

3380

215
ORIG (1)

Book "A"

BOOK 3380

FIELD NOTES

Resurvey
OF THE ~~CORNER~~ OF THE

South Boundary of the

White Mountain Indian Reservation

From Corner No. 13 to 15 inc.

within

Townships 4 and 5 South, Range 27 East

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Guy R. Veal, U. S. Transitman

~~In the capacity of U. S. Surveyor~~, under Special Instructions dated Sept. 8, 1919,
issued by the United States Surveyor General to govern surveys included in Group
No. 87, which were approved by the Commissioner of the General Land
Office, , 191 , and Assignment Instructions dated Oct. 4, 1919

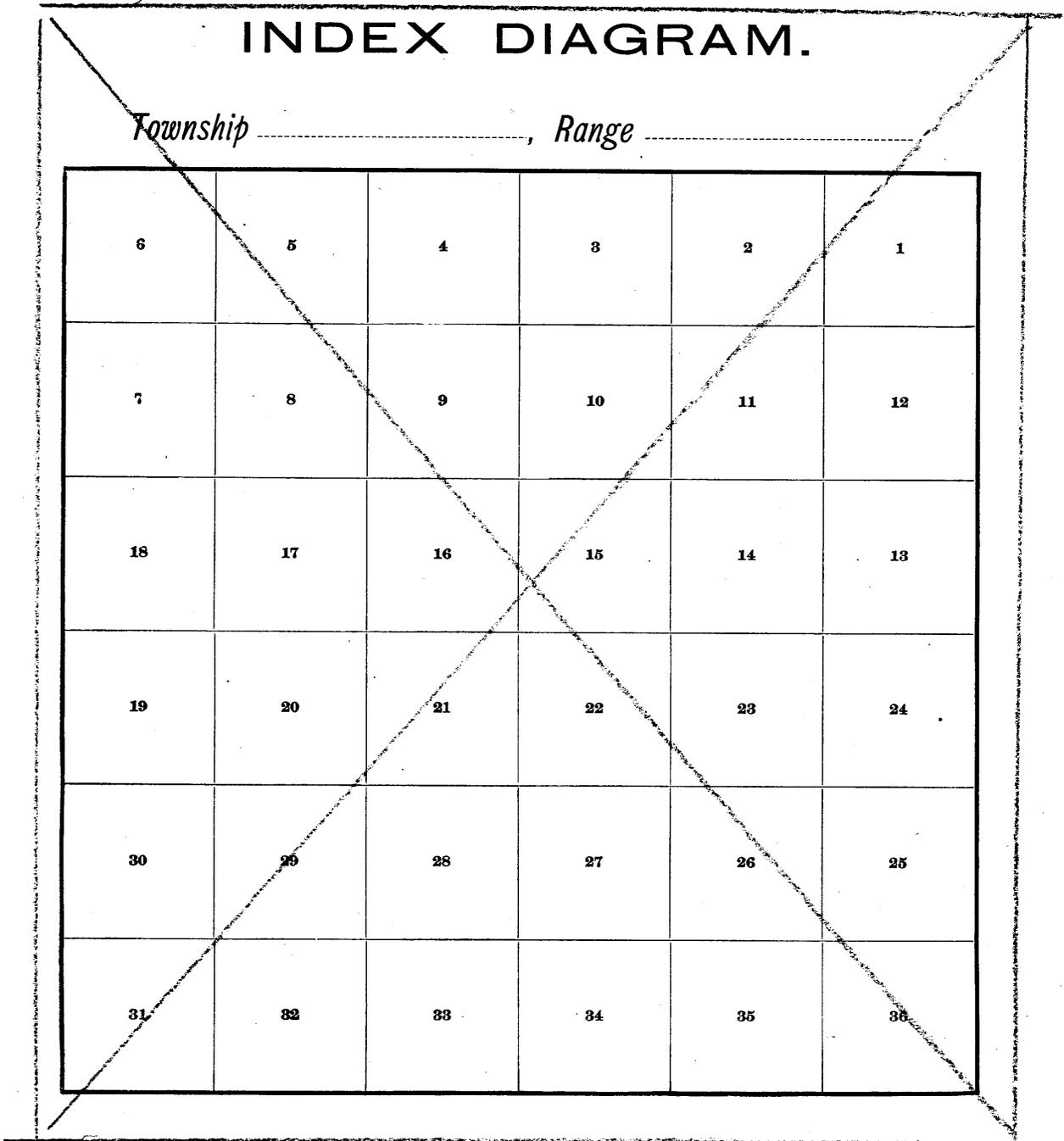
Re Survey commenced November 12, 1919.

