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BOOK " C "

BOOK 2793

Standard Lines

FIELD NOTES

OF THE SURVEY OF THE

GILA AND SALT RIVER BASE LINE.

Through Ranges 6, 7, 8, 9 and 10 West.

2793

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

In the State of ARIZONA.

EXECUTED BY

JESSE B. WRIGHT,

In the capacity of U. S. Surveyor, *under instructions dated* October 21, *1913*, *issued by the United States Surveyor General to govern surveys included in Group No.* 32, *which were approved by the Commissioner of the General Land Office,* November 21, *1913*, *pursuant to authority contained in the Act of Congress dated* June 23, *1913*

Survey commenced February 9, *1914*

Survey completed April 20, 1914.

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Book "C"

BOOK 2793

INDEX DIAGRAM

Group 32

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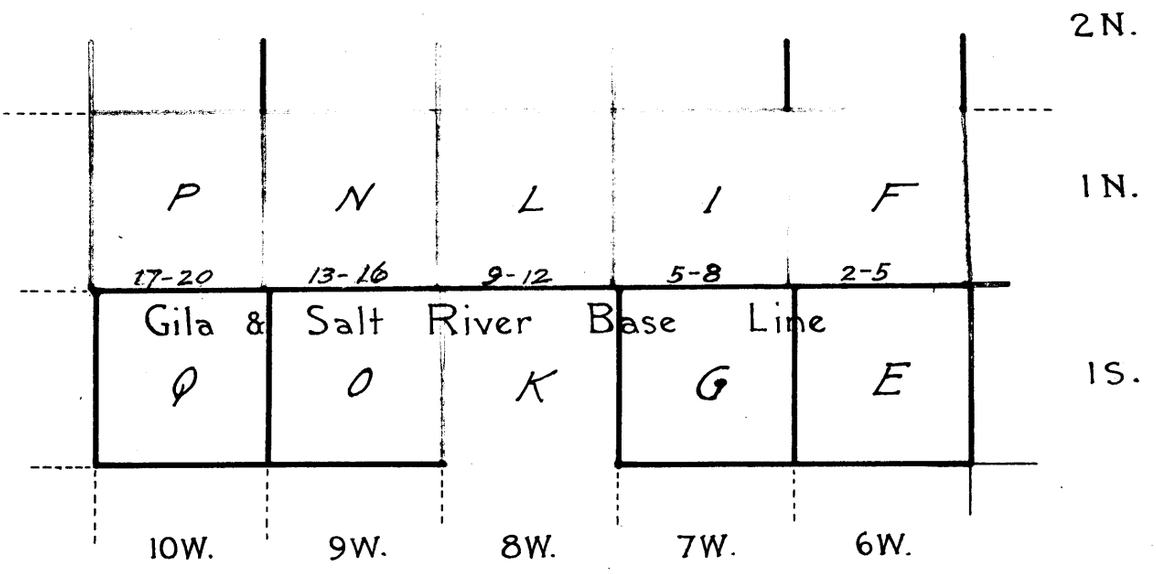

Gila and Salt River Base Line, through Range 6 West

Chains	
	Survey commenced Feb. 8, 1914, and executed by Jesse B.Wright U.S.Surveyor, using a Young and Sons Light Mountain Transit No. 7084. For description of this instrument, field tests and establishment of meridian see Book "A".
	From the cor. of Tps. 1 & 2 S., Rs. 5 & 6 W., I run due north by back & fore sight, with great care and precision on the line of the true meridian as determined by my Polaris observation on Feb. 7th, setting flags at prominent points on my meridional line, which falls 54 lks. East of the Std. cor. of Tps. 1 N., Rs. 5 & 6 W., which is an old post as described by the Surveyor General, which cor., I re-establish as described in book "D".

	Feb. 9, 1914. At 8 h. a.m., l.m.t., at the point on my true meridional line 54 lks. East of the Std. cor. of Tps. 1 N., Rs. 5 & 6 W., lat. 33° 22' 33" N., Long. 112° 49' 31" W., I set off 14° 46' S., on the decl. arc, and 33° 22½' N., on the lat. arc, and determine a meridian with the solar, which line I find agrees with the line of the true meridian brought north from point of Polaris observation.
	I set off with great care and precision an angle of 90° from north to west, repeating this angle a number of times with instrument direct and reversed, as a check. Thence I run, by back & fore sight, using great care in measurement and alinement; measuring from the Std. cor. of Tps. 1 N., Rs. 5 & 6 W., as above described:-
	West, on the tangent, S. of sec. 36. Over gently undulating plain, through dense sage brush, scattering greasewood, and scrub mesquite.
23.62	Dim road, brs. NNE. & SSW.
	Measurement of 40.00 chs. by 2 sets of chainmen is identical, therefore at
40.00	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for Std. ¼ sec. cor., marked on brass cap, S C ¼ S 36 in N. half, and 1914 on S. rim; no bearings available; dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
	Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 2 lks., position of middle point, by 1st set, 79.99 chs., by 2nd set, 80.01 chs., the mean of which is
80.00	N. 1.00 lk. from the tangent.
	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for Std. cor. of secs. 35 & 36, marked on brass cap, 1914 on S. rim, S C; T 1 N R 6 W, in N. half, S 35 in NW., and S 36 in NE. quad., no bearings available; dig pits 24 x 18 x 12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
	Land, gently undulating, level.
	Soil, 2nd rate, sandy, loose, loamy, dry.
	Greasewood, sage brush, scrub mesquite, sparse grass.
	- -
	S. 89° 59' W., on the tangent, S. of sec. 35. Over level plain, through scattering brush.
	Difference bet. measurements of 40.00 chs. by 2 sets of chainman is 2 lks.; position of middle point, by 1st set, 39.99 chs., by 2nd set, 40.01 chs.; the mean of which is
40.00	N. 1½ lks. from the tangent,
	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap, S C ¼ S 35 in N. half, and 1914 on S. rim; no bearings available; dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
43.60	Dim road, brs. NNW & SSE.
74.00	Draw 5 chs. wide, course S.

Chains.

Measurement of 80 chs. by 2 sets of chainmen being identical, at

80.00 N. 3 lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 34 & 35, marked on brass cap, 1914 on S. rim,

S C, T 1 N R 6 W, in N. half,

S 34 in NW., and

S 35 in NE. quad.; no bearings available;

dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level. Soil, 2nd rate, sandy, loamy, dry.

Sage brush, greasewood, few cacti.

