

3679

Book "O"
4-679

BOOK 3679

FIELD NOTES

OF THE SURVEY OF

part of Subdivision lines of

TOWNSHIP 12 SOUTH, RANGE 5 EAST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Charles E. Hunter,

U. S. Transitman,

In the capacity of U. S. Surveyor..., under Special Instructions dated September 25, 1919,
issued by the United States Surveyor General to govern surveys included in Group
No. 100, Arizona, which were approved by the Commissioner of the General Land
Office, October 22, 1919, and Assignment Instructions dated December 1, 1924.

Survey commenced February 24, 1925.

Survey completed February 24, 1925.

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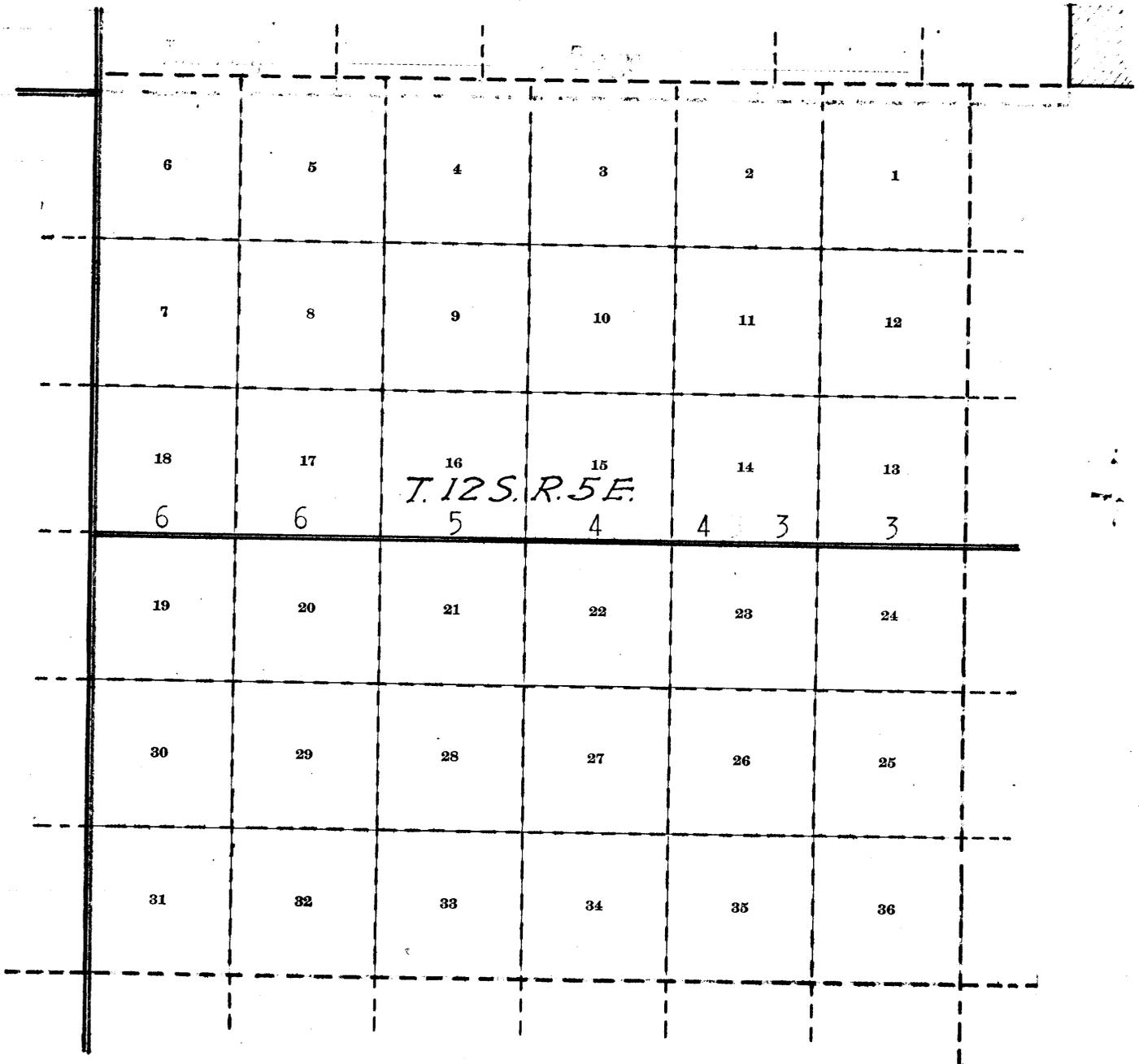
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1A

Book "0"
Group 100 - - Arizona.

