

1716

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BOOK 1716

4-671

FIELD NOTES
GENERAL LAND OFFICE.

Principal Meridian
Sec. 24. N. R. 1. E. & 1. W.

1716

BOOK 1716

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Field Notes
of the survey of the
Principal Meridian
through
T_{p.} 24 N., R_{e.} 1 E and 1 W,
of the
Gila and Salt river base & Meridian
in the
Territory of Arizona
as surveyed by
Francis W. Surveyor
U. S. Deputy Surveyor
Charles E. Perkins
Compassman and U. S. Deputy Surveyor
Under his Contract No. 31
Dated June 21, 1893.

Survey commenced April 17, 1894.

Survey completed April 18, 1894.

Principal Meridian through

chains. Survey commenced April 17th
1894, with a W. & L. E. Gurley
solar transit.

~~April 17th at 7h 15m a.m.
L.M.T., I set off ^{23'} 25° 25' on the
lat. arc, 10° 58' ^{43'} N on the
decl. arc, and determine a
true meridian with the
solar, at the end of T.P.
23 + 24 N, R. 1 E. and 5 1 W, which
is a post finally set and
properly marked and mit-
ered as described in the
field notes furnished by
the Survey General~~

At the cor. to T.P. 23 + 24 N,
which is a post firmly set and properly arranged
and witnessed as described in the field notes
R. 1 E. + 5 1 W, in latitude
35° 28' N, longitude 112° 21' W
at 7.45 P.M. local mean

Surveyed by W. H. ...
 ...
 ...

Sp. 24 N., Rs. 1 E. and 1 W.

chains. time. I take an observation on Polaris in accordance with instructions in the Manual, and find the magnetic bearing of the star to be N. $15^{\circ} 40'$ W. I drive a picket on the line thus found two chains North of the corner.

Correct local mean time by my watch set by the solar

to-day April 15, 1894. $7^{\text{h}} 45^{\text{m}}$

Tabular t. U.C. Polaris, Apr 17, $23^{\text{h}} 39.40^{\text{m}}$

Reduction 1 day 3.93 . Sub. 03.93

$23^{\text{h}} 35.47^{\text{m}}$

Which taken from observation leaves

Hour angle of Polaris $8^{\text{h}} 9^{\text{m}}$

Azimuth of Polaris for Lat $33^{\circ} 23' N$ $101^{\circ} 18' W$

North end of meridian $15^{\circ} 40' E$

The difference is the Variation $14^{\circ} 22' E$

Principal Meridian through

chains.

I lay off the azimuth
to west and measure the line
so determined by drawing a piece
5. chs North of cor.

April 17, 1894.

April 18th, 1894 at 6.40 a.m.

I take the magnetic bearing of
the line established last night
and find it to be $N. 14^{\circ} 40' N.$,
the var $14^{\circ} 24' E.$, and the
mean variation is $N. 14^{\circ} 22' E.$

The solar apparatus by
a.m. observation defines
the position of the true mer-
idian the same as that
established by the Polaris
observation; therefore I con-
clude that the adjustments
of the instrument are satis-

Sp. 24 N, R. 1 E. and 1 W. (cont'd)

- chains. factory
 From the car above mentioned
 9 run.
 North bet. sec. 31 and 36.
 Var. $14^{\circ} 22' E.$
 Over broken land, through
 dense cedar brush.
 Descend 200 feet.
- 13.60 Ravine, 10 ft. deep, course West.
 Ascend 100 feet.
- 22.00 Top of ridge, course East and West.
 Descend 150 feet.
- 27.00 Ravine, 8 feet deep, course West.
 Ascend 100 feet.
- 31.00 Top of ridge, course East and West.
 Descend 150 feet.
- 34.20 Ravine, 12 feet deep, course S. W.
 Ascend 100 feet.
- 40.00 Get a sandstone $12 \times 8 \times 8$ in.

Principal Meridian through

chains. 8 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raised a mound of stone $\frac{1}{2}$ feet high, 2 feet base, alongside; from which

a cedar 12 ins. in diam.

hrs. S. $11^{\circ} 03'$ E. 27 lks. dist., marked $\frac{1}{4}$ S. B.T.

a Pinon 8 ins. in diam. hrs. N. $68^{\circ} 32'$ W. 23 lks. dist., marked $\frac{1}{4}$ S. B.T.

41.00 Top of ascent.

Thence over rolling land.

