

1ST. STAND. PAR. S. R222

CONTRACT 53

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15-22

1st Stand. Parallel South
(through)

R. 22 E.
4-671

BOOK 1522

1522

FIELD NOTES
GENERAL LAND OFFICE.

Field Notes
of the survey of the
1st Standard Parallel South
through
Range 22 East
of the
Gila and Salt River Base & Meridian
in the
Territory of Arizona
as surveyed by
Philip Cortzen
U. S. Deputy Surveyor
under his contract N^o 53
Dated June 17, 1899.

Survey commenced March 27, 1900
Survey completed March 29, 1900

BOOK 1522

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T. S. S. R. 22 E.

31	32	33	34	35	36
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1st Standard Parallel South

chains

Survey commenced March 27, 1900, and executed with a Young & Sons, light mountain transit 705609 with a Smith solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Tucson A.T., found correct and was approved by the Surveyor General of Arizona. In order to test the solar apparatus by comparing the results of observations on the

Through Range 22 East

chains

sun made during a.m. and P.M. hours, with a true meridian determined by observations on Polaris, I proceed as follows: at the Standard Cor. of T5S, R22 and 23E which is a decayed post, lying on the ground I destroy the same and re-establish it at its original place as follows: Set a Lime stone $26 \times 12 \times 4$ ins. 18 ins. in the ground for S.C. of T5S, R22 and 23, E. marked with 6 grooves on E, W, and N faces. S.C. on N. face, from which a mesquite 4 ins. diam. bears $N38^{\circ}E$, 108 lks. dist. marked T, 5S, R23E, S, 31, B.T. a mesquite 6 ins. diam.

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chains

bears $N 59\frac{1}{4}^{\circ} W$, 188 lks, dist.
marked T 5 S, R 22 E, S 36, B T.
Redig pits $24 \times 30 \times 12$ ins
crosswise on each line
E and W, 4 ft, and N of stone
8 ft, dist, and raised a mound
of stone and earth 5 ft base $2\frac{1}{2}$
ft high, N of cor.

at 3.30 P.m. l.m.t. I set off
 $32^{\circ} 56'$ on the lat. arc; $2^{\circ} 41'$
on the decl arc; and mark
the true meridian thus
determined with the solar by
a cross on a stone firmly set
in the ground 5. chs. N of the
instrument.

March 27 at $6^{\text{h}} 57^{\text{m}}$ P.m. l.m.t. I observe
Polaris at western elongation in
accordance with instructions in

through Range 22 East, continued
chains

The maul, and mark the line thus determined by a tack driven in a wooden plug set in the ground 5 chs. N of my station.

At 8.30 am, l. m. t. I lay off the azimuth of Polaris $1^{\circ} 26'$ to the W. and mark the true meridian thus determined, by cutting a small groove in the stone set yesterday, on which the true meridian falls 0.15 ins. West of the mark determined by the solar.

At 9.30 I set off $32^{\circ} 56'$ on the lat. arc; $3^{\circ} 00' N$ on the decl. arc; and mark the true meridian determined with the solar by a cross on the stone

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already set 5 chs. N. of my station. This mark falls 0.19 ins. East of the true meridian established by the Polaris observation.

The solar apparatus by P.M. and A.M. observations defines positions for true meridians about 0.8" west and 0.11" east of the meridian established by the Polaris observation. Therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 9 a.m. is $12^{\circ} 10' W$; the angle thus determined reduced by the table, page 100, gives the mean mag. decl. $12^{\circ} 13' E$.
From the ^{standard} To Cor. above described

through Range 22 East, continued
chains

Iron

West, on S. Bay, of sec. 36.

4.95 Wash 10 lks. wide, course $\frac{1}{4}$ Easterly

12.80 Road bears $\frac{1}{4}$ E and S.W.

24.80 Wash 30 lks. wide, course $\frac{1}{4}$ Easterly

32.20 Wash 20 lks. wide, course, $\frac{1}{4}$ Easterly

Difference bet. measurements
of 40.00 chains, by two sets
of chainmen is 4 lks.

position of middle point

4 lks

By 1st set is 40.02 chs.

By 2nd set is 39.98 chs. The

mean of which is

40.00 Cut a lime stone $18 \times 8 \times 8$ ins
12 ins. in the ground for standard
 $\frac{1}{4}$ sec. cor. marked S.C. $\frac{1}{4}$ S. 36.
on N face, from which
a mesquite 3 ins. diam. bears
N $23\frac{1}{2}^{\circ}$ W. 48 lks. dist. marked

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chains

S.C. $\frac{1}{4}$ S. 36. B.T.

a mesquite 3 ins diam. bears
N $25\frac{1}{2}^{\circ}$ E. 102 lks. dist. marked

S.C. $\frac{1}{4}$ S. 36. B.T.

