

BOOK 2820

# FIELD NOTES

OF THE SURVEY OF THE

GILA AND SALT RIVER BASE LINE

through

Ranges 16, 17 and 18 East

WITHIN THE WHITE MOUNTAIN INDIAN RESERVATION

(Or San Carlos Indian Reservation)

2820

Of the Gila & Salt River Base & Meridian,

In the State of Arizona

EXECUTED BY

H. L. Baldwin, Topographer

In the capacity of U. S. Surveyor, under instructions dated October 28, 1915,

Commissioner of the general land office to A. F. Dunnington,  
issued by the ~~United States Surveyor General to govern surveys included in~~  
Topographer in Charge of Indian Surveys

~~Group No. , which were approved by the Commissioner of the General Land~~

~~Office, , 191, pursuant to authority contained in the Act of~~

~~Congress dated , 191.~~

Survey commenced November 26, 1915

Survey completed December 1, 1915

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I N D E X.

BOOK 2820

Gila and Salt River Base Line,

Pages

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Survey of the Gila and Salt River Base Line through R.16 E.,  
of the White Mountain Indian Reservation.

Survey commenced Nov. 26, 1915, and executed with a Buff & Buff transit No. 9207, the horizontal limb having two double verniers placed opposite to each other and reading to single minutes of arc.

Before beginning work all adjustments of the instrument were tested and corrected wherever necessary.

The iron posts used in this survey are 36 inches long, set 26 inches in the ground, filled with cement and fitted with brass caps. The posts at section corners are 3 inches in diameter, and those at  $\frac{1}{4}$  section corners are 1 inch in diameter.

The C.C. on the Res'n Bdy. is in Lat.  $33^{\circ}22'40''$ N., Long.  $11^{\circ}43'$ W.

I begin at the C.C. of sec. 31, T. 1 N., R. 16 E., which is a quartz stone  $6 \times 6 \times 4$  ins., above the ground, firmly set, and marked as described by the Surveyor General, with a small mound of stone west thereof, from which the  $64\frac{1}{2}$  mile cor. of the White Mountain Indian Reservation boundary brs. N.  $8^{\circ}21'$  E., 245 lks. instead of 243 lks., as reported.

At a point 2 lks. S. of the above described closing corner, or the secant point, I observe Polaris at eastern elongation, at 3h 7.3m in the afternoon, my watch being set at correct local mean time, and mark a point on the ground directly underneath same and north of my station. I also reverse telescope and mark a second point. As the star is at eastern elongation the middle of the two points thus marked brs. N.  $1^{\circ}21\frac{1}{2}'$  E.

Nov. 27, 1915. From the mean or middle of the two points just described, I lay off an angle of  $88^{\circ}36\frac{3}{4}'$  to the eastward, the bearing of which line is N.  $89^{\circ}58\frac{1}{2}'$  E. or the bearing of the secant at this point. North of and alongside the old store I set a 3-inch iron post, stamped in cap

C C in W.

W M I R in E.

T 1 N R 16 E S 31 in NW. and NE. quadrants

From the secant point, previously described, I run

N.  $89^{\circ}58\frac{1}{2}'$  E., which is the bearing of the secant at this point, continuing my measurement as if from the township cor., which is 28 chs. and 19 lks. W. of the closing cor.,

Descending E. slope.

35.50 Wash, course Ne., 10 lks. wide.

Ascend NW. slope.

Difference bet. measurement of 11 chs. and 81 lks. by two sets of chainmen is nothing; therefore at a point 11.81 chs. E. of the C.C., or

40.00 E. of the S.C. of Tps. 1 N., Rgs.  $15\frac{1}{2}$  and 16 E., and 1.5 lks. N. of the secant, set a 1-inch iron post, 20 ins. in ground to rock, for  $\frac{1}{4}$  sec. cor. of sec. 31, stamped in cap

S C  $\frac{1}{4}$  S 31 in N. half  
1915 in S. half

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation

## Chains

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

Cor. falls on W. side of short spur to N. 8 ft. below top of hill.

40.80 Spur brs. NE.  
Thence along broken NE. slope.

43.00 Wash, course NE.

45.80 Spur, brs. NE.

49.10 Wash, course NE.

51.00 Spur brs. NE.

53.10 Wash, course NE.

55.80 Spur brs. NE.

57.00 Wash, course NE.

59.80 Spur, brs. N.

61.00 Wash, course NE.

64.00 Spur brs. N.

65.50 Wash, course NE.

70.75 Spur brs. NE.

Difference bet. measurement of 51.81 chs. by two sets of chainmen, is 2 lks.;

By 1st set, 51.82 chs.  
By 2nd set, 51.80 "

Therefore at the middle point, 51.81 chs.. or

80.00 E. of the S.C. of Tps. 1 N., Rgs. 15 $\frac{1}{2}$  and 16 E.,  
Set a 3-inch iron post, 20 ins. in the ground to rock,  
for S.C. of secs. 31 and 32, stamped in cap

S C T 1 N R. 16 E. in the N.  
S 31 in NW.  
S 32 in NE.  
1915 in S.

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

Land, rolling.

Soil, 3rd rate.

Dense undergrowth of palo verde, palo negro, buck brush,  
cactus and Spanish bayonet.

No timber.

-----  
N. 89° 59' E. along the secant, near S. bdy. of sec. 32.

Over level land.

4.50 Ascent W. slope.

6.50 Spur brs. NE.

16.10 Draw, course N.

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation

## Chains

26.10 Spur brs. NE.

27.50 Draw, course N.

29.70 Spur, brs. N. 2.00 chs.  
Descend NE. slope.

34.50 Enter level land.

39.20 Old road, brs. N. and S.

Difference bet. measurement of 40.00 chs. by two sets of  
chainmen is 4.lks.,

By 1st set, 40.02 chs.

By 2nd set, 39.98 " the mean of which is

40.00 S. 1 lk. from the secant, set a 1-inch iron post, for  
standard  $\frac{1}{4}$  sec. cor. of sec. 32, stamped in cap

S C  $\frac{1}{4}$  S 32 in the N.

1915 in the S., from which

A mesquite 5 ins. dia., brs. N.  $39\frac{1}{2}^{\circ}$  E., 154 lks. dist.  
Mkd. S C  $\frac{1}{4}$  S 32 B T.

