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Accepted by Telegram Aug 5/09

Book B. Carried 81

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2107 BOOK 2107 July 16/09

FIELD NOTES

OF THE SURVEY OF THE first.

2107 2107

Subdivision Lines of Tps 5 S. Rg. 15 E.

2107

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John D. Hesse, United States Deputy Surveyor,

Under his Contract No. 58, dated June 4, 1909, issued in connection with Sup. Special Instructions of June 4, 1909

Survey commenced June 23, 1909

Survey completed June 30, 1909

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BOOK 2107

NAMES AND DUTIES OF ASSISTANTS.

C. S. Hefner	Chainman
Frank E. Thomas	Chainman
L. B. Jordon	Axman
Ross Stoker	Axman
W. J. Fellows	Flagman

6—151

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(113)

BOOK 2107

Book No. 2107

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84 (1C) BOOK 2107

PRELIMINARY OATHS OF ASSISTANTS.

WE, C. S. Hepner and F. E. Thomas

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 subdivision lines of Tp. 5 S Rg. 15 E.

C. S. Hepner, Chainman.

Frank E. Thomas, Chainman.

Subscribed and sworn to before me this 19th day of June, 1909

Geo. Scott
Notary Public

SEAL

My commission expires April 20th 1911

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 ~~the subdivision lines of Tp. 5 S Rg. 15 E.~~

_____, Moundman.

_____, Moundman.

Subscribed and sworn to before me this _____ day of _____, 19

_____

SEAL

WE, L. B. Jordan and Ross Stoker

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 the subdivision lines of Tp. 5 S Rg. 15 E.

L. B. Jordan, Axman.

Ross Stoker, Axman.

Subscribed and sworn to before me this 19th day of June, 1909

Geo. Scott
Notary Public

SEAL

My commission expires April 20th 1911

I, W. J. Fellows, 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 subdivision lines of Tp. 5 S Rg. 15 E.

W. J. Fellows, Flagman.

Subscribed and sworn to before me this 19th day of June, 1909

Geo. Scott
Notary Public

SEAL

6—151

My commission expires April 20th 1911

Chains.

Survey commenced June 23, 1909 and executed with a Young and Sons light mountain transit, No. 7532, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona

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

At a stone set firmly in the ground and marked with a cross on top about 20 chains north of Winkelman; latitude 32° 59' N.✓ longitude approximately 111° 16' W.✓; I set off 32° 59' N.✓ on the lat. arc; 23° 27½' N.✓ on the decl. arc; and at 5h. 00m. p.m. l.m.t., determine with the solar a meridian and mark a point therof, on a stone set firmly in the ground, 5 chs. N. of my station.

June 23, 1909.

June 24: At 1h. 24m. a.m. by my watch, which has correct l.m.t., I observe Polaris at eastern elongation, in a 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.

At 6h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris 1° 24'✓ to the west, and mark the meridian thus determined by cutting a small groove in the stone set June 23, on which the meridian falls 0.2 ins. east of the mark determined by the solar.✓

At 7h. 00m. a.m., l.m.t., I set off 32° 59' N. on the lat arc; 23° 27' N.✓ 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 falls 0.2 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0'11" east and west of 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 7h. 15m. a.m., is N. 14° 00' W., the angle thus determined gives the mag. decl. 14° E.

The cor. of fracl. secs. 23 and 24 as established on the south bank of the Gila River by Deputy Harris has been washed away, therefore I commence my survey at the ¼sec. cor. bet secs. 23 and 24 and as the cor. is nearly destroyed I reestablish it in the same place as follows:

Set a granite stone 18 x 6 x 4 ins. 12 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; from which

A cottonwood 12 ins. diam. bears N. 83½° W. 54 lks. dist. marked ¼S23BT.

No other tree within limits. Dig pits 18 x 18 x 12 ins. N. and S. of stone, 3 ft. dist.; and raise a mound of earth 3½ ft, base 1½ ft. high, W. of cor.

From this ¼ sec. cor. I now run

North . bet. secs. 23 and 24

Over level cultivated land..

3.89 A point from which

West end of the Phoenix and Eastern R.R. depot in Winkelman bears N40° 06' E.

Hennis and Giffens store bears N. 47° 30' E.

Subdivision of Tp. 5 S. Rg. 15 E.