Note: At this cor., at noon, I set off 14°43' S. on the decl. arc, and observe the sun on the meridian.

The resulting lat. is 33°23' N.

S. 89°59' W. on the tangent, S. of sec. 34.

Over level plain, through dense brush.

measurements of 40 chs. by 2 sets of chainmen being identical, at

40.00 N. 4 lks. from the tangent,

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,

S C, ¼ S 34 in N. half, and

1914 on S. rim, no bearings available;

dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,

by 1st set, 79.99 chs.,

by 2nd set, 80.01 chs.; the mean of which is

80.00 N. 6 lks. from the tanget,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 33 & 34, marked on brass cap, 1914 on S. rim,

S C, T 1 N, R 6 W, in N. half,

S 33 in NW., and

S 34 in NE. quad.; no bearings available;

dig pits 24x18x12 ins. crosswise on each line, E. & W. of cor. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level. Soil, 2nd rate, loamy, sandy, dry.

Greasewood, scrub mesquite, sage brush, few cacti.

S. 89°58' W. on the tangent, S. of sec. 33.

Over level plain, through dense brush.

Measurements of 40 chs. by 2 sets of chainmen being identical, at

40.00 N. 8 lks. from the tangent,

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,

S C, ¼ S 33 in N. half, and 1914 on S. rim;

dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

67.00 Enter draw, course S.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 3 lks.; position of middle point,

by 1st set, 79.98½ chs.,

by 2nd set, 80.01½ chs.; the mean of which is

80.00 N. 10½ lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 32 & 33, marked on brass cap, 1914 on S. rim, S C, T 1 N R 6 W, in N. half,

S 32 in NW., and S 33 in NE. quad.; from which,

A mesquite tree 12 ins. diam. brs. N. 40½°E. 25 lks. dist., marked S C, T 1 N R 6 W S 33 B T. Only tree avail.

Dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level. Soil, 2nd rate, sandy. Scrub mesquite, sage.

Feb. 9, 1914.

Chains.

Feb. 10, 1914.
S. 89°58' W. on the tangent, S. of sec. 32.
Over gently undulating land, through scattering brush.
3.00 Leave draw, course S.
27.35 Wash, 20 lks. wide, course S.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 39.99 chs.,
by 2nd set, 40.01 chs.; the mean of which is
40.00 N. 13½ lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 32 in N. half, and
1914 on S. rim; no bearings available, pits impracticable.
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
41.00 Leave plain, asc. NE. slope of stony volcanic hill.
53.45 Top of hill, brs. N. 10 chs. & S. 20 chs., desc. steep.
63.00 Foot, brs. NNE. & S., enter flat.
67.40 Wash, 90 lks. wide, 6 ft. deep, course S.
73.00 Leave flat, brs. N. & S., asc E. slope of volcanic hill.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 80.03 chs.,
by 2nd set, 79.97 chs.; the mean of which is
80.00 N. 16½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 10 ins. in the ground, to bed rock, in mound of stone for std. cor. of secs. 31 & 32, marked on brass cap,
S C, T 1 N R 6 W, in N. half,
1914 on S. rim,
S 31 in NW., and
S 32 in NE. quad.; pits impracticable.
Raise a mound of stone 4 ft. base 2 ft. high N. of cor.
Land, rolling. hilly.
Soil, 2nd & 3rd rate, sandy, gravelly, stony, dry.
Sage brush, greasewood, paloverde, mesquite in washes.

S. 89°57' W. on the tangent, S. of sec. 31.
Over mts. land, asc. rocky hill.
0.57 Top of rocky hill, brs. N. 8 chs. & S. 8 chs., desc.
5.00 Foot of hill, brs. N. & S., enter flat.
10.00 Draw, 3 chs. wide, course S.
15.00 Leave flat, asc. volcanic hill, brs. NNW. & SSE.
22.94 Top of rocky volcanic hill, brs. S. 15 chs., & NNW. 30 chs., desc. steep.
35.50 Foot, brs. NNW. & SSE., enter plain.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 39.98 chs.,
by 2nd set, 40.02 chs.; the mean of which is
40.00 N. 20 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 31 in N. half,
1914 on S. rim; no bearings available;
dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
41.00 Wash, 20 lks. wide, course SE.
65.00 Leave plain, brs. NNW. & SSE., asc. steep volcanic ridge.
77.00 Top of volcanic ridge, brs. NNW. & SSE., terminates 25 chs. to SSE. From this point my line of flags left at tangential points to the east is visible, and my line is straight. Desc. grad. SW. slope.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 8 lks.; position of middle point,
by 1st set, 80.04 chs., by 2nd set, 79.96 chs.
the mean of which is
80.00 N. 24½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. on bed rock, in mound of stone for std. cor. of Tps. 1 N., Rs. 6 & 7 W., marked on brass cap,

Chains.

1914 on S. rim,
S C, T 1 N, in N. half,
R 7 W S 36 in NW., and
R 6 W S 31 in NE. quad.;
no bearings available, pits impracticable.
Raise a mound of stone 5 ft. base 4 ft. high N. of cor.
Land, rolling, hilly.
Soil, 2nd & 3rd rate, sandy, gravelly, stony, dry.
Greasewood, sage brush, paloverde, mesquite in washes.
At my tangential point, 24½ lks. S. of this cor., at 10:04 p.m., l.m.t., this night, I observe Polaris at western elongation, in accordance with instruction in the Manual of Surveying, and mark the line thus determined by a cross on a fixed stone 8 chs. S. of my station, it being impracticable to secure a line to the north of sufficient length. I repeat my observation with telescope reversed, getting same line.

Feb. 10, 1914.

Feb. 11, 1914.
At 8h a.m., l. m. t. I set off the azimuth of Polaris, 1°22½' to the west, from my south point, and mark the true meridian thus determined by a tack in a stake driven firmly in the ground about 15 chs. S. of my station, also centering the cross on the iron post, cor. of Tps. 1 N., Rs. 6 & 7 W., 24½ lks. N. of my station, repeating my operations several times as a check, and taking the mean of slight differences.
From this true meridian, I deflect an angle and take the bearing of my tangential line S. of T. 1 N., R. 6 W., which at this point brs. N. 89°56½' E.
From these observations I conclude that the Gila & Salt River Base Line through Range 6 West has been accurately established.
At my station, at 8h a.m., l.m t., I set off 14°07' S. on the decl. arc, and 33°22½' N. on the lat. arc, and determine a meridian with the solar, which meridian agrees with the true meridian as established by observation of Polaris.

