

Book "A"

4-679.

2050

BOOK 2050

FIELD NOTES

OF THE SURVEY OF THE

South and East Boundaries

of
Township No. 1 S, Range No. 14 East

2050

2050

Of the Gila and Salt River Basins and Meridian,

in the Territory of Arizona

AS SURVEYED BY

Philip Burton

, United States Deputy Surveyor,

his Contract No. 138, dated April 12th, 1906.

commenced August 14th, 1906

completed August 21st, 1906

2050

NAMES AND DUTIES OF ASSISTANTS.

John M. Brown, chairman

Arthur Brown, chairman

George Davis, chairman

John E. Brown, chairman

George H. Brown, chairman

BOOK 2050

INDEX DIAGRAM.

Township 1 S, Range 14 E

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PRELIMINARY OATHS OF ASSISTANTS.

BOOK 2050

WE, John M. Young and Arthur Pague
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

the S and E Bds of S 1 S, R 14 E

John M. Young, Chainman.
Arthur Pague, Chainman.

Subscribed and sworn to before me this 11
day of August, 1906.



W. G. Power
Notary Public, Pima County, Arizona Territory
My Commission Expires April 27th, 1908.

WE, George Davis and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

the S and E Bds of S 1 S, R 14 E

George Davis, Moundman.
Moundman.

Subscribed and sworn to before me this 11
day of August, 1906.



W. G. Power
Notary Public, Pima County, Arizona Territory
My Commission Expires April 27th, 1908.

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

the S and E Bds of S 1 S, R 14 E

Jos. E. Boren, Axman.
Axman.

Subscribed and sworn to before me this 11
day of August, 1906.



W. G. Power
Notary Public, Pima County, Arizona Territory
My Commission Expires April 27th, 1908.

I, George Chessey, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

the S and E Bds of S 1 S, R 14 E

George Chessey, Flagman.

Subscribed and sworn to before me this 11
day of August, 1906.



W. G. Power
Notary Public, Pima County, Arizona Territory
My Commission Expires April 27th, 1908.

1E

SOUTH BOUNDARY OF T. 1-South, R. 14-East.

Survey commenced August 14, 1906, and executed with a Young & Sons, light mountain transit, with Smith solar attachment No. 5609. The horizontal limb is provided 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.

The instrument was examined, tested on the true meridian at Phoenix, Arizona, found correct, and was approved by the Surveyor General for Arizona, August 8, 1906.

I examine the adjustment 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 meridian determined by observations on Polaris, I proceed as follows:-

At the cor. of Tps. 1 and 2 South, Ranges 13 and 14 East, latitude 33° 17' 28" N., longitude 110° 57' 20" W., I set off 33° 17' N. on the lat. arc and 14° 37' N. on the decl. arc and at 4 h p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor. August 14, 1906.

August 14: At 6 hrs. 00 m., a.m., l.m.t., by my watch, which is correct, I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point on the line thus determined, on a peg driven in the ground, 5 chs. N. of my station. Aug. 15, 1906.

At 6 h., a.m., l.m.t., I lay off the azimuth of Polaris, 1° 26' to the East, and mark the meridian thus determined, by cutting a small groove in the stone set August 14, 1906, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 7 h., a.m., l.m.t., I set off 33° 17' N. on the latitude arc and 14° 16' N. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls .2 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0' 21" west and 0' 10" east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 7h 30 m., a.m. is N. 13° 45' W., the angle thus determined gives the mag. decl. at 13° 45' E.

chains

Having ascertained that the measurements along the whole line grant sufficient, and therefore, for the purpose of giving Tps. 1 & 2, Ranges 13 & 14, their proper width, I proceed to survey the south boundary first. At the S.W. cor., which is a granite boulder, marked and witnessed as described, I run scattering cedar timber and oak brush East by the line 66 and 316, course N.E. 54° 30' 00" E. over the hilly land, descending over the granite boulders, through scattering cedar timber and dense oak brush.

