

BOOK 1717

1717

Approved by F.L.O 6/20 1900

Gila and Salt River Meridian

From Standard Cor. Tps. 25 N., Rs. 1 E
and 1 W to Cor. to Tps. 31 and 32 N.,
Rs. 1 E and 1 W.

4-671

W. O. Secor, D. S.

BOOK 1717

FIELD NOTES

GENERAL LAND OFFICE.

1717

1717

- Field Notes -
 of the survey of the
 Gila and Salt River Meridian
 Through.

Tps 25, 26, 27, 28, 29, 30 and 31 North
 Between Ranges 1 E and 1 W

of the
 Gila and Salt River Basins Meridian
 - in the -

Territory of Arizona
 as surveyed by
 W. O. Secor.

Under his contract No 5-8

Dated Oct 10th 1899.

Survey commenced Nov 18-1899
 Survey completed Dec 10-1899

Names and duties of Assistants

C. G. Kolster	-	-	Chairman
R. L. Merritt	-	-	Chairman
H. A. Cargile	-	-	Chairman
M. J. Bird	-	-	Chairman
T. A. Gauder	-	-	Arman
A. F. Hamilton	-	-	Arman
Ellis Work			Flagman
A. E. Johnson			Flagman

Lila and Salt River Meridian

Chain Survey Commenced Nov 18th 1899
 and was executed with a Buff and Berger
 with solar attachment - Gatzmüller,
 Eugene transit, No 678, the horizontal
 limb being provided with two opposite
 knives reading to 30" of arc.

I begin at the Standard Cor of Tps.
 25ⁿ R. 1 E. and 1 W. which is a cedar
 post 6x6 in 5 feet above a md. of stone
 in which it sets, witnessed as described
 by the Surveyor Gen. Lat $35^{\circ} 28' 30''$ N
 Long $112^{\circ} 17' 25''$ W

At this cor, at 15th 45^m A.M. I obs.
 Polaris at western elongation in
 accordance with instructions in the
 manual, and mark the point in the
 line thus determined by a stake driven
 in a wooden plug set in the
 ground. 5.00 dis north of my
 station.

Gila and Salt River Meridian

Nov 18th at 8^{hr} A.M. I lay off the azimuth of Polaris $1^{\circ} 30'$ to the east and mark the true Meridian, this determined by a tack driven in a stake, east of the point established last night

The magnetic bearing of the true Meridian is $N. 14^{\circ} 25' W$ which reduced by the table on page 100 of the Manual gives the mean mag. decl. $14^{\circ} 44'$ East

From the standard Cor. I run North bet sec's 31 and 36

Over rolling ground through dense Cedar and Piñon trees

16.00 Leave dense Cedars and Piñons bears E and W. and enter brush Cedars

32.00 To Trail bearing $N. 80^{\circ} W. S 80^{\circ} E$

Difference between measurements of 40.00 dis. by two sets of Chainmen

Gila and Salt River Meridian

is 8 lbs.; Position of middle
Point. By 1st set is 40.02 chs
By 2nd set 39.96 chs.; the mean
of which is

40.00

Set a Cedar Stake 3 feet long ^{and}
4 ins sq in md of stave marked
1/4 S 36 on W. face, 31 on E face:
from which a Cedar tree 14 ins diam
bears N. 80° W, 45 lbs dist marked
1/4 S 36 B.T. A Cedar 12 ins diam
bears N. 80° E, 190 links dist
marked 1/4 S 31 B.T.

6.5.00 Enter dense Cedars ^{and} Pines E & W

79.90 Leave " " " " "

Diff. between measurements of 80.00 chs
by two sets of chains is 14 lbs

Position of middle Point

By 1st set, 79.93 chs.

By 2nd set 80.07 chs.; the mean of
which is

Lila and Salt River Meridian

80.00 Set a Cedar Post 4 ft long 4 ins
sq. 24 ins in the ground for cor
to sec 25, 30, 31, 36 Marked T 25 N.
S 30 on NE, R 1 E, S. 31 on SE
S 25 on NW and
R 1 W, S. 36 on S.W. face with 5 notches
on N. and 1 notch on S edges, clay pits
18 x 18 x 12 ins in each section, 5 1/2 feet
dia and raised at end of earth 4 ft base
2 ft high N. of cor
Land rolling
Soil rocky. 4th rate
Timber Cedars and Pines
30.90 ✓
Timberland land 79.90 Ch

110.90

Gila and Salt River Meridian

North between secs 25^{and} 30
Over rolling ground

18.00 Enter dense Cedars ^{and} Piñons NE ^{and} SW
Diff. bet. measurements of 40.00 chs by
two sets of chainmen, is 12 lbs
Position of middle point
By 1st set 39.94 chs
By 2nd set 40.06 chs the mean of which is

40.00 Set a lime stone 13 x 8.8 ins 9 ins in the
ground. for $\frac{1}{4}$ Sec C₁ bet Secs 25^{and} 30
Marked $\frac{1}{4}$ 25 on N^W face ^{and} 30 on E^W
Raised a Mt of stone 2 ft base $\frac{1}{2}$ ft
high to Mt of Cor

50.00 Leave Cedars ^{and} Piñons E ^{and} W
Diff. bet. measurements of 80.00 chs
by two sets of chainmen is 10 lbs
Position of middle point,
By 1st set 80.05 chs
By 2nd set 79.95 chs the mean of
which is

Gela ^{and} Salt River Meridian

80.00 Set a lime stone $18 \times 16 \times 14$, 12 in
 in the ground, for cor to sec.
 19, 24, 25 ^{and} 30. Marked with 4
 notches on the north edge and 2 notches
 on S. edges and raised a Md. of stone
 2 ft base $\frac{1}{2}$ ft high west of corner
 Land rolling. Soil 3rd Rate
 Timber 32 chs.

Nov. 18 - 1899

North bet sec 19 + 24
 39.50 Road bearing $N 80^{\circ} W$ ^{and} $S 80^{\circ} E$
 Diff. bet measurements of 40 chs by two
 sets of Chainmen is 4 lbs
 Position of middle point
 By 1st set 40.02 chs
 By 2nd set 39.98 chs. the mean of
 which is

Gila and Salt River Meridian

North between Secs 19^{and} 24

- 40.00 Set a lime stone $12 \times 12 \times 10$, 8 ins
in the ground for $\frac{1}{4}$ sec cor
marked $\frac{1}{4}$ 24 on West face and 19 on
the east face, raised a md. of
stone 2 ft base $\frac{1}{2}$ ft high west of Cor
Diff bet measurements of 80.00 chs by
two sets of chainmen is 10 lbs
Position of middle point
C₁, 1st set 79.95 chs
C₁, 2nd set 80.05 chs the mean of which is
- 80.00 Set a lime stone $15 \times 14 \times 12$, 10 ins in
the ground, for Cor to Secs 13, 18
19^{and} 24. Marked with 3 notches
on the north ^{and} 3 notches on the
south edges, raised a md of stone
2 ft base $\frac{1}{2}$ ft high West of Cor
Land rolling
No timber
Soil 3rd rate

Gila and Salt River Meridian

North between sees 13 + 18

30.00 Road bearing $72^{\circ}30'$ W. and $S.30^{\circ}E$

Diff. bet. measurements of 40 chs by two sets of chainmen is 14 lbs

Position of middle point

By 1st set 40.07 chs

By 2nd set 39.93 chs. the mean of which is

40.00 Set a lime stone $12 \times 12 \times 8$ ins 8 ins in the ground for $\frac{1}{4}$ sec or marked $\frac{1}{4}13$ on W face and 18 on E face and raised a Mt of stone 2 ft base $\frac{1}{2}$ ft high

Mark of Corner

Diff bet measurements of 80 chs by two sets of chainmen is 6 lbs

Position of middle point

By 1st set 80.03 chs

By 2nd set 79.97 chs. the mean of which is

80.00 Set a lime stone $18 \times 10 \times 4$ ins 10 ins in the ground for cor to sees 7. 12. 13 and 18 marked with two notches on the north and four

Gila and Salt River Meridian

notches on south edge, raised
a md of stone 2 ft base $1\frac{1}{2}$ ft high
west of corner

