

BOOK 1676

1676

1676

BOOK 1676

4-671

FIELD NOTES
GENERAL LAND OFFICE.

the Standard Parallel North
thro Ranges 1. 2. 3 & 4 West.

1676

1676

Field Notes
of the Survey of the
Sixth Standard Parallel North
through
Ranges Nos 1, 2, 3 and 4 West
of the
G. & S. River Base and Meridian
in the
Territory of Arizona
as surveyed by
Francis W. Oury
U.S. Deputy Surveyor
Charles E. Perkins
Compassman & U.S. Deputy Surveyor
Under his contract No 31
Dated June 21st 1893.

Surveyed commences April 19, 1894
Surveyed completed April 25, 1894.

Sixth Standard Parallel N. Through R. 1 W

Chains. Survey commenced April 18th 1894, with a W. & L. E. Gurley solar transit.

April 18th

At the cor to township 74 & 75 N. R. 1 E. & 1 W. as hereinbefore described in latitude $35^{\circ} 28' N.$ longitude $117^{\circ} 41' W.$ at 8^h 15^m p.m. local mean time, I take an observation on Polaris in accordance with instructions in the Manual and find my magnetic bearing to be $N. 14^{\circ} 47' W.$

I drive a picket on the line thus found four chains north of the cor. correct.

Sixth Standard

Parallel N. Through R. 1 W. Contd.

Chairs Astronomical time U.C. Polaris. $8^h 05^m$

Tabular time U.C. of Polaris (Table) Apr 15, $23^h 39.4$

Reduction 2 days. $(3.93 \times 2 = 7.86)$ Sub. 79

L.M.T. U.C. Polaris. Apr. 17, $23^h 31.5$

Which taken from time of observation
leaves hour angle of Polaris $8^h 33.5^m$

Zenith of Polaris for Lat
 $35^{\circ} 25' N.$ (Table 2) $14^{\circ} 12' W$

North end of needle $15^{\circ} 47' E$

The difference is the Variation $14^{\circ} 35' E$

Lay off the Zenith to the east and
draw a perpendicular on the true meridian

Co-determined by the Prof. Cor.
The meridian is $14^{\circ} 33' E$

April 18, 1894

~~of observation bears~~

~~hour angles of Polaris 8.32~~

~~Zenith of Polaris~~

~~for Latitude $35^{\circ} 25' N.$ $12^{\circ} W$~~

~~North end of needle $14^{\circ} 45' E$~~

~~The difference is the true $14^{\circ} 33' E$~~

April 19th at 7 A.M. I

Parallel N. Through R. 1 W. - Contd.

Chains. take the magnetic bearing of the line established last night, and find it to be $14^{\circ} 47' m$ N. and the variation $14^{\circ} 35'$ east.

The mean var is $14^{\circ} 33' E$

The solar apparatus by P.M. and A.M. observations define the positions for true meridians, the same as the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

At the cor. to Sp. 24 x 25 N. R. 1 E x 1 W. as hereinbefore described

Sixth Standard
Parallelⁿ through R. 1. W. Contd.

at 6 $\frac{1}{2}$ 50 m A.M. l.m.t. I
set off 35° 28' 10" on the lat. arc.
11° 19' N. on the decl. arc,
and determine a true
meridian, with the solar.
Thence I run:

West on S. bay sec. 36
Var 14° 33' E.

Over rolling land, through
dense brush.

- 7.00 Leave dense brush, enter
scattering brush.
- 36.00 Leave scattering brush,
enter open flat.
- 40.00 Set a cedar post 4 ft
long 4 ins square, with
marked stone 2 1/4 ins in
the ground, for standard
1/4 sec. cor, marked A. ©

Parallel N. Through R. + W. Contd.

1/4 S. on north face, dug pits
 18x18x12 ins. E. & W. of post
 5 1/2 ft. dist. and raised a
 mound of earth 1 1/2 ft.
 high 3 1/2 ft. low around
 post.

47.- Lears open flat, enter dense
 cedar brush

80.00 Set a pinon post 4 ft long
 4 ins square 24 ins in
 the ground for standard
 cor to secs. 35 + 36 marked
 S.E. S. 25 N.R. 1 W. on N.
 S. 36 on E. and
 S. 35 on W. faces, with 1
 notch on E. and 5 notches
 on W. faces, dug pits
 18x18x12 ins. N.E. + W.
 of post 5 1/2 ft dist.

8

Sixth Standard

Paradise N. through R 1 W. Conts.

BOOK 1676

and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base around post, from which

A cedar 12 ins in diam
brs. N. $73^{\circ} 26'$ E. 39 lks. dist.
marked T. 75 N. R. 1 W. S.
36 B. T.

A pinon 6 ins. diam
brs. S. $62^{\circ} 11'$ W. 33 lks. dist.
marked T. 75 N. R. 1 W.
S. 6. Secs. 35 + 36 B. T.

A cedar 6 ins in diam
brs N. $63^{\circ} 32'$ W. 31 lks. dist.
marked T. 75 N. R. 1 W.
S. 35 B. T.

Land rolling

Soil sandy loam 2nd rate.

No timber

Sixth Standard

BOOK 1676

9

Parallel N. Through R 1 W. Cont.

