

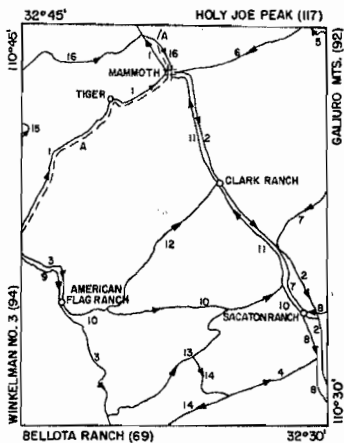
ARIZ 93
32 11042

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

THIRD-ORDER LEVELING
Sea Level Datum of 1929

MAMMOTH QUADRANGLE
ARIZONA 93
N3230-W11030/15

FILE COPY



Pima and Pinal
Counties
Edition of 6/1/58
Checked 5/67
Only the standard
tablets are listed
for lines run more
than 25 years be-
fore the above
edition date

USC&GS Level Line

A. Globe to Tucson, Arizona (No. 16) Second order

LINE 1.

FROM WINKELMAN NO. 3 QUADRANGLE (94) NORTHEAST ALONG STATE HIGHWAY 77 TO MAMMOTH THENCE NORTH ALONG HIGHWAY 77 INTO HOLY JOE PEAK QUADRANGLE (117) (by M.S. Bright, 1903; Book A5124)

- Oracle, 2.8 mi. NE. of along State Highway 77; 300 ft. N. of main canyon; E. edge of rd.; in granite outcrop; aluminum tablet stamped "4060 NOGLS" 4071.394 ✓
- Oracle, 5.8 mi. NE. of along State Highway 77; E. side of main canyon; 15 ft. E. of rd.; in mouth (on S. side) of small wash; in granite outcrop; aluminum tablet stamped "3353 NOGLS" 3664.753 ✓
- Tiger (formerly Shultz), 1,000 ft. S. of Mammoth Mine; 1,000 ft. W. of Mohawk Mine; 25 ft. N. of rd.; in granite outcrop; aluminum tablet stamped "3160 NOGLS" 3171.188 ✓

Not Found

- Mammoth, W. side of principal street; at NE. corner of fence around J.E. Dubois residence; standard iron post with bronze cap stamped "2336 NOGLS" 2347.031 ✓

LINE 2.

FROM MAMMOTH SOUTHEAST ALONG ROAD ON EAST SIDE OF SAN PEDRO RIVER INTO GALIURO MTS. QUADRANGLE (92) (by M.S. Bright, 1904; book A5124)

- Mammoth, W. side of principal street; standard iron post with bronze cap stamped "2336 NOGLS" 2347.631 ✓
- Mammoth, 3.0 mi. SE. of; at foot of hill; 10 ft. E. of rd.; 4 ft. W. of scrub mesquite tree; standard iron post with bronze cap stamped "2424 NOGLS" 2435.689 ✓
- J.L. Clark ranch house, 800 ft. E. of; at W. side of rd.; 2 ft. S. of gate entrance to ranch; standard iron post with bronze cap stamped "2466 NOGLS" (Reported destroyed, 1946) 2477.671 ✓
- Acton ranch, 2.2 mi. SE. of; between two buttes; on rock saddle; 15 ft. SW. of rd.; in granite outcrop; aluminum tablet stamped "2578 NOGLS" (Destroyed, 1946) 2589.940 ✓
- Whitlock ranch house, 1.0 mi. SE. of; in rd. jct.; 80 ft. SE. of John Schoeyholzer's mail box; standard iron post with bronze cap stamped "2599 NOGLS" 2610.664 ✓
- Cleland ranch, 1.5 mi. NW. of; 30 ft. S. of wash; 8 ft. W. of rd.; standard iron post with bronze cap stamped "2677 NOGLS" 2688.705 ✓

LINE 3.

FROM WINKELMAN NO. 3 QUADRANGLE (94) SOUTHEAST ALONG MT. LEMON ROAD INTO BELLOTA RANCH QUADRANGLE (69) (by M.S. Bright, 1904; Book A5124)

(Note: This line run by third order methods but closure was 0.190 ft. low in a distance of 5.25 miles. This error has been distributed in line.)

- Oracle, 3.0 mi. E. of along Mt. Lemon Road; at top of ridge; N. side of rd.; standard iron post with bronze cap stamped "4503 NOGLS" 4514.321 ✓

- American Flag Ranch, 0.8 mi. S. of along Mt. Lemon Road; on ridge; 50 ft. N. of rd. intersection; 10 ft. W. of rd. leading to Clark mine; standard iron post with bronze cap stamped "4454 NOGLS" 4465.452 ✓
- Brady Ranch, 1.2 mi. SE. of along Mt. Lemon Road; at NE. point of ridge between Pepper Sauce Canyons; 400 ft. W. of trail in canyon; in granite boulder; aluminum tablet stamped "4433 NOGLS" 4444.747 ✓
- Interocean Ranch (formerly Kellogg Ranch), 1.2 mi. N. of along Mt. Lemon Road; 150 ft. E. of canyon; 2 ft. E. of trail; in granite boulder; aluminum tablet stamped "4618 NOGLS" 4629.892 ✓
- Reference mark, 124 ft. NW. of tablet; 30 ft. W. of rd.; on boulder; chiseled square (established by G.W. Moore, 1946) 4628.31 ✓

LINE 4.