Land rolling,

No timber

Sail 3rd rate

Nov 19 - 1899

North bet Secs 7 and 12

Over rolling ground

Diff. bet measurements of 40.00 chs
by two sets of chances is 8 lks

Position of middle point

By 1st set 39.96 chs

By 2nd set 40.04 chs the mean of which is

40.00 Enter Cedars and Piñon trees

Set Lime Stone $18 \times 14 \times 12$ ins, 12 ins
in the ground, for $\frac{1}{4}$ Sec cor

Marked $\frac{1}{4}$ 12 on W. face and 7 on East face

raised a md of stone 2 ft base $1\frac{1}{2}$ ft high

For insertions see Leo's Letter
April 14 1900
Gila and Salt River Indian

North bet Sec 7 and 12

west of Cor. B.T. Piñon 7 in diam bears N 53° E 102 lks

Diff between measurements of 80 chs
by two sets of Chainmen is 10 lks

Position of Middle Point

By 1st set is 79.95 chs

By 2nd set is 80.05 chs the mean of which is

80.00

Set a line stone 20 x 16 x 4 ins

12 ins in the ground, for Cor to sec's
1, 6, 7 and 12 marked with one

notch on N. and five notches on
the south edges, raised a ^{rod}
of stone 2 feet base and 1/2 ft high
west of Cor from which

A. Piñon 7 in diam, bears N 5° W, 17 lks dist

Marked T 25 N R 1 W S 1 B T

A. Piñon 6 in diam, bears S 25° W 122 lks dist

Marked T 25 N R 1 W S 1 B T

Land rolling, Soil 3rd rate
Timber 40 chs

A. Piñon 8 ins, in diam, bears
N 29° 30' W, 53 lks, dist,
marked 1/4 S. B. T. 12

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A. piñon, 12 ins, in diam, bears N 81° W, 63 lks.
dist, marked T, 25 N, R 1 W, S 1 B. T.
A. piñon, 16 ins, in diam, bears, S 42° W, 65 lks.
dist, marked T, 25 N, R 1 W S 1 B. T.

Gila and Salt River Meridian

North return Secs 1 and 6

Over rolling, rocky ground and through dense Cedars and Pines Diff. bet. measurements of 40.00 chs by two sets of Chammers is 16 lks

Position of middle point

By 1st set 40.08 chs

By 2nd set 39.92 chs the mean of which is

40.00 Set a lime stone 12x12x5 in a mark of stone for 1/4 sec or marked

1/4 1 on west face and 6 on east face from which a Pines tree 12 in diam bears N. 70° W 42 lks dist marked

1/2 S 139 N

Lean timbers East and West

Diff bet measurements of 80.00 chs by two sets of Chammers is 12 links

Position of middle point

By 1st set 80.06 chs

By 2nd set 79.94 chs the mean of which is

80.00 Set a lime stone 18x15x4 ins

A pine 12 ins diam
4 years N 84° W DIST
70.00 78 lks, marked 1/4 S.
B.T.

Gila and Salt River Meridian

and. To 25⁽⁶⁾ on the N.E., 25⁽⁶⁾ on
 the S.W., R. 1 E, on the S.E., and
 R. 1 W on N. W. face.

12 inches in the ground for Cor to

To 25 and 26 N. R's 1 E. and 1 W

Marked with six notches on N.E.S and W

Edges) raised a md of stone two feet

base and $1\frac{1}{2}$ ft high South of corner

Land rolling and rocky, soil 4th rate

Timber 70 chs.

Gila and Salt River Meridian

T. Ds 26 N. Ranges 1 E. ^{and} 1 W

North bet secs 31 ^{and} 36

Over rolling ground

22.00 Trail bears N 20° W ^{and} S 20° E

25.00 Enter dense Cedar ^{and} Piñon trees ^{cut} E 20° W

Diff. bet measurements of 40.00 chs
by two sets of chainmen is 6 lbs

Position of Middle Point

By 1st set 39.97 chs

By 2nd set 40.03 chs, the mean of which is

40.00 Set a lime stone 18 x 18 x 6 in in a
Mid of Stone, (ground to rocky to admit
same) for 1/2 sec cor marked 1/4 36 on W

and 31 on east faces, from which

On Piñon tree 14 in diam bears, South

85° East, 96 links dist Marked 1/4 S 31 BT

55.00 Leave timber bearing E ^{and} W

Diff. bet measurements of 80.00 chs
by two sets of chainmen is 4 lbs

Position of Middle Point

Gila and Salt River Meridian

By 1st set 80.02 chs

By 2nd set 79.98 chs the mean of which is

80.00 Set Lime Stone 15 x 12 x 5 in in a
 Mid of Stone. (ground to rocks, to
 about the same) for cor to sec
 25.30.31 and 36 marked with fine notches
 on the North and 1 on South edges
 Land rolling. soil $\frac{1}{4}$ th rate
 Timber ~~55~~ chs 30 chs.

n. return sec. 25 x 30

31.30 Low Cedar 12 in diam bears mat
 dist 40 lks

Diff. Bet. measurements of 40.00 chs

by two sets of Chainmen is 6 lks

Position of middle point

By 1st set 39.97 chs

By 2nd set 40.03 chs the mean of which is

40.00 Set a Lime Stone 12 x 12 x 5 in. 8 in
 in the ground for $\frac{1}{4}$ sec. Cor

Gila and Salt River Meridian

Marked 25 on west and 30 on the
east faces. raised a md of stone
2 ft base 1 1/2 ft high west of Cor

Diff bet measurements of 80.00 chs
by two sets of chainmen is .8 lks

Position of middle point

By 1st set 79.96 chs

By 2nd set 80.04 chs the mean of which is

80.00

Set a lime stone 14 x 14 x 4 ins

8 ins in the ground. for Cor to sec's

19, 24, 25, and 30 marked with two

notches on S and 4 notches on

the north edges. Raised a

md of stone 2 ft base 1 1/2 ft

high west of Cor

Land rolling

Soil 3rd rate

No Timber

Nov 20 - 1899

Gila and Salt River Meridian

N. bet sec 19 and 24

Va. $14^{\circ} 30' E$

Over rolling ground

Dif. bet. measurements of 40.00 chs
by two sets of Chammers is 2 chs

Position of middle point

By 1st set 39.99 chsBy 2nd set 40.01 chs the mean of which is

40.00

Set a lime stone $20 \times 14 \times 4$ ins 12 ins
in the ground, for $\frac{1}{4}$ sec cor. Marked
 $\frac{1}{4}$ 2d on W. face and 19 on E faceRaised a rod of stone 2 ft base $\frac{1}{2}$ ft
high. West of cor.Dif. bet. measurements of 80.00 chs
by two sets of Chammers is 8 chs

Position of middle point

By 1st set 79.96 chsBy 2nd set 80.04 chs the mean of which

80.00

Set a lime stone $14 \times 12 \times 8$ ins 8 ins in
the ground for cor to Sec's

13. 18. 19. and 24 Marked with

Gila and Salt River Meridian

no bet sec 19 and 24

3 notches on the north and
3 notches on the south edges
Raised a Md of Stone 2 ft base
 $\frac{1}{2}$ ft high with of Co
Land rolling, Soil 3rd rate
No timber

N. bet. sec. 13 + 18

no bet sec 13 + 18

17.00

Road bears $26^{\circ} 10'$ W. and $S 10^{\circ} E$

24.00

Begin to descend to draw
Diff bet measurements of 40.00 chs
by two sets of chainmen is 12 chs

Position of middle point

By 1st set 40.06 chs

By 2nd set 39.94 chs the mean of which

40.00

Set a lime stone $16 \times 8 \times 5$ ins
in a Md of stone. (9 round to rocks
to admit same) for $\frac{1}{4}$ sec Co