Chains Dense cedar and pinon
brush 40 chs.

West on S. bdy Sec. 35

Var $14^{\circ}39' E$.

Over rolling land through
dense cedar brush

40.00 Set a sandstone $14 \times 12 \times 8$
ins. 9 ins. in the ground
for Standard $1/4$ sec. or
marked S. C. $1/4$ on N. face
and raised a mound of
stone $1 1/2$ ft. high 2 ft.
base alongside from
which

A cedar 12 ins in diam.
br. N. $45^{\circ} W$. 23 lks. dist.
marked S. C. $1/4$ S. B. T.

A cedar 8 ins. in diam.

Sixth Standard

Parallel N. through R. 1 W. Cont'd

Chains br. N. 10 W. 17 lks. dist. marked

S. E. 1/4 S. R. T.

Ascend 65 ft.

50.00 Top of ridge, course N. + S.

74.00 Descend 20 ft.

80.00 Foot of descent.

Set a sandstone 16+13+9
ins. 11 ins. in the ground
for standard cor to secs
34 + 35 marked S. E. on N.

with 2 notches on E. and
4 notches on W. faces, and
raised a mound of stone
1 1/2 ft. high 2 ft. base
alongside, from which

A pinon 10 ins diam
br. N. 31° 09' W. 17 lks. dist
marked T. 25 N. R. 1 W. S.
34 D. T.

Sixth Standard ^{BOOK 1676} 11.

Parallel N. through R. 1 W. Contd.

Chains

A cedar 20 ins in diam.
brs. N. $30^{\circ} 17' E$. 27 lks. dist
marked J. 25 N. R. 1 W. S.
35 B. J.

A cedar 20 ins in diam
brs. S. $60^{\circ} 09' W$. 23 lks.
dist marked J. 25 N. R. 1
W. S. C. J. 34 + 35 B. J.

Land rolling

Soil stony 3rd + 4th rate

No timber.

Dense cedar and pinon.
80 chs.

West on S. bdy of sec. 34

Var $14^{\circ} 40' E$.

Over rolling land.

through thick cedar brush

40.00 A pinon tree 8 ins in diam

Sixth Standard

Parallel N. through R. 1 W. Conts

Chains. which I mark S.C. 114 S. on N. face for standard $\frac{1}{4}$ sec. cov. from which

A cedar 12 ins. diam. brs. N. $10^{\circ} 9'$ W. 19 lks. dist. marked S.C. 114 S. B. J.

A cedar 16 ins. diam. brs. N. $16^{\circ} 13'$ E. 23 lks. dist. marked S.C. 114 S. B. J.

80⁰⁰ Set a post 4 ft. long 4 ins square 12 ins in the ground for standard cov to sees. 33 + 34 marked S.C. T 25 N. R. 1 W. on N. S. 34 on E and S. 33 on W. faces, with 3 notches on E. and W. faces dug pits 18x18x12 ins N.E. + W. of post. $5\frac{1}{2}$

Parallel N. through R. 1 W. Conto.

Chains ft. dist. and raised a mound of earth 2 ft. high $4\frac{1}{2}$ ft. base around post from which

A cedar 24 ins. in diam.
brs. N. $40^{\circ} 01'$ W. 147 lks.
dist. marked J. 25 N. R.
1 W. S. 33 B. J.

A cedar 16 ins. in diam.
brs. N. $57^{\circ} 03'$ E. 143 lks.
dist. marked J. 25 N. R.
1 W. S. 34 B. J.

A cedar 9 ins. in diam.
brs. S. $13^{\circ} 21'$ E. 43 lks. dist.
marked J. 25 N. R. 1 W.
S. 6. S. 33 + 34 B. J.

Land rolling.

Soil stony 2nd + 3rd rate.
No timber.

14

1678

Sixth Standard

BOOK
 Parallel N. through R. 1 W. Contd.

Chains. Dense cedar and pinon
 brush 80 chs.

West. on S. bdy sec. 33

Var $14^{\circ}40'$ E.

Over gently rolling land
 through dense cedar
 and pinon brush.

40.00 A cedar tree which I
 mark S. C. 114 S. on N. side
 for standard 1/4 sec. cor.
 from which

A cedar 24 ins. diam. br.
 N. $17^{\circ}13'$ E. 35 lks. dist. mark-
 ed. S. C. 114 S. D. T.

A cedar 8 ins. diam. br.
 N. $85^{\circ}07'$ W. 43 lks. dist.
 marked S. C. 114 S. D. T.

80.00 Set a sandstone $18 \times 14 \times 10$
 ins. 12 ins. in the ground.

Parallels N. through R. 1 W. Contd.

Chains for standard cov. to secs.
32 + 33. marked S. C. on N.
with 4 notches on E. and
2 notches on W. face and
raised a mound of stone
1 1/2 ft. high 2 ft. base
alongside from which

A cedar 10 ins. diam.
brs. N. 27° 13' W. 17 lks.
dist marked T. 75 N. R. 1 W.
S. 37 B. T.

A cedar 9 ins. diam.
brs. N. 63° 09' E. 27 lks. dist
marked T. 75 N. R. 1 W.
S. 33 B. T.

