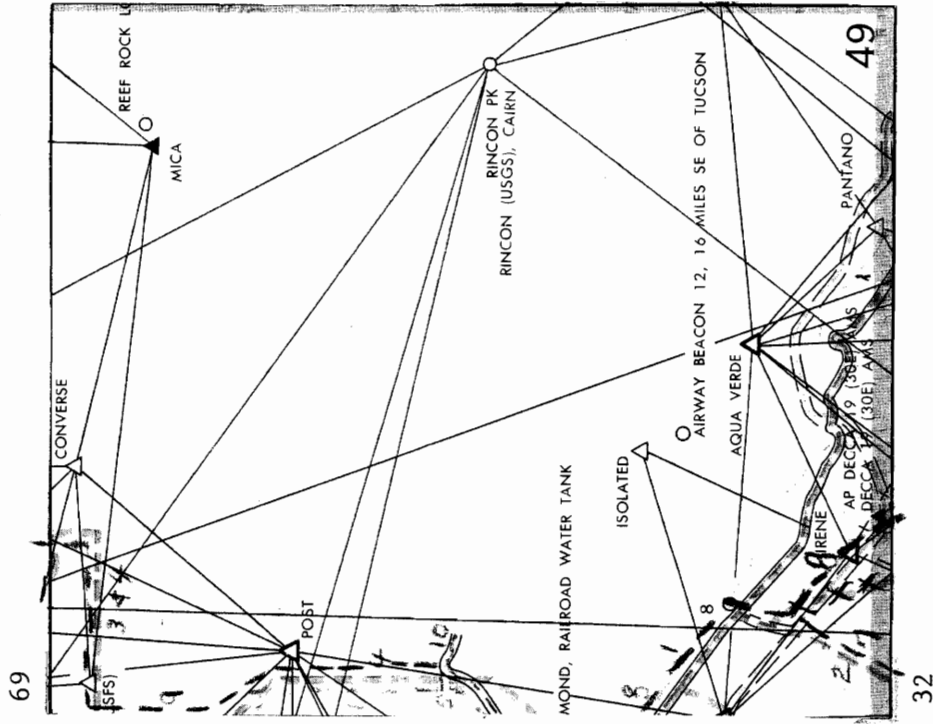


(1)	M. S. Bright	1903	A 5124
(2)	"	"	"
(3)	"	"	"
(4)	E. E. Harris	1946	4233
(5)	D. O. Richardson	1975	PV 938
(6)	D.O. Richardson	1975	PV 938
(7)	M.D. Cummins	1976	PV 982
(8)	M.D. Cummins	1976	PV 982
(9)	M.D. Cummins	1976	PV 982
(10)	G.N. Krueger	1980	PV 1060



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

THIRD-ORDER LEVELING
Sea Level Datum of 1929

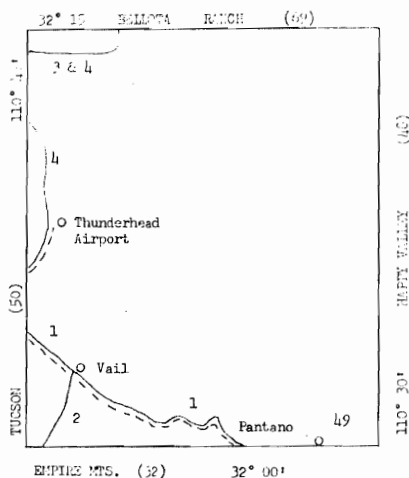
RINCON VALLEY QUADRANGLE
ARIZONA 49
N3200-W11030/15

Pima County

Edition of 5/5/67

Only the standard tablets
are listed for lines run
more than 2 1/2 years before
the edition date.