Chains.	
	The east end of M. Parish house bears N. 22° 17' W. The east end of mexican house bears N. 10° 27' W.
4.97	Frame house bears N. 30° E. belongs to the R. R. Co. Cross fence bears E. and W. As the old cor. of fracl secs. 23 and 24 will fall in the bed of the river if established at the 50.00 chain point where it was originally set, therefore at
5.14	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for witness cor. to cor. of fracl. secs. 23 and 24, marked with 1 notch on east edge and WC on N. E. face; from which A cottonwood 20 ins. diam. bears S. 88° E 179 lks. dist. marked WCT5SR15ES24BT. No other tree within limits. Dig pit 24 x 24 x 12 ins. S. [illegible] of stone 6 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, S. of cor. Thenover level land through water mote brush.
6.45	Cross road bears E. and W. and over river bed .
8.00	Cross Gila River 100 lks. wide course W. Clear running water about 6 ins. deep.
12.00	Leave bed of river and ascend steep bluff covered with loose boulders.
12.10	Cross irrigating ditch 8 lks. wide course W.
12.37	Cross irrigating ditch 4 lks. wide course W.
12.60	Top bluff, cross fence bears E. and W. and over level land
13.82	N. E. cor. of Mexican house.
14.12	Cross fence bears E. and W.
15.27	Cross road bears E. and W. and ascend steep slope covered with loose boulders.
15.64	Center of Phoenix and Eastern R. R. in deep cut, brs. E.
18.66	Center of spur from R. R. bears E. and W.
19.20	Top and over rolling top of mesa covered with loose rock through dense brush.
19.88	A point from which The W. end of Phoenix and Eastern R. R. depot bears S. 64° 50' E. Hennis and Giffen's Store bears S. 64 ° E. M. Parish house bears S. 43° 25' W. Mexican house bears S. 18° 55' W. Frame house belonging to the R. R. Co. bears N. 81° 12' W.
22.50	Cross wash in bottom of gulch 10 lks. wide course S. E.
33.45	Cross wash 5 lks. wide course W.
40.00	Set a Malpais stone 20 x 6 x 5 ins. 15 ins. in the ground for cor. of secs. 13, 14, 23 and 24 marked with 3 notches on S. and 1 notch on E. edge; from which A mesquite 6 ins. diam. bears S. 15° E. 31 lks. dist. marked T5SR15ES24BT No other tree available. Raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable. Land, level and rolling. Soil, loamy, sandy and stony; 1st. and 4th. rate. Underbrush, Paloverde, mesquite and water mote. Land covered with dense underbrush, exceptionally difficult to survey 25.33 chains.

East on a random line bet. secs. 13 and 24

40.00	Set temp. ¼ sec. cor.
51.72	I make diligent seargh for the cor. of fracl secs. 13 and 24 but as all the land here is subject to overflow when freshets come down the river I am unable to find any trace of the old cor. which has undoubtedly been washed away
79.66	Interseot E. bdy. of the Tp. 21 lks. N. of the cor. of secs. 13, 18, 19 and 24. In order to reestablish the old cor. of fracl secs. 13

Chains	
	and 24 I now run from this cor. of secs. 13, 18, 19 and 24, which is a stone marked and witnessed as described by the surveyor general West bet. secs. 13 and 24. Descend steep W. slope covered with loose rock, through dense brush.
2.43	Cross wash 10 lks. wide course N. W. and ascend.
5.00	Top ridge bears N. W. and S. E. and descend.
13.40	Cross wash 10 lks. wide course N.
14.90	Cross brush fence bears N. and S.
15.00	Cross wash 50 lks. wide course S. W.
15. 60	Over level land.
23.03	Fence bears N. and S.
28.28	From this point, at which the old cor. of fracl. secs. 13 and 24 should be re establishedbut is not on account of the point being on ground subject to overflow when the river is high, I run N. 89° 46' W. on a true line bet. secs. 13 and 24.
29.00	Cross Gila River, clear running water about 6 ins. deep 100 lks. wide course S.
30.40	Set a granite stone 28 x 6 x 4 ins. 21 ins. in the ground for witness cor. to cor. of fracl secs. 13 and 24, marked with 3 notches on N. and S. edges and WC on N. E. face; from which A mesquite 4 ins. diam. bears N. 13° E. 79 lks. dist. marked WCT5SR15ES13BT. A mesquite 8 ins. diam. bears S. 89° E. 26 lks. dist. marked WCT5SR15ES24BT. Thence over level land through heavy sand and dense brush.
39.85	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; from which A mesquite 6 ins. diam. bears N. 55° E. 88 lks. dist. marked ¼S13BT A mesquite 4 ins. diam. bears S. 0° 30' W. 152 lks. dist. marked ¼S24BT.
48.18	Cross irrigating ditch 5 lks. wide course S. W.
51.89	Cross road bears N. E. and S. and wash, course south.
54.70	Ascend steep E. slope covered with loose boulders.
55.75	Center of grade constructed for Phoenix & Eastern R. R.
57.80	Top of mesa and over rolling top of mesa covered with loose rocks through dense brush.
70.30	Cross wash 10 lks. wide course S. W.
72.50	Cross wash 4 lks. wide course S. W.
76.00	Cross wash 8 lks. wide cousre S. W.
79.66	The cor. of secs. 13, 14, 23 and 24. Land, level, rolling and mountainous. Soil, sandy and rocky; 2nd. and 4th. rate. No timber. Underbrush, Paloverde, mesquite and water mote. Mountainous land or land covered with dense underbrush exceptionally difficult to survey 64.03 chains. At this cor. I set off 23°26' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 32° 59' N.

