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NOV. 28. 1910

Accepted, Litta E, Aug 10/1911

2212

2212

BOOK 2212

# FIELD NOTES

2212

OF THE SURVEY OF THE

2212

South boundary of Tp. 14 N. Rg. 6 W. and the fractional S.  
 boundaries of Tps. 14 N. Rgs. 5 and 7 W. and the fractional  
 E. boundary of Tp. 14 N. Rg. 7 W.

2212

Of the Gila and Salt River Meridian,  
 Territory of Arizona

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 158, dated June 4, 1909, 19

Survey commenced March 10, 1910, 19

Survey completed March 17, 1910, 19

2212

2212

47  
1A

BOOK 2212

NAMES AND DUTIES OF ASSISTANTS.

A. N. Oliver

Chairman

A. E. Lyon

Chairman

P. Larson

Flagman

48  
1B

BOOK 2212

# INDEX DIAGRAM.

Township 14 N, Range 7 W

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T 14 N. R 6 W

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T. 14 N. R 5 W

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✓	1

PRELIMINARY OATHS OF ASSISTANTS.

WE, A. N. Oliver and A. E. Lyon  
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  
The S. bdy. of Tr. 14 N. Rg. 6 W., the fracl. S. bdys. of tps. 14 N. Rgs. 5 and 7 W. and the fracl. E. bdy. of Tp. 14 N. Rg. 7 W.

A. N. Oliver, Chainman.  
A. E. Lyon, Chainman.

Subscribed and sworn to before me this 10th. }  
day of March 1910, 19

John P. Hesse

U. S. Deputy 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 \_\_\_\_\_, 19



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, P. Larson, 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 S. bdy. of Tp. 14 N. Rg. 6 W. and the fracl. S. bdys. of Tps. 14 N. Rgs. 5 and 7 W. and the fracl. E. bdy. of Tp. 14 N. Rg. 7 W.

P. Larson, Flagman.

Subscribed and sworn to before me this 10th. }  
day of March, 1910., 19

John P. Hesse  
U. S. Deputy Surveyor



No notary available without loss of time and great expense.

BOOK 2212

South boundary of Tr. 14 N. Rg. 5 W.

Chains.

Survey commenced March 10, 1910, and executed with an A. Lietz Co. light mountain transit No. 5631, 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 secs. 4, 5, 32 and 33 on the S. bdy. of Tr. 14 N. Rg. 5 W.; latitude  $34^{\circ} 32' 10'' N.$  longitude  $112^{\circ} 47' 31'' W.$  I set off  $34^{\circ} 32' N.$  on the lat. arc;  $4^{\circ} 07' S.$  on the decl. arc; and at 4h. 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 2h. 11m. p.m., by my watch, which has correct l.m.t. I observe polaris at western 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.

March 10, 1910.

March 11: At 7h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ} 26'$  to the east, and mark the meridian thus determined, by cutting a small groove in the stone set March 10, on which the meridian coincides with the mark determined by the solar.

At 8h. 00m. a.m., l.m.t., I set off  $34^{\circ} 32' N.$  on the lat. arc;  $3^{\circ} 51' S.$  on the decl. 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 observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8h. 15m. a.m., is  $N. 14^{\circ} 30' W.$ ; the angle thus determined gives the mag. decl.  $14^{\circ} 30' E.$

From the cor. of secs. 4, 5, 32, and 33 on the S. bdy. of Tr. 14N. Rg. 5 W. which is a malpais stone 16 x 10 x 10 ins. poorly set in a small mound of stone and marked and witnessed as described by the surveyor general. I re-set the stone 12 ins. in the ground and brighten the old marks and re-build mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high W. of the cor.

Thence I run  
West bet. secs. 5 and 32  
Ascend steep S. E. slope  
Ridge bears N. E. and S. W. descend.  
Slope becomes very steep.  
Cross wash 25 lks. wide in bottom of canyon and ascend.  
Set a malpais stone 20 x 12 x 6 ins. 15 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.

25.00  
33.00  
59.40  
46.00  
49.00  
53.00

Ridge bears N. and S. descend.  
Cross drain 7 lks. wide course S. and ascend.

South boundary of Tn. 14 N. Rg. 5 W.

