

3071

Book "A".

4-679

BOOK 3071

# FIELD NOTES

OF THE SURVEY OF THE

~~North and South bdrs. of Township 7 South, Range 1 East,  
East boundary of Township 5 South, Range 1 East,  
North boundary of Township 4 South, Range 1 East,  
North and West bdrs. of Township 4 South, Range 1 West,~~

Retracement of

~~East boundary of Township 4 South, Range 1 East,~~

Resurvey of portion of

~~East boundary of Township 4 South, Range 1 East,~~

~~Resurvey of~~

~~South boundary of Township 4 South, Range 1 East,~~

~~South boundary of Township 4 South, Range 1 West,~~

Survey of

~~North boundary of Township 3 South, Range 1 East,~~

~~North and West bdrs. of Township 3 South, Range 1 West,~~

~~North, South and West bdrs. of Township 3 South, Range 2 West,~~

~~West boundary of Township 2 South, Range 1 West,~~

~~West boundary of Township 2 South, Range 2 West,~~

Retracement and resurvey of

~~South boundary of Township 1 South, Range 2 West,~~

Resurvey of portion of

~~South boundary of Township 1 South, Range 3 West.~~

Survey of

~~South and West bdrs. of Township 11 South, Range 6 East,~~

~~South, East and West bdrs. of Township 11 South, Range 7 East,~~

~~South boundary of Township 11 South, Range 8 East.~~

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

## EXECUTED BY

W. H. Thorn and W. G. Shapcott, U. S. Surveyors

and

W. K. Kierulff, U. S. Transitman

~~In the capacity of U. S. Surveyor~~, under instructions dated October 8, 1915,  
issued by the United States Surveyor General to govern surveys included in  
Group No. 58, which were approved by the Commissioner of the General Land  
Office, December 17, 1915.

Survey, Retracement  
and Resurvey commenced December 15, 1915.

Survey, Retracement  
and Resurvey completed April 14, 1916.

3071

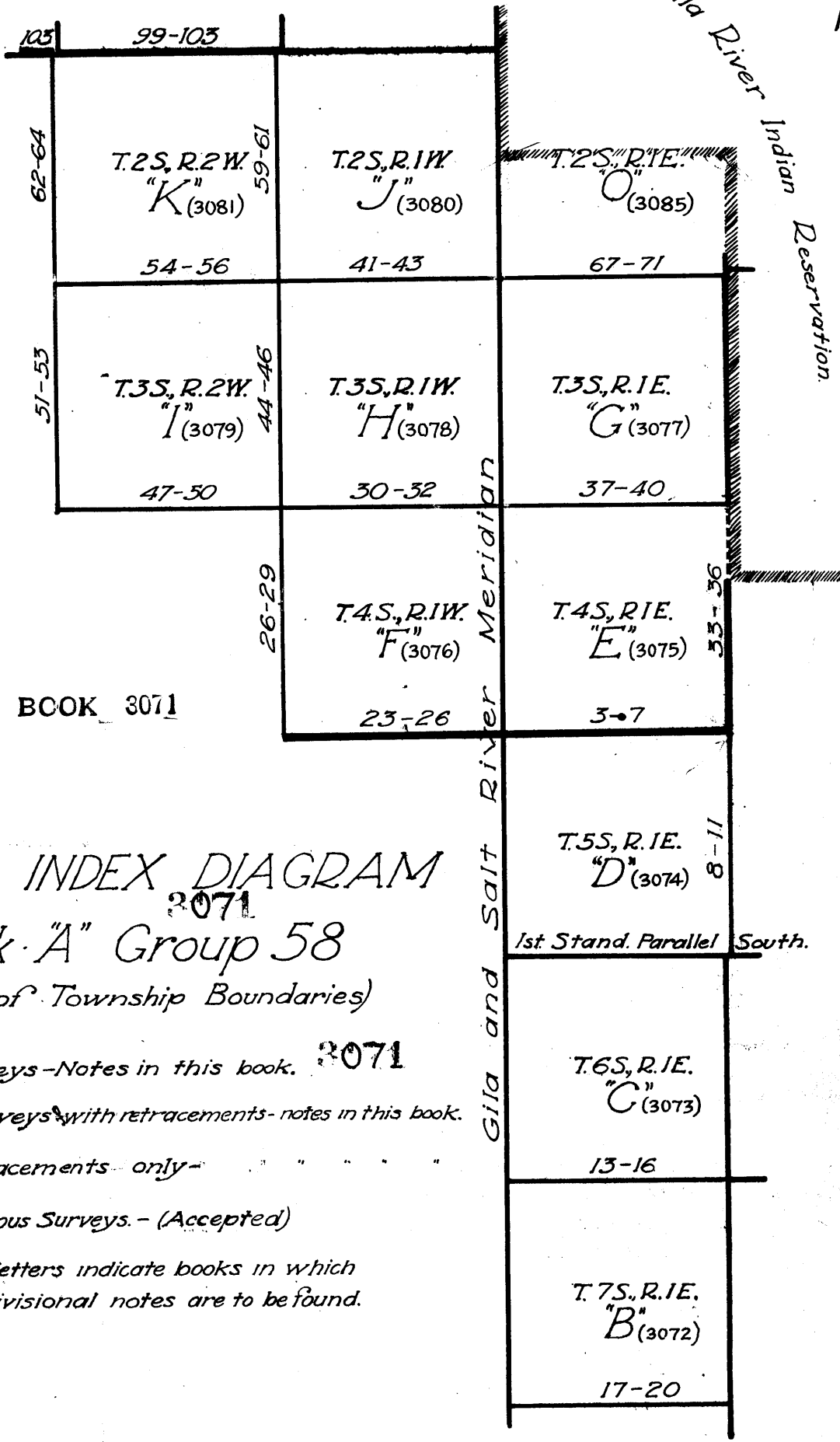
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# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

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1A

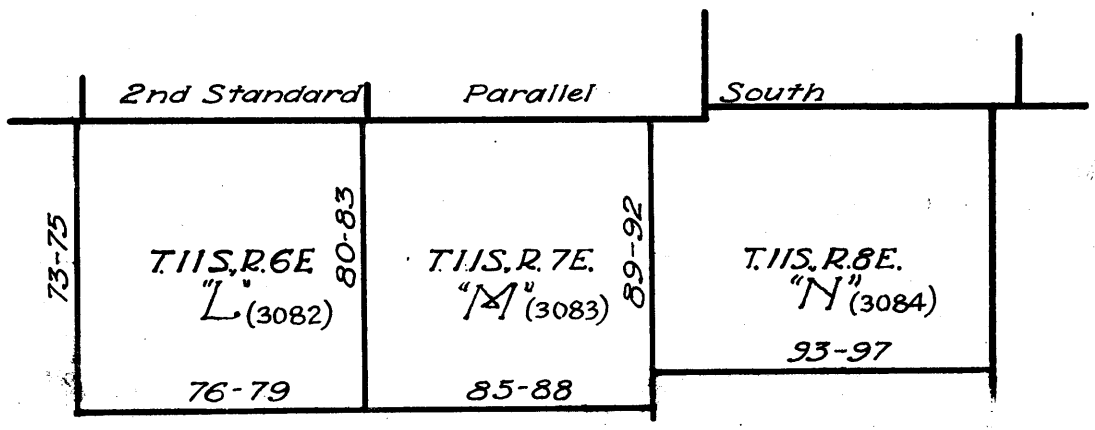


BOOK 3071

*SPECIAL INDEX DIAGRAM*  
 3071  
*Book "A" Group 58*  
*(Survey of Township Boundaries)*

- Surveys - Notes in this book. 3071
- Resurveys with retracements - notes in this book.
- Retracements only - " " " " " "
- Previous Surveys. - (Accepted)

"D" Red letters indicate books in which  
 subdivisinal notes are to be found.







Resurvey of  
North boundary of T.5 S., R.1 E.

Chains

Survey commenced Dec. 15, 1915, and executed with a Young and Son's light mountain transit No. 8478, with Smith Solar attachment, as described in book "A". I examine the adjustments of the transit and correct the level and collimation errors, then to test the solar apparatus, by comparing its indications resulting from a.m. and p.m. observations on a mer. established by observations on Polaris, I proceed as follows:-

Dec. 13, 1915, at 8h. 04.4m., p.m., l.m.t., I observe Polaris at U.C. in accordance with instructions in the Manual of Surveying, at Mobile, Arizona.

Dec. 14, 1915, I mark the mer. thus determined by a rod set on line 10 chs. N. of my station. (S29 T.4 S.R.1 E)

At 9h., a.m., l.m.t., I set off 33° 3' N. on the lat. arc; 23° 9' S. on the decl. arc; and determine a mer. with the solar. The mer. thus determined falls within 1' of the mer. determined by observations on Polaris.

At 3h., p.m., l.m.t., I set off 33° 3' N. on the lat. arc; 23° 10' S. on the decl. arc; and determine a mer. with the solar. The mer. thus determined falls within 1' of the mer. determined by observations on Polaris. I therefore conclude that the adjustments of the transit and solar attachment are satisfactory.

Dec. 15, 1915, I set off 33° 2' N. on the lat. arc; 23° 14' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 4 and 5 S., Rs. 1 E. and 1 W. which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence East on a random line along the N. bdy. of the tp. setting temp.  $\frac{1}{4}$  sec. cor. at 39.53 chs., and setting temp. sec. and  $\frac{1}{4}$  sec. cor. at intervals of 40 and 80 chs. thereafter, and at 479.53 set temp. cor. of Ts. 4 and 5 S., Rs. 1 and 2 E.

From the NE. cor. of T.5 S., R.1 E., established by W.H. Thorn, U.S. Surveyor and hereinafter described, which makes the random dist. of N. bdy. of sec. 1, 80.11, chs. and which makes the falling for the N. bdy. of tp., 1 lk. N., I run

39.64

West on a true line bet. secs. 1 and 36, N. bdy. of tp. Over level land, through scattering timber and undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36  
 $\frac{1}{4}$   
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high N. of cor.

Note: This cor. is 43.60 chs. dist. from the SE. cor. of T.4 S., R.1 E., hereinafter described, and is set for T.4 S., R.1 E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

$\frac{1}{4}$   
S 1  
1915

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high S. of cor.

79.64

Set an iron post 3 ft. long, 2 ins. in diam., (no 3in. posts available) 24 ins. in the ground for cor. of secs. 35 and 36, with brass cap mkd.

T 4 S R 1 E  
S 35: S 36

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor. This cor. is 83.60 chs. W. of cor. of Ts. 4 S., Rs. 1 & 2 E., hereinafter described.

Resurvey of  
North boundary of T.5 S., R.1 E.

Chains  
80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1 and 2, with brass cap mkd.

S 2:S 1  
T 5 S R 1 E  
1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, mesquite, iron wood and palo verde.

Undergrowth, greasewood and cacti.

12.20  
39.64

West on a true line along N. bdy. of sec. 2. Over level land, through scattering timber and undergrowth. Wash, 5 lks. wide, 2 ft. deep, course, N.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35  
 $\frac{1}{4}$

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 2  
 $\frac{1}{4}$

1915

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high S. of cor.

79.64

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 34 and 35, with brass cap mkd.

T 4 S R 1 E  
S 34:S 35

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2 and 3, with brass cap mkd.

S 3:S 2  
T 5 S R 1 E  
1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, mesquite, palo verde and iron wood.

Undergrowth, greasewood and cacti.

36.37  
39.64

West on a true line along N. bdy. of sec. 3. Over level land, through scattering timber and undergrowth. Wash, 5 lks. wide, 1 ft. deep, course, N.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

Resurvey of  
North boundary of T.5 S. R.1 E.

Chains

S 34  
1/4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

1/4  
S 3  
1915

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high S. of cor.

48.70 Wash, 6 lks. wide, 1 ft. deep, course, N.  
74.50 Wash, 10 lks. wide, 1 ft. deep, course, NE.  
79.64 Set an iron post 3ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 33 and 34, with brass cap mkd.

T 4 S R 1 E  
S 33:S 34

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3 and 4, with brass cap mkd.

S 4:S 3  
T 5 S R 1 E  
1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
Timber, mesquite, iron wood and palo verde.  
Undergrowth, greasewood.

West on a true line along N. bdy. of sec. 4.  
Over level land, through scattering timber and undergrowth.

39.64 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 33  
1/4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

1/4  
S 4  
1915

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high S. of cor.

79.64 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, with brass cap mkd.

T 4 S R 1 E  
S 32:S 33

1916

Resurvey of  
 North boundary of T.5 S., R.1 E.

6

Chains

80.00 dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4 and 5, with brass cap mkd.

S 5:S 4  
 T 5 S R 1 E  
 1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.  
 Land, level.  
 Soil, loose sandy clay, 1st rate.  
 Timber, mesquite, iron wood and palo verde.  
 Undergrowth, greasewood.

39.64 West on a true line along N. bdy. of sec. 5. Over level land, through scattering timber and undergrowth.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 32  
 $\frac{1}{4}$   
 1916

40.00 dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

$\frac{1}{4}$   
 S 5  
 1915

42.75 dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high S. of cor.

47.50 Wash, 4 lks. wide, 2 ft. deep, course, N. 30° E.  
 79.64 Wash, 10 lks. wide, 1 ft. deep, course, N. 15° E.  
 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 31 and 32, with brass cap mkd.

T 4 S R 1 E  
S 31:S 32

Note: No 3 in. posts available.

80.00 1916  
 dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5 and 6, with brass cap mkd.

S 6:S 5  
 T 5 S R 1 E  
 1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high S. of cor.  
 Land, level.  
 Soil, loose sandy clay, 1st rate.  
 Timber, mesquite, iron wood and mesquite.  
 Undergrowth, greasewood.

39.64 West on a true line along N. bdy. of sec. 6. Over level land, through scattering timber and undergrowth.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

East boundary of T.5 S., R.1 E.

Chains

Survey commenced Dec. 17, 1915, and executed with a Young and Son's light mountain transit No. 8592, as described heretofore.

Dec. 15, 1915, in camp, at Mobile, Ariz. in sec. 29, T.4 S., R.1 E., I examine the adjustments of the transit and correct the level and collimation errors. Then to test the solar apparatus by comparing its indications resulting from solar observations, made during a. m. and p. m. hours, with a mer. established by observations on Polaris, I proceed as follows:

At 8h. a.m., l.m.t., I set off 33° 03' N. on the lat. arc; 23° 11' S. on the decl. arc; and determine a mer. with the solar. I mark the mer. thus determined by a rod set on line 10 chs, N. of my station.

At 1h. 57m., p.m., l.m.t., I observe Polaris at E.E. in accordance with instructions in the manual of surveying, and lay off the azimuth, 1° 22' to the W. and mark the mer. thus determined by a wooden plug set firmly in the ground 10 chs. N. of my station.

At 3h., p.m., l.m.t., I set off 33° 3' N. on the lat. arc; 23° 13' S. on the decl. arc and determine a mer. with the solar. The mer. thus determined falls within 1' of arc, of the mer. established by Polaris observations, as does the mer. established by a.m. solar observations. I therefore conclude that the adjustments of the transit and solar attachment are satisfactory.

Dec. 17, at 10h., a.m., l.m.t., I set off 32° 57' N. on the lat. arc, 23° 19' S. on the decl. arc; and determine a mer. with the solar at the standard cor. of Ts. 5 S 1/4, Rs. 1 and 2 E., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence

North along the E. bdy. of sec. 36.

Over mountainous land, through scattering timber and undergrowth.

Asc. S. slope of stony hill, 289 ft. to

17.90 Top of ridge brs. E. and W. desc. N. slope, 237 ft. to

27.30 Wash, 15 lks. wide, 3 ft. deep, course, NW.

Thence over W. slope, to

33.50 Desc. NW. slope, 97 ft. to

40.00 Set an iron post 3 ft. long, 1 in. in diam, 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 36 1/4 :

1915

and build a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.

41.00 Enter level land, brs. NE. and SW.

45.00 Wash, 30 lks. wide, 2 ft. deep, course, NE.

46.50 Wash, 70 lks. wide, 2 ft. deep, course, NE.

64.00 Wash, 50 lks. wide, 3 ft. deep, course, NE.

74.30 Wash, 20 lks. wide, 2 ft. deep, course, NE.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25 and 36, with brass cap mkd.

T 5 S:

R 1 E:

S 25:

S 36:

1915

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, mountainous, and level.

Soil, stony, 4th rate, and sandy loam, 1st rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood, ocotillos and cacti.

Chains

40.00 S 31  
 $\frac{1}{4}$   
 1916  
 dig pits 18 X 18 X 12 ins. E. and W of cor. 3 ft. dist.  
 and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high  
 N. of cor.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

79.64  $\frac{1}{4}$   
 S 6  
 1915  
 dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft.  
 dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
 high S. of cor.  
 Cor. of Ts. 4 and 5 S., Rs. 1 E. and 1 W.  
 Land, level.  
 Soil, loose sandy clay, 1st rate.  
 Timber, mesquite, iron wood and palo verde.  
 Undergrowth, greasewood.

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 ESTABLISHMENT OF SE. COR. OF T.4 S., R.1 E.
 

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Mar. 10, 1916, at a point 471 lks. S. of cor. of Ts. 4 and  
 5 S., Rs. 2 E., I set an iron post 3 ft. long, 3 ins.  
 in diam., 24 ins. in the ground for cor. of SE. cor. of  
 T.4 S., R.1 E., with brass cap mkd.

T 4 S:

R 1 E:

S 36 :

1916  
 dig pits 36 X 36 X 12 ins. N. and W. of cor. 8 ft.  
 dist. and raise a mound of earth 5 ft. base,  $2\frac{1}{2}$  ft.  
 high NW. of cor.

East boundary of T.5 S., R.1 E.

Chains	
40.00	North along E. bdy. of sec. 25. Over level land, through scattering timber and undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 25 $\frac{1}{4}$ : : :
	1915
	dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise amount of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 24 and 25, with brass cap mkd.
	T 5 S R 1 E: <u>S 24:</u> S 25: : :
	1915
	dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, level. Soil, sandy adobe, 1st rate. Timber, mesquite and palo verde. Undergrowth, greasewood.
3.20	North along E. bdy. of sec. 24.
15.00	Over level land, through scattering undergrowth.
23.00	Wash, 10 lks. wide, 2 ft. deep, course, S. 20° W.
35.30	Asc. S. slope of hill 49 ft. to
	Desc. over W. slope, 34 ft. to
	Wash, 30 lks. wide, 4 ft. deep, course, S. 70° W.
	Asc. S. slope.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 24 $\frac{1}{4}$ : : :
	1915
	Pits impracticable.
	Build a mound of stone, $2\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	Asc. S. slope, 286 ft. to
53.65	Top of ridge, hrs. E. and N. 70° W., desc. N. slope,
	252 ft. to
67.25	Wash, 30 lks. wide, 6 ft. deep, course, E., asc. S. slope,
	85 ft. to
73.54	Spur, slopes, NE., desc. N. slope, 132 ft. to
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 14 ins. in the ground, to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for cor. of secs. 13 and 24, with brass cap mkd.
	T 5 S R 1 E: <u>S 13:</u> S 24: : :
	1915
	and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Land, level and mountainous. Soil, stony and gravelly, 4th rate. Timber, scattering palo verde and iron wood. Undergrowth, greasewood, ocotillos and cacti.

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East boundary of T.5 S. R.1 E.

Chains	
9.30	North along E. bdy. of sec. 13. Over rolling land, through scattering undergrowth. Desc. NE. slope, 107 ft.
20.90	Wash, 25 lks. wide, 3 ft. deep, course, N. 60° E. Wash, 25 lks. wide, 2 ft. deep, course, N. 50° E. Asc. 27 ft. to
30.00	Top of rocky knoll. 3 chs. diam., 30 ft. high. Rocks on this knoll are marked with indian hieroglyphics. Desc. N. slope, to
33.00	Enter level land, brs. W. and SE.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 13 $\frac{1}{4}$ :
	1915
	dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	At this cor. at 9h., a.m., l.m.t., I set off 33° 0' N. on the lat. arc; 23° 21' S. on the decl. arc; and determine a mer. with the solar.
57.60	Road, brs. SW. and NE.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 12 and 13, with brass cap mkd.
	T 5 S
	R 1 E:
	S 12:
	S 13:
	1915
	dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise amount of earth 4 ft. base, 2 ft. high W. of cor.
	Land, level and rolling. Soil, sandy adobe, 2nd rate. Timber, mesquite and palo verde. Undergrowth, greasewood and cacti.
40.00	North along E. bdy. of sec. 12. Over level land, through scattering timber and undergrowth. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 12 $\frac{1}{4}$ :
	1915
	dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1 and 12, with brass cap mkd.
	T 5 S
	R 1 E:
	S 1:
	S 12:
	1915
	dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, level. Soil, sandy adobe, 1st rate. Timber, scattering mesquite and palo verde. Undergrowth, greasewood.



Chains.

40.00 North along E. bdy. of sec. 1.  
Over level land, through scattering timber and undergrowth.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 1  $\frac{1}{4}$ :

1915

80.00 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high W. of cor.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of T.5 S.,R.1 E., with brass cap  
mkd.

S 1  
R 1 E  
T 5 S

1915

dig pits 36 X 36 X 12 ins. S. and W. of cor. 8 ft.  
dist. and raise a mound of earth 5 ft. base,  $2\frac{1}{2}$  ft.  
high SW. of cor.

Land, level.

Soil, loose, sandy adobe, 1st rate.

Timber, scattering mesquite and palo verde.

Undergrowth, greasewood and cacti.

Boundaries of T.5 S.,R.1 E.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes.		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	East	479.64			479.64	
East bdy.	South	480.00		480.00		
South bdy.	West	480.00				480.00
Convergency.					.47	
Totals			480.00	480.00	480.11	480.00
Error in latitude			480.00			
Error in departure			.00		480.00	.11

North boundary of T.7 S., R.1 E.