I find that the Gila river instead of running at a point 4.00 chains east of the corner of secs. 14, 15, 22 and 23 has moved west since Deputy Harris made his survey and now runs about 20.00 chs. south and nearly 40.00 chains west of the original position of the cor. of secs. 14, 15, 22 and 23 and that the cor. of secs. 14, 15, 22 and 23 and also the cor. of fracl. secs, 14 and 23 have been destroyed and that there is no trace of either of these cors. Therefore before running the line bet. secs. 14 and 23 I proceed to re-establish the cor. of secs. 14, 15 22 and 23 as follows:

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BOOK 2107

Subdivision of Tp. 5 S. Rg. 15 E.

Chains.

The cor. of secs. 10, 11, 14 and 15 is a post marked as described by the surveyor general but the bearing trees have been destroyed, from this cor. I now run south on a random line

40.00 No sign of the ¼ sec. cor. which has been destroyed as it falls on the right of way of the Phoenix and Eastern R. R.

80.00 No signs of the cor. of secs. 14, 15, 22 and 23.

120.00 Could find no trace of the ¼ sec, cor.

160.16 Fall 108 lks. west of the cor. of secs. 22, 23, 26 and 27, which is a post marked and witnessed as described by the surveyor general. As the post is badly rotted I re-establish this cor. in the same place as follows: Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges; from which

A paloverde 5 ins. diam. bears N. 46° 45' W. 79 lks. dist. marked TVSRXVESXXIIBT.

This is one of the old bearing trees and is the only one left it is impossible to change the markings on this tree to Arabic figures without destroying the tree and as this is the only tree available in this sec. I leave the marks as they were originally made by Deputy Harris.

A paloverde 5 ins. diam. bears S. 32½° W. 139 lks. dist. marked T5SR15E[illegible]7BT.

No other trees available. Raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.

This random gives the course of the two miles running N. from this cor. as N 0° 23' W. and by proportionate distances the length of the miles as 80.08 chains, and as there has been no line run east from the missing cor. of secs. 14, 15, 22 and 23and therefore there is no cor. east from which to run I decide to re-establish the missing cor. at a point on the line connecting the cor. of secs. 22, 23, 26 and 27 and the cor. of secs. 10, 11, 14 and 15 at the 80.08 chain point and to then run the line bet. secs. 15 and 22 as a check on the re-establishment o of the cor.

June 24, 1909.

June 25: At 7h. 00m. a.m., l.m.t. I set off 32°58'N. on the lat arc; 23°25½'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence I run

N. 0° 23' W. bet. secs. 22 and 23.

Over chopped, broken land through dense brush, descending.

31.40 Cross road bears E. and W. leave brush and over level land

31.86 Cross fence on S. side of corral bears E. and W.

32.96 Cross fence on N. side of corral bears E. and W.

36.90 Adobe house bears west 3.00 chs. dist.

40.04 Set a granite stone 20 x 6 x 6 ins. 15 ins. in the ground for ¼sec. cor. marked ¼ on W. face; from which

A mesquite 8 ins. diam. bears N. 53½° E. 154 lks. dist. marked ¼S23BT.

No other tree within limits. Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3½ft. base 1½ ft. high W. of cor.

42.85 Cross fence bears E. and W. and enter thicket of dense alders exceptionally difficult to run through.

44.75 Cross irrigating ditch 5 lks wide course W. and leave bru brush.

46.22 Cross road bears E. and W.

Subdivision of Tp. 5 S. Rg. 15 E.

Chains	
49.40	Over dry bed of the Gila River.
50. 80	Cross Gila River, 60 lks. wid e course W. running water about 4 ins. deep.
68.40	Leave bed of River, and through exceptionally dense brush
80.08	Set a granite stone 24 x 8 x 5 ins. 18 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges; from which A mesquite 6 ins. diam. bears S. 22½° W. 52 lks. dist. marked T5SR15ES22BT A mesquite 6 ins. diam. bears S. 45½° E. 211 lks. dist. marked T5SR15ES23BT. No other trees within limits. Dig pits 18 x 18 x 12 ins. N. E. and N. W. of stone 5 ft. dist. and arise a mound of earth 4 ft. base 3 ft. high W. of cor. Land, level and mountainous. Soil, rocky, sandy and loam; 1st. and 4th. rate. No timber. Underbrush, mesquite, paloverde and alders. Mountainous land, land covered with dense underbrush,. exceptionally difficult to survey44. 98 chs.

N. 0°. 23' W. bet. secs. 14 and 15.
Over level land covered with heavy sand and through underbrush so dense that it must all be cut in order to get through on the line and is exceptionally difficult to survey.

