

Accepted May 31-1912

Book H.

2263

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2263

FIELD NOTES

OF THE SURVEY OF THE

BOOK 2263

Third Guide Meridian West through
Townships 9, 10, and 11 North

2263

2263

Of the Third Meridian,
In the ^{Terr.} State of Arizona

EXECUTED BY

Alfred H. Oliver

In the capacity of U. S. ^{Assistant} Surveyor, under instructions dated August 25, 1910,
issued by the United States Surveyor General to govern surveys included in
Group No. 4, which were approved by the Commissioner of the General Land
Office, September 9, 1910, pursuant to authority contained in the Act of
Congress dated June 25, 1910 and March 4, 1911

Survey commenced March 14, 1911

Survey completed " 26, 1911

6-151

2263

2263

BOOK 2263

INDEX DIAGRAM.

Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

T 11 N. R 13 W

12

11

11

10

9

6-151 8

12 8

T 10 N. R 13 W

13 7

T10 N. R 13 W.

BOOK 2263

INDEX DIAGRAM.

Township _____, Range _____

24 7
25 6
26 5

6	5	4	3	2	1	4
7	8	9	10	11	12	3
18	17	16	15	14	13	3
19	20	21	22	23	24	2
30	29	28	27	26	25	2
31	32	33	34	35	36	1

T9 N. R 13 W.

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, C. S. Crowen and Clay Dodson
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 the Third Guide Meridian West through Tpo 9, 10 and 11 N.

C. S. Crowen, Chainman.
Clay Dodson, Chainman.

Subscribed and sworn to before me this 17th
day of March, 1911



Alfred N. Oliver
U. S. Transitman

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 _____, 19 _____



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 _____, 19 _____



I, Pom Shimpfessel, 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 the Third Guide Meridian West through Tpo 9, 10 and 11 N.

P. Shimpfessel, Flagman.

Subscribed and sworn to before me this 17th
day of March, 1911



Alfred N. Oliver
U. S. Transitman

BOOK 2263

~~INDEX DIAGRAM.~~

Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, U. G. Lynn, J. N. Bates, and R. A. Coombs and W. D. Turner
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 the Third Guide Meridian West through Tps. 9, 10 and 11 N.

A. E. Lyon, Chainman.

J. H. Bates, Chainman.

Subscribed and sworn to before me this 15th
day of March, 1911

R. A. Coombs
W. D. Turner
Alfred N. Bliss
U. S. Transitman



WE, R. L. Bates and L. P. Bates
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 the Third Guide Meridian West through Tps. 9, 10 and 11 N.

R. L. Bates, Moundman.

L. P. Bates, Moundman.

Subscribed and sworn to before me this 15th
day of March, 1911

Alfred N. Bliss
U. S. Transitman



WE, Ed Brockway and C. S. Crowen
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 the Third Guide Meridian West through Tps. 9, 10 and 11 N.

Ed Brockway, Axman.

C. S. Crowen, Axman.

Subscribed and sworn to before me this 15th
day of March, 1911

Alfred N. Bliss
U. S. Transitman



I, R. E. Planagan, 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 the Third Guide Meridian West through Tps. 9, 10 and 11 N.

R. E. Planagan, Flagman.

Subscribed and sworn to before me this 15th
day of March, 1911

Alfred N. Bliss
U. S. Transitman



Third Guide Meridian West, through Township 9 North.

Chains.

Survey commenced March 14, 1911, and executed with a W. and L. E. Gurley solar compass, not numbered. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined and approved by the supervising surveyor for Arizona.

I examine the adjustments of the compass and find them correct; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows;

At the standard cor. of Tps. 9 N., Rgs. 12 and 13 W., latitude, $34^{\circ}04\frac{1}{2}'$ N.; longitude, $113^{\circ}33'24''$ W., and heretofore described in Book F, I set off $34^{\circ}04\frac{1}{2}'$ N. on the lat. arc; $2^{\circ}36\frac{1}{2}'$ S. on the decl. arc; and, at 5h.00m.p.m., l.m.t., determine with the solar a meridian, and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

At 7h.57m.p.m., by my watch, which has correct l.m.t., I observe Polaris at western elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

March 14, 1911.

March 15: At 6h.30m.a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}24'$ to the east, and mark the meridian thus determined by setting a small groove in the stone set February 14, on which the meridian coincides with the mark determined by the solar.