Chains

Survey commenced Dec. 27, 1915 and executed with a Young and Son's light mountain transit No, 8478, fitted with a Smith Solar attachment. The horizontal limb is equipped with two opposite verniers, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. From recent and repeated tests I know the transit and solar attachment to be in satisfactory adjustment.

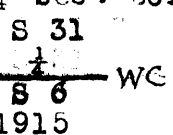
At the cor. of Ts. 6 and 7 S., Rs. 1 and 2 E., . . . , which is an iron post 3 ins. in diam., properly set mkd. and witnessed as described by the Surveyor General. (Dec. 27, 1915.) I set off 32° 51' N. on the lat. arc; 23° 20' S. on the decl. arc; and determine a mer. with the solar,

Thence West on a random line along N. bdy. of Tp., setting temp. 1/4 sec. and sec. cors, at intervals of 40 and 80 chs. and at 478.37 chs. intersect G. and S.R.M., 32 lks. N. of the cor. of Ts. 6 and 7 S., Rs. 1 E. and 1 W., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence N. 89° 58' E. on a true line bet. secs. 6 and 31. Over level land, through scattering timber and undergrowth.

38.37 True point for 1/4 sec. cor. falls in wash, 12 lks. wide, 3 ft. deep, course, NE. therefore at

38.22 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

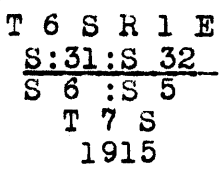


from which, A mesquite, 6 ins. in diam., brs. N. 66 1/2° E. 156 lks. dist. mkd. W C 1/4 S 31 B T.

A mesquite, 5 ins. in diam., brs. S 76° W. 36 lks. dist. mkd. W C 1/4 S 6 B T.

50.97 Wash, 60 lks. wide, 4 ft. deep, course, N.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

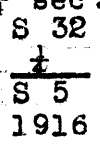


from which, A palo verde, 8 ins. in diam., brs. N. 61 1/2° E. 228 lks. dist. mkd. T 6 S R 1 E S 32 B T. A mesquite, 6 ins. in diam., brs. S. 85 3/4° E. 34 lks. dist. mkd. T 7 S R 1 E S 5 B T. A palo verde, 8 ins. in diam., brs. S. 8 1/2° W. 220 lks. dist. mkd. T 7 S R 1 E S 6 B T. A palo verde, 8 ins. in diam., brs. N. 28 1/2° W. 321 lks. dist. mkd. T 6 S R 1 E S 31 B T.

Land, level. Soil, loose sandy clay, 1st rate. Timber, palo verde, mesquite, iron wood and cat claw. Undergrowth, greasewood brush, ocotillos and cacti.

N. 89° 58' E. on a true line bet. secs. 5 and 32. Over level land, through scattering timber and undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

40.00



xwit.cor

Chains

41.35  
58.20  
80.00

from which,

A palo verde, 8 ins. in diam., brs. N. 83° E.  
102 lks. dist. mkd.  $\frac{1}{4}$  S 32 B T.

A mesquite, 24 ins. in diam., brs. S. 64 $\frac{1}{2}$ ° E.  
25 lks. dist. mkd.  $\frac{1}{4}$  S 5 B T.

At this cor. I set off 23° 20' S. on the decl. ~~ac~~;  
and at apparent noon observe the sun on the mer.;

the resulting lat. is 32° 52' N.

Wash, 30 lks. wide, 4 ft. deep, course, N. 60° E.

Wash, 18 lks. wide, 6 ft. deep, course, NE.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground, for cor. of secs. 4, 5, 32 and 33, with  
brass cap mkd.

T 6 S R 1 E  
S 32:S 33  
S 5:S 4  
T 7 S  
1915

from which,

A palo verde, 8 ins. in diam., brs. N. 66 $\frac{3}{4}$ ° E.  
330 lks. dist. mkd. T 6 S R 1 E S 33 B T.

A palo verde, 8 ins. in diam., brs. S. 23 $\frac{1}{4}$ ° E.  
245 lks. dist. mkd. T 7 S R 1 E S 4 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and  
raise a mound of earth 4 ft. base, 2 ft. high W. of  
cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering palo verde, mesquite and iron wood.

Undergrowth, greasewood brush, 4 to 8 ft. high.

40.00

N. 89° 58' E.

on a true line bet. secs. 4 and 33.

Over level land, through scattering timber and under-  
growth.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 33  
S 4

from which, 1915

A mesquite, 12 ins. in diam., brs. N. 17 $\frac{1}{2}$ ° E.  
116 lks. dist. mkd.  $\frac{1}{4}$  S 33 B T.

A palo verde, 8 ins. in diam., brs. S. 68 $\frac{3}{4}$ ° E.  
77 lks. dist. mkd.  $\frac{1}{4}$  S 4 B T.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 3, 4, 33 and 34, with brass  
cap mkd.

T 6 S R 1 E  
S 33:S 34  
S 4 :S 3  
T 7 S.  
1915

Dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
W. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood brush.

26.60  
27.90  
40.00

N. 89° 58' E.

on a true line bet. secs. 3 and 34.

Over level land, through scattering timber and under-  
growth.

Wash, 100 lks. wide, 5 ft. deep, course, NE.

Wash, 25 lks. wide, 5 ft. deep, course, N.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

North boundary of T.7 S., R.1 E.

Chains

S 34

S 3

1915

47.28 Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.

69.00 Wash, 60 lks. wide, 4 ft. deep, course, N. 30° W.

80.00 Wash, 10 lks. wide, 2 ft. deep, course, NW.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 6 S R 1 E

S 34:S 35

S 3 :S 2

T 7 S

1915

from which,

A mesquite, 10 ins. in diam., brs. N. 78½° E. 281 lks. dist. mkd. T 6 S R 1 E S 35 B T.

A palo verde, 14 ins. in diam., brs. S. 78½° E. 316 lks. dist. mkd. T 7 S R 1 E S 2 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering palo verde and mesquite.

Undergrowth, greasewood brush.

N. 89° 58' E.

Set on a true line bet. secs. 2 and 35.

40.00 Over level land, through scattering timber and undergrowth.

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

S 35

S 2

1915

80.00 Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 6 S R 1 E

S 35:S 36

S 2 :S 1

T 7 S

1915

from which,

A palo verde, 14 ins. in diam., brs. N. 28½° E. 132 lks. dist. mkd. T 6 S R 1 E S 36 B T.

A palo verde, 10 ins. in diam., brs. S. 81½° E. 169 lks. dist. mkd. T 7 S R 1 E S 1 B T.

A palo verde, 8 ins. in diam., brs. S. 14½° W. 334 lks. dist. mkd. T 7 S R 1 E S 2 B T.

A palo verde 12 ins. in diam., brs. N. 60¼° W. 261 lks. dist. mkd. T 6 S R 1 E S 35 B T.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood brush.

Chains

N. 89° 58' E.  
 on a true line bet. secs. 1 and 36.  
 Over level land, through scattering timber and under-  
 growth.

38.00 Wash, 9 lks. wide, 2 ft. deep, course, N.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S. 36  
 $\frac{1}{4}$   
 S. 1  
 from which, 1915

A palo verde, 8 ins. in diam., brs. N. 46 $\frac{3}{4}$ ° E.  
 160 lks. dist. mkd.  $\frac{1}{4}$  S 36 B T.

A palo verde, 8 ins. in diam., brs. S. 61 $\frac{1}{2}$ ° W.  
 70 lks. dist. mkd.  $\frac{1}{4}$  S 1 B T.

42.60 Wash, 25 lks. wide, 3 ft. deep, course, NW.

54.40 Same wash, course, SW.

61.20 Wash, 15 lks. wide, 2 ft. deep, course, NW.

80.00 Cor. of Ts. 6 and 7 S., Rs. 1 and 2 E.  
 Land, level.  
 Soil, loose gravelly clay, 2nd rate.  
 Timber, palo verde and iron wood, and mesquite.  
 Undergrowth, greasewood brush, ocotillos and cacti.

South boundary of T.7 S., R.1 E.

Chains	
	<p>Survey commenced Dec. 27, 1915, and executed with a Young and Son's light mountain transit No. 8592, which is fitted with A Smith Solar attachment. The horizontal limb is provided with two opposite verniers, reading to single minutes of arc, which is also the least count of the lat. and decl. arcs.</p> <p>From recent and repeated field tests, I know the transit and solar attachment to be ins satisfactory adjustment.</p> <p>At the cor. of Ts. 7 and 8 S., Rs. 1 E. and 1 W. which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.</p> <p>Thence</p> <p>East on a random line setting temp. <math>\frac{1}{4}</math> sec. and sec. cors. at intervals of 40 and 80 chs. and at</p>
40.00	At 10h. 30M., a.m., l.m.t., I set off 32° 46' N. on the lat. arc; 23° 20' S. on the decl. arc.; and determine a mer. with the solar.
400.00	(Dec. 28, 1915) at lh. 6m., p.m., l.m.t., I observe Polaris at E.E. in accordance with instructions in the Manual of Surveying, and lay off the azimuth, 1° 21 $\frac{1}{2}$ ' to the W. From the mer. thus established I find the bearing of my random line to be East.
478.84	Intersect W. bdy. of T.8 S., R.2 E., at the cor. of Ts. 7 and 8 S., Rs. 1 and 2 E., which is an iron post 3 ins in diam., properly set, mkd. and witnessed as described by the Surveyor General.
	<p>Thence</p> <p>East on a true line bet. secs. 6 and 31. Over mountainous land, through timber and undergrowth.</p>
3.80	Desc. E. slope, 34 ft. to Wash, 20 lks. wide, 6 ft. deep, course, S. 20° W.
15.00	Asc. NW. slope, 110 ft. to
25.00	Desc. SE. slope, 92 ft. to
29.00	Asc. SW. slope, 21 ft. to
30.50	Desc. SE. slope, 17 ft. to
33.90	Wash, 20 lks. wide, 4 ft. deep, course, S.
38.84	Wash, 30 lks. wide, 3 ft. deep, course, S. 60° W.
	Set an iron post 3ft. long, 1 in. in diam., 24 ins. in the ground to solid rock, in a mound of stone, 4 ft. base, 2 $\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec. cor. with brasscap mkd.
	$\begin{array}{c} S\ 31 \\ + \\ S\ 6 \end{array}$
	<p>Pits impracticable 1915</p> <p>Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.</p>
51.45	Asc. W. slope, 124 ft. to Top of ridge, brs. N. and SW.
60.75	Desc. over broken E. slope, 39 ft. to Wash, 30 lks. wide, 4 ft. deep, course, N.
64.30	Asc. W. slope, 39 ft. to
78.84	Desc. NE. slope, 172 ft. to True point for cor. of secs. 5, 6, 31 and 32, falls in wash, 40 lks. wide, 5 ft. deep, course, SE. therefore at
78.46	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for W.C. of secs. 5, 6, 31 and 32, with brass cap mkd.
	$\begin{array}{c} T\ 7\ S\ R.\ 1\ E \\ WC\ \frac{S\ 31 : S\ 32}{S\ 6 : S\ 5} \\ T\ 8\ S \\ 1915 \end{array}$
	<p>Build a mound of stone, 3 ft. base, 2 ft. high W. of cor. Land, hilly.</p> <p>Soil, stony, schist and quartz, 4th rate.</p> <p>Timber, none.</p> <p>Undergrowth, scrub palo verde, iron wood, greasewood, ocotillos and cacti.</p>

Chains

East on a true line bet. secs. 5 and 32.  
 Over hilly land, through dense undergrowth.  
 Asc. SW. slope, 20 ft. to  
 Change to broken S. slope.  
 Desc. SE. slope, 183 ft. to  
 Ravine, 40 lks. wide, 5 ft. deep, course, NE.  
 Foot of desc.  
 Set an iron post 3 ft. long, 1 in. in diam., 4 ins. in  
 the ground to solid rock, in a mound of stone, 4 ft.  
 base, 2½ ft. high, for ¼ sec. cor. with brass cap mkd.

S 32

+

S 5

Pits impracticable. 1916  
 Build a mound of stone, 3 ft. base, 2 ft high N. of cor.  
 Wash, 30 lks. wide, 4 ft. deep, course, N.  
 Asc. Rocky W. slope.

43.20

58.70

62.70

80.00

Top of ridge brs. N. and S. 60° E.  
 Thence over S. slope, to  
 Desc. NE. slope, 225 ft. to  
 Set an iron post 3 ft. long, 3 ins. in diam., on surface  
 rock, in a mound of stone, 4 ft. base, 2 ft. high  
 for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 7 S R 1 E

S 32:S 33

S 5 :S 4

T 8 S

1915

Pits impracticable.  
 Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.  
 Land, hilly.  
 Soil, stony, schist and quartz, 4th rate.  
 No timber.  
 Undergrowth, scrub palo verde, iron wood, greasewood,  
 ocotillos and cacti.

East on a true line bet. secs. 4 and 33.  
 Overrolling land, through dense undergrowth.  
 Desc. NE. slope, 87 ft.  
 Wash, 20 lks. wide, 3 ft. deep, course, N. 10° E.  
 Wash, 50 lks. wide, 5 ft. deep, course, N. 15° E.  
 Knoll, 6 chs. in diam., brs. N. 10 chs. dist.  
 Foot of descent.  
 Wash, 15 lks. wide, 4 ft. deep, course, N. 20° E.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for ¼ sec. cor. with brass cap mkd.

S 33

+

S 4

1915

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.  
 and raise a mound of earth 3½ ft. base, 1½ ft. high  
 N. of cor.

5.00

14.95

19.85

36.00

38.90

40.00

Thence over nearly level land.  
 Wash, 30 lks. wide, 3 ft. deep, course, N.  
 Wash, 20 lks. wide, 3 ft. deep, course, N. 20° E.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground for cor. of secs. 3, 4, 33 and 34, with  
 brass cap mkd.

42.70

74.90

80.00

T 7 S R 1 E

S 33:S 34

S 4 :S 3

T 8 S

1915

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and  
 raise a mound of earth 4 ft. base, 2 ft. high W. of  
 cor.

Land, level, and rolling.  
 Soil, stony, and gravelly, 4th rate.  
 Timber, scrub palo verde and iron wood.  
 Undergrowth, greasewood brush, ocotillos and cacti.

South boundary of T.7 S., R.1 E.

Chains

69

29.80  
40.00

East on a true line bet. secs. 3 and 34.  
Over gently rolling land, through scattering timber and undergrowth.

Desc. gradual NE. slope.

Wash, 70 lks. wide, 3 ft. deep, course, N. 15° E.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 34  
+  
S 3  
1915

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

52.80  
76.50  
80.00

Wash, 15 lks. wide, 2 ft. deep, course, N.

Wash, 40 lks. wide, 4 ft. deep, course, N. 20° E.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 7 S R 1 E.  
S 34 : S 35  
S 3 : S 2  
T 8 S  
1915

Dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling.

Soil, stony and gravelly, 3rd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood brush, ocotillos and cacti.

.50  
11.00  
17.90  
18.70  
24.00  
40.00

East on a true line bet. secs. 2 and 35.

Over gently rolling land, through scattering timber and undergrowth.

Desc. gradual NE. slope.

Wash, 50 lks. wide, 4 ft. deep, course, N.

Enter level land.

Wash, 120 lks. wide, 4 ft. deep, course, N. 20° W.

Road, brs. N. and S.

West end of rocky hill, 33 chs. long, E. and W. 50 to 120 ft. high, brs. N. 10 chs. dist.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35  
+  
S 2  
1915

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

50.00

Enter land, covered with malpais rock.

Asc. gradual W. slope.

70.40

Wash, 15 lks. wide, 2 ft. deep, course, S. 80° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., on surface rock, in a mound of stone, 4 ft. base, 2 ft. high for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 7 S R 1 E  
S 35 : S 36  
S 2 : S 1  
T 8 S  
1915

Pits impracticable.

Build a mound of stone, 4 ft. base,  $2\frac{1}{2}$  ft high W. of cor.

Land, gently rolling; level from 11 chs. to 50 chs.

Soil, gravelly, 50 chs. to 80 chs. covered with malpais rock. 3rd and 4th rates.

Timber, palo verde and iron wood, and mesquite.

Undergrowth, greasewood brush, ocotillos and cacti.



Chains

East on a true line bet. secs. 1 and 36.  
Over gently rolling land, through scattering timber and undergrowth.

40.00

Asc. gradual W. slope, 47 ft. to  
Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36  
+  
S 1  
1915

59.00

Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.  
Wash, 20 lks. wide, 3 ft. deep, course, SW.

67.50

Wash, 30 lks. wide, 4 ft. deep, course, S. 80° W.

80.00

Cor. of Ts. 7 and 8 S., Rs. 1 and 2 E.

Land, gently rolling.  
Soil, stony. with gravel and malpais surface, 4th rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood brush, ocotillos and cacti.

Boundaries of T.7 S., R.1 E.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	N. 89° 58' E.	478.37	.32		478.37	
East bdy.	South	480.00		480.00		
South bdy.	West	478.84				478.84
Convergency					.47	
Totals			480.32	480.00	478.84	478.84
Error in latitude			480.00			
Error in departure			.32		478.84	.00

Boundaries of T.6 S., R.1 E.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes.		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	East	477.88			477.88	
East bdy.	South	479.74		479.74		
South bdy.	West	478.37				478.37
Convergency					.47	
Totals			480.00	479.74	478.35	478.31
Error in latitude			479.74			
Error in departure			.26		478.31	.04

Resurvey of  
South boundary of T.4 S. R.1 W.

Chains

.10  
3.15  
29.80  
37.70  
40.00

Survey commenced Jan. 14, 1916 and executed with a Young and Son's light mountain transit No. 8521, with Smith Solar attachment. The horizontal limb is fitted with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.  
From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment. Jan., 14, 1916, at 8h., a.m., 1 m.p., I set off 33° 2' N. on the lat. arc; 21° 24' S. on the decl. arc; and determine a mer. with the solar at the cor. of Es. 4 and 5 S., Rs. 1 E. and 1 W., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence

West along S. bdy. of sec. 36.  
Over level land, through scattering timber and undergrowth.  
Wash, 27 lks. wide, 3 ft. deep, course, N. 15° W.  
Wash, 25 lks. wide, 2 ft. deep, course, NE.  
Wash, 15 lks. wide, 2 ft. deep, course, NE.  
Wash, 20 lks. wide, 3 ft. deep, course, N.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36

$\frac{1}{4}$

S 1

1916

from which,

An iron wood, 14 ins. in diam., brs. N. 3½° E.

76 lks. dist. mkd.  $\frac{1}{4}$  S 36 B T.

A mesquite, 8 ins. in diam., brs. S. 79° E.

225 lks. dist. mkd.  $\frac{1}{4}$  S 1 B T.

40.25  
75.30  
80.00

Wash, 25 lks. wide, 2 ft. deep, course, NE.  
Wash, 12 lks. wide, 3 ft. deep, course, N.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 4 S R 1 W

S 35:S 36

S 2 :S 1

T 5 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, loose, sandy clay, 1st rate.

Timber, scattering iron wood, mesquite and palo verde.

Undergrowth, greasewood.

20.90  
36.40  
40.00

West along S. bdy. of sec. 35.  
Over level land, through scattering timber and undergrowth.  
Wash, 15 lks. wide, 1 ft. deep, course, N. 30° W.  
Wash, 12 lks. wide, 3 ft. deep, course, NE.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35

$\frac{1}{4}$

S 2

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 4 S R 1 W

S 34:S 35

S 3 :S 2

T 5 S

1916

Resurvey of  
South boundary of T.4 S. R.1 W.

Chains

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
Land, level.  
Soil, loose, sandy clay, 1st rate.  
Timber, scattering iron wood, palo verde and mesquite.  
Undergrowth, greasewood.

West bet. secs. 3 and 34.  
Over level land, through scattering timber and undergrowth.

13.40 Wash, 15 lks. wide, 1 ft. deep, course, N.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 34  
+  
S 3  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

52.60 Wash, 55 lks. wide, 4 ft. deep, course, N. 15° E.  
78.40 Wash, 25 lks. wide, 2 ft. deep, course, NE.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 4 S R 1 W  
S 33:S 34  
S 4 :S 3  
T 5 S  
1916

from which,  
A mesquite, 10 ins. in diam., brs. N. 38 1/2° E. 108 lks. dist. mkd. T 4 S R 1 W S 34 B T.  
A mesquite, 10 ins. in diam., brs. S. 74° E. 125 lks. dist. mkd. T 5 S R 1 W S 3 B T.  
An iron wood, 30 ins. in diam., brs. S. 9 1/2° W. 190 lks. dist. mkd. T 5 S R 1 W S 4 B T.

No other trees near.  
Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose, sandy clay, 1st rate.  
Timber, mesquite, iron wood, and palo verde.  
Undergrowth, greasewood.

West bet. secs. 3 and 34.  
Over level land, through scattering timber and undergrowth.

21.73 Telephone line parallels S.P.R.R. line.  
24.76 Main line S.P.R.R., brs. N. 58° 16' E. and S. 58° 16' W.  
25.91 Telegraph line parallels S.P.R.R. line.  
31.15 Road, brs. NE. and SW.  
36.60 Wash, 60 lks. wide, 5 ft. deep, course, NE.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 34  
+  
S 3  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

55.10 Wash, 20 lks. wide, 2 ft. deep, course, N. 15° W.  
62.25 Wash, 20 lks. wide, 2 ft. deep, course, N. 30° E.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

Resurvey of  
South boundary of T.4 S., R.1 W.

