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BOOK 2123

Book G.

2123

FIELD NOTES

OF THE SURVEY OF THE

2123

2123

North, South and East Boundaries of

Pp. 6 N. Rg. 12 W.

The North and West Boundaries of Pp. 5 N.

Rg. 13 W. and

The North, South and West Boundaries of

Pp. 7 N. Rg. 17 W.

2123

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John P. Hesse, United States Deputy Surveyor,

Under his Contract No. 150, dated October 10, 1908

Survey commenced December 18<sup>th</sup>, 1908

Survey completed January 11<sup>th</sup>, 1909

6-151

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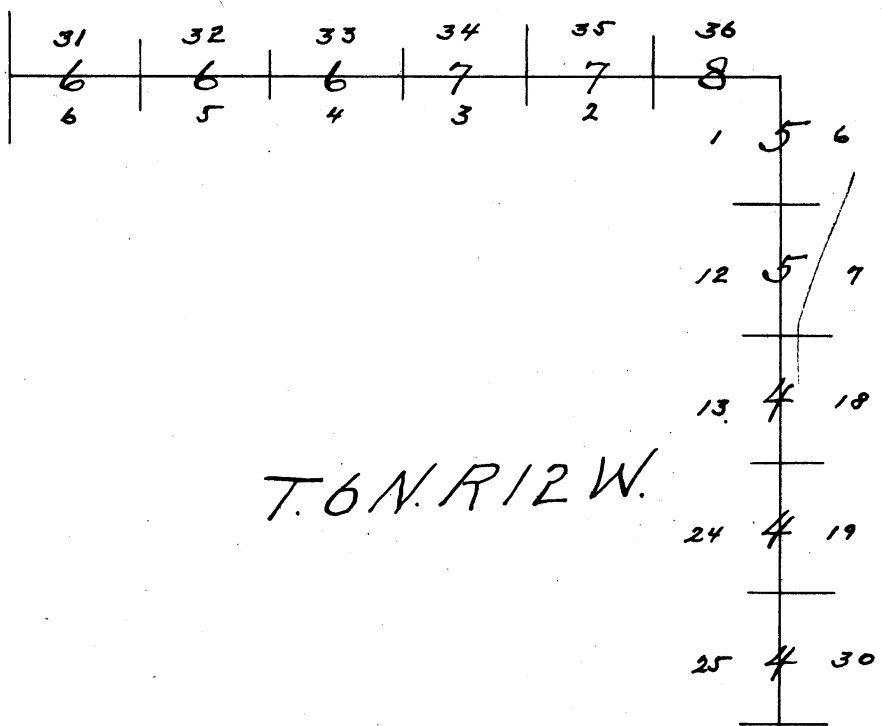
copied July 30/09  
Accepted, Dept. letter E.  
Nov. 5-1909

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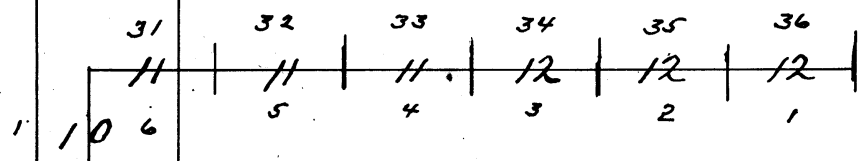
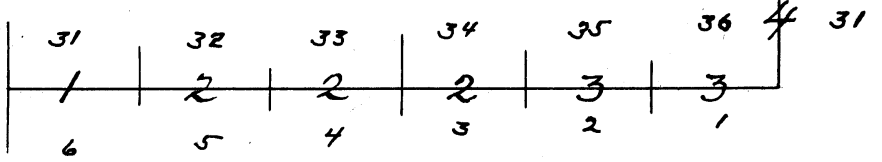
BOOK 2123

NAMES AND DUTIES OF ASSISTANTS.

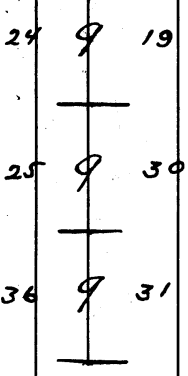
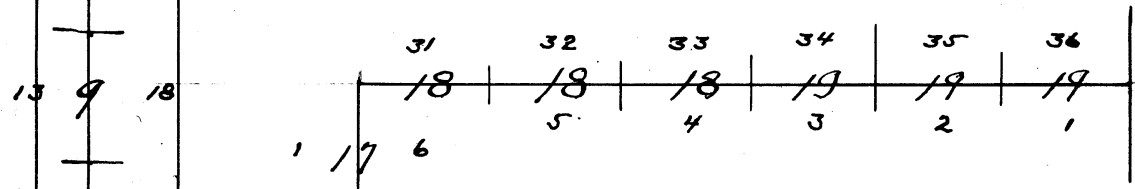
Harry V. Ingalls	Chairman
Wilfred B. Helm	Chairman
A. N. Oliver	Assman
A. R. Saunders	Flagman



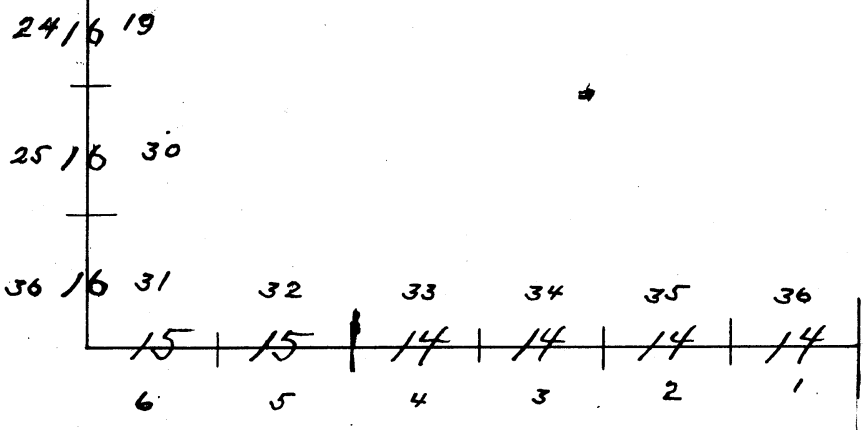
T. 6 N. R. 12 W.



T. 5 N. R. 13 W.



T. 7 N. R. 17 W.



# INDEX DIAGRAM.

Township....., Range.....

6	5	4	3	2	1
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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Harry S. Ingalls and Wilfred B. Helmer  
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 N. S. and E. boundaries of Tp. 6 N. Rg. 12 W. the North and W. boundaries of Tp. 5 N. Rg. 13 W. and the N., S. and W. boundaries of Tp. 7 N. Rg. 17 W.

Harry S. Ingalls, Chainman.  
Wilfred B. Helmer, Chainman.

Subscribed and sworn to before me this 5<sup>th</sup>  
day of December, 1908  
My commission expires March 29, 1910

W. J. Ferrieh  
Notary Public



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, J. T. N. Oliver 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 <sup>me</sup> us, to the best of <sup>my</sup> skill and ability, in the survey of the N. S. and E. boundaries of Tp. 6 N. Rg. 12 W. the N. and W. boundaries of Tp. 5 N. Rg. 13 W. and the N., S. and W. boundaries of Tp. 7 N. Rg. 17 W.

A. N. Frost, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 18<sup>th</sup>  
day of December, 1908

John P. Hesse  
U. S. Deputy Surveyor



I, A. R. Saunders, 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 N., S. and E. boundaries of Tp. 6 N. Rg. 12 W. the N. and W. boundaries of Tp. 5 N. Rg. 13 W. and the N., S. and W. boundaries of Tp. 7 N. Rg. 17 W.

A. R. Saunders, Flagman.

Subscribed and sworn to before me this 18<sup>th</sup>  
day of December, 1908

John P. Hesse  
U. S. Deputy Surveyor



6-151  
No notary available without loss of time and great expense

11  
 (10)

## The South Boundary of Township 6 North Range 12 West.

chains

Survey commenced December 18th, 1908, and executed with a Young and Sons light mountain transit No. 7532, with a 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 lat. and decl. arcs.