At 7h.00m.a.m., l.m.t., I set off $34^{\circ}04\frac{1}{2}'$ N. on the lat. arc; $2^{\circ}22\frac{1}{2}'$ S. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark coincides with the meridian determined by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians, which coincide with the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7:15 a.m. is $N.14^{\circ}30'W.$; the angle thus determined gives the magnetic decl. $14^{\circ}30'E.$

From the standard corner of Tps. 9 N., Rgs. 12 and 13 W., I now run,

North, bet. secs. 31 and 36.

Over level land, through dense brush.

12.10 Cross wash, 15 lks. wide, course NW.

Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point,

By 1st set, 40.02 chs.

By 2nd set, 39.98 chs., the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 36 in W. and S 31 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of corner.

54.80 Cross wash, 10 lks. wide, course W.

78.00 Cross wash, 10 lks. wide, course W.

Difference between measurements of 80.00 chs. by two

2. Third Guide Meridian West, through Township 9 North.

Chains.

sets of chainmen is 6 lks.; position of middle point
 By 1st set, 80.03 chs.
 By 2nd set, 79.97 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the
 ground for corner of secs. 25, 30, 31 and 36, marked on
 brass cap,
 T 9 N in N. half;
 R 13 W S 25 in NW.,
 R 12 W S 30 in NE.,
 S 31 in SE., and
 S 36 in SW. quadrant; dig pits 18x18x12 ins. in
 each sec. 5½ ft. dist, and raise a mound of earth 4 ft.
 base, 2 ft. high, W. of corner.
 Land, level.
 Soil, sandy loam mixed with gravel, dry, coarse; 2nd rate.
 No timber.
 Undergrowth, greasewood, mesquite, ironwood, palo verde.

 North, bet. secs. 25 and 30.
 Over level land, through dense brush.
 3.00 Cross wash, 150 lks. wide, course W.
 8.20 Cross wash, 10 lks. wide, course W.
 9.80 Cross wash, 10 lks. wide, course W.
 12.75 Cross wash 10 lks. wide, course W.
 Difference between measurements of 40.00 chs. by two
 sets of chainmen is 8 lks.; position of middle point
 By 1st set, 40.04 chs.,
 By 2nd set, 39.96 chs., the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap ¼ S
 25 in W. and S 30 in E. half; dig pits 18x18x12 ins. N.
 and S. of stone 3 ft. dist., and raise a mound of earth
 3½ ft. base, 1½ ft. high, W. of corner.
 46.00 Cross wash, 10 lks. wide, course W.
 56.40 Cross wash, 10 lks. wide, course W.
 67.25 Cross wash 25 lks. wide, course W.
 Difference between measurements of 80.00 chs. by two
 sets of chainmen is 12 lks.; position of middle point
 By 1st set, 80.06 chs.
 By 2nd set, 79.94 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the
 ground for cor. of secs. 19, 24, 25 and 30, marked on
 brass cap,
 T 9 N in N. half;
 R 13 W S 24 in NW.,
 R 12 W S 19 in NE.,
 S 30 in SE., and
 S 25 in SW. quadrant; dig pits 18x18x12 ins. in
 each sec. 5½ ft. dist, and raise a mound of earth 4 ft.
 base, 2 ft. high, W. of corner.
 Land, level.
 Soil, sandy loam, mixed with gravel, dry, coarse, 2nd
 rate.
 No timber.
 Undergrowth, greasewood, palo verde and mesquite.

 North, bet. secs. 19 and 24.
 Over level land, through dense brush.
 1.85 Cross wash, 30 lks. wide, course W.
 11.00 Cross wash, 10 lks. wide, course W.
 16.00 Cross wash, 10 lks. wide, course W.
 Difference bet. measurements of 40.00 chs. by two sets
 of chainmen is 2 lks.; position of middle point

Third Guide Meridian West, through Township 9 North.

3.

Chains.

- By 1st set, 40.01 chs.
By 2nd set, 39.99 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 24 in W., and S 19 in E.half; dig pits 18x18x12 ins.N. and S.of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of corner.
- 50.76 Road bears NE. and SW.
54.20 Cross wash 20 lks.wide, course SW.
61.85 Cross wash 12 lks.wide, course SW.
73.30 Cross wash,10 lks.wide, course SW.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point
By 1st set, 80.03 chs.
By 2nd set, 79.97 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for corner of secs.13,18,19 and 24, marked on brass cap,
T 9 N in N.half;
R 13 W S 13 in NW.,
R 12 W S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.
- Land,level.
Soil, sandy loam, mixed with coarse gravel, dry,coarse texture; 2nd rate.
No timber.
Undergrowth, greasewood, palo verde and mesquite.
March 15: At this cor. I set off 2°20'S.on the decl.arc; and observe the sun on the meridian at noon; the resulting lat. is 34°07'N.

