

*Trans. Gule...
to V...*

Book C.

2086

BOOK 2086

FIELD NOTES

2086

OF THE SURVEY OF THE

Subdivision Lines of Twp. 31 N. R. 11 E.

2086

2086

Of the *Gila and Salt River Base* and Meridian,

in the Territory of Arizona

AS SURVEYED BY

Sidney E. Black

United States *Examiner of Surveys* ~~Deputy Surveyor~~,

Under ~~his Contract No.~~ *Instructions* dated *Oct. 2nd*, 1907

Survey commenced *November 22nd*, 1907

Survey completed *December 5th*, 1907

2086

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NAMES AND DUTIES OF ASSISTANTS.

J. G. Kurb

Comptroller

P. L. Warner

Chairman

P. J. Kline

Chairman

Norman Oliver

Wardman

H. L. May

Magnum

BOOK 2086

INDEX DIAGRAM.

Township 31 North, Range 11 East

6	5	4	3	8	15	2	8	1		
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PRELIMINARY OATHS OF ASSISTANTS.

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

_____, *Chainman.*
_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 190 }



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

_____, *Moundman.*
_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 190 }



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

_____, *Axman.*
_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 190 }



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

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 190 }



Subdivision of Twp. 31 N., R. 11 E.

Chains

Survey Commenced November 22nd 1907. and executed with a Young and Sons light mountain transit No. 10 with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc. which is also the least count of the verniers of the lat. and decl. arcs. -

Examine the adjustments of the transit and correct the level and collimation errors. then to test the solar apparatus. by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris. I proceed as follows

At my Camp. which is situated near the Center of the township. Latitude $36^{\circ}06'N.$
 Set off $36^{\circ}06'N.$ on the lat. arc, $20^{\circ}00'S.$ on the decl. arc and ^{at 4:00 P.M. S.M.J.} determine a meridian with the solar, and mark a point thereof by a nail driven in a stake set firmly in the ground 5 chs N. of my instrument.

November 22 1907

November 23rd 1907. At 3^h 18^m a.m. observe Polaris at Western Elongation in accordance with instructions in the Manual and mark the direction thus determined by a nail driven in a stake set in the ground 5.00 chs N. of my instrument
 At 6 a.m. I lay off the azimuth of Polaris $1^{\circ}28'$ to the east and mark the meridian thus determined by a nail driven in the stake already set 5 chs N. of my instrument on which the meridian falls 0.4. ins. east of the mark determined by the solar!
 At 7^h 46^m a.m. l.m.s. I set off $36^{\circ}06'N.$ on the lat. arc. $20^{\circ}07'S.$ on the decl. arc and determine a meridian with the

Subdivision of N. 31 N. R. 11 E. Chains

Solar and mark a point thereof by a nail driven in the stake already set 5 chs. N. of my instrument, this point fell 0.6 ins East of the point established by the Polaris observation.

The solar apparatus, by pm. and am. observations defines positions for meridian respectively about 21" west and 0° 31" East of the meridian established by the Polaris observation, therefore I conclude that the adjustments of the instruments are satisfactory.

I commence at the cor of sec 1, 2, 35 and 36 on the south boundary of the tp. At this cor I set off 36° 53' N. on the lat. and 20° 11 1/2' S on the decl. arc and at 9^h 15^m am. determine a meridian with the solar

Thence I run
N 0° 0' W. Bet. sec 35 and 36

- Over rolling mesa land covered with scattering sage and greasewood bush and bunch grass
- 1.50 North edge of mesa head N.W. and S.E.
- Over rolling land. descend N.W. slope, over broken hilly land.
- 5.70 Dry ravine course N.E. asc
- 7.50 Top of sand ridge head N.E. and S.W. desc.
- 9.50 Dry ravine course N.E. asc.
- 12.50 Top sand ridge head N.E. and S.W. desc.
- 26.75 Dry ravine course N.E. asc.
- 20.00 Top of sand ridge head N.E. and S.W. desc.
- 34.90 Dry ravine course N.E. bank 2 ft. high.
- 40.00 Set a lime stone 18x14x4 ins. 12 ins. in the ground for 1/4 sec. cor., marked "400 W. face, dig pits 18x18x12 ins. N and S of stone 3 ft. dia, and raise a mound of earth 2 1/2 ft. base 1 1/2 ft. high W of cor
- 62.00 Foot of descent in West side of circular valley head N.E. and S.W. asc gently over rolling land
- 80.00 Set a lime stone 16x8x4 ins. 12 ins. in the ground for cor. of sec 25, 26, 35 and 36 marked with 1 notch on E and S. edges dig pits 18x18x12 ins. in each sec 5 1/2 ft

Chains

ditch and raise a mound of earth 4 ft base 9 ft high W of cor.
Land rolling and hilly.
Soil sandy 3rd rate
No timber

S 89° 53' E. on a random line bet. sec 25 and 36.

40.00 Set trap 1/4 sec. cor.

79.88 Fall 5 lbs N. of the cor of sec. 25, 30, 31 and 36. Thence down

N 89° 51' W, on true line bet. sec 25 and 36.

Over rolling bottom land. Covered with scattering greasewood and sage bush and bunch grass

39.94 Set a lime stone 18x9x4 ins. 17. ins in the ground for 1/4 sec. cor. marked 1/4 on N face dig. pits 18x18x12 ins. East W of stone 3 ft. ditch and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

79.88 The cor. of sec 25, 26, 35 and 36.

Land rolling
Soil sandy 2nd and 3rd rate.
No timber

NOTE At this cor. I set off 20° 13' S. on the decl. arc and at 11^h 46^m a.m. last observed the sun on the meridian, the resulting latitude being 36° 04' N.

N 0° 01' W bet. sec 25 and 26.

Ascend gradually S.W slope on sandy land covered with scattering sage and greasewood bush and bunch grass.

40.00 Set a lime stone 16x8x4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. dig. pits 18x18x12 ins. N and S of stone 3 ft. ditch, and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W of cor.

48.50 Top of ascent on S. edge of mesa, base

Subdivision of 9 1/4 31 N. R 11 E.
Main

60.40 N.E. and S.W. thence on nearly level land.
North edge of mesa from N.E. and S.W.
lean level land from N.E. and S.W.
desc. N.W. slope on broken hilly land.
80.00 Set a lime stone 18x8x4 ins 12 ins. in the
ground for Cor. of sec. 23, 24, 25 and 26
marked with 1 notch on E and 2 notches
on S. edges. dig pit 18x18x12 ins in
each sec 5 1/2 ft. dia and raise a
mound of earth 4 ft. base 2 ft. high, W.
of Cor.
Land level rolling and hilly.
Soil sandy 2nd and 3rd rate.
No timber.

S 89° 51' E on a random line bet. sec.
24 and 25
40.00 Set temp 1/4 sec. Cor.
79.86 Fall 1 lb. N. of the Cor. of sec 25, 30, 31 and
36 on the East side of 1/4.
Thence Drive
N 89° 50' W. on a true line bet. sec.
24 and 25. across S.E. slope on hilly
land covered with scattering sage and
greasewood brush and bunch grass
3.36 Top of ascent on S.E. edge of mesa, from
N.E. and S.W. thence on rolling land.
16.06 Head of dry ravine Course S.
39.93 Set a lime stone 16x12x6 ins 12 ins. in
the ground for 1/4 sec. Cor. marked 1/4
on N. face. raise a mound of stone
2 ft. base 1 1/2 ft. high N. of Cor. pit
impracticable
41.36 West edge of mesa. from N.E. and S.W.
lean rolling land from N.E. and S.W. desc. N.
N.W. slope on broken hilly land
45.25 Dry ravine Course N.W. asc.
46.06 Top of sand ridge from N and S. desc.
48.25 Dry ravine Course N.W. asc.
49.26 Top of sand ridge from N.E. and S.W. desc.
51.21 Dry ravine Course N.E. asc.

Subdivision of Twp. 31 N. R. 11 E.

Chain

- 52.51 Top of sand ridge from N.E. and S.W. decl.
 57.36 Enter dry sand wash Course N.W. thence in
 wash.
 59.61 Leave dry ravine Course N.W. arc
 79.86 The cor of sec 23, 24, 25 and 26.
 Land. Hilly and rolling
 Soil sandy 3rd and 4th rate.
 No timber.

November 23rd 1907

November 24th 1907. Ab. 7th 47th a.m. Line to D
 set off. 36° 05' N. on the lat. arc. 20° 22' S on
 the decl. arc and determine a meridian
 with the solar at the cor of sec. 23, 24, 25 and 26

Thence Drive

N 0° 0' W. Bet. sec. 23 and 24

Descend steep N. slope over hilly land. covered
 with scattering sage and greasewood brush
 and bunch grass

- 10.00 Top of descent leave hilly land from N.E. and
 S.W. Enter rolling sandy mesa land from
 N.E. and S.W.

- 40.00 Set a lime stone 14x12x5 ins. 10 ins. in the
 ground for 1/4 sec. cor. marked "40 W" face
 dig pits 18x18x12 ins N. and S. of stone 3 ft. dia.
 and raise a mound of earth 3 1/2 ft. base 1 1/2
 ft. high W. of cor.