FROM A POINT 5.2 MILES NORTHEAST OF INTEROCEAN RANCH NORTHEAST ALONG ROAD TO A POINT NEAR CLELAND RANCH ON SAN PEDRO RIVER ROAD NEAR SOUTHEAST CORNER OF QUADRANGLE (by M.S. Bright, 1904; Book A5124)

- Interocean Ranch (formerly Kellogg Ranch), 5.2 mi. E. of; on flat ridge; 50 ft. N. of canyon; 10 ft. S. of rd.; standard iron post with bronze cap stamped "3478 NOGLS" 3490.304 ✓
- Cleland Ranch, 2.8 mi. W. of ranch house; 200 ft. N. of canyon; 12 ft. N. of rd.; 10 ft. W. of scrub mesquite in granite boulder; aluminum tablet stamped "3030 NOGLS" 3041.985 ✓

LINE 5.

FROM GALIURO MTS. QUADRANGLE (92) WEST AND NORTHWEST ALONG COPPER CREEK ROAD INTO HOLY JOE PEAK QUADRANGLE (117) (by V.S. Seward, 1936; Book B7230)

(Note: This line run by third order methods but closure was 0.258 ft. high in a distance of 12.93 miles. This error has been distributed in line.)

- Copper Creek Mine, 1.7 mi. SW. of along Copper Creek Road; 200 ft. SE. of rd. intersection to manager's house; 15 ft. W. of rd.; 6 inches NW. of gasoline pump; in concrete pump foundation; standard tablet stamped "VS 35 1936 3584" 3584.180 ✓
- Reference mark, 65 ft. E. and 25 ft. S. of tablet; 25 ft. S. of center of rd.; on black rock outcrop; chiseled square 3576.06 ✓

LINE 6.

FROM HOLY JOE PEAK QUADRANGLE (117) SOUTHWEST ALONG COPPER CREEK ROAD TO MAMMOTH (by V.S. Seward, 1936; Book B7230)

(Note: This line was run by third order methods but closure was 0.258 ft. high in a distance of 12.93 miles. This error has been distributed in line)

- Copper Creek Mine, 3.5 mi. SW. of along Copper Creek Road; 7.1 mi. NE. of Mammoth; at W. end of long E.-W. hill; 135 ft. W. of jct. of old rd. with present rd.; 5 ft. W. of cairn; in outcropping boulder; aluminum tablet stamped "NO 3 VA 4010" and "VS 36 1936 4017" (Latitude: 32°44'42.289" Longitude: 110°31'58.741") 4016.412 ✓
- Reference mark, 40 ft. S. and 40 ft. E. of tablet; on boulder outcrop; chiseled square 4016.73 ✓
- Mammoth, 5.9 mi. NE. of along Copper Creek Road; 200 ft. S. of telephone line crossing rd.; 75 ft. W. of curve in rd.; 20 ft. S. of center of rd.; 6 ft. W. of cairn; on rock outcrop; chiseled square 3789.68 ✓
- Mammoth, 4.7 mi. NE. of along Copper Creek Road; 75 ft. W. of point where rd. crosses from S. to N. side of ridge; 35 ft. S. of center of rd.; 4 ft. S. of cairn; in rock outcrop; standard tablet stamped "VS 37 1936 3395" 3394.941 ✓
- Mammoth, 3.5 mi. NE. along Copper Creek Road; 100 ft. W. and 25 ft. S. of small dry stream crossing rd.; 15 ft. N. of center of rd. at curve; 4 ft. SW. of cairn; on black outcropping boulder; chiseled square 2943.37 ✓
- Mammoth, 1.9 mi. NE. of along Copper Creek Road; 300 ft. NE. of top of steep grade of rd.; 35 ft. SE. of center of rd.; 4 ft. SE. of cairn; in buried boulder; standard tablet stamped "VS 38 1936 2619" 2618.516 ✓
- Reference mark, 35 ft. SW. of tablet; on large boulder; chiseled square 2617.64 ✓
- Mammoth, 0.8 mi. NE. of along Copper Creek Road; 25 ft. W. of intersection of rd. to Copper Creek Mine; in root of leaning mesquite tree; copper nail and washer 2384.01 ✓
- "U 18 1933" (USC&GS) 2352.571 ✓

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LINE 7.

FROM GALIURO MTS. QUADRANGLE (92) SOUTHWEST TO SAN PEDRO RIVER ROAD THENCE SOUTHEAST ALONG ROAD VIA SACATON RANCH TO A POINT 1.5 MILES NORTHWEST OF CLELAND RANCH IN NORTH-EAST QUARTER SECTION 16 TOWNSHIP 10 SOUTH RANGE 18 EAST (by E.E. Harris, 1937; Book B7328)

Rhodes Ranch, 3.9 mi. SW. of; in open flat; 60 ft. N. of rd.; in boulder; standard tablet stamped "1937 H 83 3209" 3209.540

Reference mark, 95 ft. E. of tablet; on boulder; chiseled square 3212.22

Rhodes Ranch, 5.0 mi. SW. of; on SE. edge of rd.; on boulder; chiseled square **Not Found** 3016.34

Rhodes Ranch, 5.9 mi. SW. of; 35 ft. SE. of center of rd.; in boulder; standard tablet stamped "1937 H 84 2741" **Destroyed** 2752.252

Reference mark, 90 ft. NW. of tablet; on boulder; chiseled square 2755.30

Rhodes Ranch, 6.6 mi. SW. of; in SW. corner of jct. of rd.; on boulder; chiseled square 2565.81

Sacaton Ranch, 3.0 mi. N. of along San Pedro River Road; on E. edge of river rd.; on N. side of wash; on boulder; chiseled square 2587.46

Sacaton Ranch, 2.0 mi. N. of along San Pedro River Road; 35 ft. N. of rd. in river bottom; 340 ft. N. of first crossing of river N. from Sacaton Ranch; in boulder; standard tablet stamped "1937 H 85 2558" (Probably destroyed, 1946) 2567.976

