

1200 ft
1000 ft

1836

Book B. Nov 21/04

BOOK 1836

FIELD NOTES

OF THE SURVEY OF THE

E. boundary T10S R16E

N " " "

At three miles of E boundary of T10S R15E

5 five and one half miles of the E boundary of T9S R15E

1836

At boundary of T10S R15E

5 three miles of the E boundary of T9S R14E

Of the Dela + Buck River Meridian,

Arizona,

AS SURVEYED BY

William D. Alvord, United States Deputy Surveyor,

Under his Contract No. 117, dated June 13, ¹⁹⁰⁴ ~~189~~

Survey commenced July 25, ¹⁹⁰⁴ ~~189~~

Survey completed October 20, ¹⁹⁰⁴ ~~189~~

Frank C. Keltan Chairman

E. Lewis E. Allen

Emmett T. Ford Workman

James Lafey

Frank L. Paulin Assn

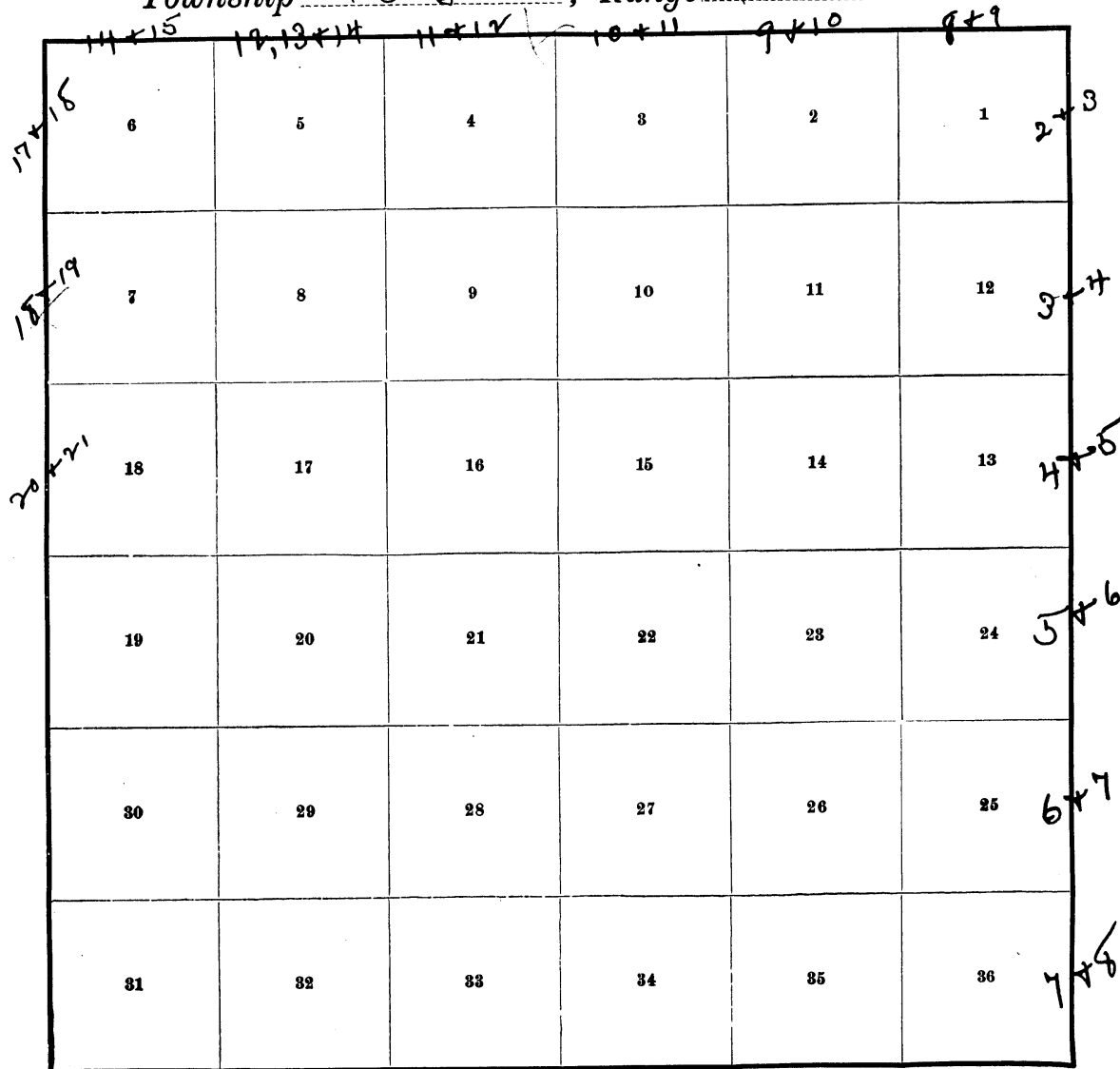
J. Rutlan Hagan

BOOK 1836

INDEX DIAGRAM. - No. 1

Extensive

Township 10 S, Range 16 E



Meanders Page.....

WE, _____ and _____

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over 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 _____

BOOK 1836

Frank C Kelton, Chainman.

E. E. Allen, Chainman.

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



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 _____

Samuel T. Ford, Moundman.

Jesus Lopez, Moundman.

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



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 _____

Frank L. Surlin, Axman.

_____, Axman.

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



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 _____

L. Putnam, Flagman.

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



BOOK 1836

INDEX DIAGRAM. - No. 2
Explains lines

Township 9 S, Range 15 E

6	5	4	3	2	1	24
7	8	9	10	11	12	24 + 25
18	17	16	15	14	13	25 and 26
36 19	20	21	22	23	24	26
35 + 36 30	29	28	27	26	25	27
35 31	32	33	34	35	36	28
20	30 + 31	31	37	33	32 + 33	

Meanders Page.....

75
BOOK 1836

WE, Frank C. Kelton and Edgar E. Ater

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over 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 E boundary T10SR16E; N boundary T10SR16E; N 3 miles of the E boundary T10SR15E; S 5 1/2 miles of the E boundary T9SR15E; N boundary T10SR15E; and the S 3 miles of E boundary T9SR14E of the Lila & East River Pore + Meridian.

Frank C. Kelton, Chainman.

Edgar E. Ater, Chainman.

Subscribed and sworn to before me this 10

day of July, 189 1904

my Comm. Exp. Sept 24 '06



Ralph W Saugworthy
Notary Public
Pima County

WE, Ernest S. Ford and Jesus Lopez

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 E boundary T10SR16E; N boundary T10SR16E; N 3 miles of the E boundary T10SR15E; S 5 1/2 miles of the E boundary T9SR15E; N boundary T10SR15E; and the S 3 miles of E boundary T9SR14E of the Lila & East River Pore + Meridian.

Ernest S. Ford, Moundman.

Jesus Lopez, Moundman.

Subscribed and sworn to before me this 10

day of July, 189 1904

my Comm. Exp. Sept 24 '06



Ralph W Saugworthy
Notary Public
Pima County

WE, Frank S. Durlin 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

the E boundary T10SR16E; N boundary T10SR16E; N 3 miles of E boundary T10SR15E; S 5 1/2 miles of the E boundary T9SR15E; N boundary T10SR15E; and the S 3 miles of E boundary T9SR14E of the Lila & East River Pore + Mer.

Frank S. Durlin, Axman.

....., Axman.

Subscribed and sworn to before me this 10

day of July, 189 1904

my Comm. Exp. Sept 24 '06



Ralph W Saugworthy
Notary Public
Pima County

I, L. Butcher, 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 E boundary T10SR16E, N boundary T10SR16E, N 3 miles of E boundary T10SR15E; S 5 1/2 miles of the E boundary T9SR15E; N boundary T10SR15E, and the S 3 miles of E boundary T9SR14E of the Lila & East River Pore + Mer.

L. Butcher, Flagman.

Subscribed and sworn to before me this 10

day of July, 189 1904

my Comm. Exp. Sept 24 '06



Ralph W Saugworthy
Notary Public
Pima County

Chains

Survey commenced July 28th, 1904, and executed ^{with} by a Young & Sons light mountain transit, No. 7520; with a solar attachment, the horizontal limb having two double verniers placed opposite each other and reading to single minutes of arc.

The instrument was examined, tested on the true meridian at Phoenix, Arizona, found correct, and approved by the Surveyor General for Arizona, June 25th, 1904.

I begin at the standard cor. of Ts. 10 S. Rs. 16 and 17 E. hereinbefore described.

A.m. and p.m. solar and Polaris observations were taken at this point July 26th and 27th, 1904. From the results of this operation, I conclude that the adjustments of the solar attachment are satisfactory.

From this station, lat. $32^{\circ}-32-1/2'$ N., long. $110^{\circ}-39'$ W., I run north on a random line, between secs. 31 and 36.

Var. $12^{\circ}-45'$ E.

40.00 Set temp. 1/4 cor. to secs. 31 and 36.

80.00 Set temp. cor. to secs. 25, 30, 31, and 36.

July 28th, 1904, I set off $18^{\circ}-58'$ on the decl. arc, and at 12 h. 0 m., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-33'$.

North between secs. 25 and 30.

40.00 Set temp. 1/4 cor to secs. 25 and 30.

80.00 Set temp. cor. to secs. 19, 24, 25 and 30.

July 28th, 1904.

July 29th, 1904.

North between secs. 19 and 24.

40.00 Set temp. 1/4 cor. between secs. 19 and 24.

80.00 Set temp. cor. to secs. 13, 18, 19, and 24.

July 29th, 1904; At 9 a.m., l.m.t., I set off $32^{\circ}-35'$ lat. arc; $18^{\circ}-46'$ on the decl. arc; and determine a meridian with the solar.