BOOK 3679

INDEX DIAGRAM.



———— Lines surveyed under this group.

———— Lines surveyed under current Group 99.

———— Accepted surveys.

----- Unsurveyed.

 Areas surveyed as per accepted plats on file.

Book "0"
 Group 100 - - Arizona.
 Township 12 South, Range 5 East.

DATE DIAGRAM.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
2-24-25	2-24-25	2-24-25	2-24-25	2-24-25	2-24-25
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

————— Indicates lines surveyed by Charles E. Hunter, U.S.T.,
 on dates shown thereon.

Surveys hereinafter described executed by Charles E. Hunter, U.S. Transitman, on dates shown on diagram on page 1 hereof, using Buff & Buff Transit No. 10125. This instrument is equipped with full vertical circle and Smith's solar attachment. Unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

Feb. 21, 1925: Examine the adjustment of the instrument, and correct all errors; then, to test the solar apparatus by comparing its indications from observations made during a.m. and p.m. hours with a meridian established by Polaris observation proceed as follows:

At camp, near center of sec. 34, T. 11 S., R. 4 E. (unsurveyed) Gila and Salt River Base and Meridian, Arizona, in lat. $32^{\circ}25\frac{1}{2}'N.$, and long. $111^{\circ}56\frac{1}{4}'W.$, at 9h. 25.0m. p.m., l.m.t., observe Polaris at western elongation, making four observations, two each with the telescope in direct and reversed positions, and mark the mean point in the line thus determined, on a peg driven firmly in the ground 5 chs. N.

Azimuth of Polaris at western elongation = $1^{\circ}17'47''$.

Feb. 22, 1925: At 7h. 30m. a.m., l.m.t., lay off the azimuth of Polaris, $1^{\circ}18'$ to the E. and mark the meridian thus determined by a tack in a peg driven firmly in the ground, 5 chs. N.

At 8h. 0m. a.m., l.m.t., set off $32^{\circ}25\frac{1}{2}'N.$ on the lat. arc; $10^{\circ}12'S.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At app. noon, with the latitude arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is $10^{\circ}9'S.$, which agrees with the computed decl. of the sun.

At 4h. 00m. p.m., l.m.t., with the lat. arc unchanged, set off $10^{\circ}5'S.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within 1' of the true meridian, conclude that the adjustment of the instrument is satisfactory.

Unless otherwise specified, all measurements are made with Lufkin steel tape, 5 chs. in length, compared with a Chesterman standard steel tape, and found correct. All measurements are made on the slope, the vertical angles determined with clinometer, and the slope measurements properly reduced to the horizontal equivalent for entry in the field notes.

Survey of part of Subdivision lines of Township 12 South, Range 5 E. 3

Chains.

The following notes describe the survey of the third latitudinal sec. line, thru. T. 12 S., R. 5 E., G. & S. R. B. & M., Arizona, which line forms a part of the bdy. of the Papago Indian Reservation, the land on the S. thereof being within said reservation, The bearing of the line was obtained by survey of a random line west, thru. Ts. 12 S., Rs. 5 and 6 E., as described in Book "N" of this group.

From cor. of secs. 13, 18, 19 and 24, established in a position theoretically on the unsurveyed range line, bet. Rs. 5 and 6 E., as described in Book "N," S. 89° 59' W., on a true line, bet. secs. 13 and 24. Over nearly level land, thru. scattering timber and undergrowth.

- 17.70 Wash, 10 lks. wide, course NE.
- 24.40 Wash, 10 lks. wide, course NE.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., with brass cap, marked

1/4 S 13
S 24
1925

from which,

- An ironwood, 8 ins. in diam., brs. N. 28° E., 104 lks. dist., marked 1/4 S 13 BT.
- A palo verde, 4 ins. in diam., brs. S. 2° E., 308 lks. dist., marked 1/4 S 24 BT.

Continue over nearly level land, thru. scattering timber and dense undergrowth.