A mesquite 4 ins. dia., brs. N.  $40^{\circ}$  W., 241 lks. dist.  
Mkd. S C  $\frac{1}{4}$  S 32 B T.

Cor. falls on flat land 9.00 chs. W. of a wash.

48.40 Wash, course SE., 50 lks, wide.

58.80 Wash, course S., 25 lks. wide.

61.60 Wash, course SE., 25 lks. wide.

65.00 Wash, course SW., 50 lks. wide.

73.10 Ascend SW. slope.  
Enter rocky land.

78.30 Spur brs. S., 5.00 chs.  
Descend E. slope.

Railroad water tank at Cutter brs. S.  $42\frac{1}{2}^{\circ}$  E.

79.50 Enter level land, brs. NE. and SW.

Difference bet. measurements of 80.00 chs. by two sets  
of chainmen is 4.lks.,

By 1st set, 79.98 chs.

By 2nd set, 80.02 " the mean of which is

80.00 2 lks. S. of the secant, set a 3-inch iron post, for  
S.C. of secs. 32 and 33, stamped in cap

S C T 1 N R 16 E in the N.

S 32 in NW.

S 33 in NE.

1915 in S.

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

Cor. falls about 40 lks. E. of foot of E. slope of spur,  
E. of a big valley, course SE.; and 5.00 chs. N. of a  
detached end of same spur 5.00 chs. long, 8 ft. high, and  
50 ft. base.

Survey of the Gila and Salt River Base Line through R.16 E.,  
of the White Mountain Indian Reservation.

## Chains

Land broken by spurs, ravines and ridges, 50 to 70 ft.  
deep, consisting of gravel and small boulders.  
Soil, 1st and 3rd rate.  
Dense undergrowth of catclaw, mesquite, tesota and Spanish  
bayonet.  
No timber.  
Grazing land. (Good)

-----  
N. 89° 59' E. along the secant, near S. bdy. of sec. 33.  
Over level land.

- 4.50 Wash, course S., 10 lks. wide.  
7.30 Ascent W. slope.  
13.80 Ridge brs. N. and S.  
Thence along broken S. slope.  
19.10 Wash, course S.  
21.60 Spur, brs. S.  
23.20 Wash, course S.  
30.00 Ridge, brs. N. and S.  
35.20 Wash, course S.  
37.40 Spur, brs. S.

Difference bet. measurement of 40.00 chs. by two sets  
of chainmen is nothing;

- 40.00 2 lks. S. of the secant, set a 1-inch iron post, for  
standard  $\frac{1}{4}$  sec. cor. of sec. 33, stamped in cap

S C  $\frac{1}{4}$  S 33 in N. half  
1915 in S. half

Dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist.;  
and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high,  
N. of cor.

- 41.20 Wash, course S.  
44.40 Ridge, brs. N. and S.  
46.00 Wash, course S.  
51.00 Ridge, brs. N. and S.  
57.10 Wash, course S.  
66.40 Ridge, brs. N. and S.  
76.00 Wash, course S.

Difference bet. measurement of 80.00 chs. by two sets of  
chainmen is 8 lks.;

By 1st set, 80.04 chs.

By 2nd set, 79.96 " the mean of which is

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation

Chains	
80.00	<p>3 lks. S. from the secant, set a 3-inch iron post, for the S.C. of secs. 33 and 34, stamped in cap</p> <p style="text-align: center;">S C in N. T 1 N S 33 in NW. R 16 E S 34 in NE. 1915 in S.</p> <p>Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.</p> <p>Land, consists of broken gravel ridges and washes. Soil, 2nd and 3rd rate. Dense undergrowth of mesquite, palo verde, Spanish bayonet, catclaw and cactus. No timber.</p> <p>-----</p>
	<p>East on secant near the S. bdy. of sec. 34. Over broken rolling S. slope.</p>
2.00	<p>Thence over level mesa.</p>
27.00	<p>Ascend W. slope.</p>
29.00	<p>Slope changes to NW.</p>
34.00	<p>Ridge, brs. N. and S. Descend E. slope.</p>
	<p>Difference bet. measurement of 40.00 chs. by two sets of chainmen is 2 lks.;</p> <p style="text-align: center;">By 1st set, 40.01 chs. By 2nd set, 39.99 " the mean of which is</p>
40.00	<p>2 lks. S. from the secant, set a 1-inch iron post, 20 ins. in ground to rock, for standard <math>\frac{1}{4}</math> sec. cor. of sec. 34, stamped in cap</p> <p style="text-align: center;">S C <math>\frac{1}{4}</math> S 34 in N. 1915 in S.</p> <p>Raise mound of stone 3 ft. base, 2 ft. high, N. of cor.</p>
	<p>Cor. falls 7.00 chs. NE. of the N. end of a prominent hill on a gentle E. slope.</p>
	<p>Nov. 27, 1915. At 4h 53.3m p.m., l.m.t., and at 4h 55.3m p.m., l.m.t., I observe Polaris with telescope direct and reversed, measuring the angle between same and a flag several miles on my secant to the westward, obtaining angles respectively of <math>91^{\circ} 13\frac{1}{2}'</math>, and <math>91^{\circ} 14'</math> to the westward. The azimuth of Polaris at these intervals is <math>73.6'</math> and <math>74.0'</math> respectively east of north, the average of which is the bearing of point on secant to the westward of <math>N. 89^{\circ} 59.9' W.</math> The true azimuth of the secant at this point is <math>N. 89^{\circ} 59.7' W.</math>, or a difference of <math>0.2'</math> only from correct bearing. Close work Nov. 27.</p>
	<p>I make the slight correction necessary to my secant and continue along same, S. <math>89^{\circ} 59.7' E.</math></p>
	<p>Descending E. slope along draw.</p>
71.00	<p>Wash, course SE., 30 lks. wide. Ascend SW. slope.</p>

