

OK 19

Book "F"

FIELD NOTES

OF THE SURVEY OF THE

a portion of the Subdivision lines of

TOWNSHIP 32 NORTH, RANGE 8 WEST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Horace M. Muscott, and Francis R. Ihrie, U. S. Transitmen,

In the capacity of U. S. Surveyor, under Special Instructions dated February 25, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 106, which were approved by the Commissioner of the General Land Office, March 8, 1920, and Assignment Instructions dated June 2, 1920

Survey commenced August 3, 1920

Survey completed August 8, 1920

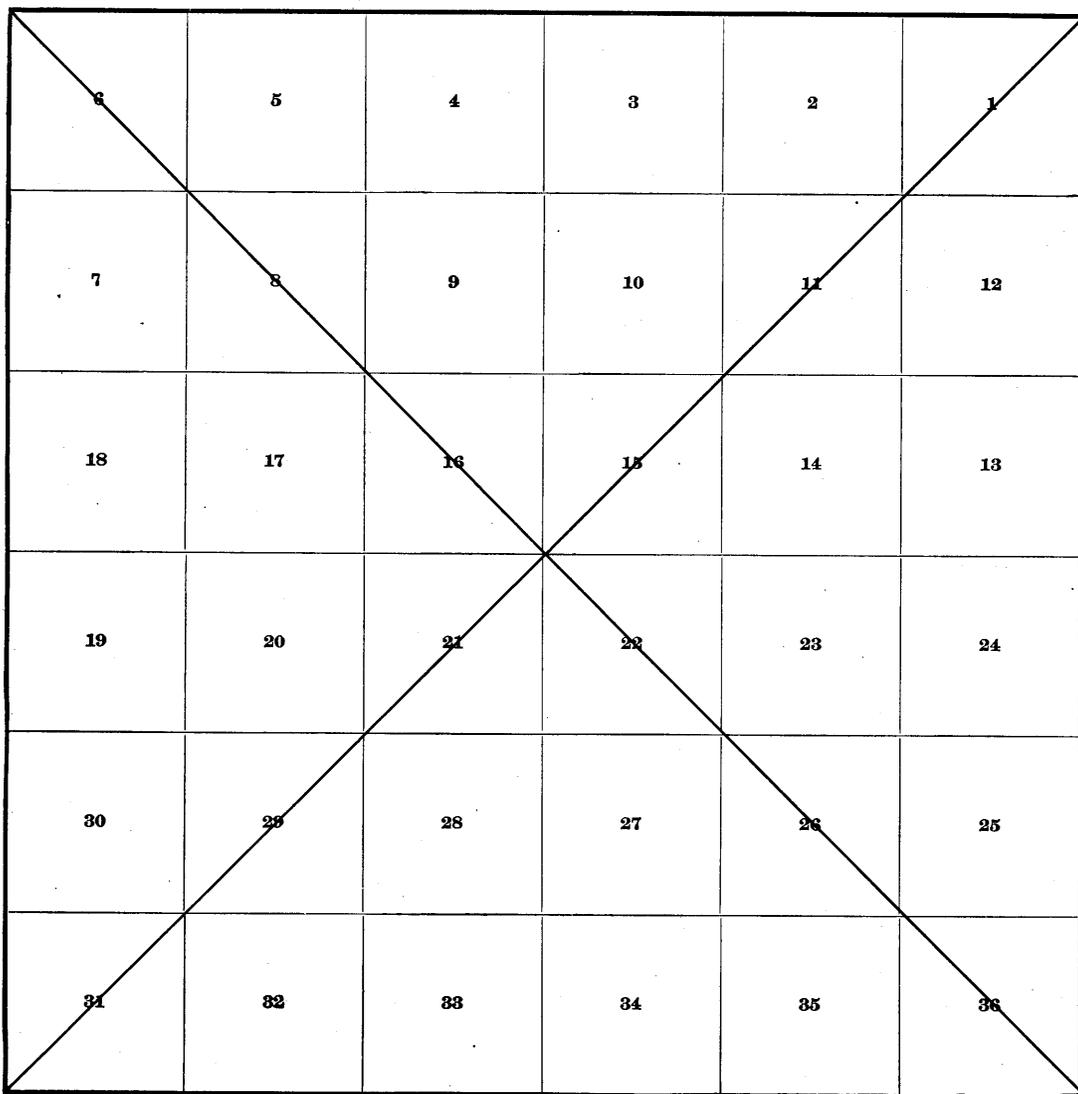
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~~INDEX DIAGRAM.~~