USGS _____
C&GS - - - - -
C&GS LIST: 32 110 3



(2) FROM VAIL SOUTHWEST ALONG ROAD INTO EMPIRE MTS. QUADRANGLE (32)
(by M.S. Bright, 1905; Book A 5124)

Vail, 185 ft. NE. of E. corner of S.P. RR. station; standard iron post with bronze cap stamped "3220 NOGLS" (Described in Line 1) 3232.667

Vail, 2.8 mi. S. of; crossing of Andrade-Tucson and Vail-Helvetia Rds.; SW. side; standard iron post with bronze cap stamped "3290 NOGLS" (Reported disturbed, 1957) (pipe is bent about 1 ft. lower than the original elevation) 3302.810

(3) FROM TUCSON QUADRANGLE (50) NORTHEAST VIA TANQUE VERDE (OLD SITE) TO M. MARTINEZ RANCH HOUSE THENCE NORTHEAST INTO BELLOTA RANCH QUADRANGLE (69) (by M.S. Bright, 1905; Book A 5124)

Tanque Verde (old site), 1 mi. S. thence 1.1 mi. E. from; 530 ft. N. of rd. (speedway); 430 ft. E. of gate to Saguaro National Park; standard iron post with bronze cap stamped "2649 NOGLS" 2661.104

M. Martinez Ranch house, 305 ft. W. of; sec. 3, T. 14 S., R. 16 E.; 15 ft. NE. of intersection; 10 ft. S. of green tree; in granite outcrop; aluminum tablet stamped "2711 NOGLS" (Reported destroyed, 1957) 2722.911

(4) FROM TUCSON QUADRANGLE (50) NORTHEAST AND NORTHWEST ALONG ROAD JOGGING IN AND OUT OF TUCSON QUADRANGLE (50) TO A POINT 1 MILE SOUTH OF TANQUE VERDE (by E.S. Harris, 1946; Book V 233)

Vail, 5.2 mi. NW. along S.P. RR.; thence 0.2 mi. N. to a power-transmission line, thence 1.3 mi. NE. along rd.; thence 2.8 mi. NE. along track rd. from; 2.7 mi. NE. along a dim rd. from Esmond; 0.2 mi. SW. of SW. bank of Pantano Wash; 50 ft. E. of intersection of rd. leading NW.; 26 ft. SE. of center of rd. at gate; 2 ft. SW. of fence; in concrete post; standard tablet stamped "1946 H5 2898" (Recovered by USC&GS, 1952) 2898.163

Reference mark, 110 ft. W. of tablet; in base on S. side of mesquite tree; copper nail and washer 2901.67

Esmond, 3.5 mi. NE. of along a dim rd.; 3.3 mi. S. of Saguaro National Park Office; in the NW. corner of T-rd. N.; 50 ft. SW. of a cattleguard; 12 ft. SE. of corner fencepost; in root on NE. side of leaning mesquite tree; copper nail and washer Not found '76 2882.37

Saguaro National Park Office, 2 mi. S. of; 600 ft. N. of intersection of rd. W. to Arrow H Ranch; 32 ft. W. of center of rd. at top of grade; in concrete post; standard tablet stamped "1946 H6 2948" New Desc. '76 2947.917

Reference mark, 150 ft. SE. of tablet; in base on N. side of palo verde tree; copper nail and washer 2940.21

Saguaro National Park Office, 0.9 mi. S. of; on W. edge of angle in rd. at top of grade; 230 ft. N. of cattleguard; in base of leaning palo verde tree; copper nail and washer S.F.N.F. '76 3033.18

Saguaro National Park Office, 500 ft. N. of; at angle in main-traveled rd.; 23 ft. E. and 35 ft. N. of center of T-rd. W.; 1 ft. W. of the fence line; in concrete post; standard tablet stamped "1946 H7 3062" Not found '76 3061.816

Reference mark No. 1, 30 ft. S. of tablet; in N. headwall of abandoned cattleguard; U.S. Department of Agriculture Forest Service tablet stamped "3062.26 1937" 3061.182

Reference mark No. 2, 105 ft. SW. of tablet; in SW. corner of angle in rd.; in root of palo verde tree; copper nail and washer 3098.64

Saguaro National Park Office, 1 mi. NW. of along rd. to Tanque Verde; in NE. corner of junction of dim rd. W.; at prominent angle in main-traveled rd.; in base on E. side of small palo verde tree; copper nail and washer Not found '76 3026.04

LINE JOGS INTO TUCSON QUADRANGLE (50)

