Accepted and ordered filed by Department ... expired July 24/09

E.U. APR 21 1909 192

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Book A.

BOOK 2126

2126

FIELD NOTES

OF THE SURVEY OF THE

2126 East Boundary of T. 19 S. R. 11 E. 2126

2126

Of the Gila & Salt River Base & *Meridian,*

Arizona

AS SURVEYED BY

Jesse B. Wright, *United States Deputy Surveyor,*

Under his Contract No. 154, *dated* February 9th, *1909*

Survey commenced April 1, *1909*

Survey completed April 3, *1909*

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BOOK 2126

NAMES AND DUTIES OF ASSISTANTS.

Jesse N. Benson	Chainman
Walter Percival	Chainman
	Moundman
	Moundman
Andrew F. Denniston	Axeman.
	Axeman
Alexandro Cruz	Flagman.

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BOOK 2126

INDEX DIAGRAM.

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*Meanders Page*_____

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BOOK 2126

PRELIMINARY OATHS OF ASSISTANTS.

WE, Jesse N Benson and Walter Percival 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

East Boundary of T. 19 S. R. 11 E.

Jesse N Benson, *Chainman.*

Walter Percival, *Chainman.*

Subscribed and sworn to before me this 29th day of March, 1909
My com. exp. Apr. 22 - 1909

SEAL

G. W. Purcell
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

SEAL

_____

_____

WE, Andrew F. Dennistan and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

East Boundary of T. 19 S. R. 11 E.

_____, *Axman.*

Andrew F. Dennistan, *Axman.*

Subscribed and sworn to before me this 29th day of March, 1909
My com. exp. Apr. 22 - 1909

SEAL

G. W. Purcell
Notary Public

I, Alexandro Cruz, 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 East Boundary of T. 19 S. R 11 E.

Alexandro Cruz, *Flagman.*

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

SEAL

Jesse B. Wright
U. S. Dep. Surveyor

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East Boundary of T. 19 S. R. 11 E.

Chains

Survey commenced April 1, 1909, and executed with a W. & L.E.Gurley light mountain transit, with Burt patent solar attachment, special make, unnumbered, the horizontal limb having two double verniers placed opposite to each other and each reading to 1' of arc, which is also the least reading of the latitude and declination arcs. I examine and test the levels, the standards and line of collimation of the instrument and find same correct. I also examine, test, and adjust precisely the polar axis of the solar, and test the solar lenses and lines, the declination arc and hour circle, of the solar which I find to be correct.

Having all parts of my instrument in precise adjustment, I begin as per instructions at the Cor. of Tps.19 & 20 S.Rs.11 & 12E. which is a malapais stone firmly set, marked and witnessed as described by the Surveyor General. Latitude, 31° 43' 20" N., Longitude, 111° 11' 10" W.

At this cor. at noon, l.m.t., I set off 4° 32' N. on the decl arc and observe the sun on the meridian. Obs. Lat. is 31° 43' N.

Then at 3h p.m., l.m.t., in order to test the solar apparatus by comparing the results of observations on the sun made during a.m. & p.m. hours, with a true meridian determined by Polaris observations;

I set off 31° 43' N. on the lat. arc. and 4° 35' N. on the decl. arc and determine a meridian with the solar and mark the meridian thus determined by a tack in a stake driven in the ground 5 chs. N. of my station.

At 6h 43m p.m., l.m.t.,

I observe polaris at Western elongation in accordance with instructions in the manual and mark the line thus determined by a cross on a fixed stone 5 chs. N. of My station.

April 2, 1909, at 7h a.m., l.m.t., I set of the azimuth of Polaris 1° 23' to the East, and mark the meridian thus determined by a tack in the stake 5 chs. N. of my station on which the meridian as given by Polaris falls 0.25 ins. East of the line given by the solar on preceding evening.

At 8 h a.m., l.m.t., I set off 31° 43' N. on the lat. arc and 4' 51' N. on the decl. arc and determine a meridian with the solar, and mark the meridian thus determined by a point on the stake 5 chs. N. of my station, which point coincides with the point given by Polaris observation.