Marked $\frac{1}{4}$ 13 on W and 18 on East
faces

Gila and Talk River Meridian

No Bet seci 13+18

67.00 Bottom of draw or ravine

Course N 75° West

Diff bet measurements of 80.00 chs
by two sets of Chummen is 18 links

Position of middle point

By 1st set 79.91 chsBy 2nd set 80.09 chs the mean of which

80.00

Set a lime stone 16x14x4 in

a fld of stone for Cor to Secs

7, 12, 13 and 18 Marked with two

notches on N. and 4 notches on the

south edges

Land Rolling

Soil 3rd rate

No timber

Nov 21 - 1899

Gila and Salt River Meridian

no bet sec 7 and 12

- Ascending out of draw
- 4.00 Top of bank of draw descend gradually
- 24.00 Descend to draw ^{or} Ravine
- 32.00 Bottom of draw Course N 20° W ascend
Diff bet measurements of 40.00 chs by two sets of chummer is 20 lbs
Position of Middle Joint
By 1st set 39.90 chs
By 2nd set 40.10 chs the mean of which is
- 40.00 Set a line stone 14 x 12 x 6 ins
In mid of stone for 1/4 sec Cor. Wkd
1/4 12 on W face and 7 on E face
- 50.00 Top of barren hill bearing N. E. and S W
Diff bet measurements of 80.00 chs by two sets of chummer is 8 lbs
Position of middle joint
By 1st set 80.04 chs
By 2nd set 79.96 chs
The mean of which is

Gila and Salt River Meridian

no bet sees 7 and 12

80.00 Set a lime stone $10 \times 12 \times 5$ - ins
 6 ins in the ground, for Cor to
 sees 1, 6, 7 ^{and} 12 marked with
 1 notch on N. and 5 on south
 edges, Raised a Mt of stone
 2 ft base $1\frac{1}{2}$ ft high Mt of corner
 Sand rolling, soil 3rd rate
 No timber

no bet see 1 + 6
 Va $14^{\circ} 50' E$ and mountainous
 and
 Over rolling Ground

20.00 Begin to descend to Cataract Cañon
 or Wash, 50 lbs wide

30.00 Drawn branch of Cataract Creek ^{can} N $20^{\circ} W$

Diff bet measurements of 40.00 lbs
 by two sets of chainmen is 16 lbs
 Position of middle point

By 1st set 40.08 lbs

By 2nd set 39.92 lbs

the mean of which is

Gila and Salt River Meridian

No level sees 7 and 6

- 40.00 Set Line Stone 16x16x4 ins in a
Mid of Stone for $\frac{1}{4}$ Sec Cor. Wkd
 $\frac{1}{4}$ 1 on N. face and 6 on E face
- 45.60 Top of Bluff 25 ft high ^{low} E + W
- 45.70 Bottom "
- 51.00 Top of " 35 ft high ^{low} E and W
- 51.10 Foot of Bluff
- 52.00 South edge of earth bottom
- 53.26 South side of water way of Cañon ^{corner W}
- 53.76 North side " " " " "
- 54.50 North edge of earth of bottom ascend abruptly
- 58.00 Top of bluff N. side Cataract Cañon ^{low E + W}
Diff but measurements of 80 chs
by two sets of Chisummen is 26 lbs
Position of middle point
By 1st set 80.13 chs
By 2nd set 79.87 chs
The mean of which is ^{is is.}
- 80.00 Set Line Stone 24x18x6 in a
Mid of Stone

Gila and Salt River Meridian

No. 146

For Cr to Tps 26 and 27 N
 Ranges 1 E and 1 W. Marked
 with 6 notches on each Edge
 and T 27 N on NE, T 26 N on SW
 R 1 E on SE and R 1 W on NW faces
 Land rolling and mountainous
 Soil 3rd rate

No timber

Mountainous land 58 cho

Nov 22nd 1899Nov 22nd 1899

At the corner last described I
 observed Polaris at western elongation
 Nov 23, 1899 at 3^h 5^m AM in
 accordance with the instructions in
 the manual and marked the line
 thus determined by a tack driven
 in a stake set in the ground
 five chains north of my station; and

Gila and Salt River Meridian

at 8 A.M. I lay off the azimuth
of Polaris $1^{\circ} 30'$ to the east and
marked the true meridian thus
determined by driving a tack in a
stake set in the ground east of
the point previously established;
the magnetic bearing of said true
meridian is $N. 14^{\circ} 50'$ mag which
reduced by the table on Page 100
of the Manual gives the mean
magnetic declination $14^{\circ} 48' E.$
Reversing the telescope of my
transit I find my backsight bear's
 $S. 0^{\circ} 00' 30'' N.$ an error too small
to be taken into account

Gila and Salt River Meridian

N. 6th. Secs 31 and 36

Township 27 North Range 1 E and 1 W

Var $14^{\circ} 5'$ east

over mountainous and rolling land

Diff bet measurements of 40 chs.

by two sets of chainmen is 2 lbs.

Position of middle point

By 1st set 39.99 chs.By 2nd set 40.01 chs. the mean of which is40.00 Set a lime stone $18 \times 12 \times 4$ ins 12 ins in

the ground for the sec cor. marked

 $1/2$ 36 on W. and 31 on on E. face and

raised a mound of stone 2 ft base

 $1/2$ ft high west of cor.

67.00 Begin to descend abruptly to cañon

71.05 Bottom of Cañon about 400 ft deep

Course from $\text{N. } 8^{\circ} \text{ E.}$ to $\text{N. } 76^{\circ} \text{ W}$

73.00 Foot of bluff N. side ascend abruptly

79.00 Top of bluff N. side

Diff bet measurements of 80 chs by

two sets of chainmen is 22 lbs

Position of middle point

Gala and Salt River Meridian

N. cut sec. 3, 4, 36

By 1st set 80.11 chsBy 2nd set 79.89 chs. the mean of which is

80.00

Set a line stone 18 x 12 x 12 ins in

a mound of stone - ground to
rocky to admit the same -for cor to sec's 25, 30, 31, and 36 marked
with 5 notches on N and 1 notch on
South edges

This cor is 60 lbs N of rim of cañon.

Land value for 69 chs

Mountainous for 11 chs

Soil 3rd rate

No timber

Nov 23 - 99

Gila and Salt River Maridian

N. bet seris 25^{and} 30Va $14^{\circ} 45' E$ Rocky.

Over rolling ground

Diff. bet measurements of 40 chs
by two sets of chainmen is 8 lbs

Position of middle point

By 1st set 39.96 chsBy 2nd set 40.04 chs the mean of which is40.00 Set a lime stone $15 \times 14 \times 5$ ins. 10 insin the ground for $\frac{1}{4}$ sec. Cor marked $\frac{1}{4} 25$ on N. and 30 on the East faces. Andraised a bed of stone 2 ft base $1\frac{1}{2}$ ft

high top of Cor

Diff bet measurements of 80 chs

by two sets of chainmen is 4 lbs.

Position of middle point.

By 1st set 80.02 chsBy 2nd set 79.98 chs the mean of which is80.00 Set red sand stone $18 \times 10 \times 4$ ins. 10 ins

in the ground for cor to sets

19.24.25 and 30. marked with 2

Gila and Salt River Meridian

notches on the South and \perp
 on the north edges, and raised
 a rod of stone 2 ft base $1\frac{1}{2}$ ft high
 W. of Cor

Land rolling.

Soil 2nd rate

No timber

N. line sec 14th 24
 Over rolling ^{and rough} ground

25.00 Begin rapid descent into a deep draw

30.00 Bottom of draw 80 ft deep course

N 35° E

Diff. bet measurements of 40 chs
 by two sets of chainmen is 12 lbs

Position of Middle Point

By 1st set 39.94 chs

By 2nd set 40.06 chs: the mean of which

40.00 Set a line stone $18 \times 10 \times 6$ ins

Gila and Salt River Meridian

N bet. sec 19 & 24

10 ins in the ground for $\frac{1}{4}$ sec Cor
marked 14 24 on W and 19 on the East

face and raised a Md of stone
2 ft base $\frac{1}{2}$ ft high W. of cor

Diff bet measurements of 80 chs by
two sets of chammaen is 10 chs

Position of Middle Point.