Reference mark, 86 ft. S. of tablet; on N. bank of river; on boulder; chiseled square 2567.69

Sacaton Ranch, 1.0 mi. N. of along San Pedro River Road; on NE. bank of river; 3 ft. higher than water level and 200 ft. NW. of lone cottonwood tree; on boulder; chiseled square 2590.27

Sacaton Ranch, 1,800 ft. SE. of along San Pedro River Road; in river bottom; on large red boulder; chiseled square 2610.60

Cleland Ranch, 1.5 mi. NW. of; standard iron post with bronze cap stamped "2677 NOGLS" (Described in Line 2) **Destroyed** 2688.705

LINE 8

FROM GALIURO MTS. QUADRANGLE (92) SOUTHWEST ALONG ROAD TO SACATON RANCH THENCE SOUTHEAST ALONG ROAD AT WEST SIDE OF SAN PEDRO RIVER ROAD BACK INTO GALIURO MTS., QUADRANGLE (92) (by G.W. Moore, 1942; Book B9793)

Y L E Ranch, 6.0 mi. SW. of; 350 ft. SE. of bend in rd. to E.; 34 ft. NE. of rd.; on point of hill; 3 ft. higher than rd.; on boulder; chiseled square **Not Found** 2669.48

Y L E Ranch, 6.8 mi. SW. of; 0.2 mi. E. of Redington-Oracle Road; 6 ft. S. of rd.; 5 ft. W. of NE. corner of Sacaton Ranch house; in projecting concrete foundation; standard tablet stamped "GWM 72 1942 2623" **New Desc.** 2623.701

Reference mark, 44 ft. NW. of tablet; 19 ft. N. of rd.; in root on W. side of 50 inch cottonwood tree; copper nail and washer 2623.614

Y L E Ranch, 7.8 mi. SW. of; 1.0 mi. S. of Sacaton Ranch; at base of point of rocky hill; 34 ft. W. of rd.; on red boulder; chiseled square **New Desc.** 2676.98

Redington, 11.1 mi. N. of; 2.0 mi. S. of Sacaton Ranch; 42 ft. SW. of rd.; in concrete post; standard tablet stamped "GWM 73 1942 2660" **Destroyed** 2660.198

Reference mark, 85 ft. SE. of tablet; 10 ft. SW. of rd. on white boulder; chiseled square **Not Found** 2659.75

Redington, 10.1 mi. N. of; 30 ft. W. of rd.; 145 ft. W. of field gate; in base on W. side of 30-inch willow tree; copper nail and washer 2675.16

Redington, 8.7 mi. N. of; 0.2 mi. N. of rd. jct. to ranch; at base of rocky point of hill; 11 ft. SW. of rd.; 7 ft. N. of mesquite; in boulder; standard tablet stamped "GWM 74 1942 2705" **Not Found** 2705.099

Reference mark, 92 ft. SE. of tablet; 7 ft. NE. of rd.; in base on W. side of 12-inch mesquite tree; copper nail and washer 2706.57

LINE 9.

FROM WINKELMAN NO. 3 QUADRANGLE (94) SOUTHEAST ALONG MT. LEMON ROAD TO A POINT 0.8 MILE SOUTH OF AMERICAN FLAG RANCH (by G.W. Moore, 1946; Book V237a)

Oracle Post Office, 2.2 mi. SE. of; at rocky knoll; 30 ft. NE. of rd.; 1 ft. higher than rd.; in boulder; standard tablet stamped "GWM 1 1946 4587" 4586.665

Reference mark, 60 ft. S. of tablet; 15 ft. SW. of rd.; 3 ft. higher than rd.; in boulder; chiseled square 4587.08

Oracle Post Office, 3.2 mi. SE. of; on top of ridge; 30 ft. NW. of rd.; 4 ft. higher than rd.; iron post stamped "4503 NOGLS" (Reset, 1946) 4514.271

Reference mark, 44 ft. NW. of rd.; 15 ft. W. of post; on boulder; chiseled square 4514.21

Oracle, 4.2 mi. SE. of; on rocky knoll; 71 ft. NE. of rd.; in boulder; standard tablet stamped "GWM 2 1946 4360" 4360.091

Reference mark, 55 ft. W. of tablet; 28 ft. NE. of rd.; on boulder; chiseled square 4357.92

Oracle, 4.8 mi. SE. of; 34 ft. E. of intersection W. to Lovejoy Ranch; on S. side of drain; at group of boulders; on boulder; chiseled square 4427.38

American Flag Ranch, 0.8 mi. S. of along Mt. Lemon Road standard iron post with bronze cap stamped "4454 NOGLS" (described in Line 3.) 4465.452

LINE 10.

FROM A POINT 0.8 MILE SOUTH OF AMERICAN FLAG RANCH ALONG MT. LEMON ROAD EAST ALONG ROAD TO SACATON RANCH ON SAN PEDRO RIVER (by G.W. Moore, 1946; Book V237a)

American Flag Ranch, 0.8 mi. S. of along Mt. Lemon Road; standard iron post with bronze cap stamped "4454 NOGLS" (described in Line 3.) 4465.452

Oracle, 6.9 mi. SE. of; 27 ft. SE. of dim rd. NE.; on boulder; chiseled square 4208.42

Oracle, 7.4 mi. SE. of; 290 ft. SW. of a jct.; 19 ft. SE. of rd.; on boulder; standard tablet stamped "GWM 3 1946 4123" 4123.396

Reference mark, 60 ft. S. of tablet; 72 ft. SE. of rd.; on boulder; chiseled square 4127.58

Oracle, 8.8 mi. SE. of; 25 ft. S. of rd.; at group of boulders; on boulder; chiseled square 3997.49