Tanque Verde (old site), 1 mi. S. thence 1 mi. E. from; at entrance to Saguaro National Park, (locked gate); 18 ft. SE. of rd.; 13 ft. SW. of park rd.; in concrete post; U.S. Department of Agriculture Forest Service standard tablet stamped "SAGUARO 1933 2679.69 NO 2" Not found '76 2678.810

Reference mark, 75 ft. E. of station tablet; in concrete post; USC&GS standard disk stamped "SAGUARO 1936 NO 2 FS NO 1" 2675.403

Tanque Verde (old site), 1 mi. S. thence 1.1 mi. E. from; standard iron post with bronze cap stamped "2649 NOGLS" (Described in Line 3) 2661.104

Index to Permanent Marks

Mark	Line No.
H5	4
H6	4
H7	4
199 H	1
1933 2679.69 NO 2 (USFS)	4
2649 NOGLS	3, 4
2711 NOGLS (Reported Destroyed)	3
3096 NOGLS (Destroyed)	1
3220 NOGLS	1, 2
3226	1
3290 NOGLS	2
3288 (Destroyed)	1

(1) FROM TUCSON QUADRANGLE (50) SOUTHEAST ALONG SOUTHERN PACIFIC VIA VAIL AND IRENE INTO EMPIRE MTS. QUADRANGLE (32) (by M.S. Bright, 1903; Book A 5124)

Vail, 2.8 mi. W. of; bronze cap stamped "3096 NOGLS" (Destroyed) 3108.672

Vail, 185 ft. NE. of E. corner of S.P. RR. Station; on the inside of a curve on Vail School Rd.; 195 ft. N. of RR. crossing; 56 ft. SW. of SE. gatepost of rd.; 26 ft. SE. of center of rd.; standard iron post with bronze cap stamped "3220 NOGLS" (C&GS Tie) 3232.667

Irene siding, 3.2 mi. W. of; 6 ft. N. of RR.; in N. end of concrete culvert 1004 A; aluminum tablet stamped "3226 1907 206" (Not Found, 1957) 3238.406

Irene siding, 0.5 mi. W. of; aluminum tablet stamped "3328 1907 203" (Destroyed) 3340.024

Pantano, 1 mi. NW. of water tank along S.P. RR.; 225 ft. W. of block signal 10116; 23 ft. SW. of SW. rail; at large culvert 1011.56; in SW. concrete headwall; aluminum tablet stamped "199 H 1907" (C&GS Tie) 3490.193

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RINCON VALLEY (49)

Arizona

32 110 32

D.O. Richardson, 1975

First Order Adjusted Elevations Based on National
Geodetic Vertical Datum of 1929

Book: PV 938 Holding 1962 Suppl. Adj. at BM B315 and BM R19
Latitude 32°00' Longitude 110°30'

(5) FROM THUNDERHEAD AIRPORT SOUTHERLY INTO THE EAST SIDE OF TUCSON QUAD-
RANGLE (50) (By D.O. Richardson, 1975; Book: PV 938)

BM "B 315 1952" (NGS Quad 32 110 3, line 101) 2895.765·

BM "A 315 1952" (NGS Quad 32 110 3, line 101) [1975 USGS ELEVATION]2886.288·

UE: At the northwest end of airport runway at Thunderhead Ranch;
on the warmup concrete slab; chiseled square 2873.350·

SPUR LINE NORTH TO USGS BM "1 DOR 1975"·

Thunderhead Ranch, 0.8 mi N. along Old Spanish Trail from runway;
about 275 ft E. of and 50 ft lower than Old Spanish Trail, near
top of a rise, about 245 ft E. of a fence, 20 ft NE. of and 5 ft
higher than northeast edge of a dry wash; in top of a solid rock
outcrop about 10 ft wide; standard tablet stamped "1 DOR 1975"·
(Also in USGS line 6)

2921.798·

RETURN TO MAIN LINE

UE: (as above) 2873.350·

BM "D 315 1952" (NGS Quad 32 110 3, line 101) [1975 USGS ELEVATION]2882.533·

Handwritten:
Hwy
Quad
AZ-50

Hwy. 10 (overpass), 4.9 mi N. of, along Houghton Rd. to a T-rd. E.,
thence 1.0 mi E. to a power line X-ing., thence 0.1 mi S., thence
0.18 mi SE. to a rd. S.; 32 ft E. of the rd. at a gate, 0.5 ft S.
of a fence; set on a copper-coated rod enclosed by a 6-inch white
transite pipe; standard tablet stamped "2 DOR 1975"