- 80.00 Set a lime stone 14x13x4 ins. 10 ins. in
 the ground for cor. of sec 13, 14, 23 and 24
 marked with 1 notch on E and 3 notches on S
 edges. dig pits 18x18x12 ins. in each sec.
 5 1/2 ft. dia. and raise a mound of earth
 4 ft. base 2 ft. high W. of cor.

Land rolling and hilly
 Soil sandy 3rd rate.
 No timber.

S 89° 50' E. on a random line bet. sec
 13 and 24.

- 140.00 Set temp 1/4 sec. cor.

- 79.94 Intersect the E. bdy. of Twp. 1 th. S. of the

Subdivision of T₁. 31 N. R 11 E.

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Cor. of sec. 13, 18, 19 and 24.

Thence Drum

N 89° 51' W. on a true line bet. sec. 13 and 24

Over low rolling sand hills covered with scattering sage and greasewood brush and bunch grass.

39.97 Set a line stone 14x12x5 ins. 10 ins in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face dig pits 18x18x12 ins. East W. of stone 3 ft. dist and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high N. of cor.

79.94 The Cor. of sec. 13, 14, 23 and 24.

Land rolling sand hills

Soil sandy 3rd rate.

No timber.

Nov 24th At this cor. Set off 90° 26' S. on the decl. arc and at 11^h 47^m a.m. cut across the sun on the meridian and obtain on the lat. arc a reading of 36° 06' N.

N 0° 01' W. Bet. sec 13 and 14

Over low rolling sand hills. covered with scattering sage and greasewood brush and bunch grass.

40.00 Set a line stone 18x10x5 ins. 12 ins in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face., dig pits 18x18x12 ins. N and S. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.

80.00 Set a line stone 14x13x4 ins. 10 ins. in the ground for cor. of sec 11, 12, 13 and 14 marked with 1 notch on E and 4 notches on S. edges. dig pits 18x18x12 ins. in each sec $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land low rolling sand hills.

Soil sandy 3rd rate.

No timber.

N 89° 51' E on a random line bet. sec 12 and 13

Subdivision of T₁ 31 N₁, R 11 E.

Chain

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.98 Distance of the E. bdy. of T₁ at the cor. of sec. 7, 12, 13 and 18.
Thence Run.
N $59^{\circ} 51'$ W. on a true line bet. sec. 12 and 13. Run end gently N.W. slope over low sand hills. Covered with scattering sage and greasewood brush and bunch grass
- 29.96 Dry ravine course N. asc. gently.
- 39.99 Set a limestone $14 \times 8 \times 5$ ins. 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked "4 on N. face, raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high N. of cor., pits impracticable
- 47.00 Top of sand ridge head N.E. and S.W. decl. gently
- 79.98 Set cor. of sec. 11, 12, 13 and 14.
Land rolling sand hills.
Soil sandy and stony 3rd and 4th rate.
No timber

November 24th 1907

November 26th 1907. Ab. 1. ^h 47^m p.m. Limit
Set off $36^{\circ} 07'$ N. on the lat. arc. $20^{\circ} 51' S.$
on the decl. arc. and determine a true meridian with the solar at the cor. of
sec. 11, 12, 13 and 14.

Thence Run

N $0^{\circ} 01'$ W bet. sec. 11 and 12 Over low rolling sand hills covered with scattering sage and greasewood brush and bunch grass.

- 40.00 Set a limestone $20 \times 11 \times 4$ ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked "4 on W. face. Dig pits $18 \times 18 \times 12$ ins. N and S. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.
- 65.00 Dry ravine course N.E. asc. ridge.
- 70.76 Top of sand ridge head N.E. and S.W. decl.
- 73.76 Road leads from Oraibi to Puhai Ariz head N.W. and S.E.
- 80.00 Set a limestone $12 \times 8 \times 5$ ins. 8 ins. in the ground for cor. of sec. 11 and 12, marked

Subdivision of Twp. 31 N. R. 11 E.

Chain

with 1 notch on East & notches on S. edged.
Raise a mound of stone 2 ft base 1 1/2 ft high
W of cor. Pile impracticable
Land rolling sand hills.
Soil sandy 3rd rate.
No timber.

S 89° 51' E on a random line bet. sec.

1 and 12

- 40.00 Set temp 1/4 sec cor.
- 79.96 Intersect the E bdy. of Twp. at the cor. of
secs. 1, 6, 7 and 12.
Thence Drum
N 89° 51' W. on a true line bet. sec 1 and
12. Descend N.W. slope over low sand ridges
covered with scattering sage and greenwood
brush and bunch grass
- 39.98 Set a line stone 16 x 8 x 4 ins 10 ins. in the
ground for 1/4 sec cor. marked 1/4 on N. face
Raise a mound of stone 2 ft base 1 1/2 ft
high N. of cor. Pile impracticable
- 43.50 Dry ravine 25 lbs. wide 6 ft. deep corner NW.
- 53.40 Dry ravine 30 ft deep 150 lbs. wide corner NE.
dec. steeply
- 57.50 Top of Mesa bears N.W. and S.E. Entire rolling
land bears NE. and S.W.
- 72.40 West edge of Mesa, leave rolling land.
bear NE. and S.W. descend W slope over
hilly land.
- 79.96 The cor. of. sec. 1, 2, 11 and 12.
Land rolling and hilly,
Soil sandy and stony 3rd and 4th rate.
No timber.

N 0° 01' W. on a random line bet. sec.

1 and 2

- 40.00 Set temp 1/4 sec. cor.
- 79.86 Intersect the N. bdy. of Twp. 21 lbs. E of
the cor. of. sec. 1, 2, 25 and 30.
Thence Drum
S 0° 01' E on a true line bet. sec 1 and 2

Subdivision of Twp. 31 N. R. 11 E.

Behavis

- 1.05 Descend S.E. slope over rolling Mesa land. Covered with scattering bunch grass
- 6.44 Road bears N80°E and S80°W. Leads from Puba Ariz to Red Lake Ariz.
- 7.75 Top of perpendicular sand stone cliff. 40 ft. high desc cliff.
- 7.75 Foot of cliff. Enter level bottom land along Monocline Wash. bears NE. and SW.
- 21.00 Center of Monocline which 2 Chs. wide bears 15 ft. high course NW.
- 21.70 Perpendicular bluff on south side of Wash. bears bottom land bears NW and SE. are abruptly.
- 22.55 Top of bluff 100 ft. above wash bears NW and SE are gradually.
- 39.86 Set a line stone 16x9x4 ins, 12 ins. in the ground. for 1/4 sec. cor., marked 1/4 on W. face. dig pits 18x18x12 ins N. and S. of stone 3 ft. dist. and raise a mound of earth 3 ft. base. 1 1/2 ft. high W. of cor.
- 42.50 Top of sand ridge bears NE. and SW. desc.
- 79.75 Foot descent in dry ravine course NE. are.
- 79.86 The cor. of sec. 1, 2, 11 and 12
Land rolling
Soil sandy and stony 2nd 3rd and 4th rate.
No timber

November 26th 1907

November 25th 1907. At 8^h 17^m a.m. Com. L. Det. off. 36° 03' N. on the lat. arc. 20° 34' S. on the decl. arc and determine a meridian with the solar at the cor. of sec. 2, 3, 34 and 35 on the S. side of the Twp

Thence Drive
N 0° 02' W. Bet. sec 34 and 35
Descend N.W. slope Mesa over sandy land through scattering sage and greasewood bush and bunch grass

- 14.50 Dry ravine course SW. are.
- 31.00 Top of sand ridge bears NE. and SW. desc.
- 40.00 Set a line stone 14x6x6 ins, 12 ins in

Subdivision of Twp 31 N. R11 E.

chains

the ground for $\frac{1}{4}$ ac. cor. mkd. $1\frac{1}{2}$ on W. face
dig pits $18 \times 18 \times 12$ ins N and S of stone 3 ft.
dist, and raise a mound of earth $3\frac{1}{2}$
ft. base $1\frac{1}{2}$ ft. high W of cor.
41.75 Dry ravine course S.W. cor.
48.40 Twp Merid line N.E. and S.W. thence over
nearly level land.
74.50 North edge of Merid line N.E. and S.W. land
nearly level land - thence N.E. and S.W. desc
N.W. slope mesa.
80.00 Set a line stone $16 \times 8 \times 5$ ins. 12 ins. in the
ground for cor. of sec. 26 27 34 and 35
mkd. with 2 notches on E and 1 notch
on S edges. Raise a mound of stone
2 ft. base $1\frac{1}{2}$ ft. high W of cor. (Pits impracticable).
Land rolling and level.
Soil sandy 3rd rate
No timber

S $59^{\circ} 53' E$ on a random line bet.

sec. 26 and 35 -
40.00 Set temp $\frac{1}{4}$ ac. cor.
79.90 Intersect N and S. line 1 lb. S of the cor. of
sec. 25 26 35 and 36.
Thence Drive
N $59^{\circ} 54' W$ on a true line bet. sec 26
and 35. Ascend S.E. slope on rolling
sandy land covered with scattering sage
and greasewood brush and bunch grass
39.95 Set a line stone $14 \times 6 \times 6$ ins. 10 ins
in the ground for $\frac{1}{4}$ ac. cor. mkd. $1\frac{1}{2}$
on N. face; dig pits $18 \times 18 \times 12$ ins. East
W. of stone 3 ft. dist, and raise a mound
of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.
70.00 Top of ascent on ridge bet N.E. and S.W.
desc. steeply.
76.40 Foot of descent in dry ravine course N.W.
sec.
79.90 The cor. of sec. 26 27 34 and 35.
Land rolling and hilly.
Soil sandy and stony 3rd and 4th rate.
No timber.