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation

Chains	
78.00	Spur brs. S., 5.00 chs. Descend E. slope.
79.70	Draw, course S. Ascend SW. slope.
	Difference bet. measurement of 80.00 chs. by two sets of chainmen is 2 lks.;
	By 1st set, 80.01 chs. By 2nd set, 79.99 " the mean of which is
80.00	2 lks. S. of the secant, set a 3-inch iron post, for S.C. of secs. 34 and 35, stamped in cap
	S C in N. T 1 N S 34 in NW. R 16 E S 35 in NE. 1915 in S., from which
	A palo verde 6 ins. dia., brs. N. 75 <sup>1</sup> / <sub>2</sub> ° W., 28 lks. dist. Mkd. T 1 N R 16 E S 34 S C B T.
	A palo verde 8 ins. dia., brs. N. 20° E., 20 lks. dist. Mkd. T 1 N R 16 E S 35 S C B T.
	Land, rolling and out with numerous washes. Soil, rocky and gravel, 3rd rate. Dense undergrowth of mesquite, Spanish bayonet, catclaw, tesota, scrub oak and palo verde. No timber.
	Cor. falls on steep W. slope, 6 ft. above and 20 lks. E. of head of short spur bearing to S.
-----	
	S. 89° 59' E. along the secant near the S. bdy. of sec. 35. Ascending S <sup>W</sup> . slope.
2.00	Thence along N. slope.
22.75	Descend E. slope.
32.75	Wash, course SE., 35 lks. wide, Ascend SW. slope.
	Difference bet. measurement of 40.00 chs. by two sets of chainmen is 2 lks.;
	By 1st set 39.99 chs. By 2nd set, 40.01 " the mean of which is
40.00	1 lk. S. from the secant, set a 1-inch iron post for standard $\frac{1}{4}$ sec. cor. of sec. 35, stamped in cap
	S C $\frac{1}{4}$ S 35 on N. 1915 on S.
	Raise mound of stone 3 ft. base, 2 ft. high, N. of cor.
41.50	Draw, course SW. Ascend SW. slope.
52.75	Thence over level mesa, brs. SE. and NW.
60.50	Descend NE. slope.

Survey of the Gila and Salt River Base Line through R.16 E.,  
of the White Mountain Indian Reservation

Chains	
70.10	Wash, course S., 10 lks. wide. Ascend SW. slope.
76.75	Mesa brs. SE. and NW.
	Difference bet. measurement of 80.00 chs. by two sets of chainmen is 2 lks.;
	By 1st set, 79.99 chs.
	By 2nd set, 80.01 " the mean of which is
80.00	Set a 3-inch iron post for S.C. of secs. 35 and 36, stamped in cap S C in N. T 1 N S 35 in NW. R 16 E S 36 in NE. 1915 in S.
	Raise mound of stone 3 ft. base, 2 ft. high, N. of cor.
	Cor. falls on top of gravel ridge, brs. NW. and SE. 10 chs. W. of foot of ridge on W. edge of wide valley.
	Land, rolling. Soil, rocky, with small boulders and gravel, 3rd rate. Dense undergrowth of catolaw, palo verde and palo negro, cactus and tesota. No timber.
	-----
	S. 89° 58' E. along the secant, south of sec. 36.
	Over level mesa.
.75	Draw, course SE.
4.00	Descend NE. slope.
8.80	Enter level land.
12.00	Wash, course SE., 50 lks. wide.
18.00	Wash, course SE., 20 lks. wide.
22.70	Wagon road, brs. SE. and NW.
24.15	Ascend SW. slope.
29.90	Ridge, brs. SE. and NW. Descend E. slope.
31.80	Enter level land.
33.00	Wash, course S., 30 lks. wide.
37.35	Wash, course S., 30 lks. wide.
	Difference bet. measurement of 40.00 chs. by two sets of chainmen is 4 lks.;
	By 1st set, 40.02 chs.
	By 2nd set, 39.98 " the mean of which is
40.00	1 lk. N. of secant Set a 1-inch iron post, for standard $\frac{1}{4}$ sec. cor. of sec. 36, stamped in cap S C $\frac{1}{4}$ S 36 in N. 1915 in S.

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation

Chains

Dig pits 18x18x12 ins. on line E. and W. of post 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

Cor. falls 2.00 chs. W. of foot of steep slope on E. side of a wide valley and 7.00 chs. E. of a steep slope on W. side of same valley.

42.00 Ascent W. slope.

46.70 Spur, brs. S.  
Descend E. slope.

52.75 Thence over level land.

55.70 Wash, course S., 30 lks. wide.

65.70 Ascent SW. slope.

69.00 Spur brs. S. 5.00 chs.  
Descend E. slope.

74.10 Draw, course SW.  
Ascend SW. slope.

79.00 Spur, brs. S. 6.00 chs.  
Descend E. slope.

Difference bet. measurements of 80.00 chs. by two sets of chainmen, is 4 lks.:

By 1st set, 80.02 chs.  
By 2nd set, 79.98 " the mean of which is

80.00 3 lks. N. of the secant, set a 3-inch iron post for S.C. of T. 1 N., Rgs. 16 and 17 E., with cap stamped

S C T 1. N in N.  
R. 16 E. S 36 in NW.  
R. 17 E S 31 in NE.  
1915 in S.

Dig pits 30x24x12 ins. crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dist.; and raise a mound of earth 5 ft. base, 2 1/2 ft. high, N. of cor.

Land, gravel ridges, bearing about S. 15° E.  
Soil, 1st rate in valley; 4th rate on ridges.  
Dense undergrowth of catclaw, mesquite, tesota, Spanish bayonet and cactus.  
Good grazing land.  
No timber.

Cor. falls on NE. slope of a small spur to south in broken country, and a little over 1/4 of a mile SE. of a gravel mesa, which from a point 70 lks. W. of cor. brs. N.25°W. From this same point, the high east peak of Pinal Mountain brs. S. 55° 39' W.  
Notch in El Capitan Mountain Brs. S. 32° 01' W.  
The center of a flat topped mesa, with steep slopes on all sides brs. S. 35° E.  
Mt. Turnbull brs. S. 44° 39' E., about 25 miles dist.

General Description.

This line runs across a country generally level except

Survey of the Gila and Salt River Base Line through R.16 E.  
of the White Mountain Indian Reservation.

Chains.

as it is broken by low ridges and ravines from 50 to 100 ft. in depth. The soil is generally gravel with small boulders in places, and good 2nd class soil in the valleys. There is no timber in the township north or south of line, and the country is devoid of water except along the railroad (Arizona Eastern) which passes about 1 1/4 miles south of and nearly parallel to the Base Line.