Re Survey completed November 14, 1919.

3380

3380

See Special Index Diagram



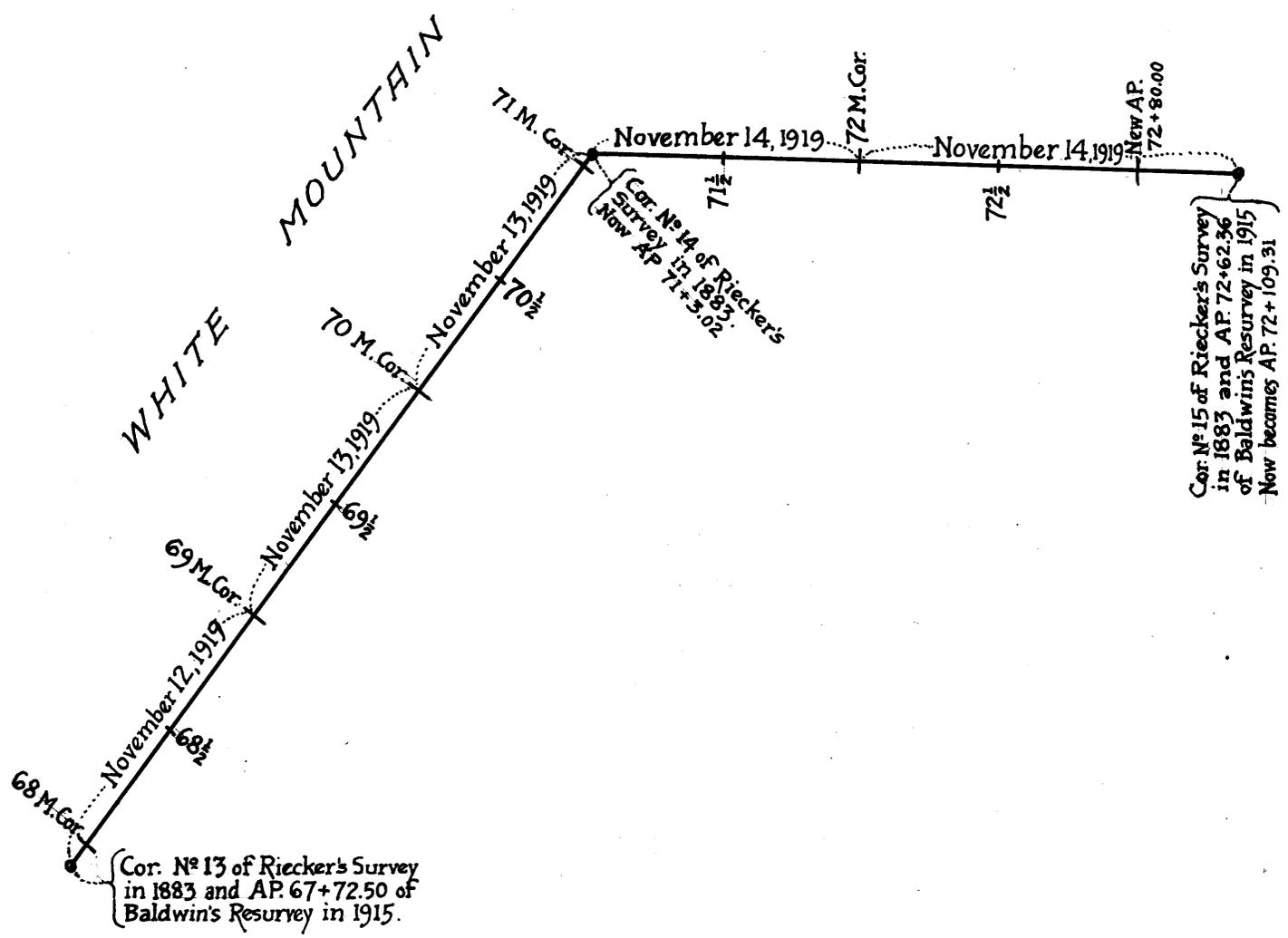
Book "A"

Group 87 Arizona.