~~Township~~

~~Range~~



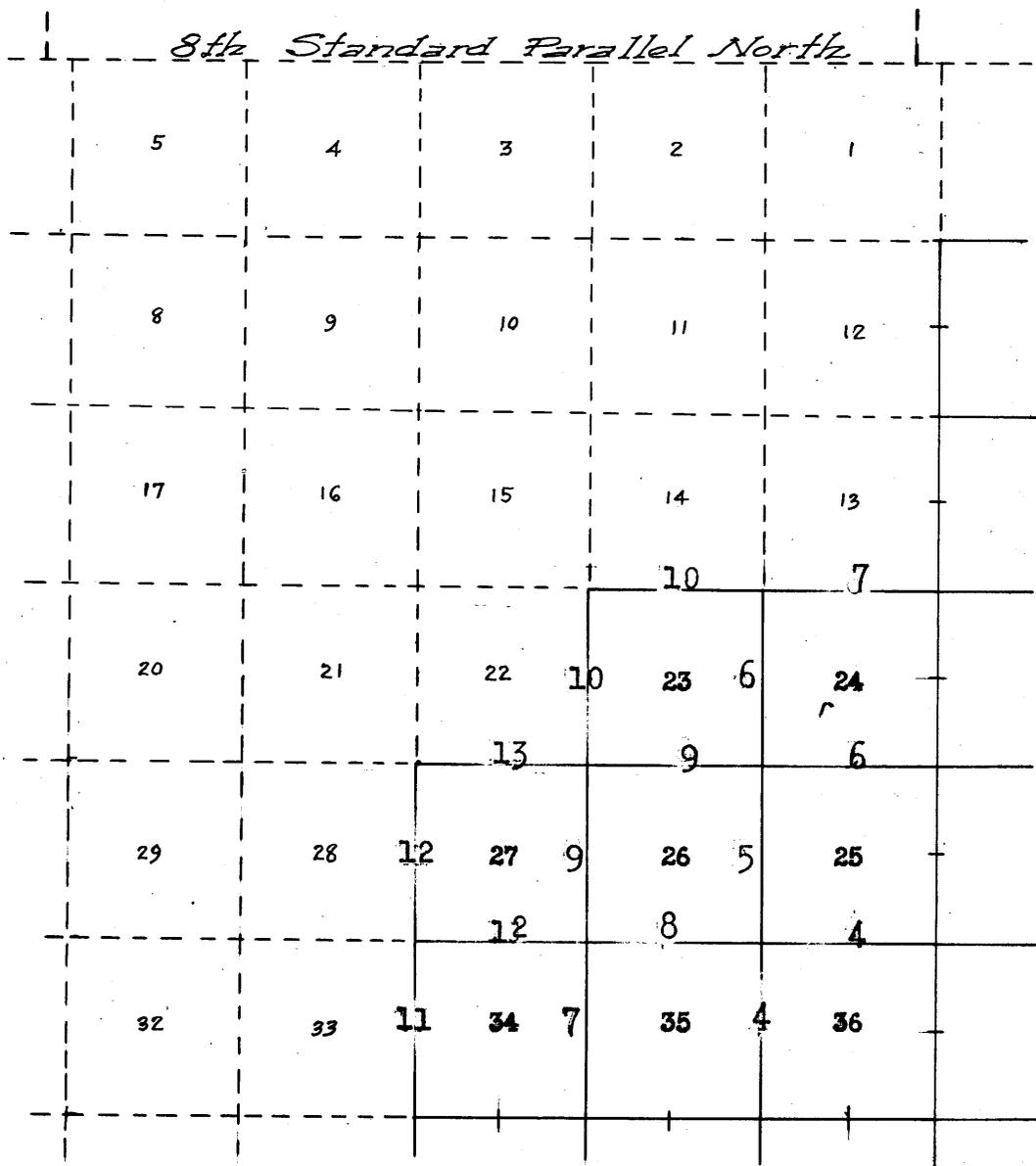
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BOOK 3516

Book "F"

INDEX DIAGRAM

TOWNSHIP 32 NORTH, RANGE 8 WEST



Black lines indicate surveys executed under this Group.

Red lines indicate surveys executed under current Group 105.

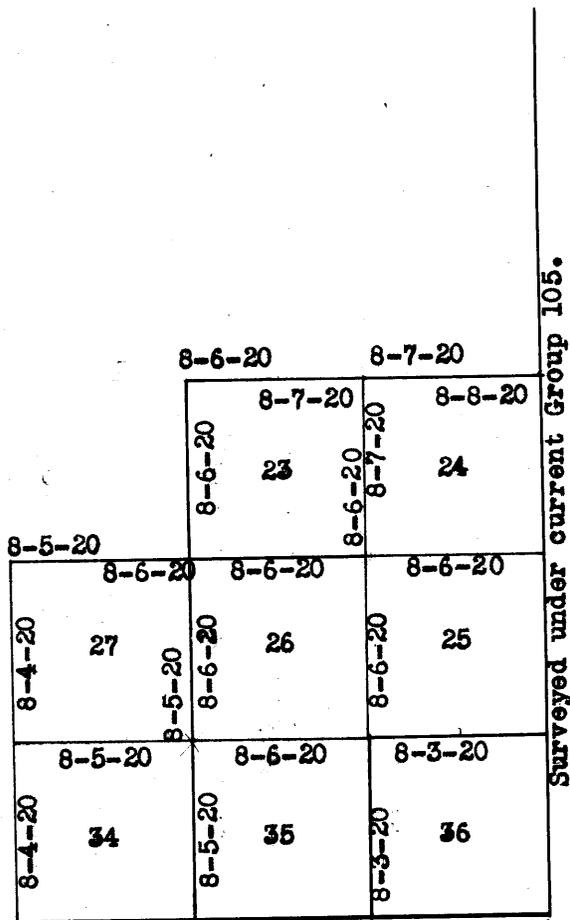
Dotted lines indicate unsurveyed lines.

BOOK 3516

BOOK "F"

DATE DIAGRAM

TOWNSHIP 32 NORTH, RANGE 8 WEST



See book "E" for dates of execution of survey of this line

Red lines on above diagram indicate surveys executed by Horace M. Muscott,
U. S. Transitman, on dates shown thereon.

Blue lines on above diagram indicate surveys executed by Francis R. Ihrie,
U. S. Transitman, on dates shown thereon.

Surveys hereinafter described, executed by Horace M. Muscott and Francis R. Ihrie, U.S. Transitmen, on dates shown on diagram on page 2 hereof, using respectively, Young and Sons Transit No. 8489, and Buff and Buff transit No. 9977. Each instrument is equipped with full vertical circle, and the Smith solar attachment; unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

August 3, 1920: We examine the adjustment of each 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 with each instrument as follows:

At the cor. of secs. 1, 2, 35 and 36, on S. bdy. of T. 32 N., R. 8 W., Gila and Salt River Base and Meridian, Arizona, in latitude $36^{\circ}06\frac{1}{2}'N.$, and in longitude, $113^{\circ}06'W.$, at 7h. 30m. a.m., l.m.t., make an hour angle observation on Polaris west of the meridian, two each with the telescope in direct and reversed positions, and mark the mean point in the lines thus determined on a peg driven firmly in the ground about 5 chs. N.