8.22	Cross fence bears E. and W.
12.77	Cross ditch 5 lks. wide course W.
14.05	Mexican hut bears W. 57 lks. dist.
16.36	Cross irrigating ditch 5 lks. wide course W.
20.20	Cross fence bears E. and W.
23.72	Cross road bears E. and W.
25.07	Irrigating ditch 4 lks. wide course W.
37.90	Cross irrigating ditch 6 lks. wide course W.
39.58	Cross fence bears N. W. and S. E.
40.04	Set a granite stone 20 x 6 x 6 ins. 15 ins in the ground for ¼ sec. cor. marked ¼ on W. face; from which A cottonwood 20 ins. diam. bears S. 19½° E. 132 lks. dist. marked ¼S14BT. A mesquite 4 ins. diam. bears S34½° W. 57 lks. dist. marked ¼S15BT
40.47	Cross main track P. and E. R. R. bears N. W. and S. E.
41.45	cross telegraph line bears N. W. and S. E.
44.55	Cross west leg of P. and E. R. R. " Y "
46.33	Cross road bears N. W. and S. E.
50.95	Leave Gila Valley and ascend over rough S. W. slope of mountains covered with loose rocks and dense brush.
69.96	Cross wash 25 lks. wide course S. W.
80.08	The old cor. of secs. 10, 11, 14 and 15. I destroy this old cor. and re establish it in the same place as follows Set a Granite 18 X 8 x 6 ins. 12 ins. in the ground for cor of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges.;from which A paloverde 6 ins. diam. bears S. 75½° W. 88 lks. dist. marked T5SR15ES15BT. A paloverde 6 ins. diam. bears N. 2¾° W. 78 lks. dist. marked T5SR15ES10BT. No other trees available. Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. June 25: At this cor. I set off 23° 24½' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat is 33°00' N.. Land, Level and mountainous. Soil, sandy and rocky; 2nd. and 4th rate. No. timber.

Subdivision of Tp. 5 S. Rg. 15 E.

Chains	
	Underbrush, alders, mesquite, catclaw, paloverde. Mountainous land and land covered with dense underbrush exceptionally difficult to survey 80.08 chains.
	West on a random line bet. secs. 15 and 22
40.00	No trace of the old ¼ sec. cor.
79.90	Intersect N and S. line. 28 lks. N. of the cor. of secs. 15, 16, 21 and 22, which is a post marked and witnessed as described by the surveyor general.
	Thence I run
	N. 89°48'.E. on a true line bet. secs. 15 and 22-
	Over level cultivated land.
9.45	Cross fence bears N. W. and S. E. and through dense thicket impossible to survey without cutting a pathway exceptionally difficult to survey.
39.15	As the 39.95 point where ¼sec. cor. should be established will fall in old bed of river at this 39.15 point I set a malpais stone 18 x 8 x 5 ins. 12 ins. in the ground for witness ¼ sec. cor., marked W C ¼ on N. face; from which
	A cottonwood 4 ins. diam. bears N. 5° W. 9 lks. dist. marked WC¼S15BT.
	A cottonwood 5 ins. diam., bears S. 3¼° E. 59 lks. dist. marked WC¼S22BT.
39.40	Over old bed of Gila River.
48.42	Cross Gila River 40 lks. wide course N. W. running water about 2 ins. deep.
64.51	Cross road bears N. and S.
79.90	The cor. of secs. 14, 15, 22 and 23.
	Land, level.
	Soil, sandy loam; 1st. rate.
	Timber, a few cottonwoods.
	Underbrush; Aldess, mesquite catclaw.
	Land covered with very dense thicket of underbrush exceptionally difficult to survey 79.90 chs.
	June 25, 1909.
	June 26; At 7h. 00m. a. m, l.m.t. I set off 23°24' N. on the decl arc: 32° 59' N, on the lat. arc, and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23, and in order to re-establish the cor. of fracl. secs. 14 and 23 which was originally established 4.00 chs. E. of this cor. I run
	East bet. secs. 14 and 23.
4	Over level land through dense brush and heavy sand.
4.00	The point for old cor. of fracl. secs. 14 and 23 I set a granite stone 20 x 6 x 5 ins. 15 ins. in the ground for cor. of fracl. secs. 14 and 23, marked with 3 notches on N. and S. edges: from which
	A willow 20 ins. diam. bears S. 29¾° E. 118 lks. dist. marked T5SR15ES23BT.
	A cottonwood 4 ins. diam. bears N. 10¾° W. 66 lks. dist. marked T5SR15ES14BT.
	Land, level.
	Soil, Sandy; 2nd. rate.
	No timber.
	Underbrush, alders and mesquite.
	Land covered with dense undergrowth and exceptionally difficult to survey 4.00 chains.

Subdivision of Tp. 5 S. Rg 15 E.