Oracle, 9.6 mi. SE. of; 25 ft. N. of rd. at cattle guard; 1 ft. W. of fence; in concrete post; standard tablet stamped "GWM 4 1946 3858" 3858.156

Reference mark, 60 ft. S. of post; 35 ft. S. of rd.; at cattle guard; 2 ft. E. of fence; on boulder; chiseled square 3857.86

Oracle, 10.7 mi. SE. of; at center on E. side of concrete wall of cattle guard; chiseled square 3662.68

Oracle, 11.8 mi. SE. of; 15 ft. N. of rd.; on W. side of wash; in concrete post; standard tablet stamped "GWM 5 1946 3480" 3480.074

Reference mark, 54 ft. SE. of post; 25 ft. S. of rd.; on E. side of wash; on boulder; chiseled square 3479.52

Oracle, 12.8 mi. SE. of; 23 ft. S. of rd. at cattle guard; on E. side of fence; on boulder; chiseled square 3278.53

Oracle, 14.0 mi. SE. of; 100 ft. E. of intersection; 29 ft. S. of rd.; in concrete post; standard tablet stamped "GWM 6 1946 3222" 3221.847

Reference mark, 78 ft. NE. of post; 17 ft. S. of rd.; on boulder; chiseled square 3218.49

Oracle, 15.0 mi. SE. of; 12 ft. S. of rd.; on boulder; chiseled square 3106.27

Oracle, 16.0 mi. SE. of; 25 ft. N. of rd.; in concrete post; standard tablet stamped "GWM 7 1946 2970" 2969.371

Reference mark, 63 ft. SW. of post; 30 ft. S. of rd.; on boulder; chiseled square 2969.88

Oracle, 16.6 mi. SE. of; at cattle guard; 12 ft. N. of rd.; 10 ft. W. of fence; on boulder; chiseled square 2883.99

Oracle, 17.4 mi. SE. of; 10 ft. S. of rd.; 9 ft. E. of cattle guard; on boulder; chiseled square 2787.98

Oracle, 18.0 mi. SE. of; 19 ft. S. of intersection NE.; 7 ft. W. of fence; at cattle guard; in concrete post; standard tablet stamped "GWM 8 1946 2632" 2632.096

Reference mark, 78 ft. SE. of post; 21 ft. SW. of rd.; on boulder; chiseled square 2632.97

Oracle, 18.8 mi. SE. of between two deep washes; 25 ft. SW. of rd.; on boulder; chiseled square 2643.06

Y L E Ranch, 6.8 mi. SW. of; standard tablet stamped "GWM 72 1942 2623" (described in Line 8) 2623.701

LINE 11.

FROM A POINT 18.0 MILES SOUTHEAST OF ORACLE AND 1.5 MILES NORTHWEST OF SACATON RANCH NORTHWEST ALONG SAN PEDRO RIVER ROAD TO MAMMOTH (by G.W. Moore, 1946; Book V237a)

Oracle, 18.0 mi. SE. of; standard tablet stamped "GWM 8 1946 2632" (described in Line 10.) 2632.096

Sacaton Ranch, 2.5 mi. NW. of; 1.0 mi. N. of rd. to Oracle; 38 ft. N. of rd.; in river bottom; on boulder; chiseled square 2567.38

Sacaton Ranch, 3.5 mi. NW. of; 90 ft. NE. of a wash; 15 ft. SW. of rd.; 2 ft. SW. of fence; in concrete post; standard tablet stamped "GWM 9 1946 2586" 2586.555

Reference mark, 69 ft. N. of post; 13 ft. NE. of rd.; on boulder; chiseled square 2586.65

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LINE 11. (Continued)

Sacaton Ranch, 4.2 mi. NW. of; 6.6 mi. SW. of Rhodes Ranch; 110 ft. NW. of rd. intersection NE.; 20 ft. NE. of San Pedro River Road; on boulder; chiseled square
2565.53 ✓

Rhodes Ranch, 5.9 mi. SW. of; standard tablet stamped "1937 H 84 2741" (described in Line 7)
2752.252 ✓

Reference mark, 90 ft. NW. of tablet; at W. edge of rd.; on boulder; chiseled square
2755.30

Mammoth, 9.6 mi. SE. of; 5.2 mi. NW. of Sacaton Ranch; on rock saddle between two buttes; 50 ft. NE. of San Pedro River Road; 2 ft. higher than rd.; in flat red granite boulder; standard tablet stamped "GWM 10 1946 2593"
2593.508 ✓

Reference mark, 80 ft. S. of tablet, Acton Ranch, 2.2 mi. SE. of; between two buttes; on rock saddle; 18 ft. SW. of rd.; in granite boulder; aluminum tablet stub (tablet established by M.S. Bright, 1904, stamped "2578 NOGLS" destroyed, 1946)
2590.45

Mammoth, 8.6 mi. SE. of; 18 ft. NE. and 2 ft. higher than rd.; 1 ft. higher than ground; in crotch of a twin 10-inch mesquite tree; copper nail and washer
2529.23 ✓

Mammoth, 7.6 mi. SE. of; 12 ft. SW. of rd.; in SW. corner of a concrete cattle guard; standard tablet stamped "GWM 11 1946 2522"
2522.153 ✓

Reference mark, on the NE. corner of concrete cattle guard; chiseled square
2522.19

Mammoth, 6.5 mi. SE. of; 800 ft. E. of Clark's Ranch house; 43 ft. S. of rd. intersection W.; in fence corner by gate; in concrete post; standard tablet stamped "GWM 12 1946 2479"
2479.723 ✓

