

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF THE COMPLETION SURVEY

OF

THE SUBDIVISION

OF

TOWNSHIP 16½ NORTH, RANGE 11 WEST

Of the Gila and Salt River Meridian,

In the State of Arizona

EXECUTED BY

DeWitt A. Crain - Cadastral Surveyor

Under special instructions dated August 29, 1955, which provided
for the surveys included under Group No. 306, approved August 29, 1955
and assignment instructions dated February 24, 1958.

Survey commenced March 26, 1958.

Survey completed April 3, 1958.

BOOK 4552

INDEX DIAGRAM

Township $16\frac{1}{2}$ North, Range 11 West

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Township 16½ North, Range 11 West

Chains

The west half of the south boundary was surveyed by Otis Ross and the west half of the township was subdivided by Ross and Warner in 1916. The east half of the south boundary was surveyed by Hiester in 1930, and the west four miles of the north boundary (4th Standard Parallel North) were surveyed by Jackson and Harshbarger in 1915 and 1916, all of which are represented on the plat approved June 27, 1918. The east boundary of the township was surveyed by C. E. Hunter in 1930, as represented on the plat of T. 16½ N., R. 10 W. The east two miles of the north boundary (4th Standard Parallel North) were surveyed by Glenn F. Sawyer in 1926, as represented on the plat of T. 17 N., R. 10 W.

The following field notes are those of the completion survey of the subdivisional lines of T. 16½ N., R. 11 W.

The survey was executed with a W. and L. E. Gurley solar transit, serial number 541328, which conforms to the standard instrumental specifications of the Bureau of Land Management. The instrument was maintained in precise adjustment throughout the progress of the survey.

The measurements were made with a narrow steel tape, 8 chains in length, graduated to tenths of links for the first link, to links for the next 99 links, and thereafter at intervals of 10 links. The tape was tested by comparison with a standard steel tape, 1 chain in length and found to be correct. The measurements were made on the slope and vertical angle of each interval was ascertained by two clinometers in good adjustment. The slope distances were properly reduced to horizontal equivalents which are entered in the field note record.

The directions of all lines of this survey were determined by sustained angulation carried forward from the meridian and determined by the following direct solar observations:

March 27, 1958, at the corner of secs. 25, 26, 35 and 36, latitude 34° 46' 48" N. and longitude 113° 21' 49" W., I made a series of six altitude observations upon the sun for azimuth, 3 each with the telescope in direct and reversed positions and observed angle from a flag on the section line 1 mile to the south, to the right of the sun.

Time of observation (105th meridian standard time)	9h 38 ^m AM
Mean observed vertical angle	37° 04' 21"
Horizontal angle to sun	88° 38' 40"
Declination of sun	2° 35' 30"
True bearing of section line	N. 0° 01' W.

The geographic position of the southeast corner of the township as shown in data furnished with the special instructions is latitude 34° 45' 49" N. and longitude 113° 21' 12" W.

Because of the wide variation at a number of stations, no magnetic declination is reported.

Subdivision of T. 16½ N., R. 11 W.

Beginning at the cor. of secs. 1, 2, 35 and 36 on the S. bdy. of the township, which is monumented by an iron post, 2 ins. diam., set, mkd. and witnessed as described in the official record.

N. 0° 01' W., bet. secs. 35 and 36.

Over rolling land, through desert vegetation.

BOOK 4552

Subdivision of T. 16½ N., R. 11 W.

Chains	
	Desc. 130 ft. over NW. slope into wash.
7.50	Wash, 50 lks. wide, 3 ft. deep, drains N. 80° E., thence curves to N. 10° E. for 5 chs.; end of desc.; asc. 155 ft. over SE. slope.
26.30	Ridge spur, slopes E.; desc. over rolling NE. slope.
36.40	Small wash, drains E., thence over rolling E. slope.
40.00	Point for the ¼ sec. cor. of secs. 35 and 36. Set an iron post, 30 ins. long, 2½ ins. diam., 22 ins. in the ground, and in a collar of stone, with brass cap mkd.
	T16½N R11W ¼ S35 S36 1958
	Thence asc. over rolling SE. slope.
64.00	Top of ascent, bears NE. and SW.; desc. gentle N. slope.
80.00	Point for the cor. of secs. 25, 26, 35 and 36. Set an iron post, 30 ins. long, 2½ ins. diam., 6 ins. in the ground, and in a mound of stone, 3 ft. base to top, with brass cap mkd.
	T16½N R11W S26 S25 S35 S36 1958
	Land, rolling; Soil, rocky clay. Timber, none; undergrowth, desert vegetation.
	From the cor. of secs. 25, 30, 31 and 36 on the E. bdy. of the township, which is monumented with a 2 in. iron post, 14 ins. above ground, set, mkd. and witnessed as described in the official record. S. 89° 51' W., bet. secs. 25 and 36. Over rolling land, through desert vegetation. Asc. 60 ft. over SE. slope.
31.96	Top of ascent, bears N. and S.; desc. gentle W. slope.
39.98	Point for the ¼ sec. cor. of secs. 25 and 36. Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, and in a mound of stone, 3 ft. base to top, with brass cap mkd.
	T16½N R11W ¼ S25 S36 1958
	Thence desc. over W. slope.
63.96	Slope changes; asc. along N. slope.
79.96	The cor. of secs. 25, 26, 35 and 36.

