

2403

121

FEB 13 1911

4-679.  
Advised filed G. L. O. letter "E" Sept. 6, 1913.

Book A.

BOOK 2403

# FIELD NOTES

OF THE SURVEY OF THE

Gila and Salt River

Base Line thru TIN Ra 15/2 + 16 E

Of the B + S R B + Meridian,

Arizona

AS SURVEYED BY

Racee C. Mann

, United States Deputy Surveyor,

Under his Contract No. 162, dated Jan 5, 1910

Survey commenced Nov 10, 1910, 19

Survey completed Nov 12, 1910, 19

1A3

NAMES AND DUTIES OF ASSISTANTS.

BOOK 2403

Arthur Regue - Chairman

Percy Bell. Chairman

Fred Davis. Chairman

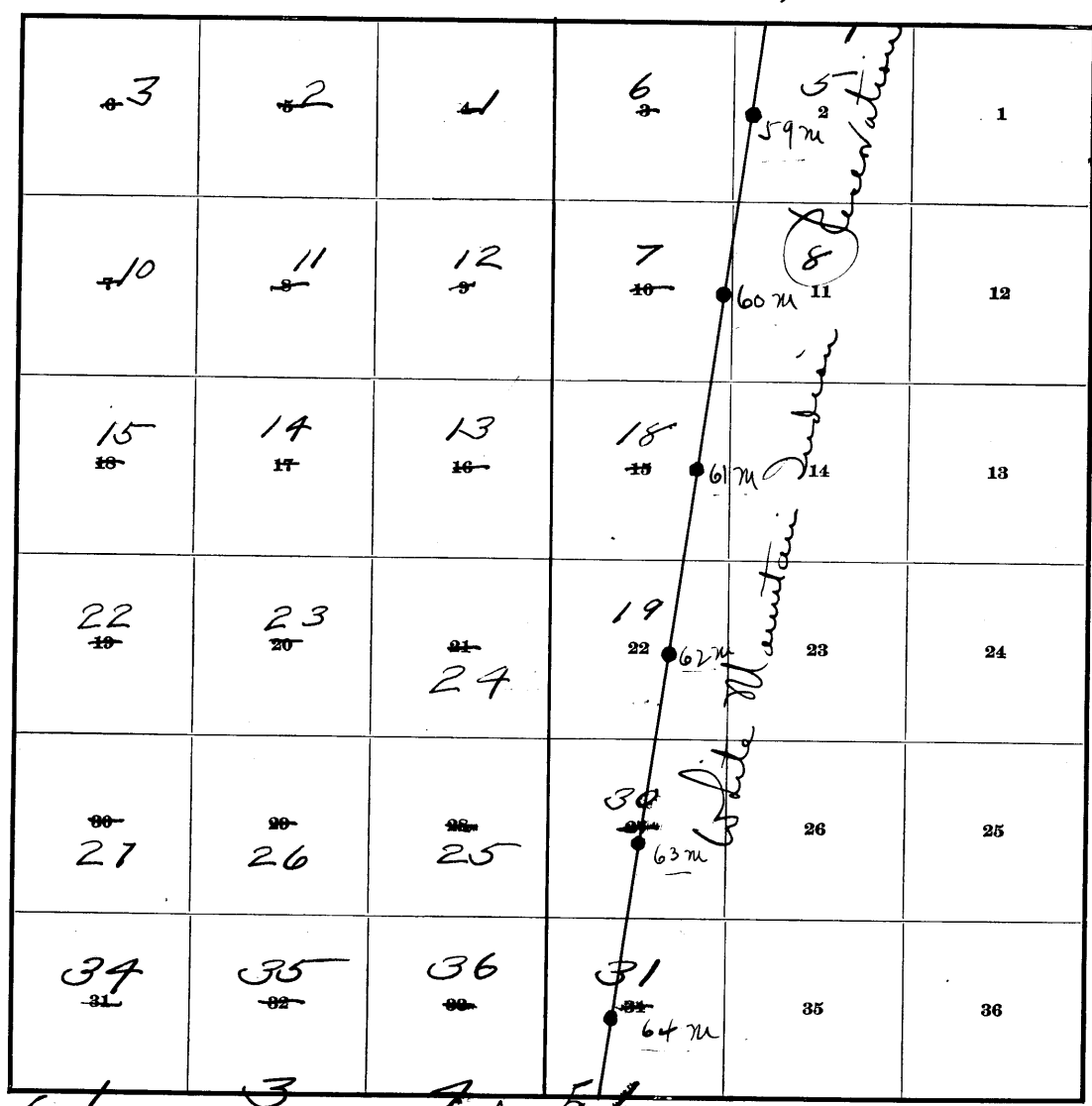
Joi Randall. Chairman

D. McQueen. Chairman

BOOK 2403

# INDEX DIAGRAM.

Township 1N, Range 15 1/2 & 16 E



1 3 4 5  
Gila and Salt River Base Line  
Meanders Page .....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Percy Bell and Arthur M. Rogie  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

Base Line thru T. N. R. 15 1/2 + 16 E

Percy Bell, Chairman.

Arthur M. Rogie, Chairman.

Subscribed and sworn to before me this 9<sup>th</sup>  
day of November, 1910



Russell Horn  
U.S. Deputy Surveyor

WE, Fred Davis and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

Base Line thru T. N. R. 15 1/2 + 16 E

Fred Davis, Chairman

Joe Randall, Moundman

Subscribed and sworn to before me this 9<sup>th</sup>  
day of November, 1910



Russell Horn  
U.S. Deputy Surveyor

WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

\_\_\_\_\_, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 19 \_\_\_\_\_



I, D. M. Agnew, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

Base Line thru T. N. R. 15 1/2 + 16 E

D. M. Agnew, Flagman.

Subscribed and sworn to before me this 9<sup>th</sup>  
day of November, 1910



Russell Horn  
U.S. Deputy Surveyor

Base Line Through Range 15 1/2 E.

1 D

Chains