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

I examine the adjustments of the transit and find them correct; and then, to test the solar apparatus, by comparing 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. 5 and 6 N., Rs. 12 and 13 W., latitude  $33^{\circ}48'39''N.$ , longitude  $113^{\circ}33'24''W.$ , I set off  $33^{\circ}48', 1-2''N.$  on the lat. arc,  $23^{\circ}20''S.$  on the decl. arc; and at 4 p.m., l.m.t., determine a meridian with the solar and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

December 18th, 1908.

December 18th; At 1h. <sup>33/</sup>~~36~~ m., a.m., by my watch which has correct l.m.t., I observe Polaris at Western elongation, in accordance with the 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.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris  $1^{\circ}25', 1-2''$  to the E., and mark the meridian thus determined by cutting a small groove in the stone, set December 18, on which the meridian coincides with the one determined by the solar.

At 8 a.m., l.m.t., I set off  $33^{\circ}48', 1-2''N.$  on the lat. arc,  $23^{\circ}21''S.$  on the decl. arc; and mark a point in the meridian thus 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 a.m. and p.m., observations define positions for meridians identical 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 8 h. 30 m., a.m., is  $N 14^{\circ} 53' W.$ ; the angle thus determined gives the mag. decl. as  $14^{\circ} 53' E.$

December 19th; I begin at the cor. of Tps. 5 and 6 N., Rs. 12 and 13 W., which I established December 18, 1908 from Tp. cor. I run

East between secs. 6 and 31.

Over level land through dense brush.

9.85

Wash, 10 lks. wide, course SE.

15.20

Wash, 20 lks. wide, course S.

39.51

Set a quartzite stone,  $21 \times 8 \times 6$  ins., 16 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. face; dig pits,  $18 \times 18 \times 12$  ins. E., and W. of stone, 3 ft. dist.; and raise a mound of earth  $3, 1/2$  ft. base,  $1, 1/2$  ft. high, N. of cor.

47.10

Wash, 20 lks. wide, course S.

52.90

Wash, 15 lks. wide, course S.

56.00

Centennial wash, 40 lks. wide, course S.

64.95

Road, bears NE. and SW.

71.40

Road, bears N. and S.

74.10

Wash, 15 lks. wide, course NW,

78.70

Road, bears NW. and SE.

79.51

Set a quartzite stone,  $24 \times 8 \times 5$  ins., 18 ins. in the ground, for cor. of secs. 5, 6, 31 and 32, marked with 1 notch on W. and 5 notches on E. edge; dig pits,  $18 \times 18 \times 12$  ins., in each sec. 5,  $1/2$  ft. dist.; and raise a mound of earth, 4 ft.

## South Boundary of Township 6 North Range 12 West.

chains	
	base, 2ft. high, W. of cor. Land, level. Soil, sandy and gravelly; 2nd and 3rd rate. No timber. Underbrush, greasewood and cacti. Land covered with dense underbrush, 79.51 chs.
	East between secs. 5 and 32. Over level land through dense brush.
9.15	Wash, 10 lks. wide, course NW.
13.90	Road, bears NE. and SW.
27.00	Wash, 10 lks. wide, course NW.
35.05	Wash, 10 lks. wide, course NW.
36.65	Road, bears N. and S.
40.00	Set a quartzite stone, 24X8X6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits, 18X18X12 ins. E. and W. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.
44.65	Wash, 10 lks. wide, course NW.
54.80	Road, bears SE. and NW.
64.05	Wash, 10 lks. wide, course NW.
80.00	Set a quartzite stone, 21X8X6 ins., 16 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, marked with 2 notches on W. and 4 notches on E. edge; dig pits, 18X18X12 ins. in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor. Land, level. Soil, sandy and gravelly; 3rd rate. No timber. Underbrush, greasewood and cacti. Land covered with dense underbrush, 80.00 chs.
	East between secs. 4 and 33 Over level land, through dense brush.
8.80	Road, bears NE. and SW.
14.10	Wash, 10 lks. wide, course NE.
22.55	Wash, 10 lks. wide, course NW.
36.50	Wash, 10 lks. wide, course NW.
40.00	Set a quartzite stone, 21X8X6 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits, 18X18X12 ins. E. and W. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.
46.10	Wash, 10 lks. wide, course NW.
50.00	Wash, 10 lks. wide, course SW.
58.20	Wash, 10 lks. wide, course NW.
76.35	Wash, 10 lks. wide, course WNW.
80.00	Set a porphyry stone, 22X8X5 ins., 16 ins. in the ground, for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on W., and 3 notches on E. edge; dig pits, 18X18X12 ins. in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor. Land, level. Soil, sandy and gravelly; 3rd rate. No timber. Underbrush, greasewood and cacti. Land covered with dense underbrush, 80.00 chs.
	East between secs. 3 and 34. Over level land through dense brush.
34.90	Wash, 35 lks. wide, course NW.
40.00	Set a redwood post, 3ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ S 34 on N. face and 3 on S. face; raise a mound of stone, 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.
61.30	Wash, 10 lks. wide, course NW.
80.00	Set a quartzite stone, 22X14X6 ins., 16 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 4 notches on W. and 2 notches on E. edge; raise a mound of stone, 2ft.

South Boundary of Township 6 North Range 12 West.

chains

base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
 Land, level.  
 Soil, sandy and gravelly; 3rd and 4th rate.  
 Timber, scattering mesquite.  
 Underbrush, greasewood, palo verde and mesquite.  
 Land covered with dense underbrush, 80.00 chs.

East between secs. 2 and 35.  
 Over level land through dense brush.

12.25  
 40.00  
 40.25

Wash, 15 lks. wide, course N.  
 Wash, 15 lks. wide, course NW.  
 Set a quartzite stone, 21x12x6 ins., 16 ins. in the ground, for witness cor. to sec. cor. marked WC 1/4 on N. face; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.

43.60  
 52.00  
 57.60  
 60.25  
 79.80

Wash, 30 lks. wide, course NW.  
 Wash, 10 lks. wide, course NW,  
 Old road, bears NE. and SW.  
 Wash, 10 lks. wide, course NW.  
 Set a silica stone, 21x8x6 ins., 16 ins. in the ground, for witness cor. to cor. of secs. 1, 2, 35 and 36, marked WC on NE. face, with 5 notches on W. and 1 notch on E. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Point for cor. falls in wash, 15 lks. wide, course NW.

80.00

Land, level.  
 Soil, sandy, gravelly and stony; 3rd and 4th rate.  
 No timber.  
 Underbrush, greasewood, palo verde, mesquite and cacti.  
 Land covered with dense underbrush, 80.00 chs.

East between secs. 1 and 36.  
 over nearly level land through dense brush.

8.20  
 17.60  
 22.10  
 40.00

Wash, 15 lks. wide, course NW.  
 Wash, 20 lks. wide, course NW.  
 Wash, 20 lks. wide, course NW.  
 Set a quartzite stone, 24x12x8 ins., 18 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.

41.05  
 58.95  
 65.45  
 79.50

Wash, 15 lks. wide, course NW.  
 Wash, 15 lks. wide, course NW.  
 Wash, 30 lks. wide, course N.  
 Set a quartzite stone, 21x8x6 ins., 16 ins. in the ground, for witness cor. to cor. of Sps 5 and 6 N., Rs. 11 and 12w. marked

6 N on NE.,  
 11 W on SE.,  
 5 N on SW., and

12 W on W. face; 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.

80.00

Point for cor. falls in dry wash, 30 lks. wide, course NW.  
 Land, nearly level and rolling.  
 Soil, gravelly and rocky; 4th rate.  
 Timber, scattering mesquite.  
 Underbrush, mesquite, palo verde and cacti.  
 Land covered with dense underbrush, 80.00 chs.

At this cor. I set off 23°24'S. on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is 33°48, 1-2' N.



The East Boundary of Township 6 North Range 12 West.

chains

North between secs. 31 and 36, from true cor. point.  
 Over rolling land through dense brush.