*For description of this corner see page 10*

*On this file see page 10*

Chains.  
62.00  
67.00  
80.00

Ridge bears N. and S. descend.  
Slope becomes very steep.  
~~Set a malpais stone 18 x 10 x 6 ins. 15 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked with 5 notches on E. and 1 notch 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 chs.  
March 11: At this cor. I set off 3° 48' S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 34° 32' N.

1.80

West bet. secs. 6 and 31  
Descending W. slope into canyon.  
Cross wash 30 lks. wide course S. and ascend steep slope out of canyon.

37.00  
40.00

Ridge bears N. and S. and descend.  
Set a malpais stone 20 x 10 x 8 ins. 15 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.

48.00  
50.50  
64.00

Descend steeply, into canyon.  
Cross wash 35 lks. wide course S., and ascend.  
Over nearly level mesa

72.50

Set a malpais stone 20 x 10 x 10 ins. 15 ins. in the ground for cor. of Tns. 13 and 14 N. Rgs. 5 and 6 W., marked 14N on N. E., 5W on S. E., 13N on S. W. & 6W 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 and level.  
Soil, rocky; 4th. rate.  
No timber.  
Mountainous land 64.00 chs.

March 11, 1910.

South boundary of Tr. 14 N. Rg. 6 W.

Chains.

March 12: At Sh. Com., a. m. l. m. t., I set off  $34^{\circ}32'N$  on the lat. arc:  $3^{\circ}38\frac{1}{2}'S$  on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 13 and 14 N. Rgs. 5 and 6 W. previously described.

Thence I run

West bet. secs. 1 and 36

Over nearly level mesa.

8.00 Descend very steep slope into canyon.  
 15.25 Cross wash 30 lks. wide course S. W. and ascend steep slope.  
 23.00 Top of S. end of high ridge extends N. and descend steep slope into canyon.  
 40.00 Set a malpais stone 18 x 8 x 8 ins. 18 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.  
 41.50 Cross wash 35 lks. wide course S. ascend.  
 51.00 Over nearly level mesa.  
 60.00 Set a malpais stone 20 x 12 x 8 ins. 15 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked with 5 notches on W. and 1 notch on E. edges; and raise a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous and level.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous land 20.00 chs.  
 March 12; At this cor. I set off  $3^{\circ}35'S$  on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is  $34^{\circ}32'N$ .

West bet. secs. 2 and 35

Over nearly level top of mesa.

37.00 Cross drain 7 lks. wide course S.  
 40.00 Set a malpais stone 18 x 8 x 8 ins. 18 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.  
 61.00 Rim of mesa N. W. and S. E. descend very steep rocky S. W. slope.  
 80.00 Set a malpais stone 24 x 8 x 6 ins. 18 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edges; and raise a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous and level.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous land, 19.00 chs.

March 12, 1910.

March 13: At Sh. Com. a. m., l. m. t., I set off  $34^{\circ}32'N$  on the lat. arc;  $3^{\circ}04\frac{1}{2}'S$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35

Thence I run

West bet. secs. 3 and 34

Descend along steep rocky S. W. slope.

40.00 Set a malpais stone 28 x 14 x 8 ins. 18 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.  
 60.00 Through dense undergrowth.