DATE DIAGRAM

BOOK 3380

INDIAN RESERVATION

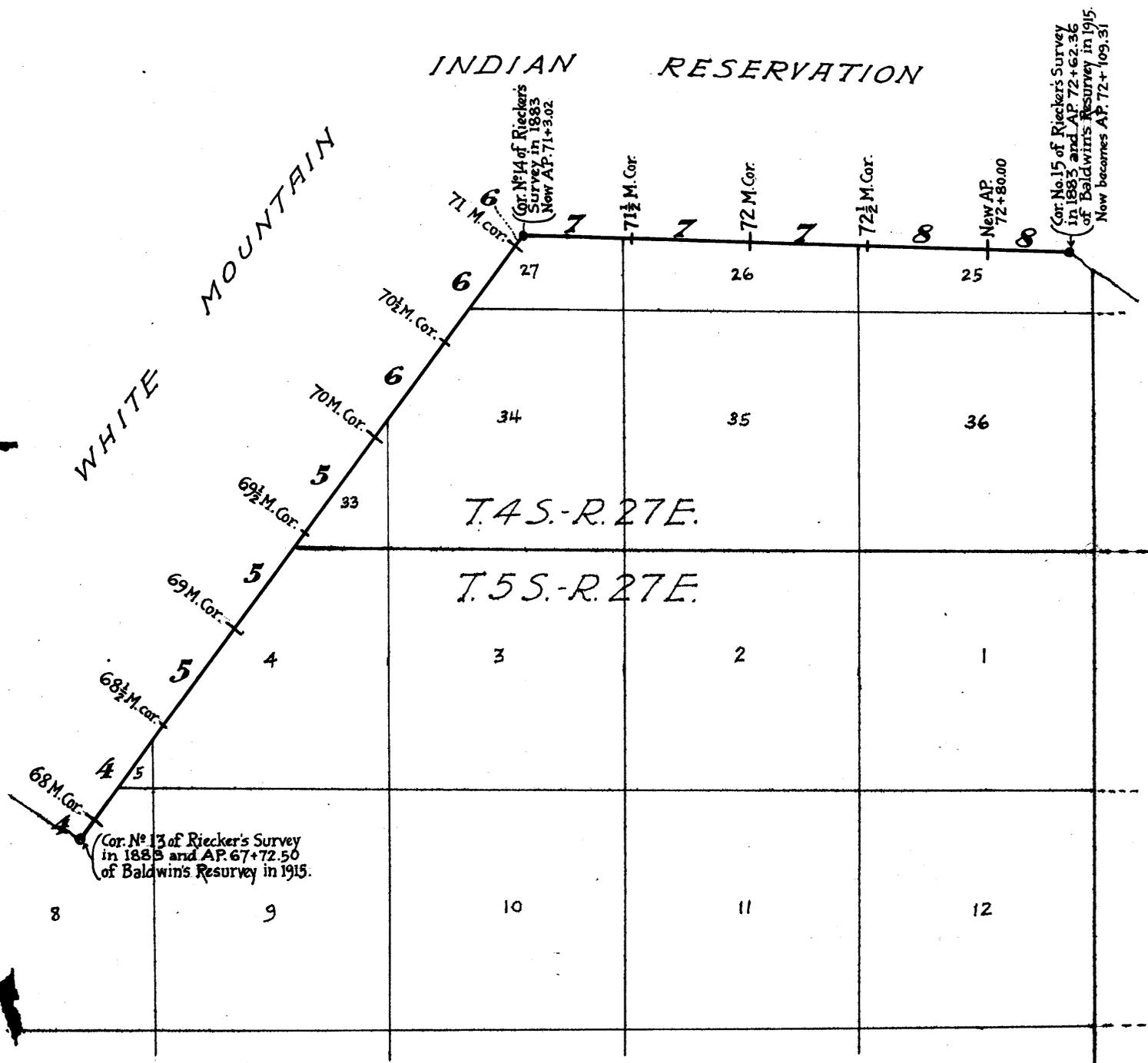


Resurvey executed on dates shown on above diagram by
 Guy R. Veal, U. S. Transitman.

• INDEX • DIAGRAM •

INDIAN RESERVATION

WHITE MOUNTAIN



(Cor. No. 14 of Riecker's Survey in 1883 and AP. 71+3.02. Now AP. 71+3.02.)

(Cor. No. 15 of Riecker's Survey in 1883 and AP. 72+62.36 of Baldwin's Resurvey in 1915. Now becomes AP. 72+109.31)

(Cor. No. 13 of Riecker's Survey in 1883 and AP. 67+72.50 of Baldwin's Resurvey in 1915.)

