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BOOK "D"

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BOOK 2645

FIELD NOTES

OF THE ~~SURVEY OF THE~~

Retracement and Resurvey of
the Gila and Salt River Base Line thru Range 1 West
and
the Gila and Salt River Meridian thru Township 1 South,
between Ranges 1 East and 1 West

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Sidney E. Blout

In the capacity of U. S. Surveyor Supplemental Special, under instructions dated October 12, 1912,
issued by the United States Surveyor General, and ~~telegraphic instructions~~ from the Commissioner of the General Land Office dated Jan. 3, 1913 to govern surveys included in Group No. 19, which were approved by the Commissioner of the General Land Office, October 26, 1912, pursuant to authority contained in the Act of Congress dated August 23, 1912

Retracement and ReSurvey commenced December 21st, 1912

Retracement and ReSurvey completed January 4th, 1913

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(1A)

BOOK 2645

INDEX DIAGRAM.

Township 1 South, Range 1 West

Gila and Salt River Base Line

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Gila and Salt River Meridian

6—151

Retracement & Resurvey of Gila & Salt River Base Line thru R.1 W.

Chains. Survey commenced December 26,1912, and executed with a Young & Sons light mountain transit No.10,with a Smith 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.

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

At $4^h\ 00^m$ p.m.,l.m.t. I set off 33°22½'N. on the lat.arc, 23°18½'S.on the decl.arc and determine a meridian with the solar at the stake which marks the south end of the meridian,which I established by Polaris observations, at my camp in sec.3. T. 1 S.,R.1 W. December 21.and mark a point thereof by a tack driven in the stake which marks the north end of the meridian. This point falls C.5 ins.W.of the point which marks the meridian determined by the Polaris observation.

December 26,1912.

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December 27,1912,At $7^h\ 45^m$ a.m.,l.m.t. I set off 33°22½'N.on the lat.arc,23°15½'S.on the decl.arc and determine a meridian with the solar at the stake which marks the south end of the meridian which I established at my camp in sec.3.T.1 S.,R.1 W. December 21,1912,and mark a point thereof by a tack driven in the stake already set 8.00 chs.N.of my instrument,on which the meridian falls 0.4 ins.E.of the point determined by the Polaris observation.

The solar apparatus by p.m.,and a.m. observations defines positions for meridians respectively about 0'26"west, and 0'21" east of the meridian determined by the Polaris observation;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.l.m.t. is N.14°15'W.;the angle thus determined gives the mag. decl. 14°15'E.

I begin at the initial point of the Gila and Salt River Base and Meridian,which is a stone monument 8 ft.in diam.at the base,4 ft.in diam.at the top and 8 ft.high. situated on the summit of a round hill on the south side of the Gila River opposite the mouth of the Salt River. This monument is witnessed as described by the Surveyor General. Latitude 33°22'35"N.,longitude 112°18'24"W.

December 27: At $9^h\ 00^m$ a.m.,l.m.t. I set off 33°22½'N.on the lat.arc,23°18'S.on the decl.arc and determine a meridian with the solar at the Initial Monument described above.

Thence I run

West on a random line on S. bdry.of sec.36;at 40.00 chs.I make a diligent search for the old witness cor.to the ¼ sec. cor.which I fail to find.; therefore I continue my random line west,making a diligent search at each 40.00 and 80.00 chs.for the ¼ sec.and sec.cors.without finding any trace of same until at

159.68 Fall 130 lks.S.of the old stand.cor.of secs.34 and 35:,which is a mesquite post 3 ins.sq.18 ins.above ground,greatly decayed and marks almost obliterated.,with no cor. accessories.True course & dist.of S.bdrs.of secs.35 & 36 is therefore N.89°32'W.,159.68 chs.

The corners on the south boundaries of secs.35 and 36 being either lost or obliterated, and Tp.1 N., R.1 W.having been subdivided,I resurvey the Gila and Salt River base line through R 1 W.as follows; I return to the Initial Monument.

Thence I run

N.89°32'W., on a true line,on the S.bdry.of Sec.36.

Descend W.slope of stony hill,through sage and greasewood

Chains.

brush undergrowth 2 to 3 ft. high.

18.00 Foot of steep descent 100 ft. below Initial Monument, leave hilly land, enter the Gila River bottom bears NE. and SW.

19.50 Wood road bears NW. and SE.

21.20 Enter scattering mesquite timber bears NE. and SW.

35.70 Intersect left bank of old Gila River channel, bears NE. and SW. Enter dense arrow weed and watermoat brush undergrowth, 8 ft. high, bears NE. and SW., thence over old river bed.

Difference between measurements of 39.92 chs. by two sets of chainmen is 6 lks.; position of middle point,

By 1st. set 39.95 chs.

By 2nd. set 39.89 chs., the mean of which is,

39.92 Set an iron post, 3 ft. long, 1 in. in diam. 20 ins. in the ground for Stand. 1/4 sec. cor., marked on brass cap 1912 1/4 S 36 in N. half from which,

A cottonwood, 20 ins. in diam., bears N. 21°E., 274 lks. dist., marked 1/4 S. 36 BT.

A willow 23 ins. in diam., bears N. 20 1/4°W., 303 lks. dist., marked 1/4 S. 36 BT.

58.00 Leave dense undergrowth, bears NE. and SW., over gravelly river bed.

68.00 Enter watermoat undergrowth, 5 ft. high, bears NE. and SW.

Difference between measurements of 79.84 chs. by two sets of chainmen is 4 lks.; position of middle point by

By 1st. set 79.86 chs.