North between secs. 13 and 18,

Chains
40.00 Set temp. 1/4 cor. to secs. 13 and 18.
80.00 Temp. cor. for secs. 7, 12, 13 and 18 falls in wash.
82.00 Set temp. witness cor.
July 29th, 1904; I set off $18^{\circ}-44'$ on the decl. arc, and at 12 h. 0 m., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-36-1/2'$.
North between secs. 7 and 12.
40.00 Set temp. 1/4 cor. to secs 7 and 12.
80.00 Set temp. cor. to secs. 1, 6, 7 and 12.
North between secs. 1 and 6.
40.00 Set temp. 1/4 cor. to secs. 1 and 6.
83.90 Cor. T. 9⁺¹⁰ S. R. 17⁺¹⁶ E., a decayed mesquite post, 4 x 4 ins. x 3 ft., loose in the ground, bears west 1.09 chs.
July 29th, 1904.

July 30th, 1904.
As old cor. is scarcely discernable, I reestablish in the original position by setting limestone, 8 x 8 x 20 ins. 15 ins. in the ground for cor. of Ts. 9 and 10 S. Rs. 16 and 17 E.; marked with 6 grooves on N.S.E. and W. edges; dig pits 24 x 24 x 12 ins. on each line N.E. and W. 4 ft., and S. of stone, 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2-1/2 ft. high, S. of cor. No bearing trees available.
July 30th, 1904; At 7 a.m., l.m.t., I set off $32^{\circ}-38'$ on the lat. arc; $18^{\circ}-33-1/2'$ on the decl. arc; and determine the meridian with the solar.
Thence I run.
S. 0°-8' E. on true line between secs. 1 and 6 on ascending slope.
3.30 Top of hill. Descend.
5.10 Small wash, course east. Ascend.
8.30 Top of hill. Descend.
10.30 Wash, course east. Ascend.
15.80 Top of hill. Descend.
18.40 Wash, course east.

Chains

- 29.60 Wash, 50 lks. wide, course east. Ascend.
- 31.70 Top of hill. Descend.
- 33.45 Wash, course east. Ascend.
- 38.10 Top of hill. Descend.
- 41.62 Wash, course N.E. Over roughly rolling ground.
- 43.90 Set a quartz stone, 8 x 8 x 14 ins., 9 ins. in the ground for 1/4 cor. between secs. 1 and 6, marked 1/4 on W. face; dig pits 18 x 18 x 12 ins., 3 ft. N. and S. of stone; and raise a mound of earth 3 ft. base, 2 ft. high, west of cor.
- 52.80 Wash, course east. Ascend.
- 54.70 Top of hill. Descend.
- 57.75 Wash, course east. Over roughly rolling ground.
- 62.80 Wash, course N.E.
- 83.90 Set a granite stone 7 x 10 x 16 ins., 11 ins. in the ground, for cor. to secs. 1, 6, 7 and 12, marked with one notch on N. and 5 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, 3 ft. high, west of cor.
- Land, mountainous.
- Soil, sandy, 3rd rate.
- Timber, mesquite brush.
- Mountainous land, 83.90 chs.
-
- S. 0°-8' E. on true line between secs. 7 and 12, over roughly rolling land.
- 1.10 Wash, course E. Ascend.
- 6.20 Cross road on top of hill, course E and W. Descend through dense undergrowth of mesquite.
- 11.33 Left bank of large wash, course E.
- 12.07 Right bank of wash.
- 40.00 Set a quartzite stone, 12 x 12 x 16 ins., 11 ins. in the ground for 1/4 cor. between secs. 7 and 12, marked 1/4 on W.; dig pits 18 x 18 x 12 ins., 3 ft. N. and S.; and raise mound of earth 4 ft. base, 3 ft. high, W. of cor.

Chains

Ascend over gently rolling country.

41.00 Top of hill. Descend.

45.30 Wash, course E. Ascend.

48.00 Top of hill. Descend through mesquite brush.

53.00 Wash, course E. Ascend.

67.00 Top of hill. Descend.

76.00 Foot of hill. Over rolling country.

77.40 Cross well traveled road, bears E.

78.00 As corner to secs. 7, 12, 13 and 18 falls in wash, I set witness cor., a granite stone, 6 x 11 x 14 ins., 10 ins. in the ground, marked with two notches on N., and 4 notches on S. edges, and W. C. on NE face; 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, 3 ft. high, 5-1/2 ft. west of cor.

80.00 Point for cor. of secs. 7, 12, 13 and 18, falls in wash, Course E.

Land, mountainous.

Soil, sandy, 3rd and 4th rate.

Timber, mesquite brush.

Mountainous land, 80.00 chs.

July 30th, 1904; I set off $18^{\circ}-30'$ on the decl. arc; and at 12 h., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-36'$.

S. $0^{\circ}-8'$ E. on true line between secs. 13 and 18 over rough rolling land.

3.70 Cross old untravelled road on N. side of slope, bears N.E.

9.96 Cross trail, bears W. Ascend.

10.30 Top of hill. Descend.

26.30 Left bank of main wash, course E.

28.05 Right bank of main wash.

31.00 Wash, 55 lks. wide, course E. Over bushy flat.

40.00 Set a granite stone 6 x 10 x 14 ins., 10 ins. in the ground, for 1/4 cor. between secs. 13 and 18, marked

Chains	1/4 on W.; and raised mound of stones 3 ft. base, 2 ft. high west of cor. Pits impracticable. Ascend.
63.30	Top of hill. Descend gradually.
68.10	Wash, course E. Ascend.
74.30	Top of hill. Descend steep hill.
80.00	Set a granite stone 6 x 8 x 20 ins., 15 ins. in the ground for cor. to secs. 13, 18, 19 and 24, mark ^{ed} with 3 notches on N. and 3 notches on S. edges; and raised a mound of stones, 3 ft. base, 3 ft. high W. of cor. Pits impracticable..
	Land, mountainous.
	Soil, sandy and rocky, 3rd and 4th rate.
	Timber, mesquite.
	Mountainous land, 70.00 chs; level, densely wooded, 10.00 chs.
	July 30th, 1904.
	July 31st, 1904.
	At 8 h. 30 m., l.m.t., I set off $32^{\circ} - 35' 7''$ on the lat. arc, $18^{\circ} - 17' 7''$ on the decl. arc, and determined the meridian with the solar at cor. of secs. 13, 18, 19 and 24.
	Thence I run.
	S. $0^{\circ} - 8'$ E. on true line between secs. 19 and 24.
	Descend abruptly.
7.50	Wash, 40 lks. wide, course S.E. Ascend.
12.36	Top of hill. Descend abruptly.
18.00	Wash, 60 lks. wide. Course N.E. Ascend.
24.30	Top of hill. Descend.
26.30	Small wash, course N.E. Ascend.
35.00	Top of hill. Descend.
36.09	Cross trail, bears W.
37.56	Small wash, course E. Descend.
40.00	Set a granite stone, 10 x 10 x 18 ins., 12 ins. in the ground for 1/4 cor. to secs. 13 ¹⁹ and 18 ²⁴ , marked 1/4 on W.; and raised a mound of stones, 3 ft. base, 3 ft. high, west of cor. Pits impracticable. Ascend.
42.10	Top of hill. Descend.
51.10	Wash, 50 lks. wide, course E. Ascend.

Chains

- 58.60 Top of hill. Over rolling ground, covered with mesquite, prickly pear, etc.
- 64.50 Descend abruptly.
- 69.25 Gulch, bears E. Ascend rapidly.
- 72.00 Ascend less abruptly.
- 72.40 Top of Faise.
- 78.90 Wash, course N.E.
- 80.00 Set a granite stone 8 x 8 x 14 ins., 10 ins. in the ground for cor. to secs. 19, 24, 25 and 30, mark^{ed} with 4 notches on N. and 2 notches on S. edges, and raise a mound of stones, 4 ft. base, 3 ft. high, 5-1/2 ft. west of cor. Pits impracticable.
- This cor. falls on bank sloping N.W. to wash.
- Land, mountainous.
- Soil, rocky, 4th rate.
- Timber, mesquite and prickly pear.
- Mountainous and bushy land, 80 chs.
- July 31st, 1904; I set off $18^{\circ}-15'$ on the decl. arc, and at 12 h., i.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-34'$.
-
- S. $0^{\circ}-8'$ E. on true line between secs. 25 and 30.
- Ascend rapidly.
- Var. $12^{\circ}-30'$ E.
- 8.20 Top, thence over rolling land.
- 15.05 Descend rapidly.
- 20.00 Wash, 20 lks. wide, course E. Ascend.
- 25.95 Top of hill. Across rolling ground.
- 33.50 Begin descent through dense mesquite.
- 40.00 Set a granite stone, 5 x 9 x 14 ins., 10 ins. in the ground, for 1/4 cor. between secs. 25 and 30; marked 1/4 on W. face; and raised a mound of stones, 3ft. base 2 ft. high, W. of cor. Descend over gently rolling land.
- 41.00 Small wash, course S.E. Ascend.
- 44.75 Top of hill. Descend over ground covered with dense mesquite.

Chains

- 45.00 Over gently rolling ground.
- 46.80 Wash, 35 lks. wide, course E. Ascend.
- 48.70 Top of hill. Abrupt descent.
- 50.30 Wash, 50 lks. wide, course E.N. E. Ascend.
- 51.50 Top of bank, thence over gently rolling land.
- 57.00 Ascend.
- 67.00 Top of circular hill. Descend.
- 75.80 Wash, 18 lks. wide, course N.E.
- 80.00 Set a granite stone 6 x 12 x 18 ins., 12 ins. in the ground, for cor. to secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S. edge, and raised a mound of stone, 2 ft. base, 3 ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
- Soil, rocky and bushy, 4th rate.
- Timber, mesquite, Palo verde, etc.
- Mountainous land, 80 chs.