Feb. 11, 1914.

Gila & Salt River Base Line through Range 7 West.

Feb. 20, 1914.
At 8h a.m., l.m.t., at the std. cor. of Tps. 1 N., Rs. 6 & 7 W. hereinbefore described, I lay off an angle of 90° from south to west, from my true meridian as established on night of Feb. 10th, as above described, (which meridian I have checked by repeated observations of Polaris made on nights of Feb. 11th, 15th, & 19th, and found correct.)
Thence I run, as per instructions, by back & fore sight, West, on the tangent, S. of sec. 36.
Desc. volcanic stony hill, through scattering greasewood, paloverde, cacti.

14.00 Foot, brs. NNW. & SSE., enter level plain.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 39.98 chs.,
by 2nd set, 40.02 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 std. ¼ sec. cor., marked on brass cap,
S C ¼ S 36 in N. half,
1914 on S. rim; no bearings available,
dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

44.00 Wash, 3 chs. wide, course SW.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 80.02 chs.;
by 2nd set, 79.98 chs.; the mean of which is

Chains.

80.00 N. 1 lk. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 35 & 36, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 7 W, in N. half,
S 35 in NW., and
S 36 in NE. quad.; no bearings available;
dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, rolling, level.
Soil, 2nd rate, stony, gravelly, sandy, dry.
Greasewood, sage brush, paloverde and mesquite in wash.

S. 89°59' W. on the tangent, S. of sec. 35.
Over level plain, through dense brush, drains SSE.
Measurement of 40 chs. by 2 sets of chainmen being identical, at
40.00 N. 1½ lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 35 in N. half,
1914 on S. rim;
No bearings available, pits impracticable.
Raise a mound of stone 2 ft. base 1½ ft. high N. of cor.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point, by 1st set, 79.99 chs., by 2nd set, 80.01 chs., the mean of which is
80.00 N. 3 lks. from the tangent, [illegible]
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 34 & 35, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 7 W, in N. half,
S 34 in NW., and
S 35 in NE. quad.; no bearings available,
dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
[illegible]
Land, level, drains to SSE.
Soil, 2nd rate, sandy, gravelly, dry.
Greasewood, paloverde, scrub mesquite, sage brush.
Note: At this cor., at noon, 1 set off 10°59' S. on the decl. arc, and observe the sun on the meridian.
The resulting lat. is 33°22' N.

S. 89°59' W., on the tangent, S. of sec. 34.
Over level plain, drains S., through dense brush.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 1 lk.; position of middle point,
by 1st set, 39.99½ chs.,
by 2nd set, 40.00½ chs., the mean of which is
40.00 N. 4 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 34 in N. half,
1914 on S. rim;
no bearings available, pits impracticable.
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
65.00 Enter draw, course S.
70.40 Wash, 70 lks. wide, course SSE.
73.00 Leave draw, heavy mesquite and paloverde in same.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 79.99 chs.,
by 2nd set, 80.01 chs.; the mean of which is

Chains.

80.00 N. 6 lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 33 & 34, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 7 W, in N. half,
S 33 in NW., and Pits impracticable.
S 34 in NE. quad.; no bearings available.
Raise a mound of stone 2 ft.base, 1½ ft.high N. of cor.
Land, level, gently undulating, covered in places with showered volcanic stones.
Soil, 2nd rate, gravelly, sandy, dry, loose.
Greasewood, sage brush, some mesquite and paloverde trees.
Feb. 20, 1914.

Feb. 22, 1914.
At my tangential point 6 lks. S. of std. cor. of secs. 33 & 34, as above described, I set off 10°18½' S. on the decl. arc, and 33°22½' N. on the lat. arc, and determine a meridian with the solar, at 8h a.m., l.m.t. Deflecting a line from this meridian, to my tangential line, of 89°58' to the East, gives the bearing of my tangent at this point as N. 89°58' E.
Thence I run,
S. 89°58' W., on the tangent, S. of sec. 33.
Over gently rolling plain, through dense brush.
15.00 Draw, 3 chs. wide, course SSE.
25.00 Draw, 5 chs. wide, course SE.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 39.99 chs.,
by 2nd set, 40.01 chs.; the mean of which is
40.00 N. 8 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 33 in N. half, and
1914 on S. rim;
No bearings available, pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N. of cor.
40.50 Enter draw, course SE.,
50.10 Wash, 50 lks. wide, course SSE.
52.00 Leave draw.
68.50 Draw, 150 lks. wide, course SSE.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 79.98 chs.,
by 2nd set, 80.02 chs.; the mean of which is
80.00 N. 10½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 32 & 33, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 7 W, in N. half,
S 32 in NW., and
S 33 in NE. quad.;
no bearings available, pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N. of cor.
Land, gently rolling.
Soil, 2nd rate, sandy, gravelly, covered in places with showered volcanic stones.
Greasewood, sage brush, some mesquite and paloverde in draws.

S. 89°58' W. on the tangent, S. of sec. 32.
over rolling land, through dense brush.
3.20 Wash, 40 lks. wide, course S.
33.60 Wash, 40 lks. wide, course S.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 40.02 chs.,
by 2nd set, 39.98 chs.; the mean of which is
40.00 N. 13½ lks. from the tangent,

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Chains.

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼S 32 in N. half,
1914 on S. rim, pits impracticable.
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

56.25 Wash, 20 lks. wide, course S.

65.10 Wash, 15 lks. wide, course S.

70.50 Wash, 25 lks. wide, course S.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 80.03 chs.,
by 2nd set, 79.97 chs.; the mean of which is

80.00 N. 16½ lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 31 & 32, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 7 W, in N. half,
S 31 in NW., and
S 32 in NE. quad.; pits impracticable.
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Land, rolling. Soil, 2nd & 3rd rate, sandy, gravelly, dry.

Greasewood, sage brush, few sahuaros and other cacti.

Note: At this cor., at noon, the sky is overcast, impracticable to observe the latitude.

S. 89°57' W. on the tangent, S. of sec. 31.
Over rolling, broken land, through dense brush.

24.20 Wash, 25 lks. wide, course SE.

35.80 Wash, 15 lks. wide, course SE.

Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 39.99 chs.,
by 2nd set, 40.01 chs.; the mean of which is

40.00 N. 20 lks. from the tangent,

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
1914 on S. rim,
S C, ¼S 31 in N. half; pits impracticable.
Raise a mound of stone 2 ft. base 1½ ft. high N. of cor.