By 2nd. set 79.82 chs., the mean of which is

79.84 The point for the stand. cor. of secs. 35 and 36. falls in old GILA river bed, subject to overflow to a depth of from 2 to 4 ft.; therefore at a point on the left bank of the Gila River 5.70 chs. south of the true point for cor. of secs. 35 and 36, Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for REESTAB Witness cor. to the Stand. cor. of secs. 35 and 36, marked on brass cap 1912 WC south of center, T 1 N. R 1 W in N. half, S 35 in NW. and S. 36 in NE. quadrant, from which,

A mesquite, 6 ins. in diam., bears N. 35°W., 34 lks. dist., marked, WC. T 1 S. R 1 W. S 2 BT.

A willow, 22 ins. in diam., bears N. 86 3/4°E., 128 lks. dist., marked, WC T 1 S. R 1 W S 1 BT.

Land, level and hilly.
Soil, sandy and stony 1 st, 2 nd, and 3 rd. rate.
Timber, mesquite.

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From the true point for. stand. cor. of secs 35 and 36, I run,

N. 89°32' W., on true line, on S. bdry. of sec. 35.

Over level sandy GILA river bottom land, through dense arrow weed and water moat brush undergrowth, 10 ft. high.

19.00 Intersect left bank of the Gila River, 5 ft. high, bears NW. and SE. Enter scattering mesquite timber, bears NW. and SE.

23.00 Old. wood road, bears N. and S.

Difference bet. measurements of 39.92 chs. by two sets of chainmen is 4 lks.; position of middle point

By 1st. set, 39.94 chs.

By 2nd. set, 39.90 chs., the mean of which is,

39.92 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for REESTAB Stand. 1/4 sec. cor., marked on brass cap 1912 1/4 S 35 in N. half. No trees suitable for bearing trees, within the prescribed limits. Dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, 3 ft. base, 1 1/2 ft. high, N. of cor.

55.25 Old road, leads to Phoenix, Arizona, bears NW. and SE.

55.50 Enter dense mesquite thicket, bears NW. and SE.

72.00 Leave thicket, bears NW. and SE.

78.00 The same road, bears N. 80°E. and S. 80°W.

Difference between measurements of 79.84 chs. by two sets

Chains. of chainmen is 4 lks.;position of middle point,
By 1 st.set,79.86 chs.
By 2 nd.set,79.82 chs.,the mean of which is
79.84 Intersect the old standard cor.of secs.34 and 35, hereinbefore described.
This cor. being in a state of dilapidation, I destroy all traces of the old corner and re-establish it at the same point as follows;
Set an iron post 3 ft.long,3 ins.in diam.,24 ins.in the ground,for Stand.cor.of secs.34 and 35,marked on brass cap 1912; T 1 N. R 1 W.in N.half. S 34 in NW.and S 35 in NE. quadrant.; Dig pits,24x12x12 ins.,crosswise on each line, E. and W. 3 ft.,and N.of post 7 ft.dist.,and raise a mound of earth,4 ft.base,2 ft.high,N.of cor. No trees available.
Land,level bottom.
Soil,sandy 1 st.and 2 nd.rate.
Timber,mesquite.

Note : At the REESTAB. standard 1/4 sec.cor.on S. bdry of sec.35, hereinbefore described, I set off 23°18½' S.on the decl.arc and at noon observe the sun on the meridian and obtain a reading of 33°23'N.on the lat.arc.

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From the REESTAB. Stand.cor.of secs.34 and 35,above described,I run, West,on a random line on S. bdry.of sec. 34; at 40.00chs.
40.00 I make a very diligent search for the old stand.1/4 sec. cor.which I fail to find.; therefore I continue said line
80.00 Fall 35 lks.South of the old stand. 1/16 standard cor.of secs.33 and 34, which is a mesquite post greatly decayed;with marks nearly obliterated,Therefore the true course & dist.of the S. bdry.of sec.34 is N.89°45'W.,80.00 chs. Stand.cor.of secs.34 and 35. S 89°45'W. Being unable to find the old Stand.1/4 sec.cor.on S. bdry.of sec.34;I return to the REESTAB. stand.cor.of secs.34 and 35 hereinbefore described and resurvey this line as follows;
N.89°45'W., on a true line, on S. bdry of sec.34.
Over level sandy river bottom land through scattering mesquite timber and greasewood undergrowth 4 ft.high.
15.00 Dry ravine 25 lks.wide 3 ft.deep course NW.
22.30 Road from Phoenix Arizona to James Kennedy's ranch bears N 70°W and S 70° E.
30.50 The same road bears N 70°E. and S 70°W.
Difference between measurements of 40.00 chs.by two sets of chainmen is 02 lks.;position of middle point
By 1 st.set,39.99 chs.
By 2 nd.set,40.01 chs.;the mean of which is
40.00 Set an iron post 3 ft.long,1 in.in diam.26 ins.in the ground for REESTAB. Stand.1/4 sec.cor. marked on brass cap 1912; 1/4 S 34 in N.half.
Dig pits 18x18x12 ins.E.and W. of post 3 ft.dist.and raise a mound of earth 3½ ft.base,1½ ft.high N.of cor. No trees suitable for bearing trees within the prescribed limits.
41.00 Old slough 50 lks.wide 6 ft.deep course NW.
73.00 Old wood road bears NW.and SE.
73.50 Wire fence bears NE.and SW.enter Corral belonging to James Kennedy.Leave timber and undergrowth bears N 10°E. and S.10°W.
77.90 Wire fence bears N.and S.leave corral,Enter dense undergrowth and scattering mesquite and cottonwood timber bears N.and S.
Difference between measurements of 80.00 chs.by two sets of chainmen is 06 lks.position of middle point,
By 1 st.set,79.97 chs.
By 2 nd.set,80.03 chs.,the mean of which is
80.00 Intersect the old standard cor.of secs.33 and 34.
This cor.which is a post greatly decayed and marks nearly obliterated,I destroy and re-establish it in the same place as follows;
Set an iron post 3 ft.long,3 ins.in diam.24 ins.in the ground for Stand.cor.of secs.33 and 34.,marked on brass cap 1912; T 1 N. R 1 W. in N.half, S 33 in NW.and S 34 in NE. quadrant, from which,

Retracement and Resurvey of the Gila and Salt River Base Line through R. 1 W.

