

NOV 24 1905

20 sheets

4-679

Book 1895

1895

BOOK 1895

# FIELD NOTES

OF THE SURVEY OF THE

North and East boundarys of Tp. 7 S. Rg. 17 E. ✓

1895

1895

Of the Gila and Salt River Meridian,

Territory of Arizona.

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 135, dated June 16, 1905., 190

Survey commenced September 15, 1905., 190

Survey completed September 28, 1905., 190

2

NAMES AND DUTIES OF ASSISTANTS.

BOOK 1895

W. W. Oliver Chairman.

B. M. Hyde Chairman.

Frank Robertson Axman.

H. S. Young Flagman.

INDEX DIAGRAM.

Township 7 S, Range 17 E.

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

Meanders Page.....

BOOK 1895

WE, W. W. Oliver and B. M. Hyde

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 of the North and East bdays. of Tp. 7 S. Rg. 17 E.

W. W. Oliver, Chainman.

B. M. Hyde, Chainman.

Subscribed and sworn to before me this 15th.  
day of September, 190 5.



John P. Hesse  
U. S. Dep. Surveyor.

WE, \_\_\_\_\_ 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 \_\_\_\_\_

\_\_\_\_\_, Moundman.

\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 190 \_\_\_\_\_



WE, I, Frank Robertson abd

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 my skill and ability, in the survey of of the North and East boundarys of Tp. 7 S. Rg. 17 E.

Frank Robertson, Axman.

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

Subscribed and sworn to before me this 15th.  
day of September, 190 5.



John P. Hesse  
U. S. Dep. Surveyor.

I, H. S. Young, 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 the North and East boundaries of Tp. 7 S. Rg. 17 E.

H. S. Young, Flagman.

Subscribed and sworn to before me this 15th.  
day of September, 190 5.



John P. Hesse  
U. S. Dep. Surveyor.

*No notary available without loss of time and great expense*

Chains.

Survey commence September 15, 1905, and executed with a Young and Sons light mountain transit, No. 7532 with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes 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

I examine the adjustments of the transit and find them correct; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a. m. and p. m. hours, with a meridian determined by observations on Polaris, I proceed as follows;

At the cor. of Tps. 7 and 8 S. Rgs 17 and 18 E.; latitude  $32^{\circ} 46' 09''$  N., longitude  $110^{\circ} 32' 13''$  W., I set off  $32^{\circ} 46'$  N. on the lat. arc;  $3^{\circ} 02'$  N. on the dec'l. arc; and, at 3h. 00m. p. m. l. m. t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

At 7h. 53' p. m. by my watch, which has correct l. m. t. I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station. September 15, 1905.

September 16: At 6h. 30m. a. m. l. m. t., I lay off the azimuth of Polaris,  $1^{\circ} 26'$  to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 15, on which the meridian falls on the mark determined by the solar.

At 7h. 00m. a. m., l. m. t., I set off  $32^{\circ} 46'$  N. on the lat. arc;  $2^{\circ} 48'$  N. on the dec'l. arc; and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station; this mark coincides with the meridian established by the Polaris observation.

The solar apparatus, by p. m. and a. m. observations defines positions for meridians which coincide with the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7h. 15m. a. m. is N.  $12^{\circ} 57'$  W.; the angle thus determined gives the mag. dec'l.  $12^{\circ} 57'$  E.

The cor. of Tps. 7 and 8 S. Rgs. 17 and 18 E. is a granite stone 14 x 12 x 8 ins. above ground, well set, and marked and witnessed as described by the surveyor general

Thence I run

North bet. secs. 31 and 36.

Ober rolling mountains.

25.50

Cross wash 8 lks. wide course S. W. *ascend*

40.00

Set a malpais stone 18 x 6 x 6 ins. in a mound of stone for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; and raise a mound of stone 2 ft. base 1  $\frac{1}{2}$  ft. high W. of cor. Pits impracticable.

46.00

Top ridge bears N. E. and S. W. and descend.

72.50

Cross wash 30 lks. wide course W. *ascend*

80.00

Set a sandstone 20 x 10 x 5 ins. 15 ins. in the ground for cor. of secs. 25, 30, 31 and 36; marked with 1 notch on S. and 5 notches on N. edges; from which

A cedar 6 ins. diam bears N.  $63 \frac{3}{4}^{\circ}$  E. 157 lks. dist. marked T7SR18ES30BT.

