -59.73
WHIP :NDL HT59	34 10.75	-114 31.46	880.0 CA	979549.82	979663.55	0.04	-30.01	-0.37	0.00	-30.96	-61.30 -59.37
WHIP :NDL W78	34 10.80	-114 15.90	371.0 CA	979591.53	979663.63	0.20	-12.65	-0.16	0.00	-37.20	-49.81 -49.01
WHIP :NDL HT18	34 10.84	-114 27.76	859.0 CA	979558.74	979663.68	0.39	-29.30	-0.36	0.00	-24.14	-53.71 -51.82
WHIP :NDL HT19	34 10.84	-114 28.03	856.0 CA	979558.44	979663.68	0.09	-29.20	-0.36	0.00	-24.73	-54.19 -52.31
WHIP :NDL HT70	34 10.84	-114 28.50	861.0 CA	979557.58	979663.68	0.09	-29.37	-0.36	0.00	-25.12	-54.75 -52.86
WHIP :NDL HT62	34 10.85	-114 33.56	880.0 CA	979550.74	979663.70	0.03	-30.01	-0.37	0.00	-30.18	-60.53 -58.60
WHIP :NDL HT72	34 10.95	-114 29.56	876.0 CA	979553.75	979663.70	0.07	-29.88	-0.37	0.00	-27.55	-57.72 -55.80

station identification proj sta-id	latitude deg	longitude min	altitude m	ele st (in ft)	observed	theoretical	terrain	correction	special	free	anomalies					
							bouguer	curv		air	complete-bouguer					
:NDL HT74	34	10.85	-114	24.11	761.0	CA	979561.49	979663.70	0.15	-25.96	-0.32	0.00	-30.63	-56.76	-55.09	
:NDL HT75	34	10.85	-114	26.22	812.0	CA	979561.34	979663.70	0.11	-27.70	-0.34	0.00	-25.97	-53.90	-52.12	
:X 263	34	10.85	-114	17.40	592.0	CA	979572.74	979663.70	0.63	-20.19	-0.25	0.00	-35.27	-55.08	-53.82	
:X 274	34	10.85	-114	21.05	711.0	CA	979566.52	979663.70	0.27	-24.25	-0.30	0.00	-30.29	-54.57	-53.03	
:NDL HT36	34	10.86	-114	27.50	859.0	CA	979559.01	979663.71	0.10	-29.30	-0.36	0.00	-23.90	-53.46	-51.58	
:NDL HT35	34	10.87	-114	27.23	855.0	CA	979559.23	979663.73	0.10	-29.16	-0.36	0.00	-24.07	-53.48	-51.61	
:NDL Z226	34	10.88	-114	14.94	373.0	CA	979590.33	979663.74	0.18	-12.72	-0.16	0.00	-38.32	-51.03	-50.22	
:NDL HT63	34	10.90	-114	32.52	886.0	CA	979549.75	979663.77	0.04	-30.22	-0.37	0.00	-30.68	-61.22	-59.28	
:NDL Z410	34	11.09	-114	24.62	813.0	CA	979560.71	979664.03	0.15	-27.73	-0.34	0.00	-26.85	-54.77	-52.99	
:NDL HT2	34	11.10	-114	24.65	813.0	CA	979560.31	979664.05	0.15	-27.73	-0.34	0.00	-27.26	-55.18	-53.40	
:X 152	34	11.11	-114	24.96	816.0	CA	979561.23	979664.06	0.12	-27.83	-0.34	0.00	-26.07	-54.12	-52.34	
:X 149	34	11.17	-114	25.95	832.0	CA	979560.74	979664.15	0.10	-28.38	-0.35	0.00	-25.14	-53.77	-51.94	
:NDL HT1	34	11.20	-114	26.68	840.0	CA	979557.69	979664.19	0.13	-28.65	-0.35	0.00	-27.48	-56.36	-54.52	
:X 264	34	11.25	-114	17.87	648.0	CA	979569.31	979664.26	0.61	-22.10	-0.28	0.00	-33.99	-55.76	-54.37	
:NDL V46	34	11.26	-114	19.41	720.0	CA	979561.99	979664.27	0.36	-24.56	-0.30	0.00	-34.55	-59.05	-57.49	
:NDL S2	34	11.30	-114	26.90	891.0	CA	979556.62	979664.33	0.12	-30.39	-0.37	0.00	-23.90	-54.54	-52.59	
:NDL Z20783725	34	11.30	-114	34.40	924.9	CA	979545.01	979664.33	-0.05	-31.54	-0.38	0.00	-32.32	-64.30	-62.27	
:X 395	34	11.31	-114	13.45	371.0	AZ	979588.07	979664.34	0.37	-12.65	-0.16	0.00	-41.37	-53.82	-53.02	
:NDL Z227	34	11.40	-114	14.00	375.0	CA	979589.15	979664.47	0.22	-12.79	-0.16	0.00	-40.04	-52.78	-51.96	
:NDL Z419	34	11.40	-114	35.95	984.0	CA	979536.53	979664.47	0.05	-33.56	-0.41	0.00	-35.38	-69.30	-67.14	
:X 148	34	11.40	-114	27.79	915.0	CA	979554.35	979664.47	0.08	-31.21	-0.38	0.00	-24.05	-55.56	-53.55	
:X 68	34	11.41	-114	35.93	983.0	CA	979536.61	979664.48	0.05	-33.53	-0.41	0.00	-35.41	-69.29	-67.13	
:NDL Z233	34	11.48	-114	24.43	849.0	CA	979559.24	979664.58	0.18	-28.96	-0.36	0.00	-25.48	-54.61	-52.75	
:NDL HT41	34	11.48	-114	24.38	851.0	CA	979558.98	979664.58	0.18	-29.02	-0.36	0.00	-25.55	-54.75	-52.89	
:NDL N51	34	11.49	-114	34.60	939.0	CA	979542.69	979664.59	0.04	-32.03	-0.39	0.00	-33.58	-65.95	-63.89	
:X 150	34	11.53	-114	26.18	878.0	CA	979559.39	979664.65	0.14	-29.95	-0.37	0.00	-22.67	-52.84	-50.92	
:X 270	34	11.56	-114	16.99	668.0	CA	979571.10	979664.69	0.61	-22.78	-0.28	0.00	-30.75	-53.21	-51.78	
:X 147	34	11.66	-114	29.32	940.0	CA	979548.05	979664.83	0.37	-32.06	-0.39	0.00	-28.36	-60.75	-58.68	
:X 151	34	11.74	-114	25.09	895.0	CA	979558.34	979664.95	0.18	-30.53	-0.37	0.00	-22.41	-53.13	-51.18	
:NDL HT58	34	11.75	-114	31.46	955.0	CA	979543.90	979664.96	0.07	-32.57	-0.40	0.00	-31.23	-64.13	-62.03	
:NDL HT61	34	11.75	-114	33.58	943.0	CA	979545.69	979664.96	0.05	-32.16	-0.39	0.00	-30.57	-63.07	-61.00	
:NDL Z411	34	11.83	-114	30.70	923.0	CA	979542.81	979665.07	0.09	-33.19	-0.40	0.00	-30.73	-64.23	-62.10	
:NDL HT53	34	11.85	-114	34.79	967.0	CA	979539.46	979665.09	0.35	-32.98	-0.40	0.00	-34.68	-68.01	-65.89	
:X 265	34	11.90	-114	17.92	742.0	CA	979566.35	979665.16	0.60	-25.31	-0.31	0.00	-29.02	-54.04	-52.45	
:X 3683	37	34	11.90	-114	10.64	1057.1	AZ	979544.69	979665.16	1.70	-36.05	-0.43	0.00	-21.05	-55.84	-53.62
:X 399	34	11.92	-114	8.75	1000.0	AZ	979546.22	979665.20	2.43	-34.11	-0.41	0.00	-24.91	-57.00	-54.96	
:X 60	34	11.93	-114	27.08	980.0	CA	979549.49	979665.21	0.26	-33.42	-0.41	0.00	-23.54	-57.11	-54.97	
:NDL HT47	34	11.98	-114	27.84	976.0	CA	979548.05	979665.28	0.14	-33.29	-0.40	0.00	-25.43	-58.98	-56.84	
:X 61	34	11.98	-114	27.85	976.0	CA	979548.25	979665.28	0.20	-33.29	-0.40	0.00	-25.22	-58.72	-56.58	
:NDL HT50	34	12.00	-114	32.25	971.0	CA	979543.89	979665.30	0.07	-33.12	-0.40	0.00	-30.08	-63.53	-61.40	