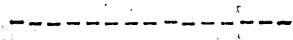
Lay off the azimuth of Polaris $55.5'$ to the east, and mark a point in the meridian by a tack in a stake driven firmly in the ground 5 chs. N.

August 3, 1920: At 8h. 00m. a.m., l.m.t., set off $36^{\circ}06\frac{1}{2}'N.$ on the latitude arc; $17^{\circ}30'N.$ on the declination arc, and determine a meridian with the solar, which agrees with the true meridian.

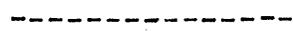
At app. noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is $17^{\circ}27'N.$, which agrees with the computed decl. of the sun.

At 4h. 00m. p.m., l.m.t., with the lat. arc unchanged, set off $17^{\circ}25'N.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made with both instruments during the usual hours of the solar work come within $1'30''$ of the true meridian, we conclude that the adjustments of the instrument are satisfactory.



Unless otherwise specified, all measurements are made with Lufkin steel tapes, 5 chs. in length, compared with Lufkin standard steel tape, and found correct. The measurements are made on the slope, the vertical angle determined, and the slope measurements properly reduced to the true horizontal distances.



4 Survey of part of Subdivision lines of T.32 N., R.8 W.

Chains.

- From the cor. of secs. 1, 2, 35 and 36, on S. bdy. of Tp., described in Book "E,"
 N. 0° 01' W., bet. dees. 35 and 36.
 Over mountainous land, thru. dense undergrowth, along steep E. slope, on W. side of Prospect Valley, across gypsum deposit. Ascend 23 ft. to
 2.50 Rocky wash, course SE. Asc. 420 ft. over steep broken SE. slope,
 15.00 Leave gypsum deposit.
 21.50 W. rim of Prospect Valley, brs. NE. and SW. Leave mountainous land, and enter nearly level land, dense timber and undergrowth on broad bench.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S35 | S36
 1920

from which,

- A pine, 6 ins. in diam., brs. S. 6° E., 36 lks.
 dist., marked $\frac{1}{4}$ S 36 BT.
 A pine, 6 ins. in diam., brs. N. 36 $\frac{1}{2}$ ° W., 16 lks.
 dist., marked $\frac{1}{4}$ S 35 BT.
 Continue over nearly level land, thru. dense timber and undergrowth on broad bench.
 55.60 Surface of bench changes from nearly level to rolling. Descend gradually over NE. and E. slopes to sec. cor. Leave dense, and enter scattering timber.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock, supported in a mound of stone, for cor. of secs. 25, 26, 35 and 36, marked on brass cap,

T32N | R8 W
 S26 | S25
 S35 | S36
 1920

from which,

- A pine, 14 ins. in diam., brs. N. 39° E., 57 lks.
 dist., marked T32N R8W S25 BT.
 A pine, 14 ins. in diam., brs. S. 51 $\frac{1}{2}$ ° E., 19 lks.
 dist., marked T32N R8W S36 BT.
 A cedar, 24 ins. in diam., brs. S. 68 $\frac{1}{2}$ ° W., 154 lks.
 dist., marked T32N R8W S35 BT.
 A cedar, 18 ins. in diam., brs. N. 26 $\frac{1}{2}$ ° W., 75 lks.
 dist., marked T32N R8W S26 BT.
 Land, S. 21 $\frac{1}{2}$ chs. mountainous; N. 24 $\frac{1}{2}$ chs. rolling; remainder nearly level.
 Soil, yellow clay and red sandstone, 3rd and 4th rate.
 Timber, cedar and pine, dense and scattering. No timber in S. 21 $\frac{1}{2}$ chs.
 Undergrowth, dense scrub cedar and sage brush.
 No grass.

- East, on a random line, bet. secs. 25 and 36.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.10 Fall 7 lks. N. of the cor. of secs. 25, 30, 31 and 36 on E. bdy. of Tp., established under current Group No. 105, which is an iron post 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by mound of stone, W. of cor.,
 No bearing trees.
 Thence,
 N. 89° 57' W. on a true line, bet. secs. 25 and 36.
 Over gantly rolling land, thru. scattering undergrowth, in

Part of Subdivision lines of Township 32 North Range 8 West. 5

Chains.

- bottom of Prospect Valley, bearing NE. and SW.
- 1.10 Center of wash, 100 lks. wide, banks 5 ft. high, course NE. from S.
- 7.00 W. edge of bottom of Prospect Valley, brs. N. and S. Leave bottom of valley, and ascend 105 ft. over E. slope, to
- 24.00 Leave rolling, and enter mountainous land. Ascend 350 ft. over steep E. slope, to
- 36.50 Base of cliff, about 120 ft. high, bearing N. and S., facing E.
- 38.30 Top of cliff, brs. N. and S. Ascend 35 ft., over E. slope, to
- 40.05 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 25

S 36
1920

- and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- Continue over mountainous land, thru. scattering undergrowth. Ascend 530 ft., over E. slope.
- 47.00 Enter scattering timber and dense undergrowth, brs. N. and S.
- 55.00 Point of spur, sloping SE., and W. rim of Prospect Valley, bearing N. and S. Leave mountainous, and enter rolling land on bench. Descend 55 ft., over SW. slope.
- 71.30 Gulley, course SE.
- Ascend 60 ft., over E. slope, to
- 80.10 The cor. of secs. 25, 26, 35 and 36. Land, E. 24 chs. and W. 25 chs. rolling; remainder, mountainous.
- Soil, yellow clay and red sandstone, 3rd and 4th rate. Timber, scattering pine and cedar in W. 33 chs. only. Undergrowth, scrub cedar and sagebrush, scattering and dense.
- No grass.