Survey commenced November 10, 1910, and executed with a Young & Sons light mountain transit, No. 5609, equipped with a Smith solar attachment, the horizontal limb being provided with two opposite verniers reading to 1' of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct and was approved by the Surveyor General for Arizona.

X At the standard corner of township 1 north, ranges 15 and 15 1/2 east, which is a granite rock 18x10x8 ins. 10 ins. in the ground, firmly set, and marked and witnessed as described by the Surveyor General, in latitude 33° 22' 33" N longitude 110° 44' 31" W. at 12m by my watch, which is 16m fast of local mean time, I set 17° 03' 50" on the declination arc and determine the latitude to be 33° 23' N

At 3 p.m., l.m.t., I set off 17° 05' 50" on the declination arc 33° 23' N on the latitude arc, and mark a stone 5 chs. N. of cor.

At 4h. 15.3 p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the manual, and mark the line thus determined by a tack driven in a wooden peg set in the ground 5 chains north of my station. November 10, 1910.

November 11, 1910: at 8 a.m., I turn off the azimuth of Polaris 1° 24' to the west, and mark the meridian thus determined by cutting a mark on a stone firmly set in the ground, west of the mark determined last night; the magnetic bearing of said true Meridian is N. 14° 15' W., which gives the magnetic declination N. 14° 15' East.

At 9 a.m., l.m.t., I set off 17° 17' 30" on the declination arc and 33° 25' N on the latitude arc, and mark the meridian thus determined by cutting a small groove in the stone set Nov. 10, 1910, which falls 0.3 ins. east of the mark determined by Polaris observation.

The p.m. solar observation falls 0.4 ins. west of meridian determined by Polaris; therefore, I conclude that the adjustments of the instrument are satisfactory.

I lay off from the meridian, an angle of 90° from north to east and run east on the south boundary of Sec. 34. Over mountainous land, through dense cat claw.