2897.395·

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5/23/75 dld

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
9-1128

Page	Quads.	State	By
Bk.—Page	Miles	Adj.	Date
			Altitude by Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976
	Third Order	Field Elevations	
	Book: PV 982	Latitude 32°00' Longitude 110°30'	
	(7)	FROM A POINT AT THE INTERSECTION OF VAIL ROAD WENTWORTH ROAD AND INTERSTATE HIGHWAY 10 SOUTHWEST ALONG A TRACK ROAD INTO THE NORTHWEST EDGE OF EMPIRE MOUNTAINS QUADRANGLE	
k/2	0.00	BM "3383.49 ELEV +STA 1962 AHD" (Described in USGS line 8) [1976 USGS ELEVATION]	3283.074
	0.98	Jct. of I-Hwy. 10 and Vail Rd. (N.)-Wentworth Rd. (S.), 0.9 mi S. of, along Wentworth Rd. from south end of overpass bridge that spans eastbound lane of freeway, thence 0.3 mi NW. along track rd. that follows a pair of double-wooden pole power lines; near crossing of track rd. NE-SW., at first double wooden pole tower in southern power line W. of rd. X-ing., 1 ft N. of north pole of tower, with witness sign attached; set on 5/8-inch copper-coated rod encased in 6-inch drainpipe; standard tablet stamped "70 MDC 1976 3299"	3299.267
	1.19	BM "3290 NOGLS" (USGS) New Description by MDC: Jct. of I-Hwy. 10 and Vail Rd. (N.)-Wentworth Rd. (S.), 0.9 mi S. of, along Wentworth Rd. from south end of overpass bridge that spans eastbound lane of freeway, thence 0.3 mi NW. along track rd. that follows pair of double wooden pole power lines, thence 0.20 mi SW. along track rd.; on northwest edge of rd.; 11 ft NW. of centerline of rd. inside a cairn; set on 3 1/2-inch iron pipe that projects 1.2 ft; standard brass cap stamped "3290 NOGLS" (Previously described in USGS line 2)	3303.319
		3290 prev. elev. 3302.819	
		3290 this run 3303.319	
		Difference = +0.500	

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BENCH MARK DESCRIPTIONS, FIELD SUMMARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
9-1132

Page	Quads.	State	By	Altitude by
Bk.—Page	Miles	Adj.	Date	Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Third Order	Field Elevations		
	Book: PV 982	Latitude 32°00' Longitude 110°30'		
f/10	(8) 3.75	BM "J 317 1952" (Described in NGS Quad 32 110 3, line 101)		3131.938
		J 317 by NGS 3131.933 J 317 this run 3131.938 Difference = +0.005		
	4.76	BM "H 317 1952" (Described in NGS Quad 32 110 3, line 101)		3176.610
		H 317 by NGS 3176.611 H 317 this run 3176.610 Difference = -0.001		
	5.82	BM "C 317 1952" (Described in NGS Quad 32 110 3, line 101)		3225.033
		C 317 by NGS 3225.053 C 317 this run 3225.033 Difference = -0.020		
	7.45	Jct. of I-Hwy. 10 and Hwy. 83, 2.5 mi NW. of, along I-Hwy. 10 from overpass; at overpass with Vail Rd. N. and Wentworth Rd. S., at north end of overpass bridge over westbound lane of traffic, on curbing at west edge of east concrete sidewalk of overpass; 1 ft higher than rd. surface; cemented 1 ft S. of north end of curbing that runs along east sidewalk of overpass bridge; 2 1/2-inch AHD brass disk stamped "3377.11 ELEV +0778 STA 1962"		3276.702
	7.48	Jct. of I-Hwy. 10 and Hwy. 83, 2.5 mi NW. of, along I-Hwy. 10 from overpass; at overpass with Vail Rd. N. and Wentworth Rd. S., at south end of overpass bridge over westbound lane of traffic, on curbing at east edge of west concrete sidewalk of overpass; 1 ft higher than rd. surface; cemented 1 ft N. of south end of curbing that runs along west sidewalk of overpass bridge; 2 1/2-inch AHD brass disk stamped "3380.62 ELEV +0+99 STA 1962"		3280.215
		Page 1 of 4 21		6/30/76 d1