Subdivision of Twp. 31 N., R. 11 E.

Chain

- N 0° 02' W. bet. sec. 26 and 27.
 Ascend steep N.E. slope of sand ridge
 covered with scattering sage and greasewood,
 brush and bunch grass.
- 9.15 Dry ravine course N.W. side.
- 13.50 Top of sand ridge bears N.W. and S.E. dir.
- 30.20 Same ravine course N.E. side.
- 32.40 Top of sand ridge bears N.E. and S.W. dir.
- 38.00 Foot descent from mesa bears N.E. and S.W.
 Enter low sand hills.
- 40.00 Set a line stone 15 x 6 x 6 ins. 10 ins. in
 the ground for $\frac{1}{4}$ sec. cor. mkd. $\frac{1}{4}$ on W.
 face, dig pits 18 x 18 x 12 ins. N. and S. of
 stone 3 ft. dia. and raise a mound
 of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high W. of
 cor.
- 80.00 Set a line stone 13 x 8 x 4 $\frac{1}{2}$ ins 9 ins in
 the ground for cor. of sec. 22, 23, 26 and
 27. mkd. with 2 notches on E and S
 edges, dig pits 18 x 18 x 12 ins. in each
 sec 5 $\frac{1}{2}$ ft. dia. and raise a mound
 of earth 4 ft. base 2 ft. high W. of cor.
 Sand hills.
 Soil sandy and stony 3rd and 4th rate.
 No timber

- S 89° 54' E on a random line bet
 sec. 23 and 26.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.86 Intersect N and S. line 5 lbs. S. of the cor.
 of sec. 23, 24, 25 and 26.
 Thence Run
 N 89° 56' W. on a true line bet. sec.
 23 and 26. Over low sand hills
 covered with scattering sage and greasewood
 brush and bunch grass.
- 39.93 Set a line stone 12 x 8 x 5 ins. 8 ins in
 the ground for $\frac{1}{4}$ sec. cor. mkd. $\frac{1}{4}$ on
 N. face, dig pits 18 x 18 x 12 ins. E. and W.
 of stone 3 ft. dia. and raise a mound
 of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high N. of cor.

Subdivision of T₁. 310N, R11E.

Chain

7986 The Cor. of recs. 22, 23, 26 and 27.
Land hilly.
Soil sandy 3rd rate.
No timber

W 0° 02' W. Bet. recs 22 and 23.
Over low rolling sand hills. Covered with
scattering sage and greasewood bush
and bunch grass.

40.00 Set a line stone 12 x 7 x 7 ins, 8 ins. in the
ground for $\frac{1}{4}$ rec. cor. mkd. $\frac{1}{4}$ on W face. Dig pits
18 x 18 x 12 ins. N and S. of stone 3 ft. dist
and raise a mound of earth 3 $\frac{1}{2}$ ft.
high 1 $\frac{1}{2}$ ft. high W of cor

80.00 Set a line stone 12 x 8 x 7 ins, 8 ins. in the
ground for cor. of recs. 14, 15, 22, and 23
mkd. with 2 notches on E, and 3 notches
on S edges. Dig pits 18 x 18 x 12 ins in each rec. 5 $\frac{1}{2}$ ft. dist
Land hilly and raise a mound of earth 4 ft. here, 2 ft high
Soil sandy 3rd rate. West of cor.
No timber

NOTE Clouds obscure the sun at noon today
rendering an observation for latitude
impossible.

November 25th 1907

November 26th 1907. At 7^h 47^m a.m.
L. m. t. Det. off 36° 06' N on the lat. arc
20° 45' S. on the decl. arc and determine
a meridian with the solar at the cor.
of recs 14, 15, 22 and 23.

Thence Drum
S 89° 56' E on a random line bet. recs.
14 and 23.

40.00 Set temp. 14 rec cor.

79.80 Intersect N and S line 12 lbs. N. of the
Cor. of recs. 13, 14, 23 and 24.

Thence Drum
N 89° 51' W on a true line bet. recs.
14 and 23. Over rolling sand hills.
Covered with scattering sage and
greasewood bush and bunch grass

Subdivision of Tr 31 N, R 11 E.

Chains

- 39.90 Set a line stone 16x7x5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face dig pits 18x18x12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
- 79.80 The Cor of sec. 14 15 22 and 23
Land rolling & sand hills.
Soil sandy 3rd rate.
No timber.

- N 70° 02' W. Bet. sec. 14 and 15
Over low rolling sand hills covered with sage and greasewood bush and bunch grass.
- 40.00 Set a line stone 15x8x6 ins. 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face. dig pits 18x18x12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.

- 80.00 Set a line stone 18x7x6 ins. in the ground for cor. of sec. 10, 11, 14, and 15. marked with 2 notches on E and 4 notches on S. edges., dig pits 18x18x12 ins. in each sec 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 3 ft. high W. of cor.
Land rolling & sand hills.
Soil sandy 3rd rate.
No timber.

- S 89° 51' E on a random line bet. sec. 11 and 14.
- 40.00 Set temp $\frac{1}{4}$ sec. cor.
- 79.80 Intersect N. and S. line 1 lb S of cor. of sec 11, 12, 13 and 14.
Then on Dren
N 89° 52' W. on a true line bet. sec 11 and 14 Dren and N.W. slopes on low rolling sand hills covered with scattering sage and greasewood bush and bunch grass
- 3.80 Bottom of depression base N.E. and S.W. are

Subdivision of Twp 31 N., R 11 E.

- 39.90 Set a line stone 12x8x5 ins. 8 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face dig pits 18x18x12 ins. East W. of stone 3 ft. dist and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. N. of cor.
- 45.00 Top of sand ridge bears N.W. and S.W. decl.
- 55.25 Top of sand ridge bears N.E. and S.W. thence over rolling land.
- 79.80 The cor. of secs. 10, 11, 14, and 15
Land rolling and hilly
Soil sandy 3rd rate.
No timber.
- NOTE At this Cor. I set off $20^{\circ}49' S.$ on the decl. arc. and at $11^h 47^m$ l.m.t. observed the sun on the meridian. the resulting lat being $36^{\circ}06' N.$

November 26th 1907

- November 29th 1907. At $10^h 17^m$ a.m. l.m.t. I set off $36^{\circ}06' N.$ on the lat. arc $21^{\circ}21\frac{1}{2}' S.$ on the decl. arc and determine a meridian with the solar alt. the Cor. of secs. 10, 11, 14 and 15 Thence I run
- $N 0^{\circ}02' W.$ Bet. sec 10 and 11. Over low sand ridge covered with scattering sage and greasewood bush and bunch grass
- 40.00 Set a line stone 13x10x4 ins. 9 ins in the ground for $\frac{1}{4}$ sec cor. marked $\frac{1}{4}$ on W. face dig pits 18x18x12 ins. N. and S. of stone 3 ft. dist and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.
- 72.75 Dry ravine Course N.
- 74.25 Dry ravine Course N. W. ascend S. slope of ridge
- 80.00 Set a line stone 14x10x10 ins. 10 ins. in the ground for cor of secs. 2, 3, 10 and 11 marked with 2 notches on E and 5 notches on S. edge - dig pits 18x18x12 ins in each sec. $5\frac{1}{2}$ ft. dist and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
Land hilly.
Soil sandy 3rd rate.

Subdivision of Twp 31 N., R 11 E.
Chain

No timber
November 29th at the above Cor. Dredge off
21° 22' S. on the decl. arc. and at 11^h 48^m
am. l.m. to observe the sun on the meridian
the resulting latitude being 36° 07' N.