A cedar 8 ins. diam.
brs. S. 5° 01' W. 11 lks. dist
marked T. 75 N. R. 1 W.
S. C. S. 32 + 33 B. T.

16.

Sixth Standard

Parallels N. through Range 1 W. Contd.

Chains. Land rolling.

Soil stony 2nd + 3rd rate.

No. timber.

Dense cedar and pines

80 chs.

At this cor I set off $11^{\circ} 22' N$.
 in the decl. arc and at 11^{h}
 59^{m} a.m. l.m.t. observe the
 sun on the meridian, the
 resulting latitude is
 $35^{\circ} 28' N$ the true lat. nearly

Thence I run

West on S. bdy. sec. 32

Var $14^{\circ} 45' E$.

Over rolling land

440.00 Set a post 3 ft. long 3 ins.
square 17 ins in the ground

Smith Standard 17.

BOOK 1676

Parallel N. through R. 1 W. Contd.

Chains. for standard 114 sec. cor. marked S.C. 114 S. on N. face and raised a mound of stone $1\frac{1}{2}$ ft. high 2 ft. base around post from which

A cedar 14 ins. in diam
brs. S. 80° W. 23 lks. dist.
marked S.C. 114 S. B. J.

A cedar 10 ins diam
brs. N. 35° E. 33 lks. dist.
marked S.C. 114 S. B. J.

70.00 Ascend 100 ft.

75.00 Top of ascent.

80.00 Set a sandstone $14 \times 9 \times 8$
ins. giv. in the ground
for standard cor. to
secs. 31 and 32 marked
S.C. on N. with 5 notches
on E. and 1 notch on W.

Sixth Standard

Parallell N. through R. 1 W. Contd.

Chains. faces, and raised a mound of stone $1\frac{1}{2}$ ft high $2\frac{1}{2}$ ft. base alongside, from which

A cedar 14 ins. in diam. brs. N. $45^{\circ}11'$ W. 19 lks. dist. marked I. 25 N. R. 1 W. S. 31 B. I.

A cedar 10 ins in diam. brs. N. $85^{\circ}15'$ E 69 lks. dist. marked I. 25 N. R. 1 W. S. 32 B. I.

A cedar 24 ins. diam. brs. S. $30^{\circ}09'$ W. 47 lks. dist. marked I. 25 N. R. 1 W. S. 6. S. 31 + 32 B. I.

Land rolling.

Soil stony 2nd + 3rd rate.

No timber

Sixth Standard BOOK 1676 19.

Parallel N. through R. 1 W. Cont'd.

Chains. Dense cedar & pinon and
brush 80 chs.

West on S. bdy sec. 31

Var $14^{\circ} 48'$ E.

Over rolling land through
dense cedar and pinon
brush.

7.00 Leave dense brush
enter scattering cedar
and pinon.

140.00 Set a post 3 ft. long
3 ins. square 12 ins. in
the ground for standard
1/4 sec. cor. marked S.C. 1/4 S
on N. face dug pits 18 x
18 x 12 ins. E. & W. of post.
5 1/2 ft. dist. and raised a
mound of earth 1 1/2 ft. high

Sixth Standard

Parallel N. through R. 1 W. Coits.

Chains 3 1/2 ft. base around post from which

A cedar 16 ins diam. brs N. 35° 01' W. 23 lks. dist. marked S. C. 114 S. B. J.

A cedar 8 ins. diam. brs N. 63° E. 47 lks. dist. marked S. C. 114 S. B. J.

80.00 Set a sandstone 18x12x11 ins. 13 ins in the ground for standard cor. to Tps. 2 W N. R. 1 + 2 W. marked S. C. with 6 notches on N. E. and W. faces dug pits 7x4x18x12 ins. crosswise on each line N. E. + W. of stone 6 ft. dist. and raised a mound of stone covered with earth 7 1/2 ft. high 5 1/2 ft. base.

Sixth Standard ^{BOOK 1676} 21.

Parallel N. through R. 1 W. Cont'd.

Chains. Alongside, from which

A pinon 14 ins. in diam.
brs. N. 27° W. 11 lks. dist.
marked J. 25 N. R. 2 W. S.
36 B. J.

A cedar 20 ins. diam
brs. N. $65^{\circ} 03'$ E. 45 lks. dist.
marked J. 25 N. R. 1 W.
S. 31 B. J.

A cedar 36 ins. diam.
brs. S. 67° E. 61 lks. dist.
marked J. C. J. 25 N. R. 6 1 + 2
W. B. J.

Land nearly level.

Soil stony, 2nd + 3rd rate.

No timber.

Scattering cedar and
pinon brush

23. Sixth Standard

Parallels N. through R. 1 W. Conts.

General Description
 Chains. The township on the north is rolling, covered with a dense growth of cedar and pinon brush with good grass; it contains no water.

The township on the south is partially covered with cedar & pinon brush but contains some open parks which produce good grass. There is one settler in this township. It should be subdivided.

Charles C. Perkins Commissioner
 and U.S. Deputy Surveyor

Parallel North Through R. 2 T. 7.