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- North, bet. secs.13 and 18.
Over rolling land, through dense brush.
- 5.00 Cross wash,10 lks.wide, course W.
21.75 Cross wash, 15 lks.wide, course NW.
30.00 Cross wash,15 lks.wide, course NW.
31.50 Cross wash,15 lks.wide, course NE.
- Difference between 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 an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 13 in W. and S 18 in E.half; from which,
A palo verde 4 ins.diam., bears N.6 $\frac{1}{4}$ °W., 220 lks. dist., marked $\frac{1}{4}$ S 13 B T.
A palo verde 5 ins.diam., bears S.54 $\frac{1}{2}$ °E., 116 lks. dist., marked $\frac{1}{4}$ S 18 B T.
- 75.40 Cross wash,10 lks.wide, course SE.
Difference between measurements of 80.00 chs. by two sets of chainmen is 4 lks.; position of middle point
By 1st set, 79.98 chs.
By 2nd set, 80.02 chs., the mean of which is
- 80.00 Point for cor.of secs.7,12, 13 and 18 falls in wash 25 lks.wide, courseSE.
- Land,level.
Soil, rocks and gravel; 4th rate.
No timber.
Undergrowth, greasewood,palo verde and mesquite.

North, bet.secs.7 and 12,from true point for cor.
Ascending S.slope of mountains, through dense brush.

4. Third Guide Meridian West, through Township 9 North.

Chains.	
1.00	Set an iron post 3 ft. long, 3 ins.diam., 24 ins. in the ground for witness corner to corner of secs.7,12,13 and 18, marked on brass cap, W C S of center, T 9 N in N.half; R 13 W S 12 in NW., R 12 W S 7 in NE., S 18 in SE., and S 13 in SW. quadrant; from which, A palo verde 4 ins.diam., bears N.13 $\frac{1}{4}$ °W., 99 lks. dist., marked W C T 9 N R 13 W S 12 B T. A palo verde 5 ins.diam., bears N.72 $\frac{1}{2}$ °E., 68 lks. dist., marked W C T 9 N R 12 W S 7 B T. A palo verde 4 ins.diam., bears S.6 $\frac{3}{4}$ °E., 138 lks. dist., marked W C T 9 N R 12 W S 18 B T. A palo verde 4 ins.diam., bears S.44°W., 65 lks. dist., marked W C T 9 N R 13 W S 12 B T.
16.50	Cross wash,20 lks.wide, course E.
25.25	Ridge bears E.and W.
29.00	Cross wash,10 lks.wide, course E.
36.00	Ridge bears E.and W. Difference between measurements of 40.00 chs. by two sets of chainmen is 6 lks., position of middle point, By 1st set, 40.03 chs. By 2nd set, 39.97 chs., the mean of which is
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 12 in W., and S 7 in E.half; and raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft. high,W.of corner. Pits impracticable.
50.00	Ridge bears NW. and SE.
55.00	Cross wash,100 lks.wide, course SE.
63.40	Ridge bears NW. and SE.
71.00	Cross wash,85 lks.wide, course SE.
77.50	Ridge bears NW.and SE., descend. Difference between measurements of 80.00 chs. by two sets of chainmen is 14 lks., position of middle point By 1st set, 80.07 chs. By 2nd set, 79.93 chs., the mean of which is
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs.1,6,7 and 12, marked on brass cap, T 9 N in N.half; R 13 W S 1 in NW., R 12 W S 6 in NE., S 7 in SE., and S 12 in SW. quadrant; and raise a mound of stone 2 ft.base, 1 $\frac{1}{2}$ ft. high,W.of cor. Pits impracticable. Land,mountainous. Soil, loose rocks, 4th rate. No timber. Undergrowth, greasewood and palo verde.

March 15, 1911.

March 16: At 8h.00m.a.m.,1.m.t., I set off 34°08 $\frac{1}{2}$ 'N.on the lat.arc; 1°59 $\frac{1}{2}$ 'S. on the decl.arc, and determine a meridianwith the solar at the cor.of secs.1,6,7 and 12.

Thence I run,
North, bet. secs 1 and 6.

Descending through dense brush.

.40	Cross wash 15 lks.wide, course E., and ascend.
9.40	Ridge bears E.and W.; descend.
20.00	Cross wash, 15 lks.wide, course E., and ascend.
35.00	Ridge bears E.and W.; descend.
39.25	Cross wash, 15 lks.wide, course E.; ascend. Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point,

Third Guide Meridian West, through Township 9 North.