19.50
38.56

South Boundary T. 1 S., R. 14 E.

chains

19.50 Rocky gulch, 40 lks. wide, course N. E.

38.56 Point for $\frac{1}{4}$ sec. cor. falls on granite boulder, 10 X 4 X 5 ft. above ground, marked with cross (x) and paint on N. face; and $\frac{1}{4}$ N. of cross, from which
 A pine tree, 8 ins. diam., brs. N. 49° E., 91 lks. dist., marked $\frac{1}{4}$ S 31 B T,
 A pine tree, 6 ins. diam., brs. S. 46° E., 82 lks. dist., marked $\frac{1}{4}$ S 6 B T.
 Raise a mound of stone 2 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

53.85 Rocky gulch, 800 ft. below top cor., 60 lks. wide, course S. Leave boulders, scattering timber and brush; ascend.

59.55 Ridge, extends N. and S.; descend.

67.90 Gulch, 20 lks. wide, course S.E. (for cor. of secs. 5, 6, 31, 32)

78.56 Set a sandstone, 18 X 10 X 5 ins., in a mound of stone, marked with 1 notch and 5 notches on the E. edges, and raise a mound of stone, 2 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.; pits impracticable.
 This cor. stands 450 ft. below top of ridge.
 Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, scattering cedar, scrub pines and mesquite.
 Undergrowth, oak, mesquite, johava, testotilla, Spanish bayonet and cacti.
 Mountainous, or heavily timbered land, covered with dense undergrowth, exceptionally difficult to survey, 78.56 chs.
 August 15: At noon I set off 14° 11' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 33° 17' N.

East bet. secs. 5 and 33 (-2.32)
 Over mountainous land, descending.

8.50 Trail brs. N. and S.

9.00 Dry fork of Mineral Creek, 60 lks. wide, course S. Begin steep, rocky ascent.

26.30 Top of rocky ridge, extends N. and S.; descend.

40.00 Set a schist stone, 18 X 12 X 10 ins. in a mound of stone, marked $\frac{1}{4}$ on N. face, from which
 A cedar tree, 10 ins. diam., brs. S. 7 $\frac{1}{2}$ ° E., 210 lks. dist., marked $\frac{1}{4}$ S 5 B T,
 Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor., pits impracticable. No other tree within limits. Ascend.

48.00 Ridge, 700 ft. above creek, extends N. and S., steep descent.

64.60 Gulch 300 ft. below ridge, 45 lks. wide, course N., ascend.

69.50 Ridge extends S.W. and N.E.; descend.

77.50 Deep gulch, 15 lks. wide, course S.

80.00 Set a schist stone, 18 X 10 X 8 ins., 12 ins. in the ground, marked with 2 notches on the W. and 4 notches on E. edges, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous. 80.00 chs.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, scattering mesquite and cedar.
 Undergrowth, johava, laurel, mesquite, testotilla, mezcal, Spanish Bayonet and giant cactus.

August 15, 1906.

August 16, At 7 h. a.m., l.m.t., I set off 33° 17' N. on the lat. arc, and 13° 57' N. on the decl. arc and determine a true meridian with the solar at the cor. of secs. 4, 5, 32 and 33.
 Thence I run,
 East bet. secs. 4 and 33.
 Over mountainous land, descending.