Chains

T 4 S R 1 W  
S 32:S 33  
S 5 :S 4  
T 5 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
Timber, mesquite, palo verde and iron wood.  
Undergrowth, greasewood.

Jan. 14, 1916, at this cor. I set off 21° 25' S. on the decl. arc; and at apparent noon observe the sun on the mer.; the resulting lat. is 33° 2' N.

West bet. secs. 5 and 32.  
Over level land, through scattering timber and undergrowth.

27.90  
33.20  
40.00

Wash, 22 lks. wide, 3 ft. deep, course, N. 20° E.  
Wash, 20 lks. wide, 3 ft. deep, course, N. 45° E.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 35  
¼  
S 2  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

60.55  
80.00

Wash, 20 lks. wide, 2 ft. deep, course, N. 10° W.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

T 4 S R 1 W  
S 31:S 32  
S 6 :S 5  
T 5 S  
1916

from which,  
A palo verde, 8 ins. in diam., brs. N. 77½° W.  
27 0 lks. dist. mkd. T. 4 S R 1 W.S 31 B T.

No other trees within limits.  
Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
Timber, palo verde, mesquite and iron wood.  
Undergrowth, greasewood.

West bet. secs. 6 and 31.  
Over level land, through scattering timber and undergrowth.

4.25  
6.65  
10.39  
40.00

Wash, 10 lks. wide, 2 ft. deep, course, NE.  
Wash, 15 lks. wide, 1 ft. deep, course, NE.  
Wash, 75 lks. wide, 3 ft. deep, course, N. 45° E.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 31  
¼  
S 6  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

Resurvey of  
South boundary of T.4 S., R.1 W.

Chains

66.05

79.53

Wash, 20 lks. wide, 2 ft. deep, course, NE.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of Ts. 4 and 5 S., Rs. 1 and 2 W.  
with brass cap mkd.

T 4 S

R 2 W R 1 W

S 36:S 31

S 1 :S 6

T 5 S

1916

dig pits 24 X 24 X 12 ins. on each line, N., E. and  
W., 4 ft. and S. of cor. 8 ft. dist. and raise a  
mound of earth 5 ft. base, 2½ ft. high S. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering palo verde and mesquite.

Undergrowth, greasewood.

## WEST BOUNDARY OF T.4 S., R.1 W.

Jan. 24, 1916, at 9h., a.m., 1 m.t., I set off 33°2' N. on  
the lat. arc; 19° 23' S. on the decl. arc; and deter-  
mine a mer. with the solar, at the cor. of Ts. 4 and  
5 S., Rs. 1 and 2 W. heretofore described.

Thence

North bet. secs. 31 and 36.

Over level land, through scattering timber and under-  
growth.

15.15

Wash, 15 lks. wide, 2 ft. deep, course, NE.

30.20

Wash, 20 lks. wide, 2 ft. deep, course, N. 75° E.

39.35

Wash, 15 lks. wide, 3 ft. deep, course, N. 80° E.

40.00

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

S 36 ¼:S 31

1916

from which,

A palo verde, 12 ins. in diam., brs. S. 47½° E.

41 lks. dist. mkd. ¼ S 31 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist.  
and raise a mound of earth 3½ ft. base, 1½ ft. high  
W. of cor.

59.30

Wash, 20 lks. wide, 2 ft. deep, course, E.

68.50

Wash, 15 lks. wide, 2 ft. deep, course, S. 75° E.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 25, 30, 31 and 36, with  
brass cap mkd.

T 4 S

R 2 W:R 1 W

S 25:S 30

S 36:S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
W. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering mesquite, palo verde, iron wood and  
cat claw.

Undergrowth, greasewood.

North bet. secs. 25 and 30.

Over level land, through scattering timber and under-  
growth.

11.85

Wash, 30 lks. wide, 3 ft. deep, course, N. 60° E.

West boundary of T.4 S., R.1 W.

Chains

19.40  
40.00

Wash, 15 lks. wide, 2 ft. deep, course, N. 75° E.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 25  $\frac{1}{4}$ :S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft.  
high W. of cor.

45.95  
50.00  
73.50  
77.15  
79.60  
80.00

Wash, 20 lks. wide, 2 ft. deep, course, N. 60° E.  
Wash, 25 lks. wide, 2 ft. deep, course, NE.  
Wash, 20 lks. wide, 1 ft. deep, course, S. 60° E.  
Wash, 25 lks. wide, 2 ft. deep, course, NE.  
Wash, 25 lks. wide, 2 ft. deep, course, N. 60° E.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 19, 24, 25 and 30, with  
brass cap mkd.

T 4 S

R 2 W:R 1 W

S 24:S 19

S 25:S 30

1916

from which,

A mesquite, 16 ins. in diam., brs. S. 7° E.  
277 lks. dist. mkd. T 4 S R 1 W S 30 B T

A mesquite, 16 ins. in diam., brs. S. 6° W.  
252 lks. dist. mkd. T 4 S R 2 W S 25 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist.  
and raise a mound of earth 4 ft. base 2 ft. high  
W. of cor.

Land, level.

Soil, loose sandy clay, 1strate.

Timber, mesquite, palo verde, iron wood and cat claw.

Undergrowth, greasewood.

Jah.29, 1916, at 9h., a.m., l.m.t., I set off 33° 3' N. on  
the lat. arc; 18° 8' S. on the decl. arc; and deter-  
mine a mer. with the solar at the cor. of secs.  
19, 24, 25 and 30.

Thence

North bet. secs. 19 and 24.

Over level land, through scattering timber and under-  
growth.

14.10  
17.30  
40.00

Wash, 15 lks. wide, 2 ft. deep, course, SE.  
Dimp road, brs. E. and W.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 24  $\frac{1}{4}$ :S 19

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft.  
high W. of cor.

47.00  
49.30  
58.70  
80.00

Wash, 20 lks. wide, 2 ft. deep, course, N. 75° E.  
Wash, 20 lks. wide, 1 ft. deep, course, E.  
Wash, 25 lks. wide, 2 ft. deep, course, S. 70° E.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 13, 18, 19 and 24, with  
brass cap mkd.

T 4 S

R 2 W;R 1 W

S 13:S 18

S 24:S 19

1916

from which,

A mesquite, 14 ins. in diam., brs. N. 85 $\frac{1}{2}$ ° W.  
236 lks. dist. mkd. T 4 S R 2 W S 13 B T

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and

Chains

raise a mound of earth 4 ft. base, 2 ft. high  
 W. of cor.  
 Land, level.  
 Soil, loose sandy clay, 1st rate.  
 Timber, scattering palo verde, mesquite, iron wood and  
 cat claw.  
 Undergrowth, greasewood.

North bet. secs. 13 and 18.  
 Over level land, through scattering timber and under-  
 growth.

30.00 Leave level land, and asc. SW. slope, 239 ft. to  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface  
 rock, in a mound of stone, 3 ft. base, 2 ft. high  
 for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 13  $\frac{1}{4}$ :S 18

1916

Pits impracticable.  
 Build a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.  
 Asc. SW. slope, 51 ft. to  
 41.84 Spur slopes SE. desc. NE. slope, 46 ft. to  
 46.79 Draw, course, E., asc. SE. slope, 337 ft. to  
 71.24 Same spur, slopes, SW., asc. SW. slope, 149 ft. to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., on surface  
 rock, in a mound of stone for cor. of secs. 7, 12, 13,  
 and 18, with brass cap mkd.

T 4 S  
 R 2 W R 1 W  
 S 12:S 7  
 S 13:S 18

1916

Pits impracticable.  
 Build a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.  
 Land, mountainous and level.  
 Soil, loose sandy clay, 1st rate, on level land, remainder  
 loose decomposed granite, 3rd and 4th rates.  
 Timber, palo verde, mesquite, iron wood and cat claw.  
 Undergrowth, greasewood and cacti.

Feb. 1, 1916, at 9h.30m., a.m., l.m.t., I set off 33° 5' N.  
 on the lat. arc; 17° 19' S. on the decl. arc; and  
 determine a mer. with the solar at the cor. of secs.  
 7, 12, 13 and 18.

Thence

North bet. secs. 7 and 12.  
 Asc. SW. slope, 23 ft. to  
 1.25 Ridge brs. SE. and W.. desc. N. slope, 869 ft. to  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 12  $\frac{1}{4}$ :S 7

1916

and build a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high  
 W. of cor.

43.25 Desc. N. slope, 23 ft. to  
 Wash, 15 lks. wide, 5 ft. deep, course, NE.  
 Thence over level land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground for cor. of secs. 1, 6, 7 and 12, with  
 brass cap mkd.

T 4 S  
 R 2 W R 1 W  
 S 1 :S 6  
 S 12:S 7

1916



West boundary of T.4 S., R.1 W.

Chains

from which,  
 An iron wood 6 ins. in diam., brs. N.  $26\frac{1}{2}^{\circ}$  E.  
 152 lks. dist. mkd. T 4 S R 1 W S 6 B T.  
 An iron wood, 8 ins. in diam., brs. S.  $10\frac{3}{4}^{\circ}$  E.  
 44 lks. dist. mkd. T 4 S R 1 W S 7 B T.  
 An iron wood, 6 ins. in diam., brs. N.  $45\frac{1}{2}^{\circ}$  W.  
 159 lks. dist. mkd. T 4 S R 2 W S 1 B T.  
 No other trees within limits.  
 Dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and  
 raise a mound of earth 4 ft. base, 2 ft. high W. of  
 cr.  
 Land, mountainous and level.  
 Soil, granite stony, 4th rate, to 50 chs., remainder,  
 decomposed granite, and sandy clay, 1st rate.  
 Timber, scattering palo verde and iron wood.  
 Undergrowth, greasewood and cacti.

North bet. secs. 1 and 6.  
 Over level land, through scattering timber and under-  
 growth.

1.60 Wash, 12 lks. wide, 1 ft. deep, course, E.  
 11.10 Wash, 15 lks. wide, 1 ft. deep, course, NE.  
 30.80 Wash, 12 lks. wide, 2 ft. deep, course, N.  $75^{\circ}$  E.  
 40.00 True point for  $\frac{1}{4}$  sec. cor. falls in wash, 20 lks. wide, 1  
 ft. deep, course, N.  $45^{\circ}$  E. therefore at  
 39.80 Set an iron post 3ft. long, 1 in. in diam., 26 ins. in  
 the ground for W.C.  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 W.C  
 S 1  $\frac{1}{4}$ :S 6

1916.

from which,  
 An iron wood, 10 ins. in diam., brs. N.  $54\frac{1}{2}^{\circ}$  E.  
 202 lks. dist. mkd. W C  $\frac{1}{4}$  S 6 B T  
 An iron wood, 18 ins. in diam., brs. S.  $75\frac{1}{2}^{\circ}$  W.  
 121 lks. dist. mkd. W C  $\frac{1}{4}$  S 1 B T  
 80.00 Set an iron post 3ft. long, 3 ins. in diam., 24 ins. in  
 the ground for cr. of Ts. 3. and 4 S., Rs. 1 and 2 W.  
 with brass cap mkd.  
 T 3 S  
 R 2 W R 1 W  
 S 36:S 31  
 S 1 :S 6  
 T 4 S

1916

dig pits 24 X 24 X 12 ins. N., E. and W., 4 ft. and  
 S. of cor. 8 ft. dist. and raise a mound of earth  
 5 ft. base,  $2\frac{1}{2}$  ft. high S. of cor.  
 Land, level.  
 Soil, loose sandy clay, 1strate.  
 Timber, iron wood, palo verde and mesquite.  
 Undergrowth, greasewood.

Chains

Survey commenced Jan. 24, 1916, and executed with a Young and Son's light mountain transit No. 8592, as described in book "A".

From recent and repeated field tests of the transit and solar attachment, I know them to be in satisfactory adjustment.

At 9h., a.m., l.m.t., I set off 33° 7' N. on the lat. arc; 19° 23' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts.3 and 4 S., Rs. 1 E. and 1 W. heretofore described.

Thence

West on a random line, setting temp. 1/4 sec. and sec. cors. at intervals of .40 chs., and at 479.06 chs. fall 2 lks. N. of cor. of Ts.3 and 4 S., Rs. 1. and 2 W., heretofore described.

Thence

East on a true line bet. secs. 6. and 31. Over level land, through scattering timber and undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

39.06

S 31

1/4  
S 6

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

42.16

Wash, 10 lks. wide, 1 ft. deep, course, NE.

64.05

Wash, 15 lks. wide, 1 ft. deep, course, NE.

79.06

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

T 3 S R 1 W

S 31 : S 32

S 6 : S 5

T 4 S

1916

from which,

An iron wood, 8 ins. in diam., brs. N. 87° E. 221 lks. dist. mkd. T 3 S R 1 W S 32 B T.

An iron wood, 6 ins. in diam., brs. N. 35° W. 353 lks. dist. mkd. T 3 S R 1 W S 31 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, loose sandy clay, 1st rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood.-- At this cor. I set off 19° 21' S. on the decl. arc; and at apparent noon observe the sun on the mer.; the resulting lat. is 33° 7' N.

Thence

East on a true line bet. secs. 5 and 32. Over level land, through scattering timber and undergrowth.

21.00

Wash, 10 lks. wide, 1 ft. deep, course, N. 30° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 32

1/4  
S 5

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33 with brass cap mkd.

x1916

North boundary of T.4 S., R.1 W.

Chains

T 3 S R 1 W  
S 32:S 33  
S 5 :S 4  
T 4 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
Timber, scattering palo verde and mesquite.  
Undergrowth, greasewood.

East on a true line bet. secs. 4 and 33.  
Over level land, through scattering timber and undergrowth.

13.50 Wash, 35 lks. wide, 3 ft. deep, course, N. 10° E.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 33  
¼  
S 4  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

41.30 Wash, 40 lks. wide, 3 ft. deep, course, N. 20° W.  
46.50 Wash, 80 lks. wide, 3 ft. deep, course, N. 10° W.  
55.00 Wash, 30 lks. wide, 1 ft. deep, course, N. 20° W.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 3 S R 1 W  
S 33:S 34  
S 4 :S 3  
T 4 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
Timber, scattering palo verde and mesquite.  
Undergrowth, greasewood.

East on a true line bet. secs. 3 and 34.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 34  
¼  
S 3  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

73.50 Wash, 35 lks. wide, 3 ft. deep, course, N.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 3 S R 1 W  
S 34:S 35  
S 3 :S 2  
T 4 S  
1916

Chains

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.  
Land, level.  
Soil, sandy clay, 1st rate.  
Timber, none.  
Undergrowth, greasewood.

East on a true line bet. secs. 2 and 35.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 35  
¼  
S 2  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 3 S R 1 W  
S 35:S 36  
S 2 :S 1  
T 4 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, loose sandy clay, 1st rate.  
No timber.  
Undergrowth, greasewood.

East on a true line bet. secs. 1 and 36.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 36  
¼  
S 1  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00 Cor. of Ts.3 and 4 S.,Rs. 1 E. and 1 W.

Land, level.  
Soil, loose sandy clay, 1st rate.  
No timber.  
Undergrowth, greasewood.

Boundaries of T.4 S., R.1 W.  
Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	East	479.06			479.06	
East bdy.	South	480.00		480.00		
South bdy.	West	479.53				479.53
Convergency					.47	
Totals			480.00	480.00	479.53	479.53
				480.00		479.53
Error in latitude				.00		
Error in departure						.00

## Retracement of the W. Boundary of T. 4 S., R. 2 E.

33

Chains

Survey commenced Jan. 14, 1916, and executed with a Young and Son's light mountain transit No. 8592, as described in book "A".

From recent and repeated field tests of the transit and solar attachment, I know them to be in satisfactory adjustment.

Jan. 14, 1916, at 9h., a.m., l.m.t., I set off  $33^{\circ} 2' N.$  on the lat. arc;  $21^{\circ} 29' S.$  on the decl. arc; and determine a mer. with the solar, at the NE. cor. of T. 5 S., R. 1 E., which I established Dec. 18, 1915.

On Dec. 18, 1915, diligent search in this vicinity failed to reveal any trace of the original cor. of Ts. 4 and 5 S., Rs. 1 and 2 E.

Jan. 14, 1916, after diligent search, find no trace of original cor. of Ts. 4 and 5 S., Rs. 1 and 2 E.

Thence

North along W. bdy. of sec. 31.

40.00 After diligent search, find no trace of original  $\frac{1}{4}$  sec. cor.

Set temp.  $\frac{1}{4}$  sec. cor.

80.00 After diligent search, find no trace of cor. of secs. 25, 30, 31 and 36.

Set temp. cor. of secs. 30 and 31.

North along W. bdy. of sec. 30.

40.00 After diligent search, find no trace of original  $\frac{1}{4}$  sec. cor.

Set temp.  $\frac{1}{4}$  sec. cor.

80.00 After diligent search, find no trace of original cor. of secs. 19, 24, 25 and 30.

Set temp. cor. of secs. 19 and 30,

North along W. bdy. of sec. 19.

40.00 After diligent search, find no trace of original  $\frac{1}{4}$  sec. cor.

Set temp.  $\frac{1}{4}$  sec. cor.

80.00 After diligent search, find no trace of original cor. of secs. 13, 18, 19 and 24.

Set temp. cor. of secs. 18 and 19.

North along W. bdy. of secs. 18.

40.00 After diligent search, find no trace of original  $\frac{1}{4}$  sec. cor.

Set temp.  $\frac{1}{4}$  sec. cor.

84.71 Cor. of secs. 7 and 18, SW. cor. of Gila River Indian Reserve, which is an iron post, 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General, brs. E. 396 lks. dist.

Jan. 19, 1916, at 9h., a.m., l.m.t., I set off  $33^{\circ} 5' N.$  on the lat. arc;  $20^{\circ} 19' S.$  on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 7 and 18.

Thence

North along W. bdy. of sec. 7.

43.27  $\frac{1}{4}$  sec. cor. of sec. 7, which is an iron post, 1 in. diam., properly set, mkd. and witnessed as described by the Surveyor General, brs. E. 2 lks. dist.;

True course of line back to sec. cor. is S.  $0^{\circ} 2' W.$

Set over  $\frac{1}{4}$  sec. cor. and continue line North.

40.04 Cor. of secs. 6 and 7, which is an iron post, 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General, brs. W. 5 lks. dist.

True course of line back to  $\frac{1}{4}$  sec. cor. is S.  $0^{\circ} 4' W.$

34 Retracement of the W. Boundary of T. 4 S., R. 2 E.

Chains

Set over sec. cor. and continue line North.  
 Along W. bdy. of sec. 6.  
 36.38 WC to  $\frac{1}{4}$  cor. of sec. 6, which is an iron post, 1 in. diam., properly set, mkd. and witnessed as described by the Surveyor General, brs. E. 2 lks. dist.  
 39.88 True point for  $\frac{1}{4}$  cor. of sec. 6, brs. E. 2 lks. dist. True course of line back to sec. cor. is S.  $0^{\circ} 2' W$ .  
 Set over true point. and continue line North.  
 40.14 cor. of Ts. 3 and 4 S., Rs. 2 E., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General, brs. W. 3 lks. dist. True course of line back to  $\frac{1}{4}$  sec. cor. is S.  $0^{\circ} 3' E$ .

RESURVEY OF PORTION OF WEST BOUNDARY OF T. 4 S., R. 2 E.

Mar. 10, 1916, at 2h., p.m., l.m.t., I set off  $33^{\circ} 5' N$ . on the lat. arc;  $3^{\circ} 58' S$  on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 7 and 18.

On this cor. I mark,  
 S 18 in SW. quadrant,  
 destroy pits N. and E. of cor. and mound, and dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.

Thence  
 South along W. bdy. of sec. 18.  
 Over level land, through scattering timber and undergrowth.

19.80 Road brs. E. and W.  
 20.00 Asc. NW. slope of hill, 189 ft. to  
 37.20 Top of hill brs. E. and W., desc. SW. slope, 53 ft. to  
 40.00 Set an iron post, 1 in. diam., 1 in. in the ground, to solid rock, in a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 $\frac{1}{4}$  S 18  
 1916  
 and build a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, E. of cor.  
 Desc. 74 ft. to  
 45.00 Asc. 29 ft. to  
 50.00 Desc. S. slopd, 88 ft. to  
 66.80 Enter level land, brs. E. and W.  
 80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for cor. of secs. 18 and 19, with brass cap mkd.

:T 4 S  
 :R 2 E  
 :S 18  
:S 19

1916  
 dig pits, 24 X 24 X 12 ins. in each sec., 6 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.  
 Land, level and hilly.  
 Soil, sandy, 2nd rate and stony, 4th rate.  
 Timber, scattering palo verde and ironwood.  
 Undergrowth, greasewood, ocotillos and giant cacti.

Resurvey of portion of West boundary of T.4 S., R.2 E.

Chains

South along W.bdy. of sec. 19.  
 Over level land, through scattering undergrowth.  
 11.20 Road, Maricopa to Gila Bend, brs. E. and W.  
 11.97 Telegraph line parallels S.P.R.R. line.  
 12.58 Main line of the S.P.R.R., brs. S. 82° W. and N. 82° E.  
 15.70 Telephone line parallels S.P.R.R. line.  
 29.50 Road, brs. N. 30° E. and S. 30° W.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

$\frac{1}{4}$  S 19

1916  
 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
 dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
 high E. of cor.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground for cor. of secs. 19 and 30, with brass  
 cap mkd.

T 4 S  
 :R 2 E  
 :S 19  
 :S 30

1916  
 dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist.  
 and raise a mound of earth 4 ft. base, 2 ft. high  
 E. of cor.  
 Land, level.  
 Soil, sandy adobe, 1st rate.  
 No timber.  
 Undergrowth, greasewood and scattering mesquite brush.