Reference mark, 50 ft. N. of post; 20 ft. S. of rd.; in base on NE. side of a 18 inch mesquite tree; copper nail and washer
2480.14

~~Destroyed~~ Mammoth, 5.5 mi. SE. of; 18 ft. NE. of rd.; 3 ft. higher than rd.; on boulder; chiseled square
2470.53 ✓

~~Not Found~~ Mammoth, 4.4 mi. SE. of; at top of a rise around point of hill; 32 ft. W. of rd.; in concrete post; standard tablet stamped "GWM 13 1946 2476"
2476.619 ✓

~~Not Found~~ Reference mark, 100 ft. NE. of post; 20 ft. E. of rd.; on boulder; chiseled square
2478.88

~~Not Found~~ Mammoth, 3.4 mi. SE. of; 185 ft. NE. of rd. intersection N.; 27 ft. NE. of rd.; on N. side of Copper Creek wash; on boulder; chiseled square
2451.78 ✓

~~Destroyed~~ Mammoth, 2.3 mi. SE. of; 33 ft. S. of a diw intersection; 22 ft. SE. of San Pedro Road at curve; in concrete post; standard tablet stamped "GWM 14 1946 2400"
2400.317 ✓

Reference mark, 80 ft. N. of post; 20 ft. W. of rd.; on boulder; chiseled square
2398.65

Mammoth, 1.4 mi. SE. of; 20 ft. NE. of San Pedro River Road; at a sharp curve; on boulder; chiseled square
2389.07 ✓

Mammoth, 0.8 mi. E. of; 25 ft. W. of intersection of rd. to Copper Creek Mine; in root of leaning mesquite tree; copper nail and washer
2384.01 ✓

"U 18 1933" (USC&GS)
2352.571 ✓

LINE 12.

FROM A POINT ON ORACLE-SACATON RANCH ROAD 7.4 MILES SOUTHEAST OF ORACLE NORTHEAST TO CLARK RANCH ON SAN PEDRO RIVER ROAD (by G.W. Moore, 1946; Book V237a)
4123.396 ✓

Oracle, 7.4 mi. SE. of; standard tablet stamped "GWM 3 1946 4123" (described in Line 10.)
3951.03 ✓

Oracle, 7.4 mi. SE. of thence 1.2 mi. NE. from; 25 ft. NE. of rd. intersection; on boulder; chiseled square
3859.383 ✓

Oracle, 7.4 mi. SE. thence 2.2 mi. NE. from; 12 ft. W. of rd.; in concrete post; standard tablet stamped "GWM 15 1946 3859"
3856.59

Reference mark, 30 ft. NE. of post; 9 ft. E. of rd.; on boulder; chiseled square
3789.05 ✓

Oracle, 7.4 mi. SE. thence 2.7 mi. NE. from; 20 ft. W. of rd. intersection S.; on boulder; chiseled square
3623.37 ✓

Oracle, 7.4 mi. SE. of thence 3.6 mi. NE. from; 29 ft. W. of rd.; on E. bank of a wash; on boulder; chiseled square
3429.011 ✓

Oracle, 7.4 mi. SE. thence 4.6 mi. NE. from; 10 ft. S. of rd.; in concrete post; standard tablet stamped "GWM 16 1946 3429"
3424.44

Reference mark, 70 ft. NE. of; 10 ft. N. of rd.; on boulder; chiseled square
3163.47 ✓

Oracle, 7.4 mi. SE. thence 5.6 mi. NE. from; 13 ft. NW. of rd. at curve; 35 ft. N. of drain crossing; on boulder; chiseled square

Oracle, 7.4 mi. SE. thence 6.6 mi. NE. from; 13 ft. S. of rd.; on N. bank of Clark Wash; in concrete post; standard tablet stamped "GWM 17 1946 2898"
2898.064 ✓

Reference mark, 120 ft. NW. of post; 9 ft. N. of rd.; on boulder; chiseled square
2892.02

Oracle, 7.4 mi. SE. thence 7.5 mi. NE. from; 100 ft. NW. of rd. along Clark Wash; in base on NE. side of a multiple cat claw tree; copper nail and washer
2668.05

Oracle, 7.4 mi. SE. thence 8.6 mi. NE. from; 1.0 mi. W. of San Pedro Road; on E. side of San Pedro River; 85 ft. S. of bend where rd. leaves river bed; 40 ft. E. of rd.; in base on N. side of a 20-inch willow tree; RR. spike
2451.76 ✓

Mammoth, 6.5 mi. SE. of; standard tablet stamped "GWM 12 1946 2479" (described in Line 11.)
2479.723 ✓

LINE 13.

FROM A POINT 1.2 MILES NORTHWEST OF INTEROCEAN RANCH ALONG MT. LEMON ROAD NORTHEAST ALONG ROAD TO A POINT 15.0 MILES SOUTHEAST OF ORACLE ALONG ORACLE-SACATON RANCH ROAD IN SOUTHWEST QUARTER SECTION 11, TOWNSHIP 10 SOUTH RANGE 17 EAST (by G.W. Moore, 1946; Book V237a)
4629.892 ✓

Interocean Ranch (formerly Kellogg Ranch), 1.2 mi. N. of; along Mt. Lemon Road; aluminum tablet stamped "4618 NOGLS" (described in Line 3.)
4628.30

Reference mark, 124 ft. NW. of tablet; 30 ft. SW of rd.; on boulder; chiseled square
4471.41 ✓

Interocean Ranch, 2.5 mi. NE. of along rd.; 95 ft. NE. of gate at corral; 80 ft. W. of rd. along fence; on boulder; chiseled square
4330.531 ✓