9.00 Gulch, 80 lks. wide, course W.S.W.

South Boundary of Tp. 1 S., R. 14 E.

chains Ascend through dense laurel brush.
 27.00 Ridge extends N.E. and S.W., leave dense brush and descend.
 36.00 Re-enter dense brush.
 37.50 Gulch, 150 lks. wide, course S.W. thence W.; ascend steeply.
 40.00 Set a schist stone, 18 X 6 X 6 ins., in mound of stone, marked $\frac{1}{2}$ on N. face, from which
 A manzanita tree, 8 ins. diam., brs. N. 42° E., 74 lks. dist., marked $\frac{1}{2}$ S 35° E T,
 A cedar tree, 7 ins. diam., brs. S. 68° E., 71 lks. dis., marked $\frac{1}{2}$ S 4° E T.
 49.50 Ridge, 500 ft. above gulch, extends N.E. and S.W.
 Leave dense brush and descend.
 65.30 Shaft, brs. S. 90° chs. S.
 66.00 Deep gulch, 300 ft. below ridge, 20 lks. wide, course S.
 Ascend through dense oak brush.
 69.00 Ridge extends N. and S.; descend.
 73.40 Gulch, 20 lks. wide, course S.
 Spring in gulch 40 lks. N.; ascend.
 84.00 Trail, extend N.E. and S.W., to Cole's camp.
 76.60 Spur, extends S.W.; descend.
 80.00 Set a schist stone, 21 X 12 X 5 ins., 16 ins. above ground, marked with 3 notches on E. and W. edges, from which
 A cedar, 9 ins. diam., brs. S. 84° E., 102 lks. dist., marked T 3 S R 14 E S 5 B T, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor., pits impracticable.
 Land, mountainous. No other trees within limits.
 Soil, gravelly, stony and rocky; 2nd and 4th rate.
 Timber, scattering cedar, mesquite and palo verde.
 Undergrowth, oak, laurel, jehava, tesotilla, mesquite, bachata and mezcal, pale christo, Saphish Bayonet and ceotillo.
 Mountainous, or heavily timbered land covered with dense undergrowth, exceptionally difficult to survey,
 80.00 chs.

August 18, 1906.

August 18: At 7 h. a.m., 1.20 p.m., I set off 15° 58' N. on the decl. arc, and 33° 17' W. on the lat. arc and determine a true meridian at the cor. of secs. 3, 4, 53 and 34.

Thence I run,
 East bet. secs. 3 and 34.
 Over mountainous land, descending through oak brush.
 1.00 Leave canyon, 50 lks. wide, course S.W. ascend.
 6.00 Tunnel and dump, brs. 7 chs. N.
 8.00 Spur extends N. descend.
 14.50 Same canyon, course N.W., 50 lks. wide, ascend.
 27.00 Spur extends S. descend.
 33.30 Enter same canyon, course S.W.
 34.40 Tent, brs. 90 lks. N. and forge brs. 40 lks. S.
 35.00 Leave canyon, course W. Begin steep ascent through dense brush.
 35.60 Tent brs. 150 lks. N.
 40.00 Set a schist stone, 18 X 12 X 5 ins., 12 ins. in the ground and marked $\frac{1}{2}$ on N. face, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

From this cor. Cole's mining camp brs. N. 25° W., about 30 chs. dist.

43.00 Ridge 400 ft. above canyon, extends N.E. and S.W.; descend.
 49.00 Trail, brs. N.E. and S.W.
 50.50 Leave dense brush, extends N.E. and S.W.
 51.55 Trail brs. N.N.E. and S.S.W.
 54.00 Gulch, 10 lks. wide, course S., ascend.
 57.70 Top of round hill descend.
 61.00 Gulch, 10 lks. wide, course S.

South Boundary T. 1 S., R. 14 E.

chains	Ascend steep slope.
65.60	Top of spur, extends S.
69.00	Descend.
75.20	Gulch, 20 lks. wide, course S.W.; ascend.
75.80	Tunnel, brs. N. 220 lks. dist.
80.00	Set a quartz stone, 18 X 8 X 5 ins., 12 ins. in the ground, marked 4 notches on the W. and 2 notches on E. edges and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	Land, mountainous, Soil, gravelly, stony and rocky; 3rd and 4th rate. Timber, a few juniper and cedar and some sycamore and walnut in canyon; undergrowth, laurel, oak, tesetilla, jehava, mezcal. Mountainous, or land covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. August 17; At noon, I set off 13° 33' N. on the decl. arc and observe the sun on the meridian, the resulting lat. is 33° 17' N.