South along W. bdy. of sec. 30.  
 Over level land, through scattering timber and undergrowth.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

$\frac{1}{4}$  S 30

1916  
 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
 dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
 high E. of cor.  
 49.70 Wash, 10 lks. wide,  $\frac{1}{2}$  ft. deep, course, NW.  
 59.70 Wash, 10 lks. wide,  $\frac{1}{2}$  ft. deep, course, NW.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground for cor. of secs. 30 and 31, with brass  
 cap mkd.

T 4 S  
 :S 2 E  
 :S 30  
 :S 31

1916  
 dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist.  
 and raise a mound of earth 4 ft. base, 2 ft. high  
 E. of cor.  
 Land, level.  
 Soil, sandy adobe, 1st rate.  
 Timber, scattering palo verde.  
 Undergrowth, greasewood.

South along W. bdy. of sec. 31.  
 Over level land, through scattering timber and under-  
 growth.  
 11.50 Wash, 15 lks. wide, 1 ft. deep, course, NW.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

36

Resurvey of portion of West boundary of T.4 S. R.2 E.

Chains

:¼ S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high E. of cor.

60.70

Enter dense growth of mesquite brush, brs. NW. and SE.

71.70

Wash, 15 lks. wide, 1 ft. deep, course, NW.

74.80

Leave dense growth, of mesquite brush, brs. NW. and SE.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of T.4 S. and 5 S., R. 2 E. with brass cap mkd.

T 4 S

:R 2 E

:S 31

:S 6

:T 5 S

1916

from which,

A mesquite, 6 ins. in diam., brs. N. 69° 45' E.

76 lks. dist. mkd. T.4 S R 2 E S 31 B T.

No other trees within limits.

Dig pits 30 X 24 X 12 ins. on each line N. and S. 4 ft.

and E. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high E. of cor.

Land, level.

Soil, sandy adobe, 1st rate.

Timber, scattering mesquite and palo verde

Undergrowth, greasewood and mesquite brush.



North boundary of T.4 S., R.1 E.

Chains

Survey commenced Jan. 23, 1916, and executed with a Young and Sons light mountain transit No. 8592, as described in book "A".

From recent and repeated field tests of the transit and solar attachment, I know them to be in satisfactory adjustment.

At 9h., a.m., l.m.t., I set off 33° 7' N. on the lat. arc; 19° 37' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 3 and 4 S., Rs. 1E. and 1 W., which is an iron post 3 ins. in diam., properly set mkd. and witnessed as described by the Surveyor General.

Thence

East on a true line bet. secs. 6 and 31.

Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 31

1/4

S 6

1916.

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

T 3 S R 1 E

S 31 : S 32

S 6 : S 5

T 4 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering mesquite.

Undergrowth, greasewood.

East bet. secs. 5 and 32.

Over level land, through scattering timber and undergrowth.

10.20 Wash, 35 lks. wide, 5 ft. deep, course, N. 50° W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 32

1/4

S 5

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 3 S R 1 E

S 32 : S 33

S 5 : S 4

T 4 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering mesquite.

Undergrowth, greasewood 4 to 6 ft. high.

Chains	
	<p>East bet. secs. 4 and 33. Over level land, through scattering timber and undergrowth.</p>
40.00	<p>Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for <math>\frac{1}{4}</math> sec. cor. with brass cap mkd.</p>
	<p style="text-align: center;">S 33 <u>  1  </u> S 4 1916</p>
	<p>dig pits 18 X18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth <math>3\frac{1}{2}</math> ft. base, <math>1\frac{1}{2}</math> ft. high N. of cor.</p>
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.</p>
	<p style="text-align: center;">T 3 S R 1 E <u>S 33:S 34</u> S 4 :S 3 T 4 S 1916</p>
	<p>dig pits 18 X18 X 12 ins. in each sec. <math>5\frac{1}{2}</math> ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p>
	<p>Land, level. Soil, sandy loam, 1st rate. Timber, scattering mesquite. Undergrowth, greasewood, 4 to 6 ft. high.</p>
	<p>East bet. secs. 3 and 34. Over level land, through scattering timber and undergrowth.</p>
1.70	<p>Road, brs. NW. and SE.</p>
40.00	<p>Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for <math>\frac{1}{4}</math> sec. cor. with brass cap mkd.</p>
	<p style="text-align: center;">S 34 <u>  1  </u> S 3 1916</p>
	<p>dig pits 18 X18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth <math>3\frac{1}{2}</math> ft. base, <math>1\frac{1}{2}</math> ft. high N. of cor.</p>
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.</p>
	<p style="text-align: center;">T 3 S R 1 E <u>S 34:S 35</u> S 3 :S 2 T 4 S 1916</p>
	<p>dig pits 18 X 18 X12 ins. in each sec. <math>5\frac{1}{2}</math> ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p>
	<p>Land, level. Soil, sandy loam, 1st rate. Timber, scattering palo verde and iron wood. Undergrowth, greasewood.</p>
	<p>East bet. secs. 2 and 35. Over hilly land, through scattering timber and undergrowth.</p>
10.00	<p>Asc. gradual, SW. slope, 100 ft. Enter rocky land, decomposed granite.</p>
12.70	<p>Wash, 40 lks. wide, 5 ft. deep, course, SW.</p>
25.80	<p>Wash, 80 lks. wide, 10 ft. deep, course, SW.</p>
34.00	<p>Wash, 50 lks. wide, 6 ft. deep, course, SW.</p>
35.00	<p>Foot of mountains. Asc. SW. slope, 100 ft. to</p>
40.00	<p>Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 2 ft.</p>

North boundary of T.4 S., R.1 E.

Chains

base, 1 ft. high, for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 35  
 $\frac{1}{4}$   
 S 2  
 1916

and build a mound of stone, 3 ft. base, 2 ft. high  
 N. of cor.  
 Asc. SW. slope, 115 ft. to  
 51.50 Spur slopes NW., asc. over W. and NW. slope, 503 ft. to  
 62.50 Top of spur ridge, slopes S. 20° W. 817 ft. above level  
 land.  
 Desc. over broken SE. slope, 194 ft. to  
 67.50 Asc. 78 ft. to  
 71.90 Desc. SE. slope, 269 ft. to  
 80.00 Set an iron post on surface rock, in a mound of stone,  
 4 ft. base, 3 ft. high, for cor. of secs. 1, 2, 35 and  
 36, with brass cap mkd.

T 3 S R 1 E  
 S 35:S 36  
 S 2 :S 1  
 T 4 S  
 1916

and build a mound of stone, 3 ft. base, 2 ft. high  
 W. of cor.  
 Land, mountainous,  
 Soil, rocky, granite and quartz, 4th rate.  
 Timber, scattering palo verde.  
 Undergrowth, scattering greasewood, ocotillos and cacti.

East bet. secs. 1 and 36.  
 Over mountainous land, through scattering timber and under  
 growth.

Desc. broken SE. slope, 23 ft. to  
 5.00 Asc. SW. slope, 130 ft. to  
 10.72 Thence along S. slope, to  
 11.50 Asc. SW. slope, 401 ft. to  
 28.00 Riadge brs. N. 40° W. and S. 50° E., 936 ft. above level  
 land.  
 40.00 Desc. NE. slope, 313 ft. to  
 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in  
 the ground to solid rock, in a mound of stone,  
 3 ft. base, 2 ft. high, for  $\frac{1}{4}$  sec. cor. with brass  
 cap mkd.

S 36  
 $\frac{1}{4}$   
 S 1  
 1916

Pits impracticable.  
 Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.  
 Desc. NE. slope, 100 ft. to  
 46.10 Asc. NW. slope, 75 ft. to  
 49.30 Desc. NE. slope, 377 ft. to cor.  
 73.10 Ravine, 60 lks. wide, 16 ft. deep, course, N. 70° E.  
 83.13 Intersect W. bay. of T.4 S., R.2 E., 8 chs. S. of cor. of  
 Ts.3 and 4 S., Rs.2 E., heretofore described.  
 Set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in  
 the ground, to solid rock, in a mound of stone,  
 3 ft. base, 2 ft. high, for C.C. of Ts.3 and 4 S., Rs.  
 1 E., with brass cap mkd.

T 3 S  
 R 1 E:  
 S 36 :  
 C:  
 C:  
 S 1 :  
 T 4 S:  
 1916

and build a mound of stone, 3 ft. base, 2 ft. high  
 W. of cor.

Chains

Land, mountainous.  
 Soil, rocky, granite and quartz, 4th rate.  
 Timber, scattering scrub palo verde.  
 Undergrowth, greasewood, ocotillos and cacti.

Boundaries of T.4 S., R.1 E.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes.		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	4480.00	480.00		483.13	
North bdy.	East	483.13			483.13	
East bdy.	S. 0° 3' E.	35.64		35.64	.03	
	S. 0° 2' W.	36.38		36.38		.02
	S. 0° 4' W.	40.04		40.04		.05
	S. 0° 2' W.	43.27		43.27		.02
South bdy.	South	324.71		324.71		
	West	483.60		483.60		483.60
Convergency					.47	
Totals			480.00	480.04	483.63	483.69
Error in latitude				480.00		
Error in departure				.04		483.63
						.06

North boundary of T.3 S., R.1 W.

Chains

Survey commenced Feb. 2, 1916, and executed with a Young and Son's light mountain transit No. 8592, as described in book "A".

I examine the adjustments of the transit and find them correct.

At 10h., a.m., l.m.t., I set off 33° 12' N. on the lat. arc; 17° 1' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts.2 and 3 S., Rs.1 E. and 1 W. on the G. & S.R.M., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

At 10h. 40m., a.m., l.m.t., I observe Polaris at E.E. in accordance with instructions in the Manual of Surveying, and lay off the azimuth of Polaris, 1° 21' to the W. The mer. thus determined coincides with the mer. established at 10h. a.m., l.m.t., with the solar attachment.

Thence

West on a random line along N. bdy. of T.3 S., R.1 W., setting temp. 1/4 sec. and sec. cors. at intervals of 40 chs., and at 478.72 chs. intersect N. and S. line 2 lks. N. of cor. of Ts.2 and 3 S., Rs.1 and 2 W., hereinafter described. Note:- falling and dist. were determined upon completion of W. bdy. of T.3 S., R.1 W., on Feb.3, 1916.

Thence

East on a true line bet. secs. 6 and 31.

Over level land, through scattering undergrowth.

38.72

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 31  
1/4  
S 6  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

78.72

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd. T 2 S R 1 W

S 31 : S 32  
S 6 : S 5  
T 3 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

No timber.

Undergrowth, greasewood.

East on a true line bet. secs. 5 and 32.

Over level land, through scattering timber and undergrowth.

13.30

Wash, 80 lks. wide, 6 ft. deep, course, N. 60° W.

25.50

Road, brs. N. 50° W. and S. 50° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 32  
1/4  
S 5  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

Chains

T 2 S R 1 W

S 32:S 33

S 5 :S 4

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood and mesquite brush.

East on a true line bet. secs. 4 and 33.

Over level land, through scattering undergrowth.

40.00

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

S 33

+

S 4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 2 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 2 S R 1 W

S 33:S 34

S 4 :S 3

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

No timber.

Undergrowth, greasewood and mesquite brush.

East on a true line bet. secs. 3 and 34.

Over level land, through scattering undergrowth.

14.60

Wash, 10 lks. wide, 1 ft. deep, course, S. 80° W.

40.00

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

S 34

+

S 3

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 2 S R 1 W

S 34:S 35

S 3 :S 2

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

North boundary of T.3 S., R.1 W.

Chains

No timber.  
Undergrowth, greasewood and mesquite.

East on a true line bet. secs. 2 and 35.  
Over level land, though scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35  
 $\frac{1}{4}$   
S 2  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 2 S R 1 W  
S 35 : S 36  
S 2 : S 1  
T 3 S  
1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy loam, 1st rate.  
Timber, mesquite.  
Undergrowth, greasewood, and cacti.

East on a <sup>true</sup> random line bet. secs. 1 and 36.  
Over level land, through scattering undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36  
 $\frac{1}{4}$   
S 1  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

80.00 Cor. of Ts. 2 and 3 S., Rs. 1 E and 1 W., heretofore described.

Land, level.  
Soil, sandy loam, 1st rate.  
No timber.  
Undergrowth, greasewood, scattering mesquite and cacti.

Chains

Feb. 3, 1916, at 9h., a.m., l.m.t., I set off 33° 7' N. on the lat. arc; 16° 45' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts.3 and 4 S., Rs.1 and 2 W., heretofore described.

Thence

North bet. secs. 31 and 36.

Over level land, through scattering timber and undergrowth.

11.80

Wash, 15 lks. wide, 2 ft. deep, course, N. 30° E.

26.70

Wash, 15 lks. wide, 2 ft. deep, course, N. 30° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 36 1/4 : S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

49.80

Wash, 15 lks. wide, 1 ft. deep, course, NE.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 3 S  
R 2 W : R 1 W  
S 25 : S 30  
S 36 : S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1st rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood.

North bet. secs. 25 and 30.

Over level land, through scattering timber and undergrowth.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 25 1/4 : S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

65.20

Wash, 10 lks. wide, 1 ft. deep, course, N. 40° E.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 3 S  
R 2 W R 1 W  
S 24 : S 19  
S 25 : S 30

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1st rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

North bet. secs. 19 and 24.

Over level land, through scattering timber and undergrowth.



West boundary of T.3 S., R.1 W.

Chains

8.70

Wash, 20 lks. wide, 1 ft. deep, course, N. 60° E.

14.10

Wash, 15 lks. wide, 1 ft. deep, course, N. 50° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 24 1/4 : S 19

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd. T 2 S

R 2 W R 1 W

S 13 : S 18

S 24 : S 19

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1st rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

North bet. secs. 13 and 18.

Over level land, through scattering timber and undergrowth.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 13 1/4 : S 18

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 3 S

R 2 W R 1 W

S 12 : S 7

S 13 : S 18

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1strate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

North bet. secs. 7 and 12.

Over level land, through scattering timber and undergrowth.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 12 1/4 : S 7

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

West boundary of T.3 S., R.1 W.

Chains  
75.00 Wash, 10 lks. wide, 1 ft. deep, course, N. 30° E.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 3 S  
R 2 W R 1 W  
S 1 :S 6  
S 12:S 7  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
Timber, scattering palo verde, iron wood and mesquite.  
Undergrowth, greasewood.

North bet. secs. 1 and 6.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.  
S 1 ¼:S 6

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 2 and 3 S., Rs. 1 and 2 W., with brass cap mkd.

T 2 S  
R 2 W R 1 W  
S 36:S 31  
S 1 :S 6  
T 3 S  
1916

dig pits 24 X 24 X 12 ins. on each line N., E., and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
Timber, iron wood palo verde and mesquite.  
Undergrowth, greasewood.

Boundaries of T.3 S., R.1 W.

Latitudes, Departures and Closing Errors.

Line Designated.	True Bearing.	Dist. Chs.	Latitudes		Departures	
			N. Chs.	S. Chs.	E. Chs.	W. Chs.
West bdy.	North	480.00	480.00			
North bdy.	East	478.72			478.72	
East bdy.	South	480.00		480.00		
South bdy.	West	479.06				479.06
Convergency					.47	
Totals			480.00	480.00	479.19	479.06
Error in latitude			480.00			
Error in departure			.00		479.06	.13

South boundary of T.3 S., R.2 W.

Chains

Survey commenced Feb. 7, 1916, and executed with a Young and Son's light mountain transit No. 8592 as described in book "A".

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment.

At 9h., a.m., l.m.t., I set off 33° 7' N. on the lat. arc; 15° 32' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 3 and 4 S., Rs. 1 and 2 W., heretofore described.

Thence

West bet. secs. 1 and 36.

Over level land, through scattering timber and undergrowth.

20.00 Wash, 10 lks. wide, 1 ft. deep, course, N. 40° E.

32.00 Wash, 15 lks. wide, 1 ft. deep, course, N. 50° E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36

+

S 1

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

58.30 Wash, 15 lks. wide, 1 ft. deep, course, N. 50° E.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 3 S R 2 W

S 35: S 36

S 2 : S 1

T 4 S

1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, gravelly, 1st rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

Feb. 9, 1916, at 10h., a.m., l.m.t., I set off 33° 7' N, on the lat. arc; 14° 54' S. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 1, 2, 35 and 36.

Thence

West on a true line bet. secs. 2 and 35.

Over level land, through scattering timber and undergrowth.

11.00 Wash, 15 lks. wide, 1 ft. deep, course, N. 30° E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35

+

S 2

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

44.60 Wash, 15 lks. wide, 1 ft. deep, course, N.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

South boundary of T.3 S., R.2 W.

Chains

T 3 S R 2 W  
S 34:S 35  
S 3 :S 2  
T 4 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood.

West on a true line bet. secs. 3 and 34. Over level land, through scattering timber and undergrowth.

8.70 Wash, 15 lks. wide, 1 ft. deep, course, N.  
38.30 Wash, 15 lks. wide, 2 ft. deep, course, N.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 34  
¼  
S 3  
1916

from which,  
An iron wood, 12 ins. in diam., brs. N. 3° E. 22 lks. dist. mkd. ¼ S 34 B T.

No other trees within limits.  
Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

49.00 Wash, 20 lks. wide, 3 ft. deep, course, N. 10° E.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs 3, 4, 33 and 34, with brass cap mkd.

T 3 S R 2 W  
S 33:S 34  
S 4 :S 3  
T 4 S  
1916

from which,  
An iron wood, 14 ins. in diam., brs N. 40¼° W. 137 lks. dist. mkd. T 3 S R 2 W S 33 B T.

No other trees within limits.  
Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood.

West on a true line bet. secs. 4 and 33. Over gently rolling land, through scattering timber and undergrowth.

2.10 Wash, 15 lks. wide, 1 ft. deep, course, N. 30° E.  
35.00 Wash, 15 lks. wide, 1 ft. deep, course, N.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 33  
¼  
S 4  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

South boundary of T.3 S..R.2 W.

Chains 80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.</p> <p style="text-align: center;">T 3 S R 2 W S 32:S 33 <u>S 5 :S 4</u> T 4 S 1916</p> <p>dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p> <p>From this cor. a high peak brs. S. 42° W. Land, gently rolling. Soil, gravelly, 2nd rate. Timber, iron wood and palo verde. Undergrowth, greasewood, and cacti. Feb. 9, 1916, at this cor. I set off 14° 53' S. on the decl. arc.; and at apparent noon observe the sun on the mer.; the resulting lat. is 33° 7' N.</p>
24.30	<p>West on a true line bet. secs. 5 and 32. Over gently rolling land, through scattering timber and undergrowth.</p>
40.00	<p>Wash, 15 lks. wide, 1 ft. deep, course, N. 20° E. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.</p>
49.40	<p style="text-align: center;">S 32 <u>¼</u> S 5 1916</p>
55.00	<p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.</p>
63.00	<p>Ravine, 50 lks. wide, 10 ft. deep, course, N. 30° E.</p>
75.80	<p>Foot of mountains brs. S. 4 chs. dist.</p>
79.40	<p>Ravine, 120 lks. wide, 20 ft. deep, course, N. 30° E.</p>
80.00	<p>Ravine, 60 lks. wide, 8 ft. deep, course, N. 10° W.</p>
80.00	<p>Ravine, 80 lks. wide, 10 ft. deep, course, N. 10° W. Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.</p>
	<p style="text-align: center;">T 3 S R 2 W S 31:S 32 <u>S 6 :S 5</u> T 4 S 1916</p>
	<p>and build a mound of stone, 4 ft. base, 2½ ft. high W. of cor.</p>
	<p>Land, rolling. Soil, gravelly, 2nd rate, to 40 chs.; remainder, stony, 3rd rate. Timber, iron wood and palo verde. Undergrowth, greasewood and cacti.</p>
17.40	<p>West on a true line bet. secs. 6 and 31. Over rolling land, through scattering timber and undergrowth.</p>
40.00	<p>Wash, 15 lks. wide, 1 ft. deep, course, N. 10° W. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.</p>
	<p style="text-align: center;">S 31 <u>¼</u> S 6 1916</p>
	<p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.</p>

South boundary of T.3 S., R.2 W.

Chains  
48.30  
79.06

Wash, 20 lks. wide, 1 ft. deep, course, N. 10° E.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of Ts. 3 and 4 S., Rs. 2 and 3 W.  
with brass cap mkd.

T 3 S  
R 3 W R 2 W  
S 36:S 31  
S 1 :S 6  
T 4 S  
1916

dig pits 24 X 24 X 12 ins. on each line, N., E. and  
W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound  
of earth 5 ft. base, 2½ ft. high S. of cor.

Land, gently rolling.  
Soil, sandy, gravelly, 2nd rate.  
Timber, iron wood and palo verde.  
Undergrowth, greasewood and giant cacti.

m

Boundaries of T.3 S., R.2 W.

Latitudes, Departures and Closing Errors.

Line designated.	True Bearing.	Dist. chs.	Latitudes.		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	S. 89° 57' E	478.59		.42	478.72	
East bdy.	South	480.00		480.00		
South bdy	West	479.06				479.06
Convergency					.47	
<b>Totals</b>			480.00	480.42	479.06	479.06
				480.00		
Error in latitude				.42		479.06
Error in departure						.00

West boundary of T.3 S.,R.2 W.

Chains

Feb. 10, 1916, at 9h., a.m., l.m.t., I set off 33° 7' N. on the lat. arc; 14° 36' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts 3 and 4 S., Rs.2 and 3 W., heretofore described.

Thence

North bet. secs. 31 and 36.

Over level land, through scattering timber and undergrowth.

39.40  
40.00

Wash, 10 lks. wide, 1 ft. deep, course, N. 20° E.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 36 1/4 : S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 3 S  
R 3 W R 2 W  
S 25 : S 30  
S 36 : S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy, gravelly, 2nd rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood, ocotillos and cacti.