N. 0° 01' W., bet. secs. 25 and 26.
Over rolling land, thru. scattering timber and undergrowth on bench.

- Descend 45 ft., along E. slope, to
- 10.00 Change to N. slope, and descend 100 ft. to
- 31.00 East or right rim of a broad lateral canyon, known as Hell's Hollow; course N: into the Colorado River canyon. Rim brs. E. and W. at this point. Leave rolling land and timber, and enter mountainous land. Desc. 300 ft. over steep broken N. slope, to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., over cross (x) marked on surface rock, supported in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
S 26 | S 25
1920

- Desc. 63 ft., over steep broken N. slope, to
- 41.50 Top of nearly perpendicular cliff, 150 ft. high, E. & W. facing N.
- 43.80 Foot of cliff, brs. E. and W. Desc. 390 ft., over steep broken N. slope, to
- 52.00 Change to steep broken W. slope, and descend 180 ft. to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 23, 24, 25 and 26, marked on brass cap,

T32N R8 W
S 23 | S 24
S 26 | S 25
1920

6 Part of Subdivision lines of Township 32 North, Range 8 West.

Chains.

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Land, S. 31 chs., rolling; N. 49 chs., mountainous.

Soil, rocky, 4th rate.

Timber, scattering pine and cedar in S. 31 chs. No timber in N. 49 chs.

Undergrowth, scattering sage brush and cactus.

No grass.

40.00 S. 89° 57' E., on a random line, bet. secs. 24 and 25.
Set temp. 1/4 sec. cor.

80.10 Fall 2 lks. S. of the cor. of secs. 19, 24, 25 and 30, on S. bdy. of Tp., established under current Group No. 105, which is an iron post 2 ins. in diam., projecting 32 ins. above the ground, firmly set in mound of stone, properly marked on brass cap, and witnessed, by mound of stone, W. of cor. Thence,

N. 89° 58' W., on a true line, bet. secs. 24 and 25.

Over gently rolling land, thru. scattering undergrowth in bottom of Prospect Valley, bearing N. and S.

Ascend 50 ft., over E. slope, to

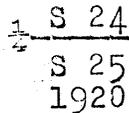
8.00 W. edge of rolling bottom of Prospect Valley, brs. N. and S. Enter mountainous land. Asc. 655 ft., over steep E. slope, to

30.00 W. rim of Prospect Valley, and top of cliff, 200 ft. high, bearing N. and S., facing E. Leave steep slope, and ascend 73 ft., over gradual E. slope.

33.00 Enter gypsum deposit, brs. N. and S.

37.00 Ridge, brs. N. and S. Descend 30 ft., over gradual W. slope, to

40.05 Set an iron post, 3 ft. long, 1 in. in diam., over cross (x) marked on surface rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,



41.00 Descend slightly over W. slope, to Top of cliff, 100 ft. high, bearing N. and S. facing W. and forming E. rim of a lateral canyon, known as "Hell's Hollow." Leave gypsum deposit. Desc. 1075 ft., over steep W. slope, to

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

Land, E. 8 chs. rolling; remainder, mountainous.

Soil, red sandstone, yellow clay and gypsum, 4th rate.

Timber, none.

Undergrowth, scattering sagebrush and cactus.

No grass.

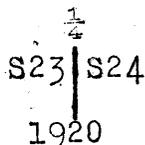
N. 0° 01' W., bet. secs. 23 and 24.

Over mountainous land, thru. scattering undergrowth, along roughly rolling E. wall of "Hell's Hollow."

Ascend 28 ft., over W. slope.

6.00 Descend 250 ft., over broken NW. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap,



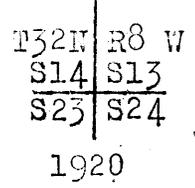
and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Ascend 385 ft., over broken SW. slope, to

Part of Subdivision lines of Township 32 North, Range 8 West. 7

Chains.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 6 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. 13, 14, 23 and 24, marked on brass cap,



Land, broken and mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, scattering sage brush and cactus.
No grass.

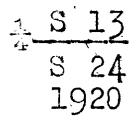
40.00 S. 89° 58' E., on a random line, bet. secs. 13 and 24. Set temp. 1/4 sec. cor.

80.36 Intersect the cor. of secs. 13, 18, 19 and 24, on E. bdy. of Tp. established under current Group No. 105, which is an iron post 2 ins. in diam., projecting 10 ins. above ground, firmly set, properly marked on brass cap, and witnessed by mound of stone W. of cor.

Thence, N. 89° 58' W., on a true line, bet. secs. 13 and 24. Over gently rolling land, thru. scattering undergrowth on rolling bottom of Prospect Valley, bearing N. and S. Ascend 85 ft., over NE. slope, to

15.00 W. edge of bottom of Prospect Valley, brs. NW. and S. Leave rolling, and enter mountainous land. Ascend 640 ft. over steep broken E. slope, to

40.18 Top of cliff 40 ft. high, bearing N. and S. facing E. Set an iron post, 3 ft. long, 1 in. in diam., over cross (x) marked on surface rock, and raise a mound of stone around post, for 1/4 sec. cor., marked on brass cap,



48.00 Ascend 398 ft., over E. slope, to W. rim of Prospect Valley, brs. SE. and NW. and E. rim of narrow mesa. Thence across nearly level top of mesa, bearing N. and SE.

59.00 W. rim of mesa, brs. N. and SE., and E. rim of Hell's Hollow. Leave top of mesa, and desc. 850 ft., over steep broken W. slope to sec. cor.

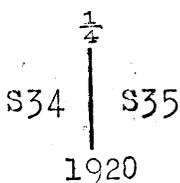
62.80 Cliff, 70 ft. high, bearing SE. and NW., facing SW.

80.36 The cor. of secs. 13, 14, 23 and 24. Land, E. 15 chs. rolling; remainder, broken and mountainous. Soil, rocky yellow clay, 4th rate. Timber, none. Undergrowth, scattering sage brush and cactus. No grass.