Chains.

A mesquite 24 ins.in diam. bears N. 7¾°E.224 lks.dist. marked T 1 N., R.1 W. S 34 BT.
A mesquite 9 ins.in diam.bears N. 59¼°W.79 lks.dist.marked T 1 N., R.1 W. S 33 BT.
Land level.
Soil sandy 1st.rate.
Timber cottonwood and mesquite.
From this cor. James F.Kennedy's house bears S 70°E.5.55 chs.dist.

December 27,1912.

December 28,1912. At 7h 46m a.m., l.m.t. I set off 33°22½'N.on the lat.arc, 23°13'S.on the decl.arc and determine a meridian with the solar at the RESTAB stand.cor.of secs. 33 and 34, above described,
Thence I run,
West, on a random line, on S. bdry.of sec.33.
Over level bottom land through scattering mesquite timber and dense water moat brush undergrowth 8 ft.high.

3.00 Old river bank 8 ft.high bears NW.and SE.
12.10 Descend bank 4 ft.high into dry sand wash.
14.00 Center of sand wash 400 lks.wide course north.
20.00 Leave bottom land bears N.and S., ascend E. slope over stony hilly land.
38.60 Old wood road bears N.and S.
Difference between measurements of 39.99 chs.by two sets of chainmen is 4 lks.; position of middle point
By 1 st.set 40.01 chs.
By 2 nd.set 39.97 chs., the mean of which is
39.99 Fall 8 lks.N.of the old stand.¼ sec.cor., which is a granite stone, 12x8x7 ins.above ground, firmly set, marked and witnessed as described by the Surveyor General.
True course & dist. of this ½ mile is therefore S.89°53'W., 39.99 chs.
From above described sta.¼ sec. cor. I run West on random line, on S. bdy. of sec.33, on W½ mile.
4.10 Dry ravine 20 lks.wide course north ascend steeply.over mountainous land bears N.and S.
18.60 Top of spur bears N.and S.desc.
25.20 Dry ravine 15 lks.wide course north.asc.
34.50 Top of spur bears N.and S.desc.
Difference between measurements of 39.36 chs.by two sets of chainmen is 4 lks.; position of middle point
By 1 st.set 39.38 chs.
By 2nd. set 39.34 chs. the mean of which is
39.36 Fall 9 lks.S.of the old stand.cor.of secs.32 and 33., which is a granite stone, 12x8x6 ins.above ground, firmly set, marked and witnessed as described by the Surveyor General.
True course & dist. of this ½ mile is therefore N.89°52'W., 39.36 chs.
Land level, hilly, and mountainous.
Soil sandy and stony 2 nd.and 3 rd.rate.
Timber scattering mesquite.
Mountainous land 35.26 chs.

West, on a random line, on S. bdry of sec.32.
Descend NW. slope of spur, over stony mountainous land. through scattering palo verde timber and greasewood brush undergrowth.
3.00 Dry ravine, 20 lks.wide, course NE., asc.
13.25 Top of spur, bears N.and S., desc.
24.40 Head of ravine, course north; asc.
29.70 Top of spur, bears NW.and SE., desc.
Difference between measurements of 39.32 chs.by two sets of chainmen is 4 lks.; position of middle point
By 1 st.set, 39.30 chs.
By 2 nd.set, 39.34 chs.the mean of which is
39.32 Fall 9 lks.S.of the OLD stand.¼ sec.cor., which is a granite stone 12x10x6 ins.above ground, firmly set, marked and witnessed as described by the Surveyor General
True course & dist.of this ½ mile is therefore N.89°52'W., 39.32 chs.