- 42.70 Wash, 10 lks. wide, course NE.
- 52.40 Wash, 10 lks. wide, course NE.
- 75.50 Wash, 20 lks. wide, course NE.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, with brass cap, marked

T12S | R5E
S14 | S13
S23 | S24
1925

from which,

- A palo verde, 6 ins. in diam., brs. N. 8 1/2° E., 145 lks. dist., marked T12S R5E S13 BT.
- A palo verde, 5 ins. in diam., brs. S. 53 1/2° E., 228 lks. dist., marked T12S R5E S24 BT.
- A palo verde, 5 ins. in diam., brs. S. 49 3/4° W., 83 lks. dist., marked T12S R5E S23 BT.
- An ironwood, 10 ins. in diam., brs. N. 48 1/2° W., 233 lks. dist., marked T12S R5E S14 BT.

Land, nearly level.
Soil, sandy loam, 2nd rate.
Timber, palo verde and ironwood.
Undergrowth, greasewood, ocotillo and cholla cactus.

S. 89° 59' W., on true line, bet. secs. 14 and 23. Over nearly level land, thru. scattering timber and undergrowth.

- 9.70 Wash, 10 lks. wide, course NE.
- 13.40 Old road, brs. N. and S.
- 17.50 Wash, 10 lks. wide, course NE.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 15 ins. in the ground to bed rock supported in a mound of stone for 1/4 sec. cor., with brass cap, marked

A Survey of part of Subdivision lines of T. 12 S., R. 5 E.

Chains.

$$\frac{1}{4} \text{ S 14}$$

$$\text{S 23}$$

$$1925$$

from which,

An ironwood, 5 ins. in diam., brs. N. $31\frac{1}{4}^{\circ}$ E., 188
lks. dist., marked $\frac{1}{4}$ S 14 BT.An ironwood, 4 ins. in diam., brs. S. $2\frac{3}{4}^{\circ}$ E., 130
lks. dist., marked $\frac{1}{4}$ S 23 BT.Continue over nearly level land, thru. scattering timber
and undergrowth.

58.80 Wash, 100 lks. wide, course NE.

72.00 Same wash, course SE.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for cor. of secs. 14, 15, 22 and 23, with brass
cap, marked

T12S	R5E
S15	S14
S22	S23
1925	

from which,

An ironwood, 14 ins. in diam., brs. N. 6° E., 32
lks. dist., marked T12S R5E S14 BT.A palo verde, 5 ins. in diam., brs. S. 15° E., 116
lks. dist., marked T12S R5E S23 BT.An ironwood, 10 ins. in diam., brs. S. 13° W., 178
lks. dist., marked T12S R5E S22 BT.A palo verde, 7 ins. in diam., brs. N. 56° W., 143
lks. dist., marked T12S R5E S15 BT.

Land, nearly level.

Soil, sandy and gravelly, 3rd rate.

Timber, ironwood and palo verde.

Undergrowth, greasewood and cactus.

S. $89^{\circ}59'$ W., on a true line, bet. secs. 15 and 22.Over nearly level land, thru. scattering timber and under-
growth.

24.40 Wash, 10 lks. wide, course SE.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
$$\frac{1}{4} \text{ S 15}$$

$$\text{S 22}$$

$$1925$$

from which,

An ironwood, 8 ins. in diam., brs. N. 37° E., 44
lks. dist., marked $\frac{1}{4}$ S 15 BT.A palo verde, 5 ins. in diam., brs. S. $73\frac{1}{2}^{\circ}$ W., 43
lks. dist., marked $\frac{1}{4}$ S 22 BT.Continue over nearly level land, thru. scattering timber
and undergrowth.

48.60 Wash, 20 lks. wide, course NE.

68.10 Wash, 10 lks. wide, course NE.

73.70 Wash, 10 lks. wide, course NE.

Enter rolling land.

Ascend gradually over NE. slope, to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 14 ins. in the
ground to bed rock, supported in a mound of stone, for
cor. of secs. 15, 16, 21 and 22, with brass cap, marked

T12S	R5E
S16	S15
S21	S22
1925	

from which,

A palo verde, 4 ins. in diam., brs. N. $34\frac{1}{2}^{\circ}$ E., 214
lks. dist., marked T12S R5E S15 BT.

Chains.

A palo verde, 4 ins. in diam., brs. S. 45° E., 189
 lks. dist., marked T12S R5E S22 BT.
 A palo verde, 4 ins. in diam., brs. S. 41 $\frac{3}{4}$ ° W., 196.
 lks. dist., marked T12S R5E S21 BT.
 An ironwood, 4 ins. in diam., brs. N. 58 $\frac{1}{4}$ ° W., 162.
 lks. dist., marked T12S R5E S16 BT.

