Volume

#

R0419

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A 2

BOOK A-419

FIELD NOTES

OF THE SURVEY OF THE

NORTH BOUNDARIES OF TOWNSHIPS NOS. 32 AND 33 SOUTH, RANGE NO. 1 WEST,

WEST BOUNDARY OF TOWNSHIP NO. 31 SOUTH, RANGE NO. 1 WEST,

SOUTH BOUNDARY OF TOWNSHIP NO. 31 SOUTH, RANGE NO. 2 WEST,

WEST BOUNDARY OF TOWNSHIP NO. 32 SOUTH, RANGE NO. 2 WEST,

AND

EAST BOUNDARY OF TOWNSHIP NO. 34 SOUTH, RANGE NO. 2 WEST,

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

JOS. C. THOMA, EDWARD R. RUNBURY, AND JOS. C. CLARK

In the capacity of U. S. Surveyor and U.S. Transitmen, *under instructions dated* June 11 and July 9, *1913, issued by the United States Surveyor General to govern surveys included in Group No.* 24, *which were approved by the Commissioner of the General Land Office,* July 19, *1913.*

Survey commenced July 2, *1913*

Survey completed October 1, *1915.*

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6—1817

Chains.

Survey commenced July 13, 1915, and executed with Buff & Buff light mountain transit No. 9218; and Young & Sons' light mountain transit No. 8535; both transits having Smith solar attachments. For description and approval of transits, see book of subdivisions of T. 33 S., R. 1 W., of this Group.

Measurements were made by using five-chain Lallie steel tapes, with clinometers for determining slopes.

I examine the adjustments of the transits and find them correct; then, to test the solar apparatus, by comparing their 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:

July 15, 1915: At my camp, which is located in Sec. 25, T. 32 S., R. 1 W.; approximate latitude 38° N., approximate longitude 112° W.; I set off 38° N. on the lat. arc; 21° 38' N. on the decl. arc; and at 9h 51m, a. m., l. m. t., determine with the solar a meridian and mark a point thereof on a stake driven approximately 10 chs. N. of my station.

July 15, 1915: I make noon observation for time as follows:

	Watch time.
Sun's W. limb, ...	12h 28m 30s.
Sun's E. limb, ...	12h 30m 50s.
Sun's centre, ...	12h 29m 40s.

Apparent noon, ...	12h 00m 00s
Equation of time, July 15, ...	5 40
L. m. t. of apparent noon, ...	12h 05m 40s
Watch time of apparent noon, . . .	12 29 40
Watch fast, l. m. t.	24m 00s

July 15, 1915: I set off 38° N. on the lat. arc; 21° 37' N. on the decl. arc; and at 2h 6m, p. m., l. m. t., determine with the solar a meridian which coincides with the meridian determined by the a. m. observation.

July 15, 1915, I observe Polaris as follows:

North Boundary of T. 33 S., R. 1 W.

Chains.	Telescope Direct.	Horizontal Angle. ° ' "	Watch time. h. m. s.
	Star, ...	0 28 00 . . .	7 35 20 p. m.
	Flag, ...	0 00 00	
	Star, ...	0 29 00 . . .	7 39 20
	Flag, ...	0 00 00	
	Telescope Reversed.		
	Star, ...	0 30 00 . . .	7 41 40
	Flag, ...	0 00 00	
	Star, ...	0 31 00 . . .	7 43 40
	Flag, ...	0 00 00	
	Mean, . . .	0 29 30 . . .	7 40 00 p. m.
	Watch fast, l. m. t.		24 00
	L. m. t. of observation, . .		7h 16m 00s p. m.

U. C. of Polaris, July 15, 1915, . . 6h 01.2m, a. m.
Red. to long. of station, ... 1.2
U. C. of Polaris at station, . . . 6h 00.0m, a. m.

Time interval to next U. C. . . 10h 40m.

E. azimuth of Polaris, . . . 0° 29' 00"
Angle E., flag to star, . . . 0 29 30
Flag bears, ... N. 0° 00' 30" W.

The solar apparatus, attached to the Buff & Buff transit, by a. m. and p. m. observations, defines the position for the meridian approximately 30" W. of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

I test the Young & Sons' instrument on the same meridian, at the same hours, a. m. and p. m., using the latitude and declination arc settings as recorded in the tests of the Buff & Buff transit, and find the meridian thus determined to coincide with the meridian as obtained by the Polaris observations.

July 15, 1915.

A correction of the tabulated refractions was allowed in the declination arc settings for 10000 ft. elevation in the east half and for 8000 ft. elevation in the west half of the township.

July 13, 1915: At the cor. of Ts. 32 and 33 S., Rgs. 1 E. and 1 W., which is an iron post, 3 ins. diam., mkd. and witnessed as described in the notes of the Salt Lake Prin. Mer., this Group, I set off 37° 59' N.

Chains.	
	on the lat. arc; 21° 57' 30" N. on the decl. arc, and at 7h 5m, a. m., l. m. t., determine the meridian with the solar.
	Thence I run
	West, on true line, on the N. bdy. of T. 33 S., R. 1 W., bet. secs. 1 and 36.
	Over gently rolling mountainous land, through dense spruce and aspen timber.
6.90	Small creek, 1 lk. wide, 2 ins. deep, course NE.; asc. gradually.
18.50	Leave dense timber, bears NE. and SW., enter open park.
26.80	Leave open park, bears NE. and S.; enter dense spruce and aspen timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in mound of stone, on solid rock, for ¼ sec. cor., with brass cap mkd.
	¼ S 36 / S 1
	1915 from which
	A spruce, 12 ins. diam., bears N. 55° W., 38 lks. dist., mkd. ¼S36BT.
	A spruce, 12 ins. diam., bears S. 84° 30' E., 14 lks. dist., mkd. ¼S1BT.
	Cor. established 100 ft. above sec. cor.
47.50	Leave dense timber, bears N. and S., enter open park.
50.00	Dry wash, 10 lks. wide, 2 ft. deep, drains N.; continue gradual asc.
51.00	Leave open park, bears N. and S., enter dense aspen and spruce timber.
61.00	Top of pile of large ingeous boulders, bears N. and S., 35 ft. high.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 32 S R 1 W

S 35	S 36
S 2	S 1

T 33 S

1915

Chains. from which

A spruce, 18 ins. diam., bears N. 34° E., 35 lks. dist., mkd. T32SR1WS36BT.

A spruce, 20 ins. diam., bears S. 76° 45' E., 46 lks. dist., mkd. T33SR1WS1BT.

A spruce, 24 ins. diam., bears S. 59° 15' W., 43 lks. dist., mkd. T33SR1WS2BT.

A spruce, 12 ins. diam., bears N. 47° W., 67 lks. dist., mkd. T32SR1WS35BT.

Land, rolling mountain top, drains NE.

Soil, light sandy loam and gravel less than 2 ft. deep, on rocky sub soil.

Timber, dense aspen and spruce.

Undergrowth, wild clover and bunch grass.

Excellent grazing. Northeastern exposure. Volcanic formation.

July 13, 1915: I set off 21° 55' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 59' N.

Thence I run

West, on true line bet. secs. 2 and 35.

Asc. gradually over mountainous land, through dense aspen and spruce timber.

40.00 Set an iron post, 3ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 35}{S\ 2}$$

1915 from which

A spruce, 16 ins. diam., bears S. 82° E., 3 lks. dist., mkd. ¼S2BT.

A spruce, 20 ins. diam., bears N. 16° 15' E., 27 lks. dist., mkd. ¼S35BT.

Cor. established 210 ft. above sec. cor.

44.00 Top of gradual asc., bears NE. and SW.; start desc.

52.00 Bottom of desc., bears NE. and SW., 70 ft. below beginning

Chains.	
	of desc.; continue over nearly level land.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 32 S R 1 W
S 34 | S 35
S 3 | S 2
T 33 S
1915

from which

A spruce, 16 ins. diam., bears N. 19° 15' E., 49 lks. dist., mkd. T32SR1WS35BT.

A spruce, 20 ins. diam., bears S. 68° E., 50 lks. dist., mkd. T33SR1WS2BT.

A spruce, 7 ins. diam., bears S. 62° 45' W., 14 lks. dist., mkd. T33SR1WS3BT.

A spruce, 20 ins. diam., bears N. 37° 15' W., 26 lks. dist., mkd. T32SR1WS34BT.

Land, mountainous.

Soil, light sandy loam and rocky, 2 to 3 ft. deep, on rocky subsoil.

Timber, dense aspen and spruce.

Undergrowth, bunch grass and wild clover.

Excellent grazing. Western exposure. Volcanic formation.

July 13, 1915.

Jos. C. Thoma

U. S. Surveyor.

August 3, 1915: At 2h 6m, p. m., l. m. t., I set off 37° 59' N. on the lat. arc; 17° 38' N. on the decl. arc, and at the cor. of secs. 2, 3, 34 and 35, Ts. 32 and 33 S., R. 1 W., determine the meridian with the solar.

Thence I run

West, on the N. bdy. of T. 33 S., R. 1 W., bet. secs. 3 and 34.

Desc. gradually over rough mountainous land, through dense spruce and aspen timber.

Chains.

2.70 W. edge of mountain top, bears N. and S.; desc. abruptly over rocky west slope.

7.60 Leave dense spruce timber, bears N. and S., enter scattering spruce and dense young aspen and brier.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., with brass cap mkd.

¼
S 34
S 3

1915 from which

An aspen, 7 ins. diam., bears N. 49° 45' E., 15 lks. dist., mkd. ¼S34BT.

An aspen, 7 ins. diam., bears S. 8° 15' W., 26 lks. dist., mkd. ¼S3BT.

Cor. established 740 ft. below sec. cor.

55.30 Creek, 10 lks. wide, 8 ins. deep, water clear, heads approximately 6 chs. S. of line, course N., 195 ft. below ¼ sec. cor. The Centre fork of Centre Creek heads approximately 10 chs. S. of line and flows SW. for approximately 15 chs., thence NW. A marsh bears N. approximately 60 lks., 8 chs. in diam., drained by a small creek which flows in a northerly direction into Grass Lake. Asc. gradually through sage brush, dense aspen and scattering spruce timber.

68.20 Ridge, bears N. approximately 50 chs., and S. 7 chs., 30 ft. abovecreek; desc.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 32 S R 1 W

S 33	S 34
S 4	S 3

T 33 S
1915 from which

A spruce, 48 ins. diam., bears N. 33° 15' E., 45 lks. dist., mkd. T32SR1WS34BT.

An aspen, 8 ins. diam., bears S. 37° 45' E., 74 lks. dist., mkd. T33SR1WS3BT.

Chains.

A spruce, 24 ins. diam., bears S. 53° 30' W., 53 lks. dist., mkd. T33SR1WS4BT.

A spruce, 9 ins. diam., bears N. 57° 30' W., 114 lks. dist., mkd. T32SR1WS33BT.

Land, mountainous, drains N.

Soil, decayed vegetation and shallow sandy loam 2 to 3 ft. deep in E. ½; shallow and rocky sandy loam in W. ½, on rocky subsoil.

Timber, dense spruce and aspen.

Undergrowth, dense young aspen and spruce, brier and sage brush, willows along creek and marsh.

Fair grazing. Western exposure. Volcanic formation.

August 3, 1915: Walking along line at noon, unable to observe the sun for latitude.

August 3, 1915.

August 4, 1915: At 8h 6m, a. m., l. m. t., I set off 37° 59' N. on the latitude arc, 17° 27' N. on the decl. arc, and at the cor. of secs. 3, 4, 33 and 34, determine a meridian with the solar.

Thence I run

West, bet. secs. 4 and 33.

Desc. abruptly over mountainous land, through dense aspen and spruce timber.

15.40 Centre fork of Centre Creek, 12 lks. wide, 8 ins. deep, clear water, course NW., 270 ft. below sec. cor.

20.75 Base of desc., bears NW. and SE., 66 ft. below creek; asc. gradually.

24.20 Spur, projects N. 60° W., approximately 30 chs., 25 ft. above base of asc.; desc. abruptly.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., with brass cap mkd.

$$\frac{S\ \overset{\frac{1}{4}}{33}}{S\ 4}$$

1915

from which

An aspen, 7 ins. diam., bears N. 5° W.,

Chains. 42 lks. dist., mkd. ¼S33 BT.

An aspen, 7 ins. diam., bears S. 22° 30' W., 24 lks. dist., mkd. ¼S4BT.

53.25 Creek, 5 lks. wide, 5 ins. deep, clear water, course NW. 390 ft. below top of spur; asc. gradually.

54.55 Creek, 5 lks. wide, 5 ins. deep, clear water, course N., continue gradual asc. along broken SW. slope of Centre Creek cañon.

74.50 Ridge, bears N. 35° W. and SE., 35 ft. above creek, desc. Enter yellow pine timber, bears NW. and SE.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 32 S R 1 W

S 32	S 33
S 5	S 4

T 33 S
1915

from which

A yellow pine, 28 ins. diam., bears N. 50° 15' E., 128 lks. dist., mkd. T32SR1WS33BT.

An aspen, 8 ins. diam., bears S. 52° 30' E., 103 lks. dist., mkd. T33SR1WS4BT.

An aspen, 16 ins. diam., bears N. 71° W., 32 lks. dist., mkd. T33SR1WS5BT.

An aspen, 9 ins. diam., bears N. 57° 15' W., 75 lks. dist., mkd. T32SR1WS32BT.

Cor. established 45 ft. below top of ridge, in hollow draining N. 35° W.

Land, mountainous, draining W.

Soil, dark, rocky sandy loam, shallow, on subsoil of rock.

Timber, yellow pine, spruce, aspen, cedar, piñon, and mohogany.

Undergrowth, sage and service brush, wild rose and currant bushes, young aspen and spruce, and grass.

Good grazing. Northwestern exposure. Volcanic formation.

August 4, 1915: I set off 17° 24' N. on the decl. arc, and at apparent noon, observe the sun on the meridian,

Chains.	
	the resulting lat. is 37° 59' N.
	West, betw. secs. 5 and 32.
	Asc. gradually over mountainous land, through dense aspen, spruce and yellow pine timber.
18.50	Spur, projects N., 45 ft. above sec. cor. Leave dense timber, bears N. and S., enter short sage brush opening; desc.
24.30	Old road in hollow, 70 ft. below spur, bears N. and S. 30° E. Hollow heads approximately 7 chs. S. of line, drains N.; asc.
28.40	Ridge, bears N. 30° W., thence N. and S. 30° W., 30 ft. above old road; desc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd. ¼ S 32 / S 5 1915 from which A piñon, 8 ins. diam., bears N. 8° 45' E., 134 lks. dist., mkd. ¼S32BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Corner established 75 ft. below top of ridge. Desc. abruptly over NE. slope.
54.80.	Leave short sage brush opening, bears N. and SW.; enter dense cedar and piñon timber.
80.00.	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 31, 32, 5 and 6, with brass cap mkd. T 32 S R 1 W / S 31 | S 32 / S 6 | S 5 / T 33 S / 1915 from which A piñon, 7 ins. diam., bears N. 10° 15' E., 73 lks. dist., mkd. T32SR1WS32BT.