Whipple Mountains Wilferness Study Area

station identification proj	sta-id	latitude deg	lon deg	alt min	lon min	ele (in ft)	st observed	q r a v i t y theoretical	terrain bouguer curv	c o r r e c t i o n s special	free air	a n o m a l i e s complete-bouguer d1=2.67 d2=2.50				
WHIP	:NDL HT52	34	12.00	-114	33.80	968.0	CA	979542.49	979665.30	0.06	-33.01	-0.40	0.00	-31.76	-65.12	-62.99
WHIP	:X 398	34	12.00	-114	10.01	720.0	A2	979566.26	979665.30	1.29	-24.56	-0.30	0.00	-31.32	-54.89	-53.39
WHIP	:X 65	34	12.04	-114	33.01	966.0	CA	979544.75	979665.37	0.06	-32.95	-0.40	0.00	-29.75	-63.03	-60.91
WHIP	:NDL HT51	34	12.05	-114	33.00	966.0	CA	979544.48	979665.38	0.06	-32.95	-0.40	0.00	-30.03	-63.31	-61.19
WHIP	:X 62	34	12.09	-114	29.01	973.0	CA	979546.05	979665.43	0.13	-33.19	-0.40	0.00	-27.86	-61.32	-59.19
WHIP	:NDL N80	34	12.10	-114	30.60	997.0	CA	979541.91	979665.45	0.10	-34.00	-0.41	0.00	-29.75	-64.07	-61.88
WHIP	:NDL HT48	34	12.10	-114	29.01	973.0	CA	979545.80	979665.45	0.12	-33.19	-0.40	0.00	-28.13	-61.60	-59.46
WHIP	:NDL Z228	34	12.11	-114	13.69	377.0	CA	979588.07	979665.46	0.27	-12.86	-0.16	0.00	-41.93	-54.68	-53.87
WHIP	:X 63	34	12.11	-114	30.58	997.0	CA	979541.99	979665.46	0.09	-34.00	-0.41	0.00	-29.69	-64.02	-61.83
WHIP	:X 64	34	12.12	-114	31.78	997.0	CA	979542.24	979665.48	0.07	-34.00	-0.41	0.00	-29.45	-63.80	-61.61
WHIP	:X 67	34	12.12	-114	35.17	991.0	CA	979537.61	979665.48	0.05	-33.80	-0.41	0.00	-34.65	-68.81	-66.63
WHIP	:NDL HT49	34	12.15	-114	31.79	997.0	CA	979541.93	979665.52	0.08	-34.00	-0.41	0.00	-29.81	-64.14	-61.96
WHIP	:X 66	34	12.28	-114	34.02	984.0	CA	979540.57	979665.70	0.06	-33.56	-0.41	0.00	-32.57	-66.48	-64.32
WHIP	:NDL V47	34	12.30	-114	17.45	765.0	CA	979564.73	979665.73	0.48	-26.09	-0.32	0.00	-29.03	-54.97	-53.32
WHIP	:NDL HT46	34	12.38	-114	23.40	1009.0	CA	979550.56	979665.84	0.29	-34.41	-0.42	0.00	-20.37	-54.91	-52.71
WHIP	:X 58	34	12.38	-114	23.46	1009.0	CA	979550.93	979665.84	0.42	-34.41	-0.42	0.00	-20.00	-54.41	-52.22
WHIP	:NDL N74	34	12.40	-114	24.90	990.0	CA	979553.46	979665.87	0.26	-33.77	-0.41	0.00	-19.28	-53.20	-51.04
WHIP	:X 59	34	12.45	-114	24.52	997.0	CA	979552.06	979665.94	0.40	-34.00	-0.41	0.00	-20.09	-54.11	-51.95
WHIP	:X 268	34	12.58	-114	15.70	613.0	CA	979573.92	979666.12	0.61	-20.91	-0.26	0.00	-34.54	-55.09	-53.78
WHIP	:NDL N75	34	12.60	-114	22.15	1000.0	CA	979546.97	979666.15	0.34	-34.11	-0.41	0.00	-25.11	-59.30	-57.12
WHIP	:NDL HT45	34	12.60	-114	22.02	1000.0	CA	979546.48	979666.15	0.34	-34.11	-0.41	0.00	-25.60	-59.78	-57.60
WHIP	:X 287	34	12.60	-114	29.38	1034.0	CA	979542.32	979666.15	0.14	-35.27	-0.43	0.00	-26.57	-62.12	-59.86
WHIP	:X 57	34	12.61	-114	22.11	1000.0	CA	979546.80	979666.16	0.48	-34.11	-0.41	0.00	-25.30	-59.34	-57.17
WHIP	:X 54	34	12.68	-114	20.36	936.0	CA	979552.47	979666.26	0.65	-31.92	-0.39	0.00	-25.75	-57.41	-55.39
WHIP	:X 55	34	12.72	-114	20.63	969.0	CA	979549.98	979666.31	0.66	-33.05	-0.40	0.00	-25.18	-57.97	-55.89
WHIP	:X 56	34	12.73	-114	20.95	980.0	CA	979548.72	979666.33	0.66	-33.42	-0.41	0.00	-25.43	-58.60	-56.49
WHIP	:X 269	34	12.73	-114	16.75	804.0	CA	979553.36	979666.33	0.72	-27.42	-0.34	0.00	-27.34	-54.38	-52.66
WHIP	:NDL Z413	34	12.77	-114	37.22	1065.0	CA	979537.51	979666.38	0.08	-36.32	-0.44	0.00	-28.70	-65.38	-63.05
WHIP	:NDL V63	34	12.80	-114	35.10	1047.0	CA	979535.32	979666.43	0.06	-35.71	-0.43	0.00	-32.62	-68.71	-66.41
WHIP	:NDL N79	34	12.85	-114	12.95	395.0	CA	979587.11	979666.50	0.31	-13.47	-0.17	0.00	-42.23	-55.57	-54.72
WHIP	:X 142	34	12.87	-114	35.10	1047.0	CA	979535.24	979666.52	0.08	-35.71	-0.43	0.00	-32.80	-68.86	-66.56
WHIP	:ALM GW99	34	12.90	-114	24.71	1080.0	CA	979550.30	979666.57	0.30	-36.84	-0.44	0.00	-14.68	-51.66	-49.31
WHIP	:X 266	34	12.90	-114	18.45	912.0	CA	979531.85	979666.57	0.62	-31.11	-0.38	0.00	-28.93	-59.79	-57.83
WHIP	:ALM GW98	34	12.92	-114	23.92	1060.0	CA	979550.41	979666.59	0.33	-36.15	-0.44	0.00	-16.47	-52.73	-50.42
WHIP	:X 53	34	12.93	-114	19.61	995.0	CA	979549.37	979666.61	0.56	-33.94	-0.41	0.00	-23.65	-57.44	-55.29
WHIP	:NDL Z235	34	12.95	-114	19.65	995.0	CA	979549.38	979666.64	0.38	-33.94	-0.41	0.00	-23.66	-57.63	-55.47
WHIP	:X 396	34	13.14	-114	11.83	376.0	A2	979587.35	979666.91	0.55	-12.82	-0.16	0.00	-44.18	-56.62	-55.83
WHIP	:ALM GW16	34	13.15	-114	23.02	1050.0	CA	979544.67	979666.92	0.39	-35.81	-0.43	0.00	-23.48	-59.33	-57.05
WHIP	:NDL V48	34	13.16	-114	15.88	690.0	CA	979564.52	979666.93	0.74	-23.53	-0.29	0.00	-37.50	-60.59	-59.12
WHIP	:NDL HT42	34	13.18	-114	25.71	1097.0	CA	979544.85	979666.96	0.31	-37.41	-0.45	0.00	-18.92	-56.48	-54.09

## Whipple Mountains Wilderness Study Area

station		location		elevation (in ft)	observed	gravity theoretical	correction		special	anomalies		
identification proj	station	latitude deg	longitude deg min				terrain	bouguer		free air	complete-bouguer d1=2.67 d2=2.50	
WHIP	:X	51	34 13.23	-114 18.69	967.0	CA	0.55	-32.98	-0.40	0.00	-26.21	-59.04
WHIP	:NDL	N76	34 13.25	-114 18.65	976.0	CA	0.38	-33.29	-0.40	0.00	-25.44	-58.75
WHIP	:NDL	Z230	34 13.29	-114 12.32	384.0	CA	0.36	-13.10	-0.17	0.00	-43.36	-56.26
WHIP	:NDL	V50	34 13.29	-114 17.87	1246.0	CA	0.55	-42.50	-0.51	0.00	-18.18	-60.63
WHIP	:BLMGM100	34 13.33	-114 25.37	1020.0	CA	979552.36	1.31	-34.79	-0.42	0.00	-18.86	-52.76
WHIP	:X	143	34 13.45	-114 32.54	1119.0	CA	0.19	-38.17	-0.46	0.00	-25.49	-63.92
WHIP	:X	288	34 13.45	-114 34.62	1075.0	CA	0.09	-36.67	-0.44	0.00	-30.70	-67.71
WHIP	:X	279	34 13.46	-114 28.33	1147.0	CA	0.22	-39.12	-0.47	0.00	-23.06	-59.93
WHIP	:X	286	34 13.48	-114 29.38	1132.0	CA	0.22	-38.61	-0.46	0.00	-24.00	-62.86
WHIP	:BLM	GM41	34 13.50	-114 21.08	1120.0	CA	0.64	-38.20	-0.46	0.00	-18.99	-57.00
WHIP	:X	52	34 13.58	-114 18.43	998.0	CA	0.70	-34.04	-0.41	0.00	-23.79	-57.54
WHIP	:NDL	V54	34 13.61	-114 24.30	1422.0	CA	5.78	-48.50	-0.57	0.00	-9.74	-53.03
WHIP	:BLM	GM42	34 13.69	-114 21.26	1155.0	CA	0.74	-39.39	-0.47	0.00	-16.56	-55.69
WHIP	:NDL	HT43	34 13.77	-114 26.27	1158.0	CA	0.35	-39.50	-0.47	0.00	-18.81	-58.43
WHIP	:NDL	Z231	34 13.85	-114 11.54	381.0	CA	0.43	-12.99	-0.17	0.00	-44.87	-57.60
WHIP	:NDL	V56	34 13.89	-114 29.38	1182.0	CA	0.23	-40.31	-0.48	0.00	-21.28	-61.85
WHIP	:X	289	34 13.89	-114 35.66	1098.0	CA	0.10	-37.45	-0.45	0.00	-28.34	-66.14
WHIP	:BLMGM101	34 13.93	-114 25.78	1195.0	CA	979540.03	0.36	-40.76	-0.49	0.00	-15.57	-56.46
WHIP	:X	397	34 14.00	-114 10.90	379.0	AZ	0.61	-12.93	-0.16	0.00	-45.04	-57.52
WHIP	:3683	38	34 14.09	-114 8.12	1888.1	AZ	11.54	-64.40	-0.73	0.00	-13.18	-66.76
WHIP	:BLM	GM43	34 14.12	-114 20.78	1270.0	CA	1.18	-43.32	-0.51	0.00	-14.75	-57.40
WHIP	:BLMGM103	34 14.14	-114 27.15	1190.0	CA	979535.17	0.27	-40.59	-0.48	0.00	-21.20	-62.00
WHIP	:BLMGM102	34 14.18	-114 26.38	1190.0	CA	979538.53	0.40	-40.59	-0.48	0.00	-17.90	-58.57
WHIP	:NDL	V62	34 14.20	-114 34.35	1242.0	CA	1.80	-42.36	-0.50	0.00	-23.45	-64.51
WHIP	:BLMGM104	34 14.32	-114 27.28	1240.0	CA	979532.16	0.30	-42.29	-0.50	0.00	-19.76	-62.25
WHIP	:X	144	34 14.32	-114 32.54	1182.0	CA	0.27	-40.31	-0.48	0.00	-22.09	-62.62
WHIP	:X	290	34 14.32	-114 35.66	1150.0	CA	0.11	-39.22	-0.47	0.00	-27.90	-67.48
WHIP	:X	291	34 14.32	-114 36.75	1111.0	CA	0.11	-37.89	-0.46	0.00	-31.63	-69.87
WHIP	:X	280	34 14.34	-114 28.33	1243.0	CA	0.36	-42.40	-0.50	0.00	-19.88	-62.41
WHIP	:X	285	34 14.34	-114 29.38	1238.0	CA	0.36	-42.22	-0.50	0.00	-16.67	-59.03
WHIP	:NDL	HT44	34 14.35	-114 27.28	1241.0	CA	0.37	-42.33	-0.50	0.00	-20.01	-62.48
WHIP	:BLM	GM45	34 14.36	-114 19.22	1220.0	CA	1.14	-41.61	-0.50	0.00	-16.87	-57.84
WHIP	:X	318	34 14.46	-114 26.90	1250.0	CA	0.50	-42.63	-0.51	0.00	-18.28	-60.92
WHIP	:5675	292	34 14.58	-114 37.73	1154.9	CA	0.04	-39.39	-0.47	0.00	-32.33	-72.15
WHIP	:NDL	V52	34 14.60	-114 23.00	1575.0	CA	4.98	-53.72	-0.62	0.00	-6.63	-55.99
WHIP	:X	319	34 14.65	-114 27.50	1304.0	CA	0.57	-44.48	-0.53	0.00	-18.30	-62.73
WHIP	:NDL	V51	34 14.72	-114 20.06	1360.0	CA	5.11	-46.39	-0.55	0.00	-13.59	-55.41
WHIP	:BLM	GM18	34 14.73	-114 23.78	1380.0	CA	0.67	-47.07	-0.55	0.00	-11.05	-58.00
WHIP	:NDL	V53	34 14.80	-114 24.26	1599.0	CA	3.38	-54.54	-0.63	0.00	-4.58	-56.37
WHIP	:X	267	34 14.87	-114 17.18	1000.0	CA	1.20	-34.11	-0.41	0.00	-26.23	-59.55