40.00 From the cor. of secs. 2, 3, 34 and 35 on S. bdy. of Tp., described in Book "E," N. 0° 01' W., bet. secs. 34 and 35. Over nearly level land, thru. scattering timber and dense undergrowth, on bench sloping slightly to the NE. Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,

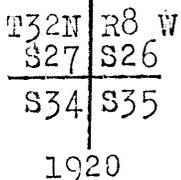
8 Part of Subdivision lines of Township 32 North, Range 8 West.

Chains.



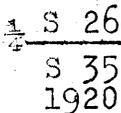
from which,
 A pine, 8 ins. in diam., brs. N. 81° E., 58 lks.
 dist., marked $\frac{1}{4}$ S 35 BT.
 A pine, 8 ins. in diam., brs. S. 60 $\frac{1}{2}$ ° W., 46 lks.
 dist., marked $\frac{1}{4}$ S 34 BT.

48.65 Continue over nearly level land on bench.
 Rim of a lateral canyon, known as Hell's Hollow, brs. E. and W. at head of said canyon. Leave nearly level land and timber, and enter mountainous land and scattering undergrowth. Desc. 990 ft. over steep broken N. slope.
 75.00 Gulch, course NE. Desc. slightly along E. 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. 26, 27, 34 and 35, marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 Land, S. 48 $\frac{1}{2}$ chs. nearly level; remainder, broken and mountainous.
 Soil, yellow clay and sandstone, 3rd and 4th rate.
 Timber, scattering pine and cedar in S. 48 $\frac{1}{2}$ chs. None elsewhere.
 Undergrowth, chamisal and scrub cedar, dense and scattering.
 No grass.

40.00 East, on a random line, bet. secs. 26 and 35.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.76 Fall 2 lks. S. of the cor. of secs. 25, 26, 35 and 36.
 Thence,
 S. 89° 59' W., on a true line, bet. secs. 26 and 35.
 Over gently rolling land, thru. scattering timber and undergrowth, on broad bench. Ascend 15 ft., over E. slope, to
 5.00 Descend 120 ft., over NW. slope, to
 39.88 Set an iron post, 3 ft. long, 1 in. in diam., on surface rock, supported in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap,



from which,
 A pine, 8 ins. in diam., brs. E. 40° W., 55 lks.
 dist., marked $\frac{1}{4}$ S 26 BT.
 A pine, 12 ins. in diam., brs. S. 50° W., 87 lks.
 dist., marked $\frac{1}{4}$ S 35 BT.

Continue over gently rolling land on bench.
 Descend 17 ft., over W. slope, to
 44.00 E. rim of lateral canyon, known as "Hell's Hollow," brs. N. and S. Leave gently rolling land and timber, and enter mountainous land. Desc. 890 ft. over steep broken W. slope.
 78.00 Bottom of "hell's Hollow" canyon, 20 lks. wide, course NE. from S. Ascend 11 ft. over E. slope, to
 79.76 The cor. of secs. 26, 27, 34 and 35.

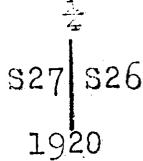
Part of Subdivision lines of Township 32 North, Range 8 West. o

Chains.

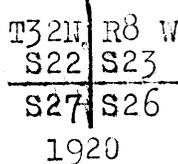
Land, E. 44 chs. gently rolling; remainder, mountainous.
Soil, rocky clay, 4th rate.
Timber, scattering pine and cedar in E. 44 chs. None elsewhere.
Undergrowth, scattering chamisal and sage brush.
No grass.

N. 0° 01' W., bet. secs. 26 and 27.
Over broken and mountainous land, thru. scattering undergrowth, along W. wall of Hell's Hollow. Asc. slightly over E. slope, to

- 11.30 Descend 70 ft., over N. slope, to
- 16.30 Gulch, course NE. Asc. 50 ft., over SE. slope.
- 21.15 Spur, slopes NE. Desc. 110 ft., over N. slope.
- 39.95 Gulch, course E. Asc. slightly over S. slope, to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., over cross (x) cut in surface rock, and raise a mound of stone around post for 1/4 sec. cor., marked on brass cap,

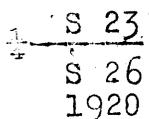


- 45.70 Ascend 93 ft., over S. slope.
- 53.00 Spur, slopes NE. Desc. 136 ft., over NE. slope.
- 73.40 Rocky gulch, course N. 45° E.; asc. 150 ft. over SE. slope.
- 80.00 Spur, slopes E. Desc. 147 ft., over N. slope, to
- Gulch, course NE. Set an iron post, 3 ft. long, 2 ins. in diam., over cross (x) cut in surface rock, and raise a mound of stone around post for cor. of secs. 22, 23, 26 and 27, marked on brass cap,



Land, mountainous.
Soil, red sandstone and yellow clay, 4th rate.
Timber, none.
Undergrowth, scattering sagebrush and cactus.
No grass.

- 40.00 N. 89° 59' E., on a random line, bet. secs. 23 and 26.
- 79.80 Set temp. 1/4 sec. cor.
- Fall 35 lks. N. of the cor. of secs. 23, 24, 25 and 26. Thence,
- N. 89° 46' W., on a true line, bet. secs. 23 and 26.
- Over mountainous land, thru. scattering undergrowth on E. wall of Hell's Hollow."
- 36.80 Descend 215 ft., over SW. slope.
- 39.90 Rocky gulch, course NW. Asc. 40 ft., over NE. slope, to
- Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, with stone marked with a cross (x) deposited at base of post for 1/4 sec. cor., marked on brass cap,



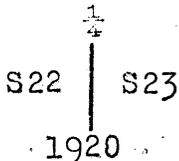
- 41.00 Thence along N. slope, to
- 44.63 Descend 68 ft., over NW. slope.
- Bottom of Hell's Hollow, 20 lks. wide, course N. Thence over

10 Part of Subdivision lines of Township 32 North Range 8 West

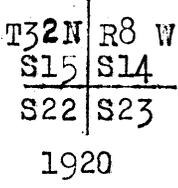
Chains.