July 31st, 1904.

August 1st, 1904; At 7 h. 30 m., a.m., l.m.t., I set off $32^{\circ}-33-1/2'$ on lat. arc, $18^{\circ}-3'$ on decl. arc; and determine a meridian with solar at cor. to secs. 25, 30, 31, and 36.

Thence I run.

- S. 0 8' E., on true line between secs. 31 and 36. Ascend.
- 1.40 Top of hill. Descend.
- 6.00 Small wash, course E. Ascend.
- 9.60 Top of hill, over level ground. Dense undergrowth.
- 17.00 S. edge, descend. Leave dense undergrowth.
- 22.00 Wash, course N.E. Ascend.
- 26.00 Top of hill, over rolling ground.
- 40.00 Set a granite stone 5 x 10 x 15 ins., 10 ins. in the ground for 1/4 cor. to secs. 31 and 36, marked 1/4 on W. face, and raised a mound of stones 3 ft. base, 3 ft. high, W. of cor. Pits impracticable.

Chains

- 50.00 Descend steep slope.
 60.00 Foot of steep slope, over gentle descent.
 61.30 Begin abrupt descent.
 61.50 Foot of bank, over gentle descent.
 66 30 Wash, 60 lks. wide, course E. Ascend abruptly.
 76.00 Top of hill, over gently rolling ground.
 80.00 The standard cor. Ts. 10 S., Rs. 16 and 17 E..

Land, mountainous.

Soil, rocky, 4th rate.

Timber, mesquite brush.

Mountainous land, 73.00 chs. Dense undergrowth 10.00 chs.

August 1st, 1904; I set off $18^{\circ}-0'7''$ on the decl. arc, and at 12 h., l.m.t., observe the sun on the meridian; resulting lat. is $32^{\circ}-33'7''$

August 1st, 1904.

NORTH BDY. T. 10 S. R. 16 E.

August 5th, 1904.

At 7 h. 10 m., a.m., l.m.t., I set $32^{\circ}-38'7''$ on the lat. arc., $17^{\circ}-1'7''$ on the decl. arc; and determine a true meridian with the solar at a point 2.13 ft. south of cor. Ts. 9 and 10 S., Rs. 16 and 17 E.

I am unable to locate the S.W. cor. of T. 10 S. R. 16 E. in the regular manner, and thence establish the west boundary in the regular way; therefore I run $N. 89^{\circ} 58' W.$ on a ~~true~~ ^{secant} line, south of sec. 36.

Along side hill sloping S.S.E.

- 12.00 Ridge, bears E.N.E.
 15.50 Small wash, bears E.N.E.
 19.00 Top of hill, bears E.N.E.
 27.55 Wash, course E.N.E.
 35.30 Wash, course E.N.E.
 40.00 N..96 ft. from the secant.

Set a quartz stone 6 x 9 x 12 ins., 9 ins. in the ground for 1/4 cor. between secs. 1 and 36, marked 1/4 on the N. face. Dig pits 18 x 18 x 12 ins. E. and W. of stone

Chains	3-1/2 ft. dist. and raised a mound of earth 3-1/2 ft. base, 1-1/2 ft. high, N. of cor.
	Ascend.
60.00	Begin descent
64.00	Begin ascent.
67.20	Top of hill, and road to Oracle, S.W.
80.00	Set a quartzite stone 8 x 8 x 12 ins., 8 ins. in the ground for cor. of secs. 1, 2, 35, and 36, marked with 1 notch on E. and 5 notches on W. edges, and raise a mound of stone, 2 ft. base, 2 ft. high, W. of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, sandy, 3rd rate.
	Timber, cacti and mesquite.
	Mountainous land, 80 chs.
	August 5th, 1904; I set off $16^{\circ} 57'$ on the decl. arc, and at 12 h., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ} 38'$
	<i>on the Secant</i>
	N. $89^{\circ} 59'$ W., south of sec. 35.
1.65	Wash, course N. Ascend.
3.00	Top of hill. Descend.
7.90	Wash, course N.E. Ascend.
18.50	Descend 30 ft. into a broad wash, with dense undergrowth.
28.13	Center of road and wash, N.E.
35.00	Begin ascent of prominent hill.
40.00	S. 75 ft. from the secant,
	Set a quartzite stone 7 x 9 x 14 ins., 10 ins. in the ground for 1/4 sec. cor. marked 1/4 on the N.; and raise a mound of stones, 2 ft. base, 2 ft. high, N. of cor. Pits impracticable.
	This cor. is situated on a hill sloping S.E. Continue ascent.
47.00	Top of hill.
53.00	Begin rapid descent into rolling valley.
56.00	Foot of rapid descent. Descend gradually.

Chains

57.95 Small wash, bears N.

71.50 Wash, bears N.E. Ascend.

80.00 S. 1.28 ft. from the secant.

Set a granite stone, 8 x 12 x 18 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 34, and 35, marked with 2 notches on E. and 4 notches on W. edges, and raised a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.

This Cor. is on top of a prominent hill.

Land, mountainous.

Soil, 3rd rate.

Timber, mesquite and cacti.

Mountainous ~~or densely wooded~~ land, 80.00 chs.

August 5th, 1904.

August 6th, 1904.

At 7 h. 5 m., a.m., 1.m.t., I set off $32^{\circ}38'$ on the lat. arc, $16^{\circ}45'$ on the decl. arc; and determine a meridian with the solar; thence I run N. $89^{\circ}59-1/2'$ W. south of sec. 34. *on the Secant*

Var. $13^{\circ}-15'$ E.

Descend abruptly.

10.00 Enter large broad wash, wooded with dense mesquite, N.E.

12.60 Middle of main channel, bears N.E.

15.05 Trail, bears N.N. E. Leave dense mesquite.

15.15 Ascend through dense cacti, etc.

18.15 Top of hill. Descend.

21.15 Foot of hill.

22.85 Wash, 30 lks. wide, bears N.E. Ascend.

28.20 Top of hill over roughly rolling ground.

37.30 Top of prominent hill. Descend abruptly.

39.00 Foot of descent over rolling valley.

40.00 S. 1.59^{ft} from the secant.

Set a granite stone 10 x 12 x 14 ins., 10 ins. in the ground for 1/4 sec. cor., marked 1/4 on N. face; dig pits, 18 x 18 x 12 ins. E.&W. of the stone. 3 ft.

Chains	dist., and raise a mound of earth 3-1/2 ft. base, 1-1/2 ft. high, N. of cor. This cor. is on a hill sloping gently S.
54.45	Trail, bears N.
62.20	Top of prominent ridge, on which are extensive ruins of Indian habitation. Descend abruptly.
80.00	S. 1.70 ft. from the secant. Set a granite stone 8 x 8 x 12 ins., 8 ins. in the ground for cor. of secs. 3, 4, 33 and 34 marked with 3 notches on the E. and 3 notches on the W. edges; from which A mesquite 10 ins. diam. bears N. 23° E., 85 lks dist., marked T. 9 S., R. 16 E. S. 34, B.T. No other trees available; dig pits 18 x 18 x 12 ins. in each section 5-1/2 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land, mountainous. Soil, stony, 3rd rate. Timber, mesquite and cacti. Mountainous or densely wooded land, 80.00 chs. August 6th, 1904; I set off 16° 41' on the decl. arc, and at 12 h., l.m.t., observe the sun on the meridian; the resulting lat. is 32° 38'.
	<i>on the secant</i> W. on South boundary of sec. 33. Var. 13° 30' E.
1.50	Wash, N.E. Ascend.
5.70	Top of hill over rolling country.
10.78	Wash, N.E.
17.50	Wash, bears N.E.
19.20	Pile of boulders on line. Over rolling rise.
37.27	Top of prominent ridge, bears N. Descend abruptly.
40.00	Point for 1/4 sec. cor. falls in wash. <i>course N.E.</i>
41.00	S. 1.58 ft. from the secant. Set a porphyry stone, 6 x 8 x 14 ins., 9 ins. in the ground for W.C. to 1/4 sec. cor. between secs. 4 and 33,

- Chains marked W. C. $1/4$ 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- $1/2$ ft. base, 1- $1/2$ ft. high N. of cor.
- 41.05 Trail, bears N.
- 42.00 Top of hill. Descend.
- 55.00 Middle of important wash, 60 lks. wide, bears N.E.
- 55.40 S. W. cor. of corral, bears N. 40 lks. dist.
- 56.85 Cross brush fence, bears N.E.
- 58.42 S.E. cor. of shanty at Peck Ranch, bears N. 15 lks. dist.
Thence over stony side hills sloping S.
- 62.85 A well, bears S., 1.60 chs. dist.
- 63.90 A well and galvanized iron tank, bear S. 4.50 chs. dist.
- 69.10 Top of hill. Descend.
- 73.70 Trail, bears N. Ascend.
- 77.50 Top of hill.
- 80.00 S. 1.28 ft. from the secant.

Set a granite stone 6 x 8 x 14 ins., 10 ins. in the ground for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on the E. and 2 notches on the W. edges; dig pits 18 x 18 x 12 ins. in each section, 5- $1/2$ ft. dist.; and raise a mound of stones 4 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, 3rd and 4th rate.

Timber, mesquite and cacti.

Mountainous land, 80 chs.

August 6th, 1904..

August 7th, 1904; At 6 h. 55 m., a.m. l.m.t., I set off $32^{\circ}-38'7''$ on the lat. arc $16^{\circ}-29'7''$ on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 32, and 33.

S. $89^{\circ}-59'$ W. ^{on the secant} between secs. 5 and 32.

Var. $13^{\circ}-40'$ E.

Ascend.

- 2.10 Top of hill, on which a porphyry ledge bears N. Descend.