Chains. April 21: At 6^h 5^m a. m. l. m. t.
 I set off $35^{\circ} 28' N$ on the lat.
 arc. $12^{\circ} 01'$ on the decl. arc
 and determine a true
 meridian with the solar
 at the standard corner
 to townships 75 N. R. 142
 W. as hereinbefore described.
 Thence I run

West on S. bdy sec 36
 Var $14^{\circ} 51' E$.

Over gently rolling land.

40.00

Set a sandstone $14 \times 9 \times 8$
 ins. pins in the ground
 for standard $1/4$ sec. cor.
 marked S. E. $1/4$ on N. face,
 and raised a mound of
 stone $1\frac{1}{2}$ ft. high 2 ft.
 base alongside, from

24.

Sixth Standard

Parallel N. through R. 2 W. Conts.

Chains which

A cedar 12 ins in diam.
brs. N. 11° W. 43 lks. dist
marked S. C. $1/4$ S. B. T.

A cedar 9 ins in diam.
brs. N. 35° E. 13 lks. dist
marked S. C. $1/4$ S. B. T.

80.00 Set a post 4 ft long
4 ins square, with marked
stones 12 ins in the
ground for standard cor
to secs. 35 + 36 marked S. C.
T. 45 N. R. 2 W. on N.
36 on E. and
S. 35 on W. faces, with
1 notch on E. and 5
notches on W. faces, dug
pits 18 + 18 + 12 ins. N. E.
and W. of post, $5\frac{1}{2}$ ft. dist.
and.

Sixth Standard

BOOK 1676 75

Parallel N. through R. 2 W. Contd.

Chains raised a mound of earth
2 ft high $4\frac{1}{2}$ ft base
around post.

Land nearly level,
Soil sandy loam 2nd rate
No timber, few scattering
cedars.

West on S. bay sec. 35
Va $14^{\circ} 51' E$

Over nearly level land
40.00 Set a post 3 ft Long 3 ins
square, 12 ins in the
ground for standard
 $\frac{1}{4}$ sec. cor. marked S. C.
 $\frac{1}{4}$ S. on N. face, dug pits
 $18 \times 18 \times 12$ ins. E. and W.
of post. $5\frac{1}{2}$ ft. dist and
raised a mound of

Sixth Standard
Parallel N. through R. 2 W. Contd.

Chain earth $1\frac{1}{2}$ ft. high $3\frac{1}{2}$ ft.
base around post, from
which,

A cedar 12 ins in diam
brs. N. 55° E. 65 lks dist
marked S. C. 114 S. B. J.

A cedar 14 ins in diam
brs. N. 42° W 47 lks dist
marked S. C. 114 S. B. J.

80.00 Set a post 4 ft Long 4
ins square, 12 ins in
the ground for Standard
cor to secs. 34 & 35 marked
S. C. J. 95 N. B. 2 W. on N.
S. 35 on E. and
S. 34 on W. faces, and
raised a mound of
stone $1\frac{1}{2}$ ft. high 7 ft.
base around post,

Parallel N. through R. 2 W. Contd.

Chain from which

A, cedar 12 ins in diam
 brs. S. $62^{\circ} 30' 40''$ W. 97 lks. dist.
 marked T. 25 N. R. 2 W. S. C.
 S. 34 & 35 B. T.

No other trees within
 limits.

Land nearly level

Soil, Stony 3rd + 3rd rate

No timber.

West on S. Dry Sec. 34

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

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

Over rolling land.

10.00 Enter dense cedar brush.

40.00 Set a post 3 ft long.

Sixth Standard

Parallel N. through R. 2 W. Cont'd

Chains. 3 ins. square 12 ins in the ground for standard $1/4$ sec. cor. marked S.C. $1/4$ S. & N. face, dug pits $18 \times 18 \times 12$ ins E. & W. 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 cedar 8 ins. in diam.
brs. N. 80° E. 45 lks. dist.
marked S.C. $1/4$ S. & T.

a cedar 20 ins in diam.
brs. N. 70° W. 67 lks. dist.
marked S.C. $1/4$ S. & T.

50.00 Leave dense cedar brush enter scattering brush.

79.00 Road, course N. & S.

80.00 Set a limestone $20 \times 14 \times 10$

Sixth Standard

Parallel N. through R. 2 W. Contd.

Chains. ins 15 ins in the ground for Standard cor to Secs. 33 and 34 marked

S. E. on N. With 3 notches on E. and W. faces, and raised a mound of stone 1/2 ft high 2 ft base alongside.

~~Pits - impracticable~~
Land gently rolling

Soil, sandy 2nd + 3rd rate.
No timber.

Dense cedar brush. 40 chs.

West on S. bdy sec 33.

Var 14° 28' E.

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

Over rolling land.

40.00 Set a post 3 ft. long

Parallels N. through P.D.W. Contd

Chairs. 3 ins square with
marked stone 12 ins in
the ground for standard
 $1/4$ sec. cor. marked S.E.
 $1/4$ S. or N. faced, dug pits
 $18 \times 18 \times 12$ ins. E. and W 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

80.00 Set a sandstone $18 \times 17 \times 9$
ins. 13 ins in the ground
for standard cor to Secs
 32×33 marked S.E. on N.
with 4 notches on E. and 2
notches on W. faces, dug
pits $18 \times 18 \times 12$ ins. N.E. &
W. of stone $5\frac{1}{2}$ ft. dist.
and raised a mound of

Paradise N. through R. 2 W. Contd.