North bet. secs. 25 and 30.

Over level land, through scattering timber and undergrowth.

15.00  
40.00

Wash, 15 lks. wide, 2 ft. deep, course, N. 20° W.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 25 1/4 : S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

50.00

Asc. gradual SW. slope.

74.10

Wash, 20 lks. wide, 3 ft. deep, course, S. 30° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 3 S  
R 3 W R 2 W  
S 24 : S 19  
S 25 : S 30

1916

and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, gravelly and stony, 2nd and 3rd rates.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

Feb. 10, 1916, at this cor. I set off 14° 33' S. on the decl. arc; and at apparent noon, observe the sun on the mer., the resulting lat. is 33° 9' N.

Chains

North bet. secs. 19 and 24.  
Over rolling land, through scattering timber and undergrowth.

- 9.60 Ravine, 40 lks. wide, 6 ft. deep, course, S. 16° E.
- 15.00 Asc. SE. slope, 234 ft. to
- 38.00 Ridge, (long spur) slopes S. 30° W.
- Thence along W. slope.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 24  $\frac{1}{4}$ :S 19

1916

and build a mound of stone, 2 ft. base, 1  $\frac{1}{2}$  ft. high W. of cor.

- 54.68 Draw, course, S. 30° W.
- Asc. SE. slope, 286 ft. to
- 64.50 Ridge brs. E. and W., desc. NE. slope, 139 ft. to
- 71.90 Wash, 20 lks. wide, 4 ft. deep, course, N. 60° W.
- Asc. SW. slope, 100 ft. to
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 6 ins. in the ground to solid rock, in a mound of stone, 4 ft. base, 2 ft. high, for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 3 S  
R 3 W R 2 W  
S 13:S 18  
S 24:S 19

1916

and build a mound of stone, 2 ft. base, 1  $\frac{1}{2}$  ft. high W. of cor.

Land, mountainous.  
Soil, rocky, granite formation, 4th rate.  
Timber, palo verde.  
Undergrowth, greasewood, ocotillos and cacti.

North bet. secs. 13 and 18.  
Over mountainous land, through scattering timber and undergrowth.

- 6.50 Asc. SW. slope, 205 ft. to
- Change to W. slope.
- 9.80 Top of spur, slopes N. 60° W., desc. N. slope, 602 ft. to
- 38.20 Wash, 60 lks. wide, 12 ft. deep, course, N. 60° E.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 13  $\frac{1}{4}$ :S 18

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise amount of earth, 3  $\frac{1}{2}$  ft. base, 1  $\frac{1}{2}$  ft. high W. of cor.

- 63.50 Asc. SE. slope, along, foot of E. slope, 117 ft. to
- Over E. end of hill, extends E. 10 chs. dist.
- Desc. N. slope, 304 ft. to
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 3 S  
R 3 W R 2 W  
S 12:S 7  
S 13:S 18

1916

and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.  
Soil, rocky, granite formation, 4th rate.  
Timber, scrub palo verde.  
Undergrowth, greasewood, ocotillos and cacti.



West boundary of T. 3 S., R. 2 W.

Chains

North bet. secs. 7 and 12.  
 Over rolling and hilly land, through scattering timber and undergrowth.  
 Desc. NE. slope, 40 ft. to  
 19.20 Ravine, 30 lks. wide, 5 ft. deep, course, N. 20° E.  
 27.00 Ravine, 25 lks. wide, 5 ft. deep, course, E.  
 32.50 Ravine, 40 lks. wide, 4 ft. deep, course, E.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 4 ft. base, 2½ ft. high for ¼ sec. cor. with brass cap mkd.  
 S 12 ¼ : S 7

1916

Pits impracticable.  
 Build a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Thence along foot of E. slope.  
 52.50 Asc. S. slope, 79 ft. over E. end of hill, to  
 59.09 Top of hills brs. NE. and SW., desc. N. slope, 98 ft. to sec. cor.  
 62.00 Foot of steep N. slope, thence over gentle N. slope. Small hill brs. E. 21 chs. dist.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 3 S  
 R 3 W R 2 W  
 S 1 : S 6  
 S 12 ¼ S 7

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
 Land, rolling and hilly.  
 Soil, rocky and gravelly, granite and quartz formation, 4th rate.  
 Timber, palo verde and iron wood.  
 Undergrowth, greasewood, ocotillos and cacti.

North bet. secs. 1 and 6.  
 Over level and rolling land, through scattering timber and undergrowth.  
 11.50 Wash, 15 lks. wide, 1 ft. deep, course, N30° E.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.  
 S 1 ¼ : S 6

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 2 and 3 S., Rs. 2 and 3 W., with brass cap mkd.

T 2 S  
 R 3 W R 2 W  
 S 36 : S 31  
 S 1 : S 6

T 3 S

1916

dig pits 24 X 24 X 12 ins on each line, N., E. and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.  
 Land, rolling to 20 chs., remainder level.  
 Soil, sandy gravelly, 2nd rate.  
 Timber, palo verde and iron wood.  
 Undergrowth, greasewood.

Chains

Feb. 11, 1916, at 8h., a.m., l.m.t., I set off  $33^{\circ} 12'$  N. on the lat. arc;  $14^{\circ} 16'$  S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 2 and 3 S., Rs. 1 and 2 W. as heretofore described.

Thence

West on a random line along N. bdy. of tp., setting temp.  $\frac{1}{4}$  sec. and sec. cors. at intervals of 40 chs. and at 478.59 chs. intersect W. bdy. of tp. 42 lks. S. of cor. of Ts. 2 and 3 S., Rs. 2 and 3 W. heretofore described. This falling answers to a bearing of  $0^{\circ} 3'$  or 7 lks. N. per mile, counting from the NE. cor. of the tp.

Thence

S.  $89^{\circ} 57'$  E. on a true line bet. secs. 6 and 31. Over level land, through scattering timber and undergrowth.

18.89

Wash, 15 lks. wide, 1 ft. deep, course, N.  $10^{\circ}$  E.

38.59

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 31

 $\frac{1}{4}$ 

S 6

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

58.40

Wash, 10 lks. wide, 1 ft. deep, course, N.  $10^{\circ}$  E.

78.59

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. of secs. 5, 6, 31 and 32 with brass cap mkd.

T 2 S R 2 W

S 31:S 32

S 6 :S 5

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy gravelly, 2nd rate.

Timber, palo verde mesquite and iron wood.

Undergrowth, greasewood.

S.  $89^{\circ} 57'$  E. on a true line bet. secs. 5 and 32.

7.10

Wash, 20 lks. wide, 2 ft. deep. course, n.  $10^{\circ}$  W.

13.30

Wash, 20 lks. wide, 2 ft. deep, course, N.

20.50

Wash, 15 lks. wide, 1 ft. deep, course, N.  $30^{\circ}$  E.

27.90

Wash, 15 lks. wide, 1 ft. deep, course, N.  $20^{\circ}$  E.

40.00

N. end of hill brs. S. 7 chs. dist.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 32

 $\frac{1}{4}$ 

S 5

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

62.60

Wash, 20 lks. wide, 1 ft. deep, course, N.  $10^{\circ}$  W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 2 S R 2 W

S 32:S 33

S 5 :S 4

T 3 S

1916

North boundary of T.3 S., R.2 W.

Chains

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, nearly level.

Soil, sandy, gravelly, limestone, 2nd rate.

Timber, palo verde, iron wood and mesquite along washes.

Undergrowth, greasewood.

S. 89° 57' E. on a true line bet. secs. 4 and 33.

Over level land, through scattering timber and undergrowth.

4.20

Wash, 20 lks. wide, 1 ft. deep, course, N. 20° E.

18.20

Wash, 30 lks. wide, 1 ft. deep, course, N. 20° E.

23.80

Wash, 30 lks. wide, 1 ft. deep, course, N. 10° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 33

1/4

S 4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

53.60

Wash, 10 lks. wide, 2 ft. deep, course, N. 30° E.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 2 S R 2 W

S 33:S 34

S 4 :S 3

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, gravel surface, 2nd rate.

Timber, iron wood, palo verde and mesquite along washes.

Undergrowth, greasewood.

S. 89° 57' E. on a true line bet. secs. 3 and 34.

Over level land, through scattering timber and undergrowth.

21.70

Wash, 10 lks. wide, 2 ft. deep, course, N. 30° E.

35.60

Wash, 10 lks. wide, 2 ft. deep, course, N. 30° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

S 34

1/4

S 3

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

50.50

Wash, 10 lks. wide, 2 ft. deep, course, N. 30° E.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 2 S R 2 W

S 34:S 35

S 3 :S 2

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Chains

Land, level.  
Soil, sandy clay, gravelly surface, 2nd rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood.

S. 89° 57' E. on a true line bet. secs. 2 and 35.  
Over level land, through scattering timber and under-  
growth.

14.70  
40.00

Wash, 15 lks. wide, 2 ft. deep, course, N.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35

$\frac{1}{4}$

S 2

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high N. of cor.

54.70  
73.10  
80.00

Wash, 30 lks. wide, 4 ft. deep, course, N.  
Wash, 10 lks. wide, 1 ft. deep, course, N.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 1, 2, 35 and 36, with  
brass cap mkd.

T 2, S R 2 W

S 35:S 36

S 2 :S 1

T 3 S

1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
W. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
Timber, palo verde and mesquite.  
Undergrowth, greasewood.

S. 89° 57' E. on a true line bet. secs. 1 and 36.  
Over level land, through scattering timber and under-  
growth.

40.00

Set an iron post 3 ft. long, 1 ins in diam, 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36

$\frac{1}{4}$

S 1

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.  
and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high  
N. of cor.

80.00

Cor. of Ts. 2. and 3 S., Rs. 1 and 2 W.  
Land, level.  
Soil, sandy clay, 1st rate.  
Timber, scattering mesquite.  
Undergrowth, greasewood.

Boundaries of T.3 S., R.2 W.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	S. 89° 57' E.	478.59			478.59	
East bdy.	South	480.00		480.00		
South bdy.	West	479.06				479.06
Convergency					.47	
Totals			480.00	480.00	479.06	479.06
Error in latitude			480.00			
Error in departure			.00		479.06	
					.00	

West boundary of T.2 S., R.1 W.

Chains

Survey commenced Feb. 12, 1916, and executed with a Young and Son's light mountain transit No. 8592, as described in book "A".

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment.

At 8h. a.m., l.m.t., I set off 33° 12' N. on the lat. arc; 13° 57' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 2 and 3 S., Rs. 1 and 2 W., as described in book "A".

Thence

North bet. secs. 31 and 36.

Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 36  $\frac{1}{4}$ :S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 2 S

R 2 W R 1 W

S 25:S 30

S 36:S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1st rate.

Timber, scattering mesquite.

Undergrowth, greasewood.

North bet. secs. 25 and 30.

Over level land, through scattering timber and undergrowth.

22.00 Wash, 70 lks. wide, 5 ft. deep, course, N. 40° W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 25  $\frac{1}{4}$ :S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

42.80 Road, brs. N. 30° W. and S. 30° E.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 2 S

R 2 W R 1 W

S 24:S 19

S 25:S 30

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 1st rate.

Timber, palo verde, iron wood and mesquite along washes.

Undergrowth, greasewood.

West boundary of T.2 S. R.1 W.

Chains

North bet. secs. 19 and 24.  
 Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 24  $\frac{1}{4}$ :S 19

1916

from which,  
 A mesquite, 8 ins. in diam., brs. N. 2 $\frac{1}{2}$ ° E.  
 110 lks. dist. mkd.  $\frac{1}{4}$  S 19 B T.

No other trees within limits.  
 Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 2 S  
 R 2 W R 1 W  
S 13:S 18  
 S 24:S 19  
 1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
 Soil, sandy clay, 1st rate.  
 Timber, scattering mesquite.  
 Undergrowth, greasewood.

North bet. secs. 13 and 18.  
 Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in; in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 13  $\frac{1}{4}$ :S 18

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 2 S  
 R 2 W R 1 W  
S 12:S 7  
 S 13:S 18  
 1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
 Soil, sandy clay, 1st rate.  
 Timber, scattering mesquite.  
 Undergrowth, greasewood.

North bet. secs. 7 and 12.  
 Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
 S 12  $\frac{1}{4}$ :S 7

1916

West boundary of T.2 S., R.1 W.

Chains

80.00 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 2 S  
 R 2 W R 1 W  
 S 1 :S 6  
 S 12:S 7  
 1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.  
 Land, level.  
 Soil, sandy loam, 1st rate.  
 Timber, scattering mesquite.  
 Undergrowth, greasewood, laurel and giant cacti.

40.00 North bet. secs. 1 and 6.  
 Over level land, through scattering timber and undergrowth.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 1 ¼:S 6  
 1916

78.89 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.  
 Feb. 12, 1916, at this cor. I set off 13° 55' S. on the decl. arc; and at apparent noon, observe the sun on the mer; the resulting lat. is 33° 17' N.  
 Intersect N. bdy. of tp. 34 lks. E. of ¼ cor. of sec. 36, T.1 S., R.2 W., which is a wooden post 3 ft. long, 3 ins. square, mkd., and witnessed as described by the Surveyor General.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for C.C. of Ts.2 S., Rs.1 and 2 W. with brass cap mkd.

C: C  
 S 1 :S 6  
 R 2 W R 1 W  
 T 2 S  
 1916

dig pits 30 X 24 X 12 ins. crosswise on each line, E. and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.  
 Land, level.  
 Soil, sandy loam, 1st rate.  
 Timber, scattering palo verde and mesquite.  
 Undergrowth, greasewood and cacti.

Boundaries of T.2 S., R.1 W.  
 Latitudes, Departures and Closing Errors.

Line designated.	True Bearing.	Dist. Chs.	Latitudes		Departures	
			N. Chs.	S. Chs.	E. Chs.	W. Chs.
West bdy.	North	478.89	478.89			
North bdy.	East	39.60			39.60	
	N. 89° 59' E.	438.66	.13		438.66	
East bdy.	South	480.00		480.00		
South bdy.	West	478.72				478.72
Convergency					.47	
Totals			479.02	480.00	478.73	478.72
Error in latitude				479.02		
Error in departure				.98	478.72	
					.01	



Chains

Survey commenced Feb. 14, 1916, and executed with a Young and Son's light mountain transit No. 8592, as heretofore described.

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment.

At 8h., a.m., l.m.t., I set off 33° 12' N. on the lat. arc; 13° 17' S. on the decl. arc; and determine ammer. with the solar, at the cor. of Ts. 2 and 3 S., Rs. 2 and 3 W., heretofore described.

Thence

North bet. secs. 31 and 36.

Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 36  $\frac{1}{4}$ :S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3  $\frac{1}{2}$  ft. base, 1  $\frac{1}{2}$  ft. high W. of cor.

54.00 Wash, 15 lks. wide, 2 ft. deep, course,  $\Delta$ . 30° E.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 2 S

R 3 W R 2 W

S 25:S 30

S 36:S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5  $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, 2nd rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood.

North bet. secs. 25 and 30.

Over level land, through scattering timber and undergrowth.

23.00 Wash, 20 lks. wide, 2 ft. deep, course, N. 5° W.

36.00 Wash, 20 lks. wide, 2 ft. deep, course, N. 10° W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 25  $\frac{1}{4}$ :S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3  $\frac{1}{2}$  ft. base, 1  $\frac{1}{2}$  ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 2 S

R 3 W R 2 W

S 24:S 19

S 25:S 30

1916

dig pits 18 X 18 X 12 ins. in each sec. 5  $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, caliche subsoil, 2nd rate.

West boundary of T.2 S., R.2 W.

Chains

Timber, iron wood and palo verde.  
Undergrowth, greasewood.

North bet. secs. 19 and 24.  
Over level land, through scattering timber and undergrowth.

14.00  
25.00  
40.00

Wash, 15 lks. wide, 1 ft. deep, course, N. 5° E.  
Wash, 15 lks. wide, 1 ft. deep, course, N. 10° W.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 24  $\frac{1}{4}$ :S 19

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 2 S  
R 3 W R 2 W  
S 13:S 18  
S 24:S 19

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, with caliche subsoil, 2nd rate.  
Timber, iron wood, palo verde and mesquite.  
Undergrowth, greasewood.

North bet. secs. 13 and 18.  
Over level land, through scattering timber and undergrowth.

27.00  
40.00

Wash, 15 lks. wide, 1 ft. deep, course, N. 10° W.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 13  $\frac{1}{4}$ :S 18

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 2 S  
R 3 W R 2 W  
S 1 :S 6  
S 12:S 7

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy clay, with caliche subsoil, 2nd rate.  
Timber, palo verde and mesquite.  
Undergrowth, greasewood.

North bet. secs. 1 and 12.  
Over level land, through scattering timber and undergrowth.

## West boundary of T.2 S., R.2 W.

Chains

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 7  $\frac{1}{4}$ :S 12

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

44.60

Wash, 80 lks. wide, 4 ft. deep, course, N. 40° E.

74.80

Wash, 15 lks. wide, 1 ft. deep, course, N. 60° E.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 2 S

R 3 W R 2 W

S 1 :S 6

S 12:S 7

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level and gently rolling.

Soil, gravelly clay and stony, 2nd and 3rd rates.

Timber, palo verde and mesquite.

Undergrowth, greasewood.

Feb. 14, 1916, at this cor. I set off 13° 15' S. on the decl. arc; and at apparent noon, observe the sun on the mer.; the resulting lat. is 33° 16' N.

North bet. secs. 1 and 6.

Over level land, through scattering timber and undergrowth.

21.60

Wash, 40 lks. wide, 3 ft. deep, course, N. 60° E.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 1  $\frac{1}{4}$ :S 6

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

60.40

Wash, 15 lks. wide, 1 ft. deep, course, S. 40° E.

76.30

Wash, 30 lks. wide, 4 ft. deep, course, S. 70° E.

79.47

Intersect N. bdy. of tp. 82 lks. E. of  $\frac{1}{4}$  cor. of sec. 36, which is a wooden post 3 ft. long, 3 ins. square, mkd. and witnessed as described by the Surveyor General.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for C.C. of Ts.2 S., Rs.2 and 3 W., with brass cap mkd.

S 36

C:C

S 1 :S 6

R 3 W R 2 W

T 2 S

1916

dig pits 30 X 24 X 12 ins. crosswise on each line, E. and W., 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth, 5 ft. base, 2 $\frac{1}{2}$  ft. high S. of cor.

Land, level and gently rolling.

Soil, gravelly clay, 2nd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

Boundaries of T.2 S., R.2 W.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. Chs.	Latitudes		Departures.	
			N. Chs.	S. Chs.	E. Chs.	W. Chs.
West bdy.	North	479.47	479.47			
North bdy.	East	38.48			38.48	
	N. 89° 46' E.	38.93	.16		38.93	
	S. 89° 12' E.	41.10		.56	41.10	
	N. 89° 47' E.	40.05	.15		40.05	
	East	40.00			40.00	
	S. 89° 50' E.	39.92		.12	39.92	
	S. 89° 34' E.	39.96		.30	39.96	
	S. 89° 54' E.	39.94		.07	39.94	
	S. 89° 54' E.	39.96		.07	39.96	
	S. 89° 53' E.	40.12		.08	40.12	
	East	39.94			39.94	
	East	40.28			40.28	
East bdy.	South	478.89		478.89		
South bdy.	N. 89° 57' W.	480.20	.42			480.20
Convergency					.47	
Totals			480.20	480.09	479.15	480.20
Error in latitude			480.09			
Error in departure			.11			479.15
						1.05

North boundary of T.3 S., R.1 E.

Chains	Survey commenced Feb. 29, 1916, and executed with a Young and Som's light mountain transit No. 8521, as heretofore described.
	From recent and repeated field tests of the transit and solar attachment, I know them to be in satisfactory adjustment.
	Feb. 29, 1916, at 8h., a.m., l.m.t., I set off 33° 12' N. on the lat. arc; 7° 54' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts.2 and 3 S., Rs.1 E. and 1 W., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.
	Thence
	East on a true line bet. secs. 6 and 31.
	Over level land, through scattering timber and undergrowth.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 31
	$\frac{1}{4}$
	S 6
	1916
	dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 32 and 32, with brass cap mkd.
	T 2 S R 1 E
	S 31 : S 32
	S 6 : S 5
	T 3 S
	1916
	dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, level.
	Soil, loose sandy clay, 1st rate.
	Timber, scattering palo verde and mesquite.
	Undergrowth, greasewood.
	East on a true line bet. secs. 5 and 32.
	Over level land, through scattering timber and undergrowth.
33.40	Wash, 25 lks. wide, 1 ft. deep, course, S. 30° W.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 32
	$\frac{1}{4}$
	S 5
	1916
	dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
50.80	Wash, 20 lks. wide, 1 ft. deep, course, S. 45° W.
62.10	Wash, 75 lks. wide, 3 ft. deep, course, S. 45° W.
63.30	Wash, 30 lks. wide, 2 ft. deep, course, N. 70° W.
80.00	Set an iron post 3 ft. long, 1 in. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.
	T 2 S R 1 E
	S 32 : S 33
	S 5 : S 4
	T 3 S
	1916
	dig pits 18 X 18 X 12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
	Land, level.
	Soil, loose, sandy clay, 1st rate.
	Timber, scattering palo verde, iron wood, mesquite and

Chains

claw.  
Undergrowth, greasewood.

East on a true line bet. secs. 4 and 33.  
Over level land, through scattering timber and undergrowth.