77.50 west wall of Hell's Hollow. Asc. 230 ft., over NE. slope, to
 79.80 Descend 10 ft., over N. slope, to
 The cor. of secs. 22, 23, 26 and 27, in gulch, course NE.
 Land, mountainous.
 Soil, rocky clay, 4th rate.
 Timber, none.
 Undergrowth, scattering sagebrush and cactus.
 No grass.

 N. 0° 01' W., bet. secs. 22 and 23.
 Over mountainous land, thru. scattering undergrowth, on W.
 wall of "Hell's Hollow."
 Ascend 80 ft., over SE. slope.
 3.00 Spur, slopes NE. Desc. 107 ft., over N. slope.
 8.10 Gulch, course NE. Asc. 110 ft., over SE. slope.
 13.90 Spur, slopes NE. Desc. 205 ft., over NE. slope.
 38.10 Gulch, course E. from SW. Asc. 80 ft., over SE. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in
 the ground to bed rock, supported in a mound of stone,
 for $\frac{1}{4}$ sec. cor., marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of
 cor.
 Ascend 20 ft., over SE. slope.
 41.00 Spur, slopes NE. Desc. 180 ft., over broken NE. slope, to
 76.25 Rocky gulch, course NE. Asc. 20 ft., over SE. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 18 ins. in
 the ground, supported in a mound of stone, for cor. of
 secs. 14, 15, 22 and 23, marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of
 cor.
 Land, broken and mountainous.
 Soil, red sandstone, 4th rate.
 Timber, none.
 Undergrowth, scattering sage brush and chamisal.
 No grass.

 S. 89° 46' E., on a random line, bet. secs. 14 and 23.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.80 Intersect the cor. of secs. 13, 14, 23 and 24.
 Thence,
 N. 89° 46' W., on a true line, bet. secs. 14 and 23.
 Over mountainous land, thru. scattering undergrowth, on E.
 wall of Hell's Hollow."
 Descend 330 ft., over steep broken W. slope, to
 39.10 Set an iron post 3 ft. long, 1 in. in diam., over cross (x)
 marked on surface rock, and raise a mound of stone around
 post, for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass
 cap,

Part of Subdivision lines of Township 32 North, Range 8 West. 11

Chains.

WC 1/2 S 14
S 23
1920

- 39.20 Top of bluff, 100 ft. high, brs. N. and S., facing W.
- 39.90 True point for 1/4 sec. cor. falls on face of bluff, and is inaccessible.
- 41.30 Bottom of "Hell's Hollow," 50 lks. wide, course N. Ascend precipitous E. face of bluff.
- 42.20 Top of bluff, 100 ft. high, brs. N. and S. facing E. Leave mountainous, and enter rolling land on bench, in W. wall of "Hell's Hollow." Asc. 60 ft., over E. and SE. slopes, to
- 59.00 South end of small rocky knoll. Desc. 60 ft., over SW. and W. slope, to
- 77.15 Rocky gulch, course NE. Ascend 25 ft., over SE. slope, to
- 79.80 The cor. of secs. 14, 15, 22 and 23.
Land, mountainous and rolling.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, scattering sage brush.
No grass.

From the cor. of secs. 3, 4, 33 and 34 on S. bdy. of Tp., described in Book "E,"

N. 0° 02' W., bet. secs. 33 and 34.

Over gently rolling land, thru. scattering timber and dense undergrowth, along E. slope on bench; near the left upper rim of the Colorado River Canyon. Descend very gradually to

- 36.00 Gully, course E. Continue over E. slope, with slight change in elevation.
- 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., marked on brass cap,

1/4
S33 | S34
1920

and raise a mound of stone 2 1/2 ft. base, 2 ft. high, W. of cor. Descend slightly over E. slope, to

- 41.00 Gully, course E. Continue over E. slope, with slight change in elevation.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 8 ins. in the ground to bed rock, supported in a mound of stone, for cor. of secs. 27, 28, 33 and 34, marked on brass cap.

T32N R8 W
S28 | S27
S33 | S34
1920

from which,

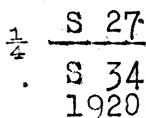
- A pine, 8 ins. in diam., brs. N. 75° E., 46 lks. dist., marked T32N R8W S27 BT.
- A pine, 6 ins. in diam., brs. S. 19 1/4° E., 30 lks. dist., marked T32N R8W S34 BT.
- A cedar, 5 ins. in diam., brs. S. 36 1/2° W., 93 lks. dist., marked T32N R8W S33 BT.
- A pine, 12 ins. in diam., brs. N. 34 3/4° W., 74 lks. dist., marked T32N R8W S28 BT.

Land, gently rolling.
Soil, rocky, 4th rate.
Timber, scattering pine and cedar.
Undergrowth, dense chamisal and sagebrush. No grass.

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Chains.

East, on a random line, bet. secs. 27 and 34.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.12 Fall 18 lks. S. of the cor. of secs. 26, 27, 34 and 35.
 Thence,
 S. $89^{\circ}52'W.$, on a true line, bet. secs. 27 and 34.
 Over mountainous land, thru. scattering undergrowth, on W.
 wall of Hell's Hollow."
 Ascend 765 ft., over steep broken E. slope, to
 27.00 West rim of Hell's Hollow, brs. N. and S. Leave mountainous
 and enter rolling land and dense timber, on bench.
 Ascend 126 ft., over E. slope, to
 40.06 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 $\frac{1}{4}$ sec. cor., marked on brass cap,



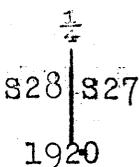
from which,

A pine, 8 ins. in diam., brs. N. $34\frac{1}{2}^{\circ}E.$, 72 lks.
dist., marked $\frac{1}{4}$ S 27 BT.