Chains. earth and gravel 2 ft. high
 4½ ft base alongside,
 from which

A cedar 12 ins in
 diam brs. N. 31° 09' E.
 51 lks. dist. marked J.
 25 N. R. 2 W. S. 33 B. J.

A cedar 8 ins in diam
 brs. N. 70° 03' W. 63 lks.
 dist. marked J. 25 N. R.
 2 W. S. 32 B. J.

A cedar 20 ins in diam
 brs. S. 80° 21' W. 89 lks.
 dist. marked J. 25 N. R.
 2 W. S. 6. S. 32 + 33 B. J.

Land, nearly level,
 Soil sandy 2nd rate.
 No timber

A few scattering cedars.

Sixth Standard

Parallels N. through R. Q. W. Conto

Chains. At this cor. I set off 12°
 $44'$ on the decl. arc, and
at $11^{\text{h}} 58^{\text{m}}$ p. m. l. m. t.
observe the sun on the
meridian; the resulting
latitude is $35^{\circ} 28' \text{N}$. the
true latitude nearly

West on S. bay sec. 32
Var $15^{\circ} 08' \text{E}$.

at the point the variation
increased on account of
local attraction.

Over rolling land.

30.00 Ascend 75 ft.

40.00 Top of ascent.

Set a limestone $74 \times 12 \times 8$
ins. 18 ins in the ground
for standard $1/4$ sec. cor

Sixth Standard BOOK 33
1676

Parallel N. through R. 2 W. Contd.

Chains marked S. C. 114 on N. face,
and raised a mound of
stone $1\frac{1}{2}$ ft. high 2 ft.
base alongside from
which.

A cedar 10 ins diam
brs. N. 63° E. 77 lks. dist.
marked S. C. 114 S. B. J.

A cedar 20 ins in diam
brs. N. $17^{\circ} 30'$ W. 113 lks.
dist. marked S. C. 114 S. B. J.

43.00 Enter dense cedar & pinon
brush

80.00 Set a limestone $16 \times 10 \times 8$
ins. 11 ins in the ground
for standard cor to
secs. 31 and 32 marked
S. C. on N. with 5 notches
on E. and 1 notch on W. faces

Parallels N. through R. N. W. Contd.

Chains and raised a mound of
stone $1\frac{1}{2}$ ft. high 2 ft.
base alongside from which

A cedar 9 ins in diam
brs. N. 47 E. 21 lks dist.
marked T. 25 N. R. 2 W.
S. 32 B. T.

A. pinon 11 ins in
diam brs. N. 73° 11' W.
33 lks. dist. marked T. 25
N. R. 2 W. S. 31 B. T.

A cedar 13 ins in diam.
brs. S. 48° 13' E. 49 lks.
dist. marked T. 25 N. R. 2
W. S. E. S. 31 + 32 B. T.

Land rolling

Soil strong 2nd + 3rd rate.

No timber.

Deuss cedar and pinon

Parallel N. through B. 2W. Cont'd.

Chains brush 37 chs.

West on S. bay sec 31
Var $15^{\circ} 10' E$.

Over broken mountainous
land.

Ascend 100 ft.

22.00 Top of ascent.

40.00 Set a malpais stone
16x14x10 ins. 11 ins. in
the ground for standard
 $1/4$ sec. cor. marked S. C.
 $1/4$ on N. face, and
raised a mound of
stone $1\frac{1}{2}$ ft. ft high
2 ft. base alongside
from which

A cedar 12 ins in
diam br. N. $17^{\circ} 01' E$

36.

BOOK 1676

Sixth Standard

BOOK 1676

Parallel N. through R.D. W. Contd.

Chains 43 lks dist. marked S.C.
1/4 S.B.T.

A cedar 16 ins. in
diam br. N. 37° 09' W.
67 lks dist. marked
S.C. 1/4 S.B.T.

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

49.00 Descend 250 ft.

60.00 Foot of descent.

80.00 Set a post 4 1/2 ft.

long 4 ins square 1 1/2
ins in the ground
for standard cor to
tps 75 N. R. 2 + 3 W.
marked
S.C. T. 75 N. on N.

Parallels N. through R. & W. Contd.

Chains. R. 2 N. S. 31 on E. and
 R. 3 N. S. 36 on W. faces,
 with 6 notches on N. E.
 and W. faces, dug pits
 $24 \times 18 \times 12$ ins. cross-
 wise on each line
 N. E. and W. of post 6
 ft. dist. and raised a
 mound of earth $7\frac{1}{2}$
 ft. high $5\frac{1}{2}$ ft. base
 around post, from
 which

A cedar $7\frac{1}{2}$ ins diam.
 br. N. $22^\circ 03'$ W. 83 lks
 dist. marked J. & N.
 R. 3 W. S. 36 B. J.

A cedar $7\frac{1}{2}$ ins diam.
 br. N. $71^\circ 11'$ E. 87 lks
 dist. marked J. & N.

Parallel N. through R. 2 W Contd

Chains. R. 2 W. S. 31 B. J.