22.50 Wash, 20 lks. wide, 1 ft. deep, course, NW.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 33

$\frac{1}{4}$

S 4

1916

and build a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

45.50 Wash, 20 lks. wide, 3 ft. deep, course, S. 60° W.  
59.00 Wash, 25 lks. wide, 4 ft. deep, course, S. 30° W.  
65.40 Wash, 60 lks. wide, 6 ft. deep, course, S. 45° W.  
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., on surface rock, in a mound of stone, for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 2 S R 1 E

S 33 : S 34

S 4 : S 3

T 3 S

1916

from which,

An iron wood, 6 ins. in diam., brs. S. 68 $\frac{1}{2}$ ° W.  
129 lks. dist. mkd. T 3 S R 1 E S 4 B T.

No other trees within limits.

Build a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.  
Land, level.

Soil, loose, gravelly, rocky, clay, 3rd rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood and cacti.

Mar. 2, 1916, at this cor. I set off 7° 5' S. on the decl. arc; and at apparent noon observe the sun on the mer; the resulting lat. is 33° 12' N.

East on a true line bet. secs. 33 and 34.  
Over level land, through scattering timber and undergrowth.

.40 Wash, 200 lks. wide, 4 ft. deep, course, S. 20° W.  
5.60 Wash, 30 lks. wide, 6 ft. deep, course, S.  
6.40 Wash, 50 lks. wide, 6 ft. deep, course, S. 15° W.  
19.80 Wash, 70 lks. wide, 15 ft. deep, course, S. 5° E.  
29.70 Leave level land, asc. SW. slope, 160 ft. to  
40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 34

$\frac{1}{4}$

S 3

1916

Pits impracticable.

Build a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high N. of cor.  
Asc. SW. slope, 44 ft. to

41.23 Point of spur slopes S.

Thence along S. slope, to

43.00 Desc. SE. slope, 152 ft. to

54.97 Wash, 30 lks. wide, 6 ft. deep, course, S. 10° W.

56.67 Wash, 50 lks. wide, 12 ft. deep, course, S. 30° W.

Asc. W. slope, 245 ft. to

66.79 Spur slopes S., desc. E. slope, 189 ft. to

76.14 Enter rocky flat.

78.34 Wash, 20 lks. wide, 3 ft. deep, course, S. 30° W.

North boundary of T.3 S., R.1 E.

Chains  
80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 2 S R 1 E

S 34 : S 35

S 3 : S 2

T 3 S

1916

and build a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.

Land, mountainous and level.

Soil, loose, decomposed granite, rocky, 3rd rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood and cacti.

Mar. 6, 1916, at 8h., a.m., 1 mt., I set off 33° 12' N. on the lat. arc; 5° 36' S. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 2, 3, 34 and 35.

Thence

East on a true line bet. secs. 2 and 35.

Over mountainous land, through scattering timber and undergrowth.

- 1.50 Wash, 20 lks. wide, 3 ft. deep, course, S.
- 6.30 Wash, 40 lks. wide, 4 ft. deep, course, SW.
- 17.60 Wash, 70 lks. wide, 6 ft. deep, course, S. 10° W.
- 20.00 Leave level flat, asc. W. slope, 530 ft. to
- 36.94 Spur slopes, S. 20° W.
- Thence along S. slope.
- 38.54 Set flag on line for triangulation point.
- Desc. SE. slope, 15 ft. to
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 14 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor. with brass cap mkd.

S 55

1/4

S 2

1916

and build a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor.

- 60.20 Desc. SE. slope, 134 ft. to
- Approximate dist. to gulch, 100 lks. wide, 15 ft. deep, course, SW.

Asc. W. slope over cliffs 602 ft. to

Spur slopes, S. 44° W.

To determine the dist. from the flag set on line at 38.54 chs., I lay off a base line, S. 44° W., 18.00 chs. long, (longest possible base) to a point, at which the angle bet. flags on line measures, by repetition three times, 108° 12' 40"; the angle bet. the boundary line and base line measures by repetition three times, 46°.

108° 12' 40"

46° 00' 00"

154° 12' 40"

Remaining angle = 25° 47' 20".

18.00 X sin 108° 12' 40" = log .18 + log sin 108° 12' 40"

sin 25° 47' 20" = - log sin 25° 47' 20"

log 18 = 1.255273

log sin 108° 12' 40" = 9.977683

11.232956

log sin 25° 47' 20" = 9.638535

1.594421 = log of required

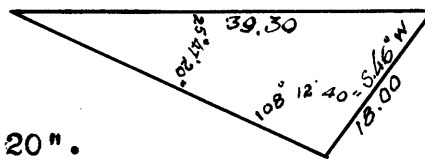
dist, or 39.30 chs.

38.54 chs. + 39.30 chs. =

- 77.84 Spur slopes S. 44° W.

Desc. SE. slope, 66 ft. to

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., on surface



North boundary of T.3 S., R.1 E.

Chains

rock, in a mound of stone, for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 3 S R 1 E  
S 35:S 36  
S 2 :S 1  
T 3 S  
1916

Pits impracticable.

Build a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Land, mountainous.

Soil, stony, decomposed granite, 4th rate.

Timber, scattering iron wood and mesquite.

Undergrowth, greasewood and cacti.

Mar. 6, 1916, at this cor. I set off 5° 33' S. on the decl. arc; and at apparent noon observe the sun on the mer.; the resulting lat. is 33° 12' N.

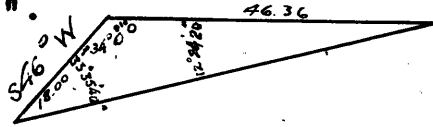
7.00

East on a true line bet. secs. 1 and 36.

Over SE. slope, over cliffs and slide rock, 123 ft. to Gulch, 100 ft. wide, 15 ft. deep, course, SW.

I project line to the top of the main range of the Estrella Mountains. To determine the dist. from the cor. of secs. 1, 2, 35 and 36, to a flag set on line on the main range, I use the base already measured, 18 chs. dist. from a point at 77.84 chs. bet. secs. 2 and 35. From my flag on the Estrella Mountains the base subtends an angle of 12° 24' 20" (measured by repetition, three times). As the bearing of the base, is S. 46° W. the angle bet. the North boundary and the base is 134° 00' 00".

134° 00' 00"  
12° 24' 20"  
146° 24' 20"



Remaining angle = 33° 35' 40".

18 chs. X sin 33° 35' 40" = log 18 + log sin 33° 35' 40"  
sin 12° 24' 20" = - log sin 12° 24' 20".

log 18 = 1.255273

log sin 33° 35' 40" = 9.742963

10.998236

log sin 12° 24' 20" = 9.332095

1.666141 = log of required side

or 46.36 chs.

46.36 - 2.16 = 44.20 chs.

44.20

Main range of the Estrella Mountains brs. N. and S. 45° E. 14.81 ft. above gulch at 7.00 chs.

40.00

True point for ¼ sec. cor. falls on slide rock on steep W. slope, therefore at

44.20

Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, for W.C. ¼ sec. cor. with brass cap mkd.

S 36

WC ¼  
S 1

1916

Pits impracticable.

Build a mound of stone, 2 ft. base, 1½ ft. high N. of cor. Cliff 12 lks. S. of W.C. ¼ sec. cor. brs. E. and W. 25 ft. high.

82.30

Desc. NE. slope, over cliffs and slide rock, 1337 ft. Cliff brs. NW. and SE. 20 ft. drop.

82.50

Intersect W. bdy. of G.R.I.R., 7.78 chs. S. of the reservation boundary cor. of Ts. 2 and 3 S., R.2 E., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, for C.C. of Ts. 2 and 3 S., Rs. 1 E., with brass cap mkd.



North boundary of T.3 S., R.1 E.

Chains

T 2 S:  
 R 1 E:  
 S 36 :  
 — C :  
 C : G R I R  
 S 1 :  
 T 3 S:  
 1916

Pits impracticable.  
 Build a mound of stone, 2 ft. base, 1½ ft. high E. of cor.  
 Impossible to build mound W. of cor. on account of slide  
 rock.  
 Note: this cor. is 265 ft. above the tp. cor. 7.78 chs.  
 north.  
 Land, mountainous.  
 Soil, granite rocky, 4th rate.  
 Timber, scattering scrub palo verde.  
 Undergrowth, scattering greasewood and cacti.

Boundaries of T.3 S., R.1 E.

Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	East	482.50			482.50	
East bdy.	South	480.22		480.22		
South bdy.	West	483.13				483.13
Convergency					.47	
Totals			480.00	480.22	482.97	483.13
Error in latitude				480.00		
Error in departure				.22		482.97
						.16

West boundary of T.11 S., R.6 E.

Chains

Survey commenced Mar. 20, 1916, and executed with a Young and Son's light mountain transit No. 8592, as heretofore described.

Mar. 19, 1916, at the  $\frac{1}{4}$  cor. of sec. 31, T.10 S., R.6 E., I examine the adjustments of the transit and find them correct. At 7h. 30m., p.m., l.m.t., I observe Polaris at W.E. in accordance with instructions in the Manual of Surveying, and mark the line thus determined by a tack driven in a wooden peg, set firmly in the ground, 5 chs. to the N. of my station.

Mar. 20, 1916, at 7h. 30m., a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ} 21'$  to the E., and turn on a flag set at the S.C. of T.10 S., R.5 and 6 E. I find line and solar to be correct.

At 8h., a.m., l.m.t., I set off  $32^{\circ} 30'$  N. on the lat. arc;  $0^{\circ} 6'$  S. on the decl. arc; and determine a mer. with the solar, at a point 11.50 chs. W. of the S.C., of T.11 S., R.5 and 6 E., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

At this point, I set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for C.C. of T.11 S., R.5 and 6 E., with brass cap mkd.

C:C  
S 1:S 6  
R 5 E R 6 E  
T 11 S  
1916

Thence

South bet. secs. 1 and 6.

Over level land, through undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 1  $\frac{1}{4}$ :S 6

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 11 S  
R 5 E R 6 E  
S 1 :S 6  
S 12:S 7

1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy adobe, 1st rate.

No timber.

Undergrowth, greasewood, mesquite and sage brush.

South bet. secs. 7 and 12.

Over level land, through undergrowth.

40.00 Set an iron post 3ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.  
S 12  $\frac{1}{4}$ :S 7

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high W. of cor.

44.80 Wash, 10 lks. wide, 6 ins. deep, course, N.  $10^{\circ}$  W.

74

West boundary of T.11 S., R.6 E.

Chains 57.10 80.00	<p>Wash, 10 lks. wide, 1 ft. deep, course, N. 10° W. Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.</p> <p style="text-align: center;">T 11 S R 5 E R 6 E <u>S 12:S 7</u> <u>S 13:S 18</u> 1916</p> <p>dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p> <p>Land, level. Soil, sandy adobe, 1st rate. No timber. Undergrowth, greasewood, mesquite and sagebrush.</p>
40.00	<p>South bet. secs. 13 and 18. Over level land, through scattering undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.</p> <p style="text-align: center;">S 13 ¼:S 18</p> <p style="text-align: center;">1916</p> <p>dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.</p>
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.</p> <p style="text-align: center;">T 11 S R 5 E R 6 E <u>S 13:S 18</u> <u>S 24:S 19</u> 1916</p> <p>dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p> <p>Land, level. Soil, sandy adobe, 1st rate. No timber. Undergrowth, greasewood, mesquite and sagebrush.</p>
12.80 34.60 40.00	<p>South bet. secs. 19 and 24. Over level land, through undergrowth. Wash, 15 lks. wide, 1 ft. deep, course, N. 20° W. Wash, 15 lks. wide, 1 ft. deep, course, N. 20° W. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.</p> <p style="text-align: center;">S 24 ¼:S 19</p> <p style="text-align: center;">1916</p> <p>Mar. 20, 1916, at this cor. I set off 0° 2' S. on the decl. arc; and at apparent noon, observe the sun on the mer.; the resulting lat. is 32° 27' N.</p>
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.</p> <p style="text-align: center;">T 11 S R 5 E R 6 E <u>S 24:S 19</u> <u>S 25:S 30</u> 1916</p>

West boundary of T.11 S., R.6 E.

Chains

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
 Land, level.  
 Soil, adobe, 1st rate.  
 No timber.  
 Undergrowth, greasewood and mesquite.

40.00 South bet. secs. 25 and 30.  
 Over level land, through undergrowth.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.  
 S 25 ¼ : S 30

80.00 1916  
 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.  
 T 11 S  
 R 5 E R 6 E  
 S 25 : S 30  
 S 36 : S 31

1916  
 dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
 Land, level.  
 Soil, adobe, 1st rate.  
 No timber.  
 Undergrowth, greasewood and mesquite.

40.00 South bet. secs. 31 and 36.  
 Over level land, through scattering timber and undergrowth.  
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.  
 S 36 ¼ : S 31

80.00 1916  
 dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 11 and 12 S., Rs. 5 and 6 E., with brass cap mkd.  
 T 11 S  
 R 5 E R 6 E  
 S 36 : S 31  
 S 1 : S 6  
 T 12 S

1916  
 dig pits 24 X 24 X 12 ins. on each line, N., E. and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.  
 Land, level.  
 Soil, sandy adobe, 1st rate.  
 Timber, scattering iron wood and palo verde.  
 Undergrowth, greasewood and mesquite.

76

## South boundary of T.11 S. R.6 E.

Chains	
	<p>Mar. 20, 1916, at 4h., p.m., l.m.t., I set off 32° 25' N. on the lat. arc; 0° 1' N. on the decl. arc; and determine a mer. with the solar at the cor. of Ts.11 and 12 S., Rs.5 and 6 E.</p> <p>Thence East on a true line bet. secs. 6 and 31. Over level land, through scattering timber and undergrowth.</p>
31.40	Wash, 10 lks. wide, 1 ft. deep, course, N. 5° E.
38.16	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	$\begin{array}{r} S 31 \\ \frac{1}{4} \\ \hline S 6 \\ 1916 \end{array}$ <p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3<math>\frac{1}{2}</math> ft. base, 1<math>\frac{1}{2}</math> ft. high N. of cor.</p>
78.16	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.
	$\begin{array}{r} T 11 S R 6 E \\ S 31 : S 32 \\ S 6 : S 5 \\ T 12 S \\ 1916 \end{array}$ <p>dig pits 18 X 18 X 12 ins. in each sec. 5<math>\frac{1}{2}</math> ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p> <p>Land, level. Soil, sandy adobe, 1st rate. Timber, scattering iron wood and palo verde. Undergrowth, greasewood and mesquite.</p>
	<p>Mar. 21, 1916, at the cor. of secs. 5, 6, 31 and 32, I set off 0° 21' N. on the decl. arc; and at apparent noon observe the sun on the mer.; the resulting lat. is 32° 25' N.</p> <p>At 1h., a.m., l.m.t., I set off 32° 25' N. on the lat. arc; 0° 22' N. on the decl. arc; and determine a mer. with the solar.</p> <p>Thence East on a true line bet. secs. 5 and 32. Over level land, through undergrowth.</p>
19.30	Wash, 10 lks. wide, $\frac{1}{2}$ ft. deep, course, N.
20.70	Wash, 15 lks. wide, 1 ft. deep, course, N.
26.70	Wash, 15 lks. wide, 1 ft. deep, course, N.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	$\begin{array}{r} S 32 \\ \frac{1}{4} \\ \hline S 5 \\ 1916 \end{array}$ <p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3<math>\frac{1}{2}</math> ft. base, 1<math>\frac{1}{2}</math> ft. high N. of cor.</p>
60.50	Wash, 15 lks. wide, 2 ft. deep, course, N.
64.30	Wash, 20 lks. wide, 3 ft. deep, course, N.
74.80	Wash, 25 lks. wide, 3 ft. deep, course, N.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

Chains

T 11 S R 6 E

S 32:S 33

S 5 :S 4

T 12 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, adobe, 1st rate.

No timber.

Undergrowth, greasewood and mesquite.

East on a true line bet. secs. 4 and 33.

Over level land, through undergrowth.

14.20

Road, brs. N. and S. 10° E.

40.00

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

S 33

¼

S 4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 11 S R 6 E

S 33:S 34

S 4 :S 3

T 12 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, adobe, 1st rate.

No timber.

Undergrowth, greasewood and mesquite.

Mar. 24, 1916, at 9h., a.m., l.m.t., I set off 32° 25' N. on the lat. arc; 1° 29' N. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 3, 4, 33 and 34.

Thence

East on a true line bet. secs. 3 and 34.

Over level land, through scattering undergrowth.

40.00

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

S 34

¼

S 3

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

77.20

Wash, 20 lks. wide, 1 ft. deep, course, N. 10° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 11 S R 6 E

S 34:S 35

S 3 :S 2

T 12 S

1916

dig pits, 18 X 18 X 12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Chains

Land, level.  
Soil, sandy adobe, 1st rate.  
No timber.  
Undergrowth, greasewood and mesquite.

East on a true line bet. secs. 2 and 35.  
Over level land, through undergrowth.

3.60 Wash, 15 lks. wide, 1 ft. deep, course, N.  
15.90 Wash, 10 lks. wide, 1 ft. deep, course, N.  
30.80 Wash, 10 lks. wide, 1 ft. deep, course, N. 10° W.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 35

$\frac{1}{4}$

S 2

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high N. of cor.

55.00 Wash, 10 lks. wide, 1 ft. deep, course, N. 10° W.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 1, 2, 35 and 36, with  
brass cap mkd.

T 11 S R 6 E

S 35:S 36

S 2 :S 1

T 12 S

1916

dig pits 18 X 18 X 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
W. of cor.

Land, level.  
Soil, sandy adobe. 1st rate.  
No timber.  
Undergrowth, greasewood and mesquite.

East on a true line bet. secs. 1 and 36.  
Over level land, through scattering timber and under-  
growth.

25.80 Wash, 10 lks. wide, 1 ft. deep, course, N. 20° W.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36

$\frac{1}{4}$

S 1

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high N. of cor.

73.40 Iron wood tree, 12 ins. indiam., blazed on the S., brs. N.  
20 lks. dist.

80.00 Well derrick, brs. N.  $29\frac{1}{2}$ ° E.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of Ts. 11 and 12 S., Rs. 6 and 7 E.,  
with brass cap mkd.

T 11 S

R 6 E R 7 E

S 36:S 31

S 1 :S 6

T 12 S

1916

from which,  
A mesquite, 6 ins. in diam., brs. S. 9° E.  
126 lks. dist. mkd. T 12 S R 7 E S 6 B T.  
An iron wood, 10 ins. in diam., brs. S.  $38\frac{1}{2}$ ° W.  
183 lks. dist. mkd. T 12 S R 6 E S 1 B T.

South boundary of T.11 S., R.6 E.

Chains

No other trees within limits.  
Dig pits 24 X 24 X 12 ins. on each line, N., E. and W.,  
4 ft. and S. of cor. 8 ft. dist. and raise a mound  
of earth 5 ft. base, 2½ ft. high S. of cor.  
Land, level.  
Soil, sandy clay, 1st rate.  
Timber, scattering iron wood and mesquite.  
Undergrowth, greasewood and mesquite.

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Chains

North bet. secs. 31 and 36.  
Over level land, through scattering timber and undergrowth.

17.60 Wash, 10 lks. wide, 1 ft. deep, course, N. 80° W.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 36 1/4 : S 31

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

42.00 Wash, 25 lks. wide, 2 ft. deep, course, N. 80° W.  
50.60 Road, brs. N. 30° W. and S. 30° E.  
52.10 Wash, 35 lks. wide, 2 ft. deep, course, N. 30° W.  
63.20 Wash, 15 lks. wide, 1 ft. deep, course, N. 60° W.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 11 S  
R 6 E R 7 E  
S 25 : S 30  
S 36 : S 31

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy loam, 1st rate.  
Timber, iron wood and palo verde.  
Undergrowth, greasewood and mesquite.

North bet. secs. 25 and 30.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 25 1/4 : S 30

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

60.50 Wash, 15 lks. wide, 1 ft. deep, course, N. 70° W.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 11 S  
R 6 E R 7 E  
S 24 : S 19  
S 25 : S 30

1916

dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.  
Soil, sandy loam, 1st rate.  
Timber, iron wood and palo verde.  
Undergrowth, greasewood and mesquite.

North bet. secs. 19 and 24.  
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.  
S 24 1/4 : S 19

1916

East boundary of T.11 S., R.6 E.

Chains

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

49.50 Wash, 10 lks. wide, 1 ft. deep, course, W.

56.70 Wash, 15 lks. wide, 1 ft. deep, course, W.

73.10 Wash, 25 lks. wide, 2 ft. deep, course, N. 60° W.

80.00 True point for cor. of secs. 13, 18, 19 and 24, falls in wash, 20 lks. wide, 2 ft. deep, course, N. 60° W.

79.75 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for W.C. of secs. 13, 18, 19 and 24, with brass cap mkd.

W C  
T 11 S  
R 6 E R 7 E  
S 13:S 18  
S 24:S 19

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood and mesquite.

(13, 18, 19 and 24.

North bet. secs. 13 and 18, from true point for cor. of secs. Over level land, through scattering timber and undergrowth.

8.10  
26.20  
40.00

Wash, 15 lks. wide, 1 ft. deep, course, W.

Wash, 10 lks. wide, 1 ft. deep, course, S. 70° W.

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

S 13 ¼:S 18

1916

from which,  
An iron wood, 16 ins. in diam., brs. N. 5° W. 113 lks. dist. mkd. ¼ S 13 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.

43.80  
57.20  
70.20  
76.40  
80.00

Wash, 20 lks. wide, 1 ft. deep, course, S. 80° W.

Wash, 20 lks. wide, 1 ft. deep, course, S. 70° W.

Wash, 15 lks. wide, 1 ft. deep, course, S. 80° W.

