

1888
Book "L"
FIELD NOTES

BOOK 1888

OF THE SURVEY OF THE

South
North boundary of Township 2 North
Range 30 East

1888

1888

Of the *Gila and Salt River* Meridian,

Territory of Arizona

AS SURVEYED BY

John P. Hesse, United States Deputy Surveyor,

Under his Contract No. *121*, dated *June 17, 1904*, 189

Survey commenced *August 28*, 1894

Survey completed *Sept 4*, 1894

PA

NAMES AND DUTIES OF ASSISTANTS.

George W. Cassidy

Chairman

A. A. Snyder

Chairman

W. W. Oliver

Arman

G. E. Wiswell

Arman

W. H. Post

Playman

BOOK 1888

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, George W. Cassidy and A. A. Snyder
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over 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 north ^{South} boundary of Pp. 2 N. Rg. 30 E.

George W. Cassidy, Chainman.
A. A. Snyder, Chainman.

Subscribed and sworn to before me this 1st
day of August 1904, 189



John D. Hesse
U. S. Dep. Surveyor
No notary available.

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 _____, 189



WE, W. W. Oliver and G. E. Wiswell
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 north ^{South} boundary of Pp. 2 N. Rg. 30 E.

W. W. Oliver, Axman.
G. E. Wiswell, Axman.

Subscribed and sworn to before me this 1st
day of August 1904, 189



John D. Hesse
U. S. Dep. Surveyor

I, W. H. Fort, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the north ^{South} boundary of Pp. 2 N. Rg. 30 E.

W. H. Fort, Flagman.

Subscribed and sworn to before me this 1st
day of August 1904, 189



John D. Hesse
U. S. Dep. Surveyor

No notary available

Chs.

Survey commenced August 28th, 1904, and executed with a W. and L. E. Gurley light solar compass, not numbered. 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 vernier of the latitude arc.

The vernier of the declination arc, reads to 30 seconds of arc.

I examine the adjustments of the Solar, correcting a slight level error, otherwise find them correct. Then to test the Solar apparatus by comparing its indications, resulting from solar observations made during p. m. and a. m. hours, with a meridian determined by observations on Polaris.

August 28th, at the cor. of Tps. 1 and 2 N., Rs. 30 and 31 E., heretofore established and described by me; latitude 33° 28.2' N., Long. 109 10' W., at 3h, 7m, p. m., l. m. t., I set off 33° 28' N., on the latitude arc, 9° 38' N., on the decl. arc, these settings being the nearest practicable to the true minutes and fractions thereof required; determine with the Solar a meridian, and mark a point thereof on a stone set firmly in the ground, 5 chs. N. of my station.

At 9 h. 6 1/2 m., by my watch which is 4 1/2 minutes fast of l. m. t., I observe Polaris at eastern elongation, in accordance with the instructions found in the Manual of Surveying Instructions, and mark a point on the line thus determined, on a plug drive in the ground 5 chs. N. of my station.

August 28th, 1904.

August 29th, at 6h, 5 m., a. m., l. m. t., I set off the azimuth of Polaris 1° 26' west and mark the true meridian thus determined by cutting a small groove on the stone set August 28th, on which the true meridian falls on the mark determined by the Solar.

At 6h, 32m, a. m., l. m. t., I set off 33° 28' N., on the lat. arc, 9° 26 1/2' N., on the decl. arc and determine a true meridian with the Solar, and mark a point thereof on the stone already set 5 chs. N. of my station; this mark 15.2 ins., west of the mer. established from the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory, inasmuch as the solar apparatus by p. m., and a. m., observations, practically give meridians coinciding with that established by an observation on Polaris.

The Magnetic bearing of the above meridian, at 7 a. m., is ~~17° 12'~~ 16° 40' E., with the proper corrections applied.

I commence this survey at the cor. of Tps. 1 and 2 N., Rs. 30 and 31 E.

Thence, I run, West, on a true line, on the South boundary of Tp. 2 N., R. 30 E., along the South boundary of Sec. 36. Along gentle N. slope of rough mountains, through scattering timber.

8.00
35.00
40.00

Enter dense timber.

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

Set a malpis stone, 30 x 18 x 8 ins., 24 ins., in the ground for 1/4 sec. cor marked 1/4 on the N. face, whence,

A pinon, 7 ins., in diam. brs. S. 2 1/2° E., 12 lks. dist. mkd. 1/4 S. 1 B. T.