## Whipple Mountains Wilderness Study Area

station identification proj	lat deg	lon deg	alt m	ele (in ft)	observed	grav theoretical	terrain	correc bouguer	curv	special	free air	anomalies complete-bouguer d1=2.67 d2=2.50			
:BLMGW 44	34	14.89	-114	22.20	1520.0	CA	979521.70	979669.36	1.28	-51.84	-0.60	0.00	-4.68	-55.84	-52.59
:NDL V60	34	14.89	-114	32.59	1279.0	CA	979532.61	979669.36	0.21	-43.62	-0.52	0.00	-16.44	-60.37	-57.57
:NDL V55	34	14.90	-114	29.56	1354.0	CA	979532.12	979669.37	1.08	-46.18	-0.54	0.00	-9.89	-55.54	-52.63
:BLM GW46	34	14.92	-114	18.95	1270.0	CA	979534.12	979669.40	2.01	-43.32	-0.51	0.00	-15.82	-57.64	-54.98
:BLM GW47	34	14.93	-114	19.85	1430.0	CA	979525.34	979669.41	1.09	-48.77	-0.57	0.00	-9.56	-57.81	-54.74
:BLM W25	34	15.19	-114	16.85	1031.0	CA	979542.55	979669.77	0.75	-35.16	-0.43	0.00	-25.25	-60.09	-57.87
:X 284	34	15.22	-114	29.38	1346.0	CA	979532.05	979669.82	0.45	-45.91	-0.54	0.00	-11.16	-57.16	-54.23
:X 145	34	15.25	-114	32.53	1315.0	CA	979532.37	979669.86	0.38	-46.85	-0.53	0.00	-13.80	-58.80	-55.99
:ALM G47	34	15.26	-114	21.02	2277.0	CA	979472.10	979669.88	9.03	-77.66	-0.85	0.00	16.39	-53.09	-48.66
:NDL V61	34	15.32	-114	34.09	1569.0	CA	979510.62	979669.96	4.62	-53.51	-0.62	0.00	-11.76	-61.27	-58.12
:X 281	34	15.40	-114	27.88	1403.0	CA	979526.24	979670.07	0.58	-47.85	-0.56	0.00	-11.86	-59.69	-56.65
:NDL N61	34	15.50	-114	10.25	409.0	CA	979584.58	979670.21	0.70	-13.95	-0.18	0.00	-47.16	-60.59	-59.73
:BLM GW49	34	15.56	-114	19.15	1560.0	CA	979514.92	979670.30	2.05	-53.21	-0.62	0.00	-8.64	-60.41	-57.11
:BLMGW105	34	15.58	-114	28.03	1403.0	CA	979526.37	979670.32	0.46	-47.85	-0.56	0.00	-11.99	-59.94	-56.89
:BLM GW21	34	15.67	-114	25.69	1520.0	CA	979520.12	979670.45	1.34	-51.84	-0.60	0.00	-7.36	-58.46	-55.21
:BLMGW107	34	15.82	-114	28.24	1420.0	CA	979528.09	979670.66	0.62	-48.43	-0.57	0.00	-9.00	-57.38	-54.30
:BLM GW27	34	15.83	-114	23.14	1690.0	CA	979513.76	979670.67	1.64	-57.64	-0.66	0.00	2.04	-54.62	-51.01
:X 283	34	15.83	-114	28.23	1450.0	CA	979527.60	979670.67	0.71	-49.46	-0.58	0.00	-6.68	-56.01	-52.87
:BLM G45	34	15.94	-114	19.90	2207.0	CA	979468.89	979670.83	9.46	-75.27	-0.82	0.00	-60.99	-56.75	-52.87
:BLM GW50	34	15.94	-114	18.80	1520.0	CA	979514.91	979670.83	2.52	-51.84	-0.60	0.00	-12.94	-62.86	-59.69
:BLM W24	34	15.97	-114	16.16	1122.0	CA	979538.61	979670.87	2.09	-38.27	-0.46	0.00	-26.72	-63.36	-61.02
:BLM GW28	34	15.97	-114	23.47	1735.0	CA	979514.40	979670.87	1.34	-59.18	-0.68	0.00	6.72	-51.79	-48.06
:X 282	34	15.98	-114	27.65	1529.0	CA	979521.12	979670.88	0.82	-52.15	-0.61	0.00	-5.95	-57.88	-54.58
:3683 28	34	16.00	-114	6.29	1805.1	AZ	979484.58	979670.91	10.02	-61.57	-0.70	0.00	-16.55	-68.79	-65.47
:BLMGW109	34	16.09	-114	29.05	1435.0	CA	979530.53	979671.04	0.50	-48.94	-0.57	0.00	-5.53	-54.54	-51.42
:NDL N81	34	16.10	-114	29.05	1485.0	CA	979527.14	979671.05	0.69	-50.65	-0.59	0.00	-4.23	-54.78	-51.56
:ALM GW22	34	16.27	-114	25.60	1690.0	CA	979512.71	979671.29	1.99	-57.64	-0.66	0.00	0.38	-55.93	-52.34
:BLMGW112	34	16.30	-114	27.64	1590.0	CA	979522.14	979671.33	0.66	-54.23	-0.63	0.00	0.36	-53.83	-50.38
:BLM GW24	34	16.48	-114	24.71	1860.0	CA	979503.02	979671.59	2.23	-63.44	-0.72	0.00	6.39	-55.54	-51.59
:BLMGW111	34	16.48	-114	29.70	1750.0	CA	979510.76	979671.59	1.18	-59.69	-0.68	0.00	3.78	-55.41	-51.64
:BLM GW26	34	16.50	-114	23.30	1930.0	CA	979498.76	979671.61	1.83	-65.83	-0.74	0.00	8.68	-56.06	-51.94
:BLM G48	34	16.51	-114	21.62	2251.0	CA	979477.31	979671.63	2.17	-76.77	-0.84	0.00	17.40	-58.04	-53.24
:BLM GW40	34	16.52	-114	21.35	2000.0	CA	979491.97	979671.64	1.99	-68.21	-0.76	0.00	8.44	-58.54	-54.28
:BLM G44	34	16.65	-114	19.08	2403.0	CA	979462.07	979671.82	5.28	-81.96	-0.88	0.00	16.26	-61.30	-56.36
:BLM GW23	34	16.72	-114	25.72	1850.0	CA	979502.70	979671.92	2.71	-63.10	-0.71	0.00	4.79	-56.31	-52.42
:BLM G43	34	16.78	-114	17.86	1998.0	CA	979485.60	979672.01	4.15	-68.15	-0.76	0.00	1.52	-63.23	-59.11
:ALM GW25	34	16.80	-114	23.75	1980.0	CA	979495.23	979672.03	2.42	-67.53	-0.75	0.00	9.43	-56.43	-52.24
:X 320	34	16.85	-114	29.02	1586.0	CA	979520.01	979672.10	0.72	-54.09	-0.63	0.00	-2.92	-56.92	-53.48
:BLM W23	34	16.99	-114	16.87	1368.0	CA	979524.70	979672.30	1.83	-46.66	-0.55	0.00	-18.92	-64.30	-61.41
:ALM G49	34	17.14	-114	22.53	2754.0	CA	979445.53	979672.51	5.96	-93.93	-0.98	0.00	32.04	-56.91	-51.25

Whipple Mountains Wilderness Study Area

station identification proj	latitude deg	longitude deg	altitude m	ele (in ft)	observed	theoretical	terrain	correc	special	free	anomalies complete-bouguer d1=2.67 d2=2.50				
:BLM GW30	34	17.20	-114	24.28	2100.0	CA	979485.81	979672.59	4.20	-71.62	-0.79	0.00	10.74	-57.48	-53.14
:BLM GW29	34	17.27	-114	23.42	2220.0	CA	979480.31	979672.70	3.36	-75.72	-0.83	0.00	16.43	-56.76	-52.10
:BLM GW96	34	17.27	-114	28.60	1700.0	CA	979515.48	979672.70	0.74	-57.98	-0.66	0.00	2.69	-55.21	-51.53
:BLM GW51	34	17.33	-114	19.42	1850.0	CA	979497.35	979672.77	2.50	-63.10	-0.71	0.00	-1.42	-62.73	-58.82
:BLM GW95	34	17.35	-114	28.35	1750.0	CA	979510.32	979672.80	0.85	-59.69	-0.68	0.00	2.12	-57.40	-53.61
:NDL N62	34	17.35	-114	8.45	401.0	CA	979583.05	979672.80	1.10	-13.68	-0.17	0.00	-52.04	-64.79	-63.97
:BLM GW91	34	17.38	-114	26.74	2020.0	CA	979496.33	979672.84	2.65	-68.90	-0.77	0.00	13.48	-53.53	-49.27
:BLM GW39	34	17.42	-114	21.49	2245.0	CA	979477.99	979672.90	3.57	-76.57	-0.84	0.00	16.25	-57.79	-53.08
:BLM GW03	34	17.44	-114	10.27	738.0	CA	979561.50	979672.93	0.47	-25.17	-0.31	0.00	-42.01	-67.02	-65.43
:BLM GW22	34	17.51	-114	16.58	1526.0	CA	979517.95	979673.03	1.06	-52.05	-0.60	0.00	-11.54	-63.13	-59.85
:BLM GW92	34	17.53	-114	26.48	2070.0	CA	979489.77	979673.05	4.41	-70.60	-0.78	0.00	11.42	-55.56	-51.29
:BLM B103	34	17.54	-114	25.32	3408.0	CA	979402.57	979673.07	12.53	-116.24	-1.14	0.00	50.01	-54.83	-48.16
:BLM GW31	34	17.55	-114	24.22	2230.0	CA	979480.66	979673.09	4.05	-76.06	-0.83	0.00	17.32	-55.52	-50.88
:5675 113	34	17.57	-114	38.00	1267.7	CA	979530.58	979673.11	0.21	-43.24	-0.51	0.00	-23.29	-66.83	-64.06
:BLM GW32	34	17.62	-114	18.55	1740.0	CA	979503.34	979673.18	2.01	-59.35	-0.68	0.00	-6.18	-64.19	-60.50
:NDL N82	34	17.65	-114	29.15	1714.0	CA	979511.60	979673.23	1.35	-58.46	-0.67	0.00	-0.40	-58.18	-54.50
:BLM GW38	34	17.74	-114	21.04	2000.0	CA	979491.54	979673.35	4.71	-68.21	-0.76	0.00	6.30	-57.96	-53.87
:3277 64	34	17.80	-114	8.39	456.4	CA	979578.81	979673.44	0.72	-15.57	-0.20	0.00	-51.69	-66.73	-65.78
:X 141	34	17.86	-114	31.50	1995.0	CA	979494.22	979673.52	1.42	-68.04	-0.76	0.00	8.35	-59.04	-54.75
:BLM HL25	34	17.90	-114	8.21	448.0	AZ	979579.91	979673.58	0.56	-15.28	-0.19	0.00	-51.52	-66.43	-65.48
:NDL V73	34	17.90	-114	15.41	1248.0	CA	979531.73	979673.58	1.71	-42.57	-0.51	0.00	-24.45	-65.81	-63.18
:NDL N431	34	17.91	-114	15.44	1248.0	CA	979531.50	979673.59	1.72	-42.57	-0.51	0.00	-24.70	-66.05	-63.42
:BLM W21	34	17.98	-114	15.20	1213.0	CA	979534.72	979673.69	0.84	-41.37	-0.49	0.00	-24.87	-65.90	-63.28
:BLM GW32	34	18.02	-114	24.04	2480.0	CA	979464.28	979673.74	4.78	-84.59	-0.90	0.00	23.79	-56.92	-51.78
:BLM B102	34	18.07	-114	25.49	3807.0	CA	979375.91	979673.81	17.71	-129.85	-1.22	0.00	60.13	-53.23	-46.01
:BLM G40	34	18.17	-114	17.24	2940.0	CA	979412.32	979673.95	15.35	-100.27	-1.03	0.00	14.88	-71.08	-65.60
:BLM GW37	34	18.22	-114	20.89	2040.0	CA	979491.34	979674.02	2.64	-69.58	-0.77	0.00	9.20	-58.52	-54.21
:BLM GW20	34	18.25	-114	13.45	1570.0	CA	979518.24	979674.06	1.48	-53.55	-0.62	0.00	-8.15	-60.84	-57.48
:BLM GW33	34	18.26	-114	18.90	1580.0	CA	979512.53	979674.08	4.85	-53.89	-0.62	0.00	-12.93	-62.60	-59.43
:BLM HL24	34	18.28	-114	8.54	449.0	CA	979578.87	979674.11	0.90	-15.31	-0.19	0.00	-53.01	-67.61	-66.68
:BLM HL23	34	18.32	-114	9.27	449.0	CA	979577.76	979674.16	2.45	-15.31	-0.19	0.00	-54.17	-67.23	-66.40
:BLM GW01	34	18.35	-114	11.48	896.0	CA	979552.83	979674.20	1.33	-30.56	-0.37	0.00	-37.10	-66.70	-64.81
:3277 67	34	18.50	-114	8.20	451.1	AZ	979575.64	979674.41	0.49	-15.39	-0.19	0.00	-56.34	-71.43	-70.47
:BLM GW36	34	18.53	-114	21.08	2100.0	CA	979489.81	979674.46	2.75	-71.62	-0.79	0.00	12.87	-56.79	-52.36
:BLM GW02	34	18.67	-114	12.07	998.0	CA	979547.85	979674.66	0.85	-34.04	-0.41	0.00	-32.93	-66.53	-64.39
:BLM G39	34	18.69	-114	18.58	2650.0	CA	979443.68	979674.68	8.05	-90.38	-0.95	0.00	18.24	-65.05	-59.75
:BLM GW86	34	18.70	-114	27.98	1900.0	CA	979504.25	979674.70	1.20	-64.80	-0.73	0.00	8.26	-56.07	-51.97
:X 138	34	18.70	-114	35.90	1493.0	CA	979518.17	979674.70	0.14	-50.92	-0.59	0.00	-16.09	-67.47	-64.20
:BLM HL27	34	18.75	-114	9.08	450.0	CA	979578.29	979674.77	1.19	-15.35	-0.19	0.00	-54.15	-68.50	-67.59
:X 140	34	18.76	-114	52.00	1743.0	CA	979512.33	979674.78	0.43	-59.45	-0.68	0.00	1.49	-58.20	-54.40