Chains	
6.00	Wash, course N. Ascend.
16.40	Top of ridge, bears N.E. Enter growth of live oak and bear grass; thence along steep side hill sloping N.
21.10	Trail, bears N.E.
22.00	Wash, course N.N. E. Ascend along roughly rolling side hill sloping S. Dense cacti, bear grass, etc.
25.80	Trail, bears N W.
33.00	Top of hill. Covered with growth of bear grass, manzanita, and etc. Descend gradually. S. E. cor. of Durand Daily's house, bears N. 8° W.; S.E. cor. of barn, N. 5° W.
40.00	N. E. cor. of Frank Daily's house, bears S. 78° -17' W. S. .75 chs. from the secant. Set a granite stone 8 x 8 x 16 ins. 11 ins. in the ground for $1/4$ sec. cor., mark $1/4$ on N. face; from which A mountain oak 14 ins. diam. bears S. 11° W. 52 lks. dist. marked $1/4$ S. 5 B.T. A mountain oak 16 ins. diam. bears N. 66° W. 165 lks. dist. marked $1/4$ S. 32 B.T.
45.00	Middle of wash 60 lks. wide, bears N. Ascend gradually.
53.90	Descend.
55.00	Trail in wash, bears N.E. and S.W.
55:20	Middle of wash 40 lks. wide, bears N:N.E.
61.00	Frank Daily's wind mill, bears S. about 15 chs. dist.
61.15	Road to Durand Daily's bears N.E.
63.00	Frank Daily's house, bears S. 17° W.
68.60	Wire fence, bears S.E. Enter Frank Daily's enclosure.
70.40	Trail, bears S.E.
73.00	Wash, filled with granite boulders, bears N.E. To pass a boulder on line 50 ft. high 20 ft. diam., I off set as follows:
77.00	S. 54 lks. Thence S. 89° -59' W to 80.00 chs. Thence N. 54 lks.

Chains

80.00

Point for sec. cor. falls on boulder in place.

Cut across (X) at the exact cor. point for cor. of secs.

5, 6, 31 and 32, marked with 5 grooves on the E. and 1 groove on the W. sides; from which

An oak 14 ins. diam. bears S. 4° E., 170 lks.

dist., marked T. 10 S. R. 16 E. S. 5, B.T.

An oak 12 ins. diam. bears S. $60^{\circ}1/2$ W. 168

lks. dist. marked T. 10 S. R. 16 E. 8. 6, B.T.

An oak 18 ins. diam. bears N. 26° W. 64 lks. dist.

marked T. 9 S. R. 16 E. S. 31, B.T.

An oak 16 ins. diam. bears N. 9° E. 86 lks. dist.

marked T. 9 S. R. 16 E. S. 32, B.T.

Land, mountainous, and densely wooded.

Soil, 3rd and 4th rates.

Timber, oak, manzanita, cacti and mesquite.

Mountainous land, 80 chs. Densely wooded land, 64.00 chs.

August 7th, 1904; I set off $16^{\circ}24'$ on the decl. arc, and at 12 h., l.m.t., observe the sun on the meridian the resulting lat. is $32^{\circ}38'$.

S. $89^{\circ}59'$ W. *the recant on S. Bdy of Sec 36.*

Var. $13^{\circ}30'$ E.

0.12 Oak 14 ins. diam. on line.

5.72 Wire fence bears N.N.W. Leave Frank Daily's enclosure.

16.85 Ridge, bears W.N.W. Descend.

17.46 Main Oracle road. Bears W.N.W. Ascend.

18.00 Top of small ridge, bears N. Over roughly rolling country, densely wooded with scrub oak and bear grass.

23.00 Center of wash, 50 lks. wide, bears N. Ascend.

29.00 Top of prominent hill. Descend into Cherry Valley.

34.10 Large boulder on line.

39.32 Wire fence, bears N.E.

40.00 North .96 ft. from the secant,

Set a granite stone 5 x 12 x 14 ins., 10 ins. in the ground for $1/4$ sec. cor., marked $1/4$ on N. face; and

Chains	<p>raise a mound of stones 2 ft. base, 2 ft. high, N. of cor.</p> <p>From this cor. an oak 20 ins. diam. bears N. 56° W. 44 lks. dist., marked 1/4 S. 31 B.T.</p> <p>A circular corral bears N. of cor. 13 chs. dist., and Durand Daily's adobe ranch house bears N. of cor. 23 chs. dist.</p>
43.00	Enter flat of Cherry Valley.
44.85	Wash, 25 lks. wide, bears N.E.
49.50	Ascend abruptly.
54.70	Top of rocky hill.
55.10	Pile of boulders on line.
57.00	Small wash, bears S.E. Ascend.
63.00	Same wash, bears N.E.
66.50	Top of hill. Thence over rough rocky country.
	<p>The falling of the east boundary of this township is 1.09 chs. W., the convergency of meridians 6 miles long and 6 miles apart, in lat. 32°-32-1/2' N. is 46 lks.; therefore at</p>
78.45	<p>N. 2.13 ft. from the secant,</p> <p>Set a sandstone 12 x 12 x 24 ins., 18 ins. in the ground for cor. of Ts. 9 and 10 S. R. 16 E., on east boundary of T. 9 S. R. 15 E., marked with 6 notches on the N.E. and S. edges; and raise a mound of stones 2 ft. base, 2-1/2 ft. high, E. of cor. Pits impracticable.</p> <p>From this cor. an oak 20 ins. diam. bears S. 21°-45' E. 3.18 chs. dist., marked T. 10 S., R. 16 E., S. 6, B.T.</p> <p><i>No other bearing trees within limits.</i></p> <p>Land, mountainous, and densely wooded.</p> <p>Soil, 3rd and 4th rates.</p> <p>Timber, live oak, walnut, etc.</p> <p>Mountainous and wooded land 78.45 chs.</p>

August 7th, 1904.

Chains

Survey commenced August 7th, 1904, and executed with a Young & Sons Light Mountain Transit No. 7520, with a solar attachment; the horizontal limb having two double verniers placed opposite each other and reading to single minutes of arc, which is also the least reading of the latitude and declination arcs.

I begin at the ^{cor}Ts. 9 and 10 S. R. 16 E. on the E boundary of T. 9 S., R. 15 E. ^{as previously determined by me} in lat $32^{\circ}-38' \eta$ long. $110^{\circ} 45' W.$

I examine the adjustments of the transit and find them to be correct.

In order to test the solar apparatus by comparing results of observations on the sun made during a.m. and p.m. hours with a true meridian determined by observation on Polaris, I proceed as follows:

Aug. 7th, 1904; At 4 h. 10 m., p.m. l.m.t., I set off $16^{\circ}-22' \eta$ on the decl. arc, $32^{\circ}-38' \eta$ on the lat. arc, and mark the meridian thus established by a tack driven in a stake set firmly in the ground, about 1 ch. N. of my station.

At 10 h. 23.1 m. p.m., l.m.t., I observe Polaris at eastern elongation in accordance with instructions given in the manual and mark the line thus established by a tack driven in a stake set firmly in the ground about 1 ch. N. of instrument.

August 7th, 1904.

Aug. 8th, 1904.

At 7 h. 0 m., a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}-25'-1/2'$ to the W. of stake, set last night, and mark the true meridian thus established by a tack driven in the stake set from solar observation yesterday; and meridian falls .05 ins. E. of the mark determined by solar observation.

At 7h. 10 m., a.m., l.m.t., I set off $32^{\circ}-38' \eta$ on the lat. arc $16^{\circ} 11'-1/2' \eta$ on the decl. arc and determine a meri-

Chains

dian by the solar and mark a point thereof on the stake already set N. of instrument. This mark falls .02 ins. W. of the meridian determined by observation on Polaris.

The solar apparatus by p.m. and a.m. observations defines the position of meridian as about 13" W. and 5" W. of the meridian established by observation on Polaris. Therefore I conclude that the adjustments of the solar are satisfactory.

From this corner I run

S., west of sec. 6, T. 10 S. R. 16 E.

3.90

Set a granite stone 6 x 8 x 14 ins., 10 ins. in the ground for corner of Ts. 9 and 10 S. R. 16 E., marked with 6 notches on N.S. and W. edges; raise a mound of stone 2-1/2 ft. base, 3 ft. high W. of cor.,

An oak 6 ins. diam. bears S. 4°-30' W. 195 lks.

dist. marked T. 10 S. R. 15 E., S. 1, B.T.

No other trees within which
Pits impracticable.

Ascend gradually.

7.20

Top of hill. Descend.

8.70

Small wash, bears W. Ascend.

11.80

Top of ridge, bears W. Descend.

17.20

Wash, 15 lks. wide, bears N.W.

26.50

Ascend.

30.70

Pass E. side of prominent pile of boulders on E. slope of hill.

32.95

Trail, bears N.E.

43.90

Set a porphyry stone, 12 x 12, x 14 ins., 9 ins. in the ground for 1/4 cor. between secs. 1 and 6, marked 1/4 on W.

An 8" oak, bears S. 3°-15' W. 20 lks. dist., marked 1/4 S. B.T.

An oak 10 ins. diam. bears S. 26°-15' E., 25 lks.

dist. marked 1/4 S. 6, B.T.

Ascend hill sloping N.W. and thence over rapidly rising, roughly rolling country covered with mountain oak. Var. 13°-45' E.

74.70

Begin abrupt ascent along side of hill sloping W.N.W.

79.30

Top and trail N.N.W. Descend gradually along hill sloping W.S.W.