The solar apparatus by p.m. & a.m. observations defines positions for meridians about 0' 14" W. and identical with respectively, of the meridian determined by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetis bearing of the meridian at 8h a.m., is N. 13° 30' W.; the angle thus determined gives the magnetic declination 13° 30' East.

From the corner above described, I run as per instructions,
North on a random line on E. bdy. Tp. 19 S. R. 11 E.
Setting temp cor. at intervals of 40 & 80 chs., and

At 5 miles, 75.42 chs.
Intersect S. bdy. of T. 18 S. R. 12 E. at point 4.77 chs. E. of the Cor. of Tps. 18 & 19 S. Rs. 11 & 12 E.
At point of intersection I
Set a granite stone 24x14x8 ins. 18 ins. in the ground for closing cor. of Tps. 19 S. Rs. 11 & 12 E. marked C.C. on S. with 6 grooves on S., E., & W. faces and raise a mound of stone 2 ft. base 1½ ft. high S. of cor. from which,
A mesquite tree 6 ins. diam. brs. S. 40° E. 2.77 chs. dist.
marked T. 19 S. R. 12 E. S. 6 C.C.B.T.
No other bearings available.

East Boundary of T. 19 S. R. 11 E.

Chains	
	The cor. of Tps. 18 & 19 S. Rs. 11 & 12 E. I change to refer to 2 Tps. only.
	From the closing cor. of Tps. 19 S. Rs. 11 & 12 E. as just established by me I run,
	South, as per instructions, on a true line on E. bdy. of sec. 1, T. 19 S. R. 11 E.
	Over mts. land desc. steep.
.90	Gulch 10 lks. wide, course SE. , thence along SE. slope.
12.40	Enter same gulch as above. desc. in same.
17.40	Leave gulch to left, brs. S.S.E. asc. along ridge.
26.40	Top of ridge, brs. SE. desc.
33.40	Gulch 20 lks. wide, course S.S.E. asc.
35.42	Set a granite stone 20x12x8 ins. 15 ins. in the ground for 1/4 sec.cor. marked 1/4 on W. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. from which,
	a mesquite tree 4 ins.diam.brs.S.69½° E. 74 lks. dist. marked 1/4 S. 6 B.T.
	A mesquite tree 6 ins.diam.brs.S.13° W. 56 lks.dist. marked 1/4 S. 1 B.T.
35.90	Gulch 20 lks. wide, course S.S.E.. asc.
40.00	Low ridge, brs. S.S.E. desc.
43.40	Dry wash 20 lks. wide, course S.S.E. asc.
61.40	Top of ridge, brs. SE. desc.
	A small house with corral brs. E. 14 chs. dist.
70.90	Dry wash 10 lks. wide, course S.S.E. asc.
75.42	Set a malapais stone 24x12x12 ins. 18 ins. in the ground for cor. of secs. 1,6,7 & 12, marked with 1 notch on N. & 5 notches on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor.
	No bearings available.
	Land mts.
	Soil, gravelly, 2nd & 3rd rate, g
	No timber. Undergrowth, scattering mesquite. Native grass.
	Mountainous land 75. 42 chs.

	South , on E. bdy. of sec. 12.
	Over mts. land, asc.
3.00	Top of ridge, brs. SE. desc. grad.
11.00	Dry wash 10 lks. wide, course SE. asc. grad.
22.00	Top of ridge, brs. SE. desc. grad.
32.00	Dry wash 20 lks. wide, course SE. asc. abrupt 20 ft.
35.00	Top of ridge, brs. S.S.E. desc. on SW. slope.
40.00	Set a granite stone 24x12x6 ins. 18 ins. in the ground for 1/4 sec.cor. marked 1/4 on W. face and raise a mound stone 2 ft. base 1½ ft. high W. of cor. from which,
	A mesquite tree 12 ins.diam.brs.S.28° 40' E. 186 lks.dist. marked 1/4 S. 7 B.T.
	A mesquite tree 6 ins.diam.brs.S.40° 40' W. 90 lks.dist. marked 1/4 S.12 B.T.
40.50	Desc. abrupt 30 ft.
41.50	Dry wash 150 lks. wide, course SE. desc.grad.along SE. slope of ridge.
79.00	Enter valley of wash.
79.50	Dry wash 100 lks. wide, course SE. asc. abrupt
80.00	Cor. point falls in edge of wash.
80.50	Set a granite stone 20x12x8 ins. 15 ins. in the ground for Witness cor. to cor. of secs. 7,,12,13 & 18 marked with 4 notches on S. & 2 notches on N. edges and W.C. on NE. face and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. from which,
	A mesquite tree 8 ins. diam.brs. S.72° 20' E. 71 lks.dist. marked T. 19 S. R. 12 E. S. 18 W.C.B.T.
	A mesquite tree 4 ins.diam. brs.N.25° 30' W. 185 lks.dist. marked T. 19 S. R. 11 E. S. ~~13~~ 12 W.C.B.T.
	No other bearings available.
	Land mts.Soil,2nd rate,gravelly.No timber.
	Undergrowth, Scattering mesquite,tesseta. Native grass.
	Mts. land 80.00 chs.