A cedar 13 ins. diam.
br. N. $17^{\circ} 21' E$. 19 lks dist
marked J. 75 N. R. 2 W.
S. 31 B. J.

Land mountainous
Soil Stony 3rd + 4th rate.
No timber.

Mountainous or land
covered with dense
cedar & pinon brush
80 chs.

April 23 1894

General Description

The townships on both
sides are rolling in
character some broken
by rocky mesas; both

Parallel N. through R. 2 W. Contd.

Rains are covered with bunches of dense cedar brush interspersed with large open parks.

"Sullivan Springs"
 McDonald Springs and
 Channing Spring and
 several smaller seeps
 of water are situated
 in the township on the
 south and are all claim-
 ed and improved by
 stockmen.

This township should
 be sub-divided.

Excellent grass grows
 on both sides at this

line

Charles E. Perkins
 US Deputy Surveyor, Compassman and

Sixth Standard

Parallel N. through R. 2nd W. Cont'd

Chains At the standard corner to townships 25 N. R. 2 + 3 W. as heretofore described, in lat. $35^{\circ}28'$ ~~N~~ long $112^{\circ}34'$ W. April 23:..

At 8^h 40^m. p. m. l. m. t.

I take an observation on Polaris in accordance with instructions in the Manual and find the magnetic bearing of the star to be N. $16^{\circ}11'$ W.

I drive a picket on the line thus found 6 chains north of the corner.

Correct l. m. t. by my

Sixth Standard

Parallels N through B. 3 W. Contd.

Chain watch which I compared...
with the solar to-day
8^h 40^m. Local mean
time U. C.

Polaris 1894 Apr 15
as deduced from the
Manna, corrected, for
latitude $35^{\circ} 28' N.$ and

long $112^{\circ} 34' W.$ $23^h 39^m$

Reduction 7 days

$$(3.93^m \times 7) = \underline{27.5}$$

L. m. + U. C. Polaris Apr 12nd $23^h 12^m$

Which taken from time of
observation leaves hour

angle of Polaris 9.28

Azimuth of Polaris

for lat. $35^{\circ} 30'$

$\underline{56}$

N. end of needle 16.118

The difference is the

42.

Sixth Standard

Parallel n. through R. 2^o W. Contd.Chains Variation $15^{\circ} 15'$

Apr. 24. At 7^h 10^m a.m.
 I take the magnetic bearing
 of the line established
 last night and find
 it to be N. $16^{\circ} 11'$ W.
 and the va. $15^{\circ} 18'$ E.
 The mean variation
 is $15^{\circ} 15'$ E.

The solar apparatus
 by p.m. and a.m.
 observations defines
 the positions for
 meridians the same
 as that established
 by the Polaris ob-
 servations; therefore
 I conclude the
 adjustments of the

Parallels N. through P. 24. Contd.

Chains instruments are
satisfactory.

Sixth Standard

Parallel N. through C. 3⁴W.

Chains. Thence I run

West on S. bdy sec. 36

Var. $15^{\circ} 10'$ E.

Over nearly level land

1.75 Leave dense brush,
enter large open valley40.00 Set a post 3 ft. long 3
ins square 12 in. in
the ground for Standard
 $\frac{1}{4}$ sec. cor. marked S. E. $\frac{1}{4}$

S. on N. face, dug pits

18x18+12 ins. E. & W. of

post $5\frac{1}{2}$ ft. dist. and

raised a mound of

earth $1\frac{1}{2}$ ft. high $3\frac{1}{2}$ ftbase around post, from
whichA cedar grows in diam
brs. S. $63^{\circ} 09'$ W. 913 lks.

Parallel N. through R. 3rd W. Contd

Chains dist.

No other trees within limits

51.00 Road course N. & S.

80.00 Set a limestone 20x14x10
ins. 15 ins in the ground
for standard cor to secs.
35 and 36 marked S.C. on N.
with 1 notch on E. and 5
notches on W. faces, dug
pits 18x18x14 ins. N. E. and
W. of stone $\sqrt{1/2}$ ft dist
and raised a mound
of earth 2 ft. high $4\frac{1}{2}$ ft
base alongside.

Land gently rolling

Soil, gravelly 2nd & 3rd rate.

No timber

West on S. by Sec. 35

Parallels N. through R. 3rd W. Conts

Chains. Var $15^{\circ} 10' E$.

Over gently rolling land.

40.00 Set a post 3 ft long 3
ins square with marked
stone 12 ins. in the
ground for Standard
 $1/4$ sec. cor marked S. C.
 $1/4$ S. on N. face, dug
pits 18+18+12 ins. E.
and W. 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.

(Note) From this cor.
Chunings ranch house
brs. S. $55^{\circ} E$ about $1\frac{1}{2}$
mils.

Ascend gradually 50 ft.

55.00 Ascend abruptly, rock

Parallel N. through P. 3rd W. Conto.

Chain bluff 200 ft. high

60⁰⁰ Top of bluff.

at this point the variation
decreases on account of
local attraction

Thence over rolling
meads.