S 89° 52' E on a random line bet. sec
2 and 11.
40.00 Set temp. 1/4 sec. cor
79.92 Intersect NW and S. line. 8 lks. S of the
Cor. of sec. 1, 2, 11 and 12,
Thence D run
N 89° 55' W on a true line bet. sec
2 and 11. Descend N.W. slope over rolling
stony land. through scattering sage and
greasewood bush and bunch grass.
00.10 Dry ravine course N.E. asc.
13.00 Road from Oraibi Ariz to Pinta Ariz head
N.W. and S.E.
17.55 Top of steep ascent on ridge head NW and
S.E. asc gradually along top of ridge
39.00 Foot of mesa asc. abruptly.
39.96 Set a line stone 16x8x4 ins. 1 1/2 ins. in
the ground for 1/4 sec. cor. setd. 1/4 on N.W.
face. Raise a mound of stone 2 ft base
1 1/2 ft high N.W. of cor. Pits impracticable
42.00 Top of ascent on E edge of mesa. head
N. and S. enter rolling stony land head N and
S.
61.25 Head Mesa head NW and S. desc. W slope
79.92 The Cor of sec 2, 3, 10 and 11.
Land rolling and hilly.
Soil sandy and stony 3rd and 4th rate.
No timber

N 0° 02' W. on a random line bet. sec.
2 and 3.
40.00 Set temp. 1/4 sec. cor.
79.82 Intersect the N.W. bdy of Twp 31 N. 8 lks. E. of cor
of sec 2, 3, 34 and 35. on N bdy of Twp.
Thence D run

70.1 W

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Subdivision of T₁ 310 N. R 11 E.

Chain

- S 0° 10' E. on a true line bet. sec 2 and 3
Descend steep S.W. slope into Monocopia Wash. on stony land through greasewood bush.
- 2.00 Top of sand stone ledges desc abruptly
- 7.00 Floodcut Cross Monocopia Wash 150
ft wide between banks 20 ft high. Course
N.W.
- 8.624 South side of wash. Enter level bottom
land bears N.W. and S.E.
- 20.09 Rare level land at foot of perpendicular
sand stone cliff bears N.W. and S.E. asc.
- 20.60 Top of cliff 75 ft high bears N.W. and S.E.
ascend gradually.
- 22.57 Road bears N.W. and S.E. leads from
Organic Ariz to Paha Ariz
- 39.82 Set a line stone 12 x 8 x 7 ins, 8 ins in
the ground for 1/4 sec. cor. used. 1/4 on W
face. Raise a mound of stone 2 ft. base
1 1/2 ft high W of cor. This impracticable
- 40.30 Head of course course N.W.
- 60.80 Top of ridge bears N.W. and S.E. desc
- 79.82 The cor of sec. 2, 3, 10 and 11.
Land level hilly and broken.
Soil sandy and stony 2nd 3rd and 4th rate.
No timber

November 29th 1907

November 27th 1907, at 8^h 48^m a.m. line to
Set off. 36° 03' N. on the lat. and 20° 58' S.
on the decl. arc and determine a meridian
with the solar at the cor. of sec. 3, 4, 33 and 34
on the S side of the tp.

Thence Drive

- N 0° 02' W. Set sec 33 and 34
Ascend S slope. on hilly land covered with
sage and greasewood bush and bunch grass.
- 2.30 Top of sand ridge bears N.E. and S.W. desc.
N.W. slope.
- 14.00 Dry ravine course S.W. asc. steep S.W. slope
sand ridge.
- 40.00 Set a sand stone 15 x 12 x 5 ins 10 ins in the

Subdivision of Pp 31 N. P 11 E.

Chain

ground. for 1/4 sec. cor. mkd. 14 on W. face, raised a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.

44.00 Top of ridge toward N.E. and S.W. desc.

75.00 Foot desc. enter low hills toward N.E. and S.W.

80.00 Set a lime stone 18x6x6 ins. 12 ins. in the ground for cor. of sec 27 28. 33 and 34, mkd. with 3 notches on E and 1 notch on S. edge; dig pits 18x18x12 ins in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor. Land hilly. Soil sandy 3rd rate. No timber.

At this cor. I set off ^{21-0 1/2 D.} 20° 49' S. on the decl. arc and at 11^h 48^m am. l.m.t. observed the sun on the meridian the resulting latitude being 36° 04' N.

S 89° 53' E on a random line bet. sec. 27 and 34

40.00 Set temp 1/4 sec. cor.

80.0x Distance bet the N. and S. line 3 lvs. S. of the cor. of sec. 26, 27, 34 and 35 -

Thence Drive N 89° 54' W on a true line bet. sec 27 and 34 Ascend E slope sand ridge through scattering sage and greasewood brush and bunch grass

00 75 Top of ridge 30 ft. above cor. toward N and S. desc.

8.20 Dry ravine course N.E. asc.

17.00 Top of sand ridge toward N and S. desc.

19.00 Dry ravine course S.W. asc.

29.50 Top of ridge toward N.E. and S.W. desc.

39.00 Dry ravine course N. asc.

40.02 Set a lime stone 20x6x5 ins, 15 ins. in the ground for 1/4 sec cor. mkd. 14 on W. face dig pits 18x18x12 ins E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

43.20 Top of sand ridge toward N.E. and S.W. desc.

66.90 Bottom of depression toward N.E. and S.W. asc.

Subdivision of Twp 31 N., R 11 E.

Chain

6950 Top of sand ridge bears N.E. and S.W. dir.
 8004 The cor. of secs. 27, 28, 33 and 34
 Land hilly
 Soil sandy 3rd and 4th rate.
 No timber.

N 0° 02' W. Bet. sec. 27 and 28
 Over low rolling sand hills covered with scattering
 greasewood bush and bunch grass.

40.00 Set a line stone 14 x 6 x 6 ins, 10 ins in the
 ground, for 1/4 sec. cor. mark 1/4 sec W. face
 Dig pits 18 x 18 x 12 ins N and S. of stone 3 ft.
 dist. and raise a mound of earth 3 1/2 ft.
 base, 1 1/2 ft. high W. of cor.

8000 Set a line stone 17 x 6 x 6 ins, 12 ins in
 the ground, for cor. of secs. 21, 22, 27, and
 28, mark with 3 notches on E and 2
 notches on S edges, Dig pits 18 x 18 x 12 ins
 in each sec 5 1/2 ft. dist. and raise a
 mound of earth 4 ft. base, 2 ft. high W.
 of cor.

Land low rolling sand hills.
 Soil sandy 3rd rate.
 No timber.

S 89° 54' E on a random line bet. sec.
 22 and 27.

40.00 Set temp 1/4 sec. cor.
 80.02 Intersect N and S. line 10 lbs. S. of the
 cor. of secs. 22, 23, 26, and 27.

Thence Drive
 N 89° 58' W. on a true line bet. sec. 22 and 27
 Over low rolling sand hills covered with
 scattering sage and greasewood bush
 and bunch grass.

40.01 Set a line stone 15 x 6 x 6 ins, 10 ins. in
 the ground, for 1/4 sec. cor. mark, 1/4 sec N.
 face, Dig pits 18 x 18 x 12 ins E and W. of
 stone 3 ft. dist and raise a mound of
 earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

Subdivision of T₁ 31 N., R11 E.

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Claims

80.02 The cor. of sec. 21, 22, 27 and 28.
Land Gilly.
Soil sandy 3rd rate
No timber

November 27th 1907

November 28th 1907, Ab. 2nd 48th pm. Lm. c.
Set off 36° 05' N. on the lat. arc 21° 12' S. on the
decl. arc and determine a meridian with
the solar at the cor. of sec. 21, 22, 27 and 28

Thence Drive

N 0° 02' W. Beh. sec. 21 and 22.

Over low rolling sand hills covered with
scattering sage and greasewood brush and
bunch grass.

40.00 Set a lime stone 16 x 7 x 5 ins, 12 ins in the
ground. for 1/4 sec. cor. mtd. 1/4 on W. face.

Dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft.
dist. and raise a mound of earth 3 1/2 ft.
base 1 1/2 ft. high W. of cor.

80.00 Set a lime stone 22 x 8 x 6 ins, 10 ins in
the ground. for cor. of sec. 15, 16, 21 and 22
mtd. T31 N. on N.E., R11 E. on S.E. faces
with 3 notches on E and S edges. Dig
pits 18 x 18 x 12 ins in each sec. 3 1/2 ft. dist.
and raise a mound of earth 4 ft. base
2 ft. high W. of cor.

Land rolling sand hills

Soil sandy 3rd rate

No timber

S 89° 58' E on a random line beh. sec.

15 and 22.

40.00 Beh. temp 1/4 sec cor.

79.88 Intersect N. and S. line 5 lks. N. of the
cor. of sec. 14, 15, 22 and 23.

Thence Drive

N 89° 56' W. on a true line beh. sec. 15 and
22. Over low rolling sand hills. covered
with scattering sage and greasewood brush
and bunch grass.

Subdivision of T₁ 31 N., R₁₁ E.

Chains

- 39.94 Set a lime stone 18x6x5 ins, 12 ins. in the ground. for 1/4 sec. cor. marked. 1/4 on N. face
- Dig pits 18x18x12 ins. East W. of stone 3 ft. dish and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.
- 79.58 The cor. of secs 15, 16, 21 and 22.
- Land low rolling sand hills
- Soil sandy 3rd rate.
- No timber.

November 28th 1907

November 29th 1907, ab. 7^h 48^m a.m.
l. int. Dip off. 36° 06' N. on the lake and 21° 18' S. on the decl. arc. and determine a meridian with the solar on the cor. of secs 15, 16, 21 and 22.

Thence I run

N 0° 02' W. Bet. secs. 15 and 16.

Over low rolling sand hills covered with scattering sage and greasewood brush and bunch grass.