	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Third Order	Field Elevations		
	Book: PV 982			
f/20	7.54	Jct. of I-Hwy. 10 and Hwy. 83, 2.5 mi NW. of, along I-Hwy. 10 from overpass; at overpass with Vail Rd. N. and Wentworth Rd. S., at north end of overpass bridge over eastbound lane of traffic, on curbing at west edge of east concrete sidewalk of overpass; 1 ft higher than rd. surface; cemented 1 ft S. of north end of curbing that runs along east sidewalk of overpass bridge; 2 1/2-inch AHD brass disk stamped "3383.72 ELEV + STA 1962"		3283.290
	7.57	Jct. of I-Hwy. 10 and Hwy. 83, 2.5 mi NW. of, along I-Hwy. 10 from overpass; at overpass with Vail Rd. N. and Wentworth Rd. S., at south end of overpass bridge over eastbound lane of traffic, on curbing at east edge of west concrete sidewalk of overpass; 1 ft higher than rd. surface; cemented 1 ft N. of south end of curbing that runs along west sidewalk of overpass bridge; 2 1/2-inch AHD brass disk stamped "3383.49 ELEV + STA 1962"		3283.074
	8.17	BM "C 355 1960" (NGS) New Description by MDC: Jct. of I-Hwy. 10 and Hwy. 83, 1.7 mi NW. of, along I-Hwy. 10 from overpass; about 0.55 mi SE. of overpass with Vail Rd. N. and Wentworth Rd. S., at milepost 280, near southwest side of eastbound lane of traffic; 115 ft W. of southwest end of steel culvert under eastbound lane, 83 ft SW. of centerline of eastbound lane of traffic, 2 ft NE. of hwy. right-of-way fence, 1 ft S. of witness post; cemented in concrete post projecting 0.4 ft; NGS brass disk stamped "C 355 1960" (Also described in NGS Quad 32 110 3, line 105)		3294.564
		C 355 by NGS 3294.610 C 355 this run 3294.564 Difference = -0.046		
	8.94	Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.95 mi NW. along Frontage Rd.; 1.55 mi SE. along Frontage Rd. from Vail Rd.; at concrete box culvert under Frontage Rd.; 17 ft NE. of centerline of Frontage Rd., about level with rd.; cemented in top center of northeast concrete headwall of concrete box culvert; 2 1/2-inch AHD brass disk stamped "3340.57 ELEV +1051+00 STA 1928"		3339.415
		Page 2 of 4 22		6/30/76 d1

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BENCH MARK DESCRIPTIONS, FIELD SUMMARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
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Page	Quads.	State	By	Altitude by
Bk.—Page	Miles	Adj.	Date	Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Third Order	Field Elevations		
	Book: PV 982			
f/27	9.24	Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.65 mi NW. along Frontage Rd.; at T-rd. NE. at entrance to Mountainstates Engineers Headquarters building, at cattleguard; 1 ft higher than T-rd. NE. surface; cemented in top center of northwest headwall of cattleguard at entrance rd. to Mountainstates Engineers Headquarters building; 2 1/2-inch AHD brass disk stamped "3379.76 ELEV + STA 19 "		3379.366
	9.33	BM "IRENE NO 3 1935" (NGS) New description by MDC: Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.60 mi NW. along Frontage Rd.; 0.30 mi NW. of Triangulation Station IRENE; at T-rd. NE. through gate, 264 ft SE. of entrance rd. to Mountainstates Engineers Headquarters building, 45 ft NE. of centerline of Frontage Rd., 35 ft NW. of centerline of T-rd. NE., 6 ft SW. of fence line, 4 ft higher than Frontage Rd. surface; set in concrete post projecting 0.4 ft; NGS RM disk stamped "IRENE NO 3 1935" (Previously described in NGS Quad 32 110 3, line 105)		3389.987
		RM 3 by NGS 3390.042 RM 3 this run 3389.987 Difference = -0.055		
f/40	9.61	BM "RM IRENE NO 2 1935" (NGS) New Description by MDC: Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.30 mi NW. along Frontage Rd.; at T-rd. NE. that runs through fence to residence, at Triangulation Station IRENE: 91 ft NW. of centerline of T-rd. N., 76.5 ft NW. of station mark, 75 ft NE. of centerline of Frontage Rd., 1 ft SW. of fence; set in concrete post projecting 0.3 ft; NGS RM disk stamped "IRENE NO 2 1935" (Previously described in NGS Quad 32 110 3, line 105)		3423.979
		RM 2 by NGS 3424.032 RM 2 this run 3423.979 Difference = -0.053		
		Page 3 of 4 23		6/30/76 d1d