80.00 Set a malpas stone 24 x
16 x 12 ins. 18 ins in the
ground for Standard
Cor. to secs 34 and 35
marked S. C. on N. with
2 notches on E. and 4
notches on W. faces and
raised a mound of stone
1 1/2 ft high 2 ft. base
alongside from which
A cedar 10 in diam.
brs. N. 45° 09' E. 111 lts.

48.

Smith Standard

Parallel N. through R. 3 W. Contd

Chains dist. marked T. 25 N. R. 3 W.
S. 35 B. T.

A cedar 20 in diam
brs. N. 53' 13" W. 121 lbs
dist. marked T. 25 N. R.
3 W. S. 34 B. T.

No other tree within
limits.

Land mountainous and
rolling.

Soil, rocky 4th rate.

Timber scattering

Cedar, mountainous
land 5 chs.

West on S. bay. sec 34
Var 15° 15' E.

Over rolling land

40.00 Set a malpais stone

Parallel N. through R. & W. Contd.

Chains. 16+11x9 ins. 9 ins in the ground for standard 1/4 sec. cor. marked S. C. 1/4 on N. face and raised a mound of stone 1 1/2 ft. high 2 ft. base alongside.

Pits impracticable.

80.00 Set a malpais stone 70x 14+11 ins. 15 ins. in the ground for standard cor. to secs. 33 and 34 marked S. C. on N. with 3 notches on E. and W faces and raised a mound of stone 1 1/2 ft. high 2 ft. base alongside.

Pits impracticable.

50.

Sixth Standard

BOOK 1876

Parallels N. through R. 340. Contd.

Chains. Land rolling,
 Soil rocky 4th rate.
 Timber few scattering
 cedars.

At this cor. I set off
 $13^{\circ} 04'$ N. on the decl.
 arc and at $11^h 58^m$
 a. m. l. m. t. observe
 the sun on the meridian
 the resulting lat. is
 $35^{\circ} 28'$ N. the true lat
 nearly.

West on S. bdy sec. 33
 Var $15^{\circ} 16'$ E.

Over rolling land.

40.00 Set a malpais Stone
 $24 \times 16 \times 14$ ins. 18 ins. in

Sixth Standard

Parallels N. through P. 3⁴ W. Contd.

Chain. the ground for standard
 $1/4$ sec. cor. marked D. C
 $1/4$ on N. face, and raised
 a mound of stone $1\frac{1}{2}$ ft.
 high 2 ft. base along side.
 Pits impracticable.

80.00 Set a malpais stone
 $13 \times 9 + 8$ ins 8 ins. in the
 ground for standard cor
 to secs. 32 and 33 marked
 D. C. on N. with 4 notches
 on E. and 2 notches on W.
 faces, and raised a
 mound of stone $1\frac{1}{2}$ ft.
 high 2 ft. base along
 side.

Pits impracticable.
 Land gently rolling.
 Soil rocky 4th rate.

Sixth Standard

Parallels N. through R. 3 W. Contd.

Chains. No timber

West on S. bdy sec. 32
Var $16^{\circ} 01' E$.

At this point the varia-
tion increased on ac-
count of local attrac-
tion.

Over rolling land.

4000 Set a malpais stone
18x17x15 ins. 14 ins.
in the ground for
Standard 14 sec. cor.
Marked S. E. 14 on N. face
and raised a mound
of stone $1\frac{1}{2}$ ft. high
2 ft. base alongside.
Pits impracticable.
At this point the va-

Sixth Standard

Parallel N. through R. 3 W. Contd.

Chains relation increased in account of local attraction.

80.00 A malpais rock in place $1\frac{1}{2} \times 2 + 3$ ft. above ground, which I marked with a cross (+) at exact cor. point for Standard Cor. to secs 31 and 32 marked S. C on N. face, with 5 notches on E. and 1 notch on W. of cross, and raised a mound of stone $1\frac{1}{2}$ ft. high 2 ft. base alongside from which

A cedar 12 ins. in diam bro. N. $73^{\circ} 21' E$. 179 lks. dist. marked

54

Sixth Standard

Parallel N. through R. 3 W. Cont'd

Chains. T. 7 v N. R. 3 W. S. 37 B. T.

No other trees within
limits.Land, gently rolling
Soil, rocky 4th rate.
No timber.West to S. bay S. 31
Var $14^{\circ} 00' E$.At this point the va-
riation decreased
on account of local
attraction.Over rolling land,
4050 Set a malpais Stone
18+14x12 ins. 12 ins.
in the ground for
Standard 1/4 sec. Cor.
Marked S. C. 1/4 on

Sixth Standard

Parallels N. through B. 3 W. Contd.

Chris N. face and raised a mound of stone $1\frac{1}{2}$ ft. high 2 ft. base alongside. Pits impracticable.

80.56 Set a malpais stone $24 \times 16 \times 14$ ins. 18 ins. in the ground for standard cor. to Tpo. 95 N. R's 3 & 4 W. marked S.C. on N. face, with six notches on N.E. & W. faces and raised a mound of stone 2 ft. high 3 ft. base alongside from which

A cedar 10 ins diam. br. S. $85^\circ 15' E$. 245 lks dist. marked S.C. T. 75 N. R's 3 & 4 W. B.S.

56.

BOOK 1676

Sixth Standard

Paracels N. through R. 3 W. Contd.