Chains.

- By 1st set, 40.02 chs.,
- By 2nd set, 39.98 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 1 in W., and S 6 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.
- 45.17 Ridge bears E. and W.; descend.
- 49.00 Cross wash, 10 lks. wide, course E.
- 53.00 Ridge bears E. and W.
- 58.00 Cross wash 60 lks. wide, course E.
- 64.05 Ridge bears E. and W.; descend.
- 78.75 Cross wash 150 lks. wide, course NE.

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

- By 1st set, 80.05 chs.
- By 2nd set, 79.95 chs., the mean of which is
- 80.00 Point for corner of Tps. 9 and 10 N., Rgs. 12 and 13 W. falls in wash; so from this cor. point I run S. 1.60 chs., and at

- 78.40 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for witness corner to cor. of Tps. 9 and 10 N., Rgs. 12 and 13 W., marked on brass cap,
 - W C S of center,
 - T 10 N in N.,
 - R 12 W in E.,
 - T 9 N in S., and
 - R 13 W in W. half;
 - S 36 in NW.,
 - S 31 in NE.,
 - S 6 in SE., and
 - S 1 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of corner. Pits impracticable.

Land, mountainous.
 Soil, loose rocks, 4th rate.
 No timber.
 Undergrowth, greasewood and palo verde.
 Stormy weather prevented an observation for latitude.
 March 16, 1911.

Third Guide Meridian West, through Township 10 North.

March 18: At 8h.00m.a.m., l.m.t., I set off $34^{\circ}09\frac{1}{2}'N.$ on the lat. arc; $1^{\circ}12'S.$ on the decl. arc; and determine a meridian with the solar at the true point for corner of Tps. 9 and 10 N., Rgs. 12 and 13 W.

- Thence I run,
- North, bet secs. 31 and 36.
- Ascend steep, broken S. slope, through scattering brush.
- 4.49 Ridge bears NW. and SE.
- 19.00 Ridge bears E. and W.; descend.
- 28.50 Cross wash, 15 lks. wide, course E.; ascend.
- 31.20 Ridge bears E. and W.; descend.
- 35.40 Cross wash, 15 lks. wide, course SE.; ascend.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
- By 1st set, 40.04 chs.,
- By 2nd set, 39.96 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 36 in W. and S 31 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.
- 53.50 Ridge, bears E. and W.; descend.
- 72.50 Cross wash, 20 lks. wide course NE.; ascend.

6. Third Guide Meridian West, through Township 10 North.

Chs.

Difference between measurements of 80.00 chs. by two sets of chainmen is 14 lks., position of middle point
 By 1st set, 80.07 chs.
 By 2nd set, 79.93 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
 T 10 N in N. half;
 R 13 W S 25 in NW.,
 R 12 W S 30 in NE.,
 S 31 in SE., and
 S 36 in SW. quadrant; and raise a mound of earth 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, greasewood and palo verde.
 Cloudy weather prevented an observation for latitude.
 March 18, 1911.

March 20: At 8h.00m.a.m., l.m.t., I set off 34°10½'N. on the lat. arc; 0°25'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36.
 Thence I run,
 North, bet. secs. 25 and 30.
 Ascending steep rocky S. slope, through dense brush.
 12.26 Ridge bears E. and W.
 24.71 Ridge bears NE. and SW.; descend.
 30.50 Cross wash, 15 lks. wide, course NE.; ascend.
 33.50 Ridge bears NE. and SW.; descend.
 Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point
 By 1st set, 40.02 chs.
 By 2nd set, 39.98 chs., the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 25 in W. and S 30 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of corner. Pits impracticable.
 48.00 Cross drain, 6 lks. wide, course NW.
 52.00 Ridge bears NW. and SE.
 66.25 Cross wash, 15 lks. wide, course NW.
 76.30 Ridge bears E. and W.
 Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point
 By 1st set, 80.06 chs.
 By 2nd set, 79.94 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap,
 T 10 N in N. half;
 R 13 W S 24 in NW.,
 R 12 W S 19 in NE.,
 S 30 in SE., and
 S 25 in SW. quadrant; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of corner. Pits impracticable.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, greasewood and palo verde.
 March 20: At this corner I set off 0°21½'S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 11½'N.

Third Guide Meridian West, through Township 10 North. 7.

Chains.