East Boundary of T. 19 S. R. 11 E.

Chains	
	South on E. bdy. of sec, 13 from true cor, pont
	Over mountainous land, gradually ascending.
.50	Witness Cor. of secs.7,12,13 and 18.
13.00	Top of small ridge, brs. SE. grad. . desc.
18.00	Dry wash 20 lks. wide, course SE. grad. descend.
40.00	Set a granite stone 18x10x10 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 1½ ft. high W. of cor. No bearings available.
43.00	Enter dense mesquite, brush; descend gradually,
50.00	Dry wash 10 lks. wide, course SE. grad. asc.
55.00	Top of small ridge, brs. SE. desc. grad.
60.00	Point of spur desc.
71.00	Dry wash 25 lks. wide, course SE. asc. grad.
80.00	Set a granite stone 20x12x10 ins. 15 ins. in the ground for cor. of secs.13,18,19, & 24 marked with 3 notches on S. & N. edges and dig pits 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor. from which, A mesquite tree 6 ins.diam.brs.N.4° W. 298 lks. dist. marked T. 19 S. R. 11 E. S. 13 B.T. A mesquite tree 6 ins.diam.brs.S.42° W. 124 lks. dist. marked T. 19 S. R. 11 E. S. 24 B.T. No other bearings available. Land mts. Soil, gravelly, 2nd rate. No timber. Undergrowth, dense mesquite, tesseta. Mountainous land covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs. At this cor. at noon I set off 4° 55' N. on the decl. arc and observe the sun on the meridian. The resulting lat. is 31° 46' N. ✓

	South on E. bdy. sec. 24.
	Over mountainous land desc. grad., through dense mesquite.
15.00	Small dry wash 20 lks. wide, course SE. grad. asc.
40.00	Set a granite stone 20x10x8 ins. 15 ins. in the ground for 1/4 sec.cor. marked 1/4 on W. face and raise a mound of stone 2 ft. base 1½ ft. high W.of cor. from which, a mesquite tree 6 ins. diam.brs. N.78° 15' E.300 lks.dist marked 1/4 S. 19 B.T. A mesquite tree 8 ins.diam.brs.S. 16° W. 22 lks.dist. marked 1/4 S. 24 B.T.
	Desc. grad.
60.00	Enter dense mesquite undergrowth
66.50	Dry wash, 60 lks. SE. asc.
80.00	Set a granite stone 24x12x10 ins. 18 ins. in the grund for cor. of secs.,19,24,25 & 30, marked with 4 notches on N. & 2 notches on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. from which, A mesquite tree 6 ins. diam. brs. N. 24½° E, 66 lks.dist. marked T. 19 S. R. 12 E. S. 19 B.T. A mesquite tree 6 ins. diam.brs.S.79° E. 86 lks.dist. marked T. 19 S. R. 12 E. S. 30 B.T. A Tesseta tree 4 ins.diam.brs.S.21½° W. 53 lks.dist. marked T. 19 S. R. 11 E. S. 25 B.T. A mesquite tree 10 ins.diam.brs.N.23° W.80 lks.dist. marked T. 19 S. R. 11 E. S. 24 B.T. Land mts. Soil, 2nd & 3rd rate, sandy,gravelly. Timber, mesquite. Undergrowth, dense mesquite, tesseta.Good native grass. Mountainous land covered with dense undergrowth,80.00 chs.