Land, nearly level and rolling.
 Soil, sandy and gravelly, 3rd rate.
 Timber, ironwood and palo verde.
 Undergrowth, greasewood and cactus.
 Scattering giant cactus.

S. 89° 59' W., on a true line, bet. secs. 16 and 21.
 Over rolling land, thru. scattering timber and undergrowth.
 Ascend 23 ft., over NE. slope, to
 6.90 Wash, 20 lks. wide, course NE. Enter mountainous land.
 Ascend 110 ft., over E. slope.
 11.90 Spur, slopes NE.
 Descend 16 ft., over NW. slope.
 18.70 Wash, 10 lks. wide, course NE.
 Ascend 107 ft., over NE. slope, to
 24.20 Wash, 10 lks. wide, course NE.
 Ascend 208 ft., over E. slope.
 33.60 Spur, slopes NE.
 Descend 30 ft., over NW. slope.
 39.90 Wash, 10 lks. wide, course NE.
 Ascend slightly over NE. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in
 the ground to bed rock, deposit a stone, marked with
 a cross (x) at base of post, and raise a mound of stone
 around post, for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 16
 S 21
 1925

No bearing trees available.
 Ascend 15 ft., over NE. slope, to
 45.50 Wash, 10 lks. wide, course NE.
 Ascend 137 ft., over E. slope.
 54.50 Spur, slopes NE.
 Descend 70 ft., over NW. slope.
 58.90 Wash, 10 lks. wide, course NE.
 Ascend 192 ft., over NE. slope.
 76.00 Main ridge of the Santa Rosa Mountains, brs. NW. and SE.
 Descend 64 ft., over SW. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in
 the ground to bed rock, deposit a stone, marked with
 a cross (x) at base of post, and raise a mound of stone
 around post, for cor. of secs. 16, 17, 20 and 21, with brass
 cap, marked

T12S | R5E
 S17 | S16
 S20 | S21
 1925

No bearing trees available.
 Land, rolling and mountainous.
 Soil, rocky, 4th rate.
 Timber, palo verde.
 Undergrowth, greasewood and ocotillo.
 Scattering giant cactus.

S. 89° 59' W., on a true line, bet. secs. 17 and 20.
 Over mountainous land, thru. scattering timber and under-
 growth.

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6. Survey of part of Subdivision lines of T. 12 S., R. 5 E.

Chains.

0.99 Descend 7 ft., over SW. slope.
 4.50 Descend 14 ft., over S. slope.
 9.50 Ascend 102 ft., over SE. slope.
 17.90 Descend 53 ft., over S. slope.
 20.80 Ascend 55 ft., over SE. slope.
 23.20 Spur, slopes SW.
 36.00 Descend 45 ft., over NW. slope, to
 Wash, 10 lks. wide, course SW.
 40.00 Descend 372 ft., over SW. slope, to
 Wash, 10 lks. wide, course SW.
 40.00 Descend 80 ft., over S. slope, to
 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in
 the ground to bed rock, deposit a stone marked with a
 cross (x) at base of post, and raise a mound of stone
 around post, for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 17
 S 20
 1925

No bearing trees available.
 49.10 Descend 73 ft., over S. slope, to
 Spur, slopes SW.
 65.20 Descend 225 ft., over NW. slope.
 Wash, 10 lks. wide, course SW
 72.60 Ascend 35 ft., over SE. slope.
 Spur, slopes SW.
 80.00 Descend 60 ft. over W. slope, to
 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in
 the ground, for cor. of secs. 17, 18, 19 and 20, with brass
 cap, marked

T12S | R5E
 S18 | S17
 S19 | S20
 1925

No bearing trees available.
 Raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, palo verde.
 Undergrowth, ocotilla and cholla cactus.

s. 89° 59' W., on a true line, bet. secs. 18 and 19.
 Over mountainous land, thru. scattering timber and under-
 growth.
 11.40 Descend 110 ft., over W. slope, to
 Wash, 10 lks. wide, course SW.
 16.10 Descend 55 ft., over SW. slope, to
 Wash, 20 lks. wide, course NW.
 Leave mountainous and enter gently rolling land and dense
 undergrowth.
 40.00 Descend gradually over NW. slope, to
 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 18
 S 19
 1925

from which,

An ironwood, 4 ins. in diam., brs. S. 5 $\frac{1}{2}$ ° E., 112
 lks. dist., marked $\frac{1}{4}$ S 19 BT.

An ironwood, 5 ins. in diam., brs. N. 11 $\frac{3}{4}$ ° W., 135
 lks. dist., marked $\frac{1}{4}$ S 18 BT.