Whipple Mountains Wilderness Study Area

station proj	identification sta-id	latitude deg	longitude deg min	ele (in ft)	observed	q r a v i t y theoretical	terrain bouguer curv	c o r r e c t i o n s special	free air	a n o m a l i e s complete-bouguer d1=2.67 d2=2.50				
:BLM WHIP	G41	34	18.78	-114 17.13	2915.0	CA 979417.86	979674.81	13.54	-99.42	-1.02	0.00	17.21	-69.70	-64.16
:BLM WHIP	G50	34	18.78	-114 22.42	3185.0	CA 979423.20	979674.81	6.53	-108.63	-1.09	0.00	47.94	-55.25	-48.68
:BLM WHIP	HL26	34	18.80	-114 8.45	448.0	AZ 979575.15	979674.84	0.55	-15.28	-0.19	0.00	-57.55	-72.47	-71.52
:BLM WHIP	GW88	34	18.86	-114 27.77	1910.0	CA 979504.48	979674.92	1.09	-65.14	-0.73	0.00	9.21	-55.57	-51.45
:BLM WHIP	N83	34	18.90	-114 30.60	1721.0	CA 979512.10	979674.98	0.64	-58.70	-0.67	0.00	-1.00	-59.73	-55.99
:BLM WHIP	W19	34	18.92	-114 30.56	1721.0	CA 979511.52	979675.01	0.68	-58.70	-0.67	0.00	-1.61	-60.30	-56.56
:BLM WHIP	GW35	34	18.94	-114 22.52	2800.0	CA 979448.28	979675.03	4.44	-95.50	-0.99	0.00	36.59	-55.46	-49.60
:BLM WHIP	GW87	34	18.94	-114 27.55	1955.0	CA 979502.03	979675.03	1.09	-66.68	-0.75	0.00	10.88	-55.46	-51.23
:BLM WHIP	W06	34	18.98	-114 24.02	3645.0	CA 979391.77	979675.09	8.97	-124.32	-1.19	0.00	59.48	-57.06	-49.64
:BLM WHIP	GW79	34	19.03	-114 26.59	2085.0	CA 979494.57	979675.16	2.37	-71.11	-0.79	0.00	15.52	-54.31	-49.87
:BLM WHIP	GW54	34	19.07	-114 19.85	1560.0	CA 979521.32	979675.22	2.58	-53.21	-0.62	0.00	-7.16	-58.40	-55.14
:BLM WHIP	GW85	34	19.10	-114 28.37	1835.0	CA 979508.62	979675.26	0.97	-62.59	-0.71	0.00	5.96	-56.37	-52.40
:BLM WHIP	B101	34	19.15	-114 26.20	2500.0	CA 979468.62	979675.33	4.76	-85.27	-0.91	0.00	28.42	-52.99	-47.81
:BLM WHIP	GW33	34	19.15	-114 21.94	2600.0	CA 979459.15	979675.33	3.75	-88.68	-0.94	0.00	28.36	-57.51	-52.04
:BLM WHIP	G42	34	19.16	-114 15.84	2222.0	CA 979467.78	979675.34	7.44	-75.79	-0.83	0.00	1.43	-67.75	-63.34
:BLM WHIP	GW04	34	19.20	-114 13.42	1019.0	CA 979546.45	979675.40	1.45	-34.76	-0.42	0.00	-33.09	-66.82	-64.67
:BLM WHIP	N63	34	19.20	-114 13.44	1019.0	CA 979546.29	979675.40	1.73	-34.76	-0.42	0.00	-33.26	-66.70	-64.57
:BLM WHIP	BL7	34	19.21	-114 13.41	1019.0	CA 979546.58	979675.41	1.47	-34.76	-0.42	0.00	-32.98	-66.69	-64.54
:BLM WHIP	GW34	34	19.22	-114 22.18	2680.0	CA 979455.03	979675.43	4.13	-91.41	-0.96	0.00	31.67	-56.57	-50.95
:BLM WHIP	GW05	34	19.24	-114 13.93	1120.0	CA 979541.75	979675.45	0.94	-38.20	-0.46	0.00	-28.35	-66.07	-63.67
:BLM WHIP	HL21	34	19.27	-114 9.83	448.0	CA 979577.33	979675.49	1.51	-15.28	-0.19	0.00	-56.02	-69.99	-69.10
:BLM WHIP	B97	34	19.50	-114 28.07	1841.0	CA 979509.82	979675.82	0.78	-62.79	-0.71	0.00	7.16	-55.56	-51.57
:BLM WHIP	HL27	34	19.55	-114 8.78	449.0	AZ 979574.60	979675.89	0.67	-15.31	-0.19	0.00	-59.05	-73.89	-72.94
:BLM WHIP	BL6	34	19.57	-114 13.43	935.0	CA 979551.18	979675.91	1.34	-31.89	-0.39	0.00	-36.79	-67.73	-65.76
:BLM WHIP	W05	34	19.61	-114 24.64	2910.0	CA 979445.26	979675.98	5.33	-99.25	-1.02	0.00	42.97	-51.97	-45.92
:BLM WHIP	G38	34	19.64	-114 19.26	2716.0	CA 979440.73	979676.02	11.63	-92.63	-0.97	0.00	20.16	-61.81	-56.59
:BLM WHIP	GW83	34	19.69	-114 28.80	1755.0	CA 979518.37	979676.09	1.69	-59.86	-0.68	0.00	7.35	-51.50	-47.75
:BLM WHIP	B99	34	19.78	-114 29.92	1983.0	CA 979495.48	979676.21	1.96	-67.63	-0.76	0.00	5.79	-60.64	-56.41
:BLM WHIP	GW55	34	19.78	-114 12.27	1040.0	CA 979546.63	979676.21	4.66	-35.47	-0.43	0.00	-31.75	-62.99	-61.00
:BLM WHIP	HL20	34	19.80	-114 10.56	448.0	CA 979578.13	979676.24	1.43	-15.28	-0.19	0.00	-55.96	-70.01	-69.11
:BLM WHIP	GW78	34	19.82	-114 26.57	1865.0	CA 979516.78	979676.27	1.61	-63.61	-0.72	0.00	15.93	-46.79	-42.79
:BLM WHIP	GW77	34	19.85	-114 26.29	1910.0	CA 979514.33	979676.31	2.11	-65.14	-0.73	0.00	17.67	-46.10	-42.04
:BLM WHIP	BL5	34	19.90	-114 13.23	835.0	CA 979556.50	979676.38	3.55	-28.48	-0.35	0.00	-41.34	-66.62	-65.01
:BLM WHIP	S675 116	34	19.92	-114 37.80	1361.9	CA 979525.59	979676.41	0.12	-46.45	-0.55	0.00	-22.71	-69.59	-66.61
:BLM WHIP	R06	34	20.00	-114 25.73	2312.0	CA 979483.31	979676.52	4.83	-78.85	-0.86	0.00	24.25	-50.64	-45.87
:BLM WHIP	GW06	34	20.03	-114 14.78	1200.0	CA 979536.91	979676.56	1.07	-40.93	-0.49	0.00	-26.77	-67.12	-64.55
:BLM WHIP	HL28	34	20.05	-114 9.65	448.0	AZ 979574.64	979676.59	0.69	-15.28	-0.19	0.00	-59.81	-74.59	-73.65
:BLM WHIP	B98	34	20.08	-114 29.34	2201.0	CA 979483.68	979676.63	4.17	-75.07	-0.82	0.00	14.06	-57.66	-53.09
:BLM WHIP	R05	34	20.10	-114 25.80	2156.0	CA 979493.66	979676.66	4.20	-73.53	-0.81	0.00	19.79	-50.36	-45.89
:BLM WHIP	BL4	34	20.11	-114 12.87	760.0	CA 979561.89	979676.67	2.21	-25.92	-0.32	0.00	-43.30	-67.33	-65.80