By 1st set 80.05 chs

By 2nd set 79.95 chs the mean of which is

80.00 Set a lime Stone $18 \times 12 \times 6$ ins. 10 ins
in the ground for cor to sec

13. 18. 19. 24 marked with 3 notches
on W. and 3 notches on south edges

raised a Md of stone 2 ft base $\frac{1}{2}$ ft high

W. of Cor

Land rough and rolling

Rolling 25 chs. Rough 55 chs

Rocky 80 chs. Soil 4th rate

No timber

Nov 24 - 1899

Gela and Salt River Meridian

N bet sec 13 and 18

Ascending to high Prairie
 Diff bet measurements of 40 chs by
 two sets of chainmen is 4 lbs
 Position of Middle Point

By 1st set 39.98 chsBy 2nd set 40.02 chs the mean of which is

40.00

Set a lime stone $20 \times 12 \times 6$ ins in
 a run of stone. - Ground to rocky
 to admit the same -

for $\frac{1}{4}$ sec Cor. marked $\frac{1}{4}$ 13 on W
 and 18 on E faces

Diff bet measurements of 80 chs
 by two sets of chainmen is 6 lbs
 Position of Middle Point.

By 1st set 79.97 chsBy 2nd set 80.03 chs the mean of which is

80.00

Set Lime Stone $20 \times 15 \times 6$ ins $\frac{1}{4}$ ins
 in the ground for Cor to sec's

7.12.13.18 marked with 2

notches on 7th and 4 notches on

Gila and Salt River Meridian

N. lat. 82° 13' 18"

the south edges, and

T. 27. N R 1 E on N. E. face and

R. 1. W. on South west face.

and raised a Md of Stone 2 ft base

1 1/2 ft high W of Cor

Land rolling.

Soil 3rd rate.

No timber.

No bed seen 7 x 12

Over rolling Land

Diff. bet. measurements of 40. chs by
two sets of chainmen is 1/2 link

Diff. so slight no notice is taken of it

40.00

Set Line Stone 12 x 12 x 6 ins. 9 ins
in the ground for 1/4 sec. cor marked

1/4 x 12 on W. and 7 on E faces. Day Dite

18 x 18 x 12 ins Stand S. of Stone 3 feet

dist. Md of earth 3 1/2 ft base 1 1/2 ft high W of Cor

Gila and Salt River Meridian

No. 1000 7x12

Diff. bet measurements of 80 chs by
two sets of chainmen is. 6 chs

Position of middle point

By 1st set 80.03 chs

By 2nd set 79.97 chs the mean of which is

80.00

Set a lime stone 20 x 12 x 5 ins 15 ins
in the ground for cor to to sec's

1. 6. 7. 12 marked with one

notch on the N and five notches

on the south edges. raised a

hd of stone 2 ft base 1 1/2 ft high

West of Cor.

Land rolling.

Soil 2nd rate.

No timber.

Nov 25-1899

Gila and Salt River Meridian

N. bet. Secs 1 + 6

Diff. bet measurements of 40 chs by
two sets of Chaimmen is 4 lbs

Position of Middle Point

By 1st set 40.02 chs

By 2nd set 39.98 chs the mean of which is

40.00 Set a line Stone 18x12x4 ins 10 ins
in the ground, for 1/4 sec Cor. Marked
1/41 on N. and 6 on the E. faces
raised a Md of Stone 2 ft base 1 1/2 ft
high west of Cor

Diff. bet measurements of 80 chs
by two sets of Chaimmen is 8 lbs

Position of Middle Point

By 1st set 79.96 chs

By 2nd set 80.04 chs the mean of which is

80.00 Set a line Stone 14x14x6 ins 8 ins
in the ground for cor to sec's
1.6 31.36 and Township's 27 + 28
N. R. is 1 E and 1 W marked with
6 Notches on N. E. S. and W. edges

La and Salt River Meridian
no. 1022 106

↑
 raised a mound of stone
 2 ft base 1 1/2 feet high S of Cor
 Land rolling.

Soil 2nd rate

No timber

Nov 26 - 1899

At the corner last described I observed Polaris at western elongation
 Nov 27 1899 at 2-50 AM in accordance with instructions in the
 Manual, and mark the line thus determined by a tack driven in
 a stake set in the ground, fix chains on of my station and
 at 8 AM. I lay off the azimuth of Polaris, 1° 50' to the E,
 and mark the true meridian thus determined, by
 driving a tack in a stake set in the ground east of
 the point previously established; the magnetic
 bearing of said true meridian is N 14° 45' W,
 which reduced by the table on page 100 of the
 Manual, gives the mean magnetic declination
 14° 44'. Reversing the telescope of my
 transit I find by my back sight that my
 line is correct.

marked P. 20 1/2" on the
 N. E. of 27 x on the S. W.
 R. 1' E. on the S. E. at
 R. 1 1/2' on the S. W. fact

Gila and Salt River Meridian

No bet bet 31 and 36

Tps 28 N. R^s 1 E and 1 WDiff. bet measurements of 40 chs
by two sets of Chummer is 2 lbs

Position of middle point.

By 1st set 40.01 chsBy 2nd set 39.99 chs the mean of which is40.00 Set a lime stone 15x15x6 ins 10 ins
in the ground for 1/4 sec cor

marked 436 on N and 31 on E faces

raised Mid of stone 2 ft base 1/2 ft
high N of corDiff. bet measurements of 80 chs by
two sets of Chummer is nothing80.00 Set a lime stone 16x16x6 ins 10 ins
in the ground for cor to sec 25.3051 and 36 marked with one notch on Sand
fur on N. Edges raised Mid of stone

2 ft base 1/2 ft high N. of cor

Sand rolling. Sail 2nd rate

No Timber

Gila and Salt River Meridian

no let see 25^{and} 30

Diff. bet measurements of 40 chs by
two sets of chains is 4 lbs

Position of middle point

By 1st set 40.02 chs

By 2nd set 39.98 chs the mean of which is

40.00

Set a line stone 14 x 14 x 6 ins, 10 ins
in the ground for 1/2 sec cor

marked 25 on W and 30 on east
face. raised Md. of stone 2 ft base
1 1/2 ft high west of cor.

48.00

Small draw, course E

Diff. in measurements of 80 chs by
two sets of chains is 9 lbs

Position of middle point

By 1st set 79.95 chs

By 2nd set 80.04 chs the mean of which is

80.00

Set a line stone 14 x 14 x 2 ins, 9 ins
in the ground for cor to Secs 19, 24

25^{and} 30 marked with 2 notches on
the south and 4 notches on the

Gila and Salt River Meridian

No bet see 25 & 30

Wedges and raised a Md
 of stone 2 ft base $1\frac{1}{2}$ ft high
 West of Cor
 Land rolling
 Sail 2nd rate
 No timber

No bet see 19 and 24

Over rolling ground

Diff bet measurements of 40 chs
 by two sets of chainmen is 5 lbs
 Position of middle point

By 1st set 40.02 chsBy 2nd set 39.97 chs the mean of which is

40.00

Set a lime stone $14 \times 10 \times 5$ in 9 in
 in the ground for 1/4 sec Cor marked

14 24 on W and 19 on E face

raised a Md of stone 2 ft base
 $1\frac{1}{2}$ ft high W of Cor

Diff bet measurements of 80 chs
 by two sets of chainmen is 6 lbs

Gila and Salt River Indian

Position of middle point

By 1st Sec 80.03 chs

By 2nd Sec 79.97 chs the mean of which

80.00

Set a lime stone $18 \times 12 \times 5$ ins 12 ins

in the ground for Cor to sec's 13, 18

19 and 24. marked with 3 notches

on N. and 3 notches on S edges

raised mid of stone 2 ft base.

$1\frac{1}{2}$ ft high Mark of Cor

Land rolling.

Soil 2nd rate.

No lumber.

Nov 27-1899

Gila and Salt River Meridian

No. 66 Dec 13 x 18

Over rolling land

28.00 Begin to ascend small hill

34.00 Top of hill. Descend

Dip bet measurements of 40 chs by two sets of Chaining
is 12 links; Position of middle pointBy 1st set 39.94 chsBy 2nd set 40.06 chs. the mean of which is

40.00 Set Lime Stone 18 x 12 x 4 ins 10 ins in the ground

for 1/4 Sec Cor marked 12, 13 on N and 18 on each face
raised 1/2 in of stone 2 ft base 2 ft high N of Cor

45.00 Bottom of hill

50.00 Small ravine; course N.W. ascend

75.00 Top of rocky ridge. bears N.W. + S.E.

Dip bet measurements of 80 chs by two sets of chaining
is 8 links; Position of middle pointBy 1st set 80.04 chsBy 2nd set 79.96 chs the mean of which is

80.00 Set a lime stone 15 x 10 x 5 ins 8 ins in ground

to solid rock. for cor to sec 7, 12, 13 + 18 marked
with 2 notches on the N. and 4 notches on S

Gila and Salt River Meridian

edges, raised mid of stone 2 ft base $1\frac{1}{2}$ ft high

Mark of Cr.