T. 4 S. - R. 27 E.

T. 5 S. - R. 27 E.

Resurvey of a portion of the South bdy. of the White Mountain Indian Reservation.

Chains

Resurvey, hereinafter described, executed by Guy R. Veal, U. S. Transitman, on dates shown on diagram on page 2 hereof, using Buff solar transit No. 9939, with U-shaped standards, 4 1/2 inch horizontal circle, 4 inch vertical circle, reading to single minutes of arc, and improved Smith solar attachment: all azimuth determinations are accomplished with the solar attachment except the special observation on the sun for a meridian upon which to test the solar apparatus. The adjustments of this instrument were examined and approved by the Assistant Supervisor of Surveys, conditional upon satisfactory field test, a record of which follows herewith.

A 5 ch. steel tape, compared with a Lufkin Standard steel tape 1 ch. long, together with a clinometer are employed in determining the distances described in the following notes. All distances are measured on the slope and reduced to their true horizontal equivalents for entry in these notes.

Nov. 12, 1919, at cor. No. 14, of the White Mountain Indian Reservation Boundary, Arizona, in latitude, 33° 03' N., and longitude, 109° 33' W., at 10h a.m., app.t., set off 33° 03' N. on the lat. arc; 17° 24' 30" S., on the decl. arc; and determine a meridian with the solar, whence turn 42° 11' to the E. and set a flag about 40.00 chs. dist.; then to test this indication of the solar make a series of three altitude observations of the sun for azimuth, each with the telescope in direct and reversed positions, observing opposite limbs of the sun, and reading the horizontal deflection angles from the flag to the sun;

Observation.	Telescope.	Sun.	Watch time.	Vertical angle.	Horizontal angle from flag to sun.
1st.	Direct.	+	10h 12m	32° 33'	9° 45' to W.
	Reversed.	-	10h 18m	33° 57' 30"	12° 25' to W.
	Mean.			33° 15' 15"	11° 05' to W.
2nd.	Direct.	+		32° 40' 30"	10° 41' to W.
	Reversed.	-		33° 46' 30"	11° 20' to W.
	Mean.			33° 43' 30"	11° 0' 30" to W.
3rd.	Direct.	+		32° 48'	10° 19' 30" to W.
	Reversed.	-		33° 33' 30"	11° 30' to W.
	Mean.			33° 10' 45"	10° 54' 45" to W.

By 1st. obsn., flag bears S. 42° 12' E.
By 2nd. obsn., flag bears S. 42° 11' 30" E.
By 3rd. obsn., flag bears S. 42° 11' 00" E.
Mean true bearing of flag S. 42° 11' 30" E.
Indicated error of solar attachment..... 30"

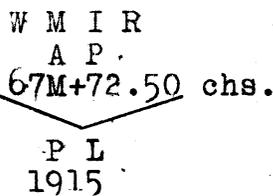
At the point identified by Arthur W. Brown, U. S. Cadastral Engineer, in the field notes of his investigation of a portion of the S. bdy. of the White Mountain Indian Reservation, as the original position for cor. No. 14, set a volcanic stone, 24x12x8 ins. 18 ins. in the ground, for cor. No. 14, reestablished as an angle point, mkd. on top,

W M I R
A P
PL

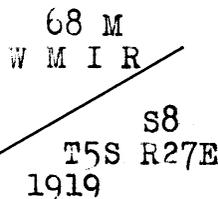
Resurvey of a portion of
The S. bdy. of the White Mountain Indian Reservation.

Chains

from which,
A sycamore, 24 ins. diam., bears S.24 $\frac{1}{4}$ °W., 2.12 chs. dist.,
mkd. AP PL BT.
A sycamore, 18 ins. diam., bears S.67°W., 296 lks. dist.,
mkd. AP WMIR BT.
The NE. cor. of an old cliff dwelling, bears S.65 $\frac{1}{4}$ °E.,
19.40 chs. dist. This dwelling is the S. one of two
houses near the centre of the cliff. There is another
group of houses 2.00 chs. N., and another group 4.00
chs. to the S. of those tied to. The dwellings tied
to are in the center group and are the highest up
on the face of the cliff.
The Hat Ranch headquarters building is about $\frac{1}{2}$ mile, up
stream and on the opposite side of the canyon from
the cliff dwellings.
Cor. No. 13, which is visible from this point, bears
S. 36° 54' W., therefore
S. 36° 54' W. on a random line along the S. bdy. of
the White Mountain Indian Reservation.
249.54 Intersect original cor. 13, (AP 67+72.50 of Baldwin's
survey), which is an iron post, 3 ins. diam., 10 ins.
above ground, firmly set, with brass cap mkd.