## Whipple Mountains Wilderness Study Area

station identification proj sta-id	latitude deg	longitude deg min	ele in ft	o n s	st	g r a v i t y observed theoretical	terrain bouguer curv	c o r r e c t i o n s special	free air	a n o m a l i e s complete-bouguer d1=2.67 d2=2.50			
:BLM WHIP H96	34 20.11	-114 27.38	1731.0	CA	979519.21	979676.67	0.78	-59.04	-0.67	0.00	5.35	-53.58	-49.83
:BLM WHIP R04	34 20.20	-114 25.85	1887.0	CA	979512.35	979676.80	2.46	-64.36	-0.73	0.00	13.04	-49.59	-45.60
:BLM WHIP G51	34 20.21	-114 21.14	2621.0	CA	979458.82	979676.81	6.29	-89.39	-0.94	0.00	28.52	-55.53	-50.18
:BLM WHIP BL3	34 20.24	-114 12.42	660.0	CA	979566.67	979676.86	2.64	-22.51	-0.28	0.00	-48.10	-68.25	-66.97
:X WHIP 139	34 20.27	-114 34.02	1460.0	CA	979524.32	979676.90	0.13	-49.80	-0.58	0.00	-15.25	-65.50	-62.30
:BLM WHIP R03	34 20.29	-114 25.87	1782.0	CA	979519.73	979676.93	2.19	-60.78	-0.69	0.00	10.42	-48.86	-45.09
:BLM WHIP GW08	34 20.29	-114 15.23	1312.0	CA	979530.21	979676.93	1.09	-44.75	-0.53	0.00	-23.31	-67.49	-64.68
:BLM WHIP GW81	34 20.30	-114 28.35	1635.0	CA	979526.31	979676.94	0.80	-55.77	-0.64	0.00	3.16	-52.45	-48.91
:NDL WHIP N64	34 20.30	-114 15.20	1315.0	CA	979529.97	979676.94	2.10	-44.85	-0.53	0.00	-23.28	-66.56	-63.81
:X WHIP 137	34 20.40	-114 36.75	1390.0	CA	979525.14	979677.08	0.10	-47.41	-0.56	0.00	-21.20	-69.06	-66.01
:BLM WHIP BL2	34 20.44	-114 12.10	585.0	CA	979572.19	979677.14	3.04	-19.95	-0.25	0.00	-49.92	-67.08	-65.99
:BLM WHIP HL19	34 20.44	-114 10.97	448.0	CA	979577.92	979677.14	1.10	-15.28	-0.19	0.00	-57.07	-71.45	-70.53
:BLM WHIP GW59	34 20.45	-114 22.52	1960.0	CA	979499.86	979677.15	6.42	-66.85	-0.75	0.00	7.06	-54.12	-50.22
:BLM WHIP W18	34 20.45	-114 30.94	1537.0	CA	979519.23	979677.15	0.30	-52.42	-0.61	0.00	-13.35	-66.08	-62.72
:BLM WHIP B89	34 20.46	-114 20.05	2302.0	CA	979478.46	979677.16	3.18	-78.51	-0.85	0.00	17.81	-58.38	-53.53
:NDL WHIP N84	34 20.46	-114 30.95	1537.0	CA	979519.01	979677.16	0.51	-52.42	-0.61	0.00	-13.59	-66.11	-62.76
:BLM WHIP GW74	34 20.51	-114 26.29	1670.0	CA	979528.57	979677.23	1.29	-56.96	-0.65	0.00	8.42	-47.91	-44.32
:BLM WHIP B95	34 20.54	-114 29.19	2168.0	CA	979486.44	979677.28	4.97	-73.94	-0.81	0.00	13.07	-56.72	-52.27
:BLM WHIP R02	34 20.54	-114 26.01	1675.0	CA	979529.46	979677.28	1.45	-57.13	-0.66	0.00	9.73	-46.60	-43.02
:BLM WHIP GW11	34 20.57	-114 17.05	780.0	CA	979561.66	979677.32	5.49	-26.60	-0.33	0.00	-42.29	-63.73	-62.36
:BLM WHIP HL29	34 20.68	-114 9.95	449.0	AZ	979577.00	979677.48	0.85	-15.31	-0.19	0.00	-58.24	-72.90	-71.96
:BLM WHIP GW75	34 20.70	-114 25.57	1630.0	CA	979531.05	979677.50	1.74	-55.59	-0.64	0.00	6.86	-47.63	-44.16
:BLM WHIP R07	34 20.72	-114 26.21	1613.0	CA	979532.42	979677.53	1.14	-55.01	-0.63	0.00	6.61	-47.90	-44.43
:BLM WHIP GW57	34 20.75	-114 20.70	1640.0	CA	979517.96	979677.57	4.43	-55.94	-0.64	0.00	-5.35	-57.50	-54.18
:BLM WHIP R01	34 20.80	-114 26.18	1729.0	CA	979524.60	979677.64	1.77	-58.97	-0.67	0.00	9.58	-48.29	-44.60
:X WHIP 136	34 20.81	-114 37.25	1409.0	CA	979523.64	979677.66	0.09	-48.06	-0.56	0.00	-21.48	-70.01	-66.92
:BLM WHIP BL1	34 20.88	-114 12.00	510.0	CA	979576.76	979677.76	1.27	-17.39	-0.22	0.00	-53.02	-69.37	-68.33
:BLM WHIP GW58	34 20.90	-114 21.17	1700.0	CA	979515.50	979677.78	4.87	-57.98	-0.66	0.00	-2.38	-56.16	-52.73
:BLM WHIP GW07	34 20.92	-114 14.87	970.0	CA	979549.57	979677.81	0.83	-33.08	-0.40	0.00	-37.00	-69.65	-67.57
:BLM WHIP W01	34 20.92	-114 18.88	1985.0	CA	979495.87	979677.81	3.20	-67.70	-0.76	0.00	4.76	-60.50	-56.34
:BLM WHIP B93	34 20.95	-114 24.27	1939.0	CA	979509.43	979677.85	2.56	-66.13	-0.74	0.00	13.95	-50.36	-46.27
:BLM WHIP GW10	34 20.95	-114 16.97	750.0	CA	979567.68	979677.85	2.38	-25.58	-0.32	0.00	-39.62	-63.14	-61.64
:BLM WHIP GW60	34 20.98	-114 24.02	1560.0	CA	979531.22	979677.90	3.48	-53.21	-0.62	0.00	0.06	-50.29	-47.08
:BLM WHIP R08	34 20.99	-114 26.36	1540.0	CA	979536.88	979677.91	0.98	-52.52	-0.61	0.00	3.83	-48.33	-45.01
:BLM WHIP HL18	34 21.12	-114 11.17	448.0	CA	979575.75	979678.09	0.71	-15.28	-0.19	0.00	-60.20	-74.96	-74.02
:BLM WHIP HL30	34 21.12	-114 10.38	449.0	AZ	979576.74	979678.09	0.75	-15.31	-0.19	0.00	-59.11	-73.87	-72.93
:BLM WHIP B94	34 21.14	-114 28.26	2065.0	CA	979495.00	979678.12	5.45	-70.43	-0.78	0.00	11.11	-54.66	-50.47
:BLM WHIP B88	34 21.16	-114 21.42	2531.0	CA	979463.64	979678.15	8.70	-86.32	-0.92	0.00	23.54	-55.00	-50.00
:BLM WHIP A100	34 21.17	-114 26.98	1492.0	CA	979529.78	979678.16	0.49	-50.89	-0.59	0.00	-8.04	-59.03	-55.79
:BLM WHIP GW73	34 21.19	-114 26.74	1510.0	CA	979537.86	979678.19	0.74	-51.50	-0.60	0.00	1.70	-49.66	-46.39



## Whipple Mountains Wilderness Study Area

station identification proj	latitude deg	longitude deg	alt min	ele (in ft)	observed	q r a v i t y	terrain	c o r r e c t i o n s	free air	a n o m a l i e s complete-bouguer d1=2.67 d2=2.50					
:NDL N430	34	21.19	-114	26.66	1644.0	CA	979529.35	979678.19	1.91	-56.07	-0.64	0.00	5.80	-49.01	-45.52
:BLM R09	34	21.23	-114	26.45	1497.0	CA	979539.81	979678.24	0.87	-51.06	-0.59	0.00	2.37	-48.41	-45.17
:BLM HL17	34	21.24	-114	11.95	448.0	CA	979579.46	979678.26	0.92	-15.28	-0.19	0.00	-56.66	-71.21	-70.28
:X 133	34	21.25	-114	33.61	1359.0	CA	979527.36	979678.27	0.13	-46.35	-0.55	0.00	-23.09	-69.85	-66.88
:BLM GW61	34	21.26	-114	23.87	1570.0	CA	979535.15	979678.29	2.51	-53.55	-0.62	0.00	4.54	-47.12	-43.83
:NDL M65	34	21.36	-114	16.80	732.0	CA	979569.80	979678.43	2.40	-24.97	-0.31	0.00	-39.78	-62.65	-61.19
:BLM GW09	34	21.37	-114	16.82	730.0	CA	979570.00	979678.45	1.72	-24.90	-0.31	0.00	-39.77	-63.26	-61.77
:BLM BL8	34	21.40	-114	15.83	755.0	CA	979565.10	979678.48	1.64	-25.75	-0.32	0.00	-42.36	-66.79	-65.24
:X 132	34	21.42	-114	32.53	1402.0	CA	979524.68	979678.52	0.17	-47.82	-0.56	0.00	-21.96	-70.17	-67.10
:BLM GW12	34	21.50	-114	17.33	880.0	CA	979562.10	979678.63	1.90	-30.01	-0.37	0.00	-33.75	-62.23	-60.41
:BLM GW62	34	21.52	-114	23.83	1430.0	CA	979545.96	979678.66	1.92	-48.77	-0.57	0.00	1.81	-45.61	-42.59
:BLM HL16	34	21.53	-114	12.77	448.0	CA	979580.96	979678.66	1.14	-15.28	-0.19	0.00	-55.56	-69.90	-68.98
:BLM R10	34	21.58	-114	26.58	1448.0	CA	979542.82	979678.73	0.60	-49.39	-0.58	0.00	0.28	-49.08	-45.94
:X 134	34	21.61	-114	35.46	1293.0	CA	979534.75	979678.78	0.06	-44.10	-0.52	0.00	-22.41	-66.97	-64.13
:BLM HL31	34	21.63	-114	11.54	448.0	AZ	979576.04	979678.80	0.69	-15.28	-0.19	0.00	-60.63	-75.41	-74.47
:BLM BL17	34	21.64	-114	16.74	655.0	CA	979573.40	979678.82	2.97	-22.34	-0.28	0.00	-43.81	-63.46	-62.21
:BLM B87	34	21.64	-114	21.53	1990.0	CA	979498.57	979678.82	5.40	-67.87	-0.76	0.00	6.92	-56.31	-52.28
:BLM GW63	34	21.70	-114	23.42	1355.0	CA	979546.50	979678.91	2.03	-46.21	-0.54	0.00	-4.95	-49.68	-46.83
:3277 66	34	21.70	-114	9.40	772.0	AZ	979563.82	979678.91	0.42	-26.33	-0.32	0.00	-42.47	-68.70	-67.03
:BLM BL9	34	21.72	-114	16.02	700.0	CA	979568.39	979678.93	4.53	-23.87	-0.30	0.00	-44.70	-64.34	-63.09
:BLM B92	34	21.73	-114	24.93	2083.0	CA	979502.17	979678.95	5.79	-71.04	-0.79	0.00	19.14	-46.90	-42.69
:BLM B90	34	21.74	-114	19.34	1806.0	CA	979508.33	979678.96	5.10	-61.60	-0.70	0.00	-0.77	-57.96	-54.32
:BLM HL15	34	21.79	-114	13.61	449.0	CA	979581.48	979679.03	1.58	-15.31	-0.19	0.00	-55.31	-69.24	-68.35
:BLM R11	34	21.81	-114	26.78	1386.0	CA	979547.29	979679.06	0.51	-47.27	-0.56	0.00	-1.40	-48.72	-45.71
:BLM B91	34	21.81	-114	20.17	1510.0	CA	979530.82	979679.06	1.43	-51.50	-0.60	0.00	-6.21	-56.88	-53.65
:X 334	34	21.89	-114	27.88	1410.0	CA	979544.63	979679.17	0.44	-48.09	-0.56	0.00	-1.91	-50.13	-47.06
:BLM BL16	34	21.90	-114	16.76	620.0	CA	979575.53	979679.19	3.61	-21.15	-0.26	0.00	-45.34	-63.13	-62.00
:BLM R12	34	22.03	-114	26.92	1369.0	CA	979548.51	979679.37	0.43	-46.69	-0.55	0.00	-2.09	-48.90	-45.92
:X 135	34	22.12	-114	36.75	1262.0	CA	979534.63	979679.49	0.05	-43.04	-0.51	0.00	-26.36	-69.86	-67.09
:BLM GW64	34	22.13	-114	23.95	1300.0	CA	979551.88	979679.51	1.30	-44.34	-0.52	0.00	-5.35	-48.91	-46.14
:NDL M66	34	22.15	-114	18.25	1084.0	CA	979552.52	979679.54	1.24	-36.97	-0.45	0.00	-25.05	-61.23	-58.92
:NDL M85	34	22.15	-114	31.35	1309.0	CA	979539.42	979679.54	0.17	-44.65	-0.53	0.00	-16.99	-61.99	-59.13
:BLM HL32	34	22.17	-114	12.29	449.0	AZ	979575.17	979679.56	0.73	-15.31	-0.19	0.00	-62.16	-76.94	-75.99
:BLM W17	34	22.18	-114	31.33	1308.0	CA	979539.59	979679.58	0.18	-44.61	-0.53	0.00	-16.95	-61.91	-59.05
:BLM GW13	34	22.20	-114	18.13	950.0	CA	979560.69	979679.61	1.74	-32.40	-0.39	0.00	-29.56	-60.61	-58.64
:BLM R13	34	22.27	-114	27.02	1318.0	CA	979551.10	979679.70	0.40	-44.95	-0.53	0.00	-4.63	-49.72	-46.85
:BLM GW69	34	22.28	-114	22.16	1120.0	CA	979555.99	979679.72	1.87	-38.20	-0.46	0.00	-18.37	-55.16	-52.82
:X 333	34	22.33	-114	27.68	1366.0	CA	979545.50	979679.79	0.41	-46.59	-0.55	0.00	-6.00	-52.73	-49.76
:BLM BL10	34	22.34	-114	15.97	615.0	CA	979573.05	979679.80	1.89	-20.98	-0.26	0.00	-48.91	-66.25	-65.15
:BLM HL35	34	22.37	-114	15.44	448.0	AZ	979578.59	979679.84	0.77	-15.28	-0.19	0.00	-59.11	-73.81	-72.88