Chains.	
	A piñon, 10 ins. diam., bears S. 83° E., 52 lks. dist., mkd. T33SR1WS5BT.
	A piñon, 9 ins. diam., bears S. 38° 45' W., 172 lks. dist., mkd. T33SR1WS6BT.
	A piñon, 10 ins. diam., bears N. 64° 30' W., 90 lks. dist., mkd. T32SR1WS31BT.
	Corner established 335 ft. below ¼ sec. cor.
	Land, mountainous, drains N.
	Soil, dark sand and gravel on surface, rock and shallow, on rocky subsoil.
	Timber, spruce, aspen, yellow pine, cedar and piñon.
	Undergrowth, sage brush.
	Poor grazing. Northern exposure. Volcanic formation.
	August 4, 1915.

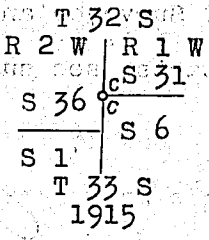
	August 5, 1915: At 8h 6m, a. m., l. m. t., I set off 37° 59' N. on the lat. arc; 17° 11' N. on the decl. arc, and at the cor. of secs. 5, 6, 31 and 32, determine a meridian with the solar.
	Thence I run
	West, bet. secs. 6 and 31.
	Desc. over mountainous land, through dense cedar and piñon timber.
2.20	Road, Coyoto to Riddle Lake, bears N. 2 chs., thence W., and S.
9.90	Same road, bears N. 2 chs. and S. 10° W. 4 chs., S. 70° W. 20 chs., thence W.
14.70	Leave dense cedar and piñon timber, bears N. and S., enter sage brush opening.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 31
S 6
1915

from which

A pinon, 10 ins. diam., bears N. 45° 30' W., 494 lks. dist., mkd. ¼S31BT.

Chains.	
	A piñon, 9 ins. diam., bears S. 14° 45' E., 311 lks. dist., mkd. ¼S6BT.
	Corner established 370 ft. below sec. cor.
45.00	Hollow, drains SW. approximately 7 chs. dist., thence NW.; asc. abruptly.
48.00	Rocky spur projects S., 3 chs., 65 ft. above hollow; desc. abruptly.
53.50	Same hollow, drains N., 10 chs. thence W., 90 ft. below rocky spur. Asc. through scattering cedar and piñon timber.
61.80	Road, Coyoto to Riddle Lake, bears N. 65° W. and S., 8 chs. thence E.
73.38	Intersect the W. bdy. of the tp., 7.27 chs., N. 0° 35' W. of the old tp. cor. to Tps. 32 and 33 S., Rs. 1 and 2 W., heretofore described in the notes of the retracement and resurvey of the W. bdy. of T. 33 S., R. 1 W., I destroy all marks pertaining to Ts. 32 and 33 S., R. 1 W., and at point of intersection
	Set an iron post, 3 ft. long, 3 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the closing tp. cor., with brass cap mkd.



Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

No trees within reasonable limits suitable for bearing trees.

Land, mountainous, drains SW. and N.

Soil, light sandy loam and gravel, shallow, on rocky subsoil.

Timber, cedar, piñon and mohogany.

Undergrowth, sage brush, yellow top and grass.

Good grazing. Western exposure. Volcanic formation.

August 5, 1915: Cloudy at noon, unable to observe the

North Boundary of T. 33 S., R. 1 W.

Chains. sun for latitude.

August 5, 1915.

Jos. C. Clark

U. S. Transitman.

Latitudes, departures and closing errors.

Lines Designated.	True Bearing.	Dist. ances.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
W.Bdy.T33SR1W.		chs.	chs.	chs.	chs.	chs.
W.Bdy.Sec. 31.	N.0°27'W.	33.91	33.91	.....	.....	.27
" " " 31.	N.0°24'W.	40.30	40.30	.....	.....	.28
" " " 30.	N.0°11'W.	39.72	39.72	.....	.....	.13
" " " 30.	N.0°09'W.	39.90	39.90	.....	.....	.10
" " " 19.	N.0°22'W.	39.85	39.85	.....	.....	.26
" " " 19.	N.0°41'W.	39.71	39.71	.....	.....	.48
" " "7& 18.	N.0°19'W.	160.26	160.26	.....	.....	.88
" " " 6.	N.0°46'E.	79.36	79.36	.....	1.07	.....
" " " 6.	N.0°35'W.	7.27	7.27	.....	.....	.07
N.Bdy.T33SR1W.	East.	473.38	.....	.....	473.38	.....
E.Bdy. " "	South.	480.00	.....	480.00	.....	.....
S.Bdy. " "	West.	473.37	.....	.....	.....	473.37
" " "			.....	.....	.....	.....
Convergency			.....	.....	.57	.....
Totals,			480.41	480.00	475.02	475.84
			480.00	Error in		475.02
Error in latitude,			.41	departure,		.82

For General Description, see Subdivision of T. 33 S., R. 1 W.

For final oath of Surveyor and Transitman, and certificates of assistants, see subdivision of T. 31 S., R. 1 W., book "M".

Jos. C. Thoma

U. S. Surveyor.

North Boundary of T. 32 S., R. 1 W.

Survey commenced July 30, 1915 and executed with Buff & Buff light mountain transit No. 9218, with Smith solar attachment, for description and approval of transit, see book of Subdivision of T. 33 S., R. 1 W.

Chains. For test of solar apparatus, see pages 1 and 2 of this book.

July 30, 1915: At the cor. of Ts. 31 and 32 S., Rs. 1 E. and 1 W., heretofore described, I set off 38° 04' N. on the lat. arc; 18° 42' N. on the decl. arc, and at 8h 6m, a. m., l. m. t., determine the meridian with the solar.

Knowing from the closing of the S. bdy. of T. 32 S., on the W. bdy. thereof, that if I run W. from the cor. of Ts. 31 and 32 S., on the Salt Lake Meridian, I would fall approximately 7 chs. N. of the cor. of secs. 31 and 32, T. 31 S., R. 1 W., I therefore offset 7 chs. S. of the cor. of Ts. 31 and 32 S., and run

West, on random line bet. secs. 1 and 36. on the N. bdy. of T. 32 S., R. 1 W., setting temporary ¼ sec. and sec. cors. at regular intervals. I continue random line W. to the temp. cor. of secs. 1, 2, 35 and 36, Ts. 31 and 32 S., R. 1 W.

Walking on line at noon, unable to observe the sun for lat. without delay to work.

July 30, 1915.

July 31, 1915: At the temp. cor. of secs. 1, 2, 35 and 36, Ts. 31 and 32 S., R. 1 W., I set off 38° 04' N. on the lat. arc; 18° 28' N. on the decl. arc, and at 7h 36m, a. m., l. m. t., determine a meridian with the solar.

Thence I continue random line West, setting regular temp. cors., and at the temp cor. of secs. 2, 3, 34 and 35, I set off 18° 25' N. on the decl. arc; and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 04' N. Continue random line west to the temp. cor. of secs. 3, 4, 33 and 34.

July 31, 1915.

August 13, 1915: At the temp. cor. of secs. 3, 4, 33 and 34, Ts. 31 and 32 S., R. 1 W., I set off 38° 04' N. on the lat. arc; 14° 54' 30" N. on the decl. arc, and at

Chains.	
	8h 5m, a. m., l. m. t., determine a meridian with the solar.
	Thence I continue random line west, setting regular temp. cors. and at the temp. cor. of secs. 4, 5, 32 and 33, I set off 14° 51' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 04' N. Continue random line west, setting regular temp. cors. and at 396.74 chs. from the cor. of Ts. 31 and 32 S., R. 1 W., intersect the N. and S. line, 25 lks. S. of the cor. of secs. 31 and 32, T. 31 S., R. 1 W., on the boundary post N. 136 of the Powell National Forest, which is an iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, witnessed and marked as described by the Surveyor General.
	August 13, 1915.

	August 23, 1915.
	East, on true line on the N. bdy. of T. 32 S., R., 1 W., bet. secs. 5 and 32, from the cor. of secs. 31 and 32, T. 31 S., R. 1 W.
	Ast. over mountainous land, through dense cedar and piñon timber.
1.02	Intersect the closing cor. for. secs. 5 and 6, T. 32 S., R. 1 W., which is
	A sand stone, 10x12x10 ins. above ground, firmly set, mkd. with 5 notches on the E. and 1 notch on the W. edges, CC on the S. face. Mound of stone S. of cor.
36.74	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	$\frac{\frac{1}{4}}{\frac{S\ 32}{S\ 5}}$
	1915
	Raise a moundof stone, 2 ft. base, 1½ ft. high, N. of cor. No trees within reasonable dist. suitable for bearing trees.

Chains.	
	Cor. established 865 ft. above sec. cor., continue asc.
76.74	Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 31 S R 1 W

S 32	S 33
S 5	S 4

T 32 S

1915

from which

A piñon, 10 ins. diam., bears N. 67° 30' E., 45 lks. dist., mkd. T31SR1WS33BT.

A piñon, 12 ins. diam., bears S. 20° E., 170 lks. dist., mkd. T32SR1WS4BT.

A piñon, 10 ins. diam., bears S. 12° 45' W., 67 lks. dist., mkd. T32SR1WS5BT.

A piñon, 12 ins. diam., bears N. 50° 30' W., 42 lks. dist., mkd. T31SR1WS32BT.

Corner established 455 ft. above ¼ sec. cor.

Land, mountainous, drains W.

Soil, very rocky and shallow.

Timber, cedar and piñon.

Undergrowth, yellow top and grass.

Fair grazing. Western exposure. Volcanic formation.

East, on true line bet. secs. 4 and 33.

Asc. gradually over rolling mountainous land, through dense cedar and piñon timber.

13.10	Top of asc., 120 ft. above sec. cor., bears N. and S.; desc.
15.40	Leave dense cedar and piñon timber, enter scattering. Bottom of draw, 10 lks. wide, 3 ft. deep, drains NW., 15 ft. below top of asc.

40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, for ¼ sec. cor., on solid rock, in mound of stone, with brass cap mkd.

¼
S 33
S 4

Chains. Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. No trees within reasonable dist. suitable for bearing trees.

42.90 Top of spur, projects NW., 260 ft. above draw; desc.

47.90 Draw, 10 lks. wide, 3 ft. deep, drains NW., 45 ft. below spur; asc.

57.70 Top of spur, projects NW., 190 ft. above draw.; desc.

75.40 Draw, 15 lks. wide, 2 ft. deep, drains NW., 220 ft. below spur; asc.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

T 31 S R 1 W
S 33 | S 34
S 4 | S 3
T 32 S
1915

from which

A cedar, 20 ins. diam., bears N. 70° 45' E., 145 lks. dist., mkd. T31SR1WS34BT.

A yellow pine, 28 ins. diam., bears S. 61° 30' E., 342 lks. dist., mkd. T32SR1WS3BT.

A yellow pine, 30 ins. diam., bears S. 6° 30' W., 115 lks. dist., mkd. T32SR1WS4BT.

A spruce, 24 ins. diam., bears N. 5° 30' W., 114 lks. dist., mkd. T31SR1WS33BT.

Corner established 125 ft. above draw.

Land, rolling mountainous.

Soil, gravel, more than 2 ft. deep, on rocky subsoil

Timber, cedar, piñon and scattering yellow pine.

Undergrowth, sage brush and bunch grass.

Good grazing. Western exposure. Volcanic formation.

East, on true line bet. secs. 3 and 34.

Asc. over mountainous land, through scattering cedar, piñon, and scattering bunches of dense aspen timber.

18.80 Spur, projects N., 180 ft. above sec. cor.; desc. over W. slope of Poison Creek Cañon.

Chains.	
30.50	Old road, bears NW. and SE.
30.70	Poison Creek (dry) 20 lks. wide, 2 ft. deep, drains NW., 120 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec/ cor., with brass cap mkd.

¼
S 34
S 3

1915 from which

A yellow pine, 9 ins. diam., bears N. 61° 30' E., 313 lks. dist., mkd. ¼S34BT.

A piñon, 18 ins. diam., bears S. 69° 30' E., 193 lks. dist., mkd. ¼S3BT.

Corner established 235 ft. above Poison Creek.

45.00	E. edge of Poison Creek Cañon; continue asc.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 31 S R1 W
S 34 | S 35
S 3 | S 2
T 32 S
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable dist. suitable for bearing trees.

Corner established 515 ft. above ¼ sec. cor.

Land, rolling mountainous.

Soil, gravel over two ft. deep, on light clay subsoil.

Timber, scattering aspen, cedar and piñon, and yellow pine.

Undergrowth, sage brush and bunch grass.

Good grazing. Western exposure. Volcanic formation.

East, on true line bet. secs. 2 and 35.

Asc. over rolling mountainous land, through sage brush undergrowth.

10.50	Top of high ridge, bears NW. and SE., 155 ft. above sec.

Chains.	
	cor.; leave sage brush, enter dense aspen timber, bears NW. and SE.; desc.
37.40	Enter dense spruce timber, bears N. and S., continue in dense aspen.
38.40	Draw, 10 lks. wide, 4 ft. deep, drains NE., 400 ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 35}{S\ 2}$$

1915 from which

A spruce, 9 ins. diam., bears N. 13° 15' E., 41 lks. dist., mkd. ¼S35BT.

A spruce, 7 ins. diam., bears S. 9° 30' E., 30 lks. dist., mkd. ¼S2BT.

Corner established 30 ft. above draw.

42.50	Ridge, bears N. and S., 40 ft. above ¼ sec. cor.; desc.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 31 S R 1 W

S 35	S 36
S 2	S 1

T 32 S

1915 from which

An aspen, 7 ins. diam., bears N. 21° 45' E., 29 lks. dist., mkd. T31SR1WS36BT.

An aspen, 7 ins. diam., bears S. 42° 30' E., 58 lks. dist., mkd. T32SR1WS1BT.

An aspen, 8 ins. diam., bears S. 57° 30' W., 55 lks. dist., mkd. T32SR1WS2BT.

An aspen, 8 ins. diam., bears N. 29° 45' W., 81 lks. dist., mkd. T31SR1WS35BT.

Land, rolling mountainous.

Soil, light gravel, more than 2 ft. deep, on clay subsoil.

Timber, aspen and spruce.

Undergrowth, sage brush and bunch grass.

Good grazing. Western exposure. Volcanic formation.

Chains	
	East, on true line bet. secs. 1 and 36.
	Dense. over rolling mountainous land, through scattering aspen timber.
3.60	Edge of marsh, bears NW. and SE.; leave aspen timber.
7.80	Antimony Creek, 20 lks. wide, 1 ft. deep, water clear, course N. Dense willows along bank; continue across marshy land.
13.20	Edge of marsh, and toe of slope, bears NW. and SE.; asc.
22.90	Spur projects NW., 145 ft. above Creek; dese. slightly.
25.20	Draw, 5 lks. wide, 2 ft. deep, drains NW., 10 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}}{\frac{S\ 36}{S\ 1}}$$

1915

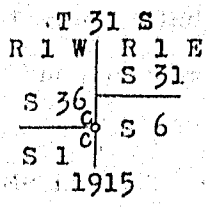
Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

No trees within reasonable distance suitable for bearing trees.