- North, between secs.19 and 24.
Descending NE. slope, through scattering brush.
- 10.00 Cross drain, 10 lks.wide; course NE.
20.00 Change to NW.slope.
Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point
By 1st set, 40.02 chs.
By 2nd set, 39.98 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 24 in W. and S 19 in E.half; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high, W.of corner. Pits impracticable.
- 45.00 Cross wash, 15 lks.wide, course NE.
55.00 Ridge bears NE. and SW.
71.85 Cross wash 15 lks.wide, course NE., and ascend along E. slope.
77.00 Ridge bears E.and W.
Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks., position of middle point
By 1st set, 80.03 chs.
By 2nd set, 79.97 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for corner of secs.13,18,19 and 24, marked on brass cap,
T 10 N in N.half;
R 13 W S 13 in NW.,
R 12 W S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high, W.of corner. Pits impracticable.
Land, mountainous.
Soil, rocks; worthless.
No timber.
Undergrowth, greasewood and palo verde.
March 20, 1911.

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- March 22: At 8h.00m.a.m., l.m.t., I set off $34^{\circ}12'N$. on the lat.arc; $0^{\circ}23'N$. on the decl.arc; and determine a meridian with the solar at the corner of secs.13,18, 19 and 24.
Thence I run,
North, bet. secs.13 and 18.
Descending along E. slope of ridge, through dense brush.
- 12.35 Cross wash, 15 lks.wide, course NW.
15.15 Cross same wash, course NE., and ascend.
23.00 Ridge bears NE.and SW.; descend.
30.00 Cross wash, 60 lks.wide, course NE.
Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
By 1st set, 40.04 chs.
By 2nd set, 39.96 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 13 in W. and S 18 in E,half; and raise amount of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of corner. Pits impracticable.
- 54.00 Ridge bears NE.
69.00 Cross wash, 40 lks.wide, course SE.
Difference between measurements of 80.00 chs. by two sets of chainmen is 10 lks., position of middle point,
By 1st set, 80.05 chs.
By 2nd set, 79.95 chs., the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins.diam., 24 ins. in the ground for cor.of secs.7,12,13 and 18, marked on brass cap,
T 10 N in N.half;
R 13 W S 12 in NW.,

8. Third Guide Meridian West, through Township 10 North.

Chains.

R 12 W S 7 in NE.,
 S 18 in SE., and
 S 13 in SW. quadrant; and raise a mound of stone 2
 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocks, worthless.
 No timber.
 Undergrowth, greasewood, palo verde and cacti.
 March 22: At this cor. I set off 0°26'N. on the decl. arc;
 and observe the sun on the meridian at noon; the re-
 sulting lat. is 34° 13'N.

North, between secs. 7 and 12.
 Ascending through dense brush.

- 5.50 Ridge bears NW. and SE.
- 13.20 Cross wash, 10 lks. wide, course SE.
- 23.50 Ridge bears E. and W.
 Difference between measurements of 40.00 chs. by two sets
 of chainmen is 2 lks.; position of middle point
 By 1st set, 40.01 chs.
 By 2nd set, 39.99 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec. cor., marked on brass cap ¼ S 12
 in W. and S 7 in E. half; and raise a mound of stone 2
 ft. base, 1½ ft. high, W. of corner. Pits impracticable.
- 43.50 Cross wash, 10 lks. wide, course NW.
- 48.00 Enter wash, 15 lks. wide, from SE.
- 53.32 Leave wash, course NW.
- 68.00 Cross wash, 15 lks. wide, course NW.
- 70.00 Ridge, bears E. and W.
- 73.50 Cross wash, 10 lks. wide, course W.
 Difference between measurements of 80.00 chs. by two sets
 of chainmen is 6 lks.; position of middle point,
 By 1st set, 80.03 chs.
 By 2nd set, 79.97 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the
 ground for cor. of secs. 1, 6, 7 and 12, marked on brass
 cap,
 T 10 N in N. half;
 R 13 W S 1 in NW.,
 R 12 W S 6 in NE.,
 S 7 in SE., and
 S 12 in SW. quadrant; and raise a mound of stone 2
 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocks and coarse gravel; 4th rate.
 No timber.
 Undergrowth, greasewood and palo verde and cacti.
 March 22, 1911.

March 23: At 8h.00m. a.m., l.m.t., I set off 34°14'N. on
 the lat. arc; 0°46½'N. on the decl. arc; and determine
 a meridian with the solar at the corner of secs. 1, 6,
 7 and 12.

- Thence I run,
 North, bet. secs. 1 and 6.
 Over rolling land, through dense brush.
- 4.00 Ridge bears NW. and SE.
- 23.00 Cross wash, 20 lks. wide, course W.
- 35.50 Ridge bears NW. and SE.
- 39.50 Cross wash 20 lks. wide, course W.
 Difference between measurements of 40.00 chs. by two sets
 of chainmen is 4 lks.; position of middle point

Third Guide Meridian West, through Township 10 North.