April 2,1909.

East Boundary of T. 19 S. R. 11 E.

Chains	
	April 3,1909 at 7h a.m.,at the cor. of secs. 19,24,25, & 30, I set off 5° 15' N. on the decl. arc and 31° 45' N. on the lat. arc and determine a true meridian with the solar.
	Thence I run,
	South on East boundary of sec. 25.
	Over rolling land, desc. through scattering mesquite.
3.50	Dry wash 50 lks. wide, course SE.
12.00	Dry wash 30 lks. wide, course SE.
17.00	Dry wash 60 lks. wide, course SE.
29.00	Dry wash 60 lks. wide, course SE.
39.00	Asc. avrupt 40 ft. leave valley of wash.
40.00	Set a granite stone 18x10x6 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 1½ ft. high W. of cor. from which, A mesquite tree 6 ins. diam. brs. W. 162 lks.dist. marked ¼ S. 25 B.T. A mesquite tree 6 ins.diam.brs.N.36° 30' E. 62 lks.dist. marked ¼ S. 30 B.T.
59.50	Dry wash 50 lks.wide, course SE.
63.50	Dry wash 75 lks.wide, course SE. asc.
63.50	Top of bank 15 ft. high, thence over mesa.
75.70	Road, brs. NW. & SE.
80.00	Set a granite stone 20x10x6 ins. 15 ins. in the ground for Cor. of secs. 25,30,31 & 36 marked with 5 notches on N. & 1 notche on S. edges and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. from which, A mesquite tree 6 ins.diam.brs.S.5°45'E. 87 lks.dist. marked T. 19 S. R. 12 E. S. 31 B.T. A mesquite tree 6 ins.diam.brs.S.38° 30' W. 220 lks.dist. marked T. 19 S. R. 11 E. S. 36 B.T. A mesquite tree 10 ins. diam.brs.N.71°45' E.128 lks.dist. marked T. 19 S. R. 12 E. S. 30 B.T. A mesquite tree 6 ins.diam.brs.N.61°40'W.288 lks.dist. marked T. 19 S. R. 11 E. S. 25 B.T. Land rolling. Soil,2nd rate,sandy,gravelly. No timber. Undergrowth, dense mesquite,tesseta. Rolling land covered with dense undergrowth, 80.00 chs.
	South on E. bdy. of sec. 36.
	Over rolling land, through dense mesquite.
28.00	Dry wash 100 lks. wide, course S.E. grad. asc.
40.00	Set a granite stone 24x8x6 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. from which, A mesquite tree 8 ins.diam.brs.S.38°30'E. 76 lks.dist. marked 1/4 S. 31 B.T. A mesquite tree 12 ins.diam.brs.S.49°W. 150 lks.dist. marked 1/4 S. 36 B.T.
57.00	Desc. abrupt 30 ft. thence desc. grad.
61.00	Road, brs. NW. & SE.
79.40	Road, brs. NW. & SE.
80.00	To cor. of Tps. 19 & 20 S. Rs. 11 & 12 E. as heretofore described.
	Land,rolling. Soil, 2nd rate, gravelly.
	Timber, scattering mesquite. Undergrowth,dense mesquite.
	Rolling land covered with dense undergrowth, 80.00 chs.
	Preliminary to beginning the subdivision of this Tp. in order to test the measurement and alinement of the south boundary of the Tp. I begin at the Cor. of Tps. 19 & 20 S. Rs. 11 & 12 E. as heretofore described, thence I retrace,
	West, along S. bdy. sec.36.
39.93	Find ¼ sec.cor. 4 lks. N. of line marked and witnessed as described by the Surveyor General.
79.89	Find cor. of secs. 1,2,35 & 36 9 lks. N. of line marked and witnessed as described by the Surveyor General.
	True course & dist. 1st ½ mile, N.89° 57'W. 39.93 chs.
	" " " last ½ " N. 89°55' W.39.87 chs.