From a point 25 lks. S. of the ¼ sec. cor., the deserted Henry's ranch cabin bears S. 32° W.

41.60	Enter scattering aspen timber, bears NW. and SE.
55.75	From a point 25 lks. S. of line, the deserted Henry's ranch cabin bears S. 50° W.
55.80	Top of slope of Antimony cañon, bears NW. and SE., asc. gradually over rolling mountainous land.
80.00	Intersect the Salt Lake Principal Meridian, 6.75 chs. S. of the cor. of Ts. 31 and 32 S., Rs. 1 E. and 1 W., heretofore described. I obliterate the marks on this cor. pertaining to R. 1 W., and at point of intersection,
	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the closing cor. of Ts. 31 and 32 S., R. 1 W., with brass cap mkd.

North Boundary of T. 32 S., R. 1 W.



from which

An aspen, 8 ins. diam., bears N. 2° 15' W.,

247 lks. dist., mkd. T31SR1WS36CCBT.

An aspen, 8 ins. diam., bears S. 24° 15' W.,

85 lks. dist., mkd. T32SR1WS1CCBT.

Corner established 470 ft. above ¼ sec. cor.

Land, mountainous.

Soil, light gravel and rocky, 2 ft. deep on rocky subsoil.

Timber, aspen and scattering spruce.

Undergrowth, willows, sage brush and bunch grass.

Good grazing, Northeastern exposure. Volcanic formation.

August 23, 1915.

Jos. C. Thoma

U. S. Surveyor.

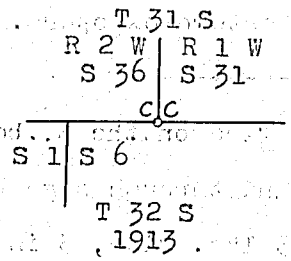
Latitudes, deaprtures and closing errors.

Lines Designated.	True Bearing.	Distances.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
W.Bdy.T32SR1W.		chs.	chs.	chs.	chs.	chs.
W.Bdy.Sec. 31.	N.0°35'W.	40.81	40.81	.....	.....	.42
W. " " 31.	N.0°24'W.	40.06	40.06	.....	.....	.28
W. " " 30.	N.0°09'W.	79.60	79.60	.....	.....	.21
W. " " 19.	N.0°19'W.	79.95	79.95	.....	.....	.44
W. " " 18.	N.0°06'W.	39.79	39.79	.....	.....	.07
W. " " 18.	N.0°27'W.	39.86	39.86	.....	.....	.31
W. " " 7.	N.0°01'W.	80.20	80.20	.....	.....	.02
W. " " 6.	N.0°15'W.	40.09	40.09	.....	.....	.17
W. " " 6.	N.0°12'W.	39.93	39.93	.....	.....	.14
N.Bdy.T32SR1W.	East.	474.50	.....	.....	474.50	.....
E.Bdy. " "	South.	473.25	.....	473.25	.....	.....
S.Bdy. " "	West.	473.38	.....	.....	.....	473.38
W. " Sec. 31.	S.0°35'E.	7.27	.....	7.27	.07	.....
Convergency,		.....	.....	.....	.57	.....
Totals,			480.29	480.52	475.14	475.44
				480.29	Error	475.14
Error in latitude,				.23	in dep.	.30

For General Description, see Subdivision of T. 32 S., R. 1 W.

For final oath of Surveyor and Transitman, and certificate of assistants, see subdivision of T. 31 S., R. 1 W. book "M".

Chains.	
	For description and test of instruments, see Book of Subdivision of T. 31 S., R. 1 W., this Group.
	September 17, 1915: For solar observation on this date, see line bet. secs. 23 and 24, Book of Subdivisiom of T. 31 S., R. 2 W.
	Note: The line bet. secs. 31 and 36, and the S. half of the line bet. secs. 25 and 30, were run by me in 1913, and a closing cor. established 1.10 chs. E. of the old cor. of Ts. 31 and 32 S., Rs. 1 and 2 W., heretofore described. The closing cor. is
	An iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, with brass cap mkd.



	In order to verify my previous work, I run
	North, from above described closing cor., on a random line bet. secs. 31 and 36, and the S. ½ bet. secs. 25 and 30, and at
125.44	Intersect the old ¼ sec. cor. for secs. 25 and 30, heretofore described.
	September 17, 1915: Walking on line bet. cors. at noon, unable to observe the sun on the meridian.
	South, on true line on the E. bdy. Sec. 25, from the ¼ sec. cor.
	Desc. over rolling land, through sage brush undergrowth.
14.90	Draw, drains W., 140 ft. below ¼ sec. cor.; asc.
29.70	Ridge, bears E. and W., 120 ft. above draw; desc.
34.70	Draw, drains W., 45 ft. below ridge; asc.
39.60	Ridge, bears E. and W., 45 ft. above draw; desc.
42.00	Intersect the E. and W. line, 69 lks. W. of the temp. point left on line bet. secs. 25 and 36, 40 chs. E. of the ¼ sec. cor., bet. secs. 25 and 36. (see subdivision of T. 31 S., R. 2 W.) At point of intersection I

Chains. Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 25 and 36, T. 31 S., R. 2 W., with brass cap mkd.

T 31 S
R 2 W
S 25
S 36
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, rolling, drains W.

Soil, rocky and gravel, more than two ft. deep.

Undergrowth, sage brush and bunch grass.

Timber, none.

Fair grazing. Western exposure.

South, on true line on the E. bdy. of Sec. 36.

Over rolling land through sage brush undergrowth.

2.20 Poison Creek, 3 lks. wide, 3 ins. deep, clear water, course W.; asc.

3.21 The closing cor. for secs. 30 and 31, which is An iron post, 2 ins. in diam., 12 ins. above ground, firmly set; heretofore described.

14.90 Wire fence, bears E. and W.

15.00 Start abrupt asc., bears E. and W.

17.80 Ridge, bears E. and W., 35 ft. above beginning of asc.; desc.

22.70 Bottom of desc., bears E. and W., 55 ft. below ridge; thence over nearly level land.

40.00 County road, Coyote to Winder, bears NW. and SE.

41.72 Proportionate measurement, Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼
S 36
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Continue over gently rolling land,

Chains.	
51.70	Start desc., bears E. and W.
71.70	Draw, drains W., 75 ft. below beginning of desc; asc. gradually.
83.44	The closing cor. for secs. 31 and 36, T. 31 S., Rs. 1 and 2 W.
	Land, rolling, drains W.
	Soil, rocky and gravel, more than 2 ft. deep.
	Undergrowth, sage brush and bunch grass.
	Timber, none.
	Fair grazing. Northwestern exposure.
	September 17, 1915.

September 19, 1915: At 3h 30m p. m., app. t., I set off 38° 8' N. on the lat. arc; 1° 39' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 12 and 13, T. 31 S., R. 2 W., previously described.

Thence I run

North, on true line on the E. bdy. of sec. 12.

Asc. over mountainous land, through dense cedar and pinon timber.

12.10	Ridge, bears NE. and SW., 160 ft. above sec. cor.; desc.
17.10	Draw, drains SW., 50 ft. below ridge; asc.
22.00	Ridge, bears NW. and SE., 60 ft. above draw; desc.
37.00	Which is 40 chs. minus the latitude of the south boundary of Sec. 12, T. 31 S., R. 2 W., which has a course of N. 87° 52' E. and a distance of 80.56 chs.

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., for sec. 12, with brass cap mkd.

¼
S 12 | 1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing trees.

Corner established 155 ft. above draw. Continue asc. over

Chains	
	mountainous land.
41.70	Ridge, bears NW. and SE., 45 ft. above ¼ sec. cor.; desc.
	September 19, 1915.
	September 20, 1915: At 8h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 1° 23' N. on the decl. arc, and determine a meridian with the solar.
66.30	Road, bears NE. and SW., 515 ft. below ridge.
77.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 1 and 12, T. 31 S., R. 2 W., with brass cap mkd.
	T 31 S R 2 W S 1 | S 12 | 1915 from which
	A piñon, 8 ins. diam., bears N. 49° 45' W., 210 lks. dist., mkd. T31SR2WS1BT.
	A piñon, 12 ins. diam., bears S. 71° 15' W., 76 lks. dist., mkd. T31SR2WS12BT.
	Land, mountainous, drains NW.
	Soil, rocky and gravel, more than 2 ft. deep.
	Timber, scrub cedar and piñon.
	Undergrowth, sage brush and bunch grass.
	Fair grazing. Western exposure.
	North, on true line on the East Boundary Sec. 1, T. 31 S., R. 2 W.
	Asc. over mountainous land, through scattering cedar and piñon timber.
2.00	Dry wash, 30 lks. wide, 2 ft. deep; drains W.; asc.
30.90	Top of asc., bears E. and W., 150 ft. above cor., continue on gradual asc., through dense cedar and piñon timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for Sec. 1, T. 31 S., R. 2 W., with brass cap mkd.
	S ¼ 1 | 1915 from which

Chains.

A piñon, 9 ins. diam., bears N. 31° 45' W.,
25 lks. dist., mkd. ¼S1BT.

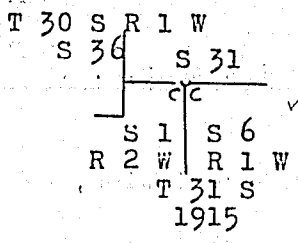
Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

107.98 Intersect the Sixth Standard Parallel South, 6.93 chs. East of the closing cor. for Ts. 30 and 31 S., R. 1 W., which is

A trachyte, 12x10x10 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. At point of intersection I.

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the closing cor. for T. 31 S., Rs. 1 and 2 W., with brass cap mkd.



from which

A piñon, 8 ins. diam., bears S. 33° E.,
31 lks. dist., mkd. T31SR1WS6CCBT.

A piñon, 10 ins. diam., bears S. 21° 45' W.,
54 lks. dist., mkd. T31SR2WS1CCBT.

Land, mountainous.

Soil, rocky and gravel, shallow, on rocky subsoil.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and yellow top.

Poor grazing. Southern exposure.

September 20, 1915.

Jos. C. Thoma

U. S. Surveyor.

Jos. C. Thoma
U. S. Surveyor.
Jos. C. Clark
U. S. Transitman.

Latitudes, departures and closing errors.

Lines Designated.	True Bearing.	Dist-ances.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
W.Bdy.T31SR1W. W. " Secs. 31 and 30.	North.	125.44	125.44	.....	.....	.....
W.Bdy.Sec. 30.	N.2°13'W.	39.58	39.55	.....	.....	1.54
W. " " 19.	N.1°30'W.	40.37	40.36	.....	.....	1.06
W. " " 19.	N.1°25'W.	40.30	40.29	.....	.....	1.00
W. " " 18.	N.1°32'W.	40.58	40.57	.....	.....	1.09
W. " " 6,7, and 18.	North.	224.98	224.98	.....	.....	.....
6th Std.Par.S.	West.	6.93	.....	.....	.....	6.93
" " " "	East.	71.94	.....	.....	71.94	.....
" " " "	N.89°57'E.	79.35	.07	.....	79.35	.....
" " " "	East.	333.87	.....	.....	333.87	.....
S. L. P. Mer.	South.	510.59	.....	510.59	.....	.....
S.Bdy.T31SR1W.	West.	473.40	.....	.....	.....	473.40
Convergency, ...			.....	.....	.57	.....
			511.26	510.59	485.73	485.02
			510.59	Error	485.02	
Error in latitude, . . .			.67	in dep.	.71	

For General Description, see Subdivision of T. 31 S., R. 1 W.

For final oath of Surveyor and Transitman, and certificate of assistants, see subdivision of T. 31 S., R. 1 W. book "M".

Jos. C. Thoma
U. S. Surveyor.
Jos. C. Clark
U. S. Transitman.

Chains.	
	Survey commenced July 2, 1913, and executed with Young & Sons light mountain transits Nos. 8477 and 8146; both transits having Smith solar attachments. For description and tests of transits, see Book of Subdivision of T. 31 S., R. 2 W., this Group.
	July 2, 1913: At 2h, p. m., app. t., I set off 38° 4' N. on the lat. arc; 23° 3' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 34 and 35, on the S. bdy. of the Tp., heretofore described.
	Thence I run
	West, on true line on S. bdy. sec. 34.
	Desc. over mountainous land, through sagebrush and scattering grass.
3.00	Start abrupt desc. into cañon, bears N. and S.
13.40	Bottom of abrupt desc., bears N. and S., 215 ft. below top; desc. gradually.
17.90	East Fork of the Sevier River, 30 lks. wide, 8 ins. deep, water clear, course N., 20 ft. below bottom of abrupt desc.; asc. gradually.
19.10	Road, bears N. and S.
22.00	Start abrupt asc. over W. side of cañon, bears N. and S., 20 ft. above River. Enter scattering scrub cedar and piñon timber.
30.00	Top of abrupt asc., bears N. and S., 330 ft. above bottom; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. sec. 34 with brass cap mkd.
	$\frac{\frac{1}{4}\ S\ 34}{1913}$
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Corner established on E. slope of ridge, 140 ft. above top of abrupt asc.
44.00	Top of ridge, bears NE. and SW., 60 ft. above ¼ sec. cor.

Chains	
61.40	Ravine, heads 6 chs. SW., drains NE., 115 ft. below ridge; asc.
70.00	Spur, projects NE., 100 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 33 and 34, with brass cap mkd.

T 31 S R 2 W.

S 33 | S 34

1913

from which

A cedar, 7 ins. diam., bears N. 20° 15' E., 23 lks. dist., mkd. T31SR2WS34BT.

A piñon, 14 ins. diam., bears N. 79° 30' W., 16 lks. dist., mkd. T31SR2WS33BT.

Corner established 265 ft. below spur.

Land, mountainous.

Soil coarse gravel and rocky, more than 2 ft. deep.

Timber, scrub cedar, piñon and scattering yellow pine in the western portion.

Undergrowth, sagebrush and grass. Willows and burch along river.

Good grazing. Eastern exposure.

July 2, 1913.

Edward R Bumbury

U. S. Transitman.

July 3, 1913: At 8h, a. m., app. t., I set off 38° 4' N. on the lat. arc; 23° N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 33 and 34.

Thence I run

West, on true line, on S. bdy. sec. 33.

Desc. over rough mountainous land, through dense cedar and pinon timber, sagebrush and grass undergrowth.

2.30 Creek, 4 lks. wide, 3 ins. deep, clear water, course NE.,

Chains	
	55 ft. below sec. cor., asc.
16.50	Top of asc., bears NE. and SW., 380 ft. above creek, thence along N. slope of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. sec. 33 with brass cap mkd.

¼
S 33

1913 from which

A piñon, 5 ins. diam., bears N. 30° W., 24 lks. dist., mkd. ¼S33BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

No other trees within reasonable distance suitable for bearing trees.

Corner established 80 ft. below top of asc.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 32 and 33, with brass cap mkd.