53.90 Wash 20 lks. wide, course N. Easterly

61.40 Enter draw, bears N. Easterly

73.00 Leave draw, bears N. Easterly

79.50 Set a Sandstone $18 \times 8 \times 3$ ins.

12 ins. in the ground for witness

cor. to standard cor. of secs

35 and 36, marked. W.C. S.C.

on N. with 1 groove on E. and

5 grooves on W. faces, from which

a Tesolá 3 ins. diam. bears

N $11\frac{3}{4}^{\circ}$ E. 150 lks. dist. marked

W.C. S.C. T. 5 S. R 22 E. S. 36. B.T.

a Tesolá 6 ins. diam. bears

N $50^{\circ} 30'$ W 157 lks. dist. marked

W.C. S.C. T. 5 S. R 22 E. S. 35. B.T.

through Range 22 East continued
chains

80.00

Wash 20 ebs. wide, course NEasterly
Difference bet. measurements
of 80.00 chs. by two sets of
chainmen is 6 ebs. position
of middle point

By 1st set 79.97 chs.

By 2nd set 80.03 chs. the mean
of which is

80.00

The cor. pt. for Standard cor.
of secs. 35 and 36 comes in
wash.

Land level

Soil, sandy and gravelly 2nd rate

Timber, scrub mesquite

undergrowth, greasewood,

scrub mesquite & Lesota.

March 28, 1900.

West on S. bdy. of sec. 35.

1.90

Wash 10 ebs. wide, course NEasterly;

1st Standard Parallel South
chains.

- enter broken land
- 1300 Wash 15 lks. wide, course N Easterly
- 29.50 Wash 20 lks. wide, course N Easterly
- 38.80 Wash 30 lks. wide, course N Easterly
- Difference between measurements
of 40.00 chains by two sets of
chainmen is 14 lks. position
of middle point
- By 1st set, 39.93 chs
- By 2nd set, 40.07 chs. The mean
of which is
- 40.00 Set a Bandstone 18 x 8 x 8 ins.
12 ins. in the ground for standard
1/4 sec. cor. marked S.C. 1/4 S. 35.
on N face, from which
a scrub mesquite 6 ins. diam.
bears N 74 1/4° E. 145 lks. dist.
marked S.C. 1/4 S. 35. B.T. no other
tree within limits, dug pits

through Range 22 East, continued
chains

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

54.85 Wash 30 ebs, wide, course northerly

60.00 Wash 10 ebs, wide, course northerly

67.00 Wash 10 ebs, wide, course northerly

Difference bet. measurements
of 80.00 ebs. by two sets of
chainmen is 20 ebs; position
of middle point

by 1st set 80.10 ebs.

By 2nd set 79.90 ebs. The mean
of which is

80.00 Set a Quartzite stone 18x8x8 ins.
12 ins. in the ground for standard
cor. of secs. 34 and 35, marked
SC, on N, with 2 grooves on E,
and 4 grooves on W, faces.

1st Standard Parallel South
chains

dug pits. 24x18x12 ins.
crosswise on each line
E and W, 3 ft. and N of
stone 7 ft. dist. and raised
a mound of earth 4 ft.
base, 2 ft. high, N of cor.
Land level and broken
Soil, gravelly, 2nd & 3rd rate
Timber, some scrub mesquite
Undergrowth, greasewood and
scrub mesquite.

West on S. Bdy. of sec 34,
over mountainous land.

- 140 Wash rocks, wide, course N E & W
11,00 Ridge bears N E and S W.
1220 Descend
19,50 Cross Gulch and follows line on
the North.

through Range 22 East. continued
chains.

2400 Gulch touches line, - hence
bears north

3000 Gulch bears away N.W.

3710 Wash 20 lks. wide, course northerly

38,50 Top of ridge bears N and S.

Difference bet measurements
of 40.00 chains, by two sets
of chainmen is 20 lks. position
of middle point

By 1st set, 39.90 chs.