## South boundary of Tp. 14 N. Rg. 6 W.

Chains	
78.00	Cross drain 8 lks. wide course S. W. and across N. end of Thompson Valley.
80.00	Set a malpais stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 7, 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, rocky; 4th. rate. No timber. Undergrowth, crufixion and oak brush. Mountainous land and land covered with dense undergrowth 80.00 chs. March 13 : At this cor. I set off 3° 01 1/2' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 32' N.
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	West bet. secs. 4 and 33
	Over level land through dense undergrowth.
18.00	Cross dry creek 80 lks. wide course S.
20.50	Cross fence bears N. and S. leave brush.
23.35	Cross fence bears N. and S.
27.40	Barn bears N. 185 lks. Windmill bears S. 200 lks.
28.35	East side of shed.
28.50	Cross fence bears N. and S.
29.10	Coal house bears S. 200 lks. Mullen's house bears S. 275 lks.
37.25	Cross fence bears N. and S. and through dense undergrowth.
40.00	Set a malpais stone 18 x 10 x 8 ins. 12 ins. in the ground for 1/4 sec. marked 1/4 on N. face; from which A mesquite 4 ins. diam., bears N. 33° E. 17 lks. dist., marked 1/4 S33BT. An oak 4 ins. diam., bears S. 61 1/2° E. 48 lks. dist., marked 1/4 S4BT.
42.50	Cross wash 30 lks. wide course S. E. and ascend gently.
46.00	Cross old road bears N. W. and S. E.
80.00	Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked with 4 notches on E. and 2 notches on W. edges; dig pits 18 x 12 x 12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. Land nearly level. Soil, gravelly and sandy 2nd. rate. No timber. Undergrowth mesquite, catclaw and oak brush. Land covered with dense undergrowth, 63.25 chs.
	March 13, 1910.
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	March 14: At 8h. 00m. a.m., l.m.t., I set off 34° 32' N on the lat. arc; 2° 41' S on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33 Thence I run
	West bet. secs. 5 and 32
	Ascend gradually through dense brush.
9.40	Road bears N. W. and S. E.
25.00	Ascend steep slope over huge granite boulders.
40.00	Mark a cross on a granite rock in place 10x 8 x 5 ft. above ground for exact point for 1/4 sec. cor., marked 1/4 on N. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.
63.00	Granite ridge bears N. and S. descend.
72.00	Cross wash 30 lks. wide course S. E. and ascend.



## South boundary of Tr. 14 N. Rg. 6 W.

Chains.	
78.85	Ridge bears N. W. and S. E. descend.
80.00	Mark a cross on a granite rock in place 20 x 10 x 1 ft. above ground for exact point for cor. of secs. 5, 6, 31 and 32, marked with 5 notches on E. and 1 notch on W. of cross; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 80.00 chs.
	March 14; At this cor. I set off 2° 37½' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 32' N.
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	West bet. secs. 6 and 31
	Descend over huge granite boulders.
17.50	Cross drain 6 lks. wide ascend.
38.00	Granite ridge bears N. and S. descend.
40.00	Mark a cross on a granite rock in place 2½ x 2 x 1 ft. above ground for exact point for ¼ sec. cor., marked ¼ on N. of cross; and raise a mound of stone 2 ft. base 1½ ft. high, N. of cor. Pits impracticable.
48.50	Cross drain 6 lks. wide course S. W. ascend. leave boulders
49.40	Descend very steep slope into Kirkland Creek Canyon.
59.00	Cross Kirkland Creek, clear running water 30 lks. wide course N. E. and ascend
78.30	Ridge bears N. and S. descend.
79.50	Set a granite stone 20 x 10 x 6 ins. 15 ins. in the ground for cor. of Tps. 13 and 14 N. Rgs. 6 and 7 W. marked 14N on N. E., 6W on S. E., 13N on S. W., and 7N on N. W. faces; with 6 notches on each edge; and raise a mound of stone 2 ft. base 1½ ft. high, S. of cor Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 79.50 chs.

March 14, 1910.

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South boundary of Tr. 14 N. Rg. 7 W.

Chains March 15: At 7h. 00m. a.m., l.m.t., I set off  $34^{\circ}32'N$  on the lat. arc;  $2^{\circ}17\frac{1}{2}'S$  on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 13 and 14 N. Rgs. 6 and 7 W. previously described.

Thence I run  
 West bet. secs. 1 and 36  
 Descend very steep slope into canyon.  
 1.75 Cross wash 35 lks. wide course N. and ascend very steep N. E. slope.  
 17.50 Descend steep N. W. slope.  
 28.00 Ascend very steep N. E. slope.  
 39.50 Ridge bears N. and S.  
 40.00 Set a granite stone 18 x 6 x 6 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.  
 49.00 Descend very steep slope.  
 77.00 Cross drain 7 lks. wide course N. W. and ascend steep N. E. slope.  
 80.00 Set a granite stone 20 x 10 x 6 ins. 15 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  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Mountainous land 80.00 chs.  
 March 15: At this cor. I set off  $2^{\circ}14'S$  on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is  $34^{\circ}32'N$ .