Interocean Ranch, 3.4 mi. NE. of; 65 ft. S. of rd.; iron pipe with GLO cap stamped "TIOS R16E SEC 36 1 6 CC R 16E R17E T11S 1922"
4326.30

Reference mark, 74 ft. E. of post; 52 ft. S. of rd.; on boulder; chiseled square
4141.313 ✓

Interocean Ranch, 4.4 mi. NE. of; 8 ft. SW. of rd.; 8 ft. NE. of fence; in concrete post; standard tablet stamped "GWM 18 1946 4141"
4136.04

Reference mark, 189 ft. NE. of post; 28 ft. SW. of rd.; on boulder; chiseled square
3951.69 ✓

Interocean ranch, 5.4 mi. NE. of; at top of hill; 13 ft. S. of rd.; on boulder; chiseled square
3681.046 ✓

Interocean Ranch, 6.4 mi. NE. of; 17 ft. SE. of rd.; in concrete post; standard tablet stamped "GWM 19 1946 3681"
3677.69

Reference mark, 72 ft. NE. of post; 10 ft. SE. of rd.; on boulder; chiseled square
3539.95 ✓

Interocean Ranch, 7.4 mi. NE. of; 10 ft. S. of rd.; at rise from wash; on boulder; chiseled square
3429.16

Interocean Ranch, 8.1 mi. NE. of; 17 ft. S. of rd.; 70 ft. W. of intersection SE.; on boulder; chiseled square
3358.247 ✓

Interocean Ranch, 8.6 mi. SE. of; 20 ft. W. of intersection SE.; in concrete post; standard tablet stamped "GWM 20 1946 3358"
3355.01

Reference mark, 86 ft. NE. of post; 10 ft. SE. of rd.; on boulder; chiseled square
3232.19 ✓

Interocean Ranch, 9.6 mi. NE. of; 10 ft. S. of rd.; at top of rise; on boulder; chiseled square
3233.964 ✓

Interocean Ranch, 10.6 mi. NE. of; 0.9 mi. SE. of Oracle Road; 12 ft. SE. of; in concrete post; standard tablet stamped "GWM 21 1946 3234"
3232.77

Reference mark, 60 ft. N. of post; 19 ft. NW. of rd.; on boulder; chiseled square
3106.27 ✓

Oracle, 15.0 mi. SE. of; on boulder; chiseled square (described in line 10.)

LINE 14.

FROM A POINT 8.1 MILES NORTHEAST OF INTEROCEAN RANCH IN THE SOUTHWEST QUARTER SECTION 22 TOWNSHIP 10 SOUTH RANGE 17 EAST SOUTHEAST AND SOUTHWEST ALONG ROADS INTO BELLOTA RANCH QUADRANGLE (69) (by G.W. Moore, 1946; Book V237a)
3429.16 ✓

Interocean Ranch (formerly Kellogg Ranch), 8.1 mi. NE. of; chiseled square (described in Line 13.)
3383.50 ✓

Interocean Ranch, 6.6 mi. NE. thence 2.2 mi. NW. from; on W. side of wash; 35 ft. S. of rd.; on boulder; chiseled square
3393.963 ✓

Interocean Ranch, 6.6 mi. NE. thence 1.6 mi. NW. from; at top of knoll; 13 ft. NW. of rd. along ridge; in concrete post; standard tablet stamped "GWM 22 1946 3394"
3393.83

Reference mark, 80 ft. SW. of rd.; 8 ft. NW. of rd.; on boulder; chiseled square
3404.85 ✓

Interocean Ranch, 6.6 mi. NE. thence 0.8 mi. NW. from; 0.7 mi. N. of rd. jct.; 18 ft. SE. of rd.; on boulder; chiseled square

LINE 14. (Continued)

Interocean Ranch, 6.6 mi. NE. of; 40 ft. S. of rd. intersection NW.; on boulder; chiseled square 3374.90 ✓

Interocean Ranch, 5.2 mi. NE. of; standard iron post with bronze cap stamped "3478 NOGLS"(described in Line 4.) 3490.304 ✓

Reference mark, 35 ft. SE. of post; 23 ft. S. of rd.; on boulder; chiseled square 3487.41

Interocean Ranch, 5.0 mi. NE. of; on top of knoll along ridge; 31 ft. S. of rd.; on boulder; chiseled square 3699.10

Interocean Ranch, 4.0 mi. NE. of; 16 ft. N. of rd. intersection S.; in concrete post; standard tablet stamped "GWM 23 1946 3880" 3880.004 ✓

Reference mark, 50 ft. SE. of tablet; 40 ft. S. of rd. intersection S.; on boulder; chiseled square 3875.43

LINE 15.

FROM WINKELMAN NO. 3 QUADRANGLE (94) NORTHEAST TO A POINT 6.2 MILES NORTHEAST OF ORACLE THENCE NORTHWEST BACK INTO WINKELMAN NO. 3 QUADRANGLE (94)(by G.W. Moore, 1946; Book V237a)

Oracle, 6.2 mi. N. of; 950 ft. N. of rd. intersection NE. up side draw; 20 ft. SE. of gate; 12 ft. E. of rd.; in concrete post; standard tablet stamped "GWM 27 1946 3597" 3596.671 ✓

Reference mark, 150 ft. N. of tablet; 17 ft. E. of rd.; in draw; on boulder; chiseled square 3591.42

LINE 16.