A pine, 12 ins. in diam., brs. S. $35\frac{1}{2}^{\circ}E.$, 62 lks.
dist., marked $\frac{1}{4}$ S 34 BT.

Continue over rolling land, thru. dense timber and scattering
 undergrowth. Ascend 110 ft., over E. slope, to
 80.12 The cor. of secs. 27, 28, 33 and 34.
 Land, mountainous and rolling, secs. 27, 34 and 35.
 Soil, rocky, 4th rate.
 Timber, dense pine and cedar in W. 53 chs. None in E. 27
 chs.
 Undergrowth, scattering chamisal and scrub cedar.
 No grass.

N. $0^{\circ}02'W.$, bet. secs. 27 and 28.
 Over rolling land, thru. dense timber and scattering
 undergrowth, on bench. Descend gradually over E. slope,
 to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

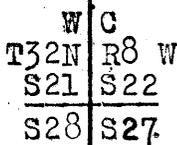


from which,

A pine, 10 ins. in diam., brs. N. $21\frac{1}{2}^{\circ}E.$, 38 lks.
dist., marked $\frac{1}{4}$ S 27 BT.

A cedar, 10 ins. in diam., brs. N. $85\frac{1}{2}^{\circ}W.$, 71 lks.
dist., marked $\frac{1}{4}$ S 28 BT.

45.00 Change from E. to SE. slope, and ascend 100 ft., to
 66.00 Left upper rim of the Colorado River canyon, brs. E. and
 SW. Leave rolling land and timber, and enter moun-
 tainous land. Descend 134 ft., over N. slope, to
 70.00 Top of precipitous cliffs, bearing E. and SW. facing N.
 Set an iron post, 3 ft. long, 2 ins. in diam., over cross
 (x) marked on surface rock, and raise mound of stone
 around post for witness cor. to the cor. of secs. 21, 22,
 27 and 28, marked on brass cap,



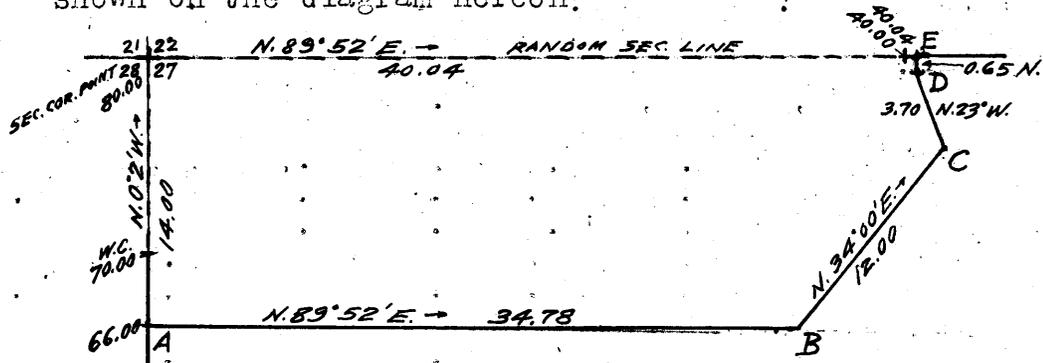
1920

Part of Subdivision lines of Township 32 North, Range 8 West. 13

Chains.

80.00 Impracticable to proceed farther on this line. The bottom of the Colorado River canyon brs. NW. about a mile dist. from this cor., and is about 2500 ft. below. True point for cor. of secs. 21, 22, 27 and 28 falls on face of cliffs on left upper wall of the Colorado River canyon, and is inaccessible. Land, S. 66 chs. rolling; N. 14 chs., mountainous. Soil, rocky, 4th rate. Timber, dense pine and cedar in S. 66 chs. None in N. 14 chs. Undergrowth, scattering sage brush and chamisal. No grass.

From true point for cor. of secs. 21, 22, 27 and 28, N. 89° 52' E., on random line, bet. secs. 22 and 27. Said sec. cor. point is inaccessible, and the west half of the sec. line passes over faces of cliffs, rendering any chaining thereon impracticable; therefore, obtain the measurement of such portion of the line by means of a traverse thru. sec. 27, as described as follows, and as shown on the diagram hereon:



From 66.00 ch. station on line bet. secs. 27 and 28, indicated on diagram at "A," N. 89° 52' E., 34.78 chs. on traverse in sec. 27 to point "B," parallel to and 14.00 chs. S. of the random sec. line. Thence, N. 34° 00' E., 12.00 chs. on traverse to point "C," which is at the junction of the W. rim of Hell's Hollow, with the left upper rim of the Colorado River Canyon. Thence, N. 23° W., 3.70 chs. on traverse to point "D." The latitude and departure of the traverse "A-B-C-D" is 13.44 chs. N., and 40.04 chs. E.

The latitude of a point on random sec. line at 40.04 ch. station indicated on diagram at "E," is 14.09 chs. N. from traverse point "A;" therefore, traverse point "D" is 14.09 chs. - 13.44 chs. = 0.65 chs. S. from "E;" therefore, from traverse point "D" chain measurement North, 0.65 chs. to determine of traverse at point "E," thence, measurement S. 89° 52' W., on random line, 40.04 chs. to

40.00 Set temp. $\frac{1}{2}$ sec. cor. of secs. 21, 22, 27 and 28. Thence, N. 89° 52' E., on random line, continuing measurement half from the true point for cor. of secs. 21, 22, 27 and 28. 40.04 Terminus of traverse. 80.00 Fall 127 lks. S. of the cor. of secs. 22, 23, 26 and 27. Thence, S. 89° 47' W., on true line, bet. secs. 22 and 27. Over mountainous land, thru scattering undergrowth on W. wall of lateral canyon, known as Hell's Hollow. 40.00 Ascend 940 ft. over steep broken E. slope, to cor. point, and 40.00 Mark a cross (x) on surface rock, at exact cor. point, and, over same, set an iron post, 3 ft. long, 1 in. in diam., supported in a mound of stone, for $\frac{1}{2}$ sec. cor., marked on brass cap,

1 S 22
S 27
1920

Thence over precipitous cliffs, facing N. on left upper

14 Part of Subdivision lines of Township 32 North Range 8 West

Chains.
 80.00 wall of the Colorado River Canyon, measurement by traverse thru. sec.27, as hereinbefore described. True point for cor. of secs. 21, 22, 27 and 28 falls on face of cliffs, and is inaccessible. Witness cor. to this cor. at 10.00 chs. S. 0°2'E., hereinbefore described.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, none.
 Undergrowth, scattering chamisal, scrub oak and sagebrush.
 No grass.