A pinon, 12 ins., in diam. brs. N. 62° W., 108 lks. dist. mkd. 1/4 S. 36 B. T.

42.00 Timber becomes scattering.
 54.10 Dry creek, 30 lks. wide, course N. W.
 58.20 Gully 10 lks. wide, course N. and ascend.
 80.00 ✓ Set a malpais stone, 30 x 14 x 12 ins., 22 $\frac{1}{2}$ ins., in the ground to bed rock for the cor. of secs. 1, 2, 35 and 36, marked with 1 groove on the E. and 5 grooves on the W. edges, whence,
 A pinon, 4 ins., in diam. brs. N. 66° E., 59 lks. dist. mkd. T. 2 N., R. 30 E. S. 36 B. T.
 A pinon, 4 ins., in diam. brs. S. 42° E., 72 lks. dist. mkd. T. 1 N., R. 30 E., S. 1 B. T.
 A pinon, 5 ins., in diam. brs. S. 3° W., 99 lks. dist. mkd. T. 1 N., R. 30 E., S. 2 B. T.
 A pinon, 4 ins., in diam. brs. N. 6 1/2° W., 86 lks. dist. mkd. T. 2 N., R. 30 E., S. 35 B. T.
 Land rough mountains 80. chs.
 Soil rocky and 4th rate.
 Timber, cedar, pinon and juniper 54 chs. very dense, 46 chs. scattering.
 Undergrowth of scrub cedar and oak.

 West, on a true line, bet. secs. 2 and 35.
 Over rough mountains, over S. slope of mt. through scattering timber.
 Ascending.

20.00 Top of spr. brs. N. and S. and descend.
 37.95 Gully 15 lks. wide, course S. and ascend.
 40.00 ✓ Set a malpais stone, 16 x 10 x 10 ins., 16 ins., in the ground for 1/4 sec. cor. marked 1/4 S., on the N. face, whence,
 A pinon, 11 ins., in diam. brs. N. 74 1/2° E., 20 lks. dist. mkd. 1/4 S. 35 B. T.
 A pinon, 8 ins., in diam. brs. S. 73 1/2° W., 21 lks. dist. marked 1/4 S. 2 B. T.

43.05 Top of ridge brs. N. and S. and descend.
 48.90 Dry creek, 25 lks. wide, course S. and ascend through very heavy timber.

74.85 Top of spur, bears N. and S. and descend.
 80.00 ✓ Set a malpais stone, 17 x 12 x 7 ins., 10 ins., in the ground, to bed rock, for the cor. of secs. 2, 3, 34 and 35, marked with 2 grooves on the E. and 4 grooves on the W. edges, whence,
 A pinon, 8 ins., in diam. brs. N. 65 1/2° E., 30 lks. dist. mkd. T. 2 N., R. 30 E., S. 35 B. T.
 A pinon, 6 ins., in diam. brs. S. 30° E., 67 lks. dist. mkd. T. 1 N., R. 30 E., S. 2 B. T.
 A pinon, 7 ins., in diam. brs. S. 39° W., 47 lks. dist. mkd. T. 1 N., R. 30 E., S. 3 B. T.
 A pinon, 6 ins., in diam. brs. N. 50° W., mkd. 23 lks. T. 2 N., R. 30 E., S. 34 B. T.
 Land rough and mountainous. 80. chs.
 Soil rocky and 4th rate.
 Timber, cedar, pinon and juniper very dense 31.10 chs. scattering 48.90 chs.
 Oak underbrush. August 24th, 1904.

I discontinue the survey of this boundary at this corner as the line west becomes very rough and precipitous; and its further prolongation is not necessary to properly include all the agricultural and grazing lands and settlers, along or within the Canon of the Blue River.

North boundary of T. 2 N., R. 30 E.

3.

North
South boundary of T. 2 N., R. 30 E., Arizona.

Chs. Sept. 4th, 1904, at 7h, 15m, a. m., l. m. t., by my watch which has correct local mean time, at the Cor. of Tps. 2 and 3 N., Rs. 30 and 31 E., as heretofore established by me 33° 33' N., on the Lat' Arc, 7° 14 1/2' N., on the decl. arc and determine a true meridian with the Solar, thence I run,
WEST, on a true line on the S. boundary of Sec. 36, descending over rough mountains through heavy timber.