	East bet. secs. 2 and 35.
	Over mountainous land, ascending through low brush.
5.00	Spur, extends S.S.W., descend.
5.70	Shaft and dump br. 5.00 chs. N.
7.00	Gulch, 15 lks. wide, course S.; ascend.
10.00	Spur, extends S.; descend.
14.60	Small gulch, course S.
16.50	Gulch, 15 lks. wide, course S.; ascend.
33.20	Spur, extends S.W.; descend.
33.50	Shaft, brs. 8.00 chs. S.
33.90	Shaft, brs. 70 lks. N.
34.70	Shaft brs. 4.00 chs. N.
37.70	Deep gulch, 15 lks. wide, course S. Ascend steep slope.
40.00	Spur, extends S.
	Set a schist stone, 21 X 10 X 5 ins., in mound of stone, marked ¼ on N. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
47.00	Spring brs. 4.00 chs. N.
48.00	Gulch, 15 lks. wide, course S. ascend along S. slope of ridge.
54.00	Gulch, 15 lks. wide, course S.W.
70.30	Spur, extends E. descend.
79.50	Gulch, 15 lks. wide, course S.W., ascend.
80.00	Set a diorite stone, 16 X 12 X 10 ins. 11 in, in the ground, marked with 5 notches on the W. and 1 notch on E. edges, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	Land, mountainous. Soil, gravelly stony and rocky; 3rd and 4th rate. Timber, a few juniper; undergrowth, tesetilla, oak, mezcal, Spanish bayonet and cacti. Mountainous, or land covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs. August 17, 1906.

	August 16 At 7 h. a.m., l.m.t., I set off 13° 19' N. on the decl. arc and 33° 17' N. on the lat. arc and determine a true meridian with the solar at the cor. of secs. 1, 2, 35 and 36.
	Thence I run, East bet. secs. 1 and 36.
	Over mountainous land, ascending.
19.00	Ridge, extends N.E. and S.W.; descend.
28.30	Gulch, 30 lks. wide, course S.W. Enter dense brush; ascend.
736.60	Spur extends N. and descend.
83.55	Same gulch, 25 lks. wide, course N.W.; ascend through scattering oak timber.

East Boundary T. 1 S., R. 14 E.

chains

40.00 Set a schist stone, 18 X 8 X 6 ins., in mound of stone, marked $\frac{1}{4}$ on N. face, from which
 An oak tree, 6 ins. diam., brs. S. 38° E., 77 lks. dist., marked $\frac{1}{4}$ S 1 B T,
 An oak tree, 18 ins. diam., brs. N. 65° W., 88 lks. dist., marked $\frac{1}{4}$ S 36 B T.
 August 18: At noon I set off 13° 14' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 33° 17' N.

63.00 Spur, extends S., descend.
 68.85 Gulch, 15 lks. wide, course S.; ascend.
 73.00 Spur, extends S., descend.
 78'00 Gulch, 25 lks. wide, course S.W.; ascend.
 80.00 Set a diorite stone, 18 X 8 X 6 ins., 12 ins. in the ground for the cor. of tps. 1 and 2 S. 14 and 15 E. marked with 6 notches on each edge, from which
 An oak, 10 ins. diam., brs. N. 44° E., 95 lks. dist., marked T. 1 S R 15 E S 31 B T,
 An oak, 8 ins. diam., brs. S. 34° E., 53 lks. dist., marked T 2 S R 15 E S 6 B T,
 An oak, 12 ins. diam., brs. S. 50 $\frac{1}{2}$ ° W., 76 lks. dist., marked T 2 S R 14 E S 1 B T,
 An oak, 12 ins. diam., brs. N. 65° W., 16 lks. dist., marked T 1 S R 14 E S 36 B T.