44.00 Granite, rocky butte brs. South, about 20 chs. dist.

55.00 Enter draw, course SE.

59.50 Wash, 60 lks. wide, course SE.

60.30 Leave draw.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 79.98 chs.,
by 2nd set, 80.02 chs.; the mean of which is

80.00 N. 24½ lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of Tps. 1 N., Rs. 7 & 8 W., marked on brass cap,
1914 on S. rim,
S C, T 1 N, in N. half,
R 8 W S 36 in NW., and
R 7 W S 31 in NE. quad.;
no trees available, pits impracticable.
Raise a mound of stone 4 ft. base, 2 ft. high N. of cor.
From this std. cor.
Highest peak Maricopa Mts. brs. S. 80°42' E.
High peak about 20 miles dist. brs. S. 18°34' E.
S. pinnacle, Eagle-Tail Peak, brs. N. 83°39' W.
Highest peak of Saddle-back Mts. brs. N. 14°25' W., about 3½ miles dist.
The magnetic variation at this cor. is 14°40' E.

Feb. 22, 1914.

Chains.

Feb. 22, 1914, continued.
At 9h 17m p.m., l.m.t., at my tangent point 24½ lks. S. of the Std. cor. of Tps. 1 N., Rs. 7 & 8 W., I set up my instrument and observe Polaris at W. elongation in accordance with instructions in the manual, and mark the line thus determined by a tack in a stake driven firmly in the ground 5 chs. N. of my station.
Feb. 22, 1914.

Feb. 23, 1914.
At 7h a.m.,l.m.t., I set off the azimuth of Polaris, 1°22½' to the East, and mark the true meridian thus determined by a tack in a stake driven firmly in the ground 6 chs. N. of my station.
From this true meridian I deflect a line from N. to E., and sight on my tangent line, which is a cleared open line on which I have left flags at prominent points.
The bearing of the tangent line at this point; vernier "A" with instrument direct, is ---------- N.89°56'30"E.
with instrument reversed, is---------- N.89°56'00"E.+
Using vernier "B",
With instrument direct, is ----------N.89°57'00"E.-
With instrument reversed, is ---------- N.89°56'30"E.

Giving a mean bearing of ---------- --- N.89°56'30"E., from which I assume that the alinement of the Gila & Salt River Base Line through Range 7 W. is practically correct.
February 23, 1914.

March 11, 1914.
At 8h 10m p.m.,l.m.t., at the Std. cor. of Tps. 1 N., Rs. 7 & 8 W.,hereinbefore described, I observe Polaris at W. Elong. in accordance with instructions in the manual, and mark the line thus determined by a tack in a stake driven firmly in the ground 5 chs. N. of my station.
March 11, 1914.

March 12, 1914.
At 7h a.m.,l.m.t., I set off the azimuth of Polaris, 1°22½' to the East, and mark the true meridian thus determined by a tack in the stake set 6 chs. N. of my station, as per observation taken on night of Feb. 22, which meridian agrees with the line of the meridian as determined by my observation on night of Feb. 22.
From this true meridian I deflect with great care and angle of 90° from N. to W., repeating same several times as a check with instrument both direct and reversed, selecting a definite foresight on my tangent line thus determined in the mountains to the far west.
Thence I run, by back & fore sight,
West, on the tangent, S. of sec. 36.
Over rolling, broken land, through dense greasewood, sage brush, few cacti, paloverde and ironwood trees.

7.90 Wash, 20 lks. wide, course SW.
15.30 Wash, 35 lks. wide, course SSW.
33.90 Wash, 10 lks. wide, course S.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 39.98 chs.,
by 2nd set, 40.02 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 std. ¼ sec. cor., marked on brass cap,
S C, S 36 ¼ in N. half,
1914 on S. rim; no bearings available. Pits imprac. Raise a mound of stone 2 ft.base,1½ ft.high N.of cor.
60.20 Wash, 30 lks. wide, course SSW.
68.90 Wash, 25 lks. wide, course SW.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 79.97 chs.,
by 2nd set, 80.03 chs.; the mean of which is

Chains.

80.00 N. 1 lk. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 35 & 36, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 8 W, in N. half,
S 35 in NW., and
S 36 in NE. quad.; from which,
A paloverde tree 12 ins.diam.brs.N.54°W. 26 lks. dist., marked S C, T 1 N R 8 W S 35 B T.
A paloverde tree 10 ins.diam.brs.N.28°E.102 lks. dist., marked S C, T 1 N R 8 W S 36 B T.
Land, rolling, broken.
Soil, 2nd rate, gravelly, dry.
Greasewood, scattering paloverde and ironwood trees.

S. 89°59' W. on the tangent, S. of sec. 35.
Over rolling, broken land, through dense brush.
7.80 Wash, 15 lks. wide, course SSW.
20.30 Wash, 10 lks. wide, course S.
31.00 Wash, 15 lks. wide, course SSW.
37.10 Wash, 10 lks. wide, course S.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point, by 1st set, set 39.99 chs., by 2nd set 40.01 chs., the mean of which is
40.00 N. 1½ lks. from the tangent
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 35 in N. half, and
1914 on S. rim; from which,
A paloverde tree 14 ins.diam.brs.N.84°W.105 lks.dist., marked S C ¼ S 35 B T.
A paloverde tree 6 ins.diam.brs.N.68°E. 84 lks. dist., marked S C ¼ S 35 B T.
52.40 Wash, 50 lks. wide, course SW.
78.80 Wash, 20 lks. wide, course SSW.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 3 lks.; position of middle point,
by 1st set, 80.01½ chs.,
by 2nd set, 79.98½ chs.; the mean of which is
80.00 N. 3 lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 34 & 35, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 8 W, in N. half,
S 34 in NW., and
S 35 in NE. quad.;
No bearings available, pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
Land, broken, rolling.
Soil, 3rd rate, stony, gravelly, dry, loose.
Greasewood, sage brush, few paloverde and ironwood trees.

Note. At this cor., at noon, I set off 3°24' S. on the decl. arc, and observe the sun on the meridian.
The resulting lat. is 33°22½' N.

Chains.

S. 89°59' W. on the tangent, S. of sec. 34.
Over rolling land, through dense brush.

13.00 Wash, 20 lks. wide, course S.

Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 40.01 chs.,
by 2nd det, 39.99 chs.; the mean of which is

40.00 N. 4 lks. from the tangent,

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 34 in N. half, and
1914 on S. rim,
No bearings available, pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.