7.20 Wash, 15 lks. wide, course SSW.  
 17.10 Wash, 20 lks. wide, course W.  
 37.00 Wash, 10 lks wide, course W.  
 40.00 Set a silica stone, 21X8X5ins., .16ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face; and raise a mound of stone, 2ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

41.00 Wash, 10 lks. wide, course W.  
 47.35 Wash, 10 lks. wide, course W.  
 51.20 Wash, 35 lks. wide, course W.  
 60.15 Wash, 15 lks. wide, course W.  
 66.45 Wash, 15 lks. wide, course W.  
 69.60 Wash, 15 lks. wide, course W.  
 80.00 Set a silica stone, 21X10X5ins., .16ins. in the ground, for cor. of secs. 25, 30, 31, and 36., marked with 1 notch on S. and 5 notches on N. edge; and raise a mound of stone, 2ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
 Land, hilly and rolling.  
 Soil, rocky; 4th rate.  
 Timber, scattering mesquite.  
 Underbrush, greasewood, paloverde, mesquite and cacti.  
 Land covered with dense underbrush, 80.00 chs.

North between secs 25 and 30.  
 Over rolling land through dense brush.

5.60 Wash, 15 lks. wide, course W.  
 16.25 Wash, 15 lks. wide, course W.  
 19.40 Wash, 20 lks. wide, course W.  
 38.35 Wash, 15 lks. wide, course W.  
 40.00 Set a quartzite stone, 21X6X6ins., .16ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face; and raise a mound of stone, 2ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

52.15 Wash, 20 lks. wide, course W.  
 80.00 Set a quartzite stone, 21X8X7ins., .16ins. in the ground, for cor. of secs. 19, 24, 25 and 30., marked with 2 notches on S. and 4 notches on N. edge; dig pits, 18X18X12ins., in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor.  
 Land, rolling.  
 Soil, sandy and gravelly; 3rd and 4th rate.  
 Timber, scattering mesquite.  
 Underbrush, mesquite, paloverde and cacti.  
 Land covered with dense underbrush, 80.00 chs.

North between secs. 19 and 24.  
 Over nearly level land through dense brush.

38.15 Wash, 15 lks. wide, course W.  
 40.00 Set a quartzite stone, 21X8X5ins., .16ins in the ground, fo for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face; and raise a mound of stone, 2ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

42.05 Wash, 15 lks. wide, course W.  
 46.20 Wash, 15 lks. wide, course W.  
 62.30 Road, bears NE. and SW.  
 80.00 Set a quartzite stone, 22X10X5ins., .16ins. in the ground, for cor. of secs. 13, 18, 19, and 24 , marked with 3 notches on S. and 3 notches on N. edge; dig pits, 18X18X12ins., in each sec. 5, 1/2 ft. dist.; and raise amount of earth, 4ft. base, 2ft. high, W. of cor. Pits impracticable.  
 Land, level.  
 Soil, snady and gravelly; 3rd and 4th rate.  
 Timber, scattering mesquite.  
 Underbrush, mesquite, greasewood and cacti.  
 Land covered with dense underbrush, 80.00 chs.

North between secs. 13 and 18.  
 Over level alnd through dense brush.

3.00 Railroad ditch, 30 lks. wide, course SW.

The East Boundary of Township 6 North Range 12 West.

chains

6.65  
7.25  
9.40  
29.25  
39.50  
  
40.00  
40.60  
58.45  
63.20  
70.50  
80.00

Railroad, bears NE. and SW.  
Telegraph line, bears NE. and SW.  
Wash, 10 lks. wide, course NW.  
Wash, 10 lks. wide, course NW.  
Set a redwood post, 3ft. long, 3ins. sq., with marked stone, 24ins. in the ground, for witness cor. to  $\frac{1}{4}$  sec. cor., marked WC  $\frac{1}{4}$  S 13 on W., and 18 on E. face; dig pits, 18x18x12ins., N. and S. of post, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, W. of cor. Point for  $\frac{1}{4}$  sec. cor. falls in wash, 15 lks. wide, course W.  
Road, bears NE. and SW.  
Wash, 15 lks. wide, course NW.  
Wash, 15 lks. wide, course NW.  
Wash, 15 lks. wide, course NW.  
Set a granite stone, 20x6x5ins., 15ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 4 notches on S. and 2 notches on N. edge; dig pits, 18x18x12ins., in each sec. 5, 1/2 ft. dist.; and raise mound of earth, 4ft. base, 2ft. high, W. of cor.  
Land, level.  
Soil, sandy and gravelly; 3rd rate.  
Timber, scattering mesquite.  
Underbrush, greasewood, mesquite and cacti.  
Land covered with dense underbrush, 80.00 chs.

North between secs. 7 and 12.  
Over level land through dense brush.

20.30  
40.00  
  
40.45  
63.15  
72.50  
80.00

Wash, 10 lks. wide, course SW.  
Set a granite stone, 18x6x5ins., 12ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; dig pits, 18x18x12ins., N. and S. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, W. of cor.  
Wash, 15 lks. wide, course SW.  
Old road, bears NE. and SW.  
Leave dense underbrush,  
Set a granite stone, 14x10x6ins., 9ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 5 notches on S. and 1 notch on N. edge; dig pits, 18x18x12ins., in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor.  
Land, level.  
Soil, sandy loam and gravelly; 2nd and 2nd rate.  
Timber, scattering mesquite.  
Underbrush, greasewood, mesquite and acati.  
Land covered with dense underbrush, 72.50 chs.

North between secs. 1 and 6.  
Over level land.

1.45  
7.50  
40.00  
  
59.15  
80.00

Wash, 15 lks. wide, course, SSW.  
Enter dense underbrush.  
Set a granite stone, 18x6x5ins., 12ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; dig pits, 18x18x12ins., N. and S. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, W. of cor.  
Wash, 10 lks. wide, course E.  
Set a porphyry stone, 18x8x8ins., 12ins. in the ground, for cor. of Tps. 6 and 7 N., Rs. 11 and 12 W., marked  
7N on NE.,  
11 W on SE.,  
6 N on SW., and  
12 W on NW. face; with 6 notches on each edge; dig pits, 24x24x12ins., on each line, N., E., and W., 4ft., and S., of stone, 8ft. dist.; and raise a mound of earth, 5ft. base 2, 1/2 ft. high, S. of cor.  
Land, level.  
Soil, sandy and gravelly; 3rd rate.  
Timber, scattering mesquite.  
Underbrush, greasewood, mesquite and cacti.  
Land covered with dense underbrush, 72.50 chs.

North Boundary of Township 6 North Range 12 West.

chains.

December 20th; At 8 a.m., l.m.t., I set off 33°54' N. On the lat. arc, 23°22' S. on the decl arc; and determine a true meridian with the solar at the cor. of Tps. 6 and 7 N., Rs. 11 and 12 W..

Thence I run

West on random line, along the N. bdy. of Tp. 6 N., R. 12 W., setting temp. 1/4 sec. and sec. cors. at intervals of 40.00 chs.; and, at 479.00 chs., intersect the Third Guide Meridian, 19 lks. S. of the cor. of Tps. 6 and 7 N., Rs. 12 and 13 W., which is a quartzite stone, set by me on the 18th. of December. The falling answers to a correction of 0°01', or 3 lks. N. per mile, counting from the NE. cor. of the Tp.; therefore I run

S 89°59' E., bet. secs. 6 and 31, on true line.

- 12.20 Wash, 15 lks. wide, course S.
- 16.30 Wash, 10 lks. wide, course S.
- 35.00 Wash, 10 lks. wide, course S.
- 38.05 Wash, 10 lks. wide, course S.
- 39.00 Set a quartzite stone, 21x10x6 ins., 16 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.
- 51.35 Wash, 10 lks. wide, course S.
- 60.10 Wash, 15 lks. wide, course S.
- 61.70 Road from Bill Williams to Wendendale, bears 'N. and S.
- 62.00 Wash, 10 lks. wide, course S.
- 78.65 Wash, 15 lks. wide, course S.
- 79.00 Set a quartzite stone, 21x6x6 ins., 16 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 1 notch on W. and 5 notches on E. edge; dig pits, 18x18x12 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, rolling. Soil, sandy and gravelly; 3rd and 4th rate. Timber, scattering mesquite. Underbrush, greasewood, catclaw and cacti. Land covered with dense underbrush, 79.00 chs. At this cor. I set off 23°25' S. on the decl. arc, and observe the sun on the meridian at noon, resulting lat. 18°33' 54" N.

S 89°59' E., bet. secs. 5 and 32.

Over rolling land through dense brush.