Survey of the Gila and Salt River Base Line through R. 17 E.

From the secant point of the township cor. bet. Rgs. 16 and 17 E., I deflect 3' 27' from my backsight on the secant through R. 16 E., and run

N. 89° 58.3' E. along the secant, south of sec. 31.

Descending along NE. slope.

- 5.00 Draw, course S.  
Ascend NW. slope.
  - 9.10 Spur brs. SW.  
Descend SE. slope.
  - 11.40 Draw, course SW.  
Ascend SW. slope.
  - 15.65 Ridge brs. SE. and NW.  
Descend NE. slope.
  - 22.00 Draw, course N.  
Ascend NW. slope.
  - 30.00 Descend E. slope along spur.
  - 31.03 Water tank at Hayes ranch on Arizona Eastern Railway brs. S. 37° 52' E.
- Difference bet. measurement of 40.00 chs. by two sets of chainmen is 10 lks.;
- By 1st set, 40.05 chs.
  - By 2nd set, 39.95 " the mean of which is
- 40.00 1 1/4 lks. N. of the secant, set a 1-inch iron post, for standard 1/4 sec. cor. of sec. 31, with cap stamped
- S C 1/4 S 31 in N. half  
1915 in S. half
- Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
- 46.60 Enter level land.
  - 59.00 Wash, course SE., 50 lks. wide.
  - 71.60 Ascend SW. slope.
  - 76.40 Thence along slight N. slope.

Survey of the Gila and Salt River Base Line through R.17 E.,  
of the White Mountain Indian Reservation.

## Chains

79.00 Descend NE. slope.

Difference bet. measurement of 80.00 chs. by two sets of chainmen is 0 lks.; therefore at

80.00 Set a 3-inch iron post, for S.C. of secs. 31 and 32, with cap stamped

S C in N.  
T 1 N S 31 in NW.  
R 17 E S 32 in NE.  
1915 in S.

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

Land, broken mesa and gravel ridges.  
Soil, 1st and 3rd rate.  
Dense undergrowth of catclaw, tesota, palo negro,  
Spanish bayonet and cactus.  
No timber.

Cor. falls on NE. slope near top of ridge 40 ft. above valley.

-----  
N. 89° 59' E. along the secant near S. bdy. of sec. 32.

Descending NE. slope.

1.00 Enter level land.

10.15 Wash, course SE., 10 lks. wide.  
Ascend SW. slope.

14.90 Thence over level land.

22.40 Descend E. slope.

27.40 Thence over level land.

Difference bet. measurement of 40.00 chs. by two sets of chainmen is nothing; therefore at

40.00 1 lk. S. of the secant, set a 1-inch iron post, for standard  $\frac{1}{4}$  sec. cor. of sec. 32, stamped in cap

S C  $\frac{1}{4}$  S 32 in N.  
1915 in S., from which

A mesquite 5 ins. dia., brs. N. 45° W., 197 lks. dist.  
Mkd.  $\frac{1}{4}$  S 32 S C B T.

A mesquite 6 ins. dia., brs. N. 30° E., 78 lks. dist.  
Mkd.  $\frac{1}{4}$  S 32 S C B T.

Cor. falls on W. side of wash in valley, brs. N. 30° W.  
and S. 30° E.

40.50 Wash, course S., 50 lks. wide.

48.00 Ascend SW. slope.

54.40 Thence over level land.

58.97 Descend SE. slope.

63.95 Wash, course S., 20 lks. wide.  
Ascend SW. slope.

Survey of the Gila and Salt River Base Line through R.17 E.,  
of the White Mountain Indian Reservation

Chains.

78.39 Rock spur brs. S., 3.00 chs.  
Water tank at Gilson Railway Station brs. S. 31° 15' W.  
Descend slight SE. slope.

Difference bet. measurement of 80.00 chs. by two sets of  
chainmen is 2 lks.;

By 1st set, 80.01 chs.  
By 2nd set, 79.99 " the mean of which is

80.00 2 lks. S. of secant, set a 3-inch iron post for S.C. of  
secs. 32 and 33, stamped in cap

S C in N.  
T 1 N S 32 in NW.  
R 17 E S 33 in NE.  
1915 in S.

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

Land, rolling.  
Soil, 1st and 3rd rate.  
Dense undergrowth of mesquite, cactus, greasewood, cat-  
claw and palo verde.  
No timber.

Cor. falls on E. slope of curved spur from high hill to  
W. then S., 3.00 chs. S. of where the spur brs. W.,  
which is about 15 ft. lower than top of spur NW. of cor.

-----  
N. 89° 59' E. along the secant near S.bdy. of sec. 33.

Descending SE. slope.

.80 Draw, course S.  
Ascend steep SW. slope.

17.11 Triplett, brs. S. 79° 40' E.  
Mt. Turnbull brs. S. 41° 21' E.  
Flat-topped mesa, sighted from township cor., brs.  
S. 10° 04' E.  
Water tank at Gilson Ry. station, brs. S. 39° 02' W.

17.60 Ridge, brs. N. and S.  
Descend SE. slope.

34.00 Wash, course S., 8 lks. wide.  
Ascend SW. slope.

36.90 Spur, brs. S., 3.00 chs.  
Descend E. slope.

Difference bet. measurement of 40.00 chs. by two sets  
of chainmen is 8 lks.,

By 1st set, 40.04 chs.  
By 2nd set, 39.96 " the mean if which is

40.00 2 lks. S. of secant, set a 1-inch iron post, 27 ins. in  
rocky ground, in limestone rock, for standard  $\frac{1}{4}$  sec.  
cor. of sec. 33, stamped in cap

S C  $\frac{1}{4}$  S 33 in N.  
1915 in S.

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

Survey of the Gila and Salt River Base Line through R.17 E.  
of the White Mountain Indian Reservation

## Chains

Cor. falls on gentle E. slope in limestone rock about 1.00 ch. W. of a drain, course SW.