By 2nd set, 40.10 chs.; The
mean of which is

40.00 Set a Quartzite stone 18x8x7 ins.
12 ins. in the ground for standard
1/4 sec. cor. marked SC, 1/4 S, 34.
on N face. from which
a mesquite 7 ins. diam. bears
N 29 1/2° W. 182 lks. dist. marked
SC, 1/4 S, 34, B.T. no other tree

1st Standard Parallel South
chains

- within limits, and raised
a mound of stone $2\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, N of cor.
Pits impracticable.
- 40.20 Enter Telegraph flat, bears Northwardly
41.90 Wash 80 chs, wide, course Northwardly
45.00 Wash 70 chs, wide, course Northwardly
47.50 Leave flat, bears Northwardly; ascend
51.50 Top of ascent
57.05 Wash 5 chs, wide, course Northwardly
61.00 Wash 20 chs, wide, course Northwardly
71.80 Wash 20 chs, wide, course Northwardly
78.50 Descend

Difference bet. measurements
of 80.00 chs. by two sets of
chainmen is 10 chs.; position
of middle point

By 1st set, 80.05 chs.

By 2nd set, 79.95 chs.; the mean

through Range 22 East continued
chains

80.00 of which is
Set a Quartzite stone 18x12x5
ins. 12 ins. in the ground for
standard cor. of secs. 33
and 34, marked SC, on N.
with 3 grooves on E and W
faces, from which
a mesquite 6 ins. diam.
bears, N76°W, 24kts, dist,
marked SC, T6S, R22E,
S. 33, BT, no other tree
within limits, and raised
a mound of stone 2½ ft
base, 1½ ft high, N. of cor.
Pits impracticable
Land mountainous
Soil, gravelly, 2nd & 3rd rate
No Timber
Undergrowth, scrub mesquite

1st Standard Parallel South

chains

and Yucca.

Mountainous Land 72.70 chs.

March 28, 1900.

West on S. Bay. of sec. 33.

Descending

- 1.20 Enter Telegraph flat, course Northwesterly
- 1.50 Enter wash, course Northwesterly
- 4.50 Road to Geroumo and Ft Thomas
bears N and Southwesterly
- 6.90 Leave Wash, course Northwesterly
- 8.00 Wash 20 fms. wide course Northwesterly
- 11.30 Wash 20 fms. wide, course, Northwesterly
- 20.00 Leave Telegraph flat; Northwesterly;
ascend
- 38.00 Top of Ridge bears N and S;
descend.

Difference bet. measurements
of 40.00 chs. by two sets of
chainmen, is 60 fms. position

through Range 22 East continued
chains

of middle point

By 1st set. 39.70 chs

By 2nd set 40.30 chs. The

mean of which is

40.00

Set a granite stone 18x8x8 ins.

12 ins. in the ground for standard

$\frac{1}{4}$ sec. cor. marked S.C. $\frac{1}{4}$ S. 33.

on N face, and raised a

mound of stone 2 $\frac{1}{2}$ ft. base,

1 $\frac{1}{2}$ ft high, N of cor. Pits

impracticable.

43.40

Enter Valley, bears Northerly

44.50

Wash 50 lks. wide, course Northerly

47.20

Leave Valley, bears Northerly; ascend

60.00

Gulch, 6 lks. wide, course N Westerly;

ascend

68.25

Top of ridge bears N and S; descend

74.10

Gulch 4 lks. wide, course N Westerly;

ascend

1st Standard Parallel South
chains

Difference bet. measurements
of 80.00 chs. by two sets of
chainmen is 48 chs. position
of middle point

By 1st set 79.76 chs.

By 2nd set 80.24 chs. The mean
of which is

80.00

Set a Sand Stone 18x10x7 ins.
12 ins. in the ground for
Standard Cor. of secs. 32
and 33. marked S.C. on N
face with 4 grooves on E
and 2 grooves on W. faces.
and raised a mound of
stone 2½ ft. base, 1½ ft high
N. of cor. Pits impracticable
Land Mountainous & level.
Soil, gravelly & rocky, 3rd rate
Timber, some Cedars, & mesquite

through Range 22 East, continued
chaos

in Telegraph Wash,
undergrowth, nopal, and
mesquite

Mountainous Land, 57.40 chs

West. on S. Bdy. of sec. 32.

Descending.

- 5.15 Canyon 2000 ft. wide, course
northerly; ascend
- 8.40 Top of spur, bears N and S; descend
- 11.00 Canyon 1000 ft. wide, course
NEasterly; ascend
- 18.90 Top of high ridge, bears N & S;
descend
- 33.30 Enter Valley, bears northerly
- 35.60 Wash 3000 ft. wide, course northerly
- 35.90 Wash 7000 ft. wide, course northerly
- 37.00 Leave Valley and ascend abruptly
- 38.50 ascend more gradually.

chains.