A cedar 4 ins. diam. bears S.  $26^{\circ}$  E. 112 lks. dist. marked T7SR18ES31BT.

No other trees available.

Raise a mound of stone 2 ft. base 1  $\frac{1}{2}$  ft. high W. of cor. Pits impracticable.

Land, mountainous.

Soil, stony; 4th. rate.

chains.

No timber.  
Mountainous land 80.00 chs.

North bet. secs. 25 and 30  
Ascending over rough mountains.

- 7.00 Cross wash 10 lks. wide course S. W.
- 14.50 Cross same wash 10 lks. wide course S. E. *ascending*
- 31.00 Top ridge bears E. and W. and descend.
- 40.00 Set a slate stone 18 x 6 x 5 ins. 12 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
- 44.25 Cross wash 15 lks. wide course W.
- 74.00 Cross wash 8 lks. wide course W.
- 80.00 Set a slate stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 19, 24, 25 and 30 marked with 2 notches on S. and 4 notches on N. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

Land, mountainous.  
Soil, stony 4th. rate.  
No timber.

Mountainous land 80.00 chains.  
September 16; At this cor. I set off 2° 41 1/2' N. on the dec'l. arc; and observe the sun on the meridian at noon the resulting lat. is 32° 48' N.

North bet. secs. 19 and 24  
Over rough rolling mountains.

- 10.00 Cross wash 8 lks. wide course N. W.
- 19.60 Cross wash 5 lks. wide course W. *ascend*
- 34.50 Top of spur bears W. and E. 20 chs. to summit on mountain
- 40.00 Set a slate stone 18 x 6 x 6 ins. in a mound of stone for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
- 44.75 Cross wash 10 lks. wide course W. *ascend*
- 57.25 Top of ridge bears E. and W. *and descend*
- 65.55 Cross wash 8 lks. wide course W.
- 74.00 Cross wash 10 lks. wide course W. and ascend steep slope.
- 80.00 Set a slate stone 18 x 6 x 5 ins. 12 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked with 3 notches on S. and N. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

Land, mountainous.  
Soil, rocky; 4th. rate.

No timber.  
Mountainous land 80.00 chains.

North bet. secs. 13 and 18.  
Ascending steep S. slope of mountain.

- 11.50 Top of ridge bears E. and W. and descend.
- 40.00 Set a slate stone 18 x 10 x 5 ins. 12 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; from which  
A cedar 5 ins. diam. bears S. 25° E. 214 lks.  
dist. marked  $\frac{1}{4}$ S18BT.
- No other tree available. Raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
- 48.80 Cross wash 20 lks. wide course W.
- 80.00 Set a sandstone 18 x 10 x 5 ins. 12 ins. in the ground for cor. of secs. 7, 12, 13 and 18 marked with 4 notches on S. and 2 notches on N. edges; from which  
A caclaw 4 ins. diam. bears N. 2° E. 34 lks.  
dist. marked T7SR18ES7BT.  
A paloverde 5 ins. diam. bears N. 37° W. 28 lks.  
dist. marked T7SR17ES12BT.

No other trees available. Raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
Land, mountainous.  
Soil, rocky; 4th. rate.  
No timber.

Chains.

Good grass.  
Mountainous land 80.00 chains.

September 16, 1905.

September 17: At 7 h. 00m. a.m. l.m.t. I set off  $32^{\circ} 49' 1/2''$  N. on the lat. arc;  $2^{\circ} 25'$  N. on the dec'l. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run  
North bet. secs. 7 and 12.  
Ascending steep S. slope.

32.50 Top of ridge bears E. and W. and descend.  
40.00 Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for  $1/4$  sec. cor. marked  $1/4$  on W. face; from which  
An oak 1 1/2 ins. diam. bears S.  $46^{\circ} 3/4'$  E. 189 lks. dist. marked  $1/4$ S7BT  
An oak 5 ins. diam. bears S.  $38^{\circ}$  W. 139 lks. dist. marked  $1/4$ S12BT.

Thence descend into canon.

59.00 Cross wash 15 lks. wide in bottom of canon, course W. and ascend.

80.00 Set a quartzite 18 x 8 x 5 ins. in a mound of stone for cor. of secs. 1, 6, 7 and 12 marked with 5 notches on S. and 1 notch on N. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
Land, mountainous.  
Soil, rocky, 4th. rate.  
No timber.