Subdivision of T. 16½ N., R. 11 W.

Chains

Land, rolling.
Soil, rocky clay.
Timber, none; undergrowth, desert vegetation.

N. 0° 01' W., bet. secs. 25 and 26.

Desc. gentle N. slope, through desert vegetation.

5.57 Small wash, drains N. 70° E.; asc. 50 ft. over rolling S. slope.
28.00 Top of ascent, bears E. and W.; thence desc. over N. slope.
40.00 Point for the ¼ sec. cor. of secs. 25 and 26.

Set an iron post, 30 ins. long, 2½ ins. diam., 8 ins. in the ground, and in a mound of stone, 4 ft. base to top, with brass cap mkd.

T16½N R11W

¼
S26 | S25
1958

Desc. 125 ft. over N. slope.

49.47 Wash, 50 lks. wide, 4 ft. deep, drains N. 70° E.; asc. 100 ft. over SE. slope.
54.30 Top of small ridge spur, projects N. 70° E. for 8 chs.; desc. 100 ft. over NE. slope.
70.57 Wash, 20 lks. wide, 3 ft. deep, drains E., 8 chs. to junction; asc. 100 ft. over SE. slope.
80.00 Point for the cor. of secs. 23, 24, 25 and 26.

Set an iron post, 30 ins. long, 2½ ins. diam., 10 ins. in the ground, and in a mound of stone, 4 ft. base to top, with brass cap mkd.

T16½N R11W

S23 | S24
S26 | S25
1958

Land, rolling.
Soil, rocky clay.
Timber, none; undergrowth, desert vegetation.

From the cor. of secs. 19, 24, 25 and 30 on the E. bdy. of the township, which is monumented with a 2 in. iron post, 12 ins. above ground, set, mkd. and witnessed as described in the official record.

S. 89° 51' W., bet. secs. 24 and 25.

Through desert vegetation; asc. 75 ft. over gentle E. slope.

30.00 Spur, slopes NNE., thence desc. over NW. slope.
37.10 Wash, 20 lks. wide, 3 ft. deep, drains N. 70° E.; thence asc. along S. slope.
40.00 Point for the ¼ sec. cor. of secs. 24 and 25.

BOOK 4552

Subdivision of T. 16½ N., R. 11 W.

Chains

Set an iron post, 30 ins. long, 2½ ins. diam., on solid rock, and in a mound of stone, 5 ft. base to top, with brass cap mkd.

T16½N R11W

¼ $\frac{S24}{S25}$
1958.

Thence asc. 125 ft. over rocky SE. slope.

55.70 Rimrock, bears NE. and SW.; asc. 55 ft. over rolling SE. slope.

80.00 The cor. of secs. 23, 24, 25 and 26.

Land, rough.

Soil, rocky clay.

Timber, none; undergrowth, desert vegetation.

N. 0° 01' W., bet. secs. 23 and 24.

Asc. over SE. slope, through desert vegetation.

3.30 Top of ascent, bears N. 60° E. and S. 60° W.; desc. 125 ft. over NE. slope.

18.84 Wash, 20 lks. wide, 3 ft. deep, drains E.; asc. over SE. slope.

26.20 Top of ascent, S. rim of canyon, bears E. and W.; desc. 250 ft. into Francis Canyon.

35.18 Wash in bottom of Francis Canyon, 50 lks. wide, 4 ft. deep, drains S. 45° E., asc. 140 ft. over rocky SSW. slope to true point.

40.00 True point for the ¼ sec. cor. of secs. 23 and 24 falls on inaccessible slope; asc. 95 ft. over SW. slope.

41.50 Point selected for the witness ¼ sec. cor. of secs. 23 and 24.

Set an iron post, 30 ins. long, 2½ ins. diam., on solid rock, and in a mound of stone, 4 ft. base to top, with brass cap mkd.