53.70 Wash, 30 lks. wide, course SW.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 80.01 chs.,,
by 2nd set, 79.99 chs.; the mean of which is

80.00 N. 6 lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 33 & 34, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 8 W, in N. half,
S 33 in NW., and
S 34 in NE. quad.; no bearings available. Pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.

Land, rolling.
Soil, 2nd rate, gravelly, sandy, loose, loamy, dry.
Greasewood, sage brush, few paloverde trees & cacti.

S. 89°58' W. on the tangent, S. of sec. 33.
Over level plain, through dense brush.

26.10 Wash, 20 lks. wide, course SW.

Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 39.99 chs.,
by 2nd set, 40.01 chs.; the mean of which is

40.00 N. 8 lks. from the tanget,

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 33 in N half, and
1914 on S. rim; no bearings available. Pits impracticable. Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.

76.40 Road, brs. NW. & SE., Mullens Well to Harrisburg.

Measurement of 80 chs. by 2 sets of chainmen being identical, at

80.00 N. 10½ lks. from the tangent,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor.of secs. 32 & 33, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 8 W, in N. half,
S 32 in NW., and
S 33 in NE. quad.; no bearings available.
Dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft.high N. of cor.

Land, rolling, level.
Soil, 2nd rate, sandy, loamy, loose, gravelly, dry.
Greasewood, sage brush, few paloverde and ironwood trees.

March 12, 1914.

BOOK 2793
12 Gila & Salt River Base Line, through Range 8 West.

Chains.

March 13, 1914.
At 7h a.m.,l.m.t.; from my tangent point 10½ lks. S. of std. cor.of secs.32 & 33, I run,
S. 89°58' W. on the tangent, S. of sec. 32.
Over level land, through dense brush.

39.20 Wash, 20 lks.wide, course S.
Measurements of 40 chs. by 2 sets of chainmen being identical, at

40.00 Point for std. ¼ sec. cor. falls in wash, 10 lks. wide, course S.; therefore at

40.20 N. 13½ lks. from the tanget,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for witness cor. to std. ¼ sec. cor., marked on brass cap, 1914 on S. rim,
S C, in N. half,
W C ¼ W. of centre,
S 32 in NW. quad.;
dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft.base,1½ ft.high N.of cor.

45.90 Centennial Wash, 40 lks. wide, 10 ft. deep, course S., turns to SE. at 20 chs. to S.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 79.99 chs.,
by 2nd set, 80.01 chs.; the mean of which is

80.00 N. 16½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 31 & 32, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 8 W, in N. half,
S 31 in NW., and
S 32 in NE. quad.; no bearings available;
dig pits 24x18x12 ins. crosswise on each line,
E. & W. 3 ft., and N. of cor. 7 ft. dist.,and
Raise a mound of earth 4 ft. base 2 ft. high N.of cor.
Land, level, gently undulating. Soil, 2nd rate, sandy,dry.
Greasewood, sage brush; mesquite and paloverde in wash.

S. 89°57' W. on the tangent, S. of sec. 31.
Over level plain, through dense, low brush.

35.70 Old road, brs. NNW. & SSE.
Measurement of 40 chs. by 2 sets of chainmen being identical, at 40.00 chs., N. 20 lks. from the tangent,

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C ¼ S 31 in N. half, 1914 on S. rim;
dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft.base,1½ ft.high N.of cor.
Measurement of 80 chs. by 2 sets of chainmen being identical, at

80.00 N. 24½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of Tps. 1 N.,Rs. 8 & 9 W., marked on brass cap, 1914 on S. rim,
S C, T 1 N, in N. half,
R 9 W S 36 in NW., and
R 8 W S 31 in NE. quad.; no bearings avail.
dig pits 30x24x12 ins. crosswise on each line,
E. & W. 4 ft., and N. of cor. 8 ft. dist., and
raise a mound of earth 5 ft. base 2½ ft.high N.of cor.
Land, level. Soil, 2nd rate, sandy, loamy, loose, dry.
Greasewood, sage brush.

March 13, 1914. 9 h a.m.

Gila & Salt River Base Line, through Range 9 West.

Chains

March 22, 1914. At 7 h. 27 m. p.m., l.m.t., at the tangent point 24½ lks. S. of Std. cor. of Tps. 1 N., Rs. 8 & 9 W., heretofore established and described, having previously tested all the adjustments of the transit and knowing same to be correct, I observe Polaris at W. elong. in accordance with instructions in the Manual and mark the line thus determined by a tack in a stake driven firmly in the ground 5.00 chs. N. of my station.

March 22, 1914.

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March 23, 1914. At 7h a.m., l.m.t., I set off the azimuth of Polaris, 1° 22½' to the East, and mark the true meridian thus determined by a tack in a stake driven firmly in the ground about 8.00 chs. N. of my station, also reversing my instrument, and by double centering mark a point in the meridian by a tack in a stake driven firmly in the ground about 10.00 chs. S. of my station.

From this true meridian I deflect an angle from N. to my tangent line to the east, on which I have left flags at many prominent points and at the corners, which line is visible for a distance of 6 miles.

Vernier "A", inst. direct, tangent brs. N. 89°56'00" E
" " " reversed, " " N. 89°56'30" E
Vernier "B", inst. direct, " " N. 89°56'30" E
" " " reversed, " " N. 89°56'30" E
Mean bearing of tangent is therefore N. 89°56'22.5"E.

It appears that the tangent is about 10" in error to the S., which error being practically negligible, and well within the limit of accuracy of my instrument, I consider the Gila and Salt River Base Line through Range 8 West satisfactorily established.

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I set my instrument on my meridional line over the std. cor. of Tps. 1 N., Rs. 8 & 9 W., and from my true meridian as above determined, I deflect with great care by repetition, an angle of 90° from N. to W., and selecting a definite foresight on mts. to W., I run as per instructions, by back & fore sight, Var. 14½° E., West, on the tangent, S. of sec. 36.

Measurement of 40.00 chs. by 2 sets of chainmen being identical, at

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C ¼ S 36 in N. half, and
1914 on S. rim,
dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

45.20 Old road, brs. NW. & SE.

Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 79.99 chs.,
by 2nd set, 80.01 chs.; the mean of which is

80.00 N. 1 lk. from the tangent.

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 35 & 36, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 9 W, in N. half,
S 35 in NW., and
S 36 in NE. quad.; no bearings available.

Dig pits 24 x 18 x 12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land, level, gently undulating.
Soil, 2nd rate, gravelly, sandy, loose, loamy, dry.
Greasewood, sage brush, few cacti.