Mountainous land 80.00 chains.

September 17; At this cor. I set off  $2^{\circ} 18' 1/2''$  N. on the dec'l. arc; and observe the sun on the meridian at noon the resulting lat. is  $32^{\circ} 50' 1/2''$  N.

North bet. secs. 1 and 6.

Ascending rough S. slope.

7.59 Top ridge bears E. and W. and along W. slope descending.  
40.00 Set a sandstone 24 x 10 x 4 ins. in a mound of stone for  $1/4$  sec. cor. marked  $1/4$  on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

80.00 Set a quartzite 20 x 6 x 6 ins. 15 ins. in the ground for cor. of Tps. 6 and 7 S. Rgs. 17 and 18 E. marked 6S on N. E., 18 E. on S. E., 7 S. on S. W., and 17 E. on N. W. faces; with 6 notches on each edge; and raise a mound of stone 2 ft. base 1 1/2 ft. high S. of cor. Pits impracticable..

Land, mountainous.  
Soil, rocky; 4th. rate.  
No timber.

Mountainous land 80.00 chains.

September 17, 1905.

chains

September 26: At 7h. 00m. a.m. l.m.t. I set off  $32^{\circ} 51' 1/2''$  N. on the lat. arc;  $1^{\circ} 05'$  S. on the dec'l. arc; and determine a true meridian with the solar at the cor. of Tps. 6 and 7 S. Rgs. 17 and 18 E.

Thence I run

West on a random line, along the N. bdy. of Tp. 7S.Rg. 17 E., setting temp.  $\frac{1}{4}$  sec. and sec. cors. at intervals of 40.00 chains; and, at 475.24 chs., intersect the W. bdy. of the Tp. 210 lks. N. of the cor. of Tps. 6 and 7 S. Rgs. 16 and 17 E. which is a sandstone  $16 \times 16 \times 14$  ins. with 6 notches on each edge nearly obliterated and with bearing trees destroyed. I reestablish this cor. as follows; Set a sandstone  $16 \times 16 \times 14$  ins. in the ground for cor. of Tps. 6 and 7 S. Rgs. 16 and 17 E. marked 6S. on N. E., 17 E on S. E., 7 S. on S. W., and 16 E. on N. W. faces; with 6 notches on each edge; and raise a mound of stone 2 ft. base  $1 \frac{1}{2}$  ft. high S. of cor. Pits impracticable.

The falling answers to a correction of 15', or 35 lks. S. per mile, counting from the N. E. cor. of the Tp.

September 26, 1905.

September 27: At 7 h. 00m. a.m. l.m.t. I set off  $32^{\circ} 51' 1/2''$  N. on the lat arc;  $1^{\circ} 28'$  S. on the dec'l. arc; and determine a meridian with the solar at the cor. of Tps. 6 and 7 S.Rgs. 16 and 17 E.

Thence I run

N.  $89^{\circ} 45'$  E. bet. secs. 6 and 31

Over rolling mountains ascending through dense palo verde and greasewood.

- 7.75 Cross wash 8 lks. wide course S. W.
- 15.20 Cross wash 20 lks. wide course S.
- 27.20 Cross wash 10 lks. wide course S.
- 35.24 Set a granite stone  $18 \times 14 \times 5$  ins. 12 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; from which
  - A paloverde 5 ins. diam. bears N.  $48^{\circ}$  E. 76 lks. dist. marked  $\frac{1}{4}$  S31BT.
  - A paloverde 5 ins. diam. bears S.  $1 \frac{1}{2}^{\circ}$  W. 54 lks. dist. marked  $\frac{1}{4}$  S6BT.
- 43.59 Cross wash 10 lks. wide course S.
- 45.80 Cross wash 10 lks. wide course S.
- 51.25 Cross wash 40 lks. wide course S.
- 54.25 Cross wash 25 lks. wide course S.
- 56.25 Cross wash 20 lks. wide course S. W.
- 67.75 Cross wash 45 lks. wide course S.
- 74.80 Cross wash 10 lks. wide course S. W.
- 75.24 Set a granite stone  $18 \times 12 \times 4$  ins. 12 ins. in the ground for cor. of secs. 5, 6, 31 and 32 marked with 5 notches on E. and 1 notch on W. faces; and raise a mound of stone 2 ft. base  $1 \frac{1}{2}$  ft. high W. of cor. Pits impracticable. Land, mountainous. Soil rocky; 4th. rate. No timber. Undergrowth paloverde and greasewood. Mountainous land and land covered with dense undergrowth 75.24 chs.