Chains.	
	From above described ¼sec.cor. I run West, on random line, on S.bdy.of sec.32,on W½ mile.
3.70	Dry ravine 15 lks.wide course NW. Leave mountainous land bears NW.and SE. enter rolling land.
20.30	Dry ravine 40 lks.wide course north.
20.80	Road to James F.Kennedy's ranch bears NW.and SE.
27.10	Dry sand wash 100 lks.wide 6 ft.deep course NW.
29.60	Old road bears N.and S.,Leave rolling land bears N.and S. Enter mountainous land,ascend SE. slope of spur.
38.00	Top of spur bears NW.and SE. desc.
	Difference between measurements of 39.70 chs.by two sets of chainmen is 8 lks.;position of middle point
	By 1 st.set,39.74 chs.
	By 2 nd.set 39.66 chs.,the mean of which is
39.70	Fall 3 lks.S of the old stand.cor.of secs.31 and 32.,which is a granite stone,13x9x7 ins.above ground,firmly set, marked and witnessed as described by the Surveyor General
	True course & dist.of this ½ mile is therefore N.89°57'W.,39.70 chs. [illegible]58'E.
	Land rolling and mountainous.
	Soil stony 3 rd.and 4 th.rate.
	Timber scattering mesquite.
	Mountainous land.53.12 chs.
	Note: at this cor.I set off 23°15½'S.on the decl.arc,and at noon observe the sun on the meridian the resulting latitude being 33°22½'N.
	- -
	West,on a random line,on S. bdry.of sec.31
	Descend SW. slope over stony mountainous land.
2.00	Head of dry ravine course S.asc.
8.00	Top of spur bears NE.and SW. desc.
	Difference between measurements of 39.68 chs.by two sets of chainmen is 6 lks.;position of middle point
	By 1 st. set 39.71 chs.
	By 2 nd.set 39.65 chs. the mean of which is
39.68	Fall 7 lks.N.of the old stand.¼ sec.cor.,which is a granite stone 14x10x6 ins.above ground,firmly set, marked and witnessed as described by the Surveyor General.
	True course & dist. of this ½ mile is therefore S.89°54'W., 39.68 chs. [illegible]
	[illegible]
	From above described ¼sec.cor. I run West on random line,on S.bdy. sec.31,on W½ mile.
1.25	Dry ravine,10 lks.wide,course south.
9.85	Top of spur, bears NW.and SE. desc.
19.40	Dry ravine,10 lks.wide course south.
21.30	Top of spur, bears N.and S. desc.
23.35	Dry ravine, 25 lks.wide course south asc.
35.70	Top of spur, bears N.and S. desc.
	Difference between measurements of 39.98 chs.by two sets of chainmen is 4 lks.;position of middle point,
	By 1 st.set 39.96 chs.
	By 2 nd.set 40.00 chs. the mean of which is
39.98	Fall 28 lks.N.of the old Stand.cor.of Tps.1 N.,Rs.1 and 2 W. which is a granite stone,10x7x7 ins. above ground, firmly set,marked and witnessed as described by the Surveyor General.
	True course & dist. of this ½ mile is therefore S.89°36'W., 39.98 chs. [illegible].
	Land mountainous.
	Soil stony 3 rd.and 4 th.rate.
	No timber.

December 28,1912.

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Sidney E Blount

U.S.Surveyor

Retracement of the Gila and Salt River Meridian through Tp.1 S.,bet.Rs.1 E.and 1 W.

Chains.

Survey commenced December 21,1912.and executed with a Young and Sons light mountain transit No.10 with a Smith solar attachment. The horizontal limb being 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.

I examine the adjustments of the transit and find them to be correct ,and know from recent tests of the solar apparatus,by comparing its indications,resulting from solar observations made during a.m.,and p.m. hours with a meridian established by observations on Polaris,that the instrument is in satisfactory adjustment.

All measurements were made with a 5.00 ch. steel tape a clinometer being used to determine the slope angles.

I begin at the initial point of the Gila and Salt River Base and Meridian,which is a stone monument 8 ft.in diam.at the base,4 ft.in diam.at the top and 8 ft.high situated on the summit of a round hill on the south side of the Gila River,opposite the mouth of the Salt River.

The monument is witnessed as described by the surveyor general. latitude 33°22'33"N.,longitude 112°18'24"W

The magnetic bearing of the true meridian at $8^h 00^m$ a.m.l.m.t. is N 14°15'W.; the angle thus determined gives the mag.decl.14°15'E.

At $8^h 59^m$ a.m.,l.m.t. I set off 33°00½'N.on the lat.arc, 23°25'S.on the decl.arc and determine a meridian with the solar

Thence I run

South,on a random line,bet secs.1 and 6.

40.00 I make a diligent search for the old ¼ sec.cor.,which is described as a post set in a mound of stone but am unable to find any trace of the same,therefore I continue my random line,south,

40.06 Fall 16 lks.E.of an iron post 1 in.in diam.14 ins.above ground,firmly set,marked on brass cap ¼ S 1 in W. half, and S 6 in E. half,with a mound of stone 3 ft.base,1½ ft.high W.of cor. True course & dist.of line from Initial Mon.to this cor.is therefore S.0°14'W.,40.06 chs. continue random line & measurement South,

80.00 Fall 15 lks.E.of an iron post 1 in.in diam.,16 ins.above ground,firmly set,marked on brass cap S1 T.1 S.in NW. S 6 in NE.,R 1 E.,S7 in SE.and R 1 E.,S 12 in SW. quadrant,with 3 notches on E.and 5 notches on S.cardinal points. Mound of stone 2 ft.base,1½ ft.high W.of cor. True course & dist.of line bet.this cor.and above described ¼ sec.cor.is therefore S.0°9'E., 39.94 chs. Continue random line & measurement,South,

90.10 Fall 57 lks.E.of the old cor.of secs.1,6,7,and 12.,which is a granite stone 24x14x12 ins.above ground,marked R 1 E.on E. face,with 1 notch on N.and 5 notches on S. edges.,with a mound of stone 2 ft.base,1½ ft.high S.of cor.

True course & dist.of line from Initial Mon.to this cor.is therefore S.0°22'W.,90.10 chs.

Note:At this cor.I set off 23°25½'S.on the decl.arc and at noon at., noon.observe the sun on the meridian and obtain a reading of 33°22'N.

South,on a random line,bet.secs.7 and 12.

29.99 Fall 52 lks.W.of an iron post 1 in.in diam.12 ins.above ground firmly set,marked on ¼ on brass cap S 12 in W. half and S 7 in E. half.,with a mound of stone 2 ft.base,1½ ft.high W. of cor.

True course & dist.of line from the W¼ cor.of secs.1,6,7&12 to this cor.is therefore South,40.02 chs. continue random line & measurement South,

40.27 Fall 11 lks.W.of the old ¼ sec.cor.,which is a granite stone 6x6x4 ins.above ground,firmly set,marked ¼ on W. face,with a mound of stone 2 ft.base 1 ft.high W. of cor.