station		location		elevation		gravity		terrain		corrections		free air		anomalies	
identification	station	latitude	longitude	min	deg	min	sec	theoretical	observed	terrain	curvature	special	air	complete	anomalies
proj	sta-id	deg	deg	deg	deg	deg	deg	ft	ft	ft	ft	ft	ft	ft	ft
WHIP	:BLMGW126	34	22.40	-114	30.38	1195.0	CA	979548.83	979679.89	0.42	-40.76	-0.49	0.00	-18.65	-59.48
WHIP	:BLM HL14	34	22.41	-114	14.14	448.0	CA	979583.00	979679.90	1.29	-15.28	-0.19	0.00	-54.76	-68.94
WHIP	:BLM GW76	34	22.42	-114	25.84	1230.0	CA	979556.34	979679.91	0.73	-41.95	-0.50	0.00	-7.88	-49.60
WHIP	:BLM BL11	34	22.44	-114	16.20	560.0	CA	979577.78	979679.95	3.87	-19.10	-0.24	0.00	-49.49	-64.96
WHIP	:BLM R14	34	22.49	-114	27.14	1273.0	CA	979552.85	979680.02	0.42	-43.42	-0.51	0.00	-7.42	-50.93
WHIP	:BLM BL15	34	22.51	-114	16.54	590.0	CA	979574.32	979680.10	6.33	-20.12	-0.25	0.00	-50.20	-64.24
WHIP	:BLM GW65	34	22.55	-114	24.75	1200.0	CA	979558.22	979680.10	0.81	-40.93	-0.49	0.00	-9.00	-49.61
WHIP	:NDL N67	34	22.55	-114	19.40	1319.0	CA	979542.00	979680.10	2.30	-44.99	-0.53	0.00	-14.03	-57.25
WHIP	:BLM R15	34	22.64	-114	27.37	1271.0	CA	979551.64	979680.23	0.28	-43.35	-0.51	0.00	-9.03	-52.62
WHIP	:BLM W16	34	22.70	-114	30.90	1233.0	CA	979544.91	979680.31	0.13	-42.05	-0.50	0.00	-19.42	-61.84
WHIP	:X 321	34	22.71	-114	30.87	1233.0	CA	979544.88	979680.32	0.16	-42.05	-0.50	0.00	-19.46	-61.85
WHIP	:BLM HL13	34	22.72	-114	15.12	449.0	CA	979583.82	979680.34	1.88	-15.31	-0.19	0.00	-54.28	-67.91
WHIP	:BLM BL12	34	22.76	-114	16.36	520.0	CA	979583.27	979680.39	1.71	-17.74	-0.22	0.00	-48.21	-64.45
WHIP	:BLMGW125	34	22.82	-114	25.93	1180.0	CA	979559.85	979680.48	0.42	-40.25	-0.48	0.00	-9.63	-49.94
WHIP	:BLM R16	34	22.82	-114	27.55	1295.0	CA	979548.83	979680.48	0.29	-44.17	-0.52	0.00	-9.84	-54.24
WHIP	:X 131	34	22.83	-114	31.97	1250.0	CA	979543.01	979680.49	0.12	-42.63	-0.51	0.00	-19.91	-62.93
WHIP	:BLM HL12	34	22.95	-114	14.97	449.0	CA	979582.54	979680.66	1.00	-15.31	-0.19	0.00	-55.89	-70.39
WHIP	:BLM R17	34	22.99	-114	27.71	1255.0	CA	979550.56	979680.72	0.21	-42.80	-0.51	0.00	-12.11	-55.21
WHIP	:BLM W13	34	23.00	-114	27.28	1236.0	CA	979552.37	979680.73	0.23	-42.16	-0.50	0.00	-12.10	-54.53
WHIP	:X 304	34	23.00	-114	36.72	1220.0	CA	979534.69	979680.73	0.73	-41.61	-0.50	0.00	-31.28	-73.36
WHIP	:X 305	34	23.00	-114	35.72	1197.0	CA	979534.34	979680.73	0.03	-40.83	-0.49	0.00	-33.79	-75.08
WHIP	:X 322	34	23.00	-114	30.46	1175.0	CA	979549.12	979680.73	0.15	-40.08	-0.48	0.00	-21.09	-61.49
WHIP	:5675 303	34	23.00	-114	37.78	1200.8	CA	979535.15	979680.73	-0.03	-40.96	-0.49	0.00	-32.63	-74.11
WHIP	:X 332	34	23.01	-114	27.30	1238.0	CA	979551.87	979680.74	0.35	-42.22	-0.50	0.00	-12.43	-54.81
WHIP	:BLM BL18	34	23.06	-114	19.68	859.0	CA	979571.74	979680.81	1.39	-29.30	-0.36	0.00	-28.27	-56.54
WHIP	:BLM HL34	34	23.11	-114	14.25	448.0	AZ	979581.02	979680.88	0.77	-15.28	-0.19	0.00	-57.72	-72.42
WHIP	:BLM W07	34	23.14	-114	20.78	903.0	CA	979569.77	979680.93	1.09	-30.80	-0.38	0.00	-26.21	-56.30
WHIP	:NDL N68	34	23.15	-114	20.75	903.0	CA	979569.89	979680.94	1.53	-30.80	-0.38	0.00	-26.11	-55.76
WHIP	:X 330	34	23.15	-114	23.26	1144.0	CA	979559.21	979680.94	0.64	-39.02	-0.47	0.00	-14.12	-52.97
WHIP	:BLM GW68	34	23.17	-114	23.02	1035.0	CA	979565.14	979680.97	0.89	-35.30	-0.43	0.00	-18.47	-53.31
WHIP	:BLM GW66	34	23.17	-114	24.47	1110.0	CA	979565.25	979680.97	0.54	-37.86	-0.45	0.00	-11.31	-49.08
WHIP	:BLM BL13	34	23.18	-114	16.52	490.0	CA	979585.34	979680.98	1.38	-16.71	-0.21	0.00	-49.55	-65.09
WHIP	:BLMGW118	34	23.18	-114	29.12	1155.0	CA	979556.65	979680.98	0.15	-39.39	-0.47	0.00	-15.69	-55.41
WHIP	:BLM HL11	34	23.22	-114	15.37	449.0	CA	979583.14	979681.04	1.38	-15.31	-0.19	0.00	-55.66	-69.79
WHIP	:BLM R18	34	23.23	-114	27.76	1244.0	CA	979550.88	979681.05	0.20	-42.43	-0.50	0.00	-13.16	-55.89
WHIP	:BLM BL14	34	23.51	-114	16.58	470.0	CA	979586.09	979681.45	0.89	-16.03	-0.20	0.00	-51.14	-66.48
WHIP	:BLM R19	34	23.52	-114	27.98	1199.0	CA	979554.43	979681.46	0.15	-40.89	-0.49	0.00	-14.25	-55.48
WHIP	:BLM R20	34	23.70	-114	28.01	1175.0	CA	979554.24	979681.71	0.14	-40.08	-0.48	0.00	-16.95	-57.36
WHIP	:BLMGW119	34	23.70	-114	26.00	1060.0	CA	979564.07	979681.71	0.26	-36.15	-0.44	0.00	-17.93	-54.26
WHIP	:BLM HL15	34	23.70	-114	15.19	452.0	AZ	979583.21	979681.71	0.83	-15.42	-0.19	0.00	-55.99	-70.77