- -

S. 89° 59' W., on the tangent, S. of sec. 35.
Over level plain, through dense brush.

Measurements of 40.00 chs. by 2 sets of chainmen being identical, at 40.00 chs. N. 1½ lks. from the tangent, at

40.00 set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C ¼ S 35 in N. half, and

Gila & Salt River Base Line, through Range 9 West.

Chains

1914 on S. rim, from which,
A mesquite tree 12 ins. diam. brs. N.81° W., 59 lks. dist., marked S C ¼ S 35 B T.
A mesquite tree 18 ins. diam. brs.N.29° E., 68 lks. dist., marked S C ¼ S 35 B T.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 79.99 chs.,
by 2nd set, 80.01 chs.; the mean of which is
80.00 N. 3 lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 34 & 35, marked on brass cap, 1914 on S. rim,
SC T 1 N R 9 W, in N. half,
S 34 in NW., and
S 35 in NE. quad.; no bearings available.
Dig pits 24 x 18 x 12 ins., crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, level.
Soil, 2nd rate, sandy loose, loamy, dry.
Greasewood, sage brush, few scattering mesquite and palo verde.

- -

S. 89° 59' W., on the tangent, S. of sec. 34. Over level plain, through dense greasewood, & sage brush.
Difference bet. measurements of 40.00 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 40.01 chs.,
By 2nd set, 39.99 chs.; the mean of which is
40.00 N. 4 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap
S C ¼ S 34 in N. half, and
1914 on S. rim, from which
A mesquite tree 10 ins. diam. brs.N.20° W. 225 lks. dist., marked S C ¼ S 34 B T.
A mesquite tree 10 ins.diam. brs. N. 38° E., 44 lks. dist., marked ¼ S 34 B T.
59.00 Dim road, brs. NW. & SE.
Measurement of 80.00 chs. by 2 sets of chainmen being identical, at
80.00 N. 6 lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 33 & 34, marked on brass cap, 1914, on S. rim,
SC T 1 N R 9 W, in N. half,
S 33 in NW., S 34 in NE.quad; no trees available
Dig pits 24 x 18 x 12 ins. crosswise on each line, E.& W., 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.
Land, level, gently undulating.
Soil, 2nd rate, sandy, loamy, loose, dry.
Greasewood, sage brush, few mesquite and palo verde trees.
At this cor., at noon, high winds render it impracticable to make satisfactory observation for lat.

- -

S. 89° 58' W., on the tangent, S. of sec. 33. Over level plain, through dense brush. Measurement of 40.00 chs. by 2 sets of chainmen being identical at
40.00 N. 8 lks. from the tangent, Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C ¼ S 33 in N. half, and
1914 on S. rim; no bearings available.
Dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 3 lks.; position of middle point,
by 1st set, 80.01½ chs.,
by 2nd set, 79.98½ chs.; the mean of which is
80.00 N. 10½ lks. from the tangent, Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 32 & 33, marked on brass cap, 1914 on S. rim,

Gila & Salt River Base Line, through Range 9 West.

Chains	
	SC T 1 N R 9 W, in N. half, S 32 in NW., and S 33 in NE. quad.; no bearings available; dig pits 24 x 18 x 12 ins., crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor. Land, level. Soil, 2nd rate, sandy, gravelly, loose, dry. Greasewood, sage brush, few palo verde and ironwood trees.
	- -
	S. 89° 58' W., on the tangent, S. of sec. 32. Over level land, through dense, low brush. Difference bet. measurements of 40.00 chs. by 2 sets of chainmen is 2 lks.; position of middle point, by 1st set, 39.99 chs., By 2nd set, 40.01 chs.; the mean of which is
40.00	N. 13½ lks. from the tangent, Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap, S C, ¼ S 32 in N. half, and 1914 on S. rim, dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor. Measurement of 80.00 chs. by 2 sets of chainmen being identical, at
80.00	N. 16½ lks. from the tangent, Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 31 & 32, marked on brass cap, 1914 on S. rim, S C T 1 N R 9 W, in N. half, S 31 in NW., and S 32 in NE. quad.; dig pits 24 x 18 x 12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor. Land, level, gently undulating. Soil, 2nd rate, gravelly, sandy, loose, dry. Greasewood, sage brush, paloverde, few cacti.
	- -
	S. 89° 57' W., on the tangent, S. of sec. 31. Over level land, through dense brush.
29.40	Wash, 10 lks. wide, course NE. Measurement of 40.00 chs. by 2 sets of chainmen being identical, at
40.00	N. 20½ lks. from the tangent, Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap, S C ¼ S 31 in N. half, and 1914 on S. rim, dig pits 18 x 18 x 12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
57.95	Wash, 10 lks. wide, course NE. Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 4 lks.; position of middle point, by 1st set, 80.02 chs.; by 2nd set, 79.98 chs.; the mean of which is
80.00	N. 24½ lks. from the tangent, Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of Tps. 1 N., Rs. 9 & 10 W., marked on brass cap, 1914 on S. Rim, S C T 1 N in N. half, R 10 W S 36 in NW, and R 9 W S 31 in NE, quad.; no trees available. Dig pits 30 x 24 x 12 ins. crosswise on each line, E. & W., 4 ft., and N. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base 2½ ft. high N. of cor. Land, level. Soil, 2nd rate, sandy, loamy, loose, dry. Greasewood, sage brush, few palo verde and mesquite trees. March 23, 1914.
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Gila and Salt River Base Line, through Range 9 West.

Chains

April 11, 1914. At 6h 08m p.m., l.m.t., at the tangent point 24½ lks. S., of the Std. Cor. of Ts. 1 N., Rs. 9 & 10 W., hereinbefore described, I observe Polaris at W. elong. in accordance with instructions in the Manual, and mark the line thus determined by a tack in a stake driven firmly in the ground 8 chs. N. of my station.

April 11, 1914.

April 12, 1914. At 7h a.m., l.m.t., I set off the azimuth of Polaris, 1° 22½' to the east, and mark the true meridian thus determined by a tack in stakes driven firmly in the ground both N. & S. of my station.

From this true meridian I deflect an angle of 90° from N. to my tangent line to the east, which is a cleared open line on which I have left flags at all corners and prominent points. From this meridian the tangent bears N. 89° 55½' E., at this point. I detect a small error in alinement westerly from the tangent point S. of Std. cor. of secs. 32 & 33, R. 9 W., and correct my line and corners thence westerly to the Std. cor. of Tps. 1 N., Rs. 9 and 10 W., inclusive.