Chains.	
	From the cor. of secs. 13, 14, 23 and 24, previously described I run.
	West on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
76.11	Fall 33 lks. N. of the cor. of fracl. secs. 14 and 23 Thence I run
	N. 89° 45' E. on a true line bet. secs. 14 and 23 Through thicket of very dense brush through which it is impossible to run without cutting a passageway and is exceptionally difficult to survey.
0.80	Cross irrigating ditch 4 lks. wide course S.
0.88	Cross fence bears N. and S.
5.45	Cross ditch 4 lks. wide course S.
5.55	Cross fence Beass N, and S.
15.61	Cross fence bears N. and S.
26.10	Leave brush and over cultivated land.
35.27	Cross irrigating ditch 5 lks. wide course S.
35.52	Cross fence bears N. and S.
36.055	Set a granite stone 24 x 6 x 5 ins. 18 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high N. of cor.
40.83	Cross irrigating ditch 4 lks. wide course S. E.
43.43	Cross fence bears S. E.
43.58	Cross road bears N. W. and S. E. and through thicket of dense brush so thick that it is exceptionally difficult to survey.
46.08	Cross P and E. R. R. bears N. W. and S. E. leave valley and ascend rough S. W. slope covered with loose rocks through dense underbrush.
47.60	Along rough S. slope covered with dense brush and loose rocks.
55.40	Cross wash 20 lks. wide course S.
62.40	Cross wash 15 lks. wide course S.
73.10	Cross wash 10 lks. wide course S.
76.11	The cor. of secs. 13, 14, 23 and 24.
	Land, level and mountainous.
	Soil, loamy and stony; 1st. and 4th. rate.
	No timber.
	Underbrush, alders, mesquite, catclaw, paloverde and greasewood.
	Mountainous land or land covered with dense underbrush exceptionally difficult to survey, 76.11 chains.
	June 26: At this cor. I set off 23° 22½' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 32° 59' N.

	North bet. secs. 13 and 14
	Ascending rough S. slope of mountain covered with loose rocks and through dense underbrush.
2.10	Cross wash 10 lks. wide course S. E.
23.00	Top mountain and descend N. slope
36.80	Cross wash 20 lks. wide course N. E.
38.00	Cross wash 20 lks. wide course E. and ascend.
40.00	Set a granite stone 20 x 8 x 5 ins. 15 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
54.00	Top of mountain and descend.
73.50	Cross old road bears N. W.
77.50	Cross same road bears S. W. in bend
78.00	Leave road bears N. W.
80.00	Set a Malpais stone 24 x 10 x 6 ins. 18 ins. in the ground

Subdivision of Tp. 5 S. Rg. 15 E.

Chains.	
	for cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edges; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land, rough and mountainous.
	Soil, rocky, 4th. rate.
	No timber.
	Underbrush, paloverde, mesquite.
	Mountainous land covered with dense underbrush exceptionally difficult to survey 80.00 chains.
	June 26, 1909.
	June 27; At 7h. 00m. a.m., l.m.t. I set off 33° 00' N. On the lat. arc; 23°22' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14; thence I run
	S. 89° 45' W. on a random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
80.88	Intersect N. and S. line 9 lks. S. of the cor. of secs. 10, 11, 14 and 15
	Thence I run
	N. 89° 49' E. on a true line bet. secs. 11 and 14.
	Over rough mountainous land, covered with loose rocks, through dense brush.
2.70	Cross wash 50 lks. wide course S. and ascend.
13.00	Top ridge bears N. and S. and descend.
20.60	Cross wash 10 lks. wide course S. E.
22.50	Cross wash 20 lks. wide course S. and ascend.
40.88	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
43.00	Cross wagon road bears N. and S.
45.00	Top ridge bears N. and S. and Descend.
53.00	Cross wash 20 lks. wide course S. and ascend.
55.55	Cross wash 10 lks. wide course S. W.
70.90	Top ridge bears N. E. and S. W. road bears N. E. and S. W. and descend.
75.95	Cross same road bears N. W. and S. E.
80.88	The cor. of secs. 11, 12, 13 and 14.
	Land, mountainous.
	Soil, stony; 4th. rate.
	No timber.
	Underbrush, Mesquite, paloverde and greasewood.
	Mountainous land and land covered with dense underbrush exceptionally difficult to survey 80.88 chains.
	June 27; At this cor. I set off 23° 20½' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat is 33° 00' N.
	S. 89° 51' E. on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
79.42	Intersect E. bdy. of the Tp. 7 lks. N. of the cor. of secs. 7, 12, 13 and 18.
	Thence I run
	N. 89° 48' W. on a true line bet. secs. 12 and 13.
	Descending rocky point through dense underbrush.
5.30	Cross Gila river 50 lks. wide course S. W. clear running water 6 ins. deep and run along crossing the river back and forth to
25.40	Leave Gila River, course S. W. 50 lks. wide and ascend rough, rocky E. slope of mountain through dense brush.

Subdivision of Tp. 5 S. Rg. 15 E.