T16½N R11W

¼
S23 ↓ S24
W C
1958

Witness cor. falls on N. rim of canyon.

48.00 S. rim of cove in canyon wall, bears N. 45° E. and S. 45° W.; desc. 125 ft. over NW. slope.

55.70 Bottom of cove; asc. 90 ft. to N. rim of cove.

58.40 N. rim of canyon; asc. 60 ft. over S. slope.

62.94 Intersect the Fourth Standard Parallel North.

Point for the closing cor. of secs. 23 and 24.

Set an iron post, 30 ins. long, 2½ ins. diam., and in a mound of stone, 4 ft. base to top, with brass cap mkd.

BOOK 802

Subdivision of T. 16½ N., R. 11 W.

Chains

T17N R10W
 S31
 S23 | S24
 C C
 T16½N R11W
 1958

From point of intersection, the standard cor. of secs. 31 and 32, T. 17 N., R. 10 W., bears E., 2.50 chs. dist. and is monumented with an iron post, 2 ins. diam., set, mkd. and witnessed as described in the official record.

Land, rolling.
 Soil, rocky clay.
 Timber, none; undergrowth, desert vegetation.

At the point for the ¼ sec. cor., at midpoint on the N. bdy. of sec. 24.

Set an iron post, 30 ins. long, 2½ ins. diam., 24 ins. in the ground, with brass cap mkd.

T17N R10W
 ¼ S24
 T16½N R11W
 1958

Raise a mound of stone, 3 ft. base, 3 ft. high, S. of cor.

From this cor., the standard ¼ sec. cor. of sec. 32, T. 17 N., R. 10 W., bears E., 2.535 chs. dist., and is monumented with an iron post, 1 in. diam., set, mkd. and witnessed as described in the official record.

From the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the township, which is monumented by a 2 in. iron post, set, mkd. and witnessed as described in the official record.

N. 0° 01' W., bet. secs. 34 and 35.

Through desert vegetation; asc. gentle SE. slope.

10.30 Top of ascent, ridge spur, slopes N. 80° E.; desc. 75 ft. over NE. slope.

15.80 Wash, 30 lks. wide, 3 ft. deep, drains N. 80° E.; asc. 130 ft. over SE. slope.

30.80 Top of ascent; desc. over NE. slope.

40.00 Point for the ¼ sec. cor. of secs. 34 and 35.

Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, with brass cap mkd.

T16½N R11W
 ¼
 S34 | S35
 1958

Raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.

BOOK 4552

Subdivision of T. 16½ N., R. 11 W.

Chains	Thence desc. over NE. slope.
43.60	Small wash, 20 lks. wide, 2 ft. deep, drains E.; thence over gently rolling land.
52.40	Ridge spur, slopes E.; desc. 40 ft. over NNE. slope.
80.00	Point for the cor. of secs. 26, 27, 34 and 35. Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, and in a mound of stone to the W., 3 ft. base, 3 ft. high, with brass cap mkd.
	T16½N R11W. S27 S26 S34 S35 1958
	Land, rolling. Soil, rocky clay. Timber, none; undergrowth, desert vegetation.
	From the cor. of secs. 25, 26, 35 and 36. S. 89° 54' W., bet. secs. 26 and 35. Desc. over NW. slope into wash, through desert vegetation.
6.50	Small wash, drains N. 45° E.; asc. rolling NE. slope.
40.07	Point for the ¼ sec. cor. of secs. 26 and 35. Set an iron post, 30 ins. long, 2½ ins. diam., 18 ins. in the ground, with a collar of stone, with brass cap mkd.
	T16½N R11W ¼ S26 S35 1958
	Thence asc. 85 ft. over NE. slope.
49.00	Road, bears N. and S.
80.14	The cor. of secs. 26, 27, 34 and 35. Land, rolling. Soil, rocky clay. Timber, none; undergrowth, desert vegetation.
	N. 89° 59' W., bet. secs. 27 and 34. Asc. along N. slope, through desert vegetation.
7.99	End of ascent; desc. 65 ft. along N. slope into wash.
29.14	Wash, drains N. 80° E.; asc. 110 ft. over SE. slope.
40.09	Point for the ¼ sec. cor. of secs. 27 and 34. Set an iron post, 30 ins. long, 2½ ins. diam., on solid rock, and in a mound of stone, 4 ft. base, with brass cap mkd.

Subdivision of T. 16½ N., R. 11 W.

Chains

T16½N R11W

$$\frac{1}{4} \frac{S27}{S34}$$
 1958

Asc. 240 ft. along SE. slope.