Chains.

- By 1st set, 40.02 chs.
By 2nd set, 39.98 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 1 in W. and S 6 in E.half; from which,
A palo verde 5 ins. in diam., bears N.21°E., 33 lks. dist., marked $\frac{1}{4}$ S 6 B T.
No other tree available. Raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,W.of corner. Pits impracticable.
- 47.00 Cross wash, 35 lks.wide, course W.
48.00 Cross wash,100 lks.wide, course W.
50.00 Ridge bears NW.and SE.
55.50 Cross wash,10 lks.wide, course NW.
59.00 Ridge bears NW. and SE.
64.50 Cross wash,20 lks.wide, course NW.
67.00 Ridge bears NW. and SE.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks., position of middle point
By 1st set, 80.03 chs.
By 2nd set, 79.97 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of Tps.10 and 11 N.,Rgs.12 and 13 W., marked on brass cap,
T 11 N in N.,
R 12 W in E.,
T 10 N in S., and
R 13 W in W.half;
S 36 in NW.,
S 31 in NE.,
S 6 in SE., and
S 1 in SW $\frac{1}{2}$ quadrant; from which,
A palo verde, 8 ins.diam., bears N.62 $\frac{1}{4}$ °W., 115 lks. dist., marked T 11 N R 13 W S 36 B T.
A palo verde 9 ins.diam, bears S.25 $\frac{3}{4}$ °E., 91 lks. dist., marked T 10 N R 12 W S 6 B T.
No other trees available. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high,S.of corner. Pits impracticable.
Land, rolling.
Soil, rocky and gravelly; 3rd rate.
No timber.
Undergrowth, greasewood,mesquite and palo verde.

Third Guide Meridian West, through Township 11 North.

- North, bet. secs.31 and 36.
Over rolling land, through dense brush.
- 1.50 Cross wash;10 lks.wide, course NW.
6.00 Enter wash 20 lks.wide, bears SE.
11.60 Leave wash, course NW.
26.10 Cross wash 75 lks.wide, course W.
30.00 Cross wash,30 lks.wide, course NW.
38.00 Cross wash,150 lks.wide, course NW.
- Difference between measurements of 40.00 chs.by two sets of chainmen is 6 lks.; position of middle point
By 1st set,40.03 chs.,
By 2nd set,39.97 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 36 in W. and S 31 in E.half; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.
- 47.00 Ridge bears NW.and SE.
57.00 Cross wash,150 lks.wide, course NW.
61.50 Ridge bears NW.and SE.
62.00 Enter wash 500 lks.wide, bears SE.
77.90 Cross road bears NW.and SE.
79.00 Leave wash, course NW.

Chains.

80.00 Difference between measurements of 80.00 chs. by two sets of chainmen is 10 lks.; position of middle point
 By 1st set, 80.05 chs.
 By 2nd set . 79.95 chs., the mean of which is
 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
 T 11 Nin N. half;
 R 13 W S 25 in NW.,
 R 12 W S 30 in NE.,
 S 31 in SE., and
 S 36 in SW. quadrant; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
 Land, rolling.
 Soil, rocky and gravelly; 4th rate.
 No timber.
 Undergrowth, greasewood, palo verde, mesquite and cacti.
 March 23: At this cor. I set off 0°49½' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 15½' N.

North, bet. secs. 25 and 30.
 Over rolling land, through dense brush.
 4.20 Ridge bears NW. and SE.
 6.50 Cross wash, 10 lks. wide, course SE.
 8.00 Ridge bears NW. and SE.
 14.20 Cross wash 10 lks. wide, course SE.
 16.00 Ridge bears NW. and SE.
 20.00 Cross wash, 20 lks. wide, course NW.
 23.50 Ridge bears NW. and SE.
 35.00 Cross wash, 40 lks. wide, course NW.
 39.60 Ridge bears NW. and SE.

40.00 Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point,
 By 1st set, 40.04 chs.
 By 2nd set, 39.96 chs., the mean of which is
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 25 in W. and S 30 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of corner. Pits impracticable.