Nov. 29, 1915. At 4h 19.5m p.m., l.m.t., and at 4h 26.9m l.m.t., I observe Polaris and mark the respective points on the ground. The bearings of ~~these~~ these two points are  $1^{\circ} 17.1m$  E. and  $1^{\circ} 16.1m$  E. of N. respectively. I measure the angle bet. the mean of these two points and my backsight on the secant to the westward, and find the angle to be  $91^{\circ} 17'$ . Therefore the error of the bearing of my secant at this point is  $0.1'$  the theoretic bearing being N.  $89^{\circ} 59.7'$  E., while the bearing derived from the observation is N.  $89^{\circ} 59.6'$  E., an amount much less than errors of observation.

Close work Nov. 29, 1915.

41.25 Wash, course SW., 10 lks. wide.  
Ascend W. slope.

46.00 Thence along S. slope.

55.95 Ascend slight SW. slope.

59.25 Spur brs. S. 10.00 chs.  
Descend SE. slope.

66.25 Wash, course S., 20 lks. wide.  
Ascend SW. slope.

68.75 Spur, brs. S., 4.00 chs.  
Descend E. slope.

70.80 Draw, course S.  
Ascend W. slope.

74.75 Spur brs. S., 5.00 chs.  
Descend E. slope.

77.80 Wash, course SW, 10.lks. wide.  
Ascend W. slope.

Difference bet. measurements by two sets of chainmen is nothing; therefore at

80.00 3 lks. S. of the secant, set a 3-inch iron post on top of rocky ground surrounded by mound of stone, for S.C. of sec.s 33 and 34, stamped in cap

S C in N.  
T 1 N S 33 in NW.  
R 17 E S 34 in NE.  
1915 in S.

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

Cor. falls on W. slope of peak at S. end of limestone ridge 20 ft. above a drain,

Land, mountainous and rough.  
Soil, rocky, 4th rate, mostly limestone.  
Dense undergrowth of palo negro, catclaw, Spanish bayonet, giant cactus, ocatilla, mesquite and tesota.

-----  
Thence East along the secant, through sec. 34.

Continuing ascent of NW. slope.

Survey of the Gila and Salt River Base Line through R.17 E.,  
of the White Mountain Indian Reservation

## Chains

10.30 Ridge brs. NE. and SW.  
Descend E. slope.

18.60 Draw, course SE.

19.75 Spur brs. S.  
Descend E. slope.

21.60 Wash, course S., 10 lks. W.  
Ascend W. slope.

27.65 Slope changes to SW.

Difference bet. measurement of 40.00 chs. by two sets of  
chainmen is nothing; therefore at

40.00 2 lks. S. of secant, set a 1-inch iron post 12 ins. in  
the ground, surrounded by a mound of stone, stamped in  
cap

S C  $\frac{1}{2}$  S 34 in N. half  
1915 in S.

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

42.30 Ridge brs. SE. and NW.  
Descend NE. slope.

47.25 Thence along N. slope.

52.26 Descend NE. slope.

57.23 Draw, course N.,  
Ascend NW. slope.

60.33 Spur brs. N.,  
Descend NE. slope.

63.25 Slope changes to NE.

79.90 Draw, course NE., 5 lks. wide.  
Enter level land.

Difference bet. measurement of 80.00 chs. by two sets of  
chainmen is 2 lks.;

By 1st set, 80.01 chs.

By 2nd set, 79.99 " the mean of which is

80.00 2 lks. S. of the secant, set a 3-inch iron post, for  
S.C. of secs. 34 and 35, with cap stamped

S C in N.  
T 1 N S 34 in NW.  
R 17 E S 35 in NE.  
1915 in S.

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

Cor. falls at foot of E. slope on edge of bank of small  
drain at edge of large flat.

Land, rough and mountainous.

Soil, rocky, 4th rate.

Dense undergrowth of mesquite, ocatilla, catclaw, palo  
negre, cactus and Spanish Bayonet.

No timber.

Survey of the Gila and Salt River Base Line through R.17 E.  
of the White Mountain Indian Reservation

Chains	
	S. 89° 59' E. along secant through sec. 35. Over level land. Difference bet. measurement by two sets of chainmen is nothing; therefore at 1 link S. of the secant 40.00 / Set a 1-inch iron post, for standard $\frac{1}{4}$ sec. cor. of sec. 35, stamped in cap  S C $\frac{1}{4}$ S 35 in N. half 1915 in S.  Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
55.00	Thence along broken S. slope.
60.00	Draw, course S.
61.30	Spur, brs. S.
65.70	Draw, course S.
69.70	Spur, brs. S.
71.00	Draw, course S.
73.40	Spur, brs. S.
77.00	Wash, course NE., 20 lks. wide.  Difference bet. measurements of 80.00 chs. by two sets of chainmen is 4 lks.;  By 1st set, 80.02 chs. By 2nd set, 79.98 " the mean of which is
80.00	Set a 3-inch iron post for the S.C. of secs. 35 and 36, stamped in cap  S C in N. T 1 N S 35 in NW. R 17 E S 36 in NE. 1915 in S.  Raise mound of stone 3 ft. base, 2 ft. high, N. of cor.  Cor. falls in deep ravine 1.00 ch. S. of a drain which has an easterly course.  Land, gently sloping to the east. Soil, 1st and 2nd rate. Undergrowth of mesquite, palo negro, coatilla. No timber.
-----	
	S. 89° 58' E. along the secant ---- south of sec. 36. Over nearly level land in ravine.
4.70	Ascend NW. slope of ravine.
6.10	Thence along broken N. slope.
8.15	Draw, course N.
10.90	Spur, brs. N.