Continue over gently rolling land, thru. scattering timber
 and dense undergrowth.

Survey of part of Subdivision lines of T.12 S., R.5 E. 7

Chains

40.20 Descend gradually over NW.slope, to Wash, 30 lks.wide, course NW.

78.07 Descend gradually over NW.and W. slopes, to Intersect the cor.of secs.13,18,19 and 24, T.12 S., Rs.4 and 5 E., on the First Guide Meridian East, established by William H.Thorn, U.S.Cadastral Engineer in May,1924, under current Group No.99, which is an iron post 2ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by four properly marked bearing trees, one each NE., SE., SW. and NW.of cor. The boundary of the Papago Indian Reservation extends N. from this cor., identical with the range line and E., identical with the Third latitudinal sec. line, thru.T.12 S.,R.5 E.

Land, mountainous and gently rolling.
 Soil, gravelly and rocky, 3rd and 4th rate.
 Timber, palo verde and ironwood.
 Undergrowth, greasewood, ocotillo and cholla cactus.
 Scattering giant cactus.

FINAL FIELD TEST OF BUFF AND BUFF TRANSIT, NO.10125, BY
CHARLES E. HUNTER, U.S. TRANSITMAN.

February 25, 1925: Examine the adjustment of the instrument, and find no errors; then, to test the solar apparatus by comparing its indications during a.m. and p.m. hours with a meridian determined by Polaris observation, Feb.21, 1925, at camp in sec.34, T.11 S., R.4 E., unsurveyed, as described in Book "N" of this group, proceed as follows:

At 8h.00m.a.m., l.m.t., set off $32^{\circ}25\frac{1}{2}'$ N. on the lat.arc; $9^{\circ}5'$ S. on the decl.arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, observe the sun on the meridian, obtaining a reading of $9^{\circ}3'S.$ on the decl.arc, which agrees with the computed decl.of the sun.

At 4h.0m.p.m., l.m.t., with the lat. arc unchanged, set off $8^{\circ}57\frac{1}{2}'$ S. on the decl.arc, and determine the meridian with the solar, which agrees with the true meridian.

The above described tests demonstrate that the instrument has remained in satisfactory adjustment throughout the execution of the surveys hereinbefore described.

GENERAL DESCRIPTION.

There are no areas surveyed in Township 12 South, Range 5 East.

The third latitudinal sec.line surveyed as described in the foregoing notes, and the west boundary of the Tp. (First Guide Meridian East) surveyed in May, 1924, by W.H.Thorn, U.S.C.E. under current Group No.99 are the only surveyed lines of T.12 S., R. 5 E.

The surface of the greater part of the west half of the township is rolling and mountainous, and the entire east half is level or nearly level. The mountains are known as the Santa Rosa Mountains.

The soil in the mountains is mostly rocky, 4th rate, and the remainder of the township has a sandy and gravelly soil, 2nd and 3rd rate.

The timber is scattering over the entire township, and consists of palo verde, ironwood and mesquite.

A scattering undergrowth of greasewood, ocotillo and cholla cactus is prevalent in all parts, and scattering giant cactus in the west half of the township.

A periodical growth of grass occurring in rainy seasons furnishes fair grazing.

There are no settlers or improvements.

There are no springs and no running streams of water.

No indication of valuable mineral was observed during the progress of survey.

There is no well traveled road in the township.

The entire south half of this township is within the Papago Indian Reservation, the section line surveyed, as described in the foregoing notes forming a part of the boundary of said Reservation.

CERTIFICATE OF UNITED STATES TRANSITMAN.

10

I, Charles E. Hunter, U. S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 100, Arizona, bearing date of the 25th day of September, 19 19, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Subdivision lines of

TOWNSHIP 12 SOUTH. RANGE 5 EAST.

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 1 hereof the foregoing field notes/as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 100, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place: Phoenix, Arizona

Charles E. Hunter

U. S. Transitman.

Date: October 28, 1925.

APPROVAL.

OFFICE OF UNITED STATES SUPERVISOR OF SURVEYS,

Denver, Colorado, November 25, 1925.

The foregoing field notes of the survey of part of the Subdivision lines of

TOWNSHIP 12 SOUTH. RANGE 5 EAST.

of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Charles E. Hunter, U. S. Transitman,

under his special instructions dated September 25, 1919, for Group 100, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Wm. Johnson
United States Supervisor of Surveys.

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.