T 31 S R 2 W

S 32	S 33

1913 from which

A piñon, 6 ins. diam., bears N. 10° 15' W., 31 lks. dist., mkd. T31SR2WS32BT.

A cedar, 8 ins. diam., bears N. 49° 30' E., 43 lks. dist., mkd. T31SR2WS33BT.

Corner established 190 ft. below ¼ sec. cor.

Land, mountainous.

Soil, coarse gravel and rocky; more than two feet deep.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

July 3, 1913.

Jos. C. Thoma

U. S. Surveyor.

July 8, 1913: For solar observation on this date, see

Chains	
	line bet. secs. 31 and 32, book of Subdivisions of T. 31 S., R. 2 W. Walking on line at noon on this date, unable to observe the sun for lat.
	West, on true line on S. bdy. sec. 32.
	Asc. over mountainous land, along N. slope of ridge, through dense cedar and piñon timber, sagebrush and grass undergrowth.
1.10	Spur, projects N., 5 ft. above sec. cor;
16.50	Leave dense, enter scattering scrub cedar and piñon timber, bears N. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., for sec. 32, with brass cap mkd.
	¼ S 32 1913. from which
	A piñon, 5 ins. diam., bears N. 86° 30' W., 128 lks. dist., mkd. ¼S32BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Corner established at foot of slope in Pine Cañon, bears N. 70° E. and S. 70° W., 130 ft. below spur.
52.00	Pine Cañon wash, 5 lks. wide, 2½ ft. deep, drains N. 75° E., 40 ft. below ¼ sec. cor.
58.00	Foot of asc., bears N. and S.; enter dense timber.
62.00	Spur, projects S., 50 ft. above foot of asc.; asc. along S. slope of ridge.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 31 and 32, with brass cap mkd.
	T 31 S R 2 W S 31 | S 32 1913 from which
	A piñon, 16 ins. diam., bears N. 79° W., 14 lks. dist., mkd. T31SR2WS31BT.
	A cedar, 12 ins. diam., bears N. 51° 30' E., 56 lks. dist., mkd. T31SR2WS32BT.

Chains.	
	Land, mountainous.
	Soil, coarse gravel and rocky, shallow, with bed-rock close to surface.
	Timber, scrub cedar and pinon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 8, 1913.
	July 10, 1913: At 10h a.m. apparent time, I set off 38° 4' N. on the lat. arc; 22° 16' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 31 and 32. Thence I run
	West, on true line on the S. bdy. of sec. 31,
	Asc. over mountainous land; through dense cedar and pinon timber, over rocky SE. slope.
18.50	Top of ascent, bears NE. and SW., 230 ft. above sec. cor.; continue very gradual ascent.
30.00	Spur, projects SE.; descend over SW. slope.
39.90	Draw, drains SE., 100 ft. below spur; ascend.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 31, with brass cap mkd.
	¼ S 31 / 1913
	from which
	A cedar, 12 ins. diam., bears S. 7° W. 19 lks. dist., marked ¼ S 6 B T
	A pinon 8 ins. diam., bears N. 42° W. 46 lks. dist. marked ¼ S 31 B T
56.00	Top of ascent, bears NW. and SE., 200 ft. above draw; leave dense, enter scattering timber.
68.00	Leave timber, bears N. and S.; enter open sagebrush land.
91.43	Leave temp. point.
	July 10, 1913: At the ¼ sec. cor. above described I set off 22° 15' 30" N. on the decl. arc; and at apparent noon

Chains.

observe the sun on the meridian; the resulting lat. is 38° 4'N. July 10, 1913.

July 12, 1913.

91.00 The cor. of T.31 S., Rs.2 and 2½ W. (For description of corner and method of survey, see notes of the E.bdy. of T.31 S., R.2½ W.).

Land, mountainous.

Soil, coarse gravel and rocky, shallow, with bed-rock close to surface.

Timber, scrub cedar and pinon.

Undergrowth, sagebrush.

July 12, 1913.

Edward R. Bunbury

U.S. Transitman.

Boundaries Secs. 1, 2, 11, and 12

T 31 S., R.2 W.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, N.	Latitudes, S.	Departures, E.	Departures, W.
		chs.	chs.	chs.	chs.	chs.
W.bdy. sec. 11	North	80.32	80.32	.....	.....	.....
W.bdy. sec. 2	N. 0°52'W.	40.03	40.03	.....	.....	61
	N. 2°34'E.	40.16	40.12	.....	1.80	
6th St. Par. S.	N.89°23'E.	37.33	.40	.....	37.33	.....
	N.89°36'E.	40.41	.28	.....	40.41	.....
	East	75.70	.....	.....	75.70	.....
E.bdy. T.30 S.R.2 W.	N. 0°43'E.	28.45	28.45	.....	.36	.....
6th St. Par. S.	East	6.93	.....	.....	6.93	.....
E.bdy. T.31 S.R.2 W.	South	184.98	.....	184.98	.....	.....
S.bdy. sec. 12	S.87°52'W.	80.56	.....	3.01	.....	80.50
S.bdy. sec. 11	S.88°34'W.	81.62	.....	2.05	.....	81.59
Convergency					.06	
Totals			189.60	190.04	162.59	162.70
				189.60		162.59
Errors in lat. and dep.				.44		.11

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, Departures. N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
West boundary	North	480.81	480.81	.....	.....	.....
Sixth St. Par. S.	S.89°54'E.	40.22	.....	.07	40.22	.....
	S.89°39'E.	39.99	.....	.24	39.99	.....
	S.89°44'E.	39.99	.....	.19	39.99	.....
	S.89°32'E.	40.06	.....	.33	40.06	.....
	East	2.86	.....	.....	2.86	.....
East boundary sec. 5	S. 1°12'W.	40.30	.....	40.29	.....	.84
	S. 1° 7'E.	40.15	.....	40.14	.78	.....
E. boundary sec. 8	S. 2°13'E.	40.49	.....	40.46	1.57	.....
	S. 0°39'E.	40.26	.....	40.26	.45	.....
N. boundary sec. 16	N.89°14'E.	79.73	1.07	.....	79.72	.....
E. boundary sec. 16	S. 0°28'E.	40.19	.....	40.19	.33	.....
	S. 0°45'E.	40.34	.....	40.34	.52	.....
N. boundary sec. 22	N.88°27'E.	40.11	1.09	.....	40.10	.....
	N.88°35'E.	40.77	1.01	.....	40.76	.....
E. boundary sec. 22	S. 0°05'W.	40.08	.....	40.08	.....	.06
	S. 3°09'E.	40.55	.....	40.49	2.23	.....
E. boundary sec. 27	S. 1°38'E.	40.25	.....	40.23	1.14	.....
	S. 1°52'E.	39.96	.....	39.94	1.30	.....
N. boundary sec. 35	N.88°40'E.	80.35	1.87	.....	80.33	.....
W. boundary sec. 25	N. 1°36'W.	40.30	40.28	.....	.....	1.13
	N. 1°30'W.	40.24	40.22	.....	.....	1.05
N. boundary sec. 25	N.87°07'E.	40.16	2.02	.....	40.11	.....
	S.89°53'E.	40.12	.....	.08	40.12	.....
East boundary	S. 2°13'E.	39.58	.....	39.55	1.53	.....
	South	125.44	.....	125.44	.....	.....
South boundary	West	1.10	.....	.....	.....	1.10
	S.89°08'W.	39.95	.....	.60	.....	39.95
	N.89°45'W.	39.80	.18	.....	.....	39.80
	S.89°45'W.	39.88	.....	.18	.....	39.88
	N.89°29'W.	39.88	.36	.....	.....	39.88
	West	331.00	.....	.....	.....	331.00
Convergency					.30	
Totals			568.91	569.10	494.41	494.69
				568.91		494.41
Errors in lat. and dep.				.19		.28

Chains. Survey commenced July 26, 1913, and executed with Young & Sons light mountain transit No.8146, with Smith solar attachment. For description and test of instrument see book of subdivision of T.32 S., R.2 W.

A five-chain Lallie steel tape was used with clinometer for determining slopes.

July 26, 1913: At 8h 30m a.m.apparent time I set off 37° 59'N.on the lat.arc; 19° 30'N.on the decl.arc; and determine a meridian with the solar at the cor.of Tps.32 and 33 S., Rs.2 and 2½ W., heretofore described.

Thence I run

North on true line on the W.bdy.of Tp., bet.secs.31 and 36.

Ascend, over mountainous land; through scattering scrub cedar and pinon timber, sagebrush and grass undergrowth.

22.00 Spur, projects E., 240 ft.above cor. Descend.

40.00 Set an iron post, 3 ft.long, 1 in.diam., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

¼
S 36 | S 31
1913

from which

A cedar, 5 ins.diam., bears N.72°30'E.81 lks.dist. marked ¼ S 31 B T

A cedar, 6 ins.diam., bears S.84° 30'W.43 lks.dist. marked ¼ S 36 B T

Corner established 180 ft.below spur.

42.00 Ravine, drains E., 30 ft.below ¼ sec.cor. Ascend.

67.50 Leave scattering timber, bears E.and W.; enter open sagebrush land.

69.50 Ridge, bears E.and W., 365 ft.above ravine. Descend.

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, with brass cap marked

T 32 S
R 2 W | R 2 W
S 25 | S 30
S 36 | S 31
1913

Chains.	
	Raise a mound of stone, 2½ ft. base, 2 ft. high, W. of cor.
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.

	Thence I run
	North, bet. secs. 25 and 30.
	Desc. over mountainous land, through sagebrush and grass undergrowth.
9.30	Ravine, drains N. 25° W., 180 ft. below sec. cor.; asc.
10.00	Enter scattering scrub cedar and piñon timber, bears E. and W.
15.40	Spur, projects N. 25° W., 30 ft. above ravine; desc.
33.00	Ravine, drains N. 30° W., 155 ft. below spur; asc.
35.40	Spur, projects N. 30° W., 30 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 in the ground for the ¼ sec. cor. with brass cap mkd.

¼ S 25	S 30
1913	

from which

A piñon, 5 ins. diam., bears S. 67° E., 86 lks. dist., mkd. ¼S30BT.

A piñon, 5 ins. diam., bears N. 60° W., 64 lks. dist., mkd. ¼S25BT.

	Corner established 55 ft. below a low spur at 35.40 chs. projecting N. 30° W.
67.10	Deer Creek, 3 lks. wide, 2 ins. deep, clear water, course NE., 135 ft. below ¼ sec. cor.; asc.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 6 ins. in the ground, on solid rock in mound of stone, for the cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 32 S

R 2½ W	R 2 W
S 24	S 19
S 25	S 30

1913

Chains	
	Raise a mound of stone, $2\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	Corner established 180 ft. above creek.
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky clay and rock subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 26, 1913: I set off 19° 28' N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 38° 1' N.

	Thence I run
	North, bet. secs. 19 and 24.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush andgrass undergrowth.
2.00	Spur, projects E., 30 ft. above sec. cor. Enter dense timber, bears E. and W.
7.40	N. Fork of Deer Creek, $1\frac{1}{2}$ lks. wide, 1 in. deep, good water, drains S. 65° E., 165 ft. below spur; asc.
26.00	Spur, projects E., 260 ft. above creek; desc.
32.00	Ravine, drains S. 60° E., 130 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. with brass cap mkd.
	$\frac{1}{4}$ S 24 | S 19 1913
	from which
	A piñon, 6 ins. diam., bears S. 10° 30' E., 17 lks. dist., mkd. $\frac{1}{4}$S19BT.
	A piñon, 8 ins. diam., bears N. 59° W., 16 lks. dist., mkd. $\frac{1}{4}$S24BT.
	Corner established 65 ft. above ravine.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 16 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

Chains.	
	T 32 S R 2½ W | R 2 W S 13 | S 18 S 24 | S 19
	1913 from which
	A piñon, 10 ins. diam., bears N. 12° 30' E., 121 lks. dist., mkd. T32SR2WS18BT.
	A piñon, 10 ins. diam., bears N. 87° 45' W., 79 lks. dist., mkd. T32SR2½WS13BT.
	A piñon, 9 ins. diam., bears S. 43° 45' W., 140 lks. dist., mkd. T32SR2½WS24BT.
	A piñon, 16 ins. diam., bears S. 30° 45' E., 20 lks. dist., mkd. T32SR2WS19BT.
	Corner established 540 ft. below ¼ sec. cor.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil with rock closer to the surface in many places.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.

	Thence I run
	North, bet. secs. 13 and 18.
	Asc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush andgrass undergrowth.
2.40	Ridge, bears N. 60° E. and S. 60° W., 15 ft. above sec. cor., leave dense, enter scattering timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 13 | S 18
	1913 from which
	A piñon, 5 ins. diam., bears N. 53° 30' E., 91 lks. dist., mkd. ¼S18BT.
	A cedar, 6 ins. diam., bears S. 41° 45' W., 81 lks. dist., mkd. ¼S13BT.
	Corner established 485 ft. below ridge.

Chains.

45.50 Ravine, drains E., 60 ft. below ¼ sec. cor.; asc.

66.00 Ridge, bears N. 80° E. and S. 80° W., 400 ft. above ravine; desc.

72.40 Ravine, drains NE., heads 6 chs. SW., 135 ft. below ridge; asc.

77.00 Spur, projects N. 30° E., 35 ft. above ravine; desc.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 32 S

R 2½ W	R 2 W
S 12	S 7
S 13	S 18

1913

from which

A cedar, 20 ins. diam., bears N. 62° 15' E., 6 lks. dist., mkd. T32SR2WS7BT.

A piñon, 5 ins. diam., bears N. 61° W., 78 lks. dist., mkd. T32SR2½WS12BT.

A piñon, 6 ins. diam., bears S. 13° 30' W., 75 lks. dist., mkd. T32SR2½WS13BT.

A piñon, 5 ins. diam., bears S. 52° E., 44 lks. dist., mkd. T32SR2WS18BT.

Corner established 25 ft. below spur.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

July 26, 1913.

July 28, 1913: At 8h 30m, a. m., app. t. I set off 38° 2' N. on the lat. arc; 19° 3' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run

North, bet. secs. 7 and 12.

Chains.	
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush andgrass undergrowth.
39.80	Deep Creek, 4 lks. wide, 2 ins. deep, clear water, course E. Cottonwood timber and birch undergrowth along banks. 415 ft. below sec. cor.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in theground for the ¼ sec. cor. with brass cap mkd.

¼ S 12	S 7

1913 from which

A cottonwood, 8 ins. diam., bears N. 49° 30' E., 49 lks. dist., mkd. ¼S7BT.

A cottonwood, 8 ins. diam., bears N. 26° 30' W., 30 lks. dist., mkd. ¼S12BT.

43.00	Enter dense timber, bears E. and W.
65.00	Ridge, bears N. 60° E. and S. 60° W., 600 ft. above creek; desc.
70.40	Ravine, drains NE., 45 ft. below ridge; asc.
77.00	Leave dense, enter scattering timber, bears NE. and W.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 10 ins. in the ground, on solid rock in mound of stone, for the cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 32 S

R 2½ W	R 2 W
S 1	S 6
S 12	S 7

1913 from which

A piñon, 5 ins. diam., bears N. 54° 15' E., 147 lks. dist., mkd. T32SR2WS6BT.