Chains.	
26.10	Cross Phoenix& Eastern R. R. grade bears N. E. and S. W.
39.42	Set a granite stone 20 x 6 x 5 ins. 15 ins. in the ground for ¼ sec. cor. marked ¼ on N. face; and raise a mound of stone 2 ft. base 1½ ft. high N. of cor. Pits impracticable.
46.50	Top ridge 500 ft. above the river bears N. and S. and descend.
58.00	Cross wash 20 lks. wide course S. W.
71.00	Cross wash 20 lks. wide course S. W.
79.00	Cross Wash 20 lks. wide course S. E.
79.42	The cor. of secs. 11, 12, 13 and 14.
	Land, Rough and mountainous.
	Soil, rocky; 4th rate.
	No timber.
	Underbrush, paloverde and greasewood.
	Mountainous land and land covered with dense underbrush 79.42 chains.
	June 27, 1909.
	June 28; At 7h. 00m. a.m., l.m.t., I set off 33° 00' N. on the lat arc; 23°19' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13, and 14.
	Thence I run
	North . . bet. secs. 11 and 12.
	Ascending over mountainous land covered with loose rocks through dense brush.
0.40	Cross wash 20 lks. wide course S. E.
11.10	Cross wash 40 lks. wide course S. W.
26.50	Cross wash 10 lks. wide course S. W.
31.00	Cross wash 25 lks. wide course S. W.
33.50	Cross wash 30 lks. wide course S.W.
37.20	Cross wash 30 lks. wide course S.W.
40.00	Set a malpais stone 24 x 8 x 6 ins. 18 ins. in the ground for ¼ sec. cor. marked ¼ on W. face; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
42.00	Top ridge bears N. E. and S. W. and descend.
46.00	Cross wash 20 lks. wide course S. W. and ascend very steep rough broken S. W. slope of mountain covered with dense brush and loose rocks.
73.00	Cross wash 10 lks. wide course S. W.
80.00	Set a limestone 20 x 6. x 5. ins. 15 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
	Land, rough and mountainous.
	Soil, rocky, 4th rate.
	No timber.
	Underbrush, Paloverde and greasewood.
	Mountainous land and land covered with dense underbrush exceptionally difficult to survey 80.00 chains.
	June 28; At this cor. I set off 23° 18' N. on the decl. arc. and observe the sun on the meridian at noon; the resulting latitude is 33° 01' N.

	S. 89° 48' E. on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
79.33	Intersect E. bdy. of the Tp. 19 lks. S. of the cor. of secs. 1, 6, 7, and 12.
	Thence I run
	N. 89° 56' W. on a true line bet. secs. 1 and 12

Subdivision Tp. 5 N.,R. 15 E.

chains.	
	Ascending steep mountainous slope over loose rocks thro dense underbrush.
29.00	Top of ridge,bears N.and S. desc.steep mountainous slope over loose rocks thro dense underbrush.
35.00	Wash,25 lks.,course S. asc.steep mountainous slope over loose rocks thro dense underbrush.
39.33	Set a granite stone,18X8X6ins.,12ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face; and raise a mound of stones,2ft.base,1,1/2 ft.high,N.of cor.Pits impracticable.
73.00	Top of high ridge,bears N.and S.,desc.steep mountainous slope over loose rocks thro dense underbrush.
79.33	The cor.of secs.1,2,11,and 12. Land,mountainous,rough and rugged. Soil,stony and rocky; 4th rate. No timber. Underbrush,paloverde,mesquite,greasewood and cacti. Land mountainous,covered with loose rocks and dense underbrush,exceptionally difficult to survey, 79.33 ch June 28,1909.

June,29; At 7h 00m, a.m., l.m.t.,I set off 33°01'N on the lat.arc; 23°16,1/2'N.on the decl.arc, and determine a meridian with the solar at the cor. of secs.1,2, 11 and 12.
Thence I run
North .bet.secs.1 and 2.
Ascending steep rocky slope over loose rocks thro dense underbrush.

2.50	Top of ridge,bears E.and W.desc.steep rocky slope over loose rocks thro dense brush.
20.00	Wash,30 lks.wide,course SW. asc.steep rocky slope over loose rocks.
39.00	Top of ridge,bears NW.and SE: desc.steep rocky slope ove loose rocks and boulders.
40.00	Set a granite stone,18X8X8ins.,12ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face; and raise a mound of stones,2ft.base,1,1/2 ft.high,W.of cor. Pits impracticable.
50.75	Wash,20 lks.wide,course SE. asc.steep mountainous slope over loose rocks.thro dense brush
64.50	Top of ridge,bears E.and W. desc.steep mountainous slope over loose rocks.
70.75	Drain,course E: asc.steep mountainous slope over loose rocks.
79.96	Intersect N. Bdy. of Tp. 0.65 chs.E.of cor. of secs. 35 and 36. Set a granite stone,18X10X8ins.,12ins.in the ground,for closing cor.bet.secs.1 and 2.;marked CCon S.,with 1 notch on E.and 5 notches on W.edge. and raise a mound of stones,2ft.base,1,1/2 ft.high, S.of cor. Land,mountainous,rugged and rough. Soil,rocky and stony; 4th rate. No timber. Underbrush,greasewood,paloverde,mesquite and cacti. Land mountainous,covered with dense underbrush and loose rocks exceptionally difficult to survey, 79.96 chs. At this cor.I set off 23°15'N.on the decl arc.and observe the sun on the meridian at noon resulting lat.being 33°01,1/2'N.