- 40.00 Set a lime stone 17x8x6 ins, 12 ins. in the ground. for 1/4 sec. cor., marked. 1/4 on W. face. Dig pits 18x18x12 ins, N and S. of stone 3 ft. dish and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

78.50 South edge of old lake bed. Pass N.E. and W.

79.50 North side of lake bed Pass N.E. and S.W.

- 80.00 Set a lime stone 16x8x7. ins. 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16. marked. with 3 notches on E and 4 notches on S. edges. Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dish. and raise a mound of earth 4 ft. base 2 ft. high. W. of cor.
- Land hilly.
- Soil sandy 3rd rate.
- No timber.

89° 56' Cor. a random line bet. secs. 10 and 15.

- 40.00 Set lamp 1/4 sec. cor.

Subdivision of T₁ 31 N, R 11 E.

Chains

- 79.92 Intersects N. and S. line 5 lks N. of the cor. of secs. 10, 11, 14 and 15.
Thence Drun.
N 79° 54' W. on a true line bet secs. 10 and 15. Over rolling sandy land covered with scattering sage and greasewood, brush and bunch grass.
- 39.96 Set a white stone 12x12x4 ins., 8 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face. Dig pits 18x18x12 ins. East W. of stone 3 ft. dist and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
- 76.40 Each edge of old lake bed bears N. E. and S. W., thence on level land.
- 79.00 West edge of lake bed bears N. 6 and S. W.
- 79.92 The Cor. of secs. 9, 10, 15 and 16.
Land level and rolling.
Soil sandy 3rd rate.
No timber.

November 29th 1907.

December 1st 1907. Ah. 8^h 48^m am. L. m. C. 21° - 46'
Dreh off. 36° 06' from the lat. arc. 21° 37' 1/2 S on the decl. arc. and determine a meridian with the solar at the cor. of secs 9, 10, 15 and 16.

- Thence Drun.
N 0° 02' W. on a random line bet secs 9 and 10
- 40.00 Set temp 1/4 sec. cor.
- 79.58 Fall 1.6 lks. E of the cor. of secs. 3, 4, 9 and 10 which is a lime stone 6x6x5 ins. above ground, firmly set, marked and witnessed as described in the original field notes
Thence Drun
S 0° 09' E on a true line bet. secs. 9 and 10. Ascend gradually on N. W. slope over rolling sandy land covered with scattering sage and greasewood brush and bunch grass.
- 39.58 Set a lime stone 15x6x6 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face. Dig pits 18x18x12 ins N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft.

Subdivision of Twp 31 N, R11 E.

Chain

1 1/2 ft. high W. of cor.
72.50 North edge of main beam E and W. level
sand hills beam E and W. Enter level land beam E and W.
75.50 South side of main beam E and W. ascend
over rolling sand hills beam E and W.
76.50 Top of sand ridge beam N.E. and S.W. dead.
79.58 The cor. of sec. 9, 10, 15 and 16.
Land level and tully,
Soil sandy 3rd rate,
No timber.

S 89° 54' E on a random line bet. sec.
3 and 10.
40.00 Set temp. 1/4 sec. cor.
8-0.12 Intersect N and S. line 36 lbs. S. of the cor.
of sec 2, 3, 10 and 11
Thence run
S 89° 50' W on a true line bet. sec 3 and 10
descend gently over S.W. slope through scattering
sage and greasewood brush and bunch
grass.
00.750 By same course N.W. asc. N.E. slope ridge.
9.00 Top ridge beam N.E. and S.W. thence over
rolling tully land.
40.06 Set a white stone 18 x 6 x 5 ins, 12 ins in
the ground, for 1/4 sec. cor. mark. 1/4 sec N.
face. Dig pits 18 x 18 x 12 ins E and W. of
stone 3 ft. deep and raise a mound
of earth 3 1/2 ft. tall 1 1/2 ft. high N. of cor.
80.12 The cor. of sec. 3, 4, 9 and 10.
Land rolling and hilly,
Soil sandy 3rd and 4th rate.
No timber.

December 4th 1907.

November 25th 1907. At 8^h 18^m a.m. L. m. 6^h
I set off 36° 03' N. on the lat. arc., 21° 08 1/2' S.
on the decl. arc. and determine a meridian
with the solar alt. the cor. of sec. 4, 5, 32 and
33 on the S. side of the Twp.
Thence run

Chairs

Subdivision of Twp 31 N, R 11 E.

- N 0° 03' W, Beh. sec. 32 and 33, On low rolling sand hills covered with scattering sage and greasewood bush, and bunch grass.
- 6.50 Top of sand ridge bears N.E. and S.W. desc
- 11.00 Depression bears N.E. and S.W. asc.
- 30.50 Top of sand ridge bears N.E. and S.W. desc.
- 40.00 Set a line stone 15 X 6 X 6 ins, 10 ins. in the ground for $\frac{1}{4}$ sec. Cor. marked $\frac{1}{4}$ on W. face, Dig pits 18 X 18 X 12 ins N. and S. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.
- 80.00 Set a line stone 17 X 6 X 6 ins. 12 ins. in the ground for cor. of sec. 28, 29, 32 and 33, marked with 4 notches on E. and 1 notch on S. edges, Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
- Land hilly.
Soil sandy 3rd rate.
No timber
-
- S 89° 53' E on a random line bet. sec. 28 & 33
- 40.00 Set lump $\frac{1}{4}$ sec. cor.
- 80.01 Intersect N and S. line 10 lks. S. of the cor. of sec. 27, 28, 33 and 34
- Thence Drive
- N 89° 57' W on a true line bet. sec. 28 and 33
- Descend N.W. slope over sandy land, covered with scattering sage and greasewood bush and bunch grass.
- 19.00 Bottom of depression bears N.E. and S.W. asc.
- 25.25 Top of sand ridge 20 ft. above depression bears N.E. and S.W. desc.
- 30.00 Depression bears N.E. and S.W. asc. steeply.
- 37.70 Top of sand ridge bears N.E. and S.W. desc. N.W. slope.
- 40.00 $\frac{1}{2}$ Set a line stone 12 X 10 X 5 ins, 8 ins. in the ground for $\frac{1}{4}$ sec. Cor. marked $\frac{1}{4}$ on N. face; Dig pits 18 X 18 X 12 ins E and W. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
- 41.00 Bottom of depression bears N.E. and S.W. asc.
- 46.50 Top of spur bears N.E. and S.W. desc. gently

Subdivision of T₄ 31 N, R11 E

Chain

80.01 The cor of sec. 28, 29, 32 and 33.
Land hilly.
Soil sandy 3rd rate.
No timber.

N 0° 03' W. Bet. sec. 28 and 29.
Descend N.W. slope on low sand hills covered
with scattering sage and greasewood bush
and bunch grass.

40.00 Set a lime stone 14 x 7 x 6 ins. 10 ins. in the
ground for 1/4 sec. cor. mkd. 1/4 on W. face
Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft.
dia and raise a mound of earth 3 1/2 ft.
base, 1 1/2 ft high W of cor.

80.00 Set a lime stone 15 x 6 x 6 ins, 10 ins. in the
ground. for cor of sec. 20, 21, 28 and 29.
mkd. with 4 notches on E. and 2 notches
on S. edges. Dig pits 18 x 18 x 12 ins. in each
sec. 5 1/2 ft. dia and raise a mound of
earth 4 ft. base, 2 ft high W of cor.
Land rolling sand hills.
Soil sandy 3rd rate.
No timber.

NOTE. At this cor I set off. 21° 12' S. on the decl.
arc. and at 11^h 48^m a.m. l.m.t. observed
the sun on the meridian and obtain on
the lat. arc. a reading of 36° 06' N. for the latitude
of this place. which is a little higher than
the latitude given by the instrument on
former days.

S 89° 57' E. on a random line bet. sec.
21 and 28

40.00 Set temp 1/4 sec. cor.

80.02 Intersect N. and S. line 5 lbs. S. of the cor
of sec. 21, 22, 27 and 28.

Thence I run
N 89° 59' W. on a true line bet. sec. 21 and
28. Over low rolling sand hills covered with
scattering sage and greasewood bush and bunch

Subdivision of Tps 31 N., R11 E
Chain

- 140.01 ^{grass} Set a lime stone $14 \times 7 \times 6$ ins. 10 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face. Dig pits $18 \times 18 \times 12$ ins. E and W. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.
- 80.02 The cor. of secs. 20, 21, 28, and 29
Land hilly.
Soil sandy 3rd rate
No timber

November 28th 1907

- December 2nd 1907, Oh. 7th 48^m a.m. Cont.
Drew off. $36^{\circ} 06' + N.$ on the lat. arc, $21^{\circ} 45' S.$
on the decl. arc and determine a meridian
with the solar at the cor. of secs. 20, 21, 28
and 29.
- Thence I run
N $0^{\circ} 03'$ W. bet. secs. 20 and 21
Over rolling sandy land covered with
scattering sage and greasewood brush
and bunch grass.
- 140.00 Set a lime stone $16 \times 6 \times 6$ ins. 12 ins. in
the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W.
face. Dig pits $18 \times 18 \times 12$ ins. N. and S. of
stone 3 ft. dist. and raise a mound of
earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- 80.00 Set a lime stone $18 \times 7 \times 7$ ins. 12 ins. in
the ground for cor. of secs. 16, 17, 20 and 21
marked with 4 notches on E and 3 notches
on S. edges, Dig pits $18 \times 18 \times 12$ ins. in
each sec. $5\frac{1}{2}$ ft. dist. and raise a mound
of earth 4 ft. base, 2 ft. high W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

- S $89^{\circ} 59'$ E on a random line bet. secs.
16 and 21.
- 140.00 Set. trip $\frac{1}{4}$ sec. cor.
- 80.02 Intersect N. and S. line 8 lbs. N. of the cor.