- 0.60 Wash, 15 lks. wide, course SE.
- 25.00 Wash, 10 lks. wide, course S.
- 32.10 Wash, 30 lks. wide, course SE.
- 40.00 Set a quartzite stone, 21x6x6 ins., 16 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.
- 40.35 Wash, 10 lks. wide, course S.
- 54.80 Wash, 20 lks. wide, course SE.
- 58.00 Wash, 10 lks. wide, course SE.
- 68.45 Wash, 20 lks. wide, course SE.
- 70.80 Wash, 15 lks. wide, course S.
- 80.00 Set a quartzite stone, 21x8x6 ins., 16 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 2 notches on W. and 4 notches on E. edge; dig pits, 18x18x12 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, level and gently rolling. Soil, graveely and stony; 3rd and 4th rate. Timber, scattering mesquite. Underbrush, mesquite, greasewood and paloverde. Land covered with dense underbrush, 80.00 chs.

S 89°59' E., bet. secs. 4 and 33.

Over rolling land through dense brush.

- 3.10 Wash, 15 lks. wide, course S.
- 18.05 Wash, 15 lks. wide, course S.
- 20.00 Wash, 10 lks. wide, course S.
- 28.15 Wash, 10 lks. wide, course S.

North Boundary of Township 6 North Range 12 West.

chains	
32.10	Wash, 10 lks. wide, course S.
37.05	Wash, 10 lks. wide, course S.
39.50	Wash, 10 lks. wide, course S.
40.00	Set a quartzite stone, 21x6x5 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits, 18x18x12 ins. E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.
45.00	Wash, 15 lks. wide, course SE.
47.75	Wash, 10 lks. wide, course S.
49.80	Wash, 10 lks. wide, course S.
58.05	Wash, 10 lks. wide, course S.
60.00	Leave brush.
65.10	Wash, 10 lks. wide, course S.
68.00	Enter dense brush.
70.10	Wash, 15 lks. wide, course S.
73.10	Wash, 10 lks. wide, course S.
80.00	Set a quartzite stone, 21x10x6 ins., 16 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on W. and 3 notches on E. edge; dig pits, 18x18x12 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, rolling. Soil, stony; 3rd and 4th rate. No timber. Underbrush, greasewood, palo verde and calclaw. Land covered with dense underbrush, 72.00 chs.
S89°59'E., bet secs. 3 and 34. Over level land through dense brush.	
18.30	Wash, 10 lks. wide, course SE.
25.30	Wash, 10 lks. wide, course SE.
35.55	Wash, 10 lks. wide, course SE.
40.00	Set a redwood post, 3 ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S 34 on N. face, and 3 on S. face; dig pits, 18x18x12 ins., 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.
58.70	Wash, 10 lks. wide, course SE.
70.30	Wash, 10 lks. wide, course SE.
80.00	Set a granite stone, 20x6x5 ins., 15 ins. in the ground, for cor. of secs. 2, 3, 34, and 35, marked with 2 notches on E. and 4 notches on W. face; dig pits, 18x18x12 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, level. Soil, sandy and gravelly; 3rd rate. Timber, scattering mesquite. Underbrush, greasewood, mesquite and cacti. Land covered with dense underbrush, 80.00 chs.
S89°59'E., bet secs. 2 and 35. Over level land through dense brush.	
8.65	Wash, 15 lks. wide, course SE.
11.50	Wash, 10 lks. wide, course SE.
30.00	Wash, 10 lks. wide, course SE.
31.70	Wash, 15 lks. wide, course SE.
36.15	Wash, 15 lks. wide, course SE.
40.00	Set a granite stone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits, 18x18x12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.
61.00	Wash, 15 lks. wide, course SE.
64.50	Wash, 10 lks. wide, course SE.
80.00	Set a granite stone, 18x6x5 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 35, and 36, marked with 5 notches on W. and 1 notch on E. edge; dig pits, 18x18x12 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, level.

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North Boundary of Township 6 North Range 12 West.

chains

Soil, sandy and gravelly; 3rd rate.  
 Timber, mesquite.  
 Underbrush, greasewood and mesquite.  
 Land covered with dense underbrush, 80.00 chs.

S89°59'E., bet secs. 1 and 36.

Over level land through dense brush.

5.10  
 21.40  
 37.05  
 40.00

Wash, 15 lks. wide, course S.  
 Wash, 15 lks. wide, course S.  
 Wash, 15 lks. wide, course SE.  
 Set a granite stone, 16X8X4 ins., 11 ins. in the ground, for  
 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins.,  
 E. and W. of stone, 3 ft. dist.; and raise a mound of earth,  
 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

55.00  
 61.50  
 68.00  
 71.60  
 80.00

Wash, 15 lks. wide, course SE.  
 Wash, 15 lks. wide, course SE.  
 Wash, 15 lks. wide, course SE.  
 Wash, 15 lks. wide, course SE.  
 Intersect the cor. of Tps. 6 and 7 N., Rs. 11 and 12 W.  
 Land, level.

Soil, sandy and gravelly; 3rd rate.  
 Timber, scattering mesquite.  
 Underbrush, greasewood, mesquite and catalaw.  
 Land covered with dense underbrush, 80.00 chs.

December 20th, 1908.

*Boundaries of T. 6 N. R. 12 W.  
 Latitudes, departures, and closing errors.*

	True bearing	Distance	Latitudes.		Departures.	
			N.	S.	E.	W.
S. bdy. T. 6 N. R. 12 W.	East	479.51			479.51	
E. bdy. T. 6 N. R. 12 W.	North	480.00	480.00			
N. bdy. T. 6 N. R. 12 W.	N 89°59' W.	479.00	.19			479.00
3rd. G. Meridian W.	South	480.00		480.00		
Convergency						.49
Totals			480.19	480.00	479.51	479.49
Error in lat.			480.00		479.49	479.51
			.19	Error in dep.		.02

General Description.

Tp. 6 N., R. 12 W., is level throughout and covered with a dense growth of underbrush. The Arizona and California R.R., runs through the Tp., and the town of Wenden is located in the southwestern part of the Tp. In surveying the N.E. and S. bdy. of this Tp., I destroy all cors. established by Deputy Santee under Contract No. 146.

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

## West Boundary of Township 5 North Range 13 West.

chains

December 28th; At 8 a.m., l.m.t., I set off  $33^{\circ}43,1-2'N.$  on the lat. arc,  $23^{\circ}13'S.$  on the decl. arc; and determine a true meridian with the solar, at the standard cor. of Tps. 5 N., Rs. 13 and 14 W., which is a quartzite stone, set by me December 17th, 1908.

Thence I run

North bet. secs. 31 and 36.

Ascending over mountainous land through dense brush

40.00

Set a granite stone, 18X10X8 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.

80.00

Set a porphyry stone, 18X10X8 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. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

Land, mountainous and rolling.

Soil, gravelly, stony and rocky; 4th rate.

Timber, scattering paloverde and ironwood.

Underbrush, greasewood and cacti.

Land covered with dense underbrush, 80.00 chs.

North bet. secs. 25 and 30.

Ascending over mountainous land through dense brush

5.60

Top of ridge, bears WNW. and ESE.; desc.

11.50

Foot of steep descent.; over broken land.

40.00

Set a granite stone, 18X10X8 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.

65.60

Wash, 30 lks. wide, course NW.; over gently rolling land.

80.00

Set a granite stone, 24X8X6 ins., 18 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 2 notches on S. and 4 notches on N. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

Land, mountainous, broken and rolling.

Soil, sandy, gravelly and rocky; 4th rate.

Timber, scattering paloverde and ironwood.

Underbrush, greasewood, mesquite, paloverde and cacti.

Land covered with dense underbrush, 80.00 chs.

North bet. secs. 19 and 24.

Over level land through dense brush.

0.75

Wash; 40 lks. wide, course NW.

11.10

Road, bears NE. and SW.

11.93

Railroad track, bears NE. and SW.

12.32

Telegraph line, bears NE. and SW.

30.00

Enter gently rolling land.

37.90

Wash, 25 lks. wide, course SW.

40.00

Set a malpais stone, 18X8X5 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.

55.15

Wash, 20 lks. wide, course SE.

59.80

Old road, bears NW. and SE.