Whipple Mountains Wilderness Study Area

station identification proj	latitude deg	lon min	alt deg	lon min	ele (in ft)	observed	theoretical	terrain	bouguer	curv	special	free air	anomalies complete-bouguer d1=2.67 d2=2.50		
:BLMGW117	34	23.74	-114	29.15	1075.0	CA	979559.15	979681.77	0.15	-36.67	-0.44	0.00	-21.50	-58.46	-56.11
:BLM HL10	34	23.89	-114	15.79	448.0	CA	979583.64	979681.98	0.75	-15.28	-0.19	0.00	-56.20	-70.92	-69.98
:BLMGW120	34	23.92	-114	27.23	1115.0	CA	979558.11	979682.02	0.15	-38.03	-0.46	0.00	-19.03	-57.37	-54.93
:BLM R21	34	23.93	-114	28.11	1122.0	CA	979556.96	979682.04	0.10	-38.27	-0.46	0.00	-19.54	-58.16	-55.70
:X 329	34	23.93	-114	24.14	969.0	CA	979569.53	979682.04	0.40	-33.05	-0.40	0.00	-21.36	-54.41	-52.30
:BLM HL9	34	24.01	-114	16.60	448.0	CA	979585.57	979682.15	0.68	-15.28	-0.19	0.00	-54.44	-69.23	-68.29
:BLM HL8	34	24.02	-114	17.52	448.0	CA	979587.96	979682.16	0.83	-15.28	-0.19	0.00	-52.06	-66.70	-65.77
:BLM WR	34	24.02	-114	22.31	966.0	CA	979566.89	979682.16	0.37	-32.95	-0.40	0.00	-24.40	-57.38	-55.28
:NDL N69	34	24.05	-114	22.35	965.0	CA	979567.36	979682.20	0.61	-32.91	-0.40	0.00	-24.07	-56.78	-54.69
:NDL N86	34	24.06	-114	29.90	1058.0	CA	979557.03	979682.22	0.13	-36.09	-0.44	0.00	-25.67	-62.06	-59.74
:BLM W15	34	24.08	-114	29.87	1055.0	CA	979557.14	979682.25	0.04	-35.98	-0.43	0.00	-25.87	-62.25	-59.93
:X 323	34	24.08	-114	29.88	1056.0	CA	979557.08	979682.25	0.11	-36.02	-0.43	0.00	-25.84	-62.18	-59.86
:BLM R22	34	24.17	-114	28.12	1091.0	CA	979558.53	979682.38	0.08	-37.21	-0.45	0.00	-21.22	-58.80	-56.41
:BLMGW116	34	24.32	-114	28.99	1020.0	CA	979561.22	979682.59	0.06	-34.79	-0.42	0.00	-25.42	-60.57	-58.33
:BLMGW122	34	24.33	-114	24.50	920.0	CA	979571.19	979682.59	0.23	-31.38	-0.38	0.00	-24.87	-56.40	-54.39
:BLM HL36	34	24.33	-114	16.71	450.0	AZ	979586.89	979682.59	0.68	-15.35	-0.19	0.00	-53.38	-68.24	-67.29
:BLMGW121	34	24.34	-114	24.81	915.0	CA	979571.56	979682.61	0.23	-31.21	-0.38	0.00	-24.98	-56.34	-54.34
:X 331	34	24.34	-114	26.20	1002.0	CA	979566.95	979682.61	0.24	-34.18	-0.41	0.00	-21.41	-55.76	-53.57
:BLM GW12	34	24.35	-114	26.21	1002.0	CA	979567.16	979682.63	0.15	-34.18	-0.41	0.00	-21.21	-55.65	-53.46
:BLM R23	34	24.41	-114	28.15	1053.0	CA	979560.73	979682.71	0.07	-35.91	-0.43	0.00	-22.93	-59.21	-56.90
:X 328	34	24.51	-114	23.19	914.0	CA	979572.76	979682.85	0.36	-31.17	-0.38	0.00	-24.12	-55.31	-53.32
:BLM GW67	34	24.56	-114	23.86	830.0	CA	979579.01	979682.92	0.53	-28.31	-0.35	0.00	-25.84	-53.97	-52.18
:BLM R24	34	24.62	-114	28.47	1027.0	CA	979561.67	979683.01	0.05	-35.03	-0.42	0.00	-24.73	-60.13	-57.88
:3683 48	34	24.70	-114	7.25	2498.0	AZ	979461.17	979683.12	7.15	-85.20	-0.91	0.00	13.00	-65.96	-60.93
:BLM HL7	34	24.74	-114	17.63	448.0	CA	979587.31	979683.17	0.61	-15.28	-0.19	0.00	-53.72	-68.58	-67.64
:BLMGW115	34	24.75	-114	28.80	1000.0	CA	979564.87	979683.19	0.02	-34.11	-0.41	0.00	-24.26	-58.76	-56.56
:BLMGW114	34	24.86	-114	28.25	995.0	CA	979566.13	979683.34	0.03	-33.94	-0.41	0.00	-23.61	-57.93	-55.75
:BLM R25	34	24.89	-114	28.61	1002.0	CA	979563.10	979683.38	0.03	-34.17	-0.41	0.00	-26.03	-60.59	-58.39
:BLM W09	34	24.95	-114	23.81	836.0	CA	979577.56	979683.47	0.22	-28.51	-0.35	0.00	-27.27	-55.91	-54.09
:X 130	34	25.00	-114	32.48	1031.0	CA	979557.35	979683.54	0.07	-35.16	-0.43	0.00	-29.21	-64.73	-62.46
:BLM R26	34	25.15	-114	28.81	972.0	CA	979564.90	979683.75	0.02	-33.15	-0.40	0.00	-27.42	-60.96	-58.82
:X 327	34	25.15	-114	24.60	812.0	CA	979577.59	979683.75	0.25	-27.87	-0.34	0.00	-29.30	-57.26	-55.48
:X 335	34	25.29	-114	27.49	927.0	CA	979571.28	979683.95	0.13	-31.62	-0.39	0.00	-25.47	-57.34	-55.31
:BLM HL6	34	25.37	-114	18.01	449.0	CA	979588.28	979684.05	0.74	-15.31	-0.19	0.00	-53.54	-68.31	-67.37
:BLM R30	34	25.37	-114	28.99	905.0	CA	979569.74	979684.05	0.05	-30.87	-0.38	0.00	-29.19	-60.38	-58.40
:BLMGW124	34	25.43	-114	25.35	814.0	CA	979578.38	979684.14	0.12	-27.76	-0.34	0.00	-29.19	-57.17	-55.39
:BLM R27	34	25.45	-114	25.36	814.0	CA	979578.22	979684.17	0.12	-27.76	-0.34	0.00	-29.38	-57.37	-55.59
:NDL N71	34	25.45	-114	25.35	814.0	CA	979578.18	979684.17	0.22	-27.76	-0.34	0.00	-29.42	-57.31	-55.53
:BLM M51	34	25.50	-114	17.12	1080.0	AZ	979546.25	979684.24	0.59	-36.84	-0.44	0.00	-36.40	-73.09	-70.76
:BLM R31	34	25.54	-114	29.06	895.0	CA	979571.03	979684.30	0.03	-30.53	-0.37	0.00	-29.08	-59.95	-57.98

Whipple Mountains Wilderness Study Area

station identification proj	lat deg	lon deg	alt m	ele (in ft)	st	iravlt y	terrain	curv	special	free air	anomalies complete-bouguer d1=2.67 d2=2.50					
WHIP :3683	47	34	25.55	-114	9.95	1441.9	AZ	979524.62	979684.31	0.59	-49.18	-0.58	0.00	-24.06	-73.23	-70.10
WHIP :X	129	34	25.59	-114	32.56	956.0	CA	979564.87	979684.37	0.76	-32.61	-0.40	0.00	-29.57	-62.52	-60.42
WHIP :BLM	HL4	34	25.62	-114	19.42	448.0	CA	979590.35	979684.41	0.58	-15.28	-0.19	0.00	-51.92	-66.81	-65.86
WHIP :NDLNC136		34	25.65	-114	32.65	955.0	CA	979565.41	979684.45	0.13	-32.57	-0.40	0.00	-29.21	-62.05	-59.95
WHIP :BLM	R29	34	25.76	-114	28.97	875.0	CA	979573.52	979684.61	0.03	-29.84	-0.37	0.00	-28.78	-58.95	-57.03
WHIP :BLM	HL5	34	25.77	-114	18.65	450.0	CA	979589.63	979684.62	0.71	-15.35	-0.19	0.00	-52.66	-67.49	-66.54
WHIP :BLM	R32	34	25.78	-114	29.14	875.0	CA	979572.96	979684.63	0.03	-29.84	-0.37	0.00	-29.37	-59.55	-57.62
WHIP :X	317	34	25.78	-114	28.95	876.0	CA	979573.83	979684.63	0.11	-29.88	-0.37	0.00	-28.41	-58.54	-56.62
WHIP :X	326	34	25.80	-114	26.27	822.0	CA	979578.88	979684.66	0.16	-28.04	-0.34	0.00	-28.46	-56.68	-54.88
WHIP :X	336	34	25.89	-114	28.44	856.0	CA	979577.67	979684.79	0.12	-29.20	-0.36	0.00	-26.60	-56.03	-54.16
WHIP :X	128	34	25.96	-114	32.76	974.0	CA	979563.61	979684.89	0.05	-33.22	-0.40	0.00	-29.66	-63.23	-61.10
WHIP :BLM	R33	34	26.02	-114	29.31	856.0	CA	979574.31	979684.97	0.03	-29.19	-0.36	0.00	-30.14	-59.66	-57.78
WHIP :X	127	34	26.03	-114	34.18	1034.0	CA	979559.15	979684.98	0.03	-35.27	-0.43	0.00	-28.58	-64.24	-61.97
WHIP :BLM	HL3	34	26.12	-114	20.27	449.0	CA	979590.67	979685.11	0.45	-15.31	-0.19	0.00	-52.20	-67.26	-66.30
WHIP :BLM	W11	34	26.12	-114	27.10	851.0	CA	979578.56	979685.11	0.04	-29.02	-0.36	0.00	-26.50	-55.84	-53.97
WHIP :BLM	R28	34	26.14	-114	27.10	854.0	CA	979577.98	979685.14	0.05	-29.13	-0.36	0.00	-26.83	-56.26	-54.39
WHIP :BLM	W10	34	26.21	-114	27.83	840.0	CA	979580.91	979685.23	0.02	-28.65	-0.35	0.00	-25.31	-54.29	-52.45
WHIP :BLM	R34	34	26.24	-114	29.49	835.0	CA	979575.64	979685.28	0.05	-28.48	-0.35	0.00	-31.10	-59.88	-58.04
WHIP :X	337	34	26.38	-114	28.84	810.0	CA	979581.32	979685.48	0.13	-27.63	-0.34	0.00	-27.96	-55.80	-54.03
WHIP :BLM	R35	34	26.46	-114	29.66	812.0	CA	979576.69	979685.59	0.15	-27.69	-0.34	0.00	-32.52	-60.41	-58.63
WHIP :X	297	34	26.49	-114	35.69	1122.0	CA	979548.45	979685.63	0.02	-38.27	-0.46	0.00	-31.64	-70.35	-67.88
WHIP :BLM	W10	34	26.63	-114	28.67	765.0	CA	979584.67	979685.83	0.13	-26.09	-0.32	0.00	-29.20	-55.48	-53.81
WHIP :X	325	34	26.63	-114	27.96	802.0	CA	979584.51	979685.83	0.12	-27.35	-0.34	0.00	-25.88	-53.45	-51.70
WHIP :BLM	R36	34	26.64	-114	29.77	827.0	CA	979575.39	979685.84	0.15	-28.21	-0.35	0.00	-32.66	-61.06	-59.26
WHIP :X	316	34	26.68	-114	28.68	765.0	CA	979584.64	979685.90	0.18	-26.09	-0.32	0.00	-29.30	-55.53	-53.86
WHIP :BLM	R37	34	26.73	-114	29.83	850.0	CA	979575.49	979685.97	0.09	-28.99	-0.36	0.00	-32.52	-61.78	-59.91
WHIP :BLM	M32	34	26.76	-114	11.76	1395.0	AZ	979526.22	979686.01	0.57	-47.58	-0.56	0.00	-28.58	-76.14	-73.12
WHIP :BLM	HL2	34	26.80	-114	20.21	449.0	CA	979587.67	979686.07	0.34	-15.31	-0.19	0.00	-56.16	-71.33	-70.36
WHIP :NDL	N72	34	26.90	-114	28.45	754.0	CA	979586.39	979686.21	0.17	-25.72	-0.32	0.00	-28.89	-54.76	-53.11
WHIP :BLM	R38	34	26.98	-114	29.97	884.0	CA	979570.19	979686.32	0.05	-30.15	-0.37	0.00	-32.98	-63.45	-61.51
WHIP :3683	61	34	27.02	-114	16.12	892.1	AZ	979558.13	979686.38	0.45	-30.43	-0.37	0.00	-44.33	-74.68	-72.75
WHIP :3035	24	34	27.10	-114	22.19	490.2	AZ	979589.77	979686.49	0.26	-16.72	-0.21	0.00	-50.61	-67.28	-66.21
WHIP :BLM	R39	34	27.23	-114	30.15	912.0	CA	979567.74	979686.67	0.07	-31.10	-0.38	0.00	-33.14	-64.56	-62.56
WHIP :BLM	HL1	34	27.31	-114	20.80	449.0	AZ	979586.79	979686.78	0.29	-15.31	-0.19	0.00	-57.76	-72.98	-72.01
WHIP :X	298	34	27.38	-114	35.70	1218.0	CA	979547.33	979686.88	0.03	-41.54	-0.49	0.00	-24.99	-66.99	-64.32
WHIP :X	309	34	27.38	-114	33.59	1157.0	CA	979552.69	979686.88	0.07	-39.46	-0.47	0.00	-25.37	-65.23	-62.69
WHIP :X	315	34	27.38	-114	29.29	864.0	CA	979574.97	979686.88	0.11	-29.47	-0.36	0.00	-30.64	-60.36	-58.47
WHIP :BLM	R40	34	27.45	-114	30.26	938.0	CA	979565.94	979686.98	0.05	-31.99	-0.39	0.00	-32.81	-65.14	-63.08
WHIP :BLM	R41	34	27.70	-114	30.41	973.0	CA	979563.42	979687.33	0.02	-33.99	-0.40	0.00	-32.39	-65.95	-63.82
WHIP :BLM	M34	34	27.72	-114	10.26	1645.0	AZ	979516.95	979687.36	0.80	-56.11	-0.65	0.00	-15.68	-71.63	-68.07