	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Third Order	Field Elevations		
	Book: PV 982			
f/29	9.64	BM "RM IRENE NO 1 1935" (NGS) New description by MDC: Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.30 mi NW. along Frontage Rd.; at T-rd. NE. that runs through fence to residence, at Triangulation Station IRENE; 137 ft NE. of centerline of Frontage Rd., 76.5 ft NE. of and across fence from station mark, 21 ft NW. of centerline of T-rd. NE.; set in concrete post projecting 0.3 ft; NGS RM disk stamped "IRENE NO 1 1935" (Previously described in NGS Quad 32 110 3, line 105)		3425.443
		RM 1 by NGS 3425.495 RM 1 this run 3425.443 Difference = -0.052		
f/29	9.66	BM TRIANGULATION STATION "IRENE 1935" (NGS) New Description by MDC: Jct. of I-Hwy. 10 and Hwy. 83, 0.15 mi N. and W. of, along sweeping freeway entrance ramp from north end of overpass bridge, thence 0.3 mi NW. along Frontage Rd.; 0.4 mi SE. of Mountainstates Engineers Headquarters building; at T-rd. NE. that runs through fence to residence; 61 ft NE. of centerline of Frontage Rd., 16 ft NW. of centerline of T-rd. NE., 15 ft SW. of fence, 3 ft NE. of witness post; set in concrete post that projects 0.3 ft; NGS triangulation station disk stamped "IRENE 1935" (Previously described in NGS Quad 32 110 3, line 105)		3425.056
f/37		IRENE by NGS 3425.108 IRENE this run 3425.056 Difference = -0.052		
f/30	10.07	Jct. of I-Hwy. 10 and Hwy. 83, at overpass; at north end of overpass bridge that spans both westbound and eastbound lanes of traffic, on curbing at west edge of east concrete sidewalk of overpass; 1 ft higher than rd. surface; cemented 1 ft S. of north end of curbing that runs along east sidewalk of overpass bridge; 2 1/2-inch AHD brass disk stamped "3459.38 ELEV + STA 19 "		3458.922
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32 110 32
UNIFIED SYSTEM
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
5-112