65.63 Rim of rock, bears NE. and SW, 2 chs. to end; thence over rolling S. slope.

80.18 The cor. of secs. 27, 28, 33 and 34, which is monumented with an iron post, 2 ins. diam., set, mkd. and witnessed as described in the official record.

Land, rolling.

Soil, rocky clay.

Timber, none; undergrowth, desert vegetation and yucca.

From the cor. of secs. 27, 28, 34 and 35.

N. 0° 01' W., bet. secs. 26 and 27.

Thence desc. 100 ft. through desert vegetation.

8.35 Wash, 20 lks. wide, 4 ft. deep, drains E.; asc. 90 ft. over S. slope.

17.10 Top of ascent, bears E. and W.; desc. 120 ft. over N. slope.

29.20 Wash, 20 lks. wide, 3 ft. deep, drains N. 80° E. to reservoir, 9 chs. dist.; asc. 65 ft. over S. slope.

32.23 Old road, bears N. 15° W. and S. 15° E.

40.00 Point for the ¼ sec. cor. of secs. 26 and 27.

Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, with brass cap mkd.

T16½N R11W

$$\frac{1}{4} \frac{S27|S26}{S27|S26}$$
 1958

Raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Thence asc. over S. slope.

42.70 Top of ascent; desc. 190 ft. over N. slope.

45.68 Gate in fence, bears N. 70° E. and S. 70° W.; junction with fence from N. 15° W.

60.90 N. rim of mesa, bears E. and W.; desc. 175 ft. over NNE. slope.

80.00 Point for the cor. of secs. 22, 23, 26 and 27.

Set an iron post, 30 ins. long, 2½ ins. diam., 22 ins. in the ground, with brass cap mkd.

T16½N R11W

$$\frac{S22|S23}{S27|S26}$$
 1958

Raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Subdivision of T. 16½ N., R. 11 W.

Chains

Land, rolling.
Soil, rocky clay.
Timber, none; undergrowth, desert vegetation.

From the cor. of secs. 23, 24, 25 and 26.

S. 89° 54' W., bet. secs. 23 and 26.

Through desert vegetation; asc. 80 ft. over gentle rolling SE. slope.

40.10 Point for the ¼ sec. cor. of secs. 23 and 26.

Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, mound of stone to N., with brass cap mkd.

T16½N R11W

¼ $\frac{S23}{S26}$

1958

Thence asc. over E. slope.

45.40 End of ascent; desc. 110 ft. over NW. slope.

51.20 Fence, bears N. 20° E. and S. 20° W.

57.12 Small wash, drains N.; asc. over NE. slope of spur; enter timber.

60.48 Top of spur, slopes N. 20° E.; desc. 145 ft. over NW. slope.

77.21 Wash, drains N.; asc. 80 ft. over E. slope.

80.20 The cor. of secs. 22, 23, 26 and 27.

Land, rolling.
Soil, rocky clay.
Timber, juniper; undergrowth, mahogany and brush oak.

From the cor. of secs. 22, 23, 26 and 27.

N. 89° 58' W., bet. secs. 22 and 27.

Asc. 105 ft. over E. slope, through desert vegetation.

12.20 Top of small ridge spur, slopes N.

14.20 Small wash, drains N.

27.19 Fence, bears N. 45° W.

38.20 Road, bears N. 30° W. on curve.

40.11 Point for the ¼ sec. cor. of secs. 22 and 27.

Set an iron post, 30 ins. long, 2½ ins. diam., 8 ins. in the ground, and in a mound of stone, 4 ft. base, with brass cap mkd.

T16½N R11W

¼ $\frac{S22}{S27}$

1958

Deposit broken glass at base of post.

BOOK 952

Subdivision of T. 16½ N., R. 11 W.

Chains

From this ¼ sec. cor., S. 8.28 chs. dist., to a point from which:

SW. cor. of shop bears N. 6° 10' E., 6.19 chs.

SW. cor. of barn bears N. 88° 30' E., 6.70 chs.

NW. cor. of main house bears S. 26° 40' E., 0.92 lks.

NW. cor. of 2nd house bears S. 38° 25' E., 3.00 chs.

SW. cor. of 3rd house bears S. 57° 25' E., 7.50 chs.

Windmill bears S. 22° 20' W., 6.68 chs.

Water tank bears S. 7° 40' W., 5.98 chs.

Thence asc. over rolling NE. slope, 85 ft.; through timber.