80.00 a cedar 24 ins. in diam. which I marked

T. 24 N. S. 30 on N.E.,

R. 1 E. S. 31 on S.E.,

R. 1 W. S. 36 on S.W. and

Tr. 24 N, R. 1 E. and 1 W. (cont'd)

chains. S. 25 on N. W. faces, with 1 notch on S. and 5 notches on N. sides, from which a cedar 12 ins. diam. bears N. $2^{\circ}58' E$, 37 lks. dist. marked T. 24 N, R. 1 E. S. 30 B.T.

a cedar 11 ins. in diam. bears S. $79^{\circ}21' E$, 39 lks. dist., marked T. 24 N, R. 1 E, S. 31 B.T.

a cedar 10 ins. in diam. bears S. $14^{\circ}33' W$, 27 lks. dist. marked T. 24 N, R. 1 W. S. 36 B.T.

a cedar 10 ins. in diam. bears N. $52^{\circ}52' W$, 8 lks. dist., marked T. 24 N, R. 1 W, S. 25 B.T.

Land, broken and rolling.
Soil, stony, 2nd + 3rd rate
No timber.
Dense cedar and juniper brush, 80 cts.

Principal Meridian through

chains. North bet. sec. 25 and 30.

Var. $14^{\circ} 11' E$.

Over rolling land and through dense brush.

40.00 Set a Pinon post 3 ft. long, 4 ins. square, with marked stone, 12 ins. in the ground for $1/4$ sec. cor. marked $1/4$ S. on W. face, dug pits $18 \times 18 \times 12$ ins. N. and S. of post, $5\frac{1}{2}$ ft. dist, and raised a mound of earth $1\frac{1}{2}$ ft. high, $3\frac{1}{2}$ ft. base, around post, from which a Pinon 8 ins. in diam. brs. N $80^{\circ} 57'$ W, 18 lks. dist, marked $1/4$ S. T.B. II
a cedar 10 ins in diam. brs. S $83^{\circ} 56' E$, 18 lks. dist,

Tp. 24 N., R. 1 E. and 1 W. (cont'd)

chains, marked 1/4 S. B.T.

50.00 Set a sandstone $12 \times 10 \times 7$
ins. 8 ins. in the ground
for cor. to sec 19, 24, 25 and
30, with 2 notches on S. and
4 notches on N. edges, and
raised a mound of stone $1\frac{1}{2}$
ft high, 2 ft. base, alongside,
from which

a Pinon 6 ins. in diam.,
brs N. $43^{\circ} 08' E$, 28 lbs. dist.,
marked T. 24 N., R. 1 E. S. 19 B.T.

a Pinon 8 ins. in diam.,
brs S. $53^{\circ} 16' E$, 30 lbs. dist.,
marked T. 24 N.R. 1 E. S. 30 B.T.

a Pinon 6 ins. in diam., brs
S. $78^{\circ} 29' W$, 59 lbs. dist., marked
T. 24 N.R. 1 W. S. 25 B.T.

a Pinon 8 ins. in diam.

Principal Meridian through

chains. hrs. N. $51^{\circ} 35'$ W, 35 lks. dist.
 marked T. 24 N, R. 1 W. S. 24 B.T.
 Land, rolling.
 Soil, stony, 25 & 35 rate.
 No timber
 Dense cedar and pinon brush 80%

At this cor. I set off $11^{\circ} 02' N$.
 on the decl. arc, and at
 $11^{\circ} 59'$ a.m. l.m.t. observe
 the Sun on the meridian;
 the resulting lat. is
 $35^{\circ} 25'$.

Thence I run
 North bet. secs. 19 and 24.
 Var. $14^{\circ} 38' E$.
 Over rolling land, through
 dense cedar and pinon brush

Sp. 24 N. Rs. 1 E. and 1 W. (cont'd)

chains

33.00 Descend 100 feet.

40.00 Top of ridge, course N. W. & S. E.

Set a sandstone $24 \times 18 \times 12$
ins. 18 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked
 $\frac{1}{4}$ on W. face, and raised
a mound of stone $1\frac{1}{2}$ ft.
high, 2 ft. base, alongside;
from which

a Pinon 10 ins. in diam.

bes. S. $77^{\circ} 08' E.$ 17 lks. dist.,
marked $\frac{1}{4}$ S. B. T.

a Pinon 8 ins. in diam. bes.

N. $59^{\circ} 39' W.$ 16 lks. dist.,
marked $\frac{1}{4}$ S. B. T.

at this point the variation
decreases on account of
local attraction to $13^{\circ} 02' E$
Descend 100 feet

chains, Principal Meridian through

- 47.00 Foot of descent, thence over rolling land.
- 68.40 Ascent 150 feet.
- 77.00 Top of ascent, thence over rolling land
- 80.00 Set a limestone $14 \times 8 \times 8$ ins. 9 ins. in the ground far cor to see 13, 18, 19 and 24, marked with 3 notches on N. and S. edges, and raised a mound of stone $1\frac{1}{2}$ ft. high, 2 ft. base, alongside, from which
- a Pinon 8 ins. in diam. brs N. $68^{\circ} 31' E$. 53 lks. dist. marked T. 24 N. R. 1 E. S. 18 B. T.
- a cedar 12 ins. in diam. brs. S. $23^{\circ} 51' E$. 69 lks. dist., marked T. 24 N. R. 1 E. S. 19 B. T.