- 2.31 Barbed wire fence, brs. N. 30° E.; S. 30° W. S. 2 chs. to frame house of Mr. Evans.
- 2.91 W. bank of wash, brs. N. 30° E.
- 3.00 Bottom; leave dense cat claw.
- 4.51 Schist Mon. 15x6x6 ins., marked H 4 on S.W. face, 2 lks. N. of line.
- 4.40 Fence, brs. N. 30° E.
- 6.09 Wagon road, brs. N. 40° E., S. 40° W.
- 6.30 East bank of wash; ascend
- 10.00 N. 1.50 chs. to S.E. cor. frame house of E.L. Higdon.
- 10.22 N. 3, 10 chs. to two story brick house of E.L. Higdon.
- 10.72 Barbed wire fence, brs. N.E. and S.W.
- 10.84 Schist Mon., 15x6x6 ins., marked H 5 on E. face, 7 lks. N. of line.
- 10.85 Barbed wire fence, brs. N.E. and S.W.
- 12.00 Top of rise; descend
- 14.00 Bottom.
- 14.67 S. 52 lks. to Gibson Bros. dairy.
- 14.85 Barbed wire fence, brs. N. 15° W., S. 15° E.
- 15.15 West bank Pinal creek.
- 16.80 Main channel Pinal creek.
- 18.00 Schist Mon., 15x8x6 ins., marked H 1 on E. face, 7 lks. N. of line.
- 18.00 Wagon road to Globe, Kelvin and Troy, brs. N. 12° W., S. 12° E.

## Base Line Through Range 15½ East

Chains	
18.00	N.7 chs.to adobe house of George Hutton.
19.00	East bank of Pinal creek; ascend 300 ft. N.12 chs.to house of Robert Hold.
19.50	Barbed wire fence, brs.N.11°W., S.11° E.
24.50	N.25.75 chs.to W.K.Anderson's frame house.
24.61	Barbed wire fence, brs.N.11°W., S.11°E.
24.65	Top of ridge, brs.N.10° W., S.10° E.; descend 150 ft.
25.00	9.5 lks.N.to schist Mon., 15x6x6 ins., marked W H 6 on W. face.
27.55	Gulch, 12 lks.wide, brs.N.; ascend 100 ft.
32.60	Top of ridge, brs.N.8° W.; descend
36.00	Gulch, 5 lks.wide, brs.N.W.; ascend 100 ft.
	Difference between measurements of 40 chs.by two sets of chainmen is 4 lks.; position of middle point
	By first set 40.02 chs
	By 2nd set 39.98 chs; the mean of which is
40.00	Set a quartz stone 20x12x8 ins., 15 ins.in the ground, for standard ¼ sec.cor., marked S C ¼ on N.face; raise a mound of stone 2 ft.base 1½ ft.high N.of cor. Magnetic variation N.14°15'E..
42.20	Bottom; gulch, 15 lks.wide, brs.N.W. Indian village S. 10 chs.
42.92	Barbed wire fence, telephone line from Globe to Safford, brs.S.25° E.; N.25° W.
43.70	Wagon road, Globe to Safford, brs.N.W. and S.E.
45.20	Wash, brs.N.60° W., 70 lks.wide; ascend
48.50	Barbed wire fence, Arizona & Eastern R.R.
49.45	Top bank of railroad cut.
49.85	Center of Railroad track Arizona & Eastern Railway, brs. N.56° 35' W.; S. 56° 35' E.
50.25	Top of bank of 30 ft.rilroad cut.
51.04	Barbedwire fence, Arizona & Eastern Railroad, 5 chs.S.to powder house of Globe Hardware Co..
60.06	Top; steep ascent 400 ft.above railroad, ridge brs.N.E. and S.W.; descend
72.00	Bottom; gulch, brs.S.E. and N.W.; ascend
78.60	Top of ridge, brs.N.E. and S.W.
	Difference between measurements of 80 chs.by two sets of chainmen, is 10 lks.; position of middle point
	By 1st set, 79.95 chs;
	By 2nd set, 80.05 chs.; the mean of which is
80.00	Set a quartz stone 18x8x6 ins., 15 ins.in the ground, for standard cor.of secs.34 and 35, marked S C on N.; with 2 grooves on E.and 4 grooves on W. faces; and raise a mound of stone 2 ft.base, 1½ ft. high, N.of cor. Pits impracticable. Mag.Var.N.14°15'E.
	Land, mountainous.
	Soil, gravelly loam and rocky; 3rd and 4th rate.
	Timber, few scattered scyamores
	Land, very mountainous, very difficult to survey 57.20 chs
	Land, mountainous, difficult to survey, 22.80 "
-----	
	November 11, 1910: I set off 17°20' <sup>now</sup> on the decl.arc; and at 11h 44m a.m., by my watch, which has correct by local mean time, observe the sun on the meridian, and obtain on the lat.arc, the reading 33°23'N which agrees with other data. East on S.bdy.sec;35
1.90	N.1 ch.to cor.old fence, brs.N. and E.
11.28	Fence cor., brs.E.& S. 38° W. N.22.60 chs.to old slaughter house of Dennis Murphy.
19.23	Telephone line, Pioneer Slaughter House to Globe, brs. N.E. and S.W.
20.15	Fence cor., brs.W.and N.
20.28	S.1 ch.to 4 ft.post, marked S.E.cor.Holt homestead. S. 3 chs.to ranch house of Pioneer Meat Co.
21:55	Wire fence; brs.N.E.
22.31	Wire fence, brs.N. and S.