Boundaries of that part of Township 32 North, Range 8 West, surveyed under this Group.

Latitudes, departures, and closing errors.

Line designated.	True course.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	240.00				240.00
Subdivisional boundary,	N. 0°02' W.	160.00	160.00			.09
	N. 89°47' E.	80.00	.30		80.00	
	N. 0°01' W.	80.00	80.00			.02
	S. 89°46' E.	79.80		.32	79.80	
	S. 89°58' E.	80.36		.05	80.36	
East boundary,	South,	240.00		240.00		
Convergency,					.12	
Totals			240.30	240.37	240.28	240.11
				240.30	240.11	
Error in latitude,			0.07			
Error in departure,					0.17	

GENERAL DESCRIPTION.

The portion of this township surveyed as described in the foregoing field notes lies entirely within the Hualpai Indian Reservation, and includes practically all of the surveyable land SE. of the Colorado River. The river flows SW., entering near the NE. cor., and leaving near the SW. cor. The left upper rim of the Colorado River Canyon brs. N. and S., near the W. boundaries of secs. 27 and 34, and in the northern part of sec. 27 merges into the rim of a lateral canyon, known as "Hell's Hollow," draining N. into the Colorado River.

The bottom of Prospect Valley course N., crosses the east half of sec. 36, thence east of and near the E. bdy. of the Tp., entering the Colorado River Canyon in sec. 6, T. 32 N., R. 7 W.

The surface in the bottom of Prospect Valley is nearly level and rolling, and the soil is sandy and gravelly, 1st, 2nd and 3rd rate.

The west rim of the valley, with a general bearing N. and S., passes thru. the SE. 1/4 of sec. 35, the W. half of sec. 36, and thru. the middle of secs. 24 and 25. The surface of the W. side of the valley is broken and mountainous, with a rocky, 3rd and 4th rate soil.

Sec. 23, and parts of all the other surveyed secs. except sec. 36, falls on the walls of Hell's Hollow, where the surface is broken and mountainous, with a rocky, 4th rate soil.

A broad bench lies west and south of the rim of Hells Hollow, and between said rim and the west rim of Prospect Valley. The surface on this bench is nearly level and rolling, with a gravelly and rocky soil, 3rd and 4th rate.

The timber, consisting of cedar and pine, is confined to the bench land, where the growth is scattering and dense, mostly scattering.

The undergrowth, consisting of chamisal, sagebrush, scrub cedar and cactus is scattering in the mountainous portion, in bottom of Prospect Valley, and the greater part of the bench, and is dense in some parts of the bench.

The only grass is in the bottom of Prospect Valley, where a fair growth is prevalent in all parts, and a good growth along the E. bdy. of sec. 13.

There is no permanent running water in the surveyed portion, and no settlers, roads or improvements.

Gypsum deposits on the west side of Prospect Valley in secs. 24, 25, 35 and 36 are the only visible indications of valuable mineral.

FINAL FIELD TEST OF INSTRUMENTS.

Aug. 8, 1920. We examine the adjustment of each 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 us, Aug. 3, 1920, at the cor. of secs. 1, 2, 35 and 36, on S. bdy. of T. 32 N. R. 8 W., as hereinbefore described, proceed with each instrument as follows:

At 4h. 00m. p.m., l.m.t., set off $36^{\circ} 6\frac{1}{2}' N.$ on the lat. arc; $16^{\circ} 21' N.$ on the decl. arc, and determine the meridian with the solar, which agrees with the true meridian.

As all of the solar observations made with both instruments during the usual hours of solar work come within $1' 30''$ of the true meridian, we conclude that the adjustment of the instruments are satisfactory.

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BOOK 3516

CERTIFICATE OF UNITED STATES ~~TRANSITMAN~~

I, Francis R. Ihrie, U. S. Transitman,, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 106, Arizona, bearing date of the 25th day of February, 1920, 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 32 North, Range 8 West,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 2 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 106, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place Mountain View, Calif.
Date August 4, 1922

Francis R. Ihrie.
U. S. Transitman

~~APPROVAL:~~

~~OFFICE OF THE UNITED STATES SURVEYOR GENERAL,~~

, 191

The foregoing field notes of the survey of

executed by

under his special instructions dated _____, 191____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

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.

U. S. Surveyor General.

BOOK 3516
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CERTIFICATE OF UNITED STATES TRANSITMAN.

I, Horace M. Muscott, U. S. Transitman,, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 106, Arizona, bearing date of the 25th day of February, 1920, 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 32 North, Range 8 West,

Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 2 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 106, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place Los Angeles, Calif Horace M. Muscott
Date July 11, 1922 U. S. Transitman,
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz., August 7, 1922.

The foregoing field notes of the survey of a portion of the Subdivision lines of Township 32 North, Range 8 West, of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Horace M. Muscott, and Francis R. Ihrie, U. S. Transitman under special instructions dated February 25, 1920 for Group 106 Ariz., having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Francis R. Ihrie
U. S. Surveyor General.

~~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.~~

U. S. Surveyor General