from which,
A pine, 12 ins. diam., bears N.57 $\frac{1}{2}$ °W., 65 lks. dist.
mkd. WMIR AP 67+72.50 BT.
A pine, 12 ins. diam., bears N.3°E., 43 lks. dist.,
mkd. AP 67+72.50 WMIR BT.
Thence,
N. 36° 54' E., along the 68th. mile of the S. bdy. of
the White Mountain Indian Reservation.
7.50 Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in
the ground, in a mound of stone, for 68 mile cor.,
with brass cap mkd.



from which,
A pine, 8 ins. diam., bears N.16°E., 54 lks. dist.,
mkd. 68M WMIR BT.
A pine, 8 ins. diam., bears N.58°E., 83 lks. dist.,
mkd. 68M T5S R27E S8 BT.
Land, mountainous.
Soil, rocky, 3rd. rate.
Timber, scattering cedar and pine.
Undergrowth, catclaw, mesquite and cactus.

N. 36° 54' E., on a true line, along the 69th. mile
of the S. bdy. of the White Mountain Indian Reservation.
1.65 Four strand barbed wire fence, bears E. and W.
Desc. 690 ft.
23.40 Spur, slopes NE. Desc. 50 ft.
25.25 Wash, course NE.
27.25 Spur, slopes NE. Desc. 60 ft.
33.55 Drain, course E.
34.60 Spur, slopes E. Desc. 60 ft.
39.80 Wash, course E. Asc. 40 ft.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in
the ground, in a mound of stone, for 68 $\frac{1}{2}$ mile cor.,
with brass cap mkd.

The S. bdy. of the White Mountain Indian Reservation.

Chains

68 1/2 M
W M I R

S4
T5S R27E
1919

from which, 1019

A pine, 12 ins. diam., bears N. 31° E., 2.27 lks. dist.,
mkd. 68 1/2 M WMIR BT.

A cedar, 12 ins. diam., bears S. 56 1/2° E., 1.64 lks. dist.,
mkd. 68 1/2 M T5S R27E S4 BT.

- 42.70 Spur, slopes SE. Desc. 60 ft.
- 45.40 Wash, course SE. Asc. 150 ft.
- 54.00 Spur, slopes S. 80° E., Desc. 200 ft.
- 65.00 Drain, course NE. Continue descent.
- 67.25 Drain, course NE. Asc. 70 ft.
- 80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for 69th. mile cor., with brass cap mkd.

69 M
W M I R

S4
T5S R27E
1919

from which,

A pine, 7 ins. diam., bears East, 478 lks. dist.,
mkd. 69 M T5S R27E S4 BT.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, NW. of cor.

Land, mountainous.
Soil, rocky, 3rd. rate.
Timber, scattering pine.
Undergrowth, catclaw, mesquite, ocotilla and cactus.

N. 36° 54' E. on a true line, along the 70th. mile of
the S. bdy. of the White Mountain Indian Reservation.
Desc. 180 ft.

- 13.42 Wash, course SE. Asc. 75 ft.
- 17.55 Spur, slopes SE. Desc. 120 ft.
- 21.50 Dry wash, 50 lks. wide, course SE. Asc. 230 ft.
- 36.00 Bench, bears S. and E. Thence along SE. slope.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, in a mound of stone, for 69 1/2 mile cor. with brass cap mkd.

69 1/2 M
W M I R

S33
T4S R27E
1919

from which,

A mesquite, 6 ins. diam., bears N. 22 1/2° E., 330 lks. dist.,
mkd. 69 1/2 M WMIR BT.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, NW. of cor.

- 43.10 Draw, course SE. Asc. 14 ft.
- 46.10 Over level table land.
- 60.00 Desc. 160 ft.
- 69.65 Spur, slopes NE. Continue descent 155 ft.
- 76.00 Dry wash, course SE. Asc. 30 ft.
- 80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for 70 mile cor., with brass cap mkd.