N.  $89^{\circ} 45'$  E. bet. secs. 5 and 32.

Over rolling mountains.

- 7.50 Cross wash 15 lks. wide course S. W.
- 21.50 Cross wash 20 lks. wide course S.
- 28.85 Cross wash 12 lks. wide course S. W.
- 38.50 Cross wash 12 lks. wide course S. W.
- 40.00 Set a sandstone  $18 \times 12 \times 5$  ins. 12 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; and raise a mound of stone 2 ft. base  $1 \frac{1}{2}$  ft. high N. of cor. Pits impracticable.
- 52.55 Cross wash 8 lks. wide course S. W.
- 65.00 Cross wash 8 lks. wide course S. W.
- 79.60 Cross wash 5 lks. wide course S. W.
- 80.00 Set a sandstone  $18 \times 8 \times 5$  ins. 12 ins. in the ground for cor. of secs. 4, 5, 32 and 33 marked with 4 notches



CHAINS.

on E. and 2 notches on W. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
 Land mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Undergrowth, paloverde and greasewood.  
 Mountainous land 80.00 chains.  
 September 27: At this cor. I set off 1° 35' S. on the dec'l. arc; and observe the sun on the meridian at noon, the resulting lat. is 32° 51 1/2' N. /

N. 89° 45' E. bet. secs. 4 and 33.

Over rolling mountains through paloverde and greasewood.

- 5.00 Cross wash 5 lks. wide course S. E.  
 21.85 Cross wash 15 lks. wide course S. E.  
 33.80 Cross wash 10 lks. wide course S. E.  
 40.00 Set a conglomerate stone 28 x 8 x 6 ins. 21 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.  
 50.00 Cross wash 30 lks. wide course S.  
 65.00 Cross wash 15 lks. wide course S.  
 72.90 Cross wash 15 lks. wide course S.  
 77.50 Cross wash 5 lks. wide course S. W. *ascend*  
 80.00 Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on E. and W. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, stony, 4th. rate.  
 No timber.  
 Mountainous land 80.00 chs.

N. 89° 45' E. bet. secs. 3 and 34.

Over rough top of mountain.

- 7.50 Descend steep E. slope.  
 14.50 Over bottom land through dense brush.  
 15.60 Cross fence bears N. E. and S. W.  
 16.50 Cross branch of Arivaipa Creek 30 lks wide course S. W.  
 17.75 Cross road bears N. E. and S. W.  
 18.50 Cross Arivaipa Creek 30 lks. wide course S. W. and ascend.  
 40.00 Set a granite stone 18 x 10 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.  
 48.50 Cross drain 8 lks. wide course N. W. + *continue ascend*  
 80.00 Point for cor. falls on a granite rock in place 24 x 12 x 5 ins. above ground. I mark a cross (x) for exact point for cor. of secs. 2, 3, 34 and 35 with 2 grooves E. and 4 grooves W. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
 Land mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous land and land covered with dense undergrowth  
 80.00 chains.

September 27, 1905.

September 28: At 7h. 00m. a.m. l.m.t. I set off 32° 51 1/2' N. on the lat. arc; 1° 51 1/2' S. on the dec'l. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35.

Thence I run N. 89° 45' E. bet. secs. 2 and 35.

The line from here runs up steep inaccessible W. slope of mountain therefore I offset as follows:

- South 1200 chs.; thence  
 N. 89° 45' E. 18.00 chains.; thence  
 South 13.00 chs.; thence  
 N. 89° 45' E. 22.00 chs.; it is impossible to

chains.

run any nearer to the point on line for the  $\frac{1}{4}$  sec. cor. which is down in deep canon, therefore I continue my offset line and at 80.00 chs. (counted from the sec. cor) I run North <sup>25.00</sup> 55.00 chs. to the line and at 80.00 Set a granite <sup>18</sup> 18 x 8 x 5 ins. 12 ins. in the ground for cor. of secs. 1, 2, 35 and 36 marked with 1 notch on E. and 5 notches on W. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.  
 Land mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous. land 80.00 chains.  
 September 28; At this cor. I set off 1° 58' S. on the dec'l. arc; and observe the sun on the meridian at noon the resulting lat. is 32° 51 1/2' N.