West bet. secs. 2 and 35  
 Ascending steep N. E. slope.  
 26.50 Ridge bears N. and S. descend.  
 40.00 Mark a cross on a granite rock in place 8 x 6 x 4 ft. above ground for exact point for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. of cross; and raise a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.  
 45.50 Cross wash 35 lks. wide course N. ascend.  
 54.00 Ridge bears N. and S. descend.  
 66.00 Cross drain 6 lks. wide course N. ascend.  
 77.00 Cross drain 7 lks. wide course N. ascend.  
 80.00 Mark a cross on a granite rock in place 10 x 6 x 6 ft. above ground for exact point for cor. of secs. 2, 3, 34 and 35, marked with 3 notches on E. and 4 notches on W. of cross; 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.  
 Mountainous land 80.00 chs.

March 15, 1910.

March 16: At 8h. 00m. a.m., l.m.t., I set off  $34^{\circ}32'N$  on the lat. arc;  $1^{\circ}55\frac{1}{2}'N$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35  
 Thence I run  
 West bet. secs. 3 and 34.  
 Ascend very steep slope.  
 4.50 Ridge bears N. and S. descend.  
 13.00 Cross wash 15 lks. wide course N. ascend.

## South boundary of Tn. 14 N. Rg. 7 W.

Chains.	
27.60	Ridge bears N. and S. descend.
30.50	Cross wash 10 lks. wide course N. E. ascend.
40.00	Set a granite stone 20 x 10 x 8 ins. 15 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.
50.00	Ridge bears N. and S. descend.
67.00	Cross wash 15 lks. wide course N. ascend.
72.50	Ridge bears N. and S. descend.
80.00	Set a granite stone 20 x 8 x 8 ins. 15 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 80.00 chs. March 16; At this cor. I set off $1^{\circ} 50\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 32' N.$
	-----
	West bet. secs. 4 and 33
	Descend steep slope.
3.50	Cross wash 30 lks. wide course N. W.
14.00	Ridge bears N. and S. descend.
19.80	Cross drain 6 lks. wide course N.
29.80	Cross wash 25 lks. wide course N. E. ascend.
40.00	Set a granite stone 18 x 12 x 12 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.
44.00	Ridge bears N. W. and S. E. descend.
52.00	Cross drain 8 lks. wide course S. W. ascend.
73.60	Ridge bears S. W. and N. E. descend.
80.00	Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked with 4 notches on E. and 2 notches on W. edges; 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. Mountainous land, 80.00 chs. I discontinue the survey of the south boundary at this cor. the land to the west being extremely rough and unsurveyable and the section line running N. from this cor. will include all the agricultural land in the township.

March 16, 1910.

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East boundary of Tp. 14 N. Rg. 7 W.

Chains.	March 17: At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 32' N$ on the lat. arc; $1^{\circ} 30'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 13 and 14 N. Rgs. 6 and 7 W. previously described.
	Thence I run
	North bet. secs. 31 and 36
2.75	Descend very steep slope into Kirkland Creek Canyon. Cross Kirkland Creek 80 lks. wide clear running water, and ascend very steep slope out of canyon.
20.75	Over broken land covered with huge granite boulders.
30.00	Cross drain 7 lks. wide course W.
32.00	Descend.
40.00	Set a granite stone 18 x 10 x 6 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
48.00	Cross drain 6 lks. wide course W. and ascend.
54.00	Cross drain 5 lks. wide course W.
79.80	Ridge bears E. and W. descend.
80.00	Set a granite stone 18 x 8 x 6 ins. 12 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; 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.
	Mountainous land 80.00 chs.
-----	
	North bet. secs. 25 and 30
	Descending over huge granite boulders.
16.50	Cross head of drain 5 lks. wide course W. Ascend steep slope.
19.25	Cross road bears E. and W.
23.00	Ridge bears N. W. and S. E. descend steep slope.
36.90	Cross drain 5 lks. wide course W. ascend.
40.00	Set a granite stone 18 x 8 x 8 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
41.80	Ridge bears N. W. and S. E. descend steep slope.
60.00	Cross wash 70 lks. wide course N. W. and ascend steep slope.
76.40	Ridge bears N. W. and S. E. descend.
80.00	Set a granite stone 18 x 8 x 8 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th. rate.
	No timber.
	Mountainous land 80.00 chs.
	March 17: At this cor. I set off $1^{\circ} 26\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 34' N$
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	North bet. secs. 19 and 24
	Descending steep slope over huge granite boulders.
19.00	Cross wash 30 lks. wide course W. and ascend steep slope
37.00	Ridge bears E. and W. descend.
40.00	Set a granite stone 18 x 8 x 6 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

BOOK 2212

East boundary of Tp. 14 N. Rg. 7 W.