Survey of the Gila and Salt River Base Line through R.17 E.,  
of the White Mountain Indian Reservation

Chains.	
12.00	Draw, course N.
15.70	Spur, brs. N.
20.67	Draw, course N.
27.15	Spur brs. N. Descend E. slope.
32.00	Foot of slope. Enter level land.
39.70	Wash, course SE., 50 lks. wide.
40.00	True point for standard $\frac{1}{4}$ sec. cor. of sec. 36 falls in unsafe place in wash.
	Difference bet. measurement of 40.50 chs. by two sets of chainmen is nothing; therefore at
40.50	2 lks. N. of secant, on left bank of wash, set a 1-inch iron post for W.C. to standard $\frac{1}{4}$ sec. cor. of sec. 36, stamped in cap
	S C $\frac{1}{4}$ S 36 in N. W C in W. 1915 in S.
	Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
45.50	Wagon road, brs. SE. and NW.
48.00	Ascend SW. slope.
58.50	Ridge brs. N. and S. Descend SE. slope.
65.00	Wash, course S., 10 lks. wide. Ascend W. slope.
71.00	Ridge, brs. N. and S. Descend E. slope.
73.80	Draw, course S. Ascend W. slope.
	Difference bet. measurement of 80.00 chs. by two sets of chainmen is 2 lks.;
	By 1st set, 80.01 chs. By 2nd set, 79.99 " the mean of which is
80.00	3 lks. N. of the secant, set a 3-inch iron post, for S.C. to Tps. 1 N., Rgs. 17 and 18 E., stamped in cap
	S C T 1 N in N. R 17 E S 36 in NW. R 18 E S 31 in NE. 1915 in S.
	Raise mound of earth and stone 4 ft. base, 3 ft. high, N. of cor.
	Land, broken by numerous washes, general course SE. Soil, 1st to 3rd rate, sandy loam. Dense undergrowth of mesquite, palo negro, catclaw, palmilla and Spanish bayonet. No timber. Cor. falls about 9.00 chs. E. of the center of a gravel

## Survey of the Gila and Salt River Base Line through R.17 E.

## of the White Mountain Indian Reservation

## Chains

hill 1.00 ch. long N. and S., and 50 lks. wide, the only similar one in the vicinity.

## General Description.

This township is traversed from NW. to SE. by a range of limestone mountains, about 800 ft. in height. NE. and SW. of this range is generally nearly level land; gravelly soil, interspersed with boulders, poor agricultural land, but it is good for grazing. There is no known water in the township nearer than Seven-mile wash which probably courses close to the northern edge of the township. The Arizona Eastern Railway passes about two miles south of line in a general east and west direction.

Survey of the Gila and Salt River Base  
Line through R. 18 E.

At the secant point of the S.C. of T. 1 N., Rgs. 17 and 18 E., I deflect an angle  $3' 27''$  N. from the secant.

Thence

N.  $89^{\circ} 58.3'$  E. along the secant, south of sec. 31.

Ascending SW. slope.

1.80 Ridge, brs. N. and S.  
Descend SE. slope.

11.80 Draw, course S.  
Ascend SW. slope.

15.00 Thence over level mesa.

20.00 Descend slight NE. slope.

Difference bet. measurement of 40.00 chs. by two sets of chainmen is 2 lks.;

By 1st set 39.99 chs.

By 2nd set 40.01 " the mean of which is

40.00  $1\frac{1}{2}$  lks. N. of the secant, set a 1-inch iron post, for the standard  $\frac{1}{4}$  sec. cor. of sec. 31, with brass cap stamped

S C  $\frac{1}{4}$  S 31 in N.  
1915 in S.

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

Cor. falls on E. slope.

70.00 Wash, course S., 1.00 ch. wide.  
Ascend.

75.00 Thence over level mesa.

Survey of the Gila and Salt River Base Line through R.18 E.  
of the White Mountain Indian Reservation.

## Chains.

- Difference bet. measurement of 80.00 chs. by two sets of chainmen is nothing; therefore at
- 80.00 Set a 3-inch iron post for the S.C. of secs. 31 and 32, stamped in cap
- S C in N.  
T 1 N S 31 in NW.  
R 18 E S 32 in NE.  
1915 in S.
- Raise a mound of <sup>earth and</sup> stone 3 ft. base, 2 ft. high, N. of cor.
- Cor. falls on flat prairie about 300 yards S. 20° E. of the west end of a small gravel ridge 20 ft. high. A small gravel hill 20 ft. high N. 55° E., 1/4 mile. Two gravel hills bear S. 40° E. about 3/4 of a mile. Rice water tank brs. S. 56° 35' E. about 1 1/2 miles. Mt. Turnbull brs. S. 33° 04' E., about 20 miles. Rock pinnacle brs. S. 40° 20' W., about 10 miles. Triplett brs. S. 74° 09' E.
- Land, nearly level.  
Soil, sandy loam, 2nd rate. (Fair grazing land).  
Dense undergrowth of catclaw, mesquite, tesota.  
No timber.
- 
- N. 89° 59' E. along the secant near S. bdy. of sec. 32.  
Over low rolling land.
- 2.50 Draw, course S.
- 7.10 Descend SE. slope.
- 35.00 Wagon road, brs. NE. and SW.
- Difference bet. measurement of 40.00 chs. by two sets of chainmen is nothing; therefore at
- 40.00 1 lk. S. of the secant, set a 1-inch iron post, for standard 1/4 sec. cor. of sec. 32, stamped in cap
- S C 1/4 S 32 in N.  
1915 in S.
- Raise a mound of earth and stone 3 ft base, 2 ft. high, N. of cor.
- Cor. falls on nearly level prairie with gentle slope to E.
- 45.00 Enter level land, brs. N. and S.
- 49.30 Wash, course S., 20 lks. wide.
- 75.00 Ascend slight W. slope.
- Difference bet. measurements of 80.00 chs. by two sets of chainmen is nothing; therefore at
- 80.00 2 lks. S. of the secant, set a 3-inch iron post for the S.C. of secs. 32 and 33, stamped in cap
- S C in N.  
T 1 N S 32 in NW.  
R 18 E S 33 in NE.  
1915 in S.

Survey of the Gila and Salt River Base Line through R.18 E.  
of the White Mountain Indian Reservation.

Chains

Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.  
Land, gently rolling.  
Soil, sandy loam and gravel, 2nd rate.  
Undergrowth of mesquite and catclaw brush.  
Good grazing land.  
No timber.

-----

N. 89° 59' E. along the secant, near S. bdy. of sec. 33.  
Ascending slight W. slope.

3.00 Ridge, brs. N. and S.  
Rock quarry of Rice school brs. S. 15° E., about ¼ mile.  
Descend slight E. slope.

22.80 Draw, course S.  
Ascend SW. slope.

27.40 Spur, brs. S. 50 lks.  
Descend E. slope.

28.50 Draw, course S.  
Ascend SW. slope.

32.38 Spur, brs. S.  
Descend E. slope.

Difference bet. measurements of 40.00 chs. by two sets of  
chainmen is nothing; therefore at

40.00 2 lks. S. of the secant, set a 1-inch iron post, for  
standard ¼ sec. cor. of sec. 33, stamped in cap

S C ¼ S 33 in N.  
1915 in S.