Subdivision of Twp 31 N, R 11 E.

Behaviors

of sec. 15, 16, 21 and 22

Thence Drive

N 89° 56' W. on a true line bet. sec. 16 and 21.

Over rolling sandy land. Covered with scattering sage and greasewood bush and bunch grass

40.01 Set a line stone 14 x 7 x 6 ins, 10 ins. in the ground for 1/4 sec. cor, marked 14 on N. face
Dig pits 18 x 18 x 12 ins. E and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. N. of cor.

80.02 The cor. of sec. 16, 17, 20 and 21.

Land rolling

Soil sandy 3rd rate.

No timber.

NOTE

Clouds obscure the sun at noon today rendering an observation for latitude with the solar impossible.

N 0° 03' W. bet. sec. 16 and 17. Over low rolling sandy hills, covered with scattering sage and greasewood bush and bunch grass.

40.00 Set a line stone 16 x 6 x 6 ins, 12 ins. in the ground for 1/4 sec. cor, marked 14 on W. face
Dig pits 18 x 18 x 12 ins. N and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. W. of cor.

80.00 Set a line stone 21 x 5 x 5 ins, 16 ins in the ground for cor. of sec. 8, 9, 16 and 17. marked with 4 notches on E. and S. edges
Dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land hilly

Soil sandy 3rd rate.

No timber.

S 89° 56' E. on a random line bet. sec. 9 and 16.

Subdivision of Tp 31 N., R 11 E.
 Section

40.00 Sec temp $\frac{1}{4}$ sec. cor.

80.06 Intersect N. and S. line at the cor. of secs.
 9, 10, 15 and 16.

Thence I run

N $89^{\circ} 56' W.$ on a true line bet. secs.
 9 and 16.

Over low rolling sand hills covered with
 scattering sage and greasewood bush
 and bunch grass

40.03 Set a line stone, $13 \times 8 \times 6$ ins. 9 ins. in
 the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N.
 face. Dig pits $18 \times 18 \times 12$ ins E and W.
 of stone 3 ft. dish and raise a mound
 of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.

80.06 The cor. of secs. 8, 9, 16 and 17.

Land Chilly.

Soil sandy 3rd rate.

No. timber.

December 2nd 1907

N $0^{\circ} 03' W.$ on a random line bet. secs.
 8 and 9.

40.00 Sec. temp $\frac{1}{4}$ sec. cor.

79.69 Intersect E and W. line 78 lbs. E. of the
 Cor. of secs. 4, 5, 8, and 9.

This falling corresponds to a course of $8^{\circ} 33'$ on
 12' in excess of that allowed on page 66

of the Manual. Therefore I establish
 my line as a true line in its
 original position as follows:

December 5th 1907. After having retraced
 the line bet. secs 4 and 9. See Page - 38

Set off $36^{\circ} 06\frac{1}{2}' N.$ on the lat. arc. $22^{\circ} 16' S.$

on the decl. arc. and at 9^h 50^m a.m. look
 determine a meridian with the solar
 at the Cor. of secs. 8, 9, 16, and 17.

Thence I run

N $0^{\circ} 03' W.$ on a true line bet. secs.

8 and 9. Over low rolling sand hills covered
 with scattering sage and greasewood bush
 and bunch grass

2400 Bottom of depression bears N. E. and S. W. are.

Subdivision of Twp 31 N, R11 E
Chain

27.00 Top of sand ridge bear NE and S.W. dec.

40.00 Get a line stone 15x12x5 ins, 10 ins. in the ground for 1/4 sec. cor, mixed 1/4 on W. face Dig pits 18x18x12 ins. N and S. of stone 3ft. dist and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.

48.80 Depression bear NE and S.W. acc.

54.75 Top of sand ridge bear NE and S.W. dec.

65.80 Depression bear NE and S.W. acc.

69.90 Top of sand ridge bear NE and S.W. dec.

79.69 Intersect East W. line 78. lks. S89°53'E. of the cor. of sec. 4, 5, 8 and 9.

Get a line stone 14x12x4 ins, 10 ins. in the ground for Closing Cor. of sec. 8 and 9. mixed C.C. on S. with 4 grooves on E. and 2 grooves on W. faces. Dig pits 18x24x12 ins. Crosswise on line E. and W. of stone 3ft and S 7 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high. S. of cor. 3 1/4 ft. dist. I change the cor. of sec. 4, 5, 8 and 9. from a cor to 4 sec. to a cor to 3 sec. for the sec. N. of the line as follows

I destroy the markings on the stone, and cor. accessories, and remark the stone with 4 notches on E and 2 notches on W. edges Dig pits 24x24x12 ins. in each sec. 6 ft. dist and raise a mound of earth 4 ft. base 2 ft. high N. of cor

Land rolling sand hills
Soil sandy 8th rate.
No timber.

Dec 5th 1907

November 30th 1907. Ab. 8^h 49^m a.m. Lint
Dret off 36° 03' N. on the lat. arc. 21° 30 1/2' S. on the decl. arc and determine a meridian with the solar on the cor. of sec. 5, 6, 31 and 32 on the S. bdy. of the Twp.

Thence I run
N 0° 04' W. Bet. sec. 31 and 32 Over rolling sand hills covered with Spanish bayonet sage and greasewood brush and bunch grass

40.00 Get a line stone 18x8x6 ins, 12 ins. in the ground for 1/4 sec. cor, mixed 1/4 on W. face. Dig pits 18x18x12 ins N and S of stone 3ft. dist and raise a mound of earth.

Subdivision of Twp 31 N. R11 E

Behrens

80.00 3 1/2 ft. base 1 1/2 ft. high W. of cor.
 Behrens limestone 16x8x6 ins, 9 ins in the
 ground for cor. of sec. 29, 30, 31 and 32.
 Marked with 5 notches on E and 1 notch on S edges.
 Dig pits 18x18x12 ins in each sec 6 1/2 ft.
 dist and raise a mound of earth 4 ft
 base 2 ft. high W. of cor.
 Land rolling sand hills
 Soil sandy 3rd and 4th rate.
 No timber.

S 89° 53' E on a random line bet. sec.
 29 and 32
 40.00 Behrens temp 1/4 sec cor.
 80.04 Intersect N and S. line 5 lks. S. of the cor
 of sec. 28, 29, 32 and 33
 Thence Drive
 N 89° 55' W on a true line bet. sec.
 29 and 32. Over low rolling sand hills
 covered with scattering sage and greasewood
 brush and bunch grass.

40.02 Behrens limestone 16x8x6 ins, 12 ins in
 the ground for 1/4 sec. cor. marked 1/4 on N.
 face. Dig pits 18x18x12 ins. East W. of
 stone 3 ft. dist and raise a mound of
 earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.
 80.04 The cor. of sec. 29, 30, 31 and 32
 Land low rolling sand hills.
 Soil sandy 3rd and 4th rate.
 No timber

NOTE At the 1/4 sec. cor. bet. sec. 29 and 32 I set
 off 21° 32' S. on the decl. arc and at
 11^h 49^m a.m. can't observe the sun
 on the meridian the resulting latitude
 being 36° 04' N.

N 89° 53' W on a random line bet.
 sec. 30 and 31
 40.00 Behrens temp 1/4 sec. cor.
 79.75 Intersect the W. bdy. of Twp 8 lks. N.
 of the cor. of sec. 25, 30, 31, and 36.

Subdivision of Twp 31 N. R11 E.
Bellevue

Thence Drum
S 89° 56' E on a true line bet. sec 30 and
31 Over level stony mesa land. no
vegetation
3.25' Each edge of Mesa leads N and S. desc.
E. slope over broken land.
10.65' Proof of descent in dry ravine Course E. thence
along bottom of ravine
15.75' Leave ravine Course S.E. ascend W slope of
sand ridge.
19.75' Top of ridge leads N.W. and S.E. desc.
22.25' Dry ravine Course S.E. asc.
29.65' Top of sand ridge leads N and S. desc.
32.85' Top of sand stone cliffs on West side of Canyon
150 ft. deep. desc. abruptly over cliffs
39.75' The point for the 1/4 sec. cor. falls in bottom
of Canyon subject to overflow to a depth
of about two feet which would insure its
destruction - therefore I continue my line
39.90' Brook 2 lbs. wide Course S. ascend abrupt.
W. slope of ridge.
41.00' Top of sharp ridge 75 ft. above bottom of
Canyon leads S.W. and N.E. . Set a line
stone 12 x 12 x 4 ins, 8 ins. in the ground.
for witness cor. to the 1/4 sec. cor., 2 1/2
W.C. 1/4 on N. face. Raise a mound of stone
2 ft. base 1 1/2 ft. high N. of cor.
Pit is impracticable, descend E slope of
ridge.
43.00' Ravine Course S.W. ascend. W slope over
sandstone ledges
46.75' Top of sand stone bluff on E. side of Canyon
leads N.E. and S.W. Leave stony broken
land. leads N.E. and S.W. Enter low sand
hills leads N.E. and S.W.
79.75' The cor. of sec. 29, 30, 31 and 32.
Land level, hilly and broken.
Soil sandy and stony 3rd and 4th rate.
No timber

Subdivision of Twp. 31 N., R. 11 E.