6.70 Gully, 15 lks. wide course N. W. and descend.
11.00 Top of spur bears N. and S. and descend.
40.00 Set a malpais stone, 18 x 12 x 10 ins., 12 ins., in the ground for 1/4 sec. cor marked 1/4 on the N. face, whence,
A Box elder, 7 ins., in diam. brs. S. 81° W., 77 lks. dist. mkd. 1/4 S. 1 B. T.
A Cottonwood, 11 ins., in diam. brs. N. 86° W., 55 lks. dist. mkd. 1/4 S. 36 B. T.

41.35 Road from Luna Valley to Clifton. course N and S.
41.85 To center of Blue River, running water, course west, 40 lks. wide.
42.01 Over bottom land.
47.50 Leave bottom land and ascend thro. scattering timber.
57.75 Gully, 10 lks. wide, course S. E. and ascend.
64.00 Top of ridge bears N. and S. and descend.
69.35 Dry creek, 30 lks. wide, course S. and ascend.
77.00 Top of ridge bears N. and S. and descend.
80.00 Set a malpais stone, 24 x 16 x 14 ins., 18 ins., in the ground for the cor. of secs. 1, 2, 35 and 36, marked with 1 groove on the E. and 5 grooves on the W., edges, whence,
A juniper, 7 ins., in diam. brs. N. 4° E., 137 lks. dist. mkd. T. 3 N., R. 30 E., S. 36 B. T.
An oak, 5 ins., in diam. brs. S. 14° E., 191 lks. dist. mkd. T. 2 N., R. 30 E., S. 1 B. T.
A pinon, 10 ins., in diam. brs. S. 27° W., 145 lks. dist. mkd. T. 2 N., R. 30 E., S. 2 B. T.
A juniper, 15 ins., in diam. brs. N. 48° W., 218 lks. dist. mkd. T. 3 N., R. 30 E., S. 35 B. T.

Land rough and mountainous 74.51 chs. Bottom land 5.49 chs. River timber and underbrush dense 5.49 chs. Scattering pinon, oak and juniper 74. 51 chs. Scattering scrub cedar and oak underbrush. Soil, 2nd to 4th rate.

Sept. 4th, 1904.

The survey of this boundary was discontinued at this corner as it was not necessary to prolong the same further west where the country becomes rougher and very precipitous. The line as surveyed will embrace with the subdivisional lines to follow all the agricultural and grazing lands and settlers lying along or within the Canon of the Blue River in Tp. 3 N., R. 30 E.

General Description.

Fractional township 2 N., R. 30 E., is rough and mountainous, cut by many deep ravines and canons which have their outlet in the Canon of the Blue River. Excepting small tracts of level land in the bottom of the Blue River Canon, the land is almost worthless even for grazing purposes on account of its roughness.

The township is covered with a good growth of pine, pinon, cedar and juniper.

John D. Hesse
U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

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LIST OF NAMES.

BOOK 1888

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

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the north & ^{South} boundary of Twp. 2 N. Rg. 30 E.

showing the respective capacities in which they acted:

George W. Cassidy, Chainman.

A. A. Snyder, Chainman.

....., Moundman.

....., Moundman.

W. W. Oliver, Axman.

G. E. Wiswell, Axman.

W. H. Fort, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John P. Hesse

..... United States Deputy Surveyor, in surveying all those parts or portions of the the north & ^{South} boundary of Twp. 2 N. Rg. 30 E.

..... of the Gila

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.

George W. Cassidy, Chainman.

A. A. Snyder, Chainman.

....., Moundman.

....., Moundman.

W. W. Oliver, Axman.

G. E. Wiswell, Axman.

W. H. Fort, Flagman.

Subscribed and sworn to before me this 4th day of September, 1904



John P. Hesse
U. S. Dep. Surveyor
No notary available

I, John P. Hesse, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank J. Ingalls United States Surveyor General for Arizona, bearing date of the 17 day of June 1904, 1899, 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} boundary of T. 2 N. R. 30 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; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John P. Hesse
United States Deputy Surveyor.

Subscribed by said John P. Hesse, and sworn to before me }
this 2nd day of Nov, 1899 1904

Frank J. Ingalls
U.S. Surveyor General



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, AZ, April 21, 1905
1899

The foregoing field notes of the survey of the North and South Boundaries of T. 2 N. R. 30 E. of the Gila and Salt River Base and Meridian, in the territory of Arizona

executed by John P. Hesse under his contract No. 121, dated June 17, 1904, 1899, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank J. 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.