I begin at the cor.of secs.1,2,11 and 12.
Thence I run
West bet.secs.2 and 11.
Descending steep mountainous slope over loose rocks thro dense underbrush.

4.25	Wash,20 lks.wide,course S. asc steep mountainous slope o over loose rocks.t

Subdivision Tp. 5 S. Rg. 15 E.

chains.	
15.85	Top of high ridge,bears N.and S. Desc.steep bluff almost impossible to chain down.
31.53	Drain course S. Asc.steep mountainous slope over loose rocks.
35.50	Top of ridge,bears N.and S. Desc.steep mountainous slope over loose rocks.
40.00	Set a limestone,18X8X8ins.,12ins.in the ground,for ¼ sec.cor.,marked ¼ on N.face; from which A paloverde,4ins.in diam.,bears S 53°W,74 lks.dist marked ¼ S 11 BT. A paloverde,4ins.,in diam.,bears N 76°E.,82 lks. dist.,marked ¼ S 2 BT. Ascend.
44.50	Top of ridge,bears N.and S. Desc.steep mountainous slop over loose rocks.
56.50	Wash,40 lks.wide,course S. Asc.steep mountainous slope over loose rocks.
73.00	Top of ridge,bears N.and S. Desc.steep mountainous slope over loose rocks.
81.53	Intersect the E. Bdy.of sec.3,at a point,73 lks.N.of the cor. to secs.3 and 10. Set a granite 18X10X6ins., 12ins.in the ground,for closing cor.bet.secs.2 and 11 marked CC on E.face,with 5 notches on S.and 2 notches on E.edge. From which A paloverde,4ins.in diam,bears N 20°E.,46 lks.dist. marked, CC T 5 S R 15 E S 2 BT A paloverde,6ins.in diam,bears S 40°E.,216 lks.dist marked CC T 5 S R 15 E S 11 BT. Land,mountainous,rough and rugged. Soil,rocky and stony; 4th rate. Timber,scattering paloverde. Underbrush,paloverde,mesquite,greasewood and cacti. Land mountainous,covered with loose rocks and dense underbrush,exceptionally difficult to survey,81.53chs. June,29,1909.

June,30; At 7h 00m,a.m.,l.m.t.,I set off 33°00'N on the lat.arc; 23°13'N.on the decl.arc and determine a meridian with the solar at the cor of secs.10,11,14 and 15. previously described.
Thence I run
North bet.secs.10 and 11.
Descendding mountainous land over loose rocks thro dense underbrush.

15.00	Wash,20 lks.wide,course SW. Asc.steep mountainous slope over loose rocks.
35.00	Top of ridge,bears E.and W. Desc. steep mountai ous slop over loose rocks.
39.80	Old ¼ sec.cor.bears W.20 lks.Old paloverde stk.lying in mound of stones, marking is nearly obliterated. I set a limestone 16X12X8ins.,11ins.in the ground in same pl place for ¼ sec.cor.,marked ¼ on W. and raise a mound of stone,2ft.base,1,1/2 ft.high,W.of cor. Pits impraticable. From cor. A paloverde,4ins.,diam,bears S 44°W.,122 lks.dist. marked ¼ S 10 BT. No other trees available.

True course back to sec.cor. S 0°17'E.
Set over ¼ cor.and run
North bet.secs.10 and 11.
Descending steep mountainous land over loose rocks thro dense underbrush.

9.00	Wash,40 lks.wide,course SW. Asc.steep mountainous slope. over loose rocks.
18.50	Top of ridge,bears E.and W. Desc.steep mountainous slope over loose rocks.
29.00	Wash,20 lks.wide,course SW. Asc. steep mountainous slope over loose rocks.
31.25	Top of ridge,bears NE.and SW. Desc along steep mountainous NW.slope over loose rocks.
39.90	Old sec.cor.bears W.39 lks. A post marked and witnessed as described by the Surveyor General. I destroy old post