Land rough + rolling + rocky

Soil $\frac{1}{2}$ the rate

No timber

Nov 28 - 1899

no lat see 7 and 12

One single mound

20.00 Point of rocky hill bears E

25.00 Ravine, Course N. E.

30.00 Point of hill bears N

38.00 Draw, Course S. E

Differ measurements of 40 chs by two sets of chainmen
is 6 chs; position of middle point

By 1st set 40.03 chs

By 2nd set 39.97 chs the mean of which is

40.00 Set a line stone 18 x 10 x 6 ins. 10 ins in the ground
for $\frac{1}{2}$ sec cr, marked $\frac{1}{2}$ 12 on N. 7 on E face and
raised mid of stone 2 ft base $1\frac{1}{2}$ ft high No. 2

70.00 Draw Course S. N.

Differ measurements of 80 chs by two sets of chainmen

Gila and Salt River Meridian

No bet sec 7 & 12

is 4 lks: position of middle point

By 1st set 80.02 chsBy 2nd set 79.98 chs the mean of which is

80.00

Set a lime stone 18x12x8 ins 10 inches in the ground

for cor to sec 16.7.12 marked with 1 notch on N and 5 notches
on the S side. raised mid of stone 2 ft base 1/2 ft high ^{60"} 1/2 ft

Land rough & hilly

Soil 4th rate & rocky. No timber
_{no bet sec 1 and 6}

Over rolling ground

Diff bet measurements of 40 chs by two sets of chainmen

is 4 lks: position of middle point

By 1st set 39.98 chsBy 2nd set 40.02 chs the mean of which is

40.00

Set a lime stone 18x10x8 ins 10 ins in the ground

for 1/2 sec cor marked 1/2 on W and 6 on E face and

raised mid of stone 2 ft base 1/2 ft high N of cor

53.00

Begin rapid ascent to mesa

54.00

Top of mesa bears E and W

Diff bet measurements of 80 chs by two sets of chainmen

is 16 lks: position of middle point

Gila and Salt River Meridian

N lat sec 1 + 6

By 1st set 79.92 chsBy 2nd set 80.08 chs the mean of which is

80.00

Set a line ~~tree~~ 360.1427 in. in mid of stone
ground to rocks to admit the same - for standard cor
to T₈: 29 N R1E and 1W. marked SGT 29 N on NW. R1E
on NE. R1W on SW faces with 6 notches on each edge

raised mid of stone 3 ft base 3 ft high N of cor

Land very $\frac{1}{2}$ and hilly

Sail 4th rate. rocky

No timber.

Nov 29 - 1899

At the last cor described I observed Polaris at
western elongation Nov 30 - 1899 at 2-38 AM in
accordance with instructions in the manual and
mark the line thus determined by a tack driven
in a stake set in the ground five chains N of
my station. and at 5 am I lay off azimuth of
Polaris 130° 30' to the east and mark the true Meridian
thus determined, by driving a tack in a stake
set in the ground $\frac{1}{2}$ of the point previously

Gila and Salt River Mountains

N. lat sec 25 + 30

Land rolling

Soil 4th rate

A few scattering of Cedar bushes

N. lat sec 19 + 24

Ascending rocky ridge

3.00 Enter thin Cedars

10.00 Top of ridge bears E and W

15.00 Leave Cedars.

Dip bed measurements of 40 chs by two sets of
Chambers is 10 chs; position of middle pointBy 1st set 399.5 chsBy 2nd set 40.05 chs the mean of which is40.00 Set a lime stone 16x10x6 ins in a rnd of stone
for $\frac{1}{2}$ Sec Cor marked $\frac{1}{4}$ 24 on W. and 19 on E faces
and raised rnd of stone 2 ft base $\frac{1}{2}$ ft high W of CorDip bed measurements of 80 chs by two sets of Chambers
is 6 chs; position of middle pointBy 1st set 79.97 chsBy 2nd set 80.03 chs the mean of which is80.00 Set a lime stone 18x12x6 ins 12 ins in
the ground for cor to sec's 13. 18. 19. 24

Gila and Salt River Meridian

marked with 3 notches on N. and 3 notches
on south edge and dug pits 18x18x12 in in
each section 5 1/2 ft dia; raised a red granite
4 ft base 2 ft high West Cor

Land rolling

Sail 3rd rate

Timber Pines & Cedars 12 chs

N. 13x18

N. 14x45' E, Over rolling ground

Diff bet measurements of 40 chs by two sets of
Chainmen is 4 lbs; position of middle point

By 1st set 40.02 chs

By 2nd set 39.98 chs the mean of which is

40.00

Set a line stone 18x12x4 in 12 in in ground
for W. sec cor, marked N. 13 on N. 18 on E face

raised N. of stone 2 ft base 1/2 ft high W. of cor

64.00

Begin to ascend bench bears N. N. 7 S E

79.90

Top of bench

Diff bet measurements of 80 chs by two sets of
Chainmen is 8 lbs; position of middle point

By 1st set 80.02 chs

Gila and Salt River Meridian

No. 62 sec 13+18

- By 2nd set 79.96th the mean of which is
 80.00 Set a lime stone 16x10x8 ins 10 ins in ground
 for cor to sec 712.75+18 marked with 2
 notches on N & 4 notches on S edges and raised
 N of stone 2 ft base 1 1/2 ft high. W of Cor.
 Land rough & rolling
 Sail 3rd rate
 No timber

Dec 1 - 1899

No. 62 sec 7+12

- Ascending gradually
 39.00 Foot of ridge ascending diagonally
 Diff bet measurements of 2. chs by two sets of
 theimeter is 12 lbs; location of Middle Fork
 By 1st set 39.94 chs
 By 2nd set 41.06 chs the mean of which is
 40.00 Set lime stone 18x14x10 ins in end of stone
 for 1/2 sec cor, marked 1/4 12 on W and 7 on E face
 -ground to rocky to admit the same
 78.00 Descend to ravine
 79.00 Ravine, course N_W

Gulch and Salt River Meridian

no but see 7 + 12

Diff. bet measurements of 80 chs by two sets
of chainmen is 18 lks; Position of middle point

By 1st set 79.91 chs

By 2nd set 80.09 chs the mean of which is

80.00

Set a sand stone 24 x 9 x 8 ins in mid of
stone for ex to see 1.6.7.12 marked with

1 notch on N. and 5 notches on S edges

- ground to rocky to admit the same

Land rolling. 39 chs

Mountainous 41 chs

Soil 4th rate

No timber

no but see 1 + 6

In bottom of Gulch

3.00 Ascend

7.00 Top of ridge - bears E + W Descend

13.00 Bottom of ravine, Course West

15.00 Begin to ascend through Adors + Pinnons

36.00 Top of ridge - bears E + W

38.00 Begin to descend into Cañon

Diff. bet measurements of 40 chs by two

Gila and Salt River Meridian

- Sets of Chainmen is 16 lbs; Position of Middle point
 By 1st set 40.08 chs
 By 2nd set 39.92 chs the mean of which is
 40.00 Set a lime stone 14x10x5 in. Mid of stone
 for W sec Cor marked W1 on W. and 6
 on E faces. Cor on S side Cañon 5 ft below top.
 47.00 Bottom of steep descent
 53.00 " " Cañon Course S.W.
 56.00 Begin steep ascent
 64.00 Top of rocky spur between two cañons
 65.00 Begin steep descent into Cañon 150 ft deep
 69.50 Bottom of Cañon. Course W
 Diff bet measurements of 20 chs by two sets
 of chainmen is 12 lbs; Position of Middle point
 By 1st set 80.06 chs
 By 2nd set 79.94 chs the mean of which is
 80.00 Set a lime stone 29x8x6 in 10 cm in ground and built
 a Mid of stone around it for Cor to Tps 29+30 N.R. 1 E
 4 W. Mid T 30 N on NE, 29 N on SW, 1 E on SE, 1 W on
 NW faces + 6 notches on each edge

Gila and Salt River Meridian

80 Chs.

Land Range and Mountainous
Sail 4th rateTimber, Pines and Cedars
65 Chs.