72.10

Wash, 25 lks. wide, course SE.

80.00

Set a malpais stone, 18X10X8 ins., 12 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on S. and 3 notches on N. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.

Land, level and rolling.

Soil, sandy, gravelly and stony; 4th rate.

Timber, scattering mesquite.

Underbrush, greasewood and cacti.

Land covered with dense underbrush, 80.00 chs.

At this cor. I set off  $23^{\circ}15,1-2'S.$  on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is  $33^{\circ}46'N.$

North bet. secs. 13 and 18.

Over gently rolling land through dense brush.

West Boundary of Township 5 North Range 13 West.

chains

11.75  
25.40  
37.25  
40.00

Wash, 15 lks. wide, course SE.  
Wash, 20 lks. wide, course SE.  
Wash, 45 lks. wide, course SE.  
Set a porphyry stone, 18x10x8 ins., 12 ins. in the ground, 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.  
Wash, 20 lks. wide, course E.  
Wash, 40 lks. wide, course SE.  
Wash, 40 lks. wide, course SE.  
Set a porphyry stone, 21x8x6 ins., 16 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 4 notches on S. and 2 notches on N. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
Land, gently rolling and level.  
Soil, sandy, gravelly and stony; 4th rate.  
Timber, scattering mesquite.  
Underbrush, greasewood and cacti.  
Land covered with dense underbrush, 80.00 chs.

North bet. secs. 7 and 12.

Over level land through dense brush.

2.85  
14.45  
37.15  
40.00

Road, bears E. and W.  
Wash, 20 lks. wide, course SE.  
Road, bears NW. and SE.  
Set a malpais stone, 18x8x6 ins., 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on W. face; and dig pits, 18x18x12 ins. N. and S. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, W. of cor.  
Wash, 30 lks. wide, course E.  
Wash, 30 lks. wide, course ESE.  
Wash, 25 lks. wide, course SE.  
Set a porphyry stone, 24x6x6 ins., 18 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 5 notches on S. and 1 notch on N. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
Land, level.  
Soil, sandy, gravelly and stony; 4th rate.  
Timber, scattering paloverde and ironwood.  
Underbrush, greasewood, mesquite and cacti.  
Land covered with dense underbrush, 80.00 chs.

North bet. secs. 1 and 6.

Over level land through dense brush.

35.80  
40.00  
  
59.70  
73.15  
80.00

Wash, 15 lks. wide, course SE.  
Set a porphyry stone, 28x8x12 ins., 21 ins. in the ground, 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.  
Wash, 25 lks. wide, course SE.  
Road, bears NNW. and SSE.  
Set a quartzite stone, 21x8x5 ins., 16 ins. in the ground, for cor. of Tps. 5 and 6 N., Rs. 12 and 13 W., marked with  
6 N on NE., 13 14  
13 W on SE., 13 14  
5 N on SW., and  
14 W on NW. face; 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, level.  
Soil, sandy, gravelly and stony; 3rd rate.  
Timber, scattering ironwood and paloverde.  
Underbrush, greasewood, mesquite and cacti.  
Land covered with dense underbrush, 80.00 chs.  
December 28th, 1908.

North Boundary of Township 5 North Range 13 West.

chains

December 29th; At 8<sup>1</sup>/<sub>2</sub> a.m., l.m.t., I set off 33° 48', 1/2' N. on the lat. arc.; 23° 10' S. on the decl. arc.; and determine a true meridian with the solar at the cor. of Tps. 5 and 6 N., Rs. 12 and 13 W.,

Thence I run

West on random line, along the N. bdy. of Tp. 5 N. R. 13 W., setting temp. 1/4 sec. and sec. cors. at intervals of 40.00 chs.; and at 479.46 chs. chs., intersect the Tp. line bet. Tps. 13 and 14 W., 6 lks. N. of the cor. of Tps. 5 and 6 N., Rs. 13 and 14 W., which is stone, set by me on the 28th of December. The falling is less than 9° 01' or 1 lk. per mile, counting from the NE cor. of the Tp.; therefore I run

East bet. sec. 6 and 31, on true line.

Over level land through dense brush.

14.75  
39.46

Wash, 15 lks. wide, course SE.

Set a quartzite stone, 18X6X5 ins., 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins. E. and W. of stone, 3 ft. dist.; and raise a mound of earth 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

39.80  
79.15  
79.46

Wash, 15 lks. wide, course SE.

Wash, 10 lks. wide, course SSE.

Set a quartzite stone, 18X10X6 ins., 12 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 1 notch on W. and 5 notches on E. edge; dig pits, 18X18X12 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, level.

Soil, sandy and gravelly; 4th rate.

Timber, scattering paloverde, ironwood and mesquite.

Underbrush, greasewood and paloverde.

Land covered with dense underbrush, 79.46 chs.

At this cor. I set off 23° 12' S. on the decl. arc, and observe the sun at the meridian at noon; the resulting lat. is 33° 48', 1/2' N. ✓

East bet. secs. 5 and 32.

Over level land through dense brush.

0.70  
15.20  
32.10  
40.00

Road, bears N. and S.

Road, bears NW. and SE.

Wash, 15 lks. wide, course SE.

Set a quartzite stone, 18X6X6 ins., 12 ins. in the ground, for 1/4 sec. cor., marked 1/4 on N. face; dig pits, 18X18X12 ins. E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, W. of cor.

43.90  
69.55  
80.00

Wash, 15 lks. wide, course SE.

Wash, 15 lks. wide, course SE.

Set a quartzite stone, 21X10X5 ins., 16 ins. in the ground, for cor. of secs. 4, 5, 33 and 32, marked with 2 notches on W. and 4 notches on E. edge; dig pits, 18X18X12 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, level.

Soil, sandy and gravelly; 3rd rate.

Timber, scattering mesquite.

Underbrush, greasewood and mesquite.

Land covered with dense underbrush, 80.00 chs.

East bet. secs. 4 and 33.

Over level land through dense brush.

23.10  
38.00  
40.00

Wash, 20 lks. wide, course SE.

Wash, 20 lks. wide, course SE.

Set a granite stone, 21X6X6 ins., 16 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

47.15  
59.40

Wash, 15 lks. wide, course SE.

Wash, 20 lks. wide, course SE.



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North Boundary of Township 5 North Range 13 West.

chains.

80.00

Set a granite stone, 18X10X8 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 33 and 34; marked with 3 notches on W. and 3 notches on E. edge; dig pits, 18X18X2 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, level.  
Soil, sandy and gravelly; 3rd rate.  
No timber.  
Underbrush, greasewood, mesquite and cacti.  
Land covered with dense underbrush, 80.00 chs.

East bet. secs. 3 and 34.

Over level land through dense brush.

6.90

Wash, 15 lks. wide course SE.

12.15

Wash, 10 lks. wide, course SE.

35.00

Wash, 10 lks. wide, course SE.

40.00

Set a granite stone, 21X6X6 ins., 16 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

41.05

Wash, 10 lks. wide, course SE.

49.20

Wash, 15 lks. wide, course SE.

59.10

Wash, 15 lks. wide, course SE.

79.55

Wash, 10 lks. wide, course S.

80.00

Set a granite stone, 24X7X5 ins., 18 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 4 notches on W. and 2 notches on E. edge; dig pits, 18X18X12 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, level.

Soil, sandy and gravelly; 3rd rate.

Timber, scattering mesquite.

Underbrush, greasewood, mesquite and cacti.

Land covered with dense underbrush, 80.00 chs.

East bet. secs. 2 and 35.

Over level land through dense brush.

26.15

Wash, 15 lks. wide, course SE.

27.40

Road, bears NE. and SW.

40.00

Set a granite stone, 21X8X5 ins., 16 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

42.90

Wash, 10 lks. wide course SE.

46.75

Wash, 10 lks. wide, course S.

80.00

Set a granite stone, 21X10X5 ins., 16 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked with 5 notches on W. and 1 notch on E. edge; dig pits, 18X18X12 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, level. Soil, sandy and gravelly; 2nd and 3rd rate.

No timber.

Underbrush, greasewood.

Land covered with dense underbrush, 80.00 chs.

East bet. secs. 1 and 36.

Over level land through dense brush.

6.00

Old road, bears NW. and SE.