Chains

- 83.30 Wash 10 lks. wide bears N.W. Ascend hill sloping N.E.
- 83.90 Set a quartz stone 8 x 10 x 20 ins., 15 ins. in the ground for cor. of secs. 1, 6, 7 and 12; mark with 1 notch on the N. and 5 notches on the S. edges, from which
- An oak 9 ins. diam bears N. 58° W. 39 lks. dist. marked T. 10 S. R. 15 E. S. 1, B.T.
- An oak 5 ins. diam, bears N. 21°-30' E. 58 lks. dist. marked T. 10. S. R. 16 E., S. 6, B.T.
- An oak 6 ins. diam. bears S. 53° E. 61 lks. dist. marked T. 10 S. R. 16 E., S. 7, B.T.
- An Oak 5 ins. diam., bears S. 12° W. 13 lks. dist marked T. 10 S. R. 15 E., S. 12, B.T.
- Aug. 8th, 1904; I set off 16°-7' on the decl. arc, and at 12 h. l.m.t., observe the sun on the meridian, the resulting lat. is 32°-37' 7".
- Land, mountainous and densely wooded.
- Soil, 3rd and 4th rates.
- Timber, oak.
- 83.90
~~80.00~~ chs.
- August 8th, 1904.
-
- S. between secs. 7 and 12.
Var. 14°-15' E.
- Continue ascent.
- 7.40 Top of ridge, bears N.N.W. Descend hill, sloping W.S.W.
- 11.10 Wash, 10 lks. wide, bears N.N.W. Ascend abruptly hill sloping N.N.E.
- 12.90 Top of hill on which a quartz ledge 5 ft. wide bears W.N.W., thence over sharply rolling land, covered with dense oak.
- 23.80 Wash, 4 lks. wide, bears N.N.E.
- 38.90 Descend.
- 40.00 Set a granite stone, 14 x 16 x 24 ins. 18 ins. in the ground for 1/4 cor. between secs. 7 and 12, marked 1/4

Chains

on the W.; from which

An oak 12 ins. diam., bears S. $9^{\circ}-30'$ E. 167 lks. dist. marked $1/4$ S. 7, B.T.

An oak 12 ins. diam., bears S. 4° W. 171 lks. dist. marked $1/4$ S. 12, B.T.

Continue descent.

Var. $13^{\circ}-40'$ E.

- 40.80 Small wash, course W. Ascend.
- 42.85 Top of prominent ridge, bears W.S.W., from this point an extensive valley with rough canons and ridges extends to the S.W. Descend 600 ft.
- 45.95 Quartz ledge 7 ft. wide, bears S.W. and N.E.
- 63.25 Wash, 20 lks. wide, course S.W.
- 63.90 Same wash, course S.E.
- 66.35 Same wash, bears S.W. Ascend 70 ft.
- 69.45 Top of ridge, bears W. Descend.
- 72.65 Wash, 20 lks. wide, course W. Ascend.
- 74.90 Top of ridge, bears W. Descend.
- 75.75 Small wash, course W. Ascend abruptly along hill sloping N.E.
- X 80.00 Set a granite stone, 8 x 8 x 18 ins., 12 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked with 2 notches on the N/ and 4 notches on the S. edges; from which
- A Juniper 26 ins. diam., bears N. 62° E. 178 lks. dist. marked T. 10 S. R. 16 E. S. 7, B.T.
- An oak, 8 ins. diam., bears N. $62^{\circ}-30'$ W., 89 lks. dist., marked t. 10 S., R. 15 E. S. 12, B.T.
- An oak, 8 ins. diam., bears S. $66^{\circ}-15'$ W., 69 lks. dist. marked T. 10 S. R. 15 E., S. 13, B.T.
- An oak, 8 ins. diam., bears S. $21^{\circ}-45'$ E. 48 lks. dist., marked T. 10. S. R. 16 E. S. 18, B.T.
- Land, extremely mountainous.
- Soil, 4th rate.
- Timber, oak, juniper and manzanita.
- Mountainous and wooded land, 80. chs.

August 8th, 1904.

Chains

August 9th, 1904.

At 8 h. 0 m., a.m., l.m.t., I set off $32^{\circ}-36'$ N. on the lat. arc, $15^{\circ}-54'$ on the decl. arc, and determine a meridian with the solar.

S. between secs. 13 and 18.

Var. $13^{\circ}-45'$ E.

Continue ascent.

- 6.80 Top of hill, thence along side hill sloping W.
- 14.90 Small wash, bears W. Ascend abruptly.
- 18.80 Top of ridge, bears W. Descend.
- 21.90 Gold bearing quartz ledge, 5 ft. wide, bears N.W. and S.E.
- 23.50 Small wash, bears W. Ascend.
- 24.50 Top of ridge, bears W. Descend.
- 25.10 Wash, bears W. Ascend abruptly.
- 28.80 Top of hill slopes W. Descend 70 ft.
- 31.70 Trail, bears N.W.
- 32.60 Ravine, course W. Ascend.
- 34.80 Ledge, course E.&W.
- 40.00 Falls on steep hill.
- 42.02 Top of ridge, bears and slopes W.
Set a porphyry stone 6 x 10 x 12 ins., 8 ins. in the ground for W.C. to $1/4$ cor. between secs. 13 and 18, marked $1/4$ W.C. on W., from which
- An oak, 10 ins. diam., bears N. 73° W. 17 lks. dist. marked ^{W.C.} $1/4$ S. 13, B.T.
- An oak, 8 ins. diam., bears S. $30^{\circ}-45'$ E., 54 lks. dist., marked ^{W.C.} $1/4$ S. 18, B.T.
- Aug. 9th, 1904; I set off $15^{\circ}-50'$ on the decl. arc and at 12 h., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-36'$.
- Descend.
- 44.50 Bottom of deep gully, bears W. Ascend long steep slope, 400 ft. rise.
- 60.00 Top about 1 ch. west of peak. Descend rapidly, slope bearing S.W.
- 65.00 Gully, course S.W. Ascend.

Chains

69.00 Spur, bears W.S.W. Descend rapidly.

74.00 Gulley, bears W. Ascend.

80.00 Set a sandstone, 8 x 12 x 20 ins., 15 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked with

3 grooves on the N and S edges.
from which

An oak, 5 ins. diam., bears N. 35° W., 61 lks. dist marked T. 10 S. R. 15 E., S. 13 B.T.

A Juniper, 8 ins. diam., bears N. 61°-30' E., 31 lks. dist., marked T. 10 S., R. 16 E. S. 18, B.T.

An oak, 10 ins. diam., bears S. 5°-30' E., 98 lks. dist., marked T. 10 S. R. 16 E., S. 19, B.T.

An oak, 20 ins. diam., bears S. 33°-30' W. 115 lks dist., marked T. 10 S. R. 15 E., S. 24, B.T.

Land extremely mountainous.

Soil, 4th rate.

Timber, oak, mesquite, juniper and manzanita.

Mountainous land, 80.00 chs.

Var. 14°-00' E.

August 9th, 1904.

This Tp. embraces mountainous country, densely wooded in the western part with live oak and mesquite. Dense undergrowth, consisting of mesquite, catsclaw, cacti and some manzanita, covers almost the entire area. Soil generally 3rd and 4th rates and the grazing is fair. There are some settlers but I do not think the S. half of the Tp. could be practicably surveyed.

August 9th 1904

William R. Alexander
U.S. Dep. Surveyor

Survey commenced Sept. 25th, 1904, and executed with a Young & Sons Light Mountain Transit, No. 7520. The horizontal limb being provided with two opposite verniers reading to single minutes of arc.

At 5 p.m., l.m.t., I set off $0^{\circ}56-1/2'$ S. on the decl. arc and $32^{\circ}-38'$ N. on the lat. arc, and mark the line thus determined by a tack driven in a stake set firmly in the ground about 4.50 chs. N. of my station, at cor. to Ts. 9 and 10 S., R. 15 E. on W. boundary of T. 10 S. R. 16 E.

At 7 h. 16 m., p.m., by my watch, which is 4 m. fast of l.m.t., I observe Polaris at eastern elongation in accordance with instructions given in the manual and mark the line thus established by a tack driven in a stake about 4.50 chs. N. of my station.

September 25th, 1904.

September 26th, 1904; At 6 h. 0', a.m., l.m.t., I turn off the azimuth of Polaris $1^{\circ}-26'$ to the west and mark the meridian thus determined by driving a tack in stake set yesterday by means of solar apparatus. The point for the meridian falls .2 ins. east of point determined by p.m. solar observation.

At 7 h. 8 m., a.m. l.m.t., I set off $32^{\circ}-38'$ N. on the lat. arc $1^{\circ}-10-1/2'$ S. on the decl. arc. and mark the point thus determined by a tack driven in a stake upon which meridian was established yesterday. This point falls .25 ins. E. of meridian. These errors being within the limit of direct instrument reading I conclude that the adjustments are satisfactory

Thence I run N. on a random line, east of sec. 36.