Raise mound of earth and stone 3 ft. base, 2 ft. high,  
N. of cor.

Cor. falls in small valley course S.

41.80 Draw, course SW.  
Ascend W. slope.

47.50 Low spur brs. S.  
Descend E. slope.

50.00 Draw, course S.  
Ascend SW. slope.

68.45 Level mesa brs. N. and S.

Nov. 30, 1915. At 4h 22.1m<sup>p.m.</sup> a.l.m.t., and at 4h 23.5m<sup>p.m.</sup> a.l.m.t.  
I observe Polaris with telescope direct and reversed,  
and mark the respective points on the ground N. of my  
station. The bearing of Polaris at these instants of  
time are 1° 16.2' E. and 1° 16.0' E. respectively.  
I observe the angle between the middle point and the  
back sight on my secant, and find same to be 91° 16',  
which would make the backsight on secant N. 89° 59.9' W.,  
As the true bearing at this point is S. 89° 59.9' W., my  
observation shows a deviation of line of only .2 of a  
minute, which being within the limits of  
I consider satisfactory and do not change same.

Close work Nov. 30, 1915.

Survey of the Gila and Salt River Base Line through R. 18 E.,  
of the White Mountain Indian Reservation.

Chains	
73.45	Descend E. slope.
	Difference bet. measurement of 80.00 chs. by two sets of chainman is nothing; therefore at
80.00	3 lks. S. of the secant, set a 3-inch iron post, for S.C. of secs. 33 and 34, stamped in cap
	<p style="text-align: center;">S C in N. T 1 N S 33 in NW. R 18 E S 34 in NE. 1915 in S.</p>
	Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
	Cor. falls on side of mesa at foot of slope of a high gravel ridge which is $\frac{1}{4}$ mile west of Seven-mile Creek.
	Land, gently rolling. Soil, 2nd and 3rd rate. Dense undergrowth of catclaw and mesquite brush. No timber.
-----	
	East along the secant through sec. 34.
	Over nearly level land.
20.00	Descend E. slope.
22.80	Enter level land, brs. N. and S.
25.80	Road brs. N. and S.
	Difference bet. measurement of 40.00 chs. by two sets of chainmen is nothing; therefore at
40.00	2 lks. S. of the secant, set a 1-inch iron post, for standard $\frac{1}{4}$ sec. cor. of sec. 34, stamped in cap
	<p style="text-align: center;">S C <math>\frac{1}{4}</math> S 34 in N. 1915 in S.</p>
	Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
48.00	Enter wash, course S.
56.70	Seven-mile Wash, which at this point has a stream of pure water, 10 lks. wide and 4 ins. deep, general course S.
57.70	Leave wash; ascend SW. slope.
62.60	Graded road brs. N. and S., from San Carlos to Sawmill.
62.90	On east side of this road and 200 yards north of square corral on west side of road, I build a mound of stone 3 ft. base, 2 ft. high.
64.60	Old road, brs. N. and S.
71.42	Edge of mesa brs. N. and S.
71.90	Old road, brs. N. and S.
76.40	Triplett brs. S. 66° 32' E. Descend NE. slope.

Survey of the Gila and Salt River Base Line through R.18 E.,  
of the White Mountain Indian Reservation

## Chains

Difference bet. measurement of 80.00 chs. by two sets of chainmen is 2 lks.;

By 1st set, 79.99 chs.

By 2nd set, 80.01 " the mean of which is

80.00 2 lks. S. of secant, set a 3-inch iron post, for S.C. of secs. 34 and 35, stamped in cap

S C in N.

T 1 N S 34 in NW.

R 18 E S 35 in NE.

1915 in S.

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

Land, rolling.

Soil, 1st and 3rd rate.

Dense undergrowth of mesquite and catclaw on mesas and slopes, and catclaw and arrowweed along creek bottom.

No timber.

S. 89° 59' E. along the secant through sec. 35.

Descending NE. slope.

5.95 A house brs. N. 62½° E. about 20 chs. dist.

A house brs. N. 53½° E., about 30 chs. dist.

Descend E. slope.

9.45 Indian School irrigation ditch brs. NE. and SW., 6 ft. wide and 4 ft. deep.

10.25 W. edge of water, San Carlos River, 2½ chs. in width and an average depth of about 3 inches at this point, course SW.

15.05 Wagon road, brs. N. and S.  
Enter level land and first rate soil.

13.15 Wire fence, brs. N. and S.  
Enter field.

22.55 Irrigation ditch brs. N. and S., 4 ft. wide, 3 ft. deep.

22.75 Fence, brs. N. and S.

31.35 Irrigation ditch, brs. N. and S., 3 ft. wide, 1 ft. deep.

32.80 Fence, brs. N. and S. (Wire fence).  
Leave field.

37.75 Old road, brs. N. and S.

39.65 Wagon road, brs. NE. and SW.

Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 4 lks.

By 1st set 39.98 chs.

By 2nd set 40.02 " the mean of which is

40.00 1 lk. S. of the secant, set a 1-inch iron post, for standard ¼ sec. cor. of sec. 35, stamped in cap

Survey of the Gila and Salt River Base Line through R.18 E.,  
of the White Mountain Indian Reservation