A cedar, 16 ins. diam., bears N. 51° 45' W., 146 lks. dist., mkd. T32SR2½WS1BT.

A piñon, 6 ins. diam., bears S. 55° 30' W., 139 lks. dist., mkd. T32SR2½WS12BT.

A piñon, 5 ins. diam., bears S. 19° E., 31 lks. dist., mkd. T32SR2WS7BT.

Corner established on spur projecting N. 60° E., 20 ft. above ravine.

Chains.	
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky light clay subsoil.
	Timber, scrub cedar and piñon, cottonwood along Deep Creek.
	Undergrowth, sagebrush and grass, birch along Deep Creek.
	Good grazing. Eastern exposure.
	July 28, 1913: I set off 19° 1' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.

	Thence I run
	North, bet. secs. 1 and 6.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
9.00	Ravine, drains N. 60° E., 125 ft. below sec. cor.; asc.
27.40	Ridge, bears N. 65° E. and S. 65° W., 145 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	S ¼ 1 | S 6 1913
	from which
	A piñon, 12 ins. diam., bears N. 39° 15' E., 93 lks. dist., mkd. ¼S6BT.
	A piñon, 10 ins. diam., bears N. 75° 45' W., 54 lks. dist., mkd. ¼S1BT.
	Corner established 125 ft. below ridge.
43.40	Enter scattering spruce timber; bears NE. and SW.
55.00	Enter dense aspen timber; bears E. and W.
56.00	Pine Creek, dry, drains E., 270 ft. below ¼ sec. cor.; asc.
57.00	Leave aspen and spruce timber, bears E. and W.
80.00	Ridge, bears E. and W., 280 ft. above Pine Creek; desc.
80.36	Intersect the N. bdy. of the tp., 14.55 chs. East of the cor. of Ts. 31 S., Rs. 2 and 2½ W., heretofore described.
	At point of intersection I
	Set an iron post, 3 ft. long, 3 ins. diam., 10 ins. in

Chains.

the ground, on solid rock, in mound of stone, for the closing cor. for secs. 1 and 6, T. 32 S., Rs. 2 and 2½ W., with brass cap mkd.

T 31 S
R 2½ W | R 2 W
S 36 | S 31
C C
S 1 | S 6
R 2½ W | R 2 W
T 32 S
1913

from which

A pinon, 7 ins. diam., bears S. 22° 45' E., 80 lks. dist., mkd. T32SR2WS6CCBT.

A pinon, 6 ins. diam., bears S. 25° W. 333 lks. dist., mkd. T32SR2½WS1CCBT.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky clay subsoil with conglomerate rock close to the surface.

Timber, scrub cedar and pinon, aspen and scattering spruce along Pine Creek.

Undergrowth, sage brush andgrass.

Good grazing. Eastern exposure.

July 28, 1913.

Edward R Bunbury
U. S. Transitman.

Latitudes, departures and closing errors.

Lines Designated.	True Bearing.	Distances.	Latitudes. N?	Latitudes. S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
W.bdy.T32SR2W.	North.	480.36	480.36	.....	.....	.....
N.bdy. " " "	East.	316.45	.....	.....	316.45	.....
N.Bdy. " " "	S.89°29'E.	39.88	.....	.36	39.88	.....
N. " " " "	N.89°45'E.	39.88	17	.....	39.88	.....
N. " " " "	S.89°45'E.	39.80	.....	.17	39.80	.....
N. " " " "	N.89°08'E.	39.95	.59	.....	39.95	.....
E. " " " "	S. 0°12'E.	39.93	.....	39.93	.14	.....
E. " " " "	S. 0°15'E.	40.09	.....	40.09	.16	.....
E. " " " "	S. 0°01'E.	80.20	.....	80.20	.02	.....
S. " Sec. 12.	N.89°46'W.	76.35	.31	.....	.....	76.35
S. " " 11.	N.89°45'W.	55.57	.24	.....	.....	55.57
S. " " 11.	West.	24.00	.....	.....	.....	24.00
S. " " 10.	S.89°40'W.	79.90	.....	.46	.....	79.90
E. " " 16.	S. 0°02'E.	80.06	.....	80.06	.05	.....
E. " " 21.	S. 0°07'E.	80.15	.....	80.15	.16	.....
E. " " 28.	S. 0°02'E.	80.88	.....	80.88	.05	.....
E. " " 33.	S. 0°01'W.	39.94	.....	39,94	.....	.01
E. " " 33.	S. 0°05'W.	39.93	.....	39.93	.....	.06
S. " " 33.	S.89°47'W.	40.07	.....	.15	.....	40.07
S. " " 33.	N.89°59'W.	40.11	.01	.....	.....	40.11
S. " " 32.	S.89°59'W.	40.00	.....	.01	.....	40.00
S. " " 32.	N.89°59'W.	40.00	.01	.....	.....	40.00
S. " " 31.	West.	80.07	.....	.....	.....	80.07
Convergency, ...			.....	.....	.38	.....
			481.69	482.33	476.92	476.14
				481.69	476.14	
Error in latitude, ...				.64		
Error in departure, ...					.78	

For General Description, see Book of Subdivision of T. 32 S., R. 2 W.

Jos. C. Thoma
U. S. Surveyor.

Edward R. Bumbury
U. S. Transitman.

EAST BOUNDARY OF T. 34 S. R. 2 W.

Chains	
	Survey commenced September 24, 1913, and executed with a Young & Sons light mountain transit No. 8146, with solar attachment. For test of instrument see south boundary T. 34 S. R. 2 W.
	Sept.24,1913: At 1h 52m p.m.,l.m.t.,I set off 37°48'30"on the lat.arc,0°28'S.on the decl.arc;and determine a meridian with the solar at the cor.of Tps.34 and 35 S.R.2 W. heretofore described. Thence
	North on random line along E.bdy. of Tp.setting temporary ¼ sec.and sec.cors.at intervals of 40.00 chs.
80.00	Cease work for the day.
	September 24, 1913.
	Sept. 25: At 7h 22m a.m.,l.m.t.,I set off 37°49'30"on the lat.arc,0°43'30"S.on the decl.arc;and determine a meridian with the solar at the temp.cor.secs.25 and 36. Thence
	North on a random line along the E. bdy. of the Tp.,setting temporary ¼ sec.and sec.cors.at intervals of 40.00 chs.
200.00	Sept 25: At this temp.cor.I set off 0°49'30"S.on the decl. arc;and at 11h 52m a.m.,l.m.t.,observe the sun on the meridian;the resulting latitude is 37°50'30".
320.00	Cease work for the day.
	September 25, 1913.
	Sept. 26; 1913: At 7h 52m a.m.,l.m.t.,I set off 37°51'30" on the lat.arc;1°08'S.on the decl.arc;and determine a meridian with the solar at the temp.¼ cor.of sec.13.
	North on random line along E.bdy.of Tp.,setting temporary ¼ sec.and sec.cors.at intervals of 40.00 chs.
400.00	Sept.26: At this temp.cor.I set off 1°13'S.on the decl. arc, and at 11h 52m a.m.,l.m.t.,observe the sun on the meridian; the resulting latitude is 37°53'.
482.94	Intersect E.and W.line,29 lks.E.of the cor.of Tps.33 and 34 S.R.2 W.,which is a trachyte 9x6x4 ins.firmly set, properly marked and witnessed as described by the Surveyor General,with original bearing trees.destroyed. Therefore I re-establish same as follows:

EAST BOUNDARY OF T.34 S. R. 2 W.

Chains	
	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of Tps.33 and 34 S.R.2 W.,with brass cap marked T 33.S R 2 W .S 36. S 1 R 2 W T 34 S 1913 from which A pine 6 ins. dia.,bears N.47°10'W., 23 lks. dist. marked T 33 S R 2 W S 36 B T. A pine 6 ins. dia.,bears S.7°25'W., 16 lks. dist. marked T 34 S R 2 W S 1 B T. Course of East Bdy.is therefore N.0°02'W.and distance 482.94 chs. September 26,1913.
	Sept. 30,1913: At 2h 20m p.m.,l.m.t.,I set off 37°54' on the lat.arc;2°48'30"S.on the decl.arc;and determine a meridian with the solar at the cor.of Tps.33 and 34 S.R. 2 W., heretofore described. Thence S.0°02'E. on a true line along the east bdy. of sec. 1. Over mountainous land, through scattering growth of cedars, yellow and pinon pine and scattering undergrowth of laurel, sagebrush and grass. Ascend.
25.95	Top of ridge,320 ft.above Tp.cor.,brs.SW.and E. Descend.
42.94	Set an iron post,3 ft.long,1 in.in dia.,26 ins.in the ground for ¼ sec.cor.sec.1 only,with brass cap marked S 1 ¼ 1913 from which A pine, 12 ins. dia.,bears S.54°W., 43 lks.dist. marked ¼ S 1 B T. Corner stands on S.slope of ridge,320 ft.below the top.
60.45	Bottom of descent, 175 ft. below ¼ sec.cor.brs.S.60°E. and W. Continue south over flat.
66.10	Old wagon road, brs. S.60°E. and W.
67.75	Horse Creek,running water,4 lks.wide,3 ins.deep,course W.
70.45	Leave flat,bearing E. and W. Ascend.
82.94	Set an iron post, 3 ft. long, 3 ins. in dia.,16 ins. in the ground to solid rock and erect a mound of stone,

EAST BOUNDARY OF T.34 S.R. 2 W.

Chains	
	3 ft. base, 1 ft. high around post for cor.of secs.1 and 12, with brass cap marked T 34 S R 2 W S 1 | S 12 1913 from which A pine 10 ins. dia.,bears N.20°05'W., 79 lks. dist. mkd. T 34 S R 2 W S 1 B T. A pine 12 ins. dia., bears S.73°20'W., 37 lks. dist. mkd. T 34 S R 2 W S 12 B T. Corner stands on S.slope of ridge,195 ft. above flat. Land mountainous. Soil stony, 3 to 4 ins. deep, with subsoil composed of loose rock and sandy loam of medium texture; scattering growth of cedars, yellow and pinon pine; scattering undergrowth of laurel, sagebrush and grass. September 30,1913.
	October 1,1913: At 7h 50m a.m.,l.m.t.,I set off 37°53' on the lat.arc;3°04'S.on the decl.arc,and determine a meridian with the solar at the cor.of secs.1 and 12. Thence S.0°02'E. on a true line along the east boundary of sec. 12. Over mountainous land, through scattering growth of cedars, yellow and pinon pine and scattering undergrowth of buck, sage brush and grass. Ascend.
19.00	Top of ridge, 300 ft. above sec. cor., bears N.70°W. and S.70°E. Descend.
39.90	Ravine 275 ft. below top of ridge, drains N.70°W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia.,26 ins. in the ground for ¼ sec. cor. of sec. 12 only, with brass cap marked S 12 ¼ | 1913 from which

Chains	
	A pine 20 ins. dia., bears S.83°50'W., 84 lks. dist. mkd. ¼ S 12 B T.
	Corner stands on N. slope of ridge, 10 ft. above ravine.
67.50	Top of ridge 540 ft. above ¼ cor., brs. N.60°W. and E. Descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 12 ins. in the ground to solid rock and erect a mound of stone, 3 ft. base, 1½ ft. high around post for cor. of secs. 12 and 13, with brass cap marked T 34 S R 2 W / S 12 / S 13 / 1913
	from which
	A spruce 8 ins. dia., bears N.49°50'W., 69 lks. dist. mkd. T 34 S R 2 W S 12 B T.
	A pine 8 ins. dia., bears S.53°55'W., 53 lks. dist. mkd. T 34 S R 2 W S 13 B T.
	Corner stands on south slope of ridge, 25 ft. below the top.
	Land mountainous.
	Soil stony, 3 to 4 ins. deep, with subsoil composed of loose rock and sandy loam of medium texture.
	Timber scattering growth of cedars, yellow and pinon pine.
	Undergrowth scattering sagebrush, buck brush and grass.
	S.0°02'E. on a true line, along the east boundary of sec. 13.
	Over mountainous land, through scattering growth of cedars, yellow and pinon pine and scattering undergrowth of laurel, sagebrush and grass. Descend.
8.25	Ravine, 145 ft. below sec. cor., drains W. Ascend.
25.50	Top of ridge, 205 ft. above ravine, bears E. and W. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for the ¼ sec. cor. of sec. 13 only, marked on brass cap S 13 ¼ | 1913 from which A pine 10 ins. dia., bears S.22°W., 13 lks. dist. mkd. ¼ S 13 B T. Corner stands on S. slope of ridge, 200 ft. below the top.
	October 1: At this cor. I set off 3°09'S. on the decl. arc; and at 11h 50m a.m.l.m.t.,observe the sun on the meridian; the resulting latitude is 37°51'30".
52.00	Dry hollow, 145 ft. below ¼ cor., drains W. Ascend.
67.00	Top of spur, 170 ft. above dry hollow, projects NW. Descend.
80.00	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 13 and 24, with brass cap marked T 34 S R 2 W | S 13 | S 24 | 1913 from which A pine 20 ins. in dia., bears N.49°W., 2.49 chs. dist. mkd. T 34 S R 2 W S 13 B T. A pine 24 ins. dia., bears S.73°W., 56 lks. dist. mkd. T 34 S R 2 W S 24 B T. Corner stands on S. slope of spur, 65 ft. below the top.
	Land mountainous. Soil stony on surface with subsoil composed of loose rock and gravel. Timber medium growth of cedars, yellow and pinon pine. Undergrowth scattering sagebrush, laurel and grass.
	S.0°02'E. on a true line along the east boundary of sec. 24.

EAST BOUNDARY OF T. 34 S. R. 2 W.