Land, mountainous.
 Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, scattering oak, pine, and juniper. Undergrowth; oak, tesotilla, laurel, Spanish bayonet and cacti.
 Mountainous, or land beset with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

----- August-18, 1906.
 August 19: At 7. h. a.m., 1.m.t., I set off 12° 59' N. on the decl. arc and 33° 17' N. on the lat. arc and determine a true meridian with the solar at the cor. of Tps. 1 and 2 S., Rs. 14 E.

Thence I run,
 N. bet. secs. 31 and 36,
 Over mountainous land, descending through scattering oak timber and dense brush.

2.00 Gulch, 25 lks. wide, course S.W.; ascend.
 11.20 Ridge, extends E. and W., descend through pine timber.
 11.80 Trail brs. E. and W.
 28.00 Lyon's gulch, 400 ft. below ridge, 25 lks. wide, course W. Leave pine timber, ascend steep slope.
 40.00 Set a granite stone, 18 X 8 X 5 ins., 12 ins. in the ground, marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high. W. of cor. Pits impracticable.
 51.00 High ridge extends E. and W.; descend.
 54.00 Leave dense brush; enter heavy pine timber, extends E. and W.
 67.30 Gulch, 20 lks. wide, course N.W., re-enter dense brush; ascend.

73.70 Spur, extends N.W. begin steep descent.
 80.00 Set a granite stone, 18 X 8 X 8 ins. 12 ins. in the ground, marked on sec. 30, 31, 32 and 36, marked with 5 notches on N. and 1 notch on S. edge, from which
 An oak, 12 ins. diam., brs. N. 27° E., 34 lks. dist., marked T 1 S R 15 E S 30 B T,
 An oak, 9 ins. diam., brs. S. 24° E., 25 lks. dist., marked T 1 S R 15 E S 31 B T,
 An oak, 7 ins. diam., brs. S. 28 $\frac{1}{2}$ ° W., 8 lks. dist., marked T 1 S R 14 E S 36 B T,
 An oak, 6 ins. diam., brs. N. 89° W., 8 lks. dist., marked T 1 S R 14 E S 25 B T.

Land, mountainous.
 Soil, gravelly, stony and rocky, 3rd and 4th rate.
 Timber, pine, oak, juniper; undergrowth, oak, manzanita, laurel, tesotilla, buck brush, johava, locust, mezcal, Spanish bayonet and cacti.
 Mountainous, or heavily timbered land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

East Boundary T. 1 S. outh, R. 14 East.