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Retracement of the Gila and Salt River Meridian through T 1 S., bet. Rs.1 E.and 1 W.

Chains

True course & dist. of line from old cor. of secs.1,6,7 & 12, to this cor. is therefore S.0°19'E.,40.27 chs.

From above destribed old ¼ sec. cor. I run. South, on random line bet. secs. 7 & 12, on S½ mile

29.67 Fall 32 lks.W.of an iron post 1 in. in diam. 14 ins. above ground, loosely set, marked on brass cap "¼ T 1 S, in NW, S 7 R 1 E. in NE. S 18 in SE., and R 1 W. S 13 in SW. quadrant. No cor. accessories. True course & dist. of line from iron post ¼ sec. cor. to this cor. is therefore S.0°8'W.,39.98 chs. Continue random line & measurement, South,

40.84 Fall 26 lks.E.of the old cor. of secs.7,12,13, and 18., which is a granite stone 16x12x4 ins. above ground, marked with 2 notches on N. and 4 notches on S. edges., with a mound of stone 2 ft. base, 1½ ft. high S. of cor.

True course & dist. of line from old ¼ sec. cor. to this cor. is therefore S.0°22'W., 40.84 chs.

December 21, 1912.

December 21, 1912. At my camp which is located in the northwest quarter of sec.3 T 1 S., R 1 W., near the standard cor. of secs. 33 and 34., T. 1 N., R 1 W., latitude 33°22'33"N., longitude 112°21'36""W. At $6^h\ 13^m$ p.m., by my watch, which is correct local mean time I observe Polaris in accordance with the Manual of Instructions and mark a point in the line thus determined by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument.

Time of observation Dec.21	6^h	13^m p.m.
Time of U.C.Polaris Dec.21, for the meridian of Greenwich civil date and mean time	7^h	28.3^m p.m.
Correction for for station of observation argument, longitude west from Greenwich subtract	- 7	1.2 m
Time U.C.Polaris Dec.21, at place of obs.	7	27.1
Polaris east of the meridian, subtract		
Time of obs. from time of culmination	6	13
Hour angle of Polaris at observation	1	14.1
Azimuth of Polaris at observation		0°27'E.

December 21, 1912.

December 22, 1912. At $8^h\ 30^m$ a.m. l.m.t. I lay off the azimuth 0°27' to the west and mark the meridian thus determined by a tack driven in a stake set firmly in the ground 5.00 chs. N. of my instrument.

At $8^h\ 29^m$ a.,m.,l.m.t. I set off 33°22½'N. on the lat.arc, 23°24½'S. on the decl.arc and determine a meridian with the solar and mark a point thereof by a tack driven in the stake already set 5.00 chs. N. of my instrument, on which the meridian falls 0.3 ins. east of the meridian determined by the Polaris observation.

At $2^h\ 59^m$ p.m., l.m.t., I set off 33°22½'N. on the lat.arc, 23°25'S. on the decl.arc and determine a meridian with the solar and mark a pont thereof by a tack driven in the stake already set 5.00 chs. N. of my instrument., This point falls 0.5 ins. west of the meridian determined by the Polaris observation.

The solar apparatus by a.m., and p.m. observations defines positions for meridians respectively about 0'16"E. and 0'26" west of the meridian determined by the Polaris observation; 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.l.m.t. is N. 14°15'W., the angle thus determined gives the mag. decl. 14°15'E.

December 22.1912.

Retracement of the Gila and Salt River Meridian through 4p.l.s,bet.ranges.1 E.,and 1 W.

Chains	
	December 23 1912 At 8h 29m a.M,l.m.t. I set off 33°21'N.on the lat.arc,23°24'S.on the decl.arc,and determine a meridian with the solar at the old cor.of secs.7,12,13, and 18,hereinbefore described,
	Thence I run,
	South,on a random line,bet.secs.13 and 18.
28.93	Fall 89 lks.W.of iron post 1 in.in diam.16 ins.above ground,firmly set,marked on brass cap ¼ S,13 in W.half and S 18 in E. half,with mound of stone 2 ft.base,1½ ft.high W.of cor.
	True course & dist.of line from iron post cor.of secs.7,12,13 & 18 to this cor.is therefore S.0°27'E.,40.14 chs. Continue random line & measurement,South,
40.00	I make a diligent search for the old ¼ sec. cor.which I fail to find therefore I continue my random line,south.
68.93	Fall 39 lks.W.of an iron post 1 in.in diam.12 ins.above ground,firmly set,marked on brass cap,S 13,T 1 S.,in NW,S 18 R.1 E.in NE,S 19 in SE.,and S 24 in SW.quadrant. No corner accessories.
	True course & dist.of line from iron post ¼ sec.cor.to this cor.is therefore: South,40.00 chs. Continue random line & measurement,South,
80.88	Fall 252 lks.W.of the old cor.of secs.13,18,19,and 24., which is a granite stone 18x12x10 ins.set in a mound of stone,marked with 3 notches on N.and S.edges,with scattered remains of mound of stone south of cor.
	True course & dist.of line from old cor.of secs.7,12,13 & 18 to this cor.is therefore S.1°48'E.,80.92 chs.
	Note: At this cor.I set off 33°20'S.on the decl.arc,and at noon observe the sun on the meridian and obtain a reading of 33°20'N.on the lat.arc.

From the old cor.of secs.13,18,19,and 24,above described,I run, South,on a random line,bet.secs.19 and 24.