40.00 Set temporary 1/4 sec. cor.

80.00 Set temp. sec. cor.

40.00 Set temp. 1/4 sec. cor.

Chains	
	<p>September 26th, 1904; I set off 1° 17' S. on the decl. arc and at 12 h. l.m.t. observe the sun on the meridian; the resulting lat. is 32° 39' N.</p>
80.00	<p>Set temp. sec. cor.</p> <p>-----</p>
40.00	<p>Set temp. 1/4 sec. cor.</p>
80.00	<p>Set temp. sec. cor.</p>
	<p style="text-align: right;">September 26th, 1904.</p> <p>-----</p>
	<p>September 27th, 1904. At 7 h. 0 m. a.m. l.m.t., I set off 32° 40-1/2' N. on the lat. arc 1° 34' S. on the decl. arc and determine a true meridian.</p>
	<p>Thence I run North, E. of sec. 13.</p>
40.00	<p>Set temp. 1/4 sec. cor.</p>
80.00	<p>Set temp. sec. cor.</p> <p>-----</p>
40.00	<p>Set temp. 1/4 sec. cor.</p>
	<p>September 27th, 1904; I set off 1° 40-1/2' S. on the decl. arc and at 12 h. l.m.t. observe the sun on the meridian; the resulting lat. is 32° 43' N.</p>
80.00	<p>Set temp. sec. cor.</p> <p>-----</p>
40.00	<p>Land N. of this point is extremely mountainous and impracticable to survey; therefore I discontinue and make random line permanent.</p>
	<p>Set a quartz stone 6 x 12 x 20 ins. 15 ins. in the ground for 1/4 cor. of sec. 1 marked 1/4 on W. face; raise a mound of stones 2 ft. base 2 ft. high W. of cor. Pits impracticable.</p>
	<p style="text-align: right;">September 27th, 1904 .</p> <p>-----</p>
	<p>September 28th, 1904; At 7 h. 5 m. a.m., l.m.t., I set off 32° 43' N. on the lat. arc 1° 57' N. on the decl. arc and determine a true meridian; thence I run S. on a true line E. of sec. 1.</p>

Chains
2.90 Wash 30 lks. wide, course E.
Ascend hill sloping N.W.
10.40 Ridge course N.E.
Descend abruptly.
15.90 Wash 20 lks. wide bears E.
Ascend abruptly.
20.90 Top. Descend along side hill sloping E.S.E.
40 00 Set a granite stone 6 x 8 x 24 ins. 18 ins. in the ground
OK for cor of secs. 1-12, marked with 1 notch on N. and
5 notches on S. edges; raise a mound of stones 2 ft.
base, 1-1/2 ft. high W. of cor.
Pits impracticable.
This cor. is near W. side of old Mammoth Road.
Land mountainous.
Soil 3rd and 4th rates.
No timber.
Mountainous land 80.00 chs.

S., east of sec. 12.
4.00 Old Mammoth road bears E.N.E.
7.20 Wash 1 ch. wide, bears N.N.E.
35.70 Wash 30 lks. wide, bears W.
Ascend.
37.00 Top of ascent.
40.00 Set a quartz stone 7 x 12 x 14 ins. 10 ins. in the

Chains

ground, for $1/4$ sec. cor., marked $1/4$ on W. face; and raise a mound of stones 2 ft. base, 2 ft. high, W. of cor. Pits impracticable.

September 28th, 1904; I set off $2^{\circ}-3-1/2'$ S. on the decl. arc, and at 12 h., l.m.t., observe the sun on the meridian; the resulting lat. is $32^{\circ}-41-1/2'$ N. Ascend along rocky side hill, sloping W.N.W.

62.00 Top of spur, slopes W. Descend side hill, sloping W.S.W

72.50 Wash, 30 lks. wide, bears N.W. Ascend 150 ft.

80.00 Set a granite stone 10 x 12 x 14 ins., ~~10~~ ins. in the ground for cor. of secs. 12 and 13, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stones 2 ft. base, 2 ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, 4th rate.

No timber.

Mountainous land, 80.00 chs.

S., east of sec. 13.

Over side hills, sloping E.N.E.

16.00 Prominent ridge, bears N.N.W. Over side hills, sloping W.

37.00 Same ridge, bears S.W. Descend.

40.00 Set a granite stone 6 x 8 x 16 ins., // ins. in the ground for $1/4$ sec. cor., marked $1/4$ on W. face; and raise a mound of stone 2 ft. base, 2 ft. high, W. of cor. Pits impracticable.

Continue descent along hills sloping E.S.E.

71.90 Gulch, bears N.E.

75.30 Ridge, bears N.E.

79.40 Wash, 8 lks. wide, course E.

80.00 Set a granite stone 6 x 8 x 18 ins., 12 ins. in the ground for cor. of secs. 13 and 24, marked with 3 notches on the N. and S. edges; and raise a mound of stone, 2 ft base, 2 ft. high, W. of cor.; from this cor.

Chains

An oak, 5 ins. diam. bears S. 77° -15' W., 1.44 chs.
dist., marked T. 9 S., R. 15 E. S. 24, B.T.

No other trees available.

Land, mountainous.

Soil, 4th rate.

No timber.

Mountainous land, 80.00 chs.

September 28th, 1904.

September 29th, 1904.

At 7 h. 0 m., a.m., 1.m.t., I set off 32° -40'-1/2' N. on
the lat. arc, 2° -20' S. on the decl. arc, and determine a
true meridian at cor. of secs. 13 and 24.

Thence I run

S., east of sec. 24. Over roughly rolling ground.

- 15.40 Wash, 10 lks. wide, bears E.
23.70 Porphyry ledge, bears E.&W.
26.40 Wash, 5 lks. wide, course E.
27.90 Wash, 5 lks wide, course E.
32.40 Top of small ridge, bears N.E.
40.00 Point for 1/4 sec. cor. falls in wash. *found E.*
40.90 Set a granite stone 6 x 8 x 14 ins., 10 ins. in the ground
for W.C. to 1/4 sec. cor., marked W.C. 1/4 on W. face;
and raise a mound of stone, 2 ft. base, 2 ft. high, W.
of cor.
43.92 Porphyry ledge, bears N.E. and S.W.
46.85 Ridge, bears N.E.
56.50 Wash, 5 lks. wide, bears N.N.W.
69.60 Trail, bears E.
80.00 Set a granite stone 6 x 8 x 18 ins. 12 ins. in the
ground, for cor. of secs. 24 and 25, marked with 4
notches on the N. and 2 notches on the S. edges; and
raise a mound of stones 2 ft. base, 2 ft. high, W. of cor;
from this cor.,

An oak, 4 ins. diam., bears S. 16° -30' W. 1.12 chs.
dist., marked T. 9 S., R. 15 E. S. 25, B.T.

Chains

No more trees available.

Land, mountainous.

Soil, 3rd rate..

No timber; undergrowth of bear grass and mesquite.

Mountainous land, 79.00 chs.

S., east of sec. 25. Over rolling ground.

5.90 Porphyry ledge, bears E. and W.

7.40 Porphyry ledge, bears N.E. and S.W. Along side hill sloping E.

25.40 Wash, 15 lks. wide, bears N.E. Ascend.

32.40 Porphyry ledge, bears N.E.

40.00 Set a granite stone 6 x 8 x 16 ins., 11 ins. in the ground, for 1/4 sec. cor., marked 1/4 on W. face; from which,

An oak, 5 ins. diam., bears S. 57°-15' W., 1.26 chs.

dist., marked 1/4 S. 25, B.T.

No other trees within reach
 September 29th, 1904; I set off 2-27' S. on the decl. arc, and at 12 h., l.m.t. observe the sun on the meridian; the resulting lat. is 32°-39' N.

54.90 Wash, 20 lks. wide, course N.E.

56.90 Prominent pile of boulders on line.

59.85 Wash, 10 lks. wide, bears N.W.

65.70 Wash, 15 lks. wide, bears N.E. Ascend hill sloping N.W.

68.60 Spur, slopes W. Descend hill sloping S.W.

70.00 Wash, 10 lks. wide, bears N.W. Ascend gradually.

77.45 Road from Oracle to Mammoth, bears N.E.

80.00 Set a granite stone 5 x 12 x 14 ins., 10 ins. in the ground for cor. of secs. 25 and 36, marked with 5 notches on the N. and 1 notch on the S' edges; dig pits 24 x 24 x 12 ins. in secs. 25 and 26, 6 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, 3rd rate.

Timber, scattered mesquite.

Mountainous land, 80.00 chs.

- Chains S., east of sec. 36.
- 7.40 Wash, 20 lks. wide, bears E.
- 10.30 Enter wash, 15 lks. wide, bears N.N.E.
- 12.40 Leave wash, bears N.
- 22.90 Top of hill. Descend.
- 26.20 Begin ascent.
- 31.90 Top of hill, slopes N.E.
- 33.70 Quartz ledge, bears N.W.
- 35.00 Road to Oracle, bears W.
- 38.27 Quartz ledge, course N.W. and S.E.
- 40.00 Set a porphyritic-granite stone, 8 x 8 x 14 ins., 10 ins.
in the ground for 1/4 sec. cor., marked 1/4 on W. face;
from which
- An oak, 5 ins. diam. bears S. 10°-30' W., 102 lks.
dist. marked 1/4 S. 36, B.T.
No other trees within limit
- 40.90 The main chimney on the Estill house at Oracle, bears N.
75°-23' W.
- 41.70 Ridge bears E. and W. Descend.
- 43.50 Foot of descent. Begin ascent.
- 44.80 Ridge, bears S.E. Descend.
- 45.90 Foot of descent, over rolling land.
- 51.90 Wash, 20 lks. wide, bears N.E.
- 59.90 Wash, 30 lks. wide, bears N.E. Ascend through dense bear-
grass and scrub oak.
- 75.20 Top of hill. Descend gradually over hill sloping S.W.
- 76.10 Cor. of Ts. 9 and 10 S. R. 16 E., previously established
by me.
- 80.00 Cor. of Ts. 9 and 10 S., R. 15 E. on W. bdy. of T. 10 S.,
R. 16 E. *previously established by me*
Land, mountainous.
Soil, 3rd and 4th rate.
Under growth, scrub oak, bear grass and mesquite.
Mountainous land, 80.00 chs.
Timber and under growth 20.00 chs.

September 29th, 1904.

Chains

October 15th, 1904.

From the cor. of Tps. 9 and 10 S., R. 15 E. on the W. bdy.
 of T. 10 S., R. 16 E., I run ^{previously set by me} _W on a random line bet. secs.
 1 and 36.

40.00 Set temp. 1/4 cor. bet. secs. 1-36.

80.00 Set temp. cor. of secs. 1-2-35-36.

October 15th, 1904; At 8 h. 40 m., a.m., l.m.t., I set off
 8° 30' S. on the decl. arc, 32° 38' N. on the lat. arc,
 and determine a meridian with the solar at the temp.
 cor. of secs. 1-2-35-36.