Chains A. cedar 24 ins. in
diam. brs. S. $67^{\circ}31'$ E.
305 lbs. dist. market
D. C. T. 75 N. P's. 3 + 4
W. B. T.

Land rolling.

Soil rocky 4th rate.

No timber.

April 24th 1894.

General Description

The township on the South
of this line is broken
and rough with but
little grass, and no
water; it is covered with
malpais rocks.

The township on the
north is also broken

Parallel N. through R. 3 W. Contd.

Chains are contains some water
which will be fully
described in the
Survey of the subdivision
lines under the con-
tract. Charles E. Perkins
Comptroller and
U.S. Deputy Surveyor

58.

BOOK 1676

Sixth Standard

Parallel N. through B. 4. W.

Chains. April 25th at 7^h a. m.
 l. m. t. I set off $35^{\circ} 28' N.$
 on the lat. arc; $13^{\circ} 20'$
 on the dec. arc, and
 determine a true
 meridian, with the
 solar. At the standard
 cor. to Tps. 25 N. R. 3
 3 + 4 W. as herein before
 described.

Thence I run
 West in S. Bay Sec. 36
 Var $15^{\circ} 27' E.$

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

Ascend gradually
 on rising mesa

29.70 Wash 57 ft. deep course N. E.

Parallel N. through R. 44. Contd.

- Chains
40.00 Set a malpais stone
20 x 18 x 16 ins. 15 ins. in
the ground for stand-
ard 114 sec. cor. marked
S. E. 114 on N. face, and
raised a mound of
stone 1 1/2 ft. high 2 ft.
base alongside.
Pits impracticable
- 45.50 Enter dense cedar undergrowth
- 50.00 Top ascent, ridge
course N. & S.
- 54.00 Descend 300 ft.
- 57.00 Leave dense cedar undergrowth
- 70.00 Foot of descent
Road from Ash Fork
to Grand Cañon Course N. & E.
- 72.00 Wash 27 ft. deep. Course N. & W.
- 80.00 Set a malpais stone
24 x 18 x 18 ins. 18 ins. in

60.

Sixth Standard

BOOK 1676

Parallel N. through B. 34 W. Contd.

Chairs. the ground for standard cor. to secs. 35 + 36 marked S. C. on N. with 1 notch on E. and 5 notches on W. face, and raised a mound of stone $1\frac{1}{2}$ ft. high 9 ft. base alongside. Pits impracticable. Land rolling

Soil rocky 4th rate.
 No timber. Some cedar underneath 125. Ch
 Bishop ranch house
 bet. N. 77° E. about
 $\frac{3}{4}$ of a mile.

 West on S. bay Sec. 35

Book 1676 61.
Direct Standard

Parallel N. through B 4. W. Corner

Chains. Van $15^{\circ} 24'$ E.

Over rolling land

Ascend 60 ft.

35.00 Top of ridge, to north

40.00 Set a malpais stone

16x4x9 ins. 11 ins in

the ground for

Standard 11.4 sec. Cor

marked S.C. 14 on N. face

and raised a mound

of stone $1\frac{1}{2}$ ft. high

2 ft. base along-

side. Pits impracticable

75.50 Wash 477 deep, Course N. $40^{\circ} 6'$

80.00 Set a malpais stone

18x15x11 ins 14 ins in

the ground for

Standard Cor to sec

34 and 35 marked

Sixth Standard
Parallel N. through P. H. W. Contd

Chains: S.C. on N. with 2
notches on E. and 4
notches on W. faces,
and raised a mound
of stone $\frac{1}{2}$ ft. high
2 ft. base alongside
Pits impracticable
Sand rolling
Soil rocky $\frac{1}{4}$ rate.
No timber.

West on S. bay S. 34
Var 15° or 4° E.

Over nearly level land.

24.00 Road N. E. & S. W.

40.00 Set a malpais stone
14 + 9 + 8 ins. 9 ins in
the ground for
Standard $\frac{1}{4}$ sec. cor.

Parallel N. through R 4 W Contd.

Chains, marked S. C. 114 on N.

face, and raised a mound of stone $1\frac{1}{2}$ ft high 2 ft base alongside from which

A cedar 24 ins diam
br. N. 73° W. 65 lks. dist.
marked S. C. 114 S. D. J.

80.00

^{No other trees within limits}
Set a Malpais Stone

$20 \times 18, + 12$ ins. 15 in.

in the ground for standard cor to sec

33 and 34 marked

S. C. on N. with 3

notches on E. and W

faces and raised a

mound of stone

$1\frac{1}{2}$ ft. high 2 ft. base
alongside.

64.

BOOK 1676

South standard

Parallel N. through D. 4th W. Conto.

Chains

Pits impracticable.

Land rolling

Soil rocky 4th rate

No timber.

BOOK 1676

West on S. bay sec. 33.

Var 15° 18' E.

Over rolling land

40.00

Set a malpais stone
20 x 16 x 11 ins. 15 ins. in
the ground for stand-
ard 1/4 sec. cor.

Marked S. C. 1/4 on N.
face, and raised a
mound of stone 1 1/2
ft. high 2 ft. base
alongside.

Pits impracticable
Descent gradually