- chains August 19: At noon, I set off $12^{\circ} 54'$ N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is $33^{\circ} 18'$ N. ✓
N. bet. secs. 25 and 31.
- 2.00 North fork of Lyon's canyon, 30 lks. wide, course S.W., ascend through dense brush; leave heavy timber.
- 40.00 Set a granite stone, 18 X 8 X 6 ins., 12 ins. in the ground, marked $\frac{1}{4}$ on W. face, from which
An oak, 6 ins. diam., brs. N. 89° E., 102 lks. dist., marked $\frac{1}{4}$ S 30 B T.
Raise amount of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable. **No other trees available.**
This cor. stands 700 ft. above canyon.
- 58.40 High ridge, 300 ft. above $\frac{1}{4}$ sec. cor., extends E. and W.
Descend, through pine timber.
- 80.00 Set a granite stone, 16 X 10 X 10 ins., 11 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked with 2 grooves on the S. and 4 grooves on the N. edges, from which
An oak, 14 ins. diam., brs. N. 10° E., 53 lks. dist., marked T 1 S R 15 E S 19 B T,
A pine, 9 ins. diam., brs. S. 73° E., 32 lks. dist., marked T 1 S R 15 E S 30 B T,
A pine tree, 9 ins. diam., brs. S. 51° W., 74 lks. dist., marked T 1 S R 14 E S 25 B T,
An oak tree, 16 ins. diam., brs. N. $5\frac{1}{2}^{\circ}$ W., 32 lks. dist., marked T 1 S R 14 E S 24 B T.
Land, mountainous.
Soil, gravelly, stony and roack; 3rd and 4th rate.
Timber, pine, oak, juniper, walnut and ash.
Undergrowth, oak, manzanita, laurel, tesotilla, buck brush, locust, mezcal, Spanish bayonet and cacti.
Mountainous, or heavily timbered land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.
August 19, 1906.
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- August 20: At 7 a.m., l.m.t., I set off $12^{\circ} 40'$ N. on the decl. arc and $33^{\circ} 19'$ N. on the lat. arc and determine a true meridian with the solar at the cor. of secs. 19, 24, 25 and 30.
Thence I run,
N. bet. Secs. 19 and 24.
Over mountainous land, descending through oak and pine timber and dense brush.
- .90 Gulch, 15 lks. wide, course N.W.
- 4.00 Gulch, 15 lks. wide, course W.
- 4.40 Timber road brs. N.W. and S.E.
- 31.70 Gulch, 40 lks. wide, course N.W.
- 39.80 Gulch, 15 lks. wide, course N.W.
- 40.00 Set a granite stone, 18 X 6 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A juniper, 14 ins. diam., brs. S. 66° E., 29 lks. dist., marked $\frac{1}{4}$ S 19 B T.
An oak tree, 20 ins. diam., brs. N. 21° W., 23 lks. dist., marked $\frac{1}{4}$ S 24 B T.
This cor. stands 500 ft. below sec. cor.
- 65.70 Road brs. N.W. and S.E.
- 66.10 Pinto Creek 20 lks. wide, course W.S.W.; 400 ft. below $\frac{1}{4}$ sec. cor.; begin steep ascent.
- 80.00 Set a quartzite stone, 18 X 8 X 8 ins., 12 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 2 notches on N. and S. edges, from which
An oak tree, 12 ins. diam., brs. N. 77° E., 92 lks. dist., marked T 1 S R 15 E S 18 B T.
An oak tree, 12 ins. diam., brs. S. $72\frac{1}{2}^{\circ}$ E., 87 lks. dist., marked T 1 S R 15 E S 19 B T
An oak, 14 ins. diam., brs. S. $43^{\circ} 45'$ W., 18 lks. dist., marked T 1 S R 14 E S 24 B T,
An oak tree, 9 ins. diam., brs. N. 54° W., 80 lks. dist., marked T 1 S R 14 E S 13 B T,
Land, mountainous.

East Boundary T. 1 South, R. 14 East.

chains

Soil, gravelly, stony and rocky; 3rd and 4th rate.
 Timber, oak, pine and juniper; undergrowth, oak, manzanita, tesotilla, laurel, buck brush, mezcal and cacti.
 Mountainous land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

August 20: At noon, I set off $12^{\circ} 35'$ N. on the decl. arc; and observe the sun on the meridian; the resulting lat. is $33^{\circ} 29'$ N.

N. bet. secs. 13 and 18.

Over mountainous land, ascending through scattering oak timber and dense brush.

14.30 Ridge, extends N.W.; leave dense brush; begin steep descent through scattering pine timber.

18.55 Trail, brs. N.E. and S.W.

35.50 Gulch, 400 ft. below ridge, 20 lks. wide, course N.E., thence N.; ascend.

40.00 Set a quartzite stone, 18 X 8 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
 A pine tree, 18 ins. diam., brs. S. $51\frac{1}{2}^{\circ}$ E., 41 lks. dist., marked $\frac{1}{4}$ S 18 B T,
 An oak tree, 24 ins. diam., brs. S. $12\frac{1}{4}^{\circ}$ W., 28 lks. dist., marked $\frac{1}{4}$ S 13 B T,