Dec 2-1899

At the last Co described I observed
Polaris at western elongation Dec 3-1899
abt 26 AM. in accordance with instructions
in the manual and mark the line thus
determined by a tack driven in a stake
set in the ground, five chains north
of my station and at 8 AM. I lay off the
Azimuth of Polaris $1^{\circ}30'30''$ to the east and
mark the true meridian thus determined
by driving a tack in a stake set in the
ground east of the point previously
established: the magnetic bearing
of said true meridian is $N. 14^{\circ}50' N.$
which reduced by the table on page 100
of the manual gives the mean magnetic
declination $14^{\circ}49' E.$ crossing the

Gila and Salt River Meridian

Telescope of my transit I find
by my back-sight that my line is correct

2nd set see 31 + 36

Top 30 N R 1 E and 1 W

Rough ^{2^d} mountainous
Over rolling mesa through dense Cedar & Piñon
descend

21.30 Edge of bluff of Cañon 200 ft deep, abruptly

24.70 Bottom of Cañon, Course West, ascend abruptly

29.30 Top of bluff - N side of Cañon

Diff bet measurements of 40 chs by two sets
of Chalmers is 16 chs; position of middle point
By 1st set 40.00 chs

By 2nd set 39.92 chs the mean of which is

40.00
Set a limestone 30 x 10 x 6 ins in a 7rd of stone
for 1/4 sec. cor. marked 1/4 36 on W. and 31 on east
faces from which a Piñon tree 12 m diam
bears N 50° W. 28 lbs disk. Marked 1/4 S 36
B.T. A Piñon 10 m diam bears N. 12° East
50 lbs disk. Mkd 1/4 S 31 BT

42.35 Edge of bluff of Cañon 150 ft deep ascend abruptly

50.80 Bottom of Cañon Course S 20° W. ascend

Gila and Salt River Mordian

No. bet. sec 31 + 36

- 65.00 Top of gradual ascent out of Cañon
Diff. bet measurements of 80 chs by two sets of
Chauvenet is 12 links; position of middle point
By 1st set 80.06 chs
By 2nd set 79.94 chs the mean of which is
- 80.00 Set a line stone 30x24x6 ins, in a Md
of stone for cor to sec. 20, 30, 31, 36 marked
with our notch on S and 5 notches on the
N. Edges
Land rough and mountainous 80 chs.
Sail 4th rate
Timber. Scrub Cedars and Pines
No. bet. sec 25 + 30
- 20.00 Va 15° E enough and
Over mountainous Land
Begin to descend to cañon 150 ft deep
- 28.30 Bottom of cañon, Course N 80° West, ascend abruptly
- 35.50 Top of ridge between two cañons
Diff. bet. measurements of 40 chs by two sets
of Chauvenet is 18 chs? Position of middle point
By 1st set 39.91 chs
By 2nd set 40.09 chs the mean of which is

Gila and Salt River Meridian
No. 1st sec 25 and 30

- 40.00 Set a lime stone $24 \times 12 \times 3$ ins. in a Md. of stone for N sec Cor, Marked 25 on W and 30 on E faces
- 45.70 Begin steep descent to Cañon 250 ft deep
- 64.50 Bottom of Cañon Course $S 25^{\circ} W$
- 64.65 Foot of rock bluff 20 ft high. ascend
- 73.00 Top of rocky mesa. N. E and S W
Diff. bet. measurements of 80 chs by two sets of chains is 12 chs. position of middle found
By 1st set 79.94 chs
By 2nd set 80.06 chs. the mean of which is
- 80.00 Set a limestone $24 \times 8 \times 6$ ins. in a Md. of stone for cor to sec 19, 24, 25, 30 marked with 2 notches on S and 4 notches on N. edges
Land rough and mountainous 80 chs
Soil 4th rate
Timber, scattering Cedars and Piñon trees

Dec 3/99

Gila and Salt River Meridian

- ^{No. but sec 19 and 24}
 8.00 Over rough ^{3d} mountainous Land.
 Begin rapid descent into Cañon 100 ft deep
- 11.80 Bottom of Cañon Course N 85° E, ascend
- 14.00 Top of ascent out of Cañon, begin to descend ^{moderately}
 Diff. bar measurements of 40 chs by two sets
 of chainmen is 10 lbs: Position of middle bar
 By 1st set 40.05 chs
 By 2nd set 39.95 chs the mean of which is
- 40.00 Set a line stone 24 x 12 x 5 ins, in mid of
 Stone for "4 see cor marked" 4.2 d on W
 19 on east face
- 50.00 Bottom of Cañon Course S 70° E, ascend
- 65.00 Top of ascent cut as dense Cedars & Pines
 Diff. bar measurements of 80 chs by two sets
 of chainmen is 6 links; Position of middle bar
 By 1st set 80.03 chs
 By 2nd set 79.97 chs the mean of which is
- 80.00 Set line stone 15 x 10 x 6 ins, 10 ins in ground
 For cor to see's 13, 18, 19, 2 d marked with
 3 notches on S and 3 notches on N side, as
 from which a ^{12 in diam} Pines tree bears

Gela and Salt River Meridian

No bet sees 19 + 24

N. 12° W. 5-7 lbs dist, Mkd T30NR1WS13BT

A. Piton tree 12 in diam bears N 67° E 70 lbs dist

Mkd T30NR1ES18BT

A. Piton tree 10 in diam bears S 84° E 19 lbs dist

Mkd T30NR1ES19BT

A. Piton tree 7 in diam bears S 86° 40' W 82 lbs dist

Mkd T30NR1WS24BT

Land rough and mountainous 80 chs

Soil 4th rate

Timber Cedar and Pines

No bet sees 19 + 18

Diff. bet measurements of 40 chs by two sets of
chainmen is 12 lbs; position of middle pointBy 1st set 40.06 chsBy 2nd set 39.94 chs the mean of which is

40.00

Set a lime stone 18 x 12 x 4 ins. 12 in in ground
for 1/4 see as marked 1/4 13 on W. 18 on E four
beuls a rod of stone around cor. from which

A. Piton 12 in diam bears N 82° W 23 lbs dist

Mkd 1/4 5 13 19 T

A. Piton 6 in diam bears N 35° E 30 lbs dist

Gila and Salt River Meridians

no bet sec's 13 + 18

Marked 1/4 S 18 BT

60.00 Loose dense Cedars and Pinons

Diff bet measurements of 80 chs by two sets
of chainmen is 8 lks: position of middle pointBy 1st set 80.04 chsBy 2nd set 79.96 chs. the mean of which is80.00 Set a lime stone 18x10x5 ins. in med of stone
for cor to sec's 7.12 13.18 marked with 2 notches
on N. and 4 notches on S edges from which
a Cedar tree 20 ins in diam bears N. 7° E. 138 lks dist

Mkd T 30 N R I E S 7 BT

Rough and mountainous 40 chs

Rolling 40 chs

Dense Cedars x Pinons 60 chs

Soil 4th set

Dense black sage 20 chs

Dec 4/99

no bet sec's 7 + 12

Through scattering Cedars and Piñon trees

Diff bet measurements of 40 chs by two sets of chainmen
is 6 links: position of middle point

Gila and Salt River Meridian

By 1st set 39.97 chsBy 2nd set 40.03 chs the mean of which is

40.00 Set a Cedar Stake, 5 ft long 4 in square 24 in
in the ground for $\frac{1}{4}$ sec cor marked $\frac{1}{4}$ S 12 on W
and 7 on the E face from which a Piñon tree
14 in in diam bears S 38.40 W. 38 links dist
Mark $\frac{1}{4}$ S 12 BT. A Piñon 12 in in diam bears
N 81.40 E 64 links dist Mark $\frac{1}{4}$ S 7 BT

46.00 Leave timber bearing E & W

Diff bet measurements of 80 chs by 2 sets of
chainmen is 4 chs; position of middle found

By 1st set 79.98 chsBy 2nd set 80.02 chs, the mean of which is

80.00 Set a line stone 24 x 12 x 3 ins, 16 in in ground
for cor to see 16.7 12 marked with 1 notch on
N and 5 notches on S edges raised a Med of stone
2 ft base 1 1/2 ft high W of Corner

Land Rolling

Sail 3rd rate

Timber 246 chs.