Boundaries of T. 19 S. R. 11 E.

Chains	
	Thence I retrace W. on S. bdy. sec. 35.
39.95	Find ¼ sec.cor. 5 lks. N. of line marked and witnessed as described by the Surveyor General.
79.90	Find Cor. of secs. 2,3, 34 & 35 10 lks. N. of line marked and witnessed as described by the Surveyor General.
	True course and distance of this line is N. 89° 56' W. 79.90 chs.
	From these retracements I feel assured that the S. bdy of the Tp. is practically correct in measurement and alinement.

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Boundaries of T. 19 S. R. 11 E.

Latitudes, departures, & closing errors.

Line Designated	True bearing.	Distance.	Latitudes.		Departures.	
			North.	South.	East.	West.
		Chs.	Chs.	Chs.	Chs.	Chs.
South Bdy.	-- West. ----	473.60	------	-------	------	473.60
(2nd G. Mer. E.	-- North.----	474.50	474.50	-------	------	-------
North Bdy.	- N.89°58'E.-	470.35	.27	-------	470.35	--------
	East -----	4.77	-------	-------	4.77	
East Bdy.	-- South. ---	475.42	-----	475.42	-----	--------
Convergency,-	----------				.45	--------
Totals	----------		474.77	475.42	475.57	473.60
				474.77	473.60	

Error in Latitude--- -.65

Error in Departure ----------1.97

The error in departure noted is due to the fact that the true bearing of the West boundary of the Tp. being the 2nd Guide Meridian E. is N. 0° 11' W. instead of North as officially reported. This true course applied to the above table will make the closing error in departure 42 lks.

General Description.

This Tp. is rough and mountainous in the S.W. part, Rolling in the interior and S.E. and mountainous along the northern parts. There is but little water to be found in the Tp. and no timber except a little mesquite in the valleys of the larger washes.

The soil in the rolling part along the valleys of the large washes is very rich. Most of the Tp. is covered with a fine growth of native grass and excellent for pasturage. The only settler noted in the Tp. is Antonia Q. de Elias, who has developed the water from a spring and has built substantial building, and cattle corrals in the S.W. ¼ of sec. 16.

In my surveys in this Tp. I was compelled to administer the preliminary affidavits to my flagman , as it would have incurred much expense and loss of time to appear before an officer duly qualified to administer oaths, at the time of beginning my surveys.

Jesse B. Wright
U.S.Deputy Surveyor.

For authority for red ink corrections see Deputy's letter of May 1-1907.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Jesse B. Wright, 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 East Boundary of T. 19 S. R. 11 E. showing the respective capacities in which they acted:

Jesse N Benson, *Chainman.*
Walter Percival, *Chainman.*
, *Moundman.*
, *Moundman.*
Andrew F. Dennison, *Axman.*
, *Axman.*
Alexandro Cruz, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jesse B. Wright, United States Deputy Surveyor, in surveying all those parts or portions of the East Boundary of T 19 S. R 11 E.

of the Gila & Salt River Base & meridian, Ter. 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

Jesse N Benson, *Chainman.*
Walter Percival, *Chainman.*
, *Moundman.*
, *Moundman.*
Andrew F. Dennison, *Axman.*
, *Axman.*
Alexandro Cruz, *Flagman.*

Subscribed and sworn to before me this 10th day of April, 1909
my com. exp. apr. 22-1909

SEAL

Walter Percival
Notary Public

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BOOK 2126

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Jesse B. Wright, 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 9th day of February, 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

East Boundary of T. 19 S. R 11 E

of the Gila & Salt River Base & meridian, in the Ter. 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.

Jesse B Wright
United States Deputy Surveyor.

Subscribed by said Jesse B. Wright, and sworn to before me this 20th day of April, 1909

Allan B. Haynes
CLERK U. S. DISTRICT COURT FOR
FIRST JUDICIAL DISTRICT, ARIZONA.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. Aug. 19, 1909

The foregoing field notes of the survey of the east boundary of T. 19 S. Rg. 11 E., Gila and Salt River Base and Meridian

executed by Jesse B. Wright, U.S. Deputy Surveyor under his contract No. 154, dated February 19, 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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