47.25 Spur, extends E., descend steep slope.

63.10 Same gulch, 25 lks. wide, course N.N.W., ascend through dense oak brush.

65.80 Trail, brs. N.N.W. and S.S.E

70.00 Top of W. slope of ridge, high ridge, extends N. and S. 20 chs. E.; descend.

71.88 Same trail, brs. N.E. and S.W.

79.25 Same trail brs. N.N.W. and S.S.E

80.00 Set a granite stone, 18 X 6 X 6 ins. 12 ins. in the ground, for cor. of secs. 7, 12, 13 and 18, marked with 4 notches on the S. and 2 notches on the N. edges, from which

An oak, 24 ins. diam., brs. N. $55\frac{1}{2}^{\circ}$ E., 96 lks. dist., marked T 1 S R 15 E S 7 B T,

An oak, 20 ins. diam., brs. S. $16^{\circ} 45'$ E., 24 lks. dist., marked T 1 S R 15 E S 18 B T,

An oak, 24 ins. diam., brs. S. $1\frac{1}{2}^{\circ}$ W., 31 lks. dist., marked T 1 S R 14 E S 13 B T,

An oak, 18 ins. diam., brs. N. 20° W., 47 lks. dist., marked T 1 S R 14 E S 13 B T.

Land, mountainous.

Soil, gravelly, stony and rocky; 3rd and 4th rate.

Timber, oak, pine and juniper; undergrowth, oak, manzanita, pine, tesotilla, buck brush, laurel, mezcal, Spanish bayonet and cacti.

Mountainous land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

August 20, 1906.

August 21: At 7 a.m., I set off $12^{\circ} 20'$ N. on the decl. arc and $33^{\circ} 21'$ N. on the lat. arc and determine a true meridian with the solar at the cor. of secs. 7, 12, 13 and 18. Thence I run,

N. bet. secs. 7 and 12.

Over mountainous land, descending through scattering timber and dense brush.

15.80 Trail, brs. N.E. and S.W.

21.20 Same trail, brs. N.W. and S.E.

36.70 Gulch, 20 lks. wide, course N.W., ascend.

40.00 Set a granite stone, 18 X 8 X 6 ins., in mound of stone, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
 A juniper tree, 6 ins. diam., brs. N. $74\frac{1}{2}^{\circ}$ E., 28 lks. dist., marked $\frac{1}{4}$ S 7 B T,

An oak tree, 9 ins. diam., brs. N. $30^{\circ} 45'$ W., 20 lks. dist., marked $\frac{1}{4}$ S 13 B T, and a pine tree, 12 ins. diam., 2 ft. base, 100 ft. high, W of cor.

44.00 Enter boulders.

East Boundary, T. 1 South, R. 14 East.

chains
53.00
60.00
74.00
80.00

Top of east slope of ridge.
Descend through heavy oak timber.
Leave heavy oak timber N.E.
Find a granite rock in place, 4 X 3 X 1 ft. above ground, which I mark with cross (x) for exact point for cor. of secs. 1, 6, 7 and 12, with 5 notches on the S. and 1 notch on the N. edge, from which
An oak tree, 7 ins. diam., brs. N. 27° E., 33 lks. dist., marked T 1 S R 15 E S 6 B T,
An oak tree, 5 ins. diam., brs. S. 29½° E., 45 lks. dist., marked T 1 S R 15 E S 7 B T,
An oak, 10 ins. diam., brs. S. 39½° W., 58 lks. dist., marked T 1 S R 14 E S 12 B T,
An oak tree, 9 ins. diam., brs. N. 89° 45' W., 69 lks. dist., marked T 1 S R 14 E S 1 B T.

Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak, pine and juniper.
Undergrowth, tesotilla, oak, manzanita, pine, buck brush, johava, mazcal and cacti.
Mountainous land, covered with dense undergrowth, exceptionally difficult to survey, 80.00 chs.

August 21: At noon, I set off 12° 15' N. on the decl. arc and observe the sun on the meridian; the resulting lat. is 33° 22' N.