27.86	Fall 164 lks.E.of an iron post 1 in.in diam.,set in a mound of stone,marked on brass cap, ¼,S.24 in W. half, and S 19 in E. half. No corner accessories.
	True course & dist.of line from iron post ¼ sec.cor.to this cor.is therefore S.0°1'W., 39.86 chs. Continue random line & measurement,South,
40.00	I make a diligent search for the old ¼ sec.cor.which I fail to find;therefore I set temp point for ¼ sec.cor, thence I continue my random line south.
67.52	Fall 163 lks.E.of an iron post 1 in.in diam.24 ins.above ground,loosely set,marked on brass cap,S24,T1 S.in NW., S19,R1E.in NE,S30 in SE.,and R1W.,S25 in SW.quadrant, with 4 notches on N.and 2 notches on S. cardinal points. No corner accessories.
	True course & dist.of line from iron post ¼ sec.cor.to this cor.is therefore S.0°1'E., 39.86 chs. Continue random line & measurement,South,
80.00	I make a diligent search for the old cor.of secs.19,24,25, and 30.which I fail to find;therefore I set temp.point for said cor.

December 23,1912.

December 24 1912 At 8h 30m a.m.,l.m.t. I set off 33°19'N.on the lat.arc,23°23'S.on the decl.arc and determine a meridian with the solar at the temp.point for cor.of secs.19,24,25,and 30,set last evening.

Thence I run,

South,on a random line,bet.secs.25 and 30.

27.54	Fall 165 lks.E.of an iron post 1 in.in diam.,loosely set in a mound of stone,marked on brass cap ¼ S 25 in W. half and S 30 in E. half. No cor.accessories.
	True course & dist.of line from iron post cor.of secs.19,24,25 & 30 to this cor.is therefore S.0°2'W.,40.02 chs.,Continue random line,South,
40.00	I make a diligent search for the old ¼ sec.cor.,which is described as a granite stone 15x12x6 ins.with a mound of stone alongside but am unable to find any trace of it.

Retracement of the Gila and Salt River Meridian through T 1 S., bet. Rs.1 E., and 1 W.

Chains. therefore I set temp.point for ¼ sec.cor. and continue my random line south.

67.64 Fall 157 lks.E.of an iron post 1 in.in diam.set loosely in a mound of stone, marked on brass cap, S25, T1S.in NW., S 30, R1E.in NE., S31 in SE., and R1W.S36 in SW.quadrant, with 5 notches on N.and 1 notch on S.cardinal points. No corner accessories.

True course & dist.of line from iron post ¼ sec. cor. to this cor. is therefore S.0° 7' E., 40.10 chs. Continue random line W.

80.00 I make a diligent search for the old cor.of secs.25,30,31, and 36., which I fail to find.and set a temp.point for the cor.of secs.25,30,31,and 36.

From temp.point for cor.of secs.25,30,31,and 36, set by me, I run, on random line, South, bet.secs.31 and 36.

27.46 Fall 185 lks.E.of an iron post, 1 in.in diam., loosely set in a mound of stone, marked on brass cap, ¼ S 36 in W. half, and S 31 in E. half. No corner accessories.

True course & dist. of line from iron post cor. of 25,30,31 & 36 to this cor. is therefore S.0° 24' W., 39.82 chs. Continue random line & measurement, South,

40.00 I make a diligent search for the old ¼ sec.cor., which is described as a granite stone 12x9x9 ins.with a mound of stone alongside but can find no trace of it.; therefore I set temp.point for ¼ sec.cor.and continue my RANDOM line south.

67.62 Fall 188 lks.E.of an iron post 3 ins.in diam.set in a mound of stone, marked on brass cap S36, R1W.in NW., S31, T1S.in NE., R1E., S6 in SE., and T2S., S1 in SW.quadrant, with 6 notches on N., E., S., and W. cardinal points.

No corner accessories.

True course & dist. of line from iron post ¼ sec.cor. to this cor. is therefore S.0° 3' W., 40.16 chs. Continue random line & measurement, South,

80.00 I make a diligent search for the old cor.of Tps.1 and 2 S., Rs.1 E., and 1 W.which I fail to find., therefore I set temp.point for.cor.of Tps.1 and 2 S., Rs.1 E. and 1 W.

Note: At the temp.point for cor.of secs.25,30,31,and 36. I set off 23°24'S.on the decl.arc and at noon observe the sun on the meridian and obtain a reading of 33°18'N.on the lat.arc.

Since I am unable to find many of the old original corners in the retracement of the Gila and Salt River Meridian through T.1 S., and since I find that a resurvey, has been made recently, of the entire line through this Tp., iron posts being used for.cor. monuments, of which I have no record in the data furnished me by the Surveyor General. I refer the the conditions found in the field to the Surveyor General for additional instructions.

December 24, 1912.

Resurvey of The Gila and Salt River Meridian through T 1 S

Chains.

In accordance with Telegraphic instructions from the Commissioner of the General Land Office, dated Jan. 3, 1913. directing, that the resurvey of the Gila and Salt River Meridian through T. 1 S., bet. Rs. 1 E., and 1 W. as made by the Indian Department, be accepted, and that the old corners found along the line be destroyed, and corner accessories established, where found missing at the cors. of the resurvey., I proceed to the Initial point of the Gila and Salt River Base and Meridian and re-run the Gila meridian through T 1 S., as follows;

January 4, 1913. At $7^h\ 49^m$ a.m., l.m.t. I set off 33°22½'N. on the lat. arc, 22°40½'S. on the decl. arc and determine a meridian with the solar at the Initial Point.