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

Page	Quads.	State	By	Altitude by
Bk. - Page	Miles	Adj.	Date	Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Trunk Line	Mean Field Elevations		
	Book: PV 982	Latitude 32°00' Longitude 110°30'		
(9)	FROM A POINT 0.8 MILE NORTH OF THUNDERHEAD RANCH THENCE NORTH ALONG OLD SPANISH TRAIL AND FREEMAN ROAD THENCE EAST ALONG EAST SPEEDWAY TO WENTWORTH ROAD THENCE NORTH ALONG WENTWORTH ROAD INTO SOUTH EDGE OF BELLOTA RANCH QUADRANGLE (69)			
b/4	0.00	Note by MDC, 1976: BM "48 DOR 1975" as described in USGS line 6 is incorrect; description should read as follows: Saguaro National Monument Headquarters, 1.5 mi S. of, along Old Spanish Trail from entrance rd. intersection at Saguaro National Monument Headquarters; 46 ft NE. of and 1 ft higher than Old Spanish Trail, 42 ft NW. of small gate in Saguaro National Monument boundary fence, 0.5 ft SW. of fence line; set on 5/8-inch copper-coated rod encased in black plastic pipe; standard tablet stamped "48 DOR 1975"	3034.477	
	0.77	Note by MDC, 1976: BM "T14S R16E 30 31 PCHD" as described in line 6 is incorrect; description should read as follows: Saguaro National Monument Headquarters, 0.75 mi S. of, along Old Spanish Trail from entrance rd. intersection at Saguaro National Monument Headquarters; 3 ft E. of centerline of Old Spanish Trail; in 12 x 12-inch concrete post flush with pavement; disk stamped "T14S R16E 30 31 PCHD 1/4"	3030.577	
		S31 1975 elev. 3030.568 S31 this run 3030.577 Difference = +0.009		
	1.28	Note by MDC, 1976: BM "3062.26 1937" USFS as described in line 6 is incorrect; description should read as follows: Saguaro National Monument Headquarters, 0.25 mi S. of, along Old Spanish Trail from entrance rd. intersection at Saguaro National Monument Headquarters; 32 ft E. of centerline of Old Spanish Trail, at Escalante Rd., under Saguaro National Monument boundary fence; in top of remaining north side of ruined cattleguard foundation that projects 0.4 ft; USDA FS tablet stamped "BM ELEV 3062.26 1937"	3061.264	
		3062.26 1975 elev. 3061.242 3062.26 this run 3061.264 Difference = +0.022		
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UNIFIED SYSTEM
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BENCH MARK DESCRIPTIONS, FIELD SUMMARY

Page	Quads.	State	By	Altitude by
Bk. - Page	Miles	Adj.	Date	Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Trunk Line	Mean Field Elevations		
	Book: PV 982			
	SPUR LINE TO BM "2649 NOGLS"			
b/17	0.19	BM "2649 NOGLS" (USGS) New Description by MDC: Saguaro National Monument Headquarters, 3.8 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters; about 530 ft N. of centerline of East Speedway, about 325 ft E. of centerline of Freeman Rd. (track N.), in cactus and greasewood-covered fenced-in area, on small sand ridge; set on 3 1/2-inch iron pipe that projects 1.2 ft; standard brass cap stamped "2649 NOGLS" (Previously described in USGS line 3)	2661.115	
		2649 adj. elev. 2661.104 2649 this run 2661.115 Difference = +0.011		
	RETURN TO MAIN LINE			
	5.35	BM "SAGUARO NO 2 FS NO 2 1936" (as on previous page)	2673.869	
	6.39	Saguaro National Monument Headquarters, 3.8 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters, thence 1.0 mi E. along East Speedway; at intersection of East Speedway and Wentworth Rd., at T-fence corner in Saguaro National Monument boundary fence, at T-jct. in power line; 72 ft E. of centerline of Wentworth Rd., 19 ft SE. of "T" power pole, 41 ft S. of centerline of East Speedway, 1 ft SE. of cornerpost of boundary fence, 3 ft higher than rd. bed; set on 5/8-inch copper-coated rod encased in 6-inch drainpipe; standard tablet stamped "13 MDC 1976 2670"	2670.184	
	Page 3 of 3 9			6/28/76 d1d

Page	Quads.	State	By	Altitude by
Bk. - Page	Miles	Adj.	Date	Field Book
	RINCON VALLEY (49)	Arizona	M.D. Cummins, 1976	
	Trunk Line	Mean Field Elevations		
	Book: PV 982			
b/9	2.29	Saguaro National Monument Headquarters, 0.75 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters; at T-rd. W.; 64 ft W. of and about 2 ft lower than centerline of Freeman Rd., 39 ft S. of centerline of T-rd. W., 1 ft N. of power pole with 1 guy wire; set on 5/8-inch copper-coated rod encased in 6-inch drainpipe; standard tablet stamped "10 MDC 1976 2976"	2975.653	
	3.12	Saguaro National Monument Headquarters, 1.6 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters; at T-rd. W.; 442 ft N. of centerline of T-rd. W., near top of small rise, 27 ft E. of centerline of Freeman Rd., 1 ft E. of Saguaro National Monument boundary fence; set on 5/8-inch copper-coated rod encased in 6-inch drainpipe; standard tablet stamped "11 MDC 1976 2886"	2885.971	
	4.32	Saguaro National Monument Headquarters, 2.8 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters; at X-ing. of East Broadway, 46 ft S. of centerline of East Broadway, 38 ft E. of centerline of Freeman Rd., 1 ft SE. of T-fence corner in Saguaro National Monument boundary fence; set on 5/8-inch copper-coated rod encased in 6-inch drainpipe; standard tablet stamped "12 MDC 1976 2762"	2762.234	
	5.35	Saguaro National Monument Headquarters, 3.8 mi N. of, along Freeman Rd. from entrance rd. intersection at Saguaro National Monument Headquarters; at X-ing. of East Speedway; 39 ft E. of centerline of Freeman Rd. as it offsets and goes N., 34 ft N. of centerline of East Speedway, 21 ft E. of fence corner, 2 ft N. of fence line; set on concrete post that projects 0.1 ft; USDA FS brass disk stamped "SAGUARO NO 2 FS NO 2 1936"	2673.869	
	Page 2 of 3 8			6/28/76 d1d