70 M
W M I R

S33
T4S R27E
1919

Resurvey of a portion of
The S. bdy. of the White Mountain Indian Reservation

Chains

from which,
A cedar, 5 ins. diam., bears S.49 $\frac{1}{2}$ °W., 276 lks. dist.,
mkd. 70M WMIR BT.
Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, NW.
of cor.
Land, mountainous.
Soil, rocky, 3rd. rate.
Timber, scattering pine and cedar.
Undergrowth, catclaw, mesquite, ocotilla and cactus.

N. 36° 54' E. on a true line along the 71st. mile of
the White Mountain Indian Reservation.

Asc. 70 ft.

- 3.70 Ridge, bears NW. and SE. Desc. 120 ft.
- 9.90 Dry wash, course E. Asc. 40 ft.
- 13.90 Fence, bears NW. and SE. Desc. 150 ft.
- 25.60 Wash, course E. Thence over rolling land.
- 27.70 Wash, course SE.
- 31.00 Wash, course S.
- 38.00 Spur, slopes S.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in
the ground, for 70 $\frac{1}{2}$ mile cor., with brass cap mkd.

70 $\frac{1}{2}$ M
W M I R
S34
T4S R27E
1919

from which,
A pine, 16 ins. diam., bears N.28 $\frac{1}{2}$ °E., 172 lks. dist.,
mkd. 70 $\frac{1}{2}$ M WMIR BT.
A cedar 10 ins. diam., bears S.79 $\frac{1}{2}$ °E., 285 lks. dist.,
mkd. 70 $\frac{1}{2}$ M T4S R27 E. S34 BT.

- 42.20 Desc. 12 ft.
- 43.10 Desc. 80 ft.
- 49.00 Spur, slopes SE. Continue descent.
- 52.00 Asc. 50 ft.
- 58.00 Desc. 150 ft.
- 74.00 Asc. 20 ft.
- 76.00 Spur, slopes NW.
- 78.50 Gila Bonito Creek, 20 lks. wide, course SE.
- 80.00 The true point for cor. falls in creek bottom, therefore
at,
- 79.02 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in
the ground, for witness cor. to the 71 mile cor.,
with brass cap mkd.

71M WC
W M I R
S27
T4S R27E
1919

from which,
An elm, 7 ins. diam., bears S.72 $\frac{1}{2}$ °E., 23 lks. dist.,
mkd. 71M T4S R27E S27 WCBT.
A sycamore, 20 ins. diam., bears N.59 $\frac{1}{2}$ °W., 56 lks. dist.,
mkd. 71M WMIR WCBT.
Land, mountainous.
Soil, rocky, 3rd. rate.
Timber, cedar, elm and sycamore.
Undergrowth, catclaw, cactus, ocotilla and mesquite.

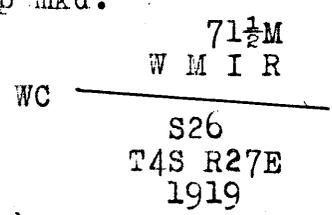
From the true point for cor. No. 71:
N. 36° 54' E. on a true line along, the 72nd. mile of
the S. bdy. of the White Mountain Indian Reservation.

- 3.02 Intersect original cor. 14, hereinbefore described.

Resurvey of a portion of the South bdy. of the White Mountain Indian Reservation

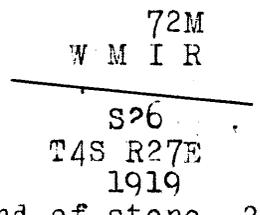
Chains

- Cor. No. 15 being visible from this point,
- S. 88° 26' E. on a true line along the 72nd. mile of the S. bdy. of the White Mountain Indian Reservation. Over mountainous land, through scattering timber and undergrowth,
- 5.70 Dry wash, 20 lks. wide, course S.
- 9.10 Four strand, barbed wire fence, bears NW. and SE.
- 10.00 Asc. rocky slope 50 ft.
- 13.92 Spur, slopes S. Desc. 30 ft.
- 15.86 Drain, course SE. Asc. 14 ft.
- 16.83 Desc. 13 ft.
- 17.81 Dry wash, course SW.. Asc. 140 ft.
- 23.00 Spur, slopes NW.
- 24.40 Gulch, course W.. Asc. 225 ft.
- 40.00 True point for 71½ mile cor. falls in gulch, course SW. Therefore at,
- 44.54 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for witness cor. to 71½ mile cor., with brass cap mkd.