FROM WINKELMAN NO. 3 QUADRANGLE (94) NORTHEAST ALONG ROAD VIA TAR MINE TO STATE HIGHWAY 77 THENCE SOUTHEAST ALONG HIGHWAY 77 TO MAMMOTH (by G.W. Moore, 1946; Book V237a)

Oracle, 9.5 mi. N. of; NW. of Signal Peak; 50 ft. SW. of trail through saddle; in rimrock; standard tablet stamped "GWM 29 1946 4056" 4066.069 ✓

Reference mark, 73 ft. N. of tablet; 35 ft. N. of trail crossing in saddle; on boulder; chiseled square 4069.19

Oracle, 10.6 mi. N. of; 8.8 mi. NW. of Mammoth, on point of small ridge; 12 ft. NW. of rd.; in concrete post; standard tablet stamped "GWM 30 1946 3744" 3744.069 ✓

Reference mark, 30 ft. S. of tablet; 13 ft. SE. of rd.; on boulder; chiseled square 3743.60

Mammoth, 7.8 mi. NW. of; 80 ft. N. of point where rd. enters draw; 20 ft. W. of rd.; in crotch of twin 6-inch mesquite tree; copper nail and washer 3574.42 ✓

Mammoth, 6.7 mi. NW. of; 42 ft. S. of rd.; 20 ft. E. of old house at Tar Mine; on bank of draw; in concrete post; standard tablet stamped "GWM 31 1946 3316" 3316.098 ✓

Reference mark, 65 ft. NE. of tablet; 10 ft. N. of rd.; on rock outcrop; chiseled square 3312.52

Mammoth, 5.7 mi. NW. of; 32 ft. N. of rd.; at big bend; on rock outcrop; chiseled square 3062.76 ✓

Mammoth, 4.6 mi. NW. of; 50 ft. S. of draw; 10 ft. E. of gate; in N.-S. fence; top of a concrete post; standard tablet stamped "GWM 32 1946 2807" 2806.314 ✓

Reference mark, 97 ft. S. of; 18 ft. W. of rd.; 4 ft. higher than rd.; on rock outcrop; chiseled square 2809.66

Mammoth, 3.6 mi. NW. of; 18 ft. NW. of rd.; on bank; on boulder; chiseled square 2590.52 ✓

Mammoth, 2.6 mi. NW. of; 1,480 ft. SE. of rd. intersection; 44 ft. SE. of rd. up wash; on 3 ft. bank; in concrete post; standard tablet stamped "GWM 33 1946 2403" 2403.124 ✓

Reference mark, 130 ft. SW. of tablet; 66 ft. SE. of rd.; on boulder; chiseled square 2405.38

"T 18 1933" (USC&GS) 2324.149 ✓

Reference mark, 1.5 mi. NW. of Mammoth along State Highway 77; on SE. wing wall of steel truss highway bridge over San Pedro River; chiseled square 2324.13

Mammoth Post Office, 0.6 mi. N. of along State Highway 77; 24 ft. NE. of hwy.; at top of grade; at wide wash; on buried boulder; chiseled square 2369.10 ✓

"U 18 1933" (USC&GS) 2352.571 ✓

FILE COPY

Oracle P.O., 1.75 mi. N. of along State Highway 77; left on old highway 1.25 mi. to dirt rd. W. (left); left on dirt rd. 0.15 mi. cross cattleguard; continue 1.10 mi. to Natural gas pipeline rd.; turn left thru gate and follow pipeline rd. for 1.70 mi. to point where pipeline crosses Tucson Wash; BM is 191 ft. S. of pipeline, 127 ft. W. of W. edge of Tucson Wash and approximately 160 ft. N. of E.-W. fence line and is 180 ft. NW. of BM "GWM 27 1946"; standard tablet on copper-coated rod flush with ground stamped "1 RNG 1966" 3593.923

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
9-1128

Page	Quads.	Miles	State	By	Altitude by
Bk. — Page			Adj.	Date	Field Book
			Arizona	M.D. Cummins,	1972
			Field Elevations		
			Book: PV 840		
			Latitude 32°30' Longitude 110°30'		
			(17) FROM THE NORTHWEST EDGE OF GALIURO MTS. QUADRANGLE (92) WEST THENCE NORTH ALONG COPPER CREEK ROAD INTO THE SOUTHEAST EDGE OF HOLY JOE PEAK QUADRANGLE (117)		
		17.40	Copper Creek Mine, 2.2 mi SW. of; 75 ft S. of rd. leading to <u>GF</u> Ranch, 25 ft W. of centerline of Copper Creek Rd., 1 ft W. of a rock cairn; set on a copper- coated rod encased in a 6-inch black tube; standard tablet stamped "31 MDC 1972 3626"		3625.879

FILE COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
9 112A

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

BENCH MARK DESCRIPTIONS, FIELD SUMMARY

Page	Quads.	Miles	State	By	Date	Altitude by Field Book
Bk.	Page	Order	Adj.	Arizona	M. D. Cummins	1972
		Third		Field Elevations		
		Book: PV 840				
		23.58		Mammoth Post Office, 3.1 mi NE. of, along Copper Creek Rd.; at a sharp bend in the rd. to the NE.; 30 ft S. of centerline of rd.; set on copper-coated rod encased in a 6-inch black tube; standard tablet stamped "36 MDC 1972 2816"		2816.378
		24.62		Mammoth Post Office, 2.1 mi NE. of, along Copper Creek Rd.; 300 ft NE. of top of steep grade of rd., 35 ft SE. of centerline of rd., 1 ft E. of a rock cairn; cemented in a buried boulder; standard tablet stamped "37 MDC 1972 2619"		2618.891
		25.67		Mammoth Post Office, 1.1 mi E. of; at a T-rd.; 45 ft S. of centerline of rd., 2 ft N. of witness post on fence; cemented in an 8-inch cylindrical conc. post; Arizona Highway Department brass cap stamped "AHD P&M 588 CD 1967"		2382.494
		26.76		Mammoth Post Office, 1.1 mi E. of to a T-rd. N., thence 1 mi N. along secondary rd.; 200 ft N. of Peters Apts. Trailer Court, 65 ft N. of centerline of a T-rd., 43 ft E. of centerline of rd., 24 ft NE. of a lone telephone pole, 1 ft W. of a steel fencepost with a witness sign; set on a copper-coated rod encased in a 6-inch black tube; standard tablet stamped "38 MDC 1972 2359"		2359.238