FILE COPY

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
9-1128

Page

Quads.

State

By

32 110 32

Bk.—Page

Miles

Adi.

Date

Altitude by
Field Book

Bk.—Page	Miles	State	Adi.	Date	Altitude by Field Book
		RINCON VALLEY (49)	Arizona	G. N. Krueger, 1980	
		First Order		Mean Field Elevations	
		Book: PV 1060		Latitude 32° 00' Longitude 110° 30'	
		(10)		FROM THUNDERHEAD AIRPORT SOUTHERLY TO EAST SIDE OF TUCSON QUADRANGLE (50)	
a/58	0.00	BM "B 315 1952"	(NGS Quad 32 110 3, line 101)		2895.765
	0.21	BM "A 315 1952"	(NGS Quad 32 110 3, line 101)		2886.288
	0.90	BM "D 315 1952"	(NGS Quad 32 110 3, line 101)		2882.538
	2.16	BM "2 DOR 1975"	(line 5)		2897.365

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Pima QUADRANGLE Rincon Valley NW. (49)
QUOTE PRIMARY REFERENCE Saguaro National Park Office; 2 mi. S. of:
(Direction and distance) Line 4

DESIGNATION { LISTED H 6 2948
STAMPED H 6 2948 TYPE OF MARK: BM XXX TT TRIANG.

Lat. ° ' " CONDITION ESTABLISHED BY
Disturbed USGS USBR
Long. ° ' " Destroyed USC&GS State GS
Elev. 2947.917 feet Not Found USNPS USNFS
USGLO } (Other)
USBLM }

REMARKS OR REVISED DESCRIPTION:

Saguaro National Park Headquarters and Visitors Center; 0.15 mi W. to Park entrance, thence 2.3 mi south; 800 ft N. of jct. of rd. W.; 32 ft NW. of center of rd. at top of grade; standard tablet set in a concrete post; stamped "1946 H6 2948"

SUBMITTED BY John R. Stravens
TITLE Carto Tech
AGENCY USGS

DATE April 27, 1978

Marks found in good condition need not be reported.

FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Pima QUADRANGLE Rincon Valley NW (49)
QUOTE PRIMARY REFERENCE _____
(Direction and distance) line 6

DESIGNATION { LISTED 47 DOR 1975
STAMPED _____ TYPE OF MARK: BM X TT TRIANG.

Lat. ° ' " CONDITION ESTABLISHED BY
Disturbed USGS USBR
Long. ° ' " Destroyed USC&GS State GS
Elev. 3040.419 feet Not Found USNPS USNFS
USGLO } (Other)
USBLM }

REMARKS OR REVISED DESCRIPTION: Saguaro National Monument Headquarters, 0.7 mi N. of along Old Spanish Trail from monument entrance rd. intersection; at T-rd. E., 60 ft E. of Old Spanish Trail, 48 ft N. of rd. E.; at top of slight rise; set on copper-coated rod encased in black plastic pipe; standard tablet stamped "47 DOR 1975"

SUBMITTED BY John R. Stravens
TITLE Carto Tech
AGENCY USGS

DATE April 27, 1978

Marks found in good condition need not be reported.

FILL IN ALL AVAILABLE INFORMATION

FILE COPY

303 1978