Base Line Through Range 15½ East

Chains	
37.60	Gulch, 10 lks.wide, brs.N.E.
	Difference between measurements of 40 chs., by two sets of chainmen, is 4 lks.; position of middle point
	By 1st set, 39.98 chs
	By 2nd set, 40.02 chs., the mean of which is
40.00	Set a quartz stone, 20x10x8 ins., 15 ins.in the ground, for a standard <del>sec.</del> cor., marked S C ½ S on N.face; raise a mound of stone 2 ft.base 1½ ft.high N.of cor. Pits impracticable. Magnetic declination N.14°15'E.
43.00	Bottom gulch, 30 lks.wide, brs.S.58°E.; ascend 100 ft.
45.00	Top, ridge, brs.N.20°E.; descend
45.22	Bottom, gulch, 40 ft.below ridge, 20 lks.wide, brs.S.W.; ascend.
47.16	Top, ridge, 150 ft.above gulch, brs.N.E. and S.W.; descend.
48.60	Bottom, gulch, 15 lks.wide, brs.S.E., 25 ft.below ridge; ascend.
52.16	Top, ridge, brs.N.& S., 35 ft.above gulch; descend.
56.50	Bottom, gulch, 10 lks.wide, brs.S.W., 40 ft.below ridge; ascend.
60.50	Top, 45 ft.above gulch.
60.94	Barbed wire fence, brs.N. and S.; descend
62.61	Bottom, wash, 50 ft.below ridge, brs.S.; ascend
64.20	Ridge, Top, brs.N.& S.; descend
67.00	Bottom, gulch, 70 lks.wide, brs.S.25°E., 50 ft.below ridge; ascend.
70.55	Top, ridge, 25 ft.above gulch, brs.N.W.& S.E.; descend
73.60	Bottom, gulch, 10 lks.wide, brs.S.E.; ascend
75.50	Top, ridge, 30 ft.above gulch, brs.S.E.& N.W.; descend
79.65	Bottom, 45 ft. below ridge, junction of two gulches, brs.S.
	Difference between measurements of 80 chs. by two sets of chainmen, is 10 lks.; position of middle point
	By 1st set, 79.95 chs.
	By 2nd set, 80.05 chs., the mean of which is 80 chs falls in wash; therefore I perpetuate the corner on solid ground as follows:
80.25	Set a sandstone 15x10x8 ins., 10 ins.in the ground, for witness cor.to standard sec.cor.for secs.35 & 36, marked W C S C on the N.face; 1 groove on E.face, 5 grooves on W.face; raise a mound of stone 2 ft.base 1½ ft.high N.of cor. Pits impracticable. Magnetic declination N.14°15'E.
	Land, mountainous and very mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, none.
	Land, very mountainous, extremely difficult to survey 36.15 chs.
	Land, mountainous, difficult to survey 43.85 "
	November 11, 1910.
-----	
	East on S.bdy.sec.36 from true point for corner
	November 12, 1910: at 9h 15m a.m., 1.m.t., I set off 17°34' on the decl.arc; 33°23' on the lat.arc; and determine a meridian with the solar at the cor.of secs.35 and 36
	Thence I run E.on the S.bdy of sec.36, ascending
4.00	Top, ridge, brs.S.10 E. and N.10° W., 100 ft, above gulch.
6.00	Descend.
8.09	Bottom, gulch, 75 ft.below ridge, brs.S.10°E.and N.10°W.; ascend
10.00	Top ridge, 75 ft.above gulch, brs.N.and S.; descend
12.40	Bottom, wash, 5 lks.wide, brs.S. 80 ft.below ridge; ascend
16.00	Top ridge, brs.N.and S., 50 ft.above gulch; descend.
18.63	Bottom, wash, 10 lks.wide, brs.S.25°E., 25 ft.below ridge; ascend
21.51	Top ridge, brs.N.25°W., S.25°E., 30 ft.above wash; descend
24.75	Bottom, wash, 40 lks.wide, brs.S., 30 ft.below ridge; ascend
30.00	Top, ridge, brs.N.16°W., S.16°E., 50 ft.above gulch; descend
34.36	Bottom, gulch, 10 lks.wide, brs.S.; ascend
39.20	Top ridge, brs.N.10°E.and S.10°W.; descend
	Difference between measurements of 40 chs. by two sets of chainmen, is 6 lks.; position of middle point