Wash, 20 lks. wide, 1 ft. deep, course, S. 80° W.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 11 S  
R 6 E R 7 E  
S 12:S 7  
S 13:S 18

1916

from which,  
An iron wood, 10 ins. in diam., brs. N. 0° 5' E. 365 lks. dist. mkd. T 11 S R 7 E S 7 B T.  
An iron wood, 12 ins. in diam., brs. N. 89¾° W. 477 lks. dist. mkd. T 11 S R 6 E S 12 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood and cacti.

Chains

Mar. 27, 1916, Sat 9h., a.m., 1 m.t., I set off  $32^{\circ} 29'$  N. on the lat. arc;  $2^{\circ} 40'$  N. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 7, 12, 13 and 18.

Thence

North bet. secs. 7 and 12.

Over gradual W. and SW. slope, through scattering timber and undergrowth.

14.40 Wash, 15 lks. wide, 1 ft. deep, course, W.

20.00 Wash, 10 lks. wide, 1 ft. deep, course, S.  $80^{\circ}$  W.

33.00 Wash, 15 lks. wide, 1 ft. deep, course, W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S  $12 \frac{1}{4}$ :S 7

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth  $3 \frac{1}{2}$  ft. base,  $1 \frac{1}{2}$  ft. high W. of cor.

44.40 Wash, 15 lks. wide, 1 ft. deep, course, S.  $70^{\circ}$  W.

56.00 Wash, 20 lks. wide, 1 ft. deep, course, W.

68.00 Wash, 15 lks. wide, 1 ft. deep, course, S.  $70^{\circ}$  W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 11 S

R 6 E R 7 E

S 1 :S 6

S  $12 \frac{1}{4}$ :S 7

1916

and build a mound of stone, 3 ft. base,  $2 \frac{1}{2}$  ft. high W. of cor.

Land, gradual S. and SW. slope.

Soil, sandy gravelly, 2nd rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood, ocotillos and cacti ..

North bet. secs. 1 and 6+

Over gently rolling land, through scattering timber and undergrowth.

12.60 Ravine, 20 lks. wide, 4 ft. deep, course, W.

19.10 Wash, 15 lks. wide, 2 ft. deep, course, W.

28.80 Ravine, 20 lks. wide, 4 ft. deep, course, W.

34.50 Ravine, 40 lks. wide, 4 ft. deep, course, S.  $80^{\circ}$  W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S  $1 \frac{1}{4}$ :S 6

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth  $3 \frac{1}{2}$  ft. base,  $1 \frac{1}{2}$  ft. high W. of cor.

50.40 Wash, 15 lks. wide, 1 ft. deep, course, N.  $80^{\circ}$  W.

59.60 Wash, 40 lks. wide, 6 ft. deep, course, W.

66.50 Wash, 20 lks. wide, 3 ft. deep, course, N.  $70^{\circ}$  W.

74.20 Wash, 20 lks. wide, 3 ft. deep, course, N.  $70^{\circ}$  W.

80.12 Intersect Second Standard Parallel S., 13.38 chs. W. of S.C. of Ts. 10 S., R.6 and 7 E., which is an iron post, 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for C.C. of Ts. 11 S., R.6 and 7 E., with brass cap mkd.

East boundary of T.11 S., R.6 E.

Chains

C:C  
S 1:S 6  
R 6 E R 7 E  
T 11 S  
1926

dig pits, 30 X 24 X 12 ins. crosswise on each line  
E. and W., 4 ft. and S. of cor. 8 ft. dist. and  
raise a mound of earth 5 ft. base, 2½ ft. high  
S. of cor.

Land, nearly level.

Soil, sandy gravelly, 3rd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood, ocotillos and cacti.

Boundaries of T.11 S., R.6 E.

Latitudes, Departures and Closing Errors.

Line designated.	True Bearing.	Dist. chs.	Latitudes.		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	480.00	480.00			
North bdy.	East	478.12			478.12	
East bdy.	South	480.12		480.12		
South bdy.	West	478.16				478.16
Convergency					.46	
Totals			480.00	480.12	478.58	478.16
				480.00		
Error in latitude				.12	478.16	
Error in departure					.42	

## South boundary of T.11 S., R.7 E.

85

Chains

	<p>Mar. 30, 1916, at the cor. of Ts.11 and 12 S., Rs.6 and 7 E., at 6h., 53m., p.m., l.m.t., I observe Polaris at W.E. in accordance with instructions in the Manual of Surveying and lay off the azimuth of Polaris <math>1^{\circ} 21'</math>, to the E. I use as a reference point, a spike in a derrick, N. <math>29^{\circ} 31'</math> E. about 40 chs. dist. Using this bearing from Polaris observations, I find my solar gives mers. by a.m., and p.m., observations which are correct.</p> <p>Mar. 31, 1916, at 9h., a.m., l.m.t., I set off <math>32^{\circ} 25'</math> N. on the lat. arc; <math>4^{\circ} 13'</math> N. on the decl. arc; and determine a mer. with the solar at the cor. of Ts.11 and 12 S., Rs.6 and 7 E.</p> <p>Thence East on a true line bet. secs. 6 and 31. Over level land, through scattering timber and undergrowth.</p>
38.16	<p>Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for <math>\frac{1}{4}</math> sec. cor. with brass cap mkd.</p> <p style="text-align: center;">S 31 <math>\frac{1}{4}</math> S 6 1916</p> <p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth <math>3\frac{1}{2}</math> ft. base, <math>1\frac{1}{2}</math> ft. high N. of cor.</p>
76.00	Wash, 15 lks. wide, 1 ft. deep, course, N. $20^{\circ}$ W.
78.16	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.</p> <p style="text-align: center;">T 11 S R 7 E S 31:S 32 S 6 :S 5 T 12 S 1916</p> <p>from which, A palo verde, 8 ins. in diam., brs. N. <math>18\frac{1}{2}^{\circ}</math> E. 147 lks. dist. mkd. T 11 S R 7 E S 32 B T. An iron wood, 12 ins. in diam., brs. N. <math>41^{\circ} 42'</math> W. 301 lks. dist. mkd. T 11 S R 7 E S 31 B T.</p> <p>No other trees within limits. Dig pits 18 X 18 X 12 ins. in each sec. <math>5\frac{1}{2}</math> ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.</p> <p>Land, level. Soil, sandy loam, 1st rate. Timber, iron wood and palo verde. Undergrowth, greasewood.</p>
	<p>East on a true line bet. secs. 5 and 32. Over level land, through scattering timber and undergrowth.</p>
5.80	Wash, 15 lks. wide, 2 ft. deep, course, N. $40^{\circ}$ W.
7.90	Wash, 20 lks. wide, 2 ft. deep, course, N. $40^{\circ}$ W.
40.00	<p>Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for <math>\frac{1}{4}</math> sec. cor. with brass cap mkd.</p> <p style="text-align: center;">S 32 <math>\frac{1}{4}</math> S 5 1916</p> <p>dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth <math>3\frac{1}{2}</math> ft. base, <math>1\frac{1}{2}</math> ft. high N. of cor.</p>
63.50	Dim road, brs. N. $70^{\circ}$ W. and S. $70^{\circ}$ E.
72.70	Wash, 10 lks. wide, 1 ft. deep, course, N. $40^{\circ}$ W.

Chains

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 11 S R 7 E

S 32:S 33

S 5 :S 4

T 12 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, gravelly surface, 2nd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood.

East on a true line bet. secs. 4 and 33.

Over level land, through scattering timber and undergrowth.

10.90

Wash, 10 lks. wide, 1 ft. deep, course, N. 50° W.

35.40

Wash, 10 lks. wide, 1 ft. deep, course, N. 50° W.

40.00

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

S 33

¼

S 4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

53.10

Wash, 15 lks. wide, 2 ft. deep, course, N. 70° W.

57.20

Wash, 15 lks. wide, 2 ft. deep, course, S. 80° W.

65.00

Wash, 15 lks. wide, 3 ft. deep, course, N. 80° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 11 S R 7 E

S 33:S 34

S 4 :S 3

T 12 S

1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling.

Soil, gravelly, 3rd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood and cacti.

East on a true line bet. secs. 3 and 34.

Over gently rolling land, through scattering timber and undergrowth.

8.50

Wash, 15 lks. wide, 1 ft. deep, course, N. 40° W.

15.40

Wash, 15 lks. wide, 1 ft. deep, course, N. 40° W.

22.60

Wash, 10 lks. wide, 1 ft. deep, course, S. 80° W.

40.00

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

S 34

¼

S 3

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

South boundary of T.11 S., R.7 E.

Chains  
78.70  
80.00

Road, brs. N. 70° W. and S. 60° E.  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 11 S R 7 E.  
S 34:S 35  
S 3 :S 2  
T 12 S  
1916

dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise amount of earth 4 ft. base, 2 ft. high W. of cor.

Land, level and gently rolling.  
Soil, gravelly, 3rd rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood and cacti.

Mar. 31, 1916, at this cor. I set off 4° 16' N. on the decl. arc; and at apparent noon, observe the sun on the mer.; the resulting lat. is 32° 25' N.

East on a true line bet. secs. 2 and 35.  
Over rolling land, through scattering timber and undergrowth.

7.00  
40.00  
38.90

Wash, 60 lks. wide, 3 ft. deep, course, N. 60° W.  
True point for ¼ sec. cor. falls in wash, 45 lks. wide, 3 ft. deep, course, S. 70° W., therefore at  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for W.C. ¼ sec. cor. with brass cap mkd.

S 35  
¼ WC  
S 2  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.

46.40  
50.00  
74.40  
80.00

NE. cor. of Bob Roy mining claim, brs. N. 40° lks. dist.  
Wash, 45 lks. wide, 3 ft. deep, course, N. 80° W.  
Wash, 30 lks. wide, 3 ft. deep, course, N. 80° W.  
Asc. SW. slope, 20 ft. to  
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 11 S R 7 E  
S 35:S 36  
S 2 :S 1  
T 12 S  
1916

and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, rolling.  
Soil, stony and gravelly, 3rd rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood and cacti.

East on a true line bet. secs. 1 and 36.  
Over rolling and hilly land, through scattering timber and undergrowth.

8.30  
20.95

Asc. SW. slope, 78 ft. to  
Desc. SE. slope, 80 ft. to  
Ravine, 40 lks. wide, 5 ft. deep, course, S.  
Asc. 43 ft. to

South boundary of T.11 S., R.7 E.

Chains

31.10  
40.00

Desc. 29 ft. to  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36

$\frac{1}{4}$   
S 1

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high N. of cor.

Thence over rolling land.

47.00

Wash, 80 lks. wide, 2 ft. deep, course, SW.

49.20

Road, brs. N. 40° E. and S. 40° W.

55.50

Wash, 20 lks. wide, 2 ft. deep, course, S. 70° W.

73.90

Ravine, 35 lks. wide, 4 ft. deep, course, S. 70° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of T.11 and 12 S., R.7 E., with  
brass cap mkd.

T 11 S:

R 7 E:

S 36 :

S 1 :

T 12 S:

1916

from which,

An iron wood, 8 ins. in diam., brs. S. 75° W.

58 lks. dist. mkd. T 12 S R 7 E S 1 B T.

A mesquite, 6 ins. in diam., brs. N. 32 $\frac{1}{2}$ ° W.

27 lks. dist. mkd. T 11 S R 7 E S 36 B T.

Also build a mound of stone, 3 ft. base,  $2\frac{1}{2}$  ft. high  
W. of cor.

Land, rolling and hilly.

Soil, stony, and gravelly, 3rd rate.

Timber, palo verde, iron wood and mesquite.

Undergrowth, greasewood, cat claw, ocotillos and cacti.



East boundary of T.11 S., R.7 E.

Chains

Apr. 1, 1916, at 9h., a.m., l.m.t., I set off 32° 25' N. on the lat. arc; 4° 36' N. on the decl. arc; and determine a mer. with the solar at the cor. of Ts.11 and 12 S., R.7 E.

Thence North along E. bdy. of sec. 36. Over rolling land, through scattering timber and undergrowth.

- .60 Ravine, 30 lks. wide, 4 ft. deep, course, W.
- 13.00 Wash, 20 lks. wide, 1 ft. deep, course, W.
- 15.15 Road, brs. S. 70° W. and N. 80° E.
- 20.00 Wash, 60 lks. wide, 3 ft. deep, course, W.
- 36.20 Ravine, 30 lks. wide, 4 ft. deep, course, S. 60° W.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

S 36 ¼:

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

- 62.50 Ravine, 100 lks. wide, 12 ft. deep, course, N. 70° W.
- 72.30 Ravine, 80 lks. wide, 9 ft. deep, course, W.
- 78.10 Ravine, 40 lks. wide, 5 ft. deep, course, W.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25 and 36, with brass cap mkd.

T 11 S  
R 7 E:  
S 25 :  
S 36 :

1916

and build a mound of stone, 3 ft. base, 2½ ft. high W. of cor.

Land, rolling.  
Soil volcanic ash, gravelly and stony, 3rd rate.  
Timber, palo verde and iron wood.  
Undergrowth, greasewood acotillos and cacti.

North along E. bdy. of sec. 25. Over hilly land, through scattering timber and undergrowth.

- 16.70 Asc. SE. slope, 160 ft. to
- 28.70 Spur, slopes SW. desc. N. and NW. slope, 46 ft. to
- Ravine, 60 lks. wide, 12 ft. deep, course, S. 50° W.
- Asc. 35 ft. to
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 3 ft. base, 2½ ft. high for ¼ sec. cor. with brass cap mkd.

S 25 ¼:

1916

Pits impracticable. Build a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Asc. 27 ft. to

- 42.00 Spur, slopes, SW., asc. 54 ft. to
- 48.10 Ridge, brs. N. 60° W. and S. 70° E., desc. N. slope, 194 ft. to
- 62.76 Asc. SW. slope, 80 ft. to
- 72.25 Desc. NE. slope, 186 ft. to
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 24 and 25, with brass cap mkd.

Chains

T 11 S

R 7 E:

S 24 :

S 25 :

1916

and build a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high  
W. of cor.

Land, hilly and rolling.

Soil, rocky, granite and quartz formation, 4th rate.

Timber, palo verde.

Undergrowth, greasewood, cat claw, ocotillos and cacti.

North along E. bdy. of sec. 24.

Over rolling land, through scattering timber and under-  
growth.

Desc. NE. slope, 74 ft. to

10.35 Ravine, 40 lks. wide, 4 ft. deep, course, N. 20° W.

16.20 Ravine, 50 lks. wide, 6 ft. deep, course, N. 20° W.

23.25 Ravine, 40 lks. wide, 5 ft. deep, course, N. 70° W.

27.15 Ravine, 80 lks. wide, 10 ft. deep, course, N. 20° E.

Desc. 43 ft. to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 24  $\frac{1}{4}$ :

1916

dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft.  
dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high W. of cor.

48.10 Ravine, 100 lks. wide, 6 ft. deep, course, N. 20° W.

Desc. NE. slope, 23 ft. to

71.60 Wash, 30 lks. wide, 3 ft. deep, course, N. 30° W.

80.00 Set an iron post 3 ft. long, 3 in. in diam., 26 ins. in  
the ground for cor. of secs. 13 and 24, with brass  
cap mkd.

T 11 S:

R 7 E:

S 13 :

S 24 :

1916

and build a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high  
W. of cor.

Land, rolling.

Soil, stony and gravelly, 3rd rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood, cat claw, ocotillos and cacti.

North along E. bdy. of sec. 13.

Over rolling and hilly land, through scattering timber and  
undergrowth.

Asc. gradual SW. slope, 35 ft.

5.00 Wash, 100 lks. wide, 12 ft. deep, course, N. 30° W.

11.60 Wash, 60 lks. wide, 8 ft. deep, course, N. 30° W.

15.60 Wash, 80 lks. wide, 7 ft. deep, course, N. 30° W.

22.60 Ravine, 130 lks. wide, 16 ft. deep, course, S. 80° W.

25.00 Asc. steep SW. slope, of malpais hill, 92 ft. to

34.90 Desc. Desc. NW. slope, of hill 31 ft. to

40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface  
rbek, in a mound of stone, 4 ft. base,  $2\frac{1}{2}$  ft. high  
for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

Chains

S 13 1/4:

1916

Pits impracticable.

Build a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.  
Desc. NW. slope, 91 ft. to

49.20

Wash, 90 lks. wide, 8 ft. deep, course, W.

60.00

Road, brs. N. 50° W. and S. 50° E.

62.00

Wash, 20 lks. wide, 3 ft. deep, course, N. 30° W.

77.80

Wash, 20 lks. wide, 2 ft. deep, course, N. 40° W.

80.00

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 12 and 13, with brass  
cap mkd.

T 11 S:

R 7 E:

S 12 :

S 13 :

1916

and build a mound of stone, 3 ft. base, 2 1/2 ft. high W  
of cor.

Land, rolling and hilly.

Soil, stony and gravelly, 3rd rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood and cacti.

Apr. 7, 1916, at 8h., a.m., l.m.t., I set off 32° 29' N. on  
the lat. arc; 6° 53' N. on the decl. arc; and deter-  
mine a mer. with the solar, at the cor. of secs. 12  
and 13.

Thence

North along E. bdy. of sec. 12.

Over rolling and hilly land, through scattering timber  
and undergrowth.

3.40

Ravine, 20 lks. wide, 3 ft. deep, course, N. 40° W.

26.10

Wash, 20 lks. wide, 2 ft. deep, course, N. 40° W.

37.40

Wash, 35 lks. wide, 2 ft. deep, course, N. 40° W.

38.00

Asc. S. slope, of malpais hill, 277 ft. to top.

40.00

Set an iron post 3 ft. long, 1 in. in diam., on surface  
rock, in a mound of stone, 2 ft. base, 1 1/2 ft. high  
for 1/4 sec. cor. with brass cap mkd.

S 12 1/4:

1916

Pits impracticable.

Build a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.  
Top of malpais hill brs. NW. and S. 40° E.

51.90

Desc. 218 ft. to

67.70

Foot of hill brs. W. and S. 40° E.

68.20

Wash, 20 lks. wide, 2 ft. deep, course, N. 30° W.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 1 and 12, with brass  
cap mkd.

T 11 S:

R 7 E:

S 1 :

S 12 :

1916

and build a mound of stone, 3 ft. base, 1 1/2 ft. high  
W. of cor.

Land, rolling and hilly.

Soil, stony and gravelly, 3rd rate.

Timber palo verde and iron wood.

Undergrowth, greasewood, ocotillos and cacti.



South boundary of T.11 S. R.8 E.

Chains

Survey commenced Apr. 11, 1916, and executed with a Young and Son's light mountain transit No.8592, as heretofore described.

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment.

Apr, 11, 1916, at 11h., a.m., 1.m.t., I set off 32° 25' N. on the lat. arc; 8° 24' N. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts. 11 and 12 S., Rs.8 and 9 E., which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence

West on a true line bet. secs. 1 and 36.

Over rolling and hilly land, through scattering timber and undergrowth.

Asc. gradual E. slope, 227 ft. to 1/4 sec. cor.

12.20  
14.35  
40.00

Low spur slopes, N. 40° E.

Ravine, 250 lks. wide, 30 ft. deep, course, N. 40° E.

Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 4 ft. base, 2 1/2 ft. high, for 1/4 sec. cor. with brass cap mkd.

S 36  
1/4  
S 1  
1916

Pits impracticable.

46.55  
50.00  
80.00

Build a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor.

Ravine, 2 chs. wide, 16 ft. deep, course, N. 40° E.

Asc. rocky E. slope, 302 ft. to

Set an iron post 3 ft. long, 3 ins. in diam., on surface rock, in a mound of stone, 3 ft. base, 2 1/2 ft. high for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 11 S R 8 E  
S 35:S 36  
S 2 :S 1  
T 12 S  
1916

Pits impracticable.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor. Land, rolling and hilly.

Soil, gravelly and stony, 4th rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood, cat claw, ocotillos and cacti.

West on a true line bet. secs. 2 and 35.

Over mountainous land, through scattering timber and undergrowth.

Asc. E. slope, 138 ft. to

9.00  
13.94  
15.83  
17.00  
22.00  
40.00

Change to N. slope.

Desc. 74 ft. to

Asc. 15 ft. to

Thence over rolling land, to

Asc. NE. slope, 401 ft. to

Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 4 ft. base, 2 1/2 ft. high for 1/4 sec. cor. with brass cap mkd.

S 35  
1/4  
S 2  
1916

Pits impracticable.

Build a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor.

Asc. NE. slope, 49 ft. to

42.20  
63.80

Spur slopes, S. 85° E., asc. SE. slope, 345 ft. to

Top of ridge, brs. N. and S., 746 ft. above sec. cor.

Desc. W. and SW. slope, 244 ft. to

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 6 ins. in the ground to solid rock, in a mound of stone

Chains

3 ft. base, 2 ft. high, for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 11 S R 8 E

S 34:S 35

S 3 :S 2

T 12 S

1916

Pits impracticable.

Build a mound of stone, 3 ft. base, 2½ ft. high W. of cor. Land, mountainous.

Soil, rocky, granite and quartzite formation, 4th rate.

Timber, scrub palo verde.

Undergrowth, greasewood, cat claw, ocotillos and cacti.

West on a true line bet. secs. 3 and 34.

Over mountainous land, through scattering timber and undergrowth.

Along S. slope

3.00 Spur slopes, SW., desc. W. slope, 241 ft. to

16.51 Asc. 21 ft. to

21.30 Ridge, brs. S. 70° W. and N. 70° E.

Desc. NW. slope, 192 ft. to

38.50 Ravine, 70 lks. wide, 118 ft. deep, course, S. 60° W.

Over gradual SE. slope, to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for ¼ sec. cor. with brass cap mkd.

S 34

¼

S 3

1916

and build a mound of stone, 3 ft. base, 2 ft. high N. of cor.