Chains	
	Over mountainous land, through medium growth of cedars, yellow and pinon pine and scattering undergrowth of sagebrush, laruel and grass.
	Descend.
1.90	Ravine, 15 ft. below sec. cor. drains NW.
	Ascend.
22.00	Top of ridge, 280 ft. above ravine, bears E. and W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. of sec. 24 only, with brass cap marked
	S 24 $\frac{1}{4}$ | 1913
	from which
	A pine 6 ins. dia., bears N.25°W., 77 lks. dist. marked $\frac{1}{4}$ S 24 B T.
	Corner stands on S. slope of ridge, 250 ft. below the top.
52.00	Ravine, 35 ft. below $\frac{1}{4}$ cor., drains SW.
	Ascend.
63.00	Top of spur, 130 ft. above ravine, projects SW.
	Descend.
74.00	Leave timber, enter dense undergrowth of rabbit brush and scattering grass, bears E. and W.
77.90	Foot of steep descent, 190 ft. below top of spur, bears E. and W.
	Wagon road, Winder to Escalante, bears E. and W.
	Thence south across flat.
78.95	Sweetwater creek with running water, 2 lks. wide, 3 ins. deep, draining west.
	October 1, 1913.
	September 27, 1913:
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 24 and 25, with brass cap marked
	T 34 S R 2 W | S 24 / S 25 | 1913

Chains	
	and dig pits 24x24x12 ins. in each sec., 6 ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
	This corner was afterwards changed to A.P.
	Land mountainous.
	Soil stony on surface with subsoil composed of red clay and sandy loam of medium texture. Timber, cedar, yellow and pinon pine. Undergrowth dense rabbit and sage brush and scattering grass.
	Sept. 27:
	At 7h 21m a.m., l.m.t., I set off 37°50'30" on the lat. arc, 1°30'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 24 and 25.
	Thence
	S.0°02'E. on a true line along the east boundary of sec. 25.
	Across flat, through dense undergrowth of rabbit brush, sagebrush and scattering grass.
10.00	Dry wash, 40 lks. wide, 20 ft. deep, drains west.
12.70	Telephone line, Winder to Escalante, bears E. and W. Enter growth of yellow pines and scattering undergrowth of sagebrush and grass, bears E. and W.
15.00	Foot of ascent, bears E. and W. Ascend.
27.00	Top of steep ascent, 200 ft. above foot, bears E. and W. Ascend slightly.
	September 27, 1913. Edward R. Bunbury U.S.Transitman.
	October 1, 1915:
40.41	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., for sec.25 only with brass cap marked S 25 ¼ | 1915
	from which
	A pine 24 ins. dia., bears N.42°30'W., 26 lks. dist. mkd. 1 S 25 B T.
	Corner stands on top of flat ridge, 20 ft. above top

Chains

of steep ascent.

October 1, 1915.
Jos. L. Thomas
U.S. Surveyor.

September 27, 1913:

77.75 Top of flat ridge, 20 ft. above $\frac{1}{4}$ sec. cor., bears NW. and SE.

Descend.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 25 and 36, with brass cap marked

T 34 S R 2 W
S 25
S 36
1913

from which

A pine 10 ins. dia., bears N.83°50'W., 27 lks. dist. mkd. T 34 S R 2 W S 25 B T.

A pine 12 ins. dia., bears S.49°30'W., 86 lks. dist. mkd. T 34 S R 2 W S 36 B T.

Corner stands on S. slope of ridge, 40 ft. below the top.

Land mountainous.

Soil stony on surface with subsoil composed of loose rock, gravel and sandy loam of medium texture.

Timber medium growth of yellow pine.

Undergrowth scattering sagebrush and grass.

S.0°02'E. on a true line along the east boundary of sec. 36.

Over mountainous land through medium growth of yellow pine and scattering undergrowth of sagebrush and grass.

Descend.

4.00 Timber becomes scattering, bears E. and W.

14.70 Foot of descent, 155 ft. below sec. cor., bears N.60°W. and S.60°E.

Thence south across flat.

17.65 Old wagon road, bears N.60°W. and S.60°E.

20.10 South creek, running water, 4 lks. wide, 3 ins. deep,

Chains	
	drains N.60°W.
24.15	Foot of ascent, bears N.60°W. and S.60°E.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. sec. 36 only, marked on brass cap S 36 $\frac{1}{4}$ | 1913 No suitable bearing trees available, therefore raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high W. of cor. Corner stands on N. slope of spur, 110 ft. above foot of ascent.
60.00	Top of spur, 160 ft. above $\frac{1}{4}$ sec. cor., projects NW. Descend.
67.15	Ravine, 65 ft. below top of spur, drains NW. Ascend.
70.92	Intersect Aquaris Forest Reserve Boundary, CC post No. $2\frac{1}{2}$.
80.00	Intersect E. and W. line at the cor. of Tps. 34 and 35 S. R. 2 W., heretofore described.

Land mountainous.

Soil stony on surface with subsoil composed of loose rock, gravel and sandy loam of medium texture.

Timber scattering yellow pine.

Undergrowth medium growth of sagebrush, rabbit brush and scattering undergrowth of oak brush and grass.

September 27: At this cor. I set off 1°36'30"S. on the decl. arc, and at 11h 51m l.m.t., observe the sun on the meridian; the resulting latitude is 37°48'30".

September 27, 1913.

Edward R. Bunbury

U.S.Transitman.

Latitudes, departures, and closing errors.

Lines designated.	Course.	Dist.	Latitudes.		Departures.	
			North.	South.	East.	West.
		chs.	chs.	chs.	chs.	chs.
Powell Nat.For.Bdy. through Sec. 36,	N.0° 26'E.	79.80	79.80	.....	.60	.....
Powell Nat.For.Bdy. through Sec. 25,	N.0° 01'E.	79.50	79.50	.....	.02	.....
Powell Nat.For.Bdy. S.Bdy. Sec. 24	S.89°57'W.	40.00	.....	.03	.....	40.00
Powell Nat.For.Bdy. S.Bdy. Sec. 23	S.89°50'W.	40.19	.....	.12	.....	40.19
Powell Nat.For.Bdy. through Sec. 23,	North,	81.00	81.00	.....	.....	.....
Powell Nat.For.Bdy. through Sec. 14,	N.0° 25'E.	80.33	80.33	.....	.58	.....
Powell Nat.For.Bdy. through Sec. 11,	N.0° 31'W.	80.65	80.65	.....	.....	.73
Powell Nat.For.Bdy. B.bdy. Sec. 11,	S.89°03'E.	40.01	.....	.66	40.00	.....
Powell Nat.For.Bdy. W. Bdy. Sec. 1	N.0° 03'E.	80.00	80.00	.....	.07	.....
N.Bdy.T.34 S.,R.2 W	S.89°07'E.	40.08	.....	.62	40.08	.....
" " " " " " "	N.86°38'E.	39.47	2.32	.....	39.40	.....
E. " " " " " " "	S.0° 02'E.	482.94	.....	482.94	.28	.....
S. " " " " " " "	N.89°52'W.	39.90	.09	.....	.....	39.90
Convergency, ...		.....	.....	.....	.09	.....
			483.69	484.37	121.12	120.82
				483.69	120.82	
Error in latitude, ...				.68		
Error in departure, ...					.30	

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants 1913 work see book "G" T.37 S., R.4 E.

For certificate of assistants 1915 work see book "M" T.31 S., R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuanc of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma, U.S. Surveyor and Jos. C. Clark, U.S. Transitman see book "M" T. 31 S., R. 1 W.
For final oath of Edward R. Bunbury, U.S. Transitman see books "G" T. 37 S. R. 4 E., and "I" T. 32 S. R. 2 W. of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, March 13, 1917.

The foregoing field notes of the survey of the north boundaries of Townships Nos. 32 and 33 South, Range No. 1 West; west boundary Township No. 31 South, Range No. 1 West; south boundary Township No. 31 South, Range No. 2 West; west boundary Township No. 32 South, Range No. 2 West; and east boundary Township No. 34 South, Range No. 2 West of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma, Edward R. Bunbury, and Jos. C. Clark under ~~his~~ special instructions dated special instructions dated June 11, 1913 and supplemental, 191 3, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

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Page

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Page

4—679

D.

BOOK A-419

Index in Book 2

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT OF PART OF SOUTH AND NORTH BOUNDARIES

AND

RETRACEMENT AND SURVEY OF PART OF THE SUBDIVISION

OF

TOWNSHIP NO. 34 SOUTH, RANGE NO. 2 WEST

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

JOS. C. THOMA, EDWARD R. BUNBURY, AND JOS. C. CLARK

In the capacity of U. S. Surveyor and U.S. Transitmen, *under instructions dated* June 11, *1913, issued by the United States Surveyor General to govern surveys included in Group No.* 24, *which were approved by the Commissioner of the General Land Office,* July 19, *1913.*

Survey commenced September 23, *1913*

Survey completed October 1, *1915.*

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INDEX DIAGRAM.

Township 34 South, *Range* 2 West

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RETRACEMENT
SOUTH BOUNDARY OF T. 34 S.R. 2 W.

Survey commenced September 23, 1913 and executed with a Young and Sons light mountain transit No. 8146 with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct and was approved by the Assistant Supervisor of Surveys for Utah, June 25, 1913.

I examine the adjustments of the transit, 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 camp in the NE. quarter of sec. 30, T. 34 S. R. 1 W., latitude 37°50'N., longitude 112°00'W., I set off 37° 50'N. on the lat. arc; 0°06'S. on the decl. arc, and at 4h 52m p.m., l.m.t., determine with the solar a meridian and mark a point thereof on a stake firmly driven in the ground 5 chs. N. of my station.

At 7h 25m p.m., l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions and mark a point in the line thus determined on a stake driven in the ground 5 chs. N. of my station.

A two chain tape and clinometer were used on all measurements of this work.

September 23, 1913.

September 24: At 6h 30m a.m., l.m.t., I lay off the azimuth of Polaris 1°28' to the west and mark the meridian thus determined by a cross on the stake set September 23, on which the meridian falls 0.3 ins.

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INDEX DIAGRAM.

Township 34 S, Range 2 W

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6—4817

Chains

east of the mark determined by the solar.

At 6h 52m a.m.,l.m.t., I set off 37°50'N. on the lat. arc, 0°19'S. on the decl. arc; and mark a point in the meridian determined with the solar by a cross on the stake already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively, about 0'16"west and 0'16"east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7h 00m a.m. is N.16°05'W., the angle thus determined gives the mag. decl. 16°05'E. and mean mag. decl. 16°02'E.

At 10h 21m a.m.,l.m.t., I set off 37°48'30" on the lat. arc, 0°24'30"S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 34 and 35 S., R. 2 W., which is an iron post, 3 ins. in dia., firmly set, marked and witnessed as described by the Surveyor General.

Thence

West on the S. bdy. of the Tp. along the S. bdy. of sec. 36, and at 39.90 chs. fall 9 lks. S. of the ¼ sec. cor. which is an iron post, 3 ins. in dia., firmly set, marked and witnessed as described by the Surveyor General, and at 79.84 chs. fall 18 lks. S. of the cor. of secs. 1, 2, 35 and 36 which is an iron post, 3 ins. in dia., firmly set, marked and witnessed as described by the Surveyor General.

Therefore the course of this line is N.89°52'W., and the distance 79.84 chs.

September 24: At this cor. I set off 0°26'S. on the decl. arc, and at 11h 52m a.m.,l.m.t., observe the sun on the meridian; the resulting latitude is 37°48'30".

September 24, 1913.

Edward R. Burbury

U.S.Transitman.

RETRACEMENT

NORTH BOUNDARY OF T. 34 S.R. 2 W.

Chains	
	Survey commenced September 30, 1915, and executed with a Buff & Buff light mountain transit No. 9218 and Young & Sons transit No. 8535, both transits having Smith solar attachments. (For description and tests of transits see Page 1, Book of Subdivisions of T 33 S. R. 1 W.)
	September 30, 1915: At 9h a.m., apparent time, I set off 37°54'N. on the lat. arc; 2°32'S. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 33 and 34 S., R. 2 W., heretofore described.
	Thence
	West, retracing the N. bdy. of T. 34 S. R. 2 W., bet. secs. 1 and 36.
	Ascending along the NW. slope of Birch Creek Canon, over rolling mountainous land, through dense cedar, pinon, spruce and yellow pine timber.
8.30	Spur, projects N.35°W., 4 chs., 40 ft. above sec. cor. Descend gradually.
12.60	Small draw, drains N.35°W., 15 ft. below spur. Ascend gradually.
17.30	Spur projects N. 3 chs., 25 ft. above draw. Descend gradually.
39.40	Fall 232 lks. N. of the ¼ sec. cor., which is a trachyte 15x13x9 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	The course of this half mile is therefore S.86°38'W., and the dist. is 39.47 chs.
	Offset over ¼ sec. cor. and run west.
2.00	Irrigation ditch, course S.
3.50	Birch Creek, 5 lks. wide, 6 ins. deep, clear water, course S.35°W., 20 ft. below ¼ sec. cor. Ascend gradually.
5.70	Road bears NE. and SW.
15.00	Ridge bears N.20°E. and S., 140 ft. above creek. Descend.
24.70	Draw drains SW., heads 1 chain S. of line.

RETRACEMENT

NORTH BOUNDARY OF T. 34 S. R. 2 W.

Chains	
29.70	Spur projects SW. 6 chs.
	Continue descent.
35.90	Head of hollow, drains N.80°W., 25 ft. below spur.
	Ascend gradually.
40.08	Fall 62 lks. S. of the cor. of secs. 1, 2, 35 and 36, Tps. 33 and 34 S., R. 2 W., which is
	An iron post, 3 ins. diam., 12 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	The true course of this half mile is therefore N.89° 07'W., and the distance is 40.08 chs.
	Land rolling mountainous.
	Soil red sandy loam, 2 to 4 ft. deep, rocky on ridges, on rocky subsoil.
	Timber cedar, pinon, yellow pine and spruce; cottonwood along Birch Creek.
	Undergrowth sagebrush, birch and willows along creek.
	Good grazing.
	Sept. 30, 1915:
	Walking on line at noon, unable to observe for lat.

Jos. C. Clark
U.S. Transitman.

RETRACEMENT

SUBDIVISIONS T. 34 S. R. 2 W.

September 27, 1913: At 2h 51m p.m., l.m.t., I set off 37° 50'30" on the lat. arc, 1°39'S. on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. of secs. 24 and 25, which is an iron post, 3 ins. in dia., firmly set, marked and witnessed as described by the Surveyor General, which is also post No. 158, Powell National Forest Reserve boundary. Thence I retrace West bet. secs. 24 and 25, and at 40.00 chs. fall 3 lks. N. of the cor. of secs. 23, 24, 25 and 26, which is a sandstone 8x6x8 ins., firmly set, marked and witnessed as described by the Surveyor General.

The course of this line is therefore S.89°57'W., and the distance is 40.00 chs.

September 27, 1913.

Edward R. Bunbury
U.S. Transitman.

Chains	
	September 30, 1915:
	South, retracing bet. secs. 1 and 2.
	Ascend gradually over rolling mountainous land, through dense cedar and pinon timber and scattering sagebrush undergrowth.
7.40	Spur projects W., 75 ft. above cor.
	Descend gradually.
12.30	Base of spur and N. side of Birch Creek Canon mouth bears E. and W., 65 ft. below spur.
	Continue across canon bottom.
13.60	Road bears N.80°W. and S.80°E.
14.50	Wash 7 lks. wide, 4 ft. deep, drains N.50°W.
19.50	Birch Creek, 6 lks. wide, 6 ins. deep, course N.80°W.
	Ascend gradually.
21.60	Wash 10 lks. wide, 6 ft. deep, drains N.80°W.
22.00	Road bears N.80°W. and S.80°E.
31.20	Leave canon bottom, bears E. and W.
	Ascend.
39.99	Fall 4 lks. E. of the ¼ sec. cor., which is a trachyte 11x9x6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	The course of this half mile is therefore S.0°03'W., and the distance is 39.99 chs.
	Offset over corner and continue south.
1.00	Ridge bears E. and W.
	Descend.
13.30	Horse Creek Canon road and base of ridge, bears N.80°E. and S.80°W., 150 ft. below ridge.
	Continue across canon bottom.
17.30	Creek, 10 lks. wide, 6 ins. deep, clear water, in wash 40 lks. wide, 8 ft. deep, course N.80°W.
	Ascend gradually.
21.00	Irrigation ditch, course N.70°W.
	Leave canon bottom, bears E. and W. and ascend over foot hills.
33.24	Wash 12 lks. wide, 10 ft. deep, drains NW.