74.34 Top of ascent, bears N. 10° E. and S. 10° W.; desc. over gentle NW. slope.

78.24 Fence, bears N. 48° E.

80.22 The cor. of secs. 21, 22, 27 and 28, monumented with an iron post, 2 ins. diam., set, mkd. and witnessed as described in the official record.

Land, rolling.

Soil, rocky clay.

Timber, juniper; undergrowth, desert vegetation.

From the cor. of secs. 22, 23, 26 and 27.

N. 0° 01' W., bet. secs. 22 and 23.

Desc. along NE. slope, through scattered juniper and scrub oak.

28.90 Slope changes to N.

40.00 Point for the ¼ sec. cor. of secs. 22 and 23.

Set an iron post, 30 ins. long, 2½ ins. diam., 20 ins. in the ground, with brass cap mkd.

T16½N R11W

¼
S22 | S23
1958

Raise a mound of stone, 3 ft. base, 3 ft. high, W. of cor.

Thence desc. 60 ft. over N. slope.

44.93 Fence, bears N. 68° E. and S. 68° W.

50.60 Wash, 30 lks. wide, 3 ft. deep, drains S. 20° E.; asc. 40 ft. over S. slope.

62.91 Intersect the Fourth Standard Parallel North.

Point for the closing cor. of secs. 22 and 23.

Set an iron post, 30 ins. long, 2½ ins. diam., 22 ins. in the ground, with brass cap mkd.

Subdivision of T. 16½ N., R. 11 W.

Chains

T17N R11W
S36
 S22 | S23
 C C
 T16½N
 1958

Raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor.

From point of intersection, the standard cor. of Ts. 17 N., Rs. 10 and 11 W., bears E., 2.75 chs. dist., and is monumented with an iron post, 3 ins. diam., set, mkd. and witnessed as described in the official record.

Land, rolling.

Soil, rocky clay.

Timber, juniper; undergrowth, mahogany and brush oak.

At the point for the ¼ sec. cor., midpoint on the N. bdy. of sec. 23.

Set an iron post, 30 ins. long, 2½ ins. diam., 18 ins. in the ground, and in a mound of stone, 4 ft. base to top, with brass cap mkd.

T17N R10W
¼ S23
 T16½N R11W
 1958

From this cor., the standard ¼ sec. cor. of sec. 31, T. 17 N., R. 10 W., monumented with an iron post, 1 in. diam., set, mkd. and witnessed as described in the official record, bears E., 2.625 chs. dist.

At the point for the ¼ sec. cor., midpoint on the N. bdy. of sec. 22.

Set an iron post, 30 ins. long, 2½ ins. diam., 18 ins. in the ground, and in a mound of stone to top, with brass cap mkd.

T17N R11W
¼ S22
 T16½N R11W
 1958

From this cor., the standard ¼ sec. cor. of sec. 36, T. 17 N., R. 11 W., monumented with an iron post, 1 in. diam., set, mkd. and witnessed as described in the official record, bears E., 2.90 chs. dist.

GENERAL DESCRIPTION

The land within T. 16½ N., R. 11 W. is principally rolling and broken mesa, known as Goodwin Mesa, with a general east to north-easterly exposure and drainage toward the Francis Creek, which flows southeasterly.

The soil is principally a rocky clay, with numerous rock outcrops, covered with an undergrowth of desert vegetation and scattered growth of scrub juniper.

There is one trail rut road entering the south boundary of sec. 35. and leaving the north boundary of sec. 22.

The Bogle Cattle Co. is located in the NE¼ NW¼ and NW¼ NE¼ of sec. 27.

CERTIFICATE OF CADASTRAL ENGINEER

I, DeWitt A. Crain, HEREBY CERTIFY upon honor that, in pursuance of special instructions bearing date of the 29th day of August, 1955, I have ~~surveyed~~ completed the survey of the subdivision of Township 16 1/2 North, Range 11 West

of the Gila & Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

December 5, 1958
Salt Lake City, Utah

DeWitt A. Crain
DeWitt A. Crain - Cadastral Surveyor

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT,
Washington, D. C., MAR 10 1959, 19

The foregoing field notes of the ~~survey of~~ completion survey of the subdivision of Township 16 1/2 North, Range 11 West, Gila and Salt River Meridian, Arizona

executed by DeWitt A. Crain, Cadastral Surveyor
having been critically examined and found correct, are hereby approved.

Carl G. Harrington
Cadastral Engineering Staff Officer.

CERTIFICATE OF TRANSCRIPT

I ~~CERTIFY~~ that the foregoing transcript of the field notes of the above described surveys in
is a true copy of the original field notes.

Cadastral Engineering Staff Officer.