Thence I run

S. 0°14'W., on a true line, bet. secs. 1 and 6.

Descend NE. slope of hill over stony land through scattering greasewood brush undergrowth 3 ft. high

18.50 Foot of descent on E. slope of ridge, thence along foot of ridge over rolling land.

26.20 Wood road, bears NW. and SE.

32.00 Dry ravine, 15 lks. wide 6 ft. deep course NE.

33.90 Wood road on top of ridge bears NE. and SW. desc.

38.30 Dry ravine 20 lks. wide course NE.

40.06 Intersect the ¼ sec. cor., which is an iron post 1 ins. in diam. 14 ins. above ground, firmly set, marked on brass cap ¼ S 1 in W. half and S 6 in E. half., with a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Thence I run, continuing measurement,

S. 0°09'E., on true line, bet. secs. 1 and 6, on S½ mile,

47.75 Dry ravine 25 lks. wide 8 ft. deep course NE.

80.00 Intersect the cor. of secs 1, 6, 7, and 12., which is an iron post 1 in. in diam. 16 ins. above ground, firmly set; marked on brass cap S1, T1S. in NW., S6 in NE., R1E. S7 in SE. and R1E., S12 in SW. quadrant., with a mound of stone 2 ft. base, 1½ ft. high W. of cor.

I change the designation of the range in the SW. quadrant on cap from E. to W.

A palo verde, 5 ins. in diam., bears N. 68°E., 106 lks. dist., marked T1S, R1E., S6 BT. No other trees within limits.

Land, rolling and hilly.
Soil, stony, 3 rd. rate.
Timber, scattering palo verde.

South, on a true line, bet. secs. 7 and 12.

Ascend gradually over NE. slope, through scattering palo verde and mesquite timber and greasewood brush under growth 3 ft. high.

3.65 Enter dry ravine, course NE. thence in ravine.

10.10 The old cor. of secs, 1, 6, 7, and 12. bears west 52 lks. dist. I destroy all evidence of this cor.

11.30 Wood road. bears NE. and SW.

12.40 Leave sand wash over stony flat.

40.02 Intersect the ¼ sec. cor., which is an iron post 1 in. in diam. 12 ins. above ground, firmly set, marked on brass cap ¼ S12 in W., half and S7 in E. half, with a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Thence I run, continuing measurement,

S. 0°08'W., on a true line, bet. secs. 7 and 12, on S½ mile,

42.65 Dry ravine, 20 lks. wide 10 ft. deep course N. 20°E.

44.05 Dry ravine, 20 lks. wide course NW.

50.37 Fall 41 lks. E. of the old ¼ sec. cor. I destroy all evidence of this cor.

53.30 Wood road bears NE. and SW.

58.00 Leave rolling land bears NW. and SE., Enter stony mountainous land, ascend N. slope of spur.

80.00 Intersect the cor. of secs. 7, 12, 13, and 18., which is an iron post 1 in. in diam. 14 ins. above ground, marked on brass cap T1S, S12 in NW., S7, R1E. in NE., R1W. S13 in SW. and S18 in SE. quadrant No cor. accessories.

A palo verde 10 ins. in diam. bears N. 85¾°W. 93 lks. dist,

Chains.	
	dist., marked T1S., R 1 W. S12 BT. No other trees available.
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land rolling and mountainous.
	Soil stony 3 rd. and 4 th. rate.
	Timber palo verde and mesquite.
	Mountainous land 22.00 chs.
	S. 0°27'E., on a true line, bet. secs. 13 and 18.
	Ascend abrupt rocky NE. slope of spur over mountainous land through scattering palo verde timber and greasewood brush 3 ft. high.
2.50	Top of spur bears NE. and SW. thence along E. slope.
11.21	Fall 58 lks. E. of the old ¼ sec. cor., I destroy all evidence of this cor.
19.90	Begin abrupt descent over SE. slope.
33.90	Foot of abrupt descent, desc. gradually.
40.14	Intersect the ¼ sec. cor., which is an iron post 1 in. in diam. 16 ins. above ground, firmly set, marked on brass cap ¼ S 13 in W. half, and 18 in E. half, with a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Thence I run, on true line, continuing measurement South, bet secs. 13 and 18, on 58.20 mile,
40.85	Dry ravine, 25 lks. wide, 4 ft. deep, course NE.
51.15	Dry ravine, 30 lks. wide, course NE., aso. spur.
58.70	Top of spur, bears NE. and SW. desc. abruptly.
68.80	Foot of abrupt descent, descend gradually over rolling land.
80.14	Intersect the cor. of secs. 13, 18, 19, and 24., which is an iron post 1 in. in diam. 12 ins. above ground, firmly set marked on brass cap S13., T1S. in NW., S18., R1E. in NE., S19. in SE., and R1W., S24 in SW. quadrant. No cor. accessories.
	I raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	No trees suitable for bearing trees within limits. Pits impracticable.
	Land rolling and mountainous.
	Soil stony 3 rd. and 4 th. rate.
	Timber palo verde and mesquite.
	Mountainous land 11.20 chs.
	S. 0°01'W., on a true line, bet. secs. 19 and 24.
	Over rolling stony land, slopes to the NE. through grease-wood brush undergrowth 4 ft. high.
.40	Dry ravine 10 lks. wide 5 ft. deep course NE.
7.90	Dry ravine 15 lks. wide 7 ft. deep course NE.
11.95	The old cor. of secs. 13, 18, 19, and 24 bears east 163 lks. dist: I destroy all evidence of this cor.
17.60	Leave rolling land bears E. and W., Enter mountainous land ascend N. slope of spur.
21.15	Top of spur bears E. and W. thence along E. slope of mountain over broken land.
39.70	Top of spur bears NE. and SW. desc.
39.81	Intersect the ¼ sec. cor., which is an iron post 1 in. in diam. set in a mound of stone, marked on brass cap ¼ S 24 in W. half and S 19 in E. half. No cor. accessories.
	I raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Pits impracticable.
	Thence I run, continuing measurement,
	S. 0°01'E., on a true line, bet. secs. 19 and 24, on S½ mile,
48.60	Foot of abrupt descent, descend gradually.
52.60	Dry ravine 25 lks. wide 8 ft. deep course NE.
65.30	Dry ravine 20 lks. wide course NE. ascend abruptly over N. slope.
79.67	Intersect the cor. of secs. 19, 24, 25, and 30, which is an iron post 1 in. in diam., loosely set in a mound of stone, marked on brass cap S24., T1S. in NW., S19., R1E. in NE., S30 in SE., and R1W., S25 in SW. quadrant. No corner accessories.
	I reset the post firmly in the mound of stone, and raise a