Difference bet. measurements
of 40.00 chs. by two sets of
chainmen is 64 lks. position
of middle point

By 1st set. 39.68 chs

By 2nd set 40.32 chs. the
mean of which is

40.00 Set a Granite stone 18x10x6 ins
12 ins. in the ground for standard
1/4 sec. cor. marked S.C. 1/4 S. 32.
on N face, and raise a
mound of stone 2 1/2 ft. base
1 1/2 ft. high N of cor. Pits
impracticable.

46.40 Top of high spur, bears N+S;
descend

52.00 Enter small valley, bears northward

52.90 Wash 10 lks. wide, course North

53.70 Leave valley and ascend

chains

63.00

Top of high ridge, bears
N and S; descend

71.40

Canyon 60 lks. wide, course
Northerly; ascend

77.50

Top of ridge bears N and S;
descend.

Difference bet. measurements
of 80.00 chs. by two sets of
chainmen is 40 lks.

position of middle point

By 1st set. 79.80 chs.

By 2nd set 80.20 chs. The

mean of which is

80.00

Set a sandstone $18 \times 10 \times 7$ ins.

12 ins. in the ground for

standard cor. of secs. 31

and 32, marked, SC, on

N. face, with 5 grooves on E.

and 1 groove on W. faces

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chains

and raise a mound of
stone $2\frac{1}{2}$ ft base, $1\frac{1}{2}$ ft high
N of cor. Pits impracticable
Land mountainous and level
Soil, gravelly 3rd rate
No timber.

Mountainous land 76.30 chs.

West. on S. Body. of sec. 31.

Descending

- 4.65 Gulch 100ks. wide, course N Westerly
8.40 Enter Canyon, course N Easterly
9.50 Road to Jacksons mines, bears S. Westerly
10.30 Wash 400ks. wide, course N Easterly
11.00 Leave Canyon, and ascend
29.50 Top of high ridge bears N & S
39.00 Canyon 300ks. wide, course N;
ascend.

Difference bet. measurements

through Range 22 East, continued
chains

of 40.00 chs. by two sets of
chainmen. 42 lks. Position
of middle point

By 1st set. 39.79 chs.

By 2nd set 40.21 chs. the
mean of which is

40.00 Set a Granite stone 18x12x3
ins. 12 ins. in the ground
for standard $\frac{1}{4}$ sec. cor.
marked SC, $\frac{1}{4}$ S. 31, on N
face, and raised a mound
of stone 2 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft
high N. of cor. Pits
impracticable.

48.70 Top of ridge bears N and S;
descend

52.70 Gulch 6 lks. wide, course N W.

59.00 Enter Canyon, course N Eastly

63.60 Wash 20 lks. wide, course N Eastly

1st Standard Parallel South

chains

64.40 Leave Canyon course NE;
ascend

74.50 Top of high ridge bears
NE and SW; descend along
N. slope of spur,

Difference bet. measurements
of 80.00 chs. by two sets of
chainmen is 90 chs.

Position of middle point

By 1st set, 79.55 chs.

By 2nd set 80.45 chs. The
mean of which is

80.00 Set a sand stone 18 x 8 x 5 ins.
12 ins. in the ground for
Standard Cor. of Tps 5 S.

- Rs. 21 and 22, E. marked
S.C. on N.; with with 6 grooves
on N. E. and W. faces, and
raised a mound of stone

through Range 22 East, concluded.
chains

2½ ft base, 1½ ft. high, N of
cor. Pits impracticable.

Mt. Turnbull bears N 39° 20' W.
Land mountainous.

Soil, gravelly, 3rd rate

No timber

Mountainous land 80. chs.

March 29, 1900.

General Description

This line runs partly over level
broken and mountainous land
covered with scattering mesquite
undergrowth. There is no water
nor any timber of any value.

The E. half of T. 6S. R 22E. is
level and gently rolling land with
good soil. The W. half is mountainous.
no settlers.

Philip Conzger
U. S. Dep. Sur.

U. S. Surveyor-General's Office,

Tucson, Arizona, Oct. 27, 1900

The foregoing field notes of the survey of.....^{1st} Standard Trail.....

..... through R. 22 E.....

.....
of the G. & S. R. B. & M., Arizona, executed by

PHILIP GONTZEN, D. S.,

under his contract No. 53, dated June 17, 1899, having been critically examined, and the necessary corrections and explanations made, the said field notes and the surveys they describe are hereby approved.

George Christ

U. S. Surveyor General.