Chains	By 1st set, 39.97 chs. By 2nd set, 40.03 chs.; the mean of which is
40.00	Set a schist stone 18X8X6 ins., 14 ins. in the ground, for standard $\frac{1}{4}$ cor., marked S C $\frac{1}{4}$ S on N. face; raise mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable. Magnetic declination N. $14^{\circ}15'$ E. November 12, 1910; I set off $17^{\circ}36'30''$ on the decl. arc; and at 11h 44m a.m., by my watch, which is correct by local mean time, observe the sun on the meridian, and obtain on the lat. arc, the reading $33^{\circ}23'$ , which agrees with other data.
41.82	Bottom, wash, 20 lks. wide, brs. S.; ascend
48.00	Top ridge, brs. S., 75 ft. above wash; descend
50.50	Bottom, gulch, 10 lks. wide, brs. S.; ascend
53.00	Top ridge, brs. S.E., 20 ft. above wash; descend
55.80	Bottom, gulch, 7 lks. wide, 30 ft. below ridge, brs. S.E.; ascend along E.W. ridge
64.00	Top ridge, 75 ft. above gulch, brs. S. Divide, drainage to the N.E.
65.12	Gulch, 15 lks. wide, brs. E.; ascend
68.60	Top of ridge, brs. N.E. and S.W.; descend Difference between measurements of 80 chs. by two sets of chainmen, is 8 lks.; position of middle point By 1st set, 79.96 chs. By 2nd set, 80.04 chs.; the mean of which is
80.00	Set a porphyry stone 18x8x6 ins., 14 ins. in the ground, for standard township cor., Tp. 1 N., R. 15 $\frac{1}{2}$ and 16 E., marked S C 1 N. on N. face; 15 $\frac{1}{2}$ E., on W. face, 16 E. on E. face; 6 grooves on the N., E. and W. faces. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable. Magnetic declination N. $14^{\circ}15'$ E. Cor. falls on E. slope of hill. Land, very mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, few scrub mesquite and catsclaw in gulches. Land very mountainous, and extremely difficult to survey, 80 chs.

In running this line observations were taken with a solar instrument, every 15 to 20 chains.

November 12, 1910

#### GENERAL DESCRIPTION

This land runs across mountain ridges and washes having a southeasterly trend. The general drainage at the westerly end is to the southwest, at the easterly end, to the northeast. The soil is gravelly and rocky, no water, and fit for grazing only. The land on both sides is of like character.