Chains.

mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
Land mountainous.
Soil stony 3 rd.rate.
No timber.

Note: At this cor.I set off 22°42½'S.on the decl.arc,and at noon observe the sun on the meridian and obtain a reading of 33°19'N.on the lat.arc.

S.0°02'W.,on a true line,bet.secs.25 and 30.
Ascend abrupt rocky N.slope of spur over mountainous land, through scattering greasewood brush undergrowth 3 ft. high.

5.25 Top of spur 60 ft.above cor.bears NE.and SW.desc.abruptly.
22.40 Dry ravine 35 lks.wide course east.asc.
32.85 Top of spur bears E.and W. desc.
40.02 Intersect the ¼ sec.cor.which is an iron post 1 in.in diam. loosely set in a mound of stone,marked on brass cap ¼ S 25 in W. half,and S 30 in E. half. No cor accessories.
I re-set the post firmly in the mound of stone and raise a mound of stone 2 ft.base,1½ ft.high W.of cor.
Pits impracticable.
Thence I run,continuing measurement,
S.0°07'E.,on a true line bet.secs.25 and 30,on S½ mile,
47.70 Dry ravine 25 lks.wide course east.asc.
58.80 Top of spur bears E.and W.descend.
69.75 Dry ravine 35 lks.wide course NE.asc.
80.12 Intersect the cor.of secs.25,30,31,and 36.,which is an iron post 1 in.in diam.loosely set in a mound of stone marked on brass cap S25.,T1S.in NW.,S30.,R1E.,in NE. S31 in SE.,and R1W.,S36 in SW. quadrant.
No corner accessories.
I re-set the post firmly in the mound of stone,and raise a mound of stone 2 ft.base,1½ ft.high W.of cor.
Pits impracticable.
Land mountainous.
Soil stony 3 rd.rate.
Timber scattering palo verde and mesquite in bottom of ravines.

S.0°24'W.,on a true line,bet.secs.31 and 36.
Ascend abrupt rocky NE. slope of spur over mountainous land through scattering palo verde and mesquite timber and greasewood brush undergrowth 3 ft.high.

5.20 Top of spur 100 ft.above cor.bears E.and W.desc.abruptly.
27.00 Foot of descent in dry ravine 50 lks.wide course east.
39.82 Intersect the ¼ sec.cor.,which is an iron post 1 in.in dia. loosely set in a mound of stone,marked on brass cap ¼ S36 in W. half,and S 31 in E. half. No cor.accessories.
I re-set the post firmly in the mound of stone,and raise a mound of stone 2 ft.base,1½ ft.high W.of cor.
Thence I run
S 0°03'W.on a true line bet.secs.31 and 36,on S½ mile,
44.60 Dry ravine,40 lks.wide,10 ft.deep,course east.
47.80 Dry ravine,60 lks.wide,15 ft.deep,course NE.
48.60 Enter loose fallen boulders.
55.50 Begin steep ascent,over N.slope of spur.
67.80 Top of spur,bears NE.and SW.,desc.
73.80 Foot of abrupt descent,descend gradually.
75.50 Dry rocky ravine,50 lks.wide,course NE.,ascend main ridge of the Estrella Mountains.
79.98 Intersect the cor.of Tps.1 and 2 S.,Rs.1 E.,and 1 W.,which is an iron post 3 ins.in diam.,firmly set in a mound of stone,marked on brass cap S36.,R1W.in NW.,S31.,T1S. in NE.,R1E.,S6 in SE.,and T2S.,S1 in SW. quadrant.
No corner accessories.; Raise a mound of stone 2 ft.base, 1½ ft.high S.of cor.,No trees within limits.

Resurvey of the Gila & Salt River Meridian through T 1 S.

Chains.	
	Pits impracticable. Land mountainous. Soil stony 3 rd.rate. Timber scattering palo verde and mesquite. January 4 th.1913. Sidney E Blaut U.S.Surveyor

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BOOK 2645

(15)

FOR FINAL OATH OF UNITED STATES SURVEYOR.

See Book "O" Group 20

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____

U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, July 27, 1914

The foregoing field notes of the ~~survey of~~ Retracement and Resurvey of the Gila and Salt River Base Line thru Range No. 1 West, and the Gila and Salt River Meridian thru Township No. 1 South, Arizona executed by Sidney E. Blout, U.S. Surveyor under Supplemental Special Instructions for Group 19 dated October 12, 1912, and telegraphic instructions from the Commissioner of the General Land Office dated January 3, 1913 executed by Sidney E. Blout, U.S. Surveyor under Special Instructions dated _____, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and resurveys they describe, are hereby approved.

Frank A. Ingalls

~~U.S.~~ *Surveyor General of Arizona.*

~~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.~~

_____

~~U. S. Surveyor General.~~

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