North bet. secs. 1 and 6.
Over mountainous land, descending through oak timber and brush.

5.10 Descend abruptly 150 feet.
10.30 Deep rocky gulch, 60 lks. wide, course N.E.; ascend.
20.70 Spur extends E., leave timber and descend.
40.00 Falls on edge of small gulch, course N.N.W.
40.20 Set a granite stone, 18 X 10 X 8 ins., 12 ins. above ground, for witness cor. to ¼ sec. cor., marked W C ¼ S on W face, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

Ascend.
48.70 Ridge, extends N. W. and S.E.; descend.
53.00 Gulch, 15 lks. wide, course N.W.; ascend.
76.40 Intersect the N. boundary of tp. ~~15.75 chs. E. of Sec 1~~ ~~sec. of sec. 36 and 24.32 chs. W. of Standard cor.~~ of T. 1 N. R. ~~14 and 15 E.~~

Set a granite stone, 18 X 7 X 6 ins., 12 ins. in the ground, for closing cor. of Tps. 1 S and 1 N., Rs. 14 and 15 E, marked C C on S., with 6 grooves on S. E., and W. faces; raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable.

Land, mountainous.
Soil, gravelly, stony and rocky; 3rd and 4th rate.
Timber, oak, undergrowth, oak, manzanita, laurel, tesotilla, Spanish bayonet, and cacti.
Mountainous land, covered with dense undergrowth, exceptionally difficult to survey, 76.40 chs.

August 21, 1906.

15.75
24.32
80.07

Boundaries of T. 1 South, R. 14 East.
 Latitudes, departures, and closing errors.

Line Designated	True bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
South Bdy.	East	478.56			478.56	
East Bdy.	South	478.40	476.40			
G.&S.R.R. Line	East	478.54				478.54
West Bdy.	South	478.07		476.07		
Convergency						.48
Totals			476.40	476.07	478.56	478.62
Error in lat.			478.07	476.07		478.56
			.33	.63	Error in dep.	.26

General Description.

This line crosses over ridges and spurs extending west from the Pinal Mountains. Tp. 1 South, Range 15 East is mostly in the Pinal Mountains. Tp. 2 South, R. 14 East is rough, broken and mountainous.

Philip Couzgen
 U. S. Deputy Surveyor

For red ink corrections see deputy's letter dated Nov. 1/1907.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Philip C. ...

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of ...

Land & Bldgs of S 1 S, R 14 E

showing the respective capacities in which they acted

John M. ... Chainman.

Arthur Pogue Chainman.

George Davis Moundman.

Moundman.

Geo. E. Boren Axman.

Axman.

George Chedsey Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Philip C. ...

United States Deputy Surveyor, in surveying all

those parts or portions of the

South and East Boundaries

Township No. 1 South, Range No. 14 East of the Salt River Base and meridian, Territory of Arizona, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Arizona

John M. ... Chainman. ✓

Arthur Pogue Chainman. ✓

George Davis Moundman. ✓

Geo. E. Boren Axman. ✓

Axman.

George Chedsey Flagman. ✓

Subscribed and sworn to before me this 30th day of October, 1906.

H. G. Power



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Philip Contzen, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls, United States Surveyor General for Arizona, bearing date of the 12 day of April, 1906, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the

South and East Boundaries

Tractship No. 1 South, Range No. 14 East of the Gila and Salt River Base and Meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Philip Contzen
United States Deputy Surveyor.

Subscribed by said Philip Contzen, and sworn to before me }
this 27th day of December, 1906



W. H. ...
Commissioner

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix AZ, March 30th, 1907

The foregoing field notes of the survey of the South and East Boundaries of T. S. R. 14 E., of the Gila and Salt River Base and Meridian in the territory of Arizona

executed by Philip Contzen, U. S. deputy Surveyor, under his contract No. 138, dated April 12th, 1906, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ... has been correctly copied from the original notes on file in this office.

United States Surveyor General.