Sp. 24 N, Rs. 1 E. and 1 W. (cont'd)

chains. A Pinon 6 ins. in diam.
 brs. S. $73^{\circ} 54'$ W, 35 lks. dit.,
 marked T. 24 N, R. 1 W. S. 24 B. T.

A Pinon 8 ins. in diam. brs
 N. $3^{\circ} 22'$ W, 40 lks dit., marked
 T. 24 N, R. 1 W. S. 13 B. T.

Land, rolling.

Soil, stony, 2nd + 3rd rate

No timber.

Dense cedar and pinon brush, 80 lbs.

North bet. secs, 13 and 18.

Var. $14^{\circ} 38'$ E.

Over rolling land, through
 dense brush.

40.00 Set a pinon post 3 feet
 long, 4 ins. square, with
 marked stone, 12 ins. in the
 ground for 1/4 sec. cor. marked

Principal Meridian through

- chains. 1/4 S. on W. face, dug pits
 18 x 18 x 12 ins. N. and S. of post
 5 1/2 ft. dist. and raised a
 mound of earth 1 1/2 ft. high,
 3 1/2 ft. base around post;
 from which
 a cedar 18 ins. in diam. bearing
 S. 72° 47' W. 54 lks. dist. marked
 1/4 S. B.T.
 a cedar 23 ins. in diam.
 bearing S. 36° 18' E. 73 lks. dist.
 marked 1/4 S. B.T.
 43.00 ascend 150 feet.
 56.00 Top of ascent, thence over
 rolling land
 80.00 Set a sandstone 14 x 10 x 10
 ins. 9 ins. in the ground
 for cor. to sec 7, 12, 13 and
 18, marked with 4 notches

Tp. 24 N. R. 1 E. and 1 W. (cont'd)

chains on S. and 2 notches on N. edges, and raised a mound of stone, covered with earth 2 ft. high, $4\frac{1}{2}$ ft. base, alongside; from which a cedar 22 ins. diam. bro.

N $21^{\circ} 06' E$. 39 lks. dist.

marked T. 24 N. R. 1 E. S. 7 B.T.

a cedar 12 ins. diam. bro.

S $66^{\circ} E$. 36 lks. dist. marked

T. 24 N. R. 1 E. S. 8 B.T.

a cedar 12 ins. diam. bro.

S $80^{\circ} 11' W$. 70 lks. dist.

marked T. 24 N. R. 1 W. S. 13 B.T.

a cedar 6 ins. diam. bro.

N $39^{\circ} W$. 26 lks. dist.

marked T. 24 N. R. 1 W. S. 12 B.T.

Land, rolling.

Soil, stony, 2nd and 3rd rate.

Principal Meridian through

chains. No timber.

Dense cedar + pinon brush, 80 chs.

North bet. sees 7 and 17

Var. $12^{\circ} 30' E$.

At this point the variation
decreases on account of
local attraction.

over rolling land and
through dense brush.

40.00 Set a cedar post 4 ft. long,
5 ins. square, 24 ins. in the
ground for $\frac{1}{4}$ sec. cor. marked
 $\frac{1}{4} S$. on N. face, dug pits
 $18 \times 18 \times 12$ ins. N. and S. of
post $5\frac{1}{2}$ ft. dist. and
raised a mound of earth
 $1\frac{1}{2}$ ft. high, $3\frac{1}{2}$ ft. base,
around post, from which

Sp. 24 N. Rs. 1 E. and 1 W. (cont'd)

chains a cedar 40 ins. diam. hrs.

S. $55^{\circ} 56'$ W. 66 lks. dist.

marked. $1/4$ S. B.T.

a cedar 36 ins. diam. hrs.

S. $47^{\circ} 45'$ E. 57 lks. dist. marked

$1/4$ S. B.T.

At this point the variation increased on account of local attraction.

Thence over level land, through dense brush.

43.00 Leave cedar brush.

44.00 Beale road course W. and S.E.

46.00 Enter dense cedar brush.

ascend 100 feet.

53.00 Top of ascent, ridge course E. and W.

Descent 100 feet.

59.00 Ravine, 4 ft. deep, course S.E.

Thence over broken and rolling

Principal Meridian through

chains. land.

80.00 Set a sand stone $10 \times 10 \times 10$ ins.

6 ins in the ground for
 cor. to sees 1, 6, 7 and 12,
 marked with 5 notches on
 S. and 1 notch on N. edges,
 and raised a mound of
 stone $1\frac{1}{2}$ ft. high, 2 ft. base,
 alongside, from which
 a cedar 24 ins. diam. hrs
 N. $40^{\circ} 29' E$. 10 lbs dist.

marked T. 24 N. R. 1 E. S. 6 B. T.

a cedar 10 ins. diam. hrs.