chains	
	and in same place set a granite stone,18X10X6ins.,12ins. in the ground,for cor.of secs.3 and 10,marked with 5 notches on the S. and 2 notches on the E.edge; and raise a mound of stones,2ft.base,1,1/2 ft.high, W.of cor. Pits impraticable.
	True course of line back to ¼ cor.is S 0°33'E.
	Entire length of mile is 39.80 chs 39.90 chs. 79.70 chs.
	Land,mountainous and rough.
	Soil,stony and rocky; 4th rate.
	Timber, a few paloverde.
	Underbrush,paloverde,mesquite,greasewood and cacti.
	Land,mountainous,covered with loose rocks and dense und underbrush,exceptionally difficult to survey,79.70chs.
	At this cor.I set off 23°11,1/2'N.on the decl.arc,and ob observe the sun on the meridian at noon.the resulting lat.being 33°01,N.✓
	North along E.bdy.of sec.3.
	Descending along steep mountainous NW.slope over loose rocks thro dense underbrush.
10.00	Enter and along wash,over loose rocks and boulders thro exceptionally dense underbrush.
22.00	Leave wash,40 lks.wide,course S. Asc.steep mountainous slope over loose rocks.
25.00	Top of ridge,bears E.and W. Desc.steep mountainous slope over loose rocks.
27.00	Wash,40.1lks.wide,course SE. Asc.over loose rocks and bo boulders thro exceptionally dense underbrush.
40.12	Old ¼ sec.cor.bears E. 7 lks.,dist.which is a limestone, 10X10X8ins.above ground,firmly set,witnessed by mound of stones to the N. and marked ¼ on top. I remark ¼ on W. and move and rebuild mound of stones to the W. 2ft.base,1,1/2 ft.high, From cor. A paloverde,5ins.,diam,bears S 19°W.,64lks.dist., marked, ¼ S 3 BT.
	No other trees available.
	True course of line back to sec.cor.is S 0°06'W.
	I set over ¼ sec.cor.and continue line North.
	Ascending over loose rocks and boulders thro dense under brush.
39.00	Top of ridge,bears E.and W.; Desc.steep slope over loose rocks.
40.18	Old cor.of secs.2,3,34 and 35,bears W.21.1lks.is an old paloverde post set in mound of stones,the marks are nearly obliterated, I destroy the old cor.and in the same place set a limestone,16X12X10ins.,11 ins.in the ground,for cor.of secs.2,3,34 and 35,marked with 2 notches on the E.and 4 notches on W.edge.and raise a mound of stone,2ft.base,1,1/2 ft.high,W.of cor.
	True course of line back to ¼ sec.cor. S 0°18'E.
	Length of entire line, 40.12 chs. 40.18 chs. 80.30 chs.
	Land,mountainous and rough.
	Soil,stony and rocky; 4th rate.
	Timber,scattering paloverde.
	Underbrush,paloverde,mesquite,greasewood and cacti.
	Land mountainous ,covered with loose rock,and dense underbrush,exceptionally difficult to survey,80.30chs.
	June 30,1909.

Subdivision of Tp. 5 S. Rg. 15 E.

Chains.

Meanders.

I do not meander the north bank of the Gila River for the reason that in my judgement the river through these sections is not to be classed as a meanderable stream as it is a shallow stream, without any well defined channel or permanent banks.

General Description.

This portion of Tp. 5 S. Rg. 15 E. is extremely rough and mountainous with the exception of a narrow strip along the Gila River which is level and the soil in this valley is a rich sandy loam capable of producing abundant crops with irrigation, for which the water may be obtained from the Gila River which flows along the southern portion of the survey.

The town of Winkelman, at the terminus of the Phoenix and Eastern R. R., is located in section 13. Its estimated population is 75.

John A. Hesse

U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

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LIST OF NAMES.

BOOK 2107

A list of the names of the individuals employed by John A. 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 subdivision lines of Pp. 5 S. Rg. 15 E. showing the respective capacities in which they acted:

C. S. Hepner, Chainman.
Frank E. Thomas, Chainman.
, Moundman.
, Moundman.
L. B. Jordon, Axman.
Ross Stoker, Axman.
W. J. Fellows, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John A. Hesse, United States Deputy Surveyor, in surveying all those parts or portions of the subdivision lines of Pp. 5 S. Rg. 15 E.

of the Gila and Salt River meridian, Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Arizona

C. S. Hepner, Chainman.
Frank E. Thomas, Chainman.
, Moundman.
, Moundman.
L. B. Jordon, Axman.
Ross Stoker, Axman.
W. J. Fellows, Flagman.

Subscribed and sworn to before me this 1st day of July, 1909

SEAL

Geo. Scott
Notary Public

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My commission expires April 20th 1911.

99 (15) BOOK 2107

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John P. Hesse, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract (sup. special instructions issued June 4 1909 in connection with) received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 4th day of June, 1909, 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 subdivision lines of T. 5 S. R. 15 E.

of the Gila and Salt River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the **Manual** of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

John P. Hesse
United States Deputy Surveyor.

Subscribed by said John P. Hesse, **and sworn to before me** this 12th day of July, 1909

Frank S. Ingalls
U.S. Surveyor General

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. July 19, 1909

The foregoing field notes of the survey of the subdivision lines of Township 5 South, Range 15 E. of the Gila and Salt River Base and Meridian Arizona

executed by John P. Hesse U.S. Deputy Surveyor (sup. special instructions of June 4 1909, issued in connection with) under his contract No. 115, 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.

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