13.15

Wash, 15 lks. wide, course S.

34.30

Road, bears NW. and SE.

39.65

Wash, 10 lks. wide, course S.

40.00

Set a granite stone, 18X6X6 ins., 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.

46.40

Wash, 10 lks. wide, course S.

63.00

Wash, 30 lks. wide, course S.

67.45

Telegraph line, bears NE. and SW.

North Boundary of Township 5 North Range 13 West.

chains  
68.57  
69.40  
80.00

Railroad track, bears N65°E. and S65°W.  
Road, bears N65°E. and S65°W.  
Intersect the cor. of Tps. 5 and 6 N., Rs. 12 and 13 W.  
Land, level.  
Soil, sandy and gravelly; 2nd and 3rd rate.  
No timber.  
Underbrush, greasewood and cacti .  
Land covered with dense underbrush, 80.00 chs.  
December 29th, 1908.

*Boundaries of T. 5 N. R. 13 W.  
Latitudes, departures, and closing errors.*

Line designated	True bearing	Distance	Latitudes.		Departures.	
			N.	S.	E.	W.
3rd. G. Meridian W.	North	480.00	480.00			
N. bdy. T. 5 N. R. 13 W.	West	479.96		.06		479.76
W. bdy. T. 5 N. R. 13 W.	South	480.00		480.00		
1st. Standard Parallel N.	East	480.00			480.00	
Convergence Totals.			480.00	480.06	480.00	480.25
Error in lat.				.06		.25

Tp. 5 N., R 13 W., is nearly level excepting the extreme SW. cor., which is mountainous. The town of Salome is situated in the central part of the Tp. There is no timber in the Tp.

In Surveying the N. and W. bdys. of this Tp., I destroy all cors. established by Deputy Santee under Contract No. 146.

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

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South Boundary of Township 7 North Range 17 West.

Chains.	Text
	<p>January 9th; At 8/a.m., l.m.t., I set off 33° 54' N. on the lat. arc, 22° 04' S. on the decl. arc; and determine a true meridian with the solar at the cor. of Tps. 6 and 7 N., Rs. 16 and 17 W.</p> <p>Thence I run  West bet secs. 1 and 36.  Over level land through dense brush.</p>
40.00	<p>Set a granite stone, 26X12X10 ins., 20 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.</p>
80.00	<p>Set a silica stone, 22X12X8 ins., 16 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked with 1 notch on E. and 5 notches on W. edge; and raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  Land, level.  Soil, sandy and gravelly; 3rd. rate.  No timber.  Underbrush, mesquite, paloverde, ironwood and cacti.  Land covered with dense underbrush, 80.00 chs.</p>
	<p>West bet secs. 2 and 35.  Over level land through dense brush.</p>
4.70	<p>Road to Rouse, bears NW. and SE.</p>
19.20	<p>Rouse wash, 60 lks. wide, course NW.</p>
40.00	<p>Set a silica stone, 22X12X8 ins., 16 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.</p>
44.30	<p>Road, bears NW. and SE.</p>
48.15	<p>Wash, 10 lks. wide, course N.</p>
58.60	<p>Wash, 15 lks. wide, course NE.</p>
80.00	<p>Set a silica stone, 22X12X8 ins., 16 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edge; dig pits, 18X18X12 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, level.  Soil, sandy and gravelly; 3rd. rate.  No timber.  Underbrush, mesquite, paloverde, ironwood and cacti.  Land covered with dense underbrush, 80.00 chs.</p>
	<p>West bet secs. 3 and 34.  Over level land through dense brush.</p>
11.80	<p>Wash, 10 lks. wide, course NE.</p>
25.15	<p>Wash, 35 lks. wide, course NE.</p>
40.00	<p>Set a silica stone, 26X10X8 ins., 20 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18X18X12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.</p>
45.05	<p>Wash, 25 lks. wide, course NE.</p>
59.30	<p>Road, bears N. and S.</p>
80.00	<p>Set a quartzite stone, 24X14X12 ins., 18 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on E. and 3 notches on W. edge; dig pits, 18X18X12 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, level.  Soil, sandy and gravelly; 3rd. rate.  No timber.  Underbrush, mesquite, paloverde, ironwood and cacti.  Land covered with dense underbrush, 80.00 chs.</p>
	<p>West bet secs. 4 and 33.  Over rolling ground through dense brush.</p>
33.15	<p>Wash, 20 lks. wide, course NE.</p>
40.00	<p>Set a silica stone, 22X10X8 ins., 16 ins. in the ground, for</p>

## South Boundary of Township 7 North Range 17 West.

chains

$\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. face; and raise a mound of stone, 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable  
 Road, bears NE. and SW.  
 51.80 Wash, 15 lks. wide, course NE.  
 57.15 Wash, 20 lks. wide, course NE.  
 69.60 Set a silica stone, 22X8X8 ins., 16 ins. in the ground, for  
 80.00 cor. of secs. 4, 5, 32 and 33, marked with 4 notches on E.,  
 and 2 notches on W. edge; and raise a mound of stone,  
 2ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
 Land, rolling and hilly.  
 Soil, gravelly and stony; 3rd rate.  
 No timber.  
 Underbrush, ironwood, paloverde and cacti.  
 Land covered with dense underbrush, 80.00 chs.  
 At this cor. set off 22°05, 1-2'S. on the decl. arc.  
 and observe the sun on the meridian at noon the  
 resulting lat. is 33°54'N. ✓

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West bet. secs. 5 and 32.

Over hilly land through dense brush.

16.15 Wash, 20 lks. wide, course NE.  
 20.95 Wash, 10 lks. wide, course NE.  
 40.00 Set a quartzite stone, 22X10X10 ins., 16 ins. in the ground,  
 for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; and raise a mound of  
 stone, 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.  
 64.10 Wash, 45 lks. wide, course NE.  
 80.00 Set a quartzite stone, 22X8X8 ins., 16 ins. in the ground,  
 for cor. of secs. 5, 6, 31 and 32, marked with 1 notch on  
 W. and 5 notches on E. edge; and raise a mound of stone,  
 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.  
 Land, hilly.  
 Soil, gravelly; 3rd rate.  
 No timber.  
 Underbrush, paloverde and ironwood and cacti.  
 Land covered with dense underbrush, 80.00 chs.

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West bet. secs. 6 and 31.

Over hilly land through dense brush.

10.15 Wash, 100 lks. wide, course SE.  
 25.60 Wash, 85 lks. wide, course SE.  
 40.00 Set a lava stone, 22X8X8 ins., 16 ins. in the ground, for  $\frac{1}{4}$   
 sec. cor. marked  $\frac{1}{4}$  on N. face; and raise a mound of stone  
 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.  
 45.25 Wash, 20 lks. wide, course S.  
 55.05 Wash, 15 lks. wide, course SE.  
 66.20 Wash, 20 lks. wide, course SE.  
 79.02 Set a silica stone, 21X12X10 ins., 16 ins. in the ground,  
 for cor. of Tps. 6 and 7 N., Rs. 17 and 18 W., marked  
 7 N on NE.,  
 17 W on SE.,  
 6 N on SW., and  
 18 W on NW. face; with 6 notches on each edge; and  
 raise a mound of stone, 2ft. base, 1, 1/2 ft. high, S. of cor.  
 Pits impracticable. From cor.  
 House bears N61°30'E.  
 Land, hilly.  
 Soil, sandy and gravelly; 3rd rate.  
 No timber.  
 Underbrush, greasewood, ironwood, paloverde and cacti.  
 Land covered with dense underbrush, 79.02 chs.  
 January 9th, 1909.

## West Boundary of Township 7 North Range 17 West.

chains

January 10th; At 8 a.m., l.m.t., I set off  $33^{\circ}54'N$ . on the lat. arc,  $21^{\circ}55', 1-2'S$ . on the decl arc; and determine a true meridian with the solar at the cor. of Tps. 6 and 7 N., Rs. 17 and 18 W.

Thence I run

North bet. secs. 31 and 36.

Over rugged and mountainous land.