The bearing of the tangent after correction is -

By vernier A, direct N. 89° 57' 00" E.,
" A reversed N. 89° 56' 30" E.,
By vernier B direct, N. 89° 57' 00" E.,
" B reversed, N. 89° 56' 00" E.

Mean bearing of tangent is therefore N. 89° 56' 38" E.

April 12, 1914.

April 19, 1914. At 5 h 44m, a.m., l.m.t., I observe Polaris at E. elong. in accordance with the Manual at the std. cor. of Tps. 1 N., Rs. 9 & 10 W., hereinbefore described, and mark the line thus determined by a tack in a stake driven firmly in the ground about 8 chs. N. of my station.

At 7h a.m., l.m.t., I set off the azimuth of Polaris, 1° 22½' to the west, and mark the true meridian thus determined by tacks driven in stakes driven firmly in the ground both N. & S. of my station 5 chs. dist.

I note that this meridian coincides with the meridian as established from Polaris observation on evening of April 12th, hereinbefore described.

From the above described Std. Tp. cor., Buckhorn Peak brs. N. 16° 26' E., about 20 miles dist.
Saddle Back Peak brs. N. 68° 40' E., about 11 miles dist.
Highest peak, Maricopa Mts. brs. S. 82° 51' E., about 60 miles dist.
Eagle Tail Peak, S. pinnacle, brs. N. 67° 27' W., about 4 miles dist.

April 19, 1914.

Gila & Salt River Base Line, through Range 10 West.

April 19,1914.

Chains. At the std. cor. of Tps. 1 N., Rs. 9 & 10 W. hereinbefore described, I deflect with great care and precision an angle of 90° from N. to W., with instrument both direct and reversed, using different quadrants of the horizontal limb of the instrument, (deflecting from the true meridian established from observations of Polaris on April 11th and 19th, hereinbefore described), and taking the mean of slight differences, I run, as per instructions,

West, on the tangent, S. of sec. 36.
Var. 14°30' E.
Over nearly level plain, drains to ENE., through dense greasewood, sage brush, few paloverde, mesquite trees.
Measurements of 40 chs. by 2 sets of chainmen being identical, at

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 36 in N. half, 1914 on S. rim;
dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

67.22 Old road, brs. N. & S.

78.10 Wash, 15 lks. wide, course NE.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 2 lks.; position of middle point,
by 1st set, 79.99 chs.,
by 2nd set, 80.01 chs.; the mean of which is

80.00 N. 1 lk. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 35 & 36, marked on brass cap, 1914 on S. rim;
S C, T 1 N R 10 W, in N. half,
S 35 in NW., and
S 36 in NE. quad.; no bearings available;
dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft., and N. of cor. 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
Land, level, gently undulating. Soil, 2nd rate, gravelly.
Greasewood, sage brush, few paloverde and scrub mesquite.

S. 89°59' W. on the tangent, S. of sec. 35.
Over gently rolling land, asc. gently, through dense brush.
Measurements of 40 chs. by 2 sets of chainmen being identical, at

40.00 N. 1½ lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 35 in N. half, 1914 on S. rim; from which,
An ironwood tree 14 ins. diam. brs. N. 35°E. 150 lks. dist., marked S C ¼ S 35 B T. No other tree avail.
Dig pits 18x18x12 ins. E & W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

47.00 Wash, 20 lks. wide, course NE.

60.67 Wash, 15 lks. wide, course NE.

71.80 Wash, 15 lks. wide, course NE.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 80.02 chs.,
by 2nd set, 79.98 chs.; the mean of which is

80.00 N. 3 lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 34 & 35, marked on brass cap, 1914 on S. rim,
S C. T 1 N, R 10 W, in N. half,
S 34 in NW., and
S 35 in NE. quad.; from which,
An ironwood tree 10 ins. diam. brs. N. 27½°E. 91 lks. dist., marked S C T 1 N R 10 W S 35 B T.
An ironwood tree 12 ins. diam. brs. N. 87°W. 196 lks. dist., marked S C T 1 N R 10 W S 34 B T.
Land, rolling.
Soil, 2nd rate, gravelly, dry, loose.
Greasewood, few paloverde, ironwood & mesquite trees.

Gila & Salt River Base Line, through Range 10 West.

Chains.

S. 89°59' W. on the tangent, S. of sec. 34.
Over rolling, broken land, asc. grad. through dense brush.

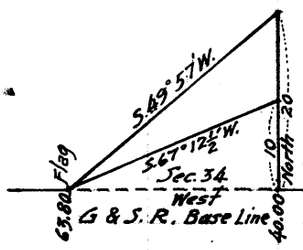
2.10 Wash, 15 lks. wide, course NE.

8.00 Wash, 20 lks. wide, course NE.

18.80 Wash, 20 lks. wide, course NE.

Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 39.98 chs.,
by 2nd set, 40.02 chs.; the mean of which is

40.00 N. 4 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 34 in N. half,
1914 on S. rim; from which,
A paloverde tree 10 ins. diam. brs. N. 46°W. 138 lks. dist., marked S C ¼ S 34 B T.
A paloverde tree 6 ins. diam. brs. N. 9½°E. 55 lks. dist., marked S C ¼ S 34 B T.
At 45 chs. distance on this line, leave valley, brs. NNW. & SSE., and ascend over rough granite ledges, inaccessible in places, over which it is impracticable to chain.
Therefore from my tangent point 4 lks. S. of std. ¼ sec. cor. I lay off an angle of 90° from my tangent, from W. to N., and measure carefully a base line, setting points on my base line at 10 and 20 chs.
I send a man ahead and place a flag on tangent line on top of high rocky granite ridge to the west.



At 10 chs. on my base, angle from base line to flag is 67°12½': tang. 67°12½', 2.3799x10= 23.799 chs. to flag.
At 20 chs. on my base, angle from base line to flag is 57°11' : tang. 49°57', 1.1899x20= 23.799 chs. to flag.
40.00 chs. + 23.799 chs. =

63.80 To flag, top of high rocky granite ridge, 500 ft. above valley, brs. SSE. from NW., desc. prec. SW. slope.

76.00 Foot of steep slope, brs. NW. & SSE., thence along S. slope, broken stony land, near foot of main S. slope of Eagle Tail mts. to N.