S. $40^{\circ} 19' E$. 65 lbs dist.

marked T. 24 N. R. 1 E. S. 7 B. T.

a cedar 6 ins diam. hrs.

S. $2^{\circ} 29' W$. 10 lbs dist. marked

T. 24 N. R. 1 W. S. 12 B. T.

a cedar 12 ins. diam. hrs.

Tp. 24 N, R. 1 E, and 1 W. (contd)

chains. S. $71^{\circ} 13'$ W. 6 lbs. dist. marked

T. 24 N, R. 1 W. S. 12 D.T.

Land, rolling.

Soil, stony, 2nd & 3rd rate.

No timber.

Dense cedar & pinon bush, 80 lbs.

North bet. sec. 1 and 6.

Var. $14^{\circ} 22'$ E.

Over rolling land and
through dense cedar bush

40.00 bet a sand stone $24 \times 13 \times 11$
ins. 18 ins. in the ground
for $1/4$ sec. cor. marked
 $1/4$ on W. face, dug pits $18 \times$
 18×12 ins. N. and S. of post
 $5 1/2$ ft. dist. and raised a
mound of stone, covered with
earth, $1 1/2$ ft. high, $3 1/2$ ft.

Principal Meridian through

chains. base, alongside, from which
 a Pinon 6 ins. diam. hrs
 $N. 70^{\circ} 11' W.$, 12 lbs. dist, marked
 1/4 S. B.T.

a Pinon 10 ins diam. hrs
 $S. 80^{\circ} E.$ 15 lbs. dist. marked
 1/4 S. B.T.

80.00 Descent 100 feet

86.00 Foot of descent.

88.10 Intersect the Sixth Stand-
 ard Parallel North 2.63 chs
 N. of the temporary cor.
 set by me on the 17th day
 of April, 1894.

At this point I set a
 cedar post 6 ft. long, 6
 ins square, 24 ins in
 the ground for cor. to
 Tps. 24 and 25 N. R. 1 E. and

Sp. 24 N. R. 1 E. and 1 W. (cont'd)

chains. 1 W., marked

T. 25 N. S. 31 on N. E.,

R. 1 E. S. 6 on S. E.,

T. 24 N. S. 1 on S. W. and

R. 1 W. S. 36 on N. W. faces, with
6 notches on each edge, and
raised a mound of stone
3 ft. high, 4 ft. base, around
part, from which

a cedar 12 ins. diam. bro.

N. $37^{\circ} 32' E.$ 39 lks. dist, marked

T. 25 N. R. 1 E. S. 31 B.T.

a cedar 12 ins. diam. bro.

S. $44^{\circ} 26' E.$ 32 lks. dist,

marked T. 24 N. R. 1 E. S. 6 B.T.

a cedar 12 ins. diam. bro.

S. $41^{\circ} 52' W.$ 41 lks. dist, marked

T. 24 N. R. 1 W. S. 1 B.T.

a cedar 24 ins. diam. bro

Principal Meridian through

chains. N. $43^{\circ} 56'$ W. 48 lks. dist, marked
 at T. 25 N. R. 1 W. S. 36 B.T.

Land, rolling.

Soil, stony 2nd & 3rd rate

No timber.

Dense cedar & pinon brush, 80 lbs.

April 18, 1894.

General Description

This line runs over the rolling top of the watershed between Cataract canon and Dry Tank wash. It is covered with a dense growth of cedar and pinon brush.

The Township on the East is covered with a dense growth of cedar and Pinon brush, and contains

Tp. 24 N. R's 1 E. and 1 W. (cont'd)

little or no agricultural
land.

The Township on the
west is covered with a
dense growth of cedar
brush, which disappears
towards the west. The
largest portion of this town-
ship is open.

There is one settler near
the center, who has con-
structed a reservoir, cover-
ing about 4 acres, used
for stock purposes.

Charles E. Perkins
Compassman^{and}
U.S. Deputy Surveyor

U. S. Surveyor-General's Office,

TUCSON, A. T., July 13, 1895.

The foregoing Field Notes of the Surveys of
the Principal meridian
thro Sp: 24 N Rs 1 E & W.

..... Gila and Salt River Meridian
 in *Arizona* executed by

F. W. Oury

U. S. Deputy Surveyor, under his contract dated

June 21st 1893

having been critically examined, the necessary corrections and explanations made, the said Field Notes and the surveys they describe are hereby approved.

Lea H. Manning

U. S. Surveyor-General
 for the Territory of Arizona.