Dec 5 / 1899

Gila and Salt River Mission

no bet sets 1 and 6

Over rolling ground

Diff. bet measurements of 40 chs by two sets of
Chauvenet is 4 lbs; Position of middle pointBy 1st set 40.02 chs.By 2nd set 39.98 chs. the mean of which is40.00 Set a Cedar Stake 4 ft long 4 ins sq. 2 in
ins in the ground for $\frac{1}{4}$ sec Cor. marked $\frac{1}{2}$ S 1 on W and 6 on E face, and raised aMid of stone 2 ft base $1\frac{1}{2}$ ft high Mid of CorDiffered measurements of 80 chs by two sets
of Chauvenet is 2 lbs Position of Middle pointBy 1st set 80.01 chsBy 2nd set 79.99 chs the mean of which is80.00 Set a Line Stone 18 x 12 x 5 ins 12 in in ground
for Cor to ~~40~~ 30 and 31 N. P 31 E $\frac{1}{4}$ W Mid

T 31 N on NE. T 30 N on SW. P 1 E on SE and

R 1 W on NW face and 6 notches on each edge

and raised a Mid of stone 2 ft base $1\frac{1}{2}$ ft high

North of Corner

Land Rolling

Gila and Salt River Mendian

No. Oct. Sec's 1 and 6

Said 3rd rate

Scattered Cedars and Pinon trees

Dec 6-1899

At the corner last described I observe
 Polaris at western elongation Dec 7-1899
 at 2-10' AM. in accordance with instructions
 in the Manual and mark the line thus
 determined by a tack driven in a stake set in
 the ground five chains N. of my station
 and at 8 AM I lay off the Azimuth of
 Polaris $1^{\circ}30'$ to the east and mark the
 true meridian thus determined by driving
 a tack in a stake set east of the point
 previously established: the magnetic
 bearing of said true meridian is $14^{\circ}45'W$
 which reduced by the table on page 100 of
 the Manual gives the mean magnetic
 Inclination $14^{\circ}44'E$. Reversing the
 telescope of my transit I find by my
 back-sight that my line is correct.

Gila and Salt River Meridian

No bet see 31 and 36

T_{Ps} 31 N R_s 1 E and 1 W

Over rolling ground

12.00 Enter dense Cedars and Pines bears E & W

Diff bet measurements of 40 chs by two sets
of Chammers is 2 lbs. Position of Middle pointBy 1st set 40.01 chsBy 2nd set 39.99 chs. the mean of which is40.00 A. Piñon tree 12 ins in diam for 1/2 sec cut
bet sees 31 and 36 Marked 1/2 S 36 on W and 31 onE faces from which a Piñon 7 ins diam
bears N 20° W 18 links dist Mkd 1/2 S 36 BTA Piñon tree 12 ins diam bears E. 78 links dist
Mkd 1/2 S 31 BT

11.00 Leave timber E and W

64.00 Cross. Moqui Indian trail to Supai bears N 75° E

Diff bet measurements of 80 chs by two sets of
Chammers is 2 lbs. Position of Middle pointBy 1st set 80.02 chsBy 2nd set 79.98 chs the mean of which is

80.00 Set a line stone 20 x 10 x 6 ins 1 1/2 ins in ground

Gila and Salt River Meridian

No bet sees 31 and 36

From Cor to see 25:30.31.36, marked with 5 notches
on N and 1 notch on S Edges, raised a Md of
stone 2 ft base $1\frac{1}{2}$ ft high. N. of Cor

Land rolling

Soil rocky 4th rate

Timber 29 chs

Dec 7-1899

No bet see 25 and 30

Over rolling ground

Diff bet measurements of 40 chs by two sets of
Chauviner is 6 lbs. Position of Middle Fork

By 1st set 40.03 chsBy 2nd set 39.97 chs the mean of which is

40.00

Set a lime stone $24 \times 10 \times 2$ in 16 in in the ground
for $\frac{1}{4}$ see Cor. Marked $\frac{1}{4}$ 25 on W and 30 on E faces.

And raised a Md of stone 2 ft base $1\frac{1}{2}$ ft high
N. of Cor. Cor is on top of slight elevation
covered with scattering brush Cedars

70.00

Enter dense Pines and Cedars leaving E and W
Diff bet measurements of 80 Chs by two sets of
Chauviner is 4 lbs. Position of Middle Fork

Gila and Salt River Mesquite

24 bet trees 25+30

By 1st set 80.02 chsBy 2nd set 79.98 chs the mean of which is

80.00

Set a lime stone 14x10x4 ins 9 ins in the ground
for cor to see 19.24 25.30 marked with 4 notches
on N and 2 notches on S edges from which

A Piton 14 ins diam bears S 3° E 19 lbs dist

Marked T 31 N R I E S 30 BT

A Piton 16 ins diam bears S 73° W. 45 lbs dist

Marked T 31 N R I W S 25 BT

A Piton 10 ins diam bears N 12° W. 17 lbs dist

Marked T 31 N R I W S 24 BT

A Piton 16 ins diam bears N 37° E. 34 lbs dist

Marked T 31 N R I E S 19 BT

Sand rolling

Soil rocky at $\frac{1}{2}$ rate

Timber 10 chs

Gila and Salt River Mendocino

No lat sec 19 and 24.

V_n 14° 45' E.

10.00 Over rocky ground through timber
Low timber bearing E + W

Diff bet measurements of 40 chs by two sets of
Chaussen is 2 lbs; position of middle point

By 1st set 39.99 chs

By 2nd set 40.01 chs the mean of which is

40.00 Set a lime stone 18x10x7 ins. in a Md of Stone
for ~~1/4~~ 1/4 sec or marked 1424 on N, 19 on E face
-Ground too rocky to admit the stone-

Diff bet measurements of 80 chs by two sets of
Chaussen is 7 lbs; position of middle point

By 1st set 79.96 chs

By 2nd set 80.03 chs the mean of which is

80.00 Set a lime stone 18x14x4 ins in a Md of Stone
for Cor to see 18, 19, 19, 24 marked into 3 notches
on N and 3 notches on S edges, Cor is on ledge

of bed rock in scattering cedars from which
A. Pium 10 ins diam bears N 8° E 52 lines dist

Md T 31 N R I E S 18 BT. No other trees within dist

Gila and Salt River Mendocino

Land rolling

Soil rocky 4th rate

Thin Cedars and Pines

Dec 8-1899

N bet sec 13 and 18

To 14.55' E

Over rolling ground

29.40

Road from Rowie Mill to Suban. ^{560²} bears N65°W andDiffer measurements of 40 chs by two sets of chisimen
is 3 lbs; position of middle pointBy 1st set 40.01 chsBy 2nd set 39.98 chs. the mean of which is

40.00

Set a lime stone 24x12x4 ins, 16 ins in ground

for "u see cor marked 1/4 13 on W. 18 on E faces

raised a 2nd of stone 2 ft base 1/2 ft high N. of cor

55.00

Enter dense Cedars and Pines bearing E and W

Differ measurements of 80 chs by two sets of
Chisimen is 6 lbs; position of Middle pointBy 1st set 80.03 chsBy 2nd set 79.97 chs the mean of which is

80.00

Set a lime stone 24x8x4 ins, 16 ins in the ground

Gila and Salt River Mission

N. lat. Sec 12 & 18

For Cor to Secs 7, 12, 13, 18 marked with 2 notches
on N and 2 notches on S edges from which

A Cedar 8 in diam bears $N 80^{\circ} W$, 38 lbs dist

Marked T31NR1WS 12 BT

A Cedar 12 in diam bears $S 75^{\circ} E$ 54 lbs dist

Marked T31NR1ES 18 BT

A Cedar 12 in diam bears $S 70^{\circ} W$ 59 lbs dist

Mkd T31NR1WS 13 BT

A Piñon 4 in diam bears $N 42^{\circ} E$, 23 lbs dist

Mkd T31NR1ES 7 BT

Land rolling

Soil 3rd rate

Dense cedars and Piñons 25 chs

N. lat. Secs 7 & 12

Va $15^{\circ} 02'$

Over rolling ground through dense timber

Diff bet. measurements of 40 chs by two sets of
chambers is 9 lbs; position of middle point