Chains	
	Continue ascent.
40.01	Fall 3 lks. E. of the Powell National Forest Boundary post N. 153, or the cor. of secs. 1, 2, 11 and 12, heretofore described.
	The course of this half mile is therefore S.0°03'W., and the distance is 40.01 chs.
	Land rolling mountainous, with western exposure.
	Soil red sand and rocky, 10 to 20 ins. deep, in gravel and rocky subsoil.
	Timber cedar, pinon, yellow pine and cottonwood along creek.
	Undergrowth birch and willows along creek; sagebrush, rabbit brush and grass.
	Good grazing.
	September 30, 1915.
	Jos. C. Clark
	U.S.Transitman.
	October 1, 1915: At 8h 15m a.m., apparent time, I set off 37°53'N. on the lat. arc; 2°54'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 2 and 11, or the Forestry Boundary post No. 153, heretofore described.
	Thence
	West retracing bet. secs. 2 and 11.
	Descend over gently rolling land, through sagebrush undergrowth.
40.00	Fall 61 lks. S. of the witness ¼ sec. cor., or the Forestry Bdy. post No. 154, which is 5 lks. S. of the true cor. point, which is an iron post, 3 ins. diam., 15 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	The course of this half mile is therefore N.89°03'W., and the distance is 40.01 chs.
	Land gently rolling with western exposure.
	Soil red sand and gravel, 1 to 2 ft. deep, on rocky sub-

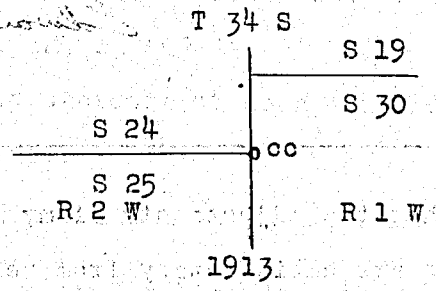
Chains	
	soil.
	Timber scattering scrub cedar and pinon.
	Undergrowth sagebrush and scattering grass.
	Good grazing.
	From the witness $\frac{1}{4}$ sec. cor. or Forest Bdy. post No. 154, which is 5 lks. S.0°32'E. of the true cor.
	South retracing the Powell National Forest Bdy., through the middle of sec. 11.
80.60	Fall 72 lks. W. of the $\frac{1}{4}$ sec. cor. for secs. 11 and 14, or the Forest Bdy. Post No. 155, which is
	An iron post, 3 ins. dia., 18 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	The course of this mile is therefore S.0°31'E., and the true distance is 80.65 chs. October 1, 1915, Jos. E. Thoma U.S. Surveyor.

SUBDIVISIONS T. 34 S. R. 2 W.

	Sept.27,1913: At 1h 51m p.m., l.m.t., I set off 37°49' 30" on the lat. arc, 1°38'S. on the decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ cor. of secs. 25 and 36, which is an iron post, 3 ins. in dia., No. 159, firmly set, marked and witnessed as described by the Surveyor General.
	Thence
	S.89°52'E. on random line bet. secs. 25 and 36.
39.55	Intersect E. bdy. of the Tp., 9 lks. S.0°2'E. of the cor. of secs. 25 and 36, heretofore described.
	Thence
	West. on a true line bet. secs. 25 and 36.
	Over mountainous land through scattering cedars, pinon and yellow pine and medium undergrowth of sagebrush, rabbit brush and scattering grass.
	Ascend.

Chains	
2.75	Top of spur, 35 ft. above sec. cor., projects S.
	Descend.
26.00	Bottom of descent, 205 ft. below top of spur, brs. NE. and SW.
	Continue W. across flat.
33.30	Old wagon road brs. NW. and SE.
36.75	South Creek, 4 lks. wide, 3 ins. deep, drains NW.
39.55	The ¼ cor. of secs. 25 and 36.
	Land mountainous.
	Soil stony on surface with subsoil composed of gravel and sandy loam of medium texture.
	Timber scattering growth of cedars, pinon and yellow pine.
	Undergrowth medium growth of sage, rabbit brush and grass.
	September 27, 1913: At 3h 21m p.m., l.m.t., I set off 37° 51' on the lat. arc, 1°39'S. on the decl. arc, and determine a meridian with the solar at the ¼ cor. of secs. 24 and 25.
	Thence
	East on a random line bet. secs. 24 and 25.
39.55	Intersect E. bdy. of Tp. 83 lks. S.0°02'E. of the cor. of secs. 24 and 25, heretofore described.
	Thence I return to the ¼ cor. of secs. 24 and 25 and run
	East on a true line bet. secs. 24 and 25.
	Across flat, through dense undergrowth of rabbit brush, sagebrush and scattering grass.
10.00	Point of ascent, bears N. and S.
14.05	Top of spur, 50 ft. above point of ascent, projects S. about 4 chs.
	Descend.
19.55	Bottom of descent, 45 ft. below top of spur, bears N. and S.
	Continue East on a near level line across flat.
20.45	Wagon road, Winder to Escalante, bears N.80°E. and S.80°W.

Chains	
20.80	Sweetwater Creek, 5 lks. wide, 3 ins. deep, drains S.80°W.
39.55	Intersect E. bdy. of the Tp., 83 lks. S.0°02'E. of the cor. of secs. 24 and 25.
	I destroy all markings on this cor. pertaining to secs. 24 and 25 and mark same A.P. and at my intersection with the east bdy. of the Tp. set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC of secs. 24 and 25, with brass cap marked



and dig pits 24x18x12 ins. crosswise on each line N. and S. 3 ft., and W. of post 7 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land rolling hills.

Soil stony on surface with subsoil composed of gravel and sandy loam of medium texture.

No timber.

Undergrowth dense rabbit brush, sagebrush and scattering grass.

September 27, 1913.

Preliminary to proceeding with the subdivision of this Tp., I run random lines as follows:

September 29, 1913: At 6h 50m a.m., l.m.t., I set off 37°50'30" on the lat. arc, 2°16'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence

North on a random line setting temporary ¼ sec. and sec. cors. at intervals of 40.00 chs.

120.00	September 29: At this temp. cor., I set off 2°23'S. on

Chains

the decl. arc, and at 11h 50m a.m.l.m.t., observe the sun on the meridian; the resulting latitude is 37°51'30".

241.68 Intersect E. and W. line, 7 lks. W. of the cor. of secs. 1, 2, 11 and 12, which is an iron post, 3 ins. in dia., No. 153, firmly set, marked and witnessed as described by the Surveyor General.

The course of this line is therefore N.0°01'E., and the distance is 241.68 chs.

September 29, 1913,

Edward R. Bunbury

U.S.Transitman.

Knowing that the adjustments of my transit and solar apparatus are satisfactory from recent test made of same in T. 34 S. R. 1 W., (see pages 18 and 19 in the book of the subdivision of T. 34 S. R. 1 W.), I proceed as follows:

September 29, 1913: At 6h 50m a.m.,l.m.t., I set off 37° 51' on the lat. arc, 2°16'S. on the decl. arc; and determine a meridian with the solar at the point for the cor. of secs. 13 and 24.

Thence

West on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

79.82 Intersect N. and S. line, 1.24 chs. N. of temp cor. of secs. 13, 14, 23 and 24.

September 29: At this temp. cor. I set off 2°23'S. on the decl. arc, and at 11h 50m a.m.l.m.t., observe the sun on the meridian; the resulting latitude is 37°51'.

Continue W. on a random line bet. secs. 14 and 23.

40.18 Fall 21 lks. N. of the ¼ cor. of secs. 14 and 23, which is a sandstone firmly set, marked and witnessed as described by the Surveyor General.

September 29, 1913,

Jos. C. Thoma
U.S. Surveyor.

Chains	
	October 3, 1913: At 7h 49m a.m., l.m.t., I set off 37° 52' on the lat. arc, 3°51'30"S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 12 and 13. Thence
	West on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
79.77	Intersect N. and S. line, 1.01 chs. N. of the temp. cor. of secs. 11, 12, 13 and 14.
	October 3: Sky overcast at noon, unable to observe the sun for latitude.
	Continue W. on a random line bet. secs. 11 and 14.
39.36	Fall 52 lks. S. of the ¼ sec. cor. of secs. 11 and 14, which is a 3 in. iron post No. 155, firmly set, marked and witnessed as described by the Surveyor General. October 3, 1913.
	October 7, 1913: At 8h 18m a.m., l.m.t., I set off 37° 50'30"N. on the lat. arc, 5°24'30"S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26. Thence
	N.0°01'E. bet. secs. 23 and 24.
	Across open flat through dense undergrowth of rabbit brush, sagebrush and scattering grass.
3.10	Wagon road, Winder to Escalante, brs. E. and W.
7.50	Foot of ascent, bears E. and W.
12.00	Enter scattering growth of pinon pine and cedar timber bears E. and W.
40.55	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. of sec. 23 only with brass cap marked

S 23 ¼|
1913

Chains

from which

A pine 16 ins. dia., bears S.30°W.,

33 lks. dist. marked ¼ S 23 B T.

Corner stands on S. slope of ridge, 150 ft. above point of ascent.

October 7, 1913,

Edward R. Bumburry

U.S.Transitman.

October 1, 1915:

41.10 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. sec. 24 only, with brass cap marked

¼ | S 24
1915

from which

Yellow pine 12 ins. dia., bears N.53°15'E.,

80 lks. dist. mkd. ¼ S 24 B T.

raise a mound of stone 2 ft. base, 1½ ft. high E. of cor. No other trees within reasonable distance suitable for bearing trees.

October 1, 1915,

Jos. L. Thoma

U.S.Surveyor.

October 7, 1913:

56.50 Top of ridge, 100 ft. above ¼ sec. cor., bears E. and W. Descend.

61.10 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 14, 23 and 24, with brass cap marked

T 34 S R 2 W
S 14 | S 13
S 23 | S 24
1913

from which

A pine 6 ins. dia., bears N.45°E.,

66 lks. dist. mkd. T 34 S R 2 W S 13 B T.

A spruce, 16 ins. dia., bears S.60°E.,

1.18 chs. dist., mkd. T 34 S R 2 W S 24 B T.

Chains	
	A spruce 18 ins. dia., bears S.5°W., 55 lks. dist. mkd. T 34 S R 2 W S 23 B T.
	A spruce 18 ins. dia., bears N.30°W., 1.14 chs. dist. mkd. T 34 S R 2 W S 14 B T.
	Corner stands on N. slope of ridge, 150 ft. below the top.
	Land rolling hills.
	Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.
	Timber scattering growth of pinon pine, cedars, spruce and yellow pine.
	Undergrowth scattering sagebrush, laurel and grass.
	N.89°54'E. on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
79.80	Intersect E. bdy. of the Tp. at the cor. of secs. 13 and 24, heretofore described.
	Thence
	S.89°54'W. on a true line bet. secs. 13 and 24.
	Over mountainous land through scattering timber and undergrowth.
	Descend.
.60	Ravine 20 ft. below sec. cor., drains NW.
	Ascend.
9.00	Top of spur, 60 ft. above ravine, projects N.
	Descend.
31.00	Ravine 110 ft. below top of spur, drains NW.
	Ascend.
39.90	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. secs. 13 and 24, with brass cap marked
	S 13 ¼ S 24 1913
	No bearing trees available, erect a mound of stone 3 ft. base, 2 ft. high N. of cor.

Chains	
40.55	Top of ridge, 80 ft. above ravine, bears N. and S. Descend.
51.40	Bottom of ravine, 70 ft. below top of ridge, drains N. Ascend.
52.50	E. top of ridge, 35 ft. above ravine, bears N. and S. Continue W. along top of ridge on a near level line.
65.00	W. top of ridge bears N. and S. Descend gently.
79.80	The cor. of secs. 13, 14, 23 and 24, 50 ft. below W. top of ridge.

Land mountainous.

Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.

Timber scattering growth of pinon pine, cedars, spruce and yellow pine.

Undergrowth scattering sagebrush, laurel and grass.

N.0°01'E. bet. secs. 13 and 14.

Over rolling hills through scattering timber and undergrowth.

Descend.

4.25 Ravine 80 ft. below sec. cor., drains W. Ascend.

32.00 Top of ridge, 190 ft. above ravine, bears E. and W. Descend.

40.13 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 14 ¼ | S 13

1913

from which

A pine 10 ins. dia., bears N.85°E., 42 lks. dist. marked ¼ S 13 B T.

A cedar 10 ins. dia., bears S.60°W., 24 lks. dist. marked ¼ S 14 B T.

Corner stands on N. slope of ridge, 40 ft. below the top.

Chains	
65.00	Leave timber, enter medium undergrowth bears NW. and SE.
69.75	Foot of descent, 320 ft. below ¼ cor., bears NW. and SE. Continue N. across flat.
70.75	Dry wash, 40 lks. wide, 15 ft. deep, drains NW.
80.26	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 11, 12, 13 and 14 with brass cap marked

T. 34 S. R. 2 W.
S 11 | S 12
S14 | S 13
1913

and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.

Land rolling hills.

Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.

Timber scattering pinon pine and cedars.

Undergrowth medium growth of rabbit brush, sagebrush and scattering grass.

October 7,1913: At this cor. I set off 5°29'S. on the decl. arc, and at 11h 48m a.m.l.m.t., observe the sun on the meridian; the resulting latitude is 37°52'.

S.89°45'E. on a random line bet. secs. 12 and 13.

40.00	Set temp. ¼ sec. cor.
79.72	Intersect E. bdy. of the Tp. at the cor. of secs. 12 and 13, heretofore described.

Thence

N.89°45'W. on a true line bet. secs. 12 and 13.

Over mountainous land through scattering timber and medium undergrowth.

Descend.

32.00	Ravine 415 ft. below sec. cor., drains N.80°W.

Ascend.

39.86	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. with brass cap marked

Chains	
	S 12 / $\frac{1}{4}$ / S 13 / 1913
	from which
	A spruce 24 ins. dia., bears N.70°W.,
	$22\frac{1}{2}$ lks. dist. marked $\frac{1}{4}$ S 12 B T.
	A pine 6 ins. dia., bears S.15°E.,
	26 lks. dist. marked $\frac{1}{4}$ S 13 B T.
	Corner stands on top of spur, 55 ft. above ravine projecting N. about 6 chs.
	Descend.
43.10	Ravine, 50 ft. below $\frac{1}{4}$ sec. cor. drains N.85°W.
	Enter rolling hills, bears NW. and SE.
	Ascend.
44.00	Top of ascent, 10 ft. above ravine, bears N.70°W. and S.5°E.
	Descend gently over rolling land.
59.00	Dry wash, 25 lks. wide, 3 ft. deep, drains S.80°W.
	Descend gently along N. side of wash.
77.00	Leave timber, bears NW. and S.
78.00	Dry wash 25 lks. wide, 4 ft. deep, drains N.80°W.
	Ascend gently.
79.72	The cor. of secs. 11, 12, 13 and 14.
	Land rolling hills.
	Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.
	Timber scattering spruce and pine.
	Undergrowth medium growth of rabbit brush, sagebrush and scattering grass.
	N.0°01'E. bet. secs. 11 and 12.
	Over rolling hills through medium undergrowth of rabbit brush, sagebrush and scattering grass.
.50	Dry wash, 25 lks. wide, 6 ft. deep, drains N.60°W.
1.00	Foot of ascent, bears NW. and SE.