Chain

- Over rolling sand hills covered with scattering sage and greasewood brush and bunch grass.
- 40.00 Set a line stone 15x7x5 ins, 10 ins. in the ground for $\frac{1}{4}$ sec. Cor. marked $\frac{1}{4}$ on W. face.
- Dig pits 18x18x12 ins. N and S. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high W. of cor.
- 80.00 Set a line stone 16x8x4 ins, 12 ins in the ground for Cor. of sec. 19, 20, 29 and 30 marked, with 5 notches on E. and 2 notches on S. edges.
- Dig pits 18x18x12 ins. in each sec 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
- Land rolling sand hills.
- Soil sandy 3rd rate.
- No timber
- November 30th 1907
-
- December 3rd 1907. At 7^h 49^m a.m. l.m.t. Set off 36° 05' N. on the lab. arc. 21 55^{1/2} S. on the decl. arc. and determine a meridian with the solar at the cor. of sec. 19, 20, 29. and 30
- Thence I run
- S 89° 55' E on a random line bet. sec. 20 and 29.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.08 Intersect the N. and S. line 21 lbs. N. of the cor. of sec. 20, 21, 28 and 29.
- Thence I run
- N 89° 46' W. on a true line bet. sec. 20 and 29. Over low sand ridges covered with scattering sage brush and bunch grass
- 32.00 Bottom depression bears N. E. and S. W. and sand ridge
- 38.50 Top of sand ridge 20 ft. high bears N. E. and S. W. dec.

Subdivision of Twp 31 N. R11 E

- 40.04 Set a lime stone 17x6x5 ins, 12 ins in the ground for 1/4 sec. cor, marked 1/4 on N. face Dig pits 18x18x12 ins. East W. of stone 3/4 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.
- 46.00 Bottom of depression bears NE. and SW. are sand ridges.
- 66.25 Top of sand ridge bears NE and SW. desc.
- 80.08 The cor. of secs. 19, 20, 29 and 30.
Land hilly.
Soil sandy 3rd rate.
No timber.

N 89° 56' W. on a random line bet. secs 19 and 30.

- 40.00 Set temp 1/4 sec. cor.
- 79.70 Intersect W. bdy. of Twp. 5 lks. S. of the cor. of secs. 19, 24, 25 and 30.
Thence I run
S 89° 54' E on a true line bet. secs. 19 and 30, Descend S. E. slope over low sand ridges. Covered with scattering sage brush and bunch grass
- 11.20 West edge of pond bears N. and S., bears sand ridges bears N and S.
- 31.20 East edge of pond bears NE and SW. Enter low sand hills bears NE and SW.
- 39.70 Set a lime stone 15x6x6 ins. 10 ins. in the ground for 1/4 sec cor, marked 1/4 on N face Dig pits 18x18x12 ins. East W. of stone 3/4 ft. dist, and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
- 48.20 Top of sand ridge bears NE. and SW. desc.
- 50.60 West edge of circular pond. extends 3 chs. N and 1 ch. S. of line.
- 53.85 East edge of pond are over low sand hills.
- 79.70 The cor. of secs. 19, 20, 29 and 30.
Land hilly.
Soil sandy 3rd rate.
No timber.

Subdivision of T_{1/4} 31 N., R11 E.

Chains

- No $0^{\circ} 04' W$ Bet. sees 19 and 20
Over low rolling sand hills, covered
with scattering sage brush and bunch
grass.
- 4000 Set a lime stone, $16 \times 7 \times 6$ ins. 12 ins
in the ground for $\frac{1}{4}$ sec. cor. marked
 $\frac{1}{4}$ on W. face.
Dig pits $18 \times 18 \times 12$ ins. N. and S. of
stone 3 ft. dist and raised mound
of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W.
of cor.
- NOTE With this cor. set off $22^{\circ} 00'$ S. on the
deed arc. and at $11^h 50^m$ a.m. level
observe the sun on the meridian, and
obtain on the lat arc a reading of
 $36^{\circ} 06'$ nearly.
- 8000 Set a lime stone $16 \times 10 \times 5$ ins. 12 ins
in the ground for cor. of sees, 17, 18, 19
and 20. marked with 5 notches on
E. and 3 notches on S. edges.
Dig pits $18 \times 18 \times 12$ ins. in each sec.
 $5\frac{1}{2}$ ft. dist, and raised mound of
earth 4 ft. base, 2 ft. high W. of cor.
Land rolling sand hills.
Soil sandy 3rd and 4th rate.
No timber.
- S $89^{\circ} 46'$ E on a random line bet. sees.
17 and 20.
- 4000 Set temp $\frac{1}{4}$ sec. cor.
- 79.99 Intersect N. and S. line at the cor. of sees.
16, 17, 20, and 21.
Thence run
N $89^{\circ} 46'$ W on a true line bet. sees.
17 and 20
Over rolling sandy land covered with
scattering sage and greasewood brush
and bunch grass.
- 39.99 $\frac{1}{2}$ Set a lime stone $12 \times 10 \times 5$ ins. 8 ins in
the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$
on N. face.

Subdivision of Twp 31 N. R 11 E

79.99 Dig pits 18x18x12 ins. E and W. of stone
3ft. dist. and raise a mound of earth
3 1/2 ft. base, 1 1/2 ft. high N. of cor.
The cor. of sec. 17, 18, 19 and 20.
Land rolling.
Soil sandy 3rd rate.
No timber.

40.00 N 89° 54' W. on a random line bet.
sec. 18 and 19.

79.59 Sub temp 1/4 sec. cor.

Intersect the West. bdy. of Twp, 12 lbs.
S. of the cor. of sec. 13, 18, 19 and 24
Thence Run

S 89° 49' E. on a true line bet. sec.
18 and 19.

Over rolling sandy land covered with
scattering sage and greasewood brush
and bunch grass.

37.50 Bottom of depression bears N.E. and S.W.
ascend gradually.

39.59 Set a line stone 18x10x4 ins, 12 ins
in the ground for 1/4 sec. cor. sunk 1/4
on N. face.

Dig pits 18x18x12 ins E and W. of stone
3ft. dist. and raise a mound of earth
3 1/2 ft. base 1 1/2 ft. high N. of cor.

79.59 The cor. of sec. 17, 18, 19 and 20
Land rolling
Soil sandy 3rd rate.
No timber.

December 3rd 1907

³
N 0° 04' W. Bet. sec 17 and 18.

Over rolling sandy land. covered with
scattering sage brush and bunch grass

40.00 Set a line stone 16x8x7 ins, 12 ins,
in the ground for 1/4 sec. cor. sunk 1/4
on W. face

Dig pits 18x18x12 ins. N. and S. of stone
3ft. dist. and raise a mound of earth

Subdivision of Twp 31 N., R 11 E.

Behain

80.00 $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
Set a lime stone, $16 \times 6 \times 6$ ins. 12 ins.
in the ground for cor. of secs. 7, 8, 17 and
18, mkd. with 5 notches on E. and S.
edges.

Land rolling,
Soil sandy 3rd rate,
No timber.

S $89^{\circ}46'E$ on a random line bet. secs.
8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N and S. line 18 lks. S. of the
Cor. of secs. 8, 9, 16 and 17.

Thence I run

N $89^{\circ}54'W$ on a true line bet. secs.
8 and 17

Over rolling sandy land covered with
scattering Sage and greasewood brush
and bunch grass.

40.01 Set a lime stone $15 \times 6 \times 6$ ins. 10 ins.
in the ground for $\frac{1}{4}$ sec. cor. mkd.
 $\frac{1}{4}$ on N. face.

Dig pits $18 \times 18 \times 12$ ins. E. and W. of stone
 3 ft. dia. and raise a mound of earth
 $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.

80.02 The cor. of secs. 7, 8, 17 and 18.

Land rolling,
Soil sandy 3rd rate.
No timber.

N $89^{\circ}49'W$ on a random line bet.
secs. 7 and 18

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.50 Intersect W. ldy. of Twp 5 lks. N. of
the cor. of secs. 7, 12, 13 and 18.