By 1st set 40.00 chs

By 2nd set 39.95 chs, the mean of which is

40.00

Set a line Stone $14 \times 12 \times 10$ in, 9 in in the ground

Gila and Salt River Meridian

for $\frac{1}{4}$ sec cor., marked $\frac{1}{4}$.12 on Wand 7 in
E face from which

A Cedar 7 in diam bears $S 39^{\circ} E$, 14 lbs dia

Marked $\frac{1}{4}$ S 7 BT

A Cedar 20 in diam bears $S 50^{\circ} 46' W$, 79 lbs dia

Marked $\frac{1}{4}$ S 12 BT

Diff. bet measurements of 80 chs by two sets of
Choumen is 4 lbs. Position of middle point

By 1st set 80.02 chs

By 2nd set 79.98 chs the mean of which is

80.00

Set a line stone $20 \times 10 \times 8$ in, 15 in in ground
for cor to sec's 1, 6, 7, 12 marked with 1 notch on
Wand 5 notches on S edges from which

A Piñon tree 12 in diam bears $N 82.36' W$, 13 lbs dia

Marked T 31 NR I WS 1 BT

A Piñon 16 in diam bears $S 35^{\circ} 20' W$, 39 lbs dia

Marked T 31 NR I WS 2 BT

A Cedar 10 in diam bears $N 51^{\circ} E$, 35 lbs dia

Marked T 31 NR I ES 6 BT

A Cedar 4 in diam bears $S 79^{\circ} E$, 23 lbs dia

Gila and Salt River Meridian

N. bet sees 7+12

Marked T31 N R I E S 7 73 T

Land rolling

Soil 5th salt

Timber 80 chs

Dec 9-1899

N. bet see 1 and 6

Cliff bet measurements of 40 chs by two sets of
Chauvinier is 4 lks; position of Middle PointBy 1st set 40.02 chsBy 2nd set 39.98 chs. the mean of which is40.00 Set a lime stone 20x8x5 ins. in md of stone
for 1/2 see cor. marked 1/2 on W and 6 on E
faces, from which

A Cedar tree 8 ins diam bears S 72° E. 58 lks dist

Mkd 1/2 S 6 13 T. No other trees within dist

Diff. bet. measurements of 80 chs by two sets of
Chauvinier is 5 lks; position of Middle PointBy 1st set 80.02 chsBy 2nd set 79.97 chs. the mean of which is

80.00 Set a lime stone 30x15x6 ins. in md of stone for

Cor to T's 31, 32. N, R, I E and 1 W marked

Gila and Salt River Meridian

7th bet sec 1 & 6

with six notches on each edge, from which

A Cedar tree 12 in diam bears $N 53^{\circ} W$, 40 lks dist

Marked T32NR1WS36BT

A Piñon 8 in diam bears $N 63^{\circ} E$ 47 lks dist

Marked T32NR1ES31BT

A Piñon 12 in diam bears $S 82^{\circ} 30' E$, 65 lks dist

Mkd T31NR1ES6BT

A Piñon 16 in diam bears $S 15^{\circ} 30' W$, 15 lks dist

Marked T31NR1WS1BT

This Cor is about $\frac{1}{4}$ mile S and $\frac{1}{4}$ mile West

of Rim of Grand Cañon of the Colorado river

Land rolling

Soil 3rd rate

Timber 80 cks

Dec 10 - 1899

W. Oscar Sacer.

U. S. Deputy Surveyor.

{ Place after Gen. Deo

Gila and Salt River Meridian

At the cor. last mentioned or described
 I observed Polaris at western elongation
 Dec 11 - 1899 at 1:55 AM in accordance
 with instructions in the manual, and
 mark the line thus determined by a
 stake driven in a stake set in the
 ground, five chains north of my station
 and at 8 am I lay off azimuth of
 Polaris $136^{\circ}20'$ to the east and mark the
 true meridian, thus determined, by
 a stake driven in a stake set east of
 the point, previously established. The
 magnetic bearing of said true meridian
 is $N. 12^{\circ}45' W.$, which reduced by
 the table on page 100 of the manual
 gives the mean magnetic declination
 $14^{\circ}44' E$

Reversing the telescope of my transit
 I find by my back-sight that my line
 is correct

General Description

This Line runs over
Rolling, Rough and
mountainous land
parts of which are
covered with dense
pine and cedars.

Cataract Canon runs
through Tps. 26 N. Tps.
29 and 30 N, are cut
with innumerable
deep and precipitous
Canons which with
their branches are
very rugged

Signed

U. S. Surveyor-General's Office,

3 Tucson, A. T., May 31st, 1900,

The foregoing field notes of the surveys of the Gila & Salt River Meridian, through Tps. 25, 26, 27, 28, 29, 30 & 31 North, Rs. 1 E. & 1 W., in Arizona, executed by

----- W. O. SECOR, -----

U. S. Deputy Surveyor, under his contract dated Oct. 10th, 1899, having been critically examined,, the necessary corrections and explanations made, the said Field Notes and the surveys they describe are hereby approved.

George Christ

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

List of Names.

BOOK 1717

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A List of the Names of the Individuals
 employed by W. Oscar Saco,
 U. S. Deputy Surveyor, to assist in running, meas-
 uring and marking the lines and corners described
 in the foregoing Field Notes of the survey of the
 7th Standard Parallel N. through five ranges
 west ⁴/₄ to ranges E. ^{and the Gila and Salt}
 River Meridian from the 6th Standard
 Parallel N. to N. boundary of Sp. 31N.

^{of them}
 of the Gila and Salt River Base and Meridian, in
 the Territory of Arizona, showing the respective
 capacities in which they acted.

<u>Charlie Kolster</u>	Chainman.
<u>R. L. Merritt</u>	Chainman.
<u>H. A. Cargile</u>	Chainman.
<u>M. J. Bird</u>	Chainman.
<u>J. A. Gandle</u>	Axeman.
<u>A. S. Hamilton</u>	Axeman.
<u>Ellis Work</u> ^{and} <u>A. G. Johnson</u>	Flagman.

Final Oath of Assistants.

We hereby certify that we assisted

25
N. Oscar Secor U. S. Deputy Surveyor, in
surveying all those parts or portions of the ^{Gila}
and Salt River Meridian from the 6th Standard
Parallel N. to N. boundary of T. 31 N. and the
7th Standard Parallel through 5 ranges
west and 6 ranges east,

^{from}
of the Gila and Salt River Base and Meridian, in
the Territory of Arizona, as 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.

- Chas. Kolesky* Chairman.
- R. K. Bennett* Chairman.
- H. A. Garsite* Chairman.
- M. J. Bird* Chairman.
- T. C. Gander* Axeman.
- A. H. Hamilton* Axeman.

Ellis Hook - A. G. Johnson Flagman.

Sworn to and subscribed before me, this *22*

day of *June* *1880*

Jos. Johnston
Notary Public.

[SEAL.]

Final Oath of U. S. Deputy Surveyor. 76

I, W. Oscar Secor.

U. S. Deputy Surveyor, do solemnly swear that in pursuance of a contract received from George
Christ, United States Surveyor-General for Arizona, bearing date of the 10 day of

Oct

1899., 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 Gila and Salt River Meridian

from the 6th Standard Parallel N. to N. 7^{1/2} of Sp. 31 N. and the 7th Standard Parallel N. through five ranges west and six ranges east

from
of the Gila and Salt River Base and Meridian, in the Territory of Arizona, as 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 surveys have been established and perpetuated in strict accordance with the Manual of printed instructions, the special instructions of the United States Surveyor-General for Arizona, and in the specific

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manner described in the field notes, and that the foregoing are the true Field Notes of such survey; and should any fraud be detected I will suffer the penalty of perjury, under the provisions of an act of Congress approved August 8, 1846.

W. Oscar Secor
U. S. Deputy Surveyor.

Sworn to and subscribed before me this 22

day of Jan 1890

Jos. Johnston

BOOK 1717

Sworn to & subscribed before me, this 31 day of January 1900

George Christ
U.S. Surveyor General
for Arizona