Chains	
	<p>S C ¼ S 35 in N. 1915 in S.</p> <p>Raise a mound of earth and stone 3 ft. base, 2 ft. high, N. of cor.</p> <p>Cor. falls ¼ ch. E. of well travelled road, and 5.00 chs. west of foot of gravel bluff, brs. N. and S.</p>
45.00	Ascend W. slope.
48.49	Slope, changes to SW.
58.76	Top of ascent. Thence level.
	<p>1st house brs. N. 58½° W., 2nd house brs. N. 39° W.</p>
59.60	Ridge, brs. N. and S. Descend SE. slope.
72.00	Draw, course S. Ascend SW. slope.
	<p>Difference bet. measurement of 80.00 chs. by two sets of chainmen is 4 lks.;</p> <p>By 1st set, 80.02 chs. By 2nd set, 79.98 " the mean of which is</p>
80.00	Set a 3-inch iron post for the S.C. of secs. 35 and 36, stamped in cap
	<p>S C in N. T 1 N S 35 in NW. R 18 E S 36 in NE. 1915 in S.</p> <p>Raise mound of stone 3 ft. base, 2 ft high, N. of cor</p> <p>Cor. falls on S. slope 1½ chs. N. of a wash, course W. and 20 ft. above bed of same, also about S. 10° E. one-half mile from a high volcanic peak.</p> <p>Land, level and rolling. Soil, 1st rate in river valley; 3<sup>rd</sup> rate on hills and bluffs. Dense mesquite and catclaw brush. No timber.</p> <p>-----</p> <p>S. 89° 59' E. along the secant, S. of sec. 36. Descending SE. slope.</p>
6.20	Wash, 10 lks. wide, course SW. Ascend SW. slope.
16.40	Slope changes to W. slope.  Thence ascend to
24.30	Ridge brs. SE. and NW. Descend NE. slope.
31.00	Old road, brs. SE. and NW.

Survey of the Gila and Salt River Base Line through R. 18 E.,  
of the White Mountain Indian Reservation.

Chains	
36.75	<p>Wash, course NW., 10 lks. wide. Ascend NW. slope.</p> <p>Difference bet, measurement of 40.00 chs. by two sets of chainmen is nothing; therefore at</p>
40.00	<p>1½ lks. N. of secant, set a 1-inch iron post for standard ¼ sec. cor. of sec. 36, with cap stamped</p> <p style="text-align: center;">S C ¼ S 36 in N. 1915 in S.</p> <p>Raise mound of stone 3 ft. base, 2 ft. high, N. of cor.</p> <p>Cor. falls on S. slope 15 ft. above head of drain, course N. 70° W., in white soil, and 8.00 chs. E. of peak at end of volcanic ridge. The drain above mentioned form- ing boundary between decomposed limestone, or white soil, and black volcanic rock.</p>
40.60	<p>Same old road, brs. NE. and SW. Begin ascent to</p>
47.50	<p>Ridge brs. NW. from volcanic peak, and at this point I take the following bearings:</p> <p>Middle of top of W. cutbank, brs. N. 4° 25' W. several miles.</p> <p>Middle of top of E. yellow outbank on mesa 4 miles north brs. N. 5° 47' E.</p> <p>Pole in rock monument on volcanic peak brs. N. 66° 37' W., about ¾ of a mile.</p> <p>Descend NE. slope.</p>
58.65	<p>Thence along N. slope.</p>
61.15	<p>Descend NE. slope.</p>
77.30	<p>Wash, course NW., 10 lks. wide. Ascend SW. slope.</p> <p>Difference bgt. measurement of 80.00 chs. by two sets of chainmen is nothing; therefore at</p>
80.00	<p>3 lks. N. of the secant, set a 3-inch iron post, 18 ins. in ground to rock, for S.C. of T. 1 N., Rgs. 18 and 19 E., stamped in cap</p> <p style="text-align: center;">S C T 1 N in N. R 18 E S 36 in NW. R 19 E S 31 in NE. 1915 in S.</p> <p>Raise a mound of stone 4 ft. base, 3 ft. high, N. of cor.</p> <p>From the cor., I take the following bearings:</p> <p>Pole in monument on Volcanic peak, previously noted, brs. N. 75° 03' W.</p> <p>The NE. end of mesa, 3/8 of a mile south, brs. S. 25° 37' E.</p> <p>Cor. falls on S. slope of lime ridge 10 ft. above drain at junction with black volcanic soil, and 30 ft. below lime ridge 1½ chs. N.</p> <p>Land, rough and mountainous. Soil, rocky, 3rd rate. Catalaw, mesquite, palo negro, tesota and cactus under</p>

Survey of the Gila and Salt River Base Line through R.18 E.,  
of the White Mountain Indian Reservation

Chains

growth.  
No timber.

Note: The Base line continued to the eastward will pass about 50 ft. north of extreme SW. end of middle of three volcanic ledges on the mesa which is  $\frac{5}{8}$  of a mile E., and this limestone ridge to NE. is the last ridge towards volcanic mesa when approaching from W., and 700 ft. below the ledge above referred to.

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General Description.

The township is traversed by San Carlos River, and Seven-mile wash, which join about two miles south of line. The former flows a good stream of water all the year. Seven-mile Wash, while generally dry, has a good underflow. The country is generally level, both north and south of Base line for six miles. There are many Indian settlements in valley of San Carlos River, with small cultivated fields.

Close work Dec. 1, 1915.

H. L. Baldwin,  
Topographer.

List of Assistants:

S. H. Pollard,	Head	chainman
Donald McIntosh	"	"
Julian B. Downey	Rear	chainman
John Devera	"	"
Frank Gasser,	Moundman	
Billie Kindelay	"	
Herbert Forbes,	Rodman.	

Denver. Colo., April 10-1916

I hereby certify that the survey of the Gila and Salt River Base Line, through Rgs. 16, 17 and 18 E., within the White Mountain, or San Carlos, Indian Reservation, Arizona, was made under my supervision and direction, and to the best of my knowledge and belief the field work was executed in strict accordance with instructions given me dated Oct. 28, 1915, and the Manual of Surveying Instructions, and that these field notes are a correct representation thereof.

*A. F. Dunnington*

Topographer in Charge of  
Indian Surveys.

FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_, 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 \_\_\_\_\_

For final oath of U. S. Surveyor, see Book "A".

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear 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 \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_ }



APPROVAL.

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

Washington, D.C., June 12, 1916.

The foregoing field notes of the survey of the Gila & Salt River Base Line through Rgs. 16, 17 and 18 E., within the White Mountain (or San Carlos) Indian Reservation, Arizona,

executed by H.L. Baldwin, Topographer, under direction of A.F. Dunnington, Topographer in Charge of Indian Surveys Oct. 28, 1915, having been under his special instructions dated \_\_\_\_\_, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

(Signed) Clay Tallman,  
Commissioner of the General Land Office

I certify that the foregoing transcript of the field notes of the above-described surveys in White Mt. Indian Res'n, Ariz., has been correctly copied from the original notes on file in this office.

*[Handwritten signature]*  
U. S. Surveyor General.  
Commissioner of the General Land Office.