- from which,
- A cedar, 8 ins. diam., bears N.17½°E., 33 lks. dist., mkd. 71½M WMIR WCBT.
- A cedar, 8 ins. diam., bears S.46½°W., 333 lks. dist., mkd. 71½ M T4S R27E S26 WCBT.

- 47.40 Spur, slopes SW. Desc. 27 ft.
- 52.70 Drain, course SW. Asc. 50 ft.
- 59.25 Spur, slopes SW. Desc. 60 ft.
- 67.00 Drain, course S. Asc. 150 ft.
- 77.00 Drain, course SW. Continue ascent.
- 80.00 Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, in a mound of stone, for 72 mile cor., with brass cap mkd.



Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
Land, mountainous.
Soil, rocky, 3rd. rate.
Timber, sycamore and cedar.
Undergrowth, catclaw, mesquite, ocotilla and cactus.

- S. 88° 26' E. on a true line along the 73rd. mile of the White Mountain Indian Reservation bdy., over mountainous land, through scattering timber and undergrowth.
- Asc. 38 ft.
- 2.94 A cross mkd. on the W. end of a rocky ledge, 10 ft. high.
- 9.40 Rocky gulch, 30 lks. wide, course SW. Asc. 433 ft.
- 24.87 Ridge, bears NE. and SW. Continue ascent.
- 30.75 Spur, slopes S.
- 34.75 Asc. 20 ft.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for 72½ mile cor., with brass cap mkd.

-8-

Resurvey of a portion of
The S. bdy. of the White Mountain Indian Reservation.

Chains

72 $\frac{1}{2}$ M
W M I RS25
T4S R27E
1919

from which,

A cedar, 6 ins. diam., bears N.74 $\frac{3}{4}$ °E., 194 lks. dist.,
mkd. 72 $\frac{1}{2}$ M WMIR BT..A cedar, 6 ins. diam., bears S.67 $\frac{1}{4}$ °W., 114 lks. dist.,
mkd. 72 $\frac{1}{2}$ M T4S R27E S25 BT.

41.96 Ridge, bears NW. and SE.. Asc.. 880 ft.

45.00 Draw, course NW.

55.10 Spur, slopes NW. Continue ascent..

61.00 Asc. W. slope/

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in
the ground, for AP, with brass cap mkd.AP
W M I RS25
T4S R27E
1919

from which,

A pine, 8 ins. diam., bears S.84°30'E., 212 lks. dist.,
mkd. AP T4S R27E S25 BT..Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of
cor.

Land, mountainous.

Soil, rocky, 3rd. rate.

Timber, scattering cedar and pine.

Undergrowth, ocotilla, cactus and catclaw.

S. 88° 26' E. on a true line along the 74th. mile of
the White Mountain Indian Reservation bdy., over
mountainous land, through scattering timber and
undergrowth.

Asc. 190 ft.

5.06 Spur, slopes SW.

29.31 The original cor. 15. (Baldwins AP 72+62.36), which is
a stone in place, 3x3x1 $\frac{1}{2}$ ft. above ground, mkd.
with a cross and "AP", N. of cross.Destroy all cors. described by Baldwin bet. AP 67+72.50
and AP 72+62.36.

BOOK 3380

CERTIFICATE OF UNITED STATES ~~SURVEYOR~~ ^{TRANSITMAN}

I, Guy R. Veal, ^{Transitman} U. S. ~~Surveyor~~, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 87, Arizona bearing date of the 8th day of September, 1919, 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~~ ^{resurveyed} all those parts or portions of the SOUTH BOUNDARY of the WHITE MOUNTAIN INDIAN RESERVATION in Townships 4 and 5 South, Range 27 East of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes ^{and by diagram on page 2 hereof} as having been executed by me, and under my direction; and that all the corners of ~~said survey~~ ^{said resurvey} 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 87, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~survey~~ ^{resurvey}.

Phoenix, Arizona
June 8, 1920

Guy R. Veal
U. S. ~~Surveyor~~
Transitman.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona June 8, 1920.

The foregoing field notes of the ~~survey of~~ ^{Resurvey of} Part of the South Boundary of the White Mountain Indian Reservation in Townships 4 and 5 South, Range 27 East of the Gila and Salt River Base and Meridian in the State of Arizona

executed by Guy R. Veal, U.S. Transitman under ~~his~~ special instructions dated Sept. 8, 1919 for Group 87 Arizona, ~~##~~ having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank O. Smith
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.~~