Chains.  
 42.50 Cross drain 6 lks. wide course W. and ascend.  
 56.00 Ridge bears E. and W. descend.  
 57.50 Cross drain 7 lks. wide course S. E. and along drain  
 61.00 Leave drain bears N. W. and ascend.  
 80.00 Set a malpais stone 18 x 12 x 12 ins. 12 ins. in the  
 ground for cor. of secs. 13, 18, 19 and 24, marked with  
 3 notches on N. and S. 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 chs.  
 I discontinue the survey of the east boundary at this cor.  
 the land to the north being extremely rough and unsurvey-  
 able and the section line running west from this cor.  
 will include all the agricultural land in the township.

March 17, 1910.

boundaries of Tp. 14 N. Rg. 7 W.

Latitudes, departures and closing errors.

Line Designated	True bearing	Distance	Latitudes		Departures	
			N	S	E.	W.
E. bdy. Tp. 14 N. R. 7 W	N 71° 16'	160.00	160.00			
Bet. Secs. 24 + 25	S 89° 59' W	80.02		.02		80.02
" " 23 + 26	S 89° 54' W	80.02		.14		80.02
" " 22 + 27	N 89° 59' W	79.96	.02			79.96
" " 21 + 28	S 89° 57' W	79.94		.07		79.94
" " 28 + 29 and 32 + 33	S 0° 02' E	160.00		160.00	.10	
S bdy. T14NR7W.	East	320.00			320.00	
<i>Ownership</i>						.11
			160.02	160.23	320.10	370.05
				160.02	370.05	
				.21	.05	
Error in Lat.				Error in dep.		

GENERAL DESCRIPTION

This township is extremely rough and mountainous. There is no timber in the township. Kirkland Creek runs through the southern part of the township.

*John P. Hease*  
 U. S. Deputy Surveyor.

South Boundary of Tp. 14 N. Rg. 5 W.

Corrections.

July 2, 1911: I move the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the Tp. 26 lks. west, destroy all traces of the cor. as originally set, and re-establish it as follows:

Set a malpais stone 18 x 10 x 8 ins. 13 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked with 5 notches on E. and 1 notch on W. edges; from which

A walnut 8 ins. diam., bears S.  $33\frac{1}{2}^{\circ}$  W. 41 lks. dist., marked T13NR5WS6BT.

A walnut 6 ins. diam., bears N.  $76\frac{1}{4}^{\circ}$  W. 31 lks. dist., marked T14NR5WS31BT.

No other trees available. Raise a mound of stone 2 ft. base  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Thence I run west on my original line bet. secs. 6 and 31

1.35 Cross wash 50 lks. wide course S.

36.75 Ridge bears N. and S.

40.00 I destroy all traces of the  $\frac{1}{4}$  sec. cor. as originally set and re-establish it 76 lks. west of its original position as follows;

Set a malpais stone 20 x 10 x 8 ins. 15 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. Descend steeply into canyon.

41.25  
49.75 Cross wash 35 lks. wide course S.

63.25 Over top of mesa.

79.50 The cor. of Tps. 13 and 14 N. Rgs. 5 and 6 W. as originally established.

From the cor. of secs. 5, 6, 31 and 32 as re-established I chain East on my line and at

40.00 The  $\frac{1}{4}$  sec. cor., bet secs. 5 and 32. All notes in the mile bet. secs. 5 and 32 remain as originally given.

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

Check page 2.

6/17  
ECOK 2212  
FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

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 4th day of June 1909, 19  , 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 S. bdy. of Tp. 14 N. Rg. 6 W. the fracl. S. bdy. of Tps. 14 N. Rgs. 5 and 7 W. and the fracl. E. bdy. of Tp. 14 N. Rg. 7 W. 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 28th day of November, 1910

Frank S. Ingalls  
U.S. Surveyor General for Arizona



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. Apr. 18, 1911.

The foregoing field notes of the survey of the South Boundary of Tps. 14 N. Rgs. 5 and 7 West and fractional East Boundary of Tps. 14 N. R. 7 W. of the Gila and Salt River Base and Meridian, Arizona

executed by John F. Hesse U.S. Deputy Surveyor under his contract No. 158, dated June 4, 1909, 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.