47.00 Over level land.
 52.00 Cross wash, 50 lks. wide, course NW.
 74.63 Cross road, bears E. and W.

80.00 Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point
 By 1st set, 80.06 chs..
 By 2nd set, 79.94 chs., the mean of which is
 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap,
 T 11 N in N. half;
 R 13 W S 24 in NW.,
 R 12 W S 19 in NE.,
 S 30 in SE., and
 S 25 in SW. quadrant; from which,
 A mesquite 5 ins. diam., bears N. 60½° W., 190 lks. dist., marked T 11 N R 13 W S 24 B T.
 A mesquite 5 ins. diam., bears N. 28½° E., 99 lks. dist., marked T 11 N R 12 W S 19 B T.
 A mesquite, 5 ins. diam., bears S. 61½° E., 56 lks. dist., marked T 11 N R 12 W S 30 B T.
 A mesquite 6 ins. diam., bears S. 60½° W., 158 lks. dist., marked T 11 N R 13 W S 25 B T.

Land, rolling and level.
 Soil, rocky, sandy and gravelly; 3rd rate.
 No timber.

Third Guide Meridian West, through Township 11 North. 11.

Chains.

Undergrowth, greasewood, palo verde, mesquite and cactus.
March 23, 1911.

- March 25: At 8h.00m.a.m., l.m.t., I set off $34^{\circ}16\frac{1}{2}'N$. on the lat.arc; $1^{\circ}33\frac{1}{2}'N$. on the decl.arc; and determine a meridian with the solar at the cor.of secs. 19, 24, 25 and 30.
- Thence I run,
North, bet. secs.19 and 24.
Over level land, through dense brush.
- 15.30 Cross wash 100 lks.wide, course W.
25.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness $\frac{1}{4}$ sec.cor., marked on brass cap W C $\frac{1}{4}$ in N.half;
S 19 in SE., and
S 24 in SW. quadrant; from which,
A mesquite, 7 ins.diam., bears S. $12\frac{1}{2}^{\circ}W$., 18 lks.dist., marked W C $\frac{1}{4}$ S 24 B T.
A mesquite, 8 ins.diam., bears S. $79^{\circ}E$., 153 lks. dist., marked W C $\frac{1}{4}$ S 19 B T.
- 25.20 Left bank of Bill Williams Fork, over dry bed of river. Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point
By 1st set 40.01 chs.
By 2nd set, 39.99 chs., the mean of which is
- 40.00 Point for $\frac{1}{4}$ sec.cor. falls in bed of river.
40.80 Edge of running water in river, 12 ins. deep, course SSW.
- 48.00 Leave water.
49.95 J. B. Tappan's house bears S. $39^{\circ}40'E$. Difference between measurements of 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point
By 1st set, 80.01 chs.
By 2nd set, 79.99 chs., the mean of which is
- 80.00 Point for corner of secs.13,18,19 and 24 falls in bed of river.
Land, level.
Soil, S.25.20 chs., sandy loam, dry, medium texture, 1st rate. N.54.80 chs., loose sand in bed of river, 4th rate.
No timber.
Undergrowth, mesquite, water mote and arrowweed.
March 25, 1911.

- March 26: At 8h.00m.a.m., l.m.t., I set off $34^{\circ}17\frac{1}{2}'N$. on the lat.arc; $1^{\circ}57'N$. on the decl.arc; and determine a meridian with the solar at the cor.of secs.13,18,19 and 24.
- Thence I run,
North, bet. secs.13 and 18, from true point for cor.
Over dry bed of river, through dense brush.
- 14.00 Right bank of Bill Williams Fork.
15.50 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for witness cor.to cor.of secs.13,18,19 and 24, marked on brass cap,
W C S.of center,
T 11 N in N.half;
R 13 W S 13 in NW.,
R 12 W S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- 19.00 Cross wash 30 lks.wide, course SE.

12. Third Guide Meridian West, through Township 11 North.

Chains.