*Roscoe A. Horn*  
U.S. Deputy Surveyor



## Base Line Through Range 16 East.

Chains. E. on S. bdy. of sec. 31; descending  
 0.50 Bottom, gulch, 15 lks. wide, brs. S.E., 100 ft. below ridge; ascend  
 2.30 Top; descend  
 3.20 Gulch, 15 lks. wide, brs. S.W.; ascend  
 4.00 Top of ridge, brs. S.E. and N.W.; descend  
 7.55 Gulch, 20 lks. wide, brs. S.E., 40 ft. below ridge; ascend  
 10.00 Top of ridge, brs. S.E. and N.W., 50 ft. above gulch; descend  
 16.50 Gulch, 10 lks. wide, 75 ft. below ridge, brs. N.E.; ascend  
 18.00 Top of ridge, brs. N.E. & S.W., 25 ft. above gulch; descend  
 21.54 Bottom, wash, 10 lks. wide, brs. N.E., 30 ft. below ridge; descend  
 25.45 Gulch, 15 lks. wide, brs. N.E.; ascend  
 Difference between measurements to W.M.I.R.W.B., by two sets of chainmen, is 4 lks.; position of middle point  
 By 1st set, 28.21 chs.  
 By 2nd set, 28.17 chs.; the mean of which is  
 28.19 Set a quartz stone, 18x6x6 ins., 14 ins. in the ground, for standard township closing cor., marked C C R 16 E on W. face; T 1 R on N. face; W M I R W B on E. face. Raise a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high W. of cor. Pits impracticable. Magnetic declination N.  $14^{\circ}15'$  E. N.  $8^{\circ}21'$  E. 2.43 chs. to 64 $\frac{1}{2}$  mile cor. White Mountain Indian Reservation West Boundary, which is a quartz stone 12x8x6 ins., lying on the ground, marked W M I R W B 64 $\frac{1}{2}$  M on S. side of wash.  
 I reset same stone in mound of stone. Raise mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high N. of cor.  
 Land, mountainous.  
 Soil, gravelly and rocky; 3rd and 4th rate.  
 Timber, scattered scrub mesquite and catsclaw in the gulches and scattered Spanish bayonet and sotal.  
 Land, mountainous, exceptionally difficult to survey 28.19 chs.  
 In running this line observations were taken with the solar instrument every 15 to 20 chs.

November 12, 1910.

*Russell Ham*  
 U.S. Deputy Surveyor

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Roscoe C. Kern

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of Baseline

thru T. N. R. 15 1/2 + 16 E G + S R B + M.

showing the respective capacities in which they acted:

- Lucy Bell....., Chairman.
- Arthur H. Payne....., Chairman.
- Fred Davis....., Chairman  
Moundman.
- Joe Randall....., Chairman  
Moundman.
- ....., Axman.
- ....., Axman.
- D. M. Hagan....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Roscoe C. Kern

....., United States Deputy Surveyor, in surveying all those parts or portions of the Baseline thru

T. N. R. 15 1/2 + 16 E

..... of the G + S R B + meridian, Territory of Arizona, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Arizona.

- Lucy Bell....., Chairman.
- Arthur H. Payne....., Chairman.
- Fred Davis....., Chairman  
Moundman.
- Joe Randall....., Chairman  
Moundman.
- ....., Axman.
- ....., Axman.
- D. M. Hagan....., Flagman.

Subscribed and sworn to before me this First day of December, 19 10



Roscoe C. Kern  
U.S. Deputy Surveyor

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Roscoe Ham, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank A. Ingalls United States Surveyor General for Arizona, bearing date of the 5th day of January, 1910, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of T. 14 N. R. 15 E. & 16 E.

..... of the R. 2 S. R. 13 E. meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed 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 United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Roscoe Ham  
United States Deputy Surveyor.

Subscribed by said Roscoe Ham, and sworn to before me  
this 6 day of December, 1910

W. S. Carr  
W. S. Carr



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. MAY 14, 1913

The foregoing field notes of the survey of the Gila and Salt River Base Line through fractional Ranges 15 1/2 and 16 E. Arizona

executed by Roscoe Ham U.S.D.S.  
under his contract No. 162, dated Jan 5, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A. Ingalls  
United States 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.

.....  
United States Surveyor General.