Page	Quads.	Miles	State	By	Date	Altitude by Field Book
Bk.	Page	Order	Adj.	Arizona	M. D. Cummins	1972
		Third		Field Elevations		
		Book: PV 840				
		(18)		FROM THE SOUTHEAST EDGE OF HOLY JOE PEAK QUADRANGLE (117) SOUTHWEST ALONG COPPER CREEK ROAD TO A POINT ABOUT ONE MILE NORTHEAST OF MAMMOTH THENCE NORTH ALONG HIGHWAY 77 INTO THE SOUTH EDGE OF HOLY JOE PEAK QUADRANGLE (117)		
		19.24		Copper Creek Mine, 4 mi SW. of, along Copper Creek Rd.; at west end of long E.-W. hill; 135 ft W. of pct. of an old rd. with present rd., 1 ft W. of a rock cairn; set on a copper-coated rod encased in a 6-inch black tube; standard tablet stamped "33 MDC 1972 4016"		4015.612
		19.26		RM "VA 4010" also "VS 36 1936" USGS (Rock loose, this mark probably disturbed)		4016.652
		20.31		Reference mark No. 1		3861.386
		20.32		COPPER TRIANGULATION STATION (USC&GS): Copper Creek Mine, 4.1 mi SW. of, along Copper Creek Rd. to a flat with a small hill on the south side of rd.; 45 ft S. of centerline of rd., at top of hill; cemented in the top of a 6 x 6-inch conc. post projecting 0.3 ft; a USC&GS bronze disk stamped "COPPER 1947 USC&GS" (USC&GS Quad 32 110 4 station 1008) *Latitude 32°44'28.604" Longitude 110°32'56.867"		3861.237
		21.33		Copper Creek Mine, 5.2 mi SW. of; 5.4 mi NE. of Mammoth Post Office along Copper Creek Rd.; at a 90° "S" curve where rd. changes from N. to S. side of ridge; on a small ridge; 100 ft W. of centerline of rd., by a rock cairn; set on a copper-coated rod encased in a 6-inch black tube; standard tablet stamped "34 MDC 1972 3552"		3551.599
		22.69		Mammoth Post Office, 4 mi NE. of, along Copper Creek Rd.; at northeast end of a semi-circle rd. entering main rd.; 300 ft NE. of a corral, 70 ft N. of centerline of main rd. by a rock cairn; set on copper-coated rod encased in a 6-inch black tube; standard tablet stamped "35 MDC 1972 3030"		3030.145

*-Values by USC&GS

6/12/72 b1m

6/12/72 b1m

REPORT ON PERMANENT SURVEY MARK

A293
AREA OFFICE

STATE Arizona COUNTY Pinal QUADRANGLE Mammoth - 15 Min.
QUOTE PRIMARY REFERENCE YLE Ranch, 6.8 mi. SW. of;
(Direction and distance)

DESIGNATION { LISTED G.M. 72 1942 2623
STAMPED G.M. 72 1942 2623 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____ ° _____ ' _____ " CONDITION Disturbed
Long. _____ ° _____ ' _____ " Destroyed
Elev. 2623.701 feet Not Found
ESTABLISHED BY USGS USBR
USC&GS State GS
USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:

San Manual, 9.4 mi. SE. of; YLE Ranch, 6.8 mi. SW. of; at Bingham's Sacaton Ranch; 5' ft. W. of NE. corner of main ranch house; in projecting foundation (the side of the building has been replastered, and now about 2" inches of plaster covers the tablet; the tablet can be chipped out and used.) A standard tablet stamped "G.M. 72 1942 2623"

SUBMITTED BY Terry A. Moyer
TITLE Cartographic Technician
AGENCY U.S. Geological Survey

DATE Feb. 10, 1972

Marks found in good condition need not be reported.

FILL IN ALL AVAILABLE INFORMATION

(OVER)

REPORT ON PERMANENT SURVEY MARK

AREA OFFICE

STATE Arizona COUNTY Pinal QUADRANGLE Mammoth - 15 Min.
QUOTE PRIMARY REFERENCE YLE Ranch, 7.8 mi. SW. of; 1.0 mi. S. of Sacaton Ranch;
(Direction and distance)

DESIGNATION { LISTED Chiseled Square 2676.98
STAMPED Chiseled Square TYPE OF MARK: BM SEM TT _____ TRIANG. _____

Lat. _____ ° _____ ' _____ " CONDITION Disturbed
Long. _____ ° _____ ' _____ " Destroyed
Elev. 2676.98 feet Not Found
ESTABLISHED BY USGS USBR
USC&GS State GS
USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:

YLE Ranch, 7.8 mi. SW. of; 1.0 mi. S. of Bingham's Sacaton Ranch; 10.4 mi. SE of San Manual; at base of point of rocky hill; 195 ft. E. of road, and about 15 ft. in elevation below the road, on red boulder; Chiseled Square

SUBMITTED BY Terry A. Moyer
TITLE Cartographic Technician
AGENCY U.S. Geological Survey

DATE Feb. 10, 1972

Marks found in good condition need not be reported.

FILL IN ALL AVAILABLE INFORMATION

(OVER)

Please prepare in triplicate and send to nearest address shown on reverse side.

Please prepare in triplicate and send to nearest address shown on reverse side.