- 21.00 Ascend S. slope of mountain.
 30.90 Ridge bears SE. and NW.
 31.50 Cross wash, 10 lks. wide, course E.
 32.50 Ridge bears NW. and SE.
 Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point
 By 1st set, 40.02 chs.
 By 2nd set, 39.98 chs., the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 13 in W. and S 18 in E. half; from which,
 A palo verde, 8 ins. diam., bears N. $64\frac{1}{2}^{\circ}$ W., 163 lks. dist., marked $\frac{1}{4}$ S 13 B T.
 A palo verde, 5 ins. diam., bears N. $65\frac{3}{4}^{\circ}$ E., 78 lks. dist., marked $\frac{1}{4}$ S 18 B T.
 44.60 Cross wash, 25 lks. wide, course SW.
 52.70 Cross wash, 25 lks. wide, course SE.
 58.00 Ridge bears NW. and SE.
 62.50 Cross wash, 60 lks. wide, course E.
 72.00 Ridge bears NW. and SE.
 77.65 Cross wash, 80 lks. wide, course E.
 Difference between measurements of 80.00 chs. by two sets of chainmen is 10 lks.; position of middle point, By 1st set 80.05 chs., By 2nd set, 70.95 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked on brass cap,
 T 11 N in N. half;
 R 13 W S 12 in NW.,
 R 12 W S 7 in NE.,
 S 18 in SE., and
 S 13 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous and level.
 Soil, loose sand, gravel and rocks; 4th rate.
 No timber.
 Undergrowth, greasewood, palo verde, arrowweed, water mote and cactus.
 March 26: At this cor. I set off $2^{\circ}00\frac{1}{2}'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ}18'$ N.
-
- North, bet. secs. 7 and 12.
 Ascending steep S. slope, through dense brush.
 23.00 Cross drain, 10 lks. wide, course SE.
 26.00 Cross same drain, course SW.
 29.00 Cross same drain, course SE.
 Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
 By 1st set, 40.04 chs.
 By 2nd set, 39.96 chs., the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 12 in W. and S 7 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 44.75 South rim of deep canyon, and descend.
 50.00 Cross wash, 20 lks. wide, course SE. in bottom of canyon, and ascend.
 66.00 N. rim of canyon.
 Difference between measurements of 80.00 chs. by two sets of chainmen is 14 lks.; position of middle point
 By 1st set, 80.07 chs.
 By 2nd set, 79.93 chs., the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

Third Guide Meridian West, through Township 11 North.

Chains.

T 11 N in N.half;
R 13 W S 1 in NW.
R 12 W S 6 in NE.,
S 7 in SE, and
S 12 in SW. quadrant; and raise a mound of stone 2
ft. base, 1 1/2 ft. high, W. of corner. Pits impracticable.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, greasewood and palo verde.

March 26, 1911.

GENERAL DESCRIPTION.

Through township 9 North this line runs over level land; the land east of the line is low hills and west level. Through township 10 north the line runs over the top of rough mountains, and descends their north slope, the land on either side of the line being mountainous and hilly.

Through Township 11 North the line runs up the Bill Williams Fork, and the land west of the line is rough and mountainous excepting that portion along the south portion of the line and adjacent to it, which is level and fertile. The land east of the line is rolling.

Alfred M. Oliver,
U S. Transitman.

14
82

LIST OF NAMES.

A list of the names of the individuals employed by Alfred N. Oliver

Transitman

, 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 Third

Guide Meridian West through Tps. 9, 10 and 11 N.

showing the respective capacities in which they acted:

- A. E. Lyon, J. H. Bates R. A. Coombs, Chainman.
- W. D. Tanner, C. S. Crown, Clay Dodson, Chainman.
- R. L. Bates, Moundman.
- L. P. Bates, Moundman.
- Ed. Brockway, Axman.
- C. S. Crown, Axman.
- L. E. Flanagan Tom Shimpfessel, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred N. Oliver

Transitman

, United States ~~Deputy~~ Surveyor, in surveying all

those parts or portions of the Third Guide Meridian West through

Tps. 9, 10 and 11 N.

of the Gila and

Salt River meridian, 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 Arizona

- A. E. Lyon, Clay Dodson J. H. Bates, Chainman.
- R. A. Coombs, C. S. Crown W. D. Tanner, Chainman.
- R. L. Bates, Moundman.
- L. P. Bates, Moundman.
- Ed. Brockway, Axman.
- C. S. Crown, Axman.
- L. E. Flanagan J. A. Shimpfessel, Flagman.

Subscribed and sworn to before me this 28th

day of March, 1911

Alfred N. Oliver
U.S. Transitman



835
BOOK 2263

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfred N. Oliver ^{Transitman} United States Deputy Surveyor, do solemnly swear that, in pursuance of a ^{instructions} contract received from Frank D. Ingalls United States Surveyor General for Arizona bearing date of the 25th day of August, 1910, 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 Third Guide Meridian West through Townships 9, 10 and 11 North G. and S. R. Meridian, Arizona

of the _____ meridian, in the _____ of _____, 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 United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Alfred N. Oliver
United States Deputy Surveyor.
Transitman

Subscribed by said Alfred N. Oliver, and sworn to before me }
this 7th day of January, 1912



Frank D. Ingalls
U.S. Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

The foregoing field notes of the survey of Phoenix Ariz July of, 1912 the Third Guide Meridian West through Townships 9, 10 and 11 North G. & S. R. Meridian, Arizona

executed by Alfred N. Oliver N.D. Transitman under his ^{Group} contract No. 4, dated August 25, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

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.