---

N. 89° 45' E. bet. secs. 1 and 36.  
 Along rough edge of deep canon.  
 27.00 Cross wash in canon 15 lks. wide course N. W. and ascend over rolling mountains.  
 40.00 Set a granite <sup>18</sup> 18 x 8 x 6 ins. in a mound of stone for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.  
 53.80 Cross wash 20 lks. wide course N.  
 69.50 Cross wash 8 lks. wide course N.  
 74.00 Cross wash 10 lks. wide course N.  
 80.00 The cor. of Tps. 6 and 7 S. Rgs. 17 and 18 E. previously described.  
 Land mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous land 80.00 chains.

September 28, 1905.

*Boundaries of T7SR17E.*  
*Latitudes, Departures and closing errors.*

Line designated	True bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
East bdy. T7SR17E	North	480.00	480.00			
North bdy. T7SR17E	S 89° 45' W.	475.24		2.10		475.24
West bdy. T7SR17E	S 0° 38' E	39.71		39.71	.44	
	S 0° 07' E	39.96		39.96	.08	
	S 0° 09' E	39.90		39.90	.10	
	S 0° 36' E	40.15		40.15	.42	
	S 0° 12' E	39.82		39.82	.14	
	S 0° 16' E	39.70		39.70	.10	
	South	79.935		79.935		
	S 0° 17' E	40.57		40.57	.20	
	S 0° 42' E	40.74		40.74	.50	
	S 0° 32' E	39.48		39.48	.37	
South bdy. T7SR17E	S 0° 07' E	39.50		39.50	.08	
	N 89° 55' E	39.26	.06		39.26	
	S 89° 55' E	40.08		.06	40.08	
	N 89° 42' E	39.75	.21		39.75	
	East	40.11			40.11	
	S 89° 59' E	39.95		.01	39.95	
	S 89° 36' E	39.09		.34	39.09	
	S 89° 44' E	39.85		.19	39.85	
	S 89° 50' E	39.75		.12	39.75	
	N 88° 28' E	39.29	1.05		39.28	
N 89° 47' E	39.20	.15		39.20		
S 89° 48' E	38.95		.14	38.95		
N 89° 18' E	38.90	.48		38.89		
Cooregency.				496.68		47
Totals.			481.95	482.40	476.64	475.71
Error in lat.				481.95	475.71	
				.44	92	Error 10 dep.
					.99	

Chains.

This township is rough and mountainous. The north western part of the township is watered by Arivaipa Creek and the soil in creek bottom is quite fertile. There is no timber in the township.

*John D. Hesse*  
U. S. Deputy Surveyor.

LIST OF NAMES.

BOOK 1895

A list of the names of the individuals employed by John F. Hesse

....., 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 the North and East boundaries of Tp. 7 S. Rg. 17 E.

showing the respective capacities in which they acted:

W. W. Oliver ..... Chainman.

B. M. Hyde ..... Chainman.

..... Moundman.

..... Moundman.

Frank Robertson ..... Axman.

..... Axman.

H. S. Young ..... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John F. Hesse

....., United States Deputy Surveyor, in surveying all those parts or portions of the North and East boundaries of Tp. 7 S. Rg. 17 E.

..... of the Gila and Salt River 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

W. W. Oliver ..... Chainman.

B. M. Hyde ..... Chainman.

..... Moundman.

..... Moundman.

Frank Robertson ..... Axman.

..... Axman.

H. S. Young ..... Flagman.

Subscribed and sworn to before me this 28th.

day of September, 1905.



John F. Hesse

U. S. Dep. Surveyor.

*No notary available without loss of time and great expense.*

13

BOOK 1895

I, John F. Hesse, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 16th. day of June, 1905, 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 the North and East boundaries of Tp. 7 S. Rg. 17 E.

of the Gila and Salt River 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.

*John F. Hesse*  
United States Deputy Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }  
this 24<sup>th</sup> day of November, 1905

*Frank S. Ingalls*  
U. S. Surveyor General



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

*Phoenix Arizona Sept 27, 1906*

The foregoing field notes of the survey of the North and East boundaries of T. 7 S, R. 17 E of the Gila and Salt River Base and Meridian, Arizona

executed by John F. Hesse U. S. deputy surveyor under his contract No. 135, dated June 16, 1905, 1905, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Frank S. 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.