10.50 Wash, 20 lks. wide, course E.

13.60 Wash, 45 lks. wide, course E.

17.65 Wash, 30 lks. wide, course E.

21.10 Wash, 60 lks. wide, course E.

40.00 Set a lava stone,  $22 \times 8 \times 8$  ins., 16 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.

61.10 Wash, 25 lks. wide, course E.

68.10 Wash, 15 lks. wide, course E.

80.00 Set a lava stone,  $22 \times 8 \times 8$  ins., 16 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 1 notch on S. and 5 notches on N. edge; and raise a mound of stone, 2 ft. base,  $1, 1/2$  ft. high, W. of cor. Pits impracticable. Land, mountainous.

Soil, gravelly and stony; 3rd rate.

No timber.

Underbrush, paloverde, ironwood and cacti.

Mountainous land, 80.00 chs.

North bet. secs. 25 and 30.

Over rugged and mountainous land.

7.05 Wash, 15 lks. wide, course E.

13.05 Wash, 60 lks. wide, course SE.

40.00 Set a lava stone,  $22 \times 8 \times 6$  ins., 16 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.

77.85 Wash, 95 lks. wide, course E.

80.00 Set a lava stone,  $22 \times 10 \times 10$  ins., 16 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 2 notches on S. and 4 notches on N. edge; and raise a mound of stone, 2 ft. base,  $1, 1/2$  ft. high, W. of cor. Pits impracticable. Land, mountainous.

Soil, gravelly and stony; 3rd rate.

No timber.

Underbrush, paloverde and ironwood and cacti.

Mountainous land, 80.00 chs.

At this cor. I set off  $22^{\circ}56', 1-2'S$ . on the decl. arc, and observe the sun on the meridian at noon; the resulting lat. is  $33^{\circ}55', 1-2'N$ .

North bet. secs. 19 and 24.

Over rough mountainous land.

7.95 Wash, 100 lks. wide, course E.

10.60 Wash, 15 lks. wide, course SE.

40.00 Set a lava stone,  $22 \times 8 \times 8$  ins., 16 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.

65.75 Wash, 20 lks. wide, course NW.

68.95 Wash, 30 lks. wide, course NW.

77.00 Road, bears E. and W.

80.00 Set a lava stone,  $22 \times 12 \times 6$  ins., 16 ins. in the ground, for cor. of secs. 13, 19, 18, and 24, marked with 3 notches on S. and 3 notches on N. edge; and raise a mound of stone, 2 ft. base,  $1, 1/2$  ft. high, W. of cor. Pits impracticable. Land, mountainous.

Soil, gravelly and stony; 3rd and 4th rate.

No timber.

Underbrush, paloverde and cacti.

Mountainous land, 80.00 chs.

## West Boundary of Township 7 North Range 17 West

chains North bet. secs. 13 and 18.  
Over mountainous land.

15.05 Wash, 25 lks. wide, course NW.  
27.90 Wash, 30 lks. wide, course NW.  
33.40 Wash, 15 lks. wide, course NW.  
38.55 Wash, 10 lks. wide, course NW.  
40.00 Set a silica stone, 22X10X8 ins., 16 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

45.00 Wash, 20 lks. wide, course NW.  
66.90 Wash, 25 lks. wide, course NW.  
80.00 Set a granite stone, 26X12X10 ins., 20 ins. in the ground,  
for cor. of secs. 7, 13, 12, and 18, marked with 2 notches on  
N. and 4 notches on S. edge; and raise a mound of stone,  
2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
Land, mountainous.  
Soil, gravelly and stony; 3rd rate.  
No timber.  
Underbrush, ironwood, paloverde and cacti.  
Mountainous land, 80.00 chs.

North bet. secs. 7 and 12.  
Over mountainous land.

7.35 Wash, 15 lks. wide, course W. enter dense underbrush.  
19.85 Wash, 20 lks. wide, course NW.  
26.85 Wash, 45 lks. wide, course NE.  
40.00 Set a silica stone, 22X10X8 ins., 16 ins. in the ground, for  
 $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face; and raise a mound of sto  
stone, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable

Over level land.

43.55 Wash, 80 lks. wide, course NE.  
56.90 Wash, 10 lks. wide, course NE.  
69.35 Wash, 20 lks. wide, course NE.  
80.00 Set a silica stone, 22X12X8 ins., 16 ins. in the ground, for  
cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and  
5 notches on S. edge; and raise a mound of stone, 2 ft.  
base, 1, 1/2 ft. high, W. of cor. Pits impracticable.  
Land, mountainous and level.  
Soil, rocky and stony; 4th rate.  
No timber.  
Underbrush, ironwood, paloverde and cacti.  
Land mountainous or covered with dense underbrush,  
80.00 chs.

North bet. secs. 1 and 6.  
Over level land through dense brush.

32.90 Wash, 40 lks. wide, course NW.  
33.40 Wash, 40 lks. wide, course NW.  
38.65 Wash, 65 lks. wide, course NW.  
40.00 Set a silica stone, 22X8X6 ins., 16 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

65.00 Road, bears NW. and SE.  
80.00 Set a quartzite stone, 24X12X8 ins., 18 ins. in the ground,  
for cor. of Tps. 7 and 8 N., Rs. 17 and 18 W., marked  
8 N on NE.,  
17 W on SE.,  
7 N on SW., and  
18 W on NW. face; 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, level.  
Soil, sandy and gravelly; 3rd rate.  
No timber.  
Underbrush, mesquite, paloverde, greasewood and cacti.  
Land covered with dense underbrush, 80.00 chs.

January 10th, 1909.

North Boundary of Township 7 North Range 17 West.

chains	<p>January 11; At 8/a.m., l.m.t., I set off 33° 59' N. on the lat. arc, 21° 46', 1-2' S. on the decl arc; and determine a true meridian with the solar at the cor. of Tps. 7 and 8 N. Rs 16 and 17 W.,</p> <p>Thence I run</p> <p>West on random line, along the N. bdy. of Tp. 7 N. R. 17 W. setting 1/4 sec. and sec. cors. at intervals of 40.00 chs.; at 478.58 chs. intersect the line bet. Tps. 17 and 18 W. 31. lks. N. of cor. of Tps. 7 and 8 N. Rs. 17 and 18 W., which is a stone, set by me January 10th; The falling answers to a correction of 0° 02', or 5 lks. per mile, counting from the NE cor. of the Tp.; therefore I run N89° 58' E. bet secs. 6 and 31, on true line.</p> <p>Over rolling land through dense brush.</p> <p>Road from Rouse to Parker, bears NW. and SE.</p> <p>26.05 Wash, 80 lks. wide, course N.</p> <p>32.00 Wash, 70 lks. wide, course N.</p> <p>33.00 Wash, 65 lks. wide, course NW.</p> <p>35.00 Point for 1/4 cor. falls in wash, 25 lks. wide, course NW.</p> <p>38.58 Set a quartzite stone, 22x12x8 ins., 16 ins. in the ground, for witness cor. to 1/4 sec. cor. marked WC 1/4 on N. face; dig pits, 18x18x12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.</p> <p>40.00</p> <p>49.50 Road, bears NW. and SE.</p> <p>50.50 Telegraph line, bears NW. and SE.</p> <p>50.71 Railroad track, bears NW. and SE.</p> <p>53.40 Wash, 100 lks. wide, course NW.</p> <p>68.75 Wash, 60 lks. wide, course NW.</p> <p>78.58 Set a silica stone, 22x8x6 ins., 16 ins. in the ground, for cor. of secs. 5, 6, 31 and 32, marked with 1 notch on W., and 5 notches on E. edge; dig pits, 18x18x12 ins. in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4 ft. base 2 ft. high, W. of cor.</p> <p>Land rolling and level.</p> <p>Soil, sandy; 3rd rate.</p> <p>Timber, paloverde, and mesquite.</p> <p>Underbrush, greasewood, ironwood and cacti.</p> <p>Land covered with dense underbrush, 78.58 chs.</p> <p>At this cor. I set off 21° 47', 1-2' S. on the decl. arc and observe the sun on the meridian at noon. the resulting lat. is 33° 59' N.</p> <hr/> <p>N89° 58' E. bet. secs. 5 and 32.</p> <p>Over level aldn through dense brush.</p> <p>22.05 Wash, 10 lks. wide, course N.</p> <p>24.00 Wash, 15 lks. wide, course N.</p> <p>40.00 Set a silica stone, 22x8x6 ins., 18 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face; dig pits, 18x18x12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.</p> <p>52.50 Wash, 55 lks. wide, course NE.</p> <p>53.15 Wash, 25 lks. wide, course NE.</p> <p>80.00 Set a silica stone, 22x10x10 ins., 16 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, marked with 2 notches on W. and 4 notches on E. edge; dig pits, 18x18x12 ins., in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4 ft. base 2 ft. high, W. of cor.</p> <p>Land, level.</p> <p>Soil, sandy; 3rd rate.</p> <p>Timber, paloverde.</p> <p>Underbrush, greasewood, ironwood and cacti.</p> <p>Land covered with dense underbrush, 80.00 chs.</p> <hr/> <p>N89° 58' E. bet. secs. 4 and 33.</p> <p>Over level land through dense brush.</p> <p>3, 10 Wash, 10 lks. wide, course NE.</p> <p>40.00 Set a silica stone, 22x8x8 ins., 16 ins. in the ground, for 1/4 sec. cor.,</p>
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chains