W. on a random line bet. secs. 2-35.

Var. 13° 30' E.

40.00 Set temp. 1/4 cor. bet. secs. 2-35.

80.00 Set temp. cor. of secs. 2-3-34-35.

W. on a random line bet. secs. 3-34.

40.00 Set temp. 1/4 cor. bet. secs. 3-34.

80.00 Set temp. cor. of secs. 3-4-33-34.

October 15th, 1904; I set off 8° 33-1/2' S. on the decl.
 arc, and at 12 h. observe the sun on the meridian at the
 temp. cor. of secs. 3-4-33-34; the resulting lat. is
 32° 37-1/2' N.

W. on a random line bet. secs. 4-33.

40.00 Set temp. 1/4 cor. bet. secs. 4-33.

80.00 Set temp. cor. of secs. 4-5-32-33.

W. on a random line bet. secs. 5-32.

40.00 Set temp. 1/4 cor. bet. secs. 5-32.

80.00 Set temp. cor. of secs. 5-6-31-32.

W. on a random line bet. secs. 6-31.

40.00 Set temp. 1/4 cor. bet. secs. 6-31.

80.00 Diligent search reveals no traces of a previously es-

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established cor. bet. Tps. 9-10 S., Rs. 14-15 E. Therefore I proceed to re-survey such lines in T. 10 S., R. 14 E. as may be necessary to properly locate and identify said cor.

October 15th, 1904.

October 21st, 1904.

From the temp. cor. of secs. 5-6-31-32, Tps. 9-10 S., R. 15 E., I run W. on a random line bet. secs. 6-31.

11.70

Cor. of Tps. 9-10 S., R. 14-E., bears S. 8.48 chs. dist.

Set a granite stone 10 x 11 x 12 ins. 8 ins. in the ground for closing cor. of Tps. 9-10 S., R. 15 E., marked C.C. on E., with 6 grooves on N.E. and S. edges; raise a mound of stones, 3 ft. base, 3 ft. high E. of cor. Pits impracticable.

I destroy temp. cor. established by me W. of this cor. and run E. on a true line bet. secs. 6-31.

Var. 13° 20' E.

Over rolling land.

11.70

Set a granite stone 10 x 10 x 15 ins. 10 ins. in the ground for cor. of secs. 5-6-31-32, marked with one notch on the W. and 5 notches on E. edges; from which

A catsclaw 11 ins. diam. bears N. 13° 45' E. 159 lks. dist, marked T. 9 S., R. 15 E. S. 32, B.T.

A catsclaw, 5 ins. diam. bears N. 71° 15' W. 238 lks. dist. marked T. 9 S., R. 15 E. S. 31, B.T.

No other trees within limits
And raise a mound of stones 2 ft. base 2 ft. high W of cor.

Land roughly rolling; soil, 2 nd and 3 rd rates; timber mesquite and catsclaw; good grazing.

Mountainous land, 11.70 chs.

October 21st, 1904; At 7 h. 40 m. a.m. l.m.t., I set off 10° 39-1/2' S. on the decl. arc, 32° 37-1/2' N. on the lat. arc. and observe the sun on the meridian at the cor. of secs. 5-6-31-32; thence I run E. on a true line

Chains

- bet. secs. 5-32. Ascend.
- 21.00 Top of prominent hill. Descend.
- 38.00 Road from Tucson to Oracle, bears E.N.E.
- 40.00 Set a granite stone 7 x 10 x 22 ins. 16 ins. in the ground for 1/4 cor. bet. secs. 5-32, marked 1/4 on N. face; dig pits, 18 x 18 x 12 ins. E. & W. of stone, 3 ft. dist. and raise a mound of earth 3 ft. base, 2 ft. high N. of cor. Ascend.
- 45.00 Trail bears N. & S. Over rolling land, sloping S. to a wash about 6 chs. dist. running W. by S.
- 74 40 Quartz ledge 8 ft. wide, bears N.W. & S.E.
- 80.00 Set a granite stone 7 x 7 x 26 ins. 20 ins. in the ground for cor. of secs. 4-5-32-33, marked with 4 notches on the E. and 2 notches on the W. 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 sharply rolling; soil 3rd rate; scattered undergrowth of cacti and mesquite.
- Mountainous land, 80.00 chs.
-
- E. on a true line bet. secs. 4-33.
- 16.50 Wash, 10 lks. wide, bears S.W.
- 40.00 Set a granite stone 12 x 12 x 16 ins. 11 ins. in the ground for 1/4 cor. bet. secs. 4-33, marked 1/4 on N. face; raise a mound of stones 2 ft. base 2 ft. high N. of cor. Pits impracticable.
- 52.50 Road to Oracle bears E. by S.
- 57.00 Same, bears E. by N.
- 59 95 Same, bears E.S.E.
- 73 60 Small wash, bears W by N.
- 78 00 Road to Oracle bears E.N.E.
- 80 00 Set a granite stone 9 x 9 x 13 ins. 8 ins. in the ground for cor. of secs. 3-4-33-34, marked with three notches on the E. & W. edges; raise a mound of stones 2 ft. base 2 ft. high W. of cor. Pits impracticable.
- Land sharply rolling; soil 3rd rate; scattered undergrowth of mesquite and cacti.

Chains

Mountainous land 80.00 chs.

October 21st, 1904: I set off $10^{\circ} 44'$ S. on the decl. arc and at 12 h., observe the sun on the meridian at the cor. of secs. 3-4-33-34; the resulting lat. is $32^{\circ} 37-1/2'$ N.

Thence I run, E. on a true line bet. secs. 3-34.

7.30

Tf rail bears E.N.E.

21.00

Small wash, bears S.

40.00

Set a granite stone 6 x 13 x 14 ins. 10 ins. in the ground for $1/4$ cor. bet. secs. 3-34, marked $1/4$ on the N. face; raise a mound of stones 2- $1/2$ ft. base, 2- $1/2$ ft. high N. of cor.

An oak, 15 ins. diam, bears S. 1° E. 131 lks. dist., marked $1/4$ S. 3, B.T.

An oak, 10 ins. diam. bears N. $71^{\circ} 15'$ W. 44 lks. dist., marked $1/4$ S. 34 B.T.

45.20

Wash, 30 lks. wide, containing many large granite boulders bears W.S.W. Ascend small irregular wash, general westerly bearing.

80.00

Set a granite stone 12 x 12 x 20 ins. 15 ins. in the ground for cor. of secs. 2-3-34-35, marked with 2 notches on the E. and 4 notches on the W. edges; raise a mound of stones 2 ft. base 2 ft. high W. of cor.

An oak, 7 ins. diam. bears N. $32^{\circ} 30'$ E. 107 lks. dist. marked T. 9 S., R. 15 E. S. 35 B.T.

An oak, 14 ins. diam. bears N. $76^{\circ} 15'$ W. 135 lks. dist. marked T. 9 S., R. 15 E. S. 34, B.T.

An oak, 10 ins. diam. bears S. $28^{\circ} 15'$ W. 133 lks. dist. marked T. 10 S. R. 15 E. S. 3, B.T.

No other trees within limits
Land, sharply rolling; soil 3rd and 4th rates; timber, mountain oak and mesquite.

Mountainous land 80.00 chs.

E. on a true line bet. secs. 2-35 over sharply rolling land.

Chains
40.00 Set a granite stone 6 x 6 x 12 ins. 8 ins. in the ground for 1/4 cor. bet. secs. 2-35, marked 1/4 on the N. face; from which,
An oak, 12 ins. diam. bears S. 19° 30' E. 76 lks. dist. marked 1/4 S. 2 B.T.
An oak, 6 ins. diam. bears N. 37° 15' W. 92 lks. dist. marked 1/4 S. 35 B.T.

71 50 Wash, 5 lks. wide, bears N.

80.00 Set a granite stone 12 x 12 x 20 ins. 15 ins. in the ground for cor. of secs. 1-2-35-36, marked with one notch on the E. and 5 notches on the W. edges; raise a mound of stones 2-1/2 ft. base, 2-1/2 ft. high W. of cor.
An oak 8 ins. diam. bears N. 51° 30' E. 196 lks. dist. marked T. 9 S., R 15 E. S. 36. B.T.
No other trees available
Land, sharply rolling; soil 3rd and 4th rates; timber mountain oak and undergrowth of manzanita and bear grass.
Mountainous land 80.00 chs.

E. on a true line bet. secs. 1-36 over sharply rolling land.

17 55 Prominent point covered with boulders. Enter dense growth of oak and manzanita.

40.00 Set a granite stone 7 x 14 x 16 ins. 11 ins. in the ground for 1/4 cor. bet. secs. 1-36, marked 1/4 on N. face; from which
An oak, 10 ins. diam, bears S. 23° 15' E. 87 lks. dist. marked 1/4 S. 1, B.T.
An oak, 4 ins. diam, bears N. 17° 15' W. 46 lks. dist. marked 1/4 S. 36 B.T.

48.00 Wash 30 lks. wide, with trail bears N.

52 70 Ridge bears N.

57 70 Trail bears N.

57 90 Prominent wash 20 lks. wide, bears N. Ascend abruptly.

62 50 Ridge bears N.

69 05 Trail bears N.

69 40 Wash 12 lks. wide, bears N.

80.00 The cor. of Tps. 9 & 10 S. R. 15 E. on W. bdy. T. 10 S., R. 16 E. Land sharply rolling; soil 3-~~rd~~ rate; oak, manzanita and bear grass. Dense undergrowth 62.45 chs. Mts. land 80.00 chs. October 21st, 1904.

as described

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Survey commenced October 19th, 1904, and executed with a Young & Sons Light Mountain Transit, No. 7520; with a Smith solar attachment, the horizontal limb having two double verniers placed opposite each other and reading to single minutes of arc.