Thence I run

S $89^{\circ}51'E$ on a true line bet. secs.
7 and 18

Over rolling sandy land covered with

Subdivision of Twp. 31 N., R. 11 E

8.00 Bottom depression bears N. 6. and S. W. ascend gently.

39.50 Set a lime stone 15x10x5 ins. 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face.

Dig pits 18x18x12 ins. E. and W. of stone 3 ft. dish. and raise a mound of earth 3 1/2 ft. low, 1 1/2 ft. high N. of cor.

79.50 The cor. of sec. 7, 8, 17 and 18 laid rolling Soil sandy 4th rate. No timber.

NOTE Dec 4th At the cor. of sec. 7, 8, 17, and 18. Dsch off 22° 09' S. on the decl. arc and at 11^h 50^m a.m. l.m.t. observe the sun on the meridian, the resulting latitude being 36° 07' N. nearly, which is about the proper latitude of this place.

40.00 Set temp. 1/4 sec. cor. ³ N 0° 0' 4" W. on a random line bet. sec. 7 and 8.

79.78 Intersect E. and W. line 80 lbs. E. of the cor. of sec. 5, 6, 7 and 8.

This falling corresponds to a course of 0° 34' or 3' greater than the allowable limits for meridional sec. lines Page 66 of the Manual, therefore I establish my line as a true line, in its original position as follows:

Dec 4th 1907:

December 5th 1907. At 1^h 50^m p.m. l.m.t. Dsch off 36° 07' N. on the hor. arc 22° 17' 1/2' S on the decl. arc. and determine a meridian with the solar on the cor. of sec. 7, 8, 17 and 18.

Thence I run ³ N 0° 0' 4" W. on a true line bet. sec. 7 and 8.

Subdivision of Tp 31N., R 11E.

Lehain

- Over rolling sandy land covered with scattering sage and greasewood brush and bunch grass.
- 40.00 Set a lime stone $16 \times 7 \times 6$ ins. 12 ins. in the ground. for $\frac{1}{4}$ sec. cor. mkd. $\frac{1}{4}$ on W. face, dig pits $18 \times 18 \times 12$ ins. N. and S. of stone 3 ft. dish, and raised a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.
- 64.75 Pop of arbut on point of ridge bears N.E. and S.W. desc.
- 79.78 Intersect E and W. line 80 lks. $S 89^{\circ} 53' E$ of the old cor of secs. 5, 6, 7 and 8
 Set a lime stone $22 \times 22 \times 4$ ins. 17 ins. in the ground for closing cor. of secs. 7 and 8, mkd. C.C. on S. with 5 grooves on E and 1 groove on W. faces.
 Dig pits $24 \times 18 \times 12$ ins crosswise on line E and W. of stone 4 ft. and S. 8 ft. dish, and raised a mound of earth 4 ft. base 2 ft. high. S. of cor $3\frac{1}{4}$ ft. dish. The cor of secs. 5, 6, 7 and 8. I change from a cor. of 4 secs. to a cor. of 2 secs. on the north as follows; I obliterate the markings on the cor. stone and destroy the cor accessories, thence I mark the same stone with 5 notches on E. and 1 notch on W. edges.
 Dig pit $24 \times 24 \times 12$ ins in each sec. 6 ft. dish and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
 Land rolling.
 Soil sandy 3rd rate.
 No timber.

December 5th 1907

Retracement of Subdivision lines in T31N. R11E.

Dec 5th 1907. Ab. 7^h 50^m Am. L. m. t. I
set off 36° 08' N. on the lat. arc 22^{1/4} S.
on the decl. arc. and determine a
meridian with the solar at the cor.
of sec 3, 4, 33 and 34 on the W. lch.
of Tp., previously described. Thence I
run

S 0° 02' E. Beh. sec. 3 and 4
40.00 Intersect the 1/4 sec. cor. which is a lime
stone 6 x 6 x 4 ins. above ground firmly
set, mkd and witnessed as described
in the original field notes

Course of line back to the sec. cor N 0° 02' W
From the 1/4 sec. cor. I run

S 0° 02' E. Beh. sec. 3 and 4
40.00 Intersect the cor. of sec. 3, 4, 9 and 10
which is a lime stone 7 x 6 x 5 ins above
ground firmly set, mkd and witnessed
as described in the original field notes

Course of line back to the 1/4 sec cor N 0° 02' W
Length of mile 80.00 chs.

West Beh. sec. 4 and 9.
40.25 Nail 9 lbs. S. of the 1/4 sec. cor. which is
a lime stone 8 x 7 x 4 ins. above ground.
firmly set, mkd and witnessed as
described in the original field
notes.

Course of line back to the sec. cor
S 89° 52' E.

From the 1/4 sec. cor. I run

West. Beh. sec 4 and 9.
40.25 Nail 8 lbs. S. of the cor. of sec. 4, 5, 8 and
9, which is a lime stone 8 x 6 x 4 ins
above ground, firmly set, mkd and
witnessed as described in the
original field notes

Course of line back to the 1/4 sec. cor
S 89° 53' E.

Length of mile 80.50 chs

Retracements of Subdivided lines in P 31 N. R 11 E.
Chs.

Dec 5th At 12⁵⁰ p.m. L. M. L. - D. set off 36°07' N. on the lat. arc. 22°17' S. on the decl. arc. and determined a meridian with the solar at the cor of secs. 4, 5, 8 and 9. Thence I run West. Beh. sec. 5 and 8.
39.90 Fall 12 lbs S. of the 1/4 sec. cor. which is a line stone 8x4x4 ins above ground. firmly set, marked and witnessed as described in the original field notes.

Course of line back to the sec. cor S 89°50' E.

From the 1/4 sec. cor. I run West. Beh. sec. 5 and 8.
39.92 Fall 8 lbs S. of the cor of secs. 5, 6, 7 and 8 which is a line stone 7x6x6 ins. above ground. firmly set, marked and witnessed as described in the original field notes.

Course of line back to the 1/4 sec cor. S 89°53' E.

Length of mile 79.82 Chs.

West. Beh. sec. 6 and 7.
39.90 Fall 12 lbs S. of the 1/4 sec. cor which is a line stone 7x6x4 ins. above ground firmly set, marked and witnessed as described in the original field notes

Course of line back to the sec cor S 89°48' E.

From the 1/4 sec. Cor. I run West. Beh. sec. 6 and 7.

38.54 Fall 20 lbs S of the Cor of secs. 1, 6, 7 and 12 on the west boundary of the township

Course of line back to the 1/4 sec cor. S 89°43' E.

Length of mile 78.44 Chs.

Dec. 5th 1907

General Description

The land contained in this township varies from high mesa land in the south eastern portion to level bottom land in the narrow valley along the Moencopie Wash. which flows through the northern part. The soil with the exception of the bottom lands along this wash can nearly all be classed as 3rd rate - and produces very little vegetation of any kind except mesquite and sage brush.

The soil of the bottom lands along the Moencopie Wash is an alluvial deposit 2nd rate and produces good crops of all kinds with irrigation.

With the exception of a small spring in sec. 31 the only water found in the township is in the Moencopie Wash and this is charged with alkaline salts which renders it almost unfit for domestic purposes.

There is no timber in the township and no mineral deposits of any kind.

There are no permanent settlers in the township.

Wesley E. Blount
 Examiner of Surveys

For authority for red ink corrections
 see letter of Nov. 16 - 1908

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Sidney E. Blount

Examiner of Surveys, ~~United States Deputy Surveyor~~, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivision line of Township N^o 31 N., Range 11 E. showing the respective capacities in which they acted:

- J. E. Kern Chainman
- J. L. Warner Chainman.
- H. D. Klue Chainman.
- Norman Oliver Moundman.
- Moundman.
- Axman.
- Axman.
- H. L. May Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Sidney E. Blount

Examiner of Surveys, ~~United States Deputy Surveyor~~, in surveying all those parts or portions of the Subdivision line of Township N^o 31 N. R¹¹ E.

..... of the Gila and Salt River Baseline meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for

- H. D. Klue ✓ Chainman
- J. L. Warner ✓ Chainman
- H. D. Klue ✓ Chainman.
- Norman Oliver ✓ Moundman.
- Moundman.
- Axman.
- Axman.
- H. L. May ✓ Flagman.

Subscribed and sworn to before me this day of, 190



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BOOK 2086

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Sidney E. Blount, ^{Examiner of Surveys} United States Deputy Surveyor, do solemnly swear that, in pursuance of a ^{Special Instruction} contract received from The Commissioner of the General Land Office, bearing date of the 2nd day of Oct, 1907, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ^{Commissioner} United States Surveyor of the General Land Office, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of The Subdivisional lines of Twp. 31 N. R. 11 E

of the Gila and Salt River Base and meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the ^{Commissioner} United States Surveyor of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Sidney E. Blount
United States Deputy Surveyor.
^{Examiner of Surveys}

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 190



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Flagstaff, Arizona Nov 27th, 1908
The foregoing field notes of the survey of the subdivisional lines of
Twp. 31 N. R. 11 E of the Gila and Salt River Base and
Meridian, Arizona

executed by Sidney E. Blount, United States Examiner of Surveys
under his contract No. Insto, dated October 2nd, 1907, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

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

United States Surveyor General.