Asc. SE. slope, 89 ft. to

45.85 Spur slopes SW., desc. 81 ft. to

52.10 Ravine, 70 lks. wide, 16 ft. deep, course, S. 10° W.

Asc. 160 ft. to ridge.

66.03 Peak NE. of Silver Bell, brs. N. 80° 47' W.

Top of ridge brs. SW. and NE.

Desc. NW. slope, 235 ft. to

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in the ground, to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 11 S R 8 E

S 33:S 34

S 4 :S 3

T 12 S

1916

and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, rocky, granite and quartz formation, (Silver Bell Mining District.)

Timber, scrub palo verde.

Undergrowth, greasewood, cat claw, ocotillos and cacti.

West on a true line bet. secs. 4 and 33.

Over mountainous land, through scattering timber and undergrowth.

Desc. 100 ft. to

7.36 NE. cor. of Maricopa Claim., Desc. 23 ft. to

12.29 Asc. 25 ft. to

14.66 Desc. 99 ft. to ravine.

South boundary of T.11 S., R.8 E.

Chains	
20.50	Adobe, house 12 X 18 ft. on line.
22.10	Ravine, 40 lks. wide, 6 ft. deep, course, S. 30° W. Asc. 28 ft. to
37.20	Three wire power line, brs. N. 10° W. and S. 10° E. Desc. 72 ft. to $\frac{1}{4}$ sec. cor.
39.50	Road, brs. S. 20° W. and N. 20° E.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 1 $\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec. cor. with brass cap mkd. S 33 $\frac{1}{4}$ S 4 1916 and build a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. This cor. falls within the townsite of Silver Bell, which consists of about 125 houses.
42.70	Ravine, 3 chs. wide, 40 ft. deep, course, N. 35° W.
44.10	Board fence, brs. N. 80° W. and S. 80° E.
44.20	Telephone line, brs. N. 20° W. and S. 20° E.
44.90	Claim cor. brs. S. 24° 13' E., which is a wooden post, 4 ins. square, set in a mound of stone, mkd. 7-1819B on N. side, 7-1987BE on E. side, 3-1990L on W. side.
45.26	SE. cor. of hotel.
47.11	Thence, offset S., 158 lks.; then run on offset line, west. SE. cor. of company store, brs. S. 26° 35' E. 5,60 chs. dist.
47.56	Offset N. 158 lks. to true line. Asc. E. slope, 57 ft. to
55.20	Arizona Southern R.R., curve, SE. and NE. Top of hill NE. of Silver Bell brs. N. 75° 52' E. to signal on top. Asc. 109 ft. to top of ridge.
57.05	SW. cor. of house on line.
62.80	Top of ridge, brs. S. 10° E. and N. 20° W. Desc. 64 ft. to telephone line.
65.00	Steel hoist brs. S. 7 chs. dist.
67.05	Telephone line, brs. S. 20° E. and N. 20° W. Asc. 75 ft. to
72.15	Spur slopes SW., desc. SW. slope, 196 ft. to
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in the ground, to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for cor. of secs. 4, 5, 32 and 33, with brass cap mkd. T 11 S R 8 E S 32 : S 33 S 5 : S 4 T 12 S 1916 and build a mound of stone, 3 ft. base, 2 ft. high W. of cor. Land, mountainous. Soil, rocky, granite and quartz formation, 4th rate. Timber, scrub palo verde. Undergrowth, greasewood, cat claw, ocotillos and cacti.
<p>Apr. 14, 1916, at 10 h., a.m., l.m.t., I set off 32° 25' N. on the lat. arc; 9° 29' N. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 4, 5, 32 and 33.</p> <p>Thence West on a true line bet. secs. 5 and 32. Over mountainous land, through scattering timber and undergrowth. Asc. E. slope, 180 ft. to top of ridge.</p>	
.56	Head of ravine, course, S. 10° E.
7.65	Top of ridge brs. S. 10° E. and N. 20° W.

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## South boundary of T.11 S., R.8 E.

Chains	
	Desc. over broken SW. slope, 457 ft. to True point for $\frac{1}{4}$ sec. cor. falls in ravine, 40 lks. wide, 5 ft. deep, course, N. 70° W., therefore at
40.00	
40.50	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 32 $\frac{1}{4}$ S 5 WC 1916
	and build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
	Thence over rolling land.
46.70	Ravine, 80 lks. wide, 25 ft. deep, course, N. 50° W.
58.20	Ravine, 80 lks. wide, 10 ft. deep, course, N. 50° W.
60.75	Dim road, brs. NW. and S. 10° E.
66.85	Ravine, 40 lks. wide, 5 ft. deep, course, N.
74.15	Ravine, 70 lks. wide, 6 ft. deep, course, N. 50° W.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.
	T 11 S R 8 E <u>S 31 S 32</u> S 6 S 5 T 12 S 1916
	and build a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Land, mountainous and rolling.
	Soil, rocky, granite and quartz formation, 4th rate.
	Timber, scrub palo verde.
	Undergrowth, greasewood, cat claw, ocotillos and cacti.
<hr/>	
	West on a random line bet. secs. 6 and 31.
	Over rolling, land, through scattering timber and undergrowth.
	Desc. gradual NW. slope 29 ft. to
10.00	Thence over rolling land.
32.80	Wash, 35 lks. wide, 3 ft. deep, course, N. 70° W.
34.80	Wash, 30 lks. wide, 2 ft. deep, course, N. 40° W.
38.65	Wash, 40 lks. wide, 3 ft. deep, course, S. 85° W.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 31 $\frac{1}{4}$ S 6 1916
	and build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
54.00	Wash, 50 lks. wide, 3 ft. deep, course, N. 60° W.
59.20	Road, brs. N. 60° W. and S. 60° E.
68.50	Ravine, 50 lks. wide, 5 ft. deep, course, N. 60° W.
80.00	At this point Apr. 14, 1916, at 8h., a.m., l.m.t, I set off 32° 25' N. on the lat. arc; 9° 49' N. on the decl. arc; and determine a mer. with the solar.
	Thence
	Continue line west.
105.20	Wash, 15 lks. wide, 3 ft. deep, course, N. 70° W.
110.00	Wash, 15 lks. wide, 2 ft. deep, course, N. 40° W.
136.70	Wash, 20 lks. wide, 3 ft. deep, course, S. 60° W.
141.40	Road, brs. S. 70° W. and N. 80° E.
142.12	Intersect W. bdy. of tp. 15.86 chs. N. of cor. of Ts. 11. and 12 S., R. 7 E., hereinbefore described.
	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for C.C. of Ts. 11 and 12 S., R. 8 E., with brass cap mkd.



South boundary of T.11 S., R.8 E.

Chains

:T11 S  
:R 8 E  
:S 31  
:S 6  
:T 12 S

*See 1936 location*

1916

dig pits 30 X 24 X 12 ins. crosswise on each line, N., and S. 4 ft. and E. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high E. of cor. Land, rolling. Soil, gravelly and stony, 3rd rate. Timber, iron wood and palo verde. Undergrowth, greasewood, cat claw, ocotillos and cacti.

Boundaries of T.11 S., R.8 E.  
Latitudes, Departures and Closing Errors.

Line designated.	True bearing.	Dist. chs.	Latitudes.		Departures.	
			N. chs.	S. chs.	E. chs.	W. chs.
West bdy.	North	464.55	464.55			
N. bdy.	East	99.30			99.30	
	South	29.75		29.75		
East bdy.	East	441.85			441.85	
	South	435.10		435.10		
South bdy.	West	542.12				542.12
Convergency					.46	
Totals			464.55	464.85	541.61	542.12
Error in latitude				464.55		
Error in departure				.30		541.61
						.51

~~105~~  
97A

GLO Corner #18 - Papago Indian Reservation.

An iron post, 3 ins. diam., 9 ins. up, firmly set in ground, with brass cap mkd.

T	11	S
R	8	E
S	31	
S	6	
T	12	S
1936		(1936 added)
1916		

Reset in concrete, 36x15x9 ins., 3/4 ins. deep. from which

Reference mark No. 1 bears west, 12.265 metres dist.

Reference mark No. 2 bears north, 15.335 metres dist., both on NW. side of road, bears NE. to Silverbell and SW. to Jackrabbit.

Corner is at a corner of the Papago Indian Reservation boundary fence; fence bears S. and E.; reservation lies to SE.; corner is on SE. side of road.

Corner is observed from Silverbell and Vaca; and occupied to close the triangle.

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Corner can be reached from Silverbell (4 miles easterly) as follows:

From flagpole, SW. of big wash, in Silverbell, go N. on MTR.

- 0.75 Turn left from MTR onto well traveled road, goes westerly
- 0.4 Road forks, take left, across wash.
- 0.15 White buildings, left and right (2 each) go straight ahead.
- 0.6 Road forks, take left.
- 0.3 Cemetery on left.
- 0.75 Road forks, keep right.
- 1.4 Cor. #18, on left side of road.

Roger F. Wilson  
U.S. Transitman

(Silverbell is shown on road maps.)

Retracement of the S. bdy. of T.1 S.R.2 W.

Chains

Retracement commenced Feb. 12, 1916, and executed with a Young and Son's light mountain transit No. 8592, as described in book "A".

From recent and repeated field tests I know the transit and solar attachment to be in satisfactory adjustment.

At 1h., p.m., l.m.t., I set off 33° 17' N. on the lat. arc; 13° 54' S. on the decl. arc; and determine a mer. with the solar, at the cor. of Ts.1 S., Rs.1 and 2 W. which is an iron post 3 ins. in diam., properly set, mkd. and witnessed as described by the Surveyor General.

Thence

- 40.00 West along S. bdy. of sec. 36.  
After diligent search, find no trace of original  $\frac{1}{4}$  sec. cor.
- 80.00 Set temp.  $\frac{1}{4}$  sec. cor. and continue line.  
After diligent search, find no trace of original cor. of secs. 1, 2, 35 and 36.  
Set temp. cor. of secs. 35 and 36.

Continue line

- 39.82 West along S. bdy. of sec. 35.  
Original  $\frac{1}{4}$  cor. of secs. 2 and 35, which is a wooden post, mkd. and witnessed as described by the Surveyor General, brs. S. 2 lks. dist.  
True bearing of line back to cor. of Ts.1 S., Rs.1 and 2 W. is east.  
Set over cor. and continue line
- 40.12 West along S. bdy. of sec. 35.  
Original cor. of secs. 2, 3, 34 and 35, which is a quartz stone, properly set, mkd. and witnessed as described by the Surveyor General, brs. N. 8 lks. dist.  
True course, of line back to  $\frac{1}{4}$  sec. cor. is S. 89° 53' E.

Set over cor. and continue line

- 39.96 West along S. bdy. of sec. 34.  
Original  $\frac{1}{4}$  cor. of secs. 3 and 34, which is a wooden post badly decayed, properly set and witnessed as described by the Surveyor General, brs. N. 7 lks. dist.  
True bearing of line back to sec. cor. is S. 89° 54' E.  
Set over cor. and continue line
- 39.94 West along S. bdy. of sec. 34.  
Original cor. of secs. 3, 4, 33 and 34, which is determined by position of old pits and mound, (post destroyed), brs. N. 7 lks. dist. Old B.T., NE. is dead.  
True bearing of line back to  $\frac{1}{4}$  sec. cor. is S. 89° 54' E.

Set over cor. and continue line

- 39.96 West along S. bdy. of sec. 33.  
Original  $\frac{1}{4}$  cor. of secs. 4 and 33, which is a wooden post, broken off and decayed; witnessed as described by the Surveyor General, brs. N. 30 lks. dist.  
True bearing of line back to sec. cor. is S. 89° 34' E.  
Set over cor. and continue line
- 39.92 West along S. bdy. of sec. 33.  
Original cor. of secs. 4, 5, 32 and 33, determined by position of pits and mound, (post destroyed), brs. N. 12 lks. dist.  
True bearing of line back to  $\frac{1}{4}$  sec. cor. is S. 89° 50' E.

100

## Retracement of S. bdy. of T.1 S., R.2 W.

Chains	
40.00	Set over cor. and continue line West along S. bdy. of sec. 32. Original $\frac{1}{4}$ cor. of secs. 5 and 32, which is a granite stone, properly set, mkd. and witnessed as described by the Surveyor General, True bearing of line back to sec. cor. is East. Continue line
40.05	West along S. bdy. of sec. 32. Original cor. of secs. 5, 6, 31 and 32, determined by position of pits and mound, (post destroyed), brs. S. 15 lks. dist. True bearing of line back to $\frac{1}{4}$ sec. cor. is N. 89° 47' E.
41.10	Set over cor. and continue line West along S. bdy. of sec. 31. Original $\frac{1}{4}$ cor. of secs. 6 and 31, which is a wooden post badly decayed, lying on ground, with pits and mound still visible, brs. N. 56 lks. True bearing of line back to sec. cor. is S. 89° 12' E.
38.93	Set over cor. and continue line West along S. bdy. of sec. 31. Original cor. of T.1 S., R.2 and 3 W. determined by pits pits, (post destroyed), brs. S. 16 lks. dist. True bearing of line back to $\frac{1}{4}$ sec. cor. is N. 89° 46' E.
	Retracement of E. half mile of S. bdy. of sec. 35, S. bdy. of T.3 S., R.1 W.
39.30	Set over original cor. of T.1 S., R.2 and 3 W. and continue line West along S. bdy. of sec. 35. Original $\frac{1}{4}$ cor. of secs. 1 and 36, which is a wooden post mkd. and witnessed as described by the Surveyor General, True bearing of line back to tp. cor. is East.

Resurvey of the S. bdy. of T.1 S., R. 2 W.

Chains

At the cor. of Ts.1 S.,Rs.1 and 2 W. heretofore described.  
Thence

West on a true line along S. bdy. of sec. 36.  
Over level land, through undergrowth.

39.94 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36  
 $\frac{1}{4}$

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.  
and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high N. of cor.

50.00 Change to gently rolling land.

79.88 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 35 and 36, with brass  
cap mkd.

T 1 S R 2 W  
S 35:S 36

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
N. of cor.

Land, level.  
Soil, sandy loam, 1st rate.  
No timber.  
Undergrowth, greasewood and cacti.

West on a true line along S. bdy. of sec. 35.  
Over level land, through undergrowth.

39.94 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in  
the ground for  $\frac{1}{4}$  sec. cor. and C.C. of secs. 2 and  
3 T.2 S.,R.2 W., mkd. and witnessed as described in  
notes of subdivision of T.2 S.,R.2 W.

Thence

40.12 N. 89° 53' W. on a true line along S. bdy. of sec. 35.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground for cor. of secs. 34 and 35, with brass  
cap mkd.

T 1 S R 2 W  
S 34:S 35

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist.  
and raise a mound of earth 4 ft. base, 2 ft. high  
N. of cor.

Land, level.  
Soil, sandy loam, 1st rate.  
No timber.  
Undergrowth, greasewood and cacti.

N. 89° 54' W. on a true line along S. bdy. of sec. 34.  
Over level land, through undergrowth.

39.96 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground in place of original  $\frac{1}{4}$  sec. cor., for  
 $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 34  
 $\frac{1}{4}$

1916

dig pits 18 X 18 X 12 ins. E. and W. 3 ft. dist.  
and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $2\frac{1}{2}$  ft. high  
N. of cor.

Thence

Chains

56.16

79.90

Road, brs. N. and S.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 33 and 34, with brass cap mkd.

T 1 S R 2 W  
S 33:S 34

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

Land, level.

Soil, sandy clay, 1st rate.

No timber.

Undergrowth, greasewood.

39.96

N. 89° 34' W. on a true line along S. bdy. of sec. 33. Over gently rolling land, through undergrowth.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, in place of original cor. for 1/4 sec. cor. with brass cap mkd.

S 33  
1/4

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

Thence

39.92

N. 89° 50' W. along S. bdy. of sec. 33.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, with brass cap mkd.

T 1 S R 2 W  
S 32:S 33

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

Land, gently rolling.

Soil, sandy clay, 2nd rate.

No timber.

Undergrowth, greasewood.

22.25

33.30

40.00

West on a true line along S. bdy. of sec. 32. Over level land, through scattering undergrowth.

Wash, 40 lks. wide, 5 ft. deep, course, S.

Wash, 30 lks. wide, 4 ft. deep, course, S. 10° E.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, in place of original cor., for 1/4 sec. cor. with brass cap mkd.

S 32  
1/4

1916

and build a mound of stone, 3 ft. base, 2 ft. high N. of cor.

Thence

5.55

22.85

36.75

S. 89° 47' W. on a true line along S. bdy. of sec. 32.

Wash, 80 lks. wide, 3 ft. deep, course, N. 50° W.

Road, brs. N. and S.

Wash, 30 lks. wide, 2 ft. deep, course, N. 30° W.

Resurvey of the S. bdy. of T.1 S., R.2 W.

Chains  
40.05

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 31 and 32, with brass cap mkd.

T 1 S R 2 W  
S 31:S 32

1916

dig pits 24 X 24 X 12 ins. in each sec. 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

Land, level.  
Soil, gravelly and stony, 2nd rate.  
Timber, none.  
Undergrowth, greasewood and cacti.

41.10

N. 89° 12' W. on a true line along S. bdy. of sec. 31. Over level land, through undergrowth.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 31  
 $\frac{1}{4}$   
S  
1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high N. of cor.

Thence

12.63  
18.43  
22.30  
38.93

S. 89° 46' W. on a true line along S. bdy. of sec. 31. Wash, 120 lks. wide, 3 ft. deep, course, N. 10° E.

Wash, 60 lks. wide, 1 ft. deep, course, N. 10° E.

Wash, 20 lks. wide, 1 ft. deep, course, N. 70° E.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, in place of original tp. cof., for cor. of Ts.1 S.,Rs.2 and 3 W., with brass cap mkd.

T 1 S  
R 3 W R 2 W  
S 36:S 31

1916

dig pits 30 X 24 X 12 ins. E. and W., 4 ft. and N. of cor. 8 ft. dist. and raise a mound of earth 5 $\frac{1}{2}$ ft. base, 2 $\frac{1}{2}$  ft. high N. of cor.

Land, level.  
Soil, sandy clay, 1st rate.  
No timber.  
Undergrowth, greasewood.

Resurvey of E.  $\frac{1}{2}$  mile of S. bdy. of sec. 36, S. bdy. of T.1 S.,R.3 W.

29.10  
39.30

West on a true line along S. bdy. of sec. 36. Over level land, through undergrowth.

Ravine, 30 lks. wide, 4 ft. deep, course, S. 40° E.

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, in place of  $\frac{1}{4}$  sec. cor., for  $\frac{1}{4}$  sec. cor. with brass cap mkd.

S 36  
 $\frac{1}{4}$

1916

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high N. of cor.

Chains

Land, level.  
Soil, sandy clay, 1st rate.  
No timber.  
Undergrowth, greasewood.

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BCCR 3011

CERTIFICATE OF UNITED STATES SURVEYOR.

I, W. K. Kierulff, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 58, Arizona, bearing date of the 8th day of October, 1915, 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 the North bdy. of T. 5 S., R. 1 E., and the South Bdy. of T. 6 S., R. 1 E.

of the Gila and Salt River Base & Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and 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 Group 58, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

W. K. Kierulff
U. S. Transition U. S. Surveyor

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....

executed by ..... under his special instructions dated ....., 191, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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BOOK

3071

CERTIFICATE OF UNITED STATES SURVEYOR.

I, W. G. Shapcott, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 58, Arizona, bearing date of the 8th day of October, 1915, 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 the N. bdy. of T.3 S., R.1 E., and the West bdy. of T.4 S., R.1 W., and resurveyed all those parts or portions of the South bdy. of T.4 S., R.1 W.,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and 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 Group 58, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey, and **resurvey.**

W. G. Shapcott,  
By W. H. Shaw U. S. Surveyor.  
U. S. Surveyor,  
Chief of Party.

~~APPROVAL.~~

~~Office of the United States Surveyor General,~~

....., 191

The foregoing field notes of the survey of .....

executed by .....

under his special instructions dated ....., 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

.....  
U. S. Surveyor General.

100

BOOK 3071

CERTIFICATE OF UNITED STATES SURVEYOR.

I, W. H. Thorn, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 58 Arizona bearing date of the 8th day of October, 1915, 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 the West bdrs of Ts. 2 S., Rs. 1 and 2 W., the North and West bdrs of T 3 S., R. 1 W., the South, West and North bdrs of T. 3 S.: R. 2 W., the North bdy. of T. 4 S.: R. 1 W., the East bdy of T. 5 S., R. 1 E., the South bdy. of T. 7 S.: R. 1 E., the West, South and East bdrs of T. 11 S.: R. 6 E., the South and East bdrs of T. 11 S.: R. 7 E. and the South bdy. of T. 11 S.: R. 8 E. and RESURVEYED all those parts or portions of the South bdrs. of Ts. 1 S., Rs. 2 and 3 W., and the West bdy. of T. 4 S.: R. 2 E. of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and 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 Group 58, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*W. H. Thorn*  
 U. S. Surveyor.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, May 25, 1918.

The foregoing field notes of the survey of retracement and resurvey of all those boundaries or parts of boundaries of Ts. 3, 4, 5, 6 and 7 S., R. 1 E., Ts. 1, 2, 3 and 4 S., R. 1 W., Ts. 1, 2, & 3 S., R. 2 W., and Ts. 11 N., Rs. 6, 7 and 8 E. of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented on the diagram on page 2 hereof, as having been executed by

W. H. Thorn, U. S. Surveyor, W. G. Shapcott, U. S.

Surveyor, and W. K. Kierulff, U. S. Transitman,

under his special instructions dated Oct. 8, 1915, for Group 58, Arizona, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*James O. Smith*  
 U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.