Difference bet. measurements of 80 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 80.03 chs.,
by 2nd set, 79.97 chs.; the mean of which is

80.00 N. 6 lks. from the tangent, point for std. cor. of secs. 33 & 34 falls in Gulch, 30 lks. wide, course S.
Therefore at

80.50 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for witness cor. to std. cor. of secs. 33 & 34, marked on brass cap,
1914 on S. rim,
W C. E. of centre,
S C, T 1 N R 10 W, in N. half,
S 33 in NW. quad. and
S 34 in NE. quad.; no bearings available, pits impracticable.
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Land, level, rolling, mts., broken.
Soil, 2nd & 3rd rate, gravelly, stony, dry.
Greasewood, paloverde, few mesquite and ironwood trees and cacti.

Gila & Salt River Base Line, through Range 10 West.

Chains.

S. 89°58' W. on the tangent, S. of sec. 33.
(Measuring from tangent point 6 lks. S. of true cor. point.)
Over broken, stony land, along near foot of main S. slope
0.50 Witness cor. to stand. cor. of secs. 33 and 34. (of mts.
20.70 Gulch, 30 lks. wide, course S.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 39.97 chs.,
by 2nd set, 40.03 chs.; the mean of which is
40.00 N. 8 lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 33 in N. half,
1914 on S. rim; no bearings available; Pits
imprac. raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
59.60 Gulch, 90 lks. wide, course S.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 8 lks.; position of middle point,
by 1st set, 80.04 chs.,
by 2nd set, 79.96 chs.; the mean of which is
80.00 N. 10½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 32 & 33, marked on brass cap, 1914 on S. rim,
S C, T 1 N R 10 W, in N. half,
S 32 in NW., and
S 33 in NE. quad.; no bearings available. Pits
imprac. Raise a mound of stone 3 ft. base 2 ft. high N. of cor.
Land, broken, heavily rolling.
Soil, 3rd rate, stony, dry.
Greasewood, cacti, scattering paloverde.
This cor. stands on low flat divide, brs. N. & S., from Eagle Tail mts. to N., to range of igneous or volcanic hills to SSE., drainage to W. & E. from this point.
April 19, 1914.

April 20, 1914.
At 8h a.m., l.m.t., from my tangent point 10½ lks. S. of above described cor., I run,
S. 89°58' W. on the tangent, S. of sec. 32.
Over broken land, through dense brush, desc. grad.
14.60 Enter wash, 30 lks. wide, course W., from ESE.
16.60 Leave wash, runs NW., asc. NE. slope.
29.90 Spur, brs. WNW. & ESE., near NW. end, desc. W. slope.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 6 lks.; position of middle point,
by 1st set, 39.97 chs.,
by 2nd set, 40.03 chs.; the mean of which is
40.00 N. 13½ lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground for std. ¼ sec. cor., marked on brass cap,
S C, ¼ S 32 in N. half,
1914 on S. rim;
No bearings available, pits impracticable.
Raise a mound of stone 3 ft. base 2 ft. high N. of cor.
48.15 Wash, 50 lks. wide, course SW.
61.25 Wash, 50 lks. wide, course S.
65.00 Asc. prec. SE. slope of rocky butte.
78.00 Top of rise, S. side of rocky butte, apex is 6 chs. to N., thence along prec. S. slope.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 10 lks.; position of middle point,
by 1st set, 80.05 chs.,
by 2nd set, 79.95 chs.; the mean of which is
80.00 N. 16½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for std. cor. of secs. 31 & 32, marked on brass cap, 1914 on S. rim, S C, T 1 N R 10 W, in N. half, S 31 in NW., and S 32 in NE. quad.; pits impracticticable
Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
Land, mts. Soil, 3rd rate, stony. Greasewood, cacti.

Chains.

S. 89°57' W. on the tangent S. of sec. 31.
Over rough stony land, desc. steep SW. slope.
16.50 Gulch, 40 lks. wide, course SSW., asc. steep.
31.00 Top of rocky spur, brs. SSE. & NNW., desc. prec.
36.00 Gulch, 30 lks. wide, course SE., asc. steep E. slope.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks.; position of middle point,
by 1st set, 39.98 chs.,
by 2nd set, 40.02 chs.; the mean of which is
40.00 N. 20½ lks. from the tangent,
Set an iron post 3 ft. long, 1 in. in diam., on bed-rock, in mound of stone for std. ¼ sec. cor., marked on brass cap, 1914 on S. rim,
S C, ¼ S 31 in N. half;
no bearings available, pits impracticable.
Raise a mound of stone 2 ft.base, 1½ ft.high N. of cor.
Asc. prec. E. slope.
52.50 Top of rocky volcanic ridge, brs. N. & S.,
55.00 Desc.
57.50 Desc. prec. W. slope.
66.00 Gulch, 30 lks. wide, course NNW., turns to W. at 4 chs. N. , asc. NE. slope.
72.00 Top of rise, N. side of ridge, thence along N. slope.
Difference bet. measurements of 80 chs. by 2 sets of chainmen is 8 lks.; position of middle point,
by 1st set, 80.04 chs.,
by 2nd set, 79.96 chs.; the mean of which is
80.00 N. 24½ lks. from the tangent,
Set an iron post 3 ft. long, 3 ins. in diam. 10 ins. in the ground to bed-rock, in mound of stone for std. cor. of Tps. 1 N., Rs. 10 & 11 W., marked on brass cap,
1914 on S. rim,
S C, T 1 N, in N. half,
R 11 W S 36 in NW., and
R 10 W S 31 in NE. quad.;
no trees available, pits impracticable.
Raise a mound of stone 3 ft. base 2 ft. high N. of cor.
From this cor.,
S. pinnacle, Eagle Tail peak brs. N. 45°57' E., about 3 miles dist. No other peaks visible, from cor.
A volcanic peak in valley to west brs. N.75°43'W., about 15 miles dist.
This corner is situated on N. slope of volcanic spur from most prominent volcanic hill in this locality, and is visible only from the west.

General Description.

The Gila and Salt River Base Line, through Range 6 West runs over a smooth gently rolling valley, crossing the S. end of range of volcanic hills in western portion.
Through Range 7 West, the line runs over land somewhat broken, with more gravel and volcanic silt.
Eastern portion of R. 8 W. is also broken, and gravelly, descending gradually to the flat valley of Centennial Wash to the west.
Range 9 West is through smooth, fertile valley of above wash, land nearly level.
Range 10 West, line ascends gradually over rolling valley, for 2 miles, thence across the S. end of the Eagle Tail Mts., over rough broken, worthless country.

April 20, 1914.

Jesse B. Wright

U. S. Surveyor.

2/22/90 D
request of
pgs 21-22
original missing
need washington
copy