The instrument was examined, tested on the true meridian at Phoenix, Arizona, found correct and approved by the Surveyor General of Arizona June 25th, 1904.

I begin at the cor. of Tps. 9 and 10 S., R. 14 E. on the W.-bdy. of T. 10 S. R. 15 E. in lat. $32^{\circ} 37-1/2'$ N. long. $110^{\circ} 50-1/2'$ W.

I examine a bubble, collimation, and standard adjustment of the transit and find them to be correct. In order to test the solar apparatus by comparing the results of observations on the sun made during a.m. and p.m. hours, with a true meridian, determined by observation on polaris, I proceed as follows:

October 19th, 1904; At 3 h. 20 m. p.m., l.m.t. I set off $10^{\circ} 4'$ S. on the decl. arc, $32^{\circ} 37-1/2'$ N. on the lat. arc, and mark a meridian established by solar observations by a tack driven in a stake set firmly in the ground about 2 chs. N. of my station.

October 19th, 1904.

October 20th, 1904; At 5 h. 24.7 m. a.m. l.m.t., I observe polaris at western elongation in accordance with instructions given in the Manual and mark the line thus established by a tack driven in a stake, set firmly in the ground, about 2 chs. N. of my instrument.

At 7 h. 15 m. a.m. I lay off the azimuth of polaris $1^{\circ} 25-1/2'$ to the E. of stake set last night and mark the meridian thus established by a tack driven in the stake already set; the meridian falls .13 ins. E. of the mark determined by the solar observation.

At 7 h. 40 m. a.m. l.m.t., I set off $10^{\circ} 17-1/2'$ S. on the decl. arc, $32^{\circ} 37-1/2'$ N. on the lat. arc, and determine a meridian with the solar, marking the same by a tack driven in the stake already set; this mark

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falls .10 ins. E. of the meridian determined by observation on polaris.

The difference in direction of the meridian as established by solar and polaris observations is less than the allowable error of observation; therefore I conclude that the adjustments are satisfactory.

Var. $13^{\circ} 15'$ E.

N. on a true line E. of sec. 36. Ascend.

- 2.10 Ridge bears E. & W. Over rolling land.
- 18.00 Small wash, bears W.N.W.
- 21.40 Spur, bears W.N.W.
- 26.60 Wash, 60 lks. wide, bears W.
- 36.00 Ridge bears W.
- 40.00 Set a granite stone 5 x 6 x 16 ins. 11 ins. in the ground for $1/4$ cor. of sec. 36, marked $1/4$ on W. face; dig pits 18 x 18 x 12 ins. N. & S. of stone 3 ft. dist. and raise a mound of earth ^{3 ft. base with} $1-1/2$ ft. high W. of cor. *corral*
- 59.00 Circular wire corral 125 ft. in diam. bears E. 150 lks. dist.
- 61.00 Tent residence, bears E. 2 chs. dist.
- 63.70 Wash 10 lks. wide, bears W.
- 65.00 Spur bears W.
- 69.00 Wash, 20 lks. wide, bears W. by S.
- 80.00 Set a quartz stone 12 x 12 x 15 ins. 10 ins. in the ground for cor. of secs. 25-36, marked with 5 notches on the N. and one notch on the S. edges; dig pits, 18 x 18 x 12 ins. $5-1/2$ ft. dist. in secs. 25-36; and raise a mound of earth 3 ft. base, $1-1/2$ ft. high W. of cor.
- Land sharply rolling; soil 2nd and 3rd rate: some cacti and mesquite; fair grazing.
- Mountainous land 80.00 chs.

N. on a true line E. of sec. 25 over rolling land.

- 5.15 Road bears N.E.
- 21.50 Wash 40 lks. wide, bears W.
- 40.00 Set a quartz stone 8 x 9 x 13 ins. 8 ins. in the ground for $1/4$ cor. of sec. 25, marked $1/4$ on W. face; dig pits 18 x 18 x 12 ins. N. & S. Of stone 3 ft. dist, and raise

Chains

a mound of earth 3 ft. base 2 ft. high W. of cor.

47.50 Road bears E.N.E to Bayless' Ranch.

50.30 Small wash, bears W.

54.00 Ridge bears W.

58.50 Small wash, bears N.W.

74.00 Small wash, bears W. by S.

80.00 S Set a granite stone 12 by 12 by 14 ins. 10 ins. in the ground for cor. of secs. 24-25, marked with 4 notches on the N. and 2 notches on the S. edges; dig pits 18 x 18 x 12 ins. in secs. 24-25, 5-1/2 ft. dist. and raise a mound of earth 3 ft base, 1-1/2 ft. high W. of cor.

Land rolling, soil 2nd and 3rd rates: some cacti and mesquite. Rolling Land 80.00 chs.

October 20th, 1904; I set off 10° 23' S. on the decl. arc and at 12 h. observe the sun on the meridian at the cor. of secs. 24-25; the resulting lat. is 32° 39-1/2' N.

N. on a true line E. of sec. 24, over rolling land.

10.10 Road bears E.

25.00 Wash, 30 lks. wide, bears N.W. Thence through undergrowth of cacti.

40.00 Set a granite stone 6 x 8 x 13 ins. 8 ins. in the ground for 1/4 cor. of sec. 24, marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. & S. of stone 3 ft. dist. and raise a mound of earth 3 ft. base, 2 ft. high W. of cor.

80.00 Set a granite stone 6 x 13 x 16 ins. 11 ins. in ground for cor. of secs. 13-24, marked with 3 notches on N. & S. edges; dig pits 18 x 18 x 12 ins. in secs. 13-24, 5-1/2 ft. dist. and raise a mound of earth 3 ft. base, 1-1/2 ft. high W. of cor.

Land, rolling; soil 3rd rate: undergrowth of cacti.

Rolling land 80.00 chs.

Dense undergrowth 55.00 chs.

October 20th, 1904.

Fine grazing in the western and northern half of T. 9 S. R. 15 E. Land broken and mountainous in the eastern portion but level in the western part. Tp. should be subdivided. T. 9 S., R. 14 E. contains level land and offers excellent grazing. This Tp. should be subdivided.

Oct 20 1904.

William D. Alexander
Deputy Surveyor

I do not consider it compulsory to re-establish the corners for the west three miles of the north boundary of T. 10 S. R. 17 E., and preferred to take the low rate rather than go to the expense and consume the time necessary to effect the re-establishment. The same explanation holds for corner to Secs. 11, 12, 13 and 14, and the 1/4 corner between Secs. 11 and 12 in T. 10 S. R. 14 E.

My reasons for not establishing the north boundary of T. 10 S. R. 15 E. by continuing line between Tps. 9 and 10 S. R. 16 E. due west to an intersection with the west boundary of the township, were as follows: The Manual contemplates no such procedure, and in fact, implies that no discrepancy in measurement beyond the prescribed limits of three chains shall be carried over from one township or range into another. Furthermore, my especial instructions for this particular contingency in running range line between Rs. 16 and 17 E. ordered me specifically to close upon the SW corner of T. 9 S. R. 17 E., and to throw any fractional or excess measurement into the last half mile to the north, thus explaining the excess beyond limits in north tier of sections in T. 10 S. R. 16 E.

Wm. B. Alexander.

(Extract from letter of Wm. B. Alexander, dated Mar. 13, 1905.)

LIST OF NAMES.

A list of the names of the individuals employed by William B. Alexander

....., 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 E by T10S, R16E; N by T10S, R16E; N 3 miles of the E by T10S, R15E; E by T9S, R15E; N by T10S, R15E and the S 3 miles of the E by T9S, R14E. ^{5 1/2 miles of} showing the respective capacities in which they acted:

Frank C. Kelton , Chairman.

Edgar E. Ater , Chairman.

Ernest T. Ford , Moundman.

Jesus Lopez , Moundman.

Frank L. Durlin , Axman.

..... , Axman.

L. Rutllan , Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted William B. Alexander

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

those parts or portions of the East boundary T10S, R16E; north boundary T10S, R15E; north three miles of the East boundary of T10S, R15E; ^{5 1/2 miles of} east boundary of T9S, R15E; north boundary T10S, R15E and the south three miles of the east boundary of T9S, R14E. of the Sacra and

Sacra River base and 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

Frank C. Kelton , Chairman.

Edgar E. Ater , Chairman.

Ernest T. Ford , Moundman.

Jesus Lopez , Moundman.

Frank L. Durlin , Axman.

..... , Axman.

L. Rutllan , Flagman.

Subscribed and sworn to before me this 30

day of October 1891904

my Comm. Exp. Sept 24 '06



Ralph W. Saugrenthly
Notary Public
Pima County

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BOOK 1836

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, William B. Alexander, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Sigalls United States Surveyor General for the District of Arizona, bearing date of the 13 day of June, 1904, 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 the Dist of Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the east boundary of T.10S. R.16E; north boundary T.10S. R.16E; north three miles of the east boundary T.10S. R.15E; East boundary of T.9S. R.15E; north boundary T.10S. R.15E; and the south three miles of the east boundary of T.9S. R.14E. of the Meridian and East Point 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 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; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

William B. Alexander
United States Deputy Surveyor.

Subscribed by said William B. Alexander, and sworn to before me

this 1 day of December, 1891 1904

My Comm. Exp. Sept 24 '06

Ralph W. Cameron

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BOOK 1836

Subscribed by said **William B. Alexander**, and sworn to before me this **8th** day of **March**, A.D. **1905**.

Clinton D. Hooper
Clerk of U. S. District Court,
First Judicial District, Arizona

under his contract no. 111, dated June 13th 1904, 1891, 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. Sigalls
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.