Whipple Mountains Wilderness Study Area

station proj	identification sta-id	latitude deg	longitude deg	altitude m	ele (in ft)	observed	theoretical	terrain	bouguer	curv	special	free air	anomalies complete-bouguer d1=2.67 d2=2.50		
WHIP	:X	314	34 27.91	-114 30.20	977.0	CA	979564.00	979687.63	0.11	-33.32	-0.40	0.00	-31.73	-65.34	-63.20
WHIP	:X	324	34 27.95	-114 31.25	1049.0	CA	979557.74	979687.68	0.09	-35.78	-0.43	0.00	-31.27	-67.39	-65.09
WHIP	:BLM	R42	34 27.96	-114 30.56	1003.0	CA	979561.36	979687.70	0.04	-34.21	-0.41	0.00	-31.99	-66.58	-64.37
WHIP	:BLM	M33	34 28.08	-114 9.42	1715.0	AZ	979517.03	979687.87	0.98	-58.49	-0.67	0.00	-9.52	-67.71	-64.00
WHIP	:3683	57	34 28.12	-114 20.24	519.0	AZ	979582.94	979687.92	0.33	-17.70	-0.27	0.00	-56.16	-73.76	-72.64
WHIP	:3683	46	34 28.16	-114 7.20	2021.0	AZ	979490.39	979687.98	0.75	-68.93	-0.77	0.00	-7.50	-76.45	-72.06
WHIP	:NDLNC135	34	28.19	-114 26.50	675.0	CA	979591.02	979688.02	0.33	-23.02	-0.29	0.00	-33.50	-56.48	-55.02
WHIP	:BLM	HLR6	34 28.22	-114 26.78	750.0	CA	979588.57	979688.06	0.11	-25.58	-0.32	0.00	-28.94	-54.73	-53.09
WHIP	:X	299	34 28.23	-114 35.70	1313.0	CA	979545.02	979688.08	0.06	-44.78	-0.53	0.00	-19.55	-64.80	-61.92
WHIP	:X	300	34 28.23	-114 36.72	1317.0	CA	979542.76	979688.08	0.04	-44.92	-0.53	0.00	-21.44	-66.85	-63.96
WHIP	:5675	301	34 28.23	-114 37.80	1307.7	CA	979541.31	979688.08	-0.01	-44.60	-0.53	0.00	-23.76	-68.90	-66.02
WHIP	:BLM	HLR4	34 28.25	-114 28.88	920.0	CA	979573.13	979688.10	0.35	-31.38	-0.38	0.00	-28.43	-60.15	-58.13
WHIP	:BLM	HLR5	34 28.25	-114 27.82	830.0	CA	979581.66	979688.10	0.06	-28.31	-0.35	0.00	-28.37	-56.96	-55.14
WHIP	:BLM	R43	34 28.25	-114 30.77	1054.0	CA	979559.27	979688.10	0.06	-35.95	-0.43	0.00	-29.69	-66.01	-63.70
WHIP	:X	308	34 28.25	-114 33.59	1255.0	CA	979548.91	979688.10	0.11	-42.80	-0.51	0.00	-21.14	-64.35	-61.60
WHIP	:BLM	M52B	34 28.26	-114 11.88	1720.0	AZ	979508.90	979688.12	1.09	-58.66	-0.67	0.00	-17.44	-75.68	-71.97
WHIP	:BLM	HLR3	34 28.27	-114 29.93	1000.0	CA	979564.99	979688.13	0.34	-34.11	-0.41	0.00	-29.08	-63.56	-61.36
WHIP	:BLM	HLR7	34 28.29	-114 25.78	630.0	CA	979594.95	979688.16	0.09	-21.49	-0.27	0.00	-33.95	-55.61	-54.23
WHIP	:BLM	HLR2	34 28.32	-114 30.98	1090.0	CA	979557.78	979688.20	0.07	-37.18	-0.45	0.00	-27.89	-65.45	-63.06
WHIP	:X	313	34 28.35	-114 31.16	1109.0	CA	979556.36	979688.24	0.15	-37.82	-0.45	0.00	-27.57	-65.70	-63.27
WHIP	:NDL	N43	34 28.40	-114 32.30	1200.0	CA	979552.62	979688.31	0.15	-40.93	-0.49	0.00	-22.82	-64.09	-61.46
WHIP	:BLM	R44	34 28.41	-114 30.85	1077.0	CA	979558.51	979688.33	0.37	-36.73	-0.44	0.00	-28.52	-65.62	-63.26
WHIP	:BLM	HLR1	34 28.42	-114 32.15	1180.0	CA	979552.75	979688.34	0.06	-40.25	-0.48	0.00	-24.60	-65.27	-62.68
WHIP	:3683	60	34 28.49	-114 17.45	918.0	AZ	979558.24	979688.45	0.49	-31.31	-0.38	0.00	-43.85	-73.05	-73.07
WHIP	:BLM	HLR8	34 28.51	-114 25.00	580.0	CA	979590.35	979688.47	0.10	-19.78	-0.25	0.00	-43.56	-63.49	-62.22
WHIP	:BLM	SILB	34 28.51	-114 20.44	575.0	AZ	979581.24	979688.47	0.33	-19.61	-0.25	0.00	-53.14	-72.67	-71.42
WHIP	:BLM	M31	34 28.62	-114 8.34	1875.0	AZ	979505.26	979688.63	0.71	-63.95	-0.72	0.00	-7.01	-70.97	-66.90
WHIP	:BLM	M32	34 28.68	-114 8.88	1880.0	AZ	979506.25	979688.71	0.79	-64.12	-0.72	0.00	-5.63	-69.69	-65.61
WHIP	:BLM	R45	34 28.69	-114 31.02	1117.0	CA	979557.99	979688.73	0.10	-38.10	-0.46	0.00	-25.66	-64.12	-61.67
WHIP	:BLM	HLR9	34 28.72	-114 24.48	525.0	CA	979591.49	979688.77	0.16	-17.91	-0.23	0.00	-47.89	-65.86	-64.71
WHIP	:NDLNC134	34	28.75	-114 24.16	509.0	CA	979589.25	979688.80	1.81	-17.36	-0.22	0.00	-51.68	-67.45	-66.44
WHIP	:BLM	R46	34 28.89	-114 31.15	1141.0	CA	979558.38	979689.01	0.14	-38.92	-0.47	0.00	-23.30	-62.54	-60.04
WHIP	:3683	45	34 28.90	-114 11.84	2044.0	AZ	979491.75	979689.02	1.43	-69.71	-0.77	0.00	-5.02	-74.08	-69.68
WHIP	:X	312	34 28.92	-114 32.08	1227.0	CA	979552.75	979689.05	0.19	-41.85	-0.50	0.00	-20.88	-63.04	-60.36
WHIP	:BLM	M41	34 28.98	-114 12.66	1790.0	AZ	979512.36	979689.13	1.25	-61.05	-0.69	0.00	-8.41	-68.90	-65.05
WHIP	:BLM	R59	34 29.03	-114 31.27	1163.0	CA	979558.46	979689.20	0.16	-39.67	-0.47	0.00	-21.33	-61.33	-58.78
WHIP	:X	311	34 29.21	-114 33.69	1367.0	CA	979546.70	979689.45	0.18	-46.62	-0.55	0.00	-14.17	-61.16	-58.17
WHIP	:BLM	R58	34 29.25	-114 31.37	1200.0	CA	979558.60	979689.51	0.30	-40.93	-0.49	0.00	-18.03	-59.15	-56.53
WHIP	:BLM	C79	34 29.30	-114 31.26	1272.0	CA	979555.25	979689.58	0.24	-43.38	-0.51	0.00	-14.69	-58.34	-55.56
WHIP	:BLM	C77	34 29.45	-114 30.18	1127.0	CA	979563.78	979689.79	0.17	-38.44	-0.46	0.00	-20.00	-58.73	-56.27

## Whipple Mountains Wilderness Study Area

station identification proj sta-id	latitude deg min	longitude deg min	ele ft	observed	theoretical	terrain	corrections bouguer curv special	free air	anomalies complete-bouguer d1=2.67 d2=2.50
WHIP :BLM R57	34 29.49	-114 31.51	1244.0	CA	97958.68	979689.85	0.40 -42.43 -0.50	0.00 -14.16	-56.69 -53.98
WHIP :BLM M40	34 29.58	-114 11.70	2120.0	AZ	979492.41	979689.98	1.70 -72.31 -0.80	0.00 1.84	-69.57 -65.02
WHIP :BLM C80	34 29.64	-114 32.21	1325.0	CA	979555.17	979690.06	0.32 -45.19 -0.53	0.00 -10.26	-55.66 -52.77
WHIP :X 310	34 29.64	-114 34.65	1481.0	CA	979542.70	979690.06	0.24 -50.51 -0.59	0.00 -8.05	-58.91 -55.68
WHIP :BLM M35	34 29.70	-114 10.56	2155.0	AZ	979490.64	979690.14	1.84 -73.50 -0.81	0.00 3.19	-69.28 -64.67
WHIP :BLM M42	34 29.70	-114 12.78	1990.0	AZ	979502.84	979690.14	1.91 -67.87 -0.76	0.00 -0.13	-66.85 -62.60
WHIP :BLM R56	34 29.73	-114 31.63	1291.0	CA	979557.52	979690.19	0.48 -44.03 -0.52	0.00 -11.23	-55.30 -52.50
WHIP :BLM M30	34 29.88	-114 7.80	2200.0	AZ	979484.45	979690.40	1.04 -75.04 -0.82	0.00 0.98	-73.84 -69.08
WHIP :BLM C78	34 29.90	-114 30.18	1307.0	CA	979557.39	979690.42	0.93 -44.58 -0.53	0.00 -10.10	-54.27 -51.46
WHIP :NDL N429	34 29.91	-114 33.92	1480.0	CA	979546.07	979690.44	0.30 -50.48 -0.59	0.00 -5.16	-55.93 -52.69
WHIP :BLM C81	34 29.94	-114 32.80	1507.0	CA	979544.00	979690.48	0.64 -51.40 -0.60	0.00 -4.73	-56.09 -52.82
WHIP :BLM R55	34 29.99	-114 31.80	1351.0	CA	979556.64	979690.55	0.33 -46.08 -0.54	0.00 -6.84	-53.13 -50.18
WHIP :BLM M29	34 30.00	-114 5.34	2155.0	AZ	979477.81	979690.56	0.60 -73.50 -0.81	0.00 -10.06	-83.77 -79.08