80.00

marked  $\frac{1}{4}$  on N. face; dig pits, 18X18X12ins., E. and W. of corner, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.  
 Set a lava stone, 24X12X8ins., 18ins. in the ground, for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on W. and 3 notches on E. edge.; dig pits, 18X18X12ins., in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base 2ft. high, W. of cor.  
 Land, level.  
 Soil, sandy and gravelly; 3rd rate.  
 Timber, paloverde.  
 Underbrush, greasewood, ironwood and cacti.  
 Land covered with dense underbrush, 80.00 chs.

19

40.00

N89° 58' E., bet. secs. 3 and 34.  
 Over rolling land through dense brush.  
 Set a lava stone, 22X10X8ins., 16ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; dig pits, 18X18X12ins., E. and W. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor.  
 Wash, 10 lks. wide, course SW.  
 67.00  
 80.00 Set a silica stone, 22X8X6ins., 16ins. in the ground, for cor. of secs. 2, 3, 34, and 35, marked with 4 notches on W. and 2 notches on E. edge; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor.  
 Land, rolling.  
 Soil, sandy and gravelly; 3rd rate.  
 Timber, ironwood.  
 Underbrush, greasewood, paloverde and cacti.  
 Land covered with dense underbrush, 80.00 chs.

0.10

12.00

40.00

N89° 58' E., bet. secs. 2 and 35.  
 Over rolling land through dense brush.  
 Wash, 10 lks. wide, course S.  
 Wash, 10 lks. wide, course S.  
 Set a granite stone, 22X10X8ins., 16ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; dig pits, 18X18X12ins., E. and W. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor. From cor.  
 An ironwood, 24ins. in diam., bears S2° 45' E., 147 lks. dist marked

41.30

45.10

68.15

76.70

80.00

$\frac{1}{4}$  S 2 FT.  
 Wash, 10 lks. wide, course SW.  
 Wash, 20 lks. wide, course SW.  
 Wash, 10 lks. wide, course SW.  
 Wash, 20 lks. wide, course SW.  
 Set a lava stone, 22X8X8ins., 16ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked with 1 notch on E., and 5 notches on W. edge; dig pits, 18X18X12ins., in each sec. 5, 1/2 ft. dist.; and raise a mound of earth, 4ft. base, 2ft. high, W. of cor.  
 Land, rolling.  
 Soil, shady and gravelly; 3rd rate.  
 Timber, ironwood.  
 Underbrush, greasewood, paloverde and cacti.  
 Land covered with dense underbrush, 80.00 chs.

11.50

21.30

37.75

40.00

N89° 58' E., bet. secs. 1 and 36.  
 Over rolling land through dense brush.  
 Wash, 15 lks. wide, course SW.  
 Wash, 10 lks. wide, course S.W.  
 Wash, 150 lks. wide, course SW.  
 Set a quartzite stone, 22X8X8ins., 16ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; dig pits, 18X18X12ins., E. and W. of stone, 3ft. dist.; and raise a mound of earth, 3, 1/2 ft. base, 1, 1/2 ft. high, N. of cor. From cor.  
 An ironwood, 14 ins. in diam., bears N60° W., 229 lks. dist., marked  
 $\frac{1}{4}$  S 36 FT  
 An ironwood, 14 ins. in diam., bears S 82° 30' W., 186 lks. dist., marked  
 $\frac{1}{4}$  S 1 FT



130

North Boundary of Township 7 North Range 17 West.

(26)

chains  
45.90  
49.80  
56.00  
79.60  
80.00

Wash, 15 lks. wide, course SW.  
Road, bears NE. and SW.  
Wash, 30 lks. wide, course SW.  
Wash, 10 lks. wide, course S.  
Intersect the cor. of Tps. 7 and 8 N. Rs. 16 and 17 W.  
Land, rolling.  
Soil, sandy and gravelly; 3rd rate.  
No timber.  
Underbrush, greasewood, paloverde and cacti.  
Land covered with dense underbrush, 80.00 chs.

January 11th, 1909.

*Boundaries of T. 7 N. R. 17 W.  
Latitudes, departures, and closing errors.*

Line designated	True bearing	Distance	Latitudes.		Departures	
			N	S	E	W.
4th G. Meridian W.	North	480.00	480.00			
N. bdy. T. 7 N. R. 17 W.	Course	478.58		.31		478.58
W. bdy. T. 7 N. R. 17 W.	South	480.00		480.00		
S. bdy. T. 7 N. R. 17 W.	East	479.02			479.02	
Convergency						.49
Totals			480.00	480.31	479.02	479.07
Error in lat.				.31		.05

The W. half of T. 7 N., R. 17 W., is rough and mountainous, the central portion level and the eastern part mountainous.

The Town of House is located near the center of the T., and the Arizona and California R.R., runs through the T., from SE. to NW.

In surveying the T. exteriors I destroy all cors. established by Deputy Santee under contract No. 146.

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

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*In authority for and with corrections see Deputy's letter 7/11/09.*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

(21)

LIST OF NAMES.

A list of the names of the individuals employed by John D. 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 N., S. and E. boundaries of Twp. 6 N. Rg. 12 W. the N. and W. boundaries of Twp. 5 N. Rg. 13 W. and the N., S. and W. boundaries of Twp. 7 N. Rg. 17 W. showing the respective capacities in which they acted:

Harry S. Ingalls ..... Chainman.

Wilfred B. Helm ..... Chainman.

..... Moundman.

..... Moundman.

A. N. Oliver ..... Axman.

..... Axman.

A. R. Saunders ..... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John D. Hesse

....., United States Deputy Surveyor, in surveying all those parts or portions of the N., S. and E. boundaries of Twp. 6 N. Rg. 12 W. the N. and W. boundaries of Twp. 5 N. Rg. 13 W. and the N., S. and W. boundaries of Twp. 7 N. Rg. 17 W. 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

Harry S. Ingalls ..... Chainman.

Wilfred B. Helm ..... Chainman.

..... Moundman.

..... Moundman.

A. N. Oliver ..... Axman.

..... Axman.

A. R. Saunders ..... Flagman.

Subscribed and sworn to before me this 11<sup>th</sup> day of January, 1909

John D. Hesse  
U.S. Deputy Surveyor



No notary available without great expense and loss of time

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I, John P. 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 10th day of October, 1908, 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, South and East Boundaries of Twp. 6 N. Rg. 12 W., the North and West Boundaries of Twp. 5 N. Rg. 13 W., and the North, South and West Boundaries of Twp. 7 N. Rg. 17 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 P. Hesse  
United States Deputy Surveyor.

Subscribed by said John P. Hesse, and sworn to before me }  
this first day of March 1909, 1909

Frank S. Ingalls  
U. S. SURVEYOR GENERAL.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz Aug 25, 1909  
The foregoing field notes of the survey of the North South and East Boundaries of Twp. 6 N. Rg. 12 W.; the North and West Boundaries of Twp. 5 N. Rg. 13 W.; and the North South and West Boundaries of Twp. 7 N. Rg. 17 W., of the Gila and Salt River Base and Meridian, Arizona

executed by John P. Hesse U.S. Deputy Surveyor under his contract No. 100, dated October 10, 1908, 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.