Chains	
4.00	Enter scattering growth of pinon pine and cedars bears E. and W.
20.00	Top of ridge, 135 ft. above foot of ascent, bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. sec. 12 only with brass cap marked $\frac{1}{4}$ | S 12 1913 from which A pine 6 ins. dia., bears S.63°E., 24 lks. dist. marked $\frac{1}{4}$ S 12 B T. Corner stands on N. slope of ridge, 135 ft. below the top. October 7, 1913, Edward R. Brunbury U.S.Transitman.
	October 1, 1915:
40.16	Proportional measurement. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. for sec. 11 only with brass cap $\frac{1}{4}$ S 11 | 1915 from which A yellow pine 16 ins. dia., bears S.48°15'W., 17 lks. dist., marked $\frac{1}{4}$ S 11 B T. raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. No other trees within reasonable distance suitable for bearing trees. October 1, 1915, Jas. C. Thoma U.S.Surveyor.
	October 7, 1913:
54.00	Ravine 60 ft. below $\frac{1}{4}$ sec. cor., drains NW.

Chains	
	Continue N. over rolling land.
80.32	Intersect E. and W. line at the cor. of secs. 1, 2, 11 and 12.
	Land rolling hills.
	Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.
	Timber scattering growth of pinon pine and cedars.
	Undergrowth, medium growth of rabbit brush, sagebrush and scattering grass.
	October 7, 1913.

October 2, 1913: At 7h 50m a.m., l.m.t., I set off 37° 53' on the lat. arc; 3°28'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 and 12, on E. bdy. of Tp. heretofore described.

Thence

West bet. secs. 1 and 12.

Over mountainous land through scattering growth of pinon pine, cedars and yellow pine and medium undergrowth of laurel, sagebrush and scattering grass.

Ascend.

13.00 Top of spur, 150 ft. above sec. cor., projects N.

Descend.

35.75 Ravine 435 ft. below top of spur, drains N.25°W.

Ascend.

October 2, 1913,

Edward R. Bumbury

U.S.Transitman.

October 1, 1915:

39.80 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. for sec. 1 only, with brass cap marked

$$\frac{\frac{1}{4}\ S\ 1}{1915}$$

from which

A pinon 10 ins. dia., bears N.89°55'W.

Chains

11 lks. dist. mkd. $\frac{1}{4}$ S 1 B T.

raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.

No other trees within reasonable distance suitable for bearing trees.

October 1, 1915,

Jos. C. Clark

U.S.Transitman.

October 2, 1913:

39.90 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. of sec. 12 only with brass cap marked

$\frac{1}{4}$

S 12
1913

from which

A pine 8 ins. dia., bears S.23°E.,

41 lks. dist. marked $\frac{1}{4}$ S 12 B T.

Corner stands on E. slope of spur, 55 ft. above ravine.

44.50 Top of spur, 105 ft. above $\frac{1}{4}$ sec. cor. projects N.

Descend gently over rolling land.

79.80 Intersect N. and S. line 1.02 chs. S.0°01'W. of the cor. of secs. 1, 2, 11 and 12.

I destroy all marks on post No. 153 and bearing trees pertaining to secs. 1 and 12, and set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC of secs. 1 and 12, with brass cap marked

T 34 S R 2 W
S 2 | S 1
CC
S 11 | S 12
1913

from which

A pine 12 ins. dia., bears N.21°20'E.,

27 lks. dist. marked T 34 S R 2 W S 1 B T.

A pine 10 ins. dia., bears S.48°20'E.,

18 lks. dist. marked T 34 S R 2 W S 12 B T.

Land rolling hills.

Soil stony on surface with subsoil composed of loose rock

Chains	Remarks
	and sandy loam of medium texture.
	Timber scattering growth of pinon pine and cedars.
	Undergrowth, medium growth of rabbit brush, sagebrush and scattering grass.
	October 2, 1913: Sky overcast at noon; unable to observe the sun for latitude.
	October 2, 1913.
	October 7, 1913: For observations on this date see lines bet. secs. 23 and 24 and 13 and 14 of this Tp.
	From the cor. of secs. 13, 14, 23 and 24,
	S.89°54'W. on a true line bet. secs. 14 and 23.
	Over rolling hills through scattering timber and undergrowth.
	Descend.
10.15	Bottom of ravine, 40 ft. below ¼ sec. cor., drains NW.
	Ascend.
27.65	Top of spur 50 ft. high, projects N.
	Descend.
29.65	Bottom of small ravine, 20 ft. below top of spur, drains N.
	Ascend.
40.20	The ¼ sec. cor. of secs. 14 and 23, 80 ft. above ravine.
	Land rolling hills.
	Soil on surface stony, with subsoil composed of loose rock and sandy loam of medium texture.
	Timber scattering growth of pinon pine, spruce, cedars and yellow pine.
	Undergrowth scattering sagebrush, laurel and grass.
	From the cor. of secs. 11, 12, 13 and 14.
	N.89°45'W. on a true line bet. secs. 11 and 14.
	Over rolling land through medium undergrowth.
1.75	Dry wash, 10 lks. wide, 1 ft. deep, drains NW.
7.30	Old wagon road bears NW. and SE.

Chains	
11.75	Foot of ascent; leave rolling land and enter rolling hills bearing NW. and SE.
17.00	Enter scattering timber and undergrowth bearing N. and SE.
29.50	Top of spur, 50 ft. above foot of ascent, projects NW.
39.41	The $\frac{1}{4}$ sec. cor. of secs. 11 and 14, 130 ft. below top of spur.

Land rolling hills.

Soil stony on surface with subsoil composed of loose rock and sandy loam of medium texture.

Timber scattering growth of pinon pine and cedars.

Undergrowth scattering rabbit brush, sagebrush and grass.

October 7, 1913,

Edward R. Bromley

U.S.Transitman.

GENERAL DESCRIPTION

This portion of the township is located east of the town of Winder, Utah, and borders on the east edge of what is known as John's Valley. The general slope is to the West and SW. The character of the land is generally rolling hills with the exception of the extreme eastern portion which is mountainous, the soil of which is stony on the surface 2 to 3 ins. deep, with a subsoil composed of loose rock and sandy loam of medium texture, and is fit for grazing purposes only. The soil of the rolling hills is a rocky loam on a subsoil of loose rock, gravel and sandy loam, of medium texture and is unfit for agricultural purposes. This portion of the township is generally covered with a scattering growth of cedars, pinon and yellow pine with a medium undergrowth of sagebrush and nutri ious grasses.

Four small streams of water known as Horse Creek and Birch Creek in sec. 1, Sweetwater Creek in secs. 24 and 25 and South Creek in secs. 25 and 36 are found in this portion of the township; the same draining west into John's Valley

where the water is used for irrigation and domestic purposes.

There are no improvements or settlers in this portion of the township.

The wagon road from Winder to Escalante crosses through secs. 23, 24 and 25.

There are no indications of coal, oil or minerals found in this township.

Jos. A. Thoma
U.S. Surveyor.

Edward R. Bunbury
U.S. Transitman.

J. C. Clark.
U. S. Transitman

For final oath of U.S. Surveyor and Transitman and certificate of assistants, see book of Subdivisions of T. 31 S. R. 1 W., tbook "M", and book "G" T. 37 S. R. 4 E.

4—680

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants 1913 work see book "G" T.37 S.R.4 E.

For certificate of assistants 1915 work see book "M" T.31 S., R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuan of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and trul in my own proper person, and in strict conformity with said instructions, the Manual of Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma U.S. Surveyor and Jos. C. Clark, U.S. Transitman, see book "M" T.31 S., R.1 W.
For final oath of Edward R. Bunbury, U.S. Transitman, see books "G" T. 37 S.R.4 E., and "I" T.32 S.R.2 W. ..... of the ..... Meridian, in the State of ....., which are represented i the foregoing field notes as having been executed by me, and under my direction; and I do furthe solemnly swear that all the corners of said survey have been established and perpetuated in strict accord ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyo General for ..... and in the specific manner described in the field notes, and tha the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 1917.

The foregoing field notes of the ~~survey of~~ retracement of part of south and north boundaries, and retracement and survey of part of the subdivision of Township No. 34 South, Range No. 2 West of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma, Edward R. Bunbury, and Jos. C. Clark under ~~his~~ special instructions dated June 11, 191 3, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

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Page

4—679

—— H. ——

BOOK A-419

FIELD NOTES

In rear book a 2

OF THE ~~SURVEY OF THE~~

RETRACEMENT OF PART OF SOUTH BOUNDARY,

TOWNSHIP NO. 31 SOUTH, RANGE NO. 2 WEST,

RETRACEMENT OF PART OF SIXTH STANDARD PARALLEL SOUTH,

THROUGH RANGE NO. 2 WEST,

AND

RETRACEMENT, RESURVEY, AND SURVEY OF PART OF SUBDIVISION

O F

TOWNSHIP NO. 31 SOUTH, RANGE NO. 2 WEST,

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

JOS. C. THOMA AND EDWARD R. BUNBURY

In the capacity of U. S. Surveyor and U. S. Transitman *, under instructions dated* June 11 *, 1913, issued by the United States Surveyor General to govern surveys included in Group No.* 24 *, which were approved by the Commissioner of the General Land Office,* July 19 *, 1913.*

Survey commenced June 20 *, 1913*

Survey completed September 22 *, 1915*

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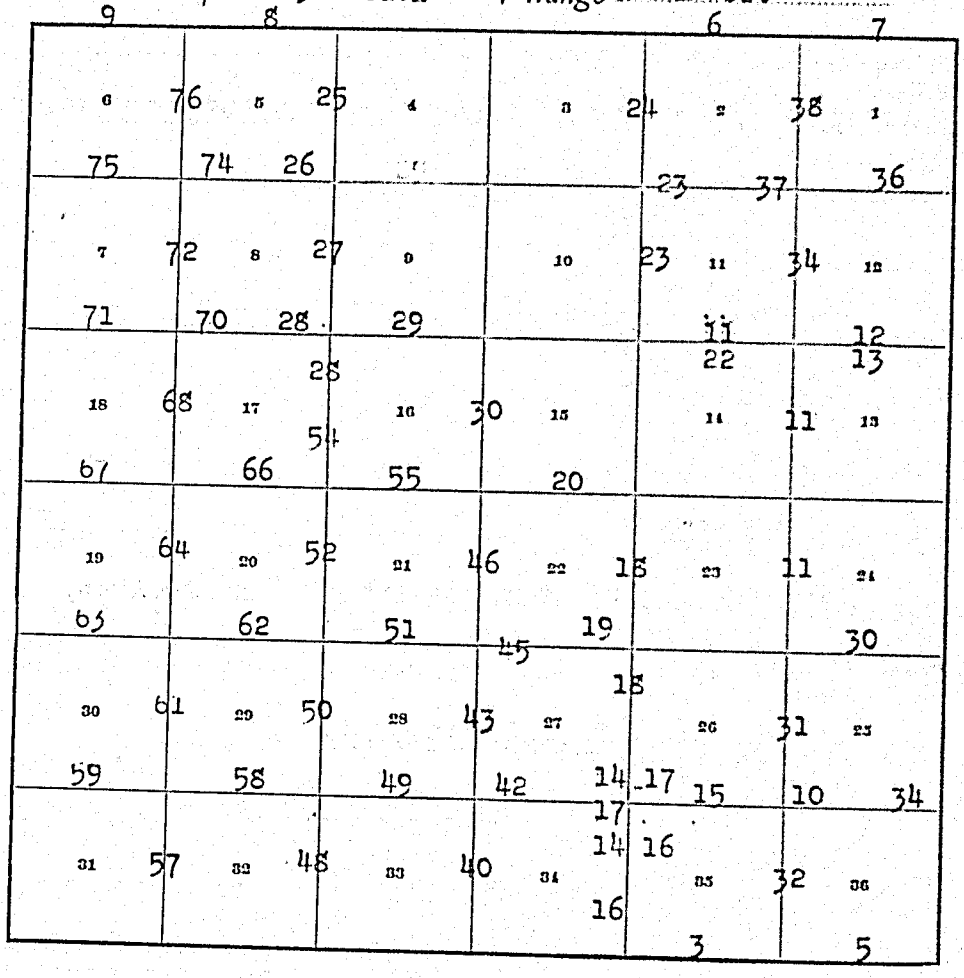
BOOK A-419

INDEX DIAGRAM.

Township 31 South, *Range* 2 West



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BOOK A-419

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INDEX DIAGRAM.

Township 31, Range 2 W

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0—4817

Chains. Survey commenced June 20, 1913, and executed with Young & Sons light mountain transits Nos. 8477 and 8146; both transits having Smith solar attachments; the horizontal limbs are provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the lease count of the verniers of the latitude and declination arcs.

The instruments were examined and approved by the Asst. Supervisor of Surveys at Salt Lake City, Utah.

Measurements were made by using five-chain Lallie steel tapes, with clinometers for determining slopes.

I examine the adjustments of the transits and find them correct; then to test the solar apparatus, by comparing their 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 my camp, which is located in the SW. ¼ of sec. 9, T. 31 S., R. 2 W.; approximate latitude 38° 8' N., approximate longitude 112°5' W.; I set off 23° 27' N. on the decl. arc,; 38° 8' N. on the lat. arc, and at 9h, a. m. apparent time, determine with the solar a meridian and mark a point thereof, on a stake driven in the ground approximately 10 chs. N. of my station.

June 20, 1913: I make noon observation for time as follows:

	Watch time.
Sun's W. limb, ...	Cloudy.
Sun's E. limb, ...	12h 30m 29s
Sun's center, (computed)	12h 29m 20s
Apparent noon, ...	12h 00m 00s
Equation of time, June 20, ...	1 12
L. m. t. of apparent noon, ...	12h 01m 12s
Watch time of apparent noon, ...	12 29 20
Watch fast, l. m. t., ...	28m 08s

June 20, 1913: At apparent noon, I set off 23° 27' N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 38° 8' N.

June 20, 1913: At 3h, p. m., apparent time, I set off 38° 8' N. on the lat. arc; 23° 27' 30" N. on the decl. arc,

Chains. and determine a meridian with the solar, the meridian thus determined coincides with the meridian as obtained by the a. m. observation.

June 20, 1913: I observe Polaris as follows:

Telescope Direct.	Horizontal Angle. ° ' "	Watch time. h. m. s.
Star, ...	0 1 00	7 56 10 p. m.
Flag, ...	0 0 00	
Star, ...	0 1 30	7 58 50
Flag, ...	0 0 00	
Telescope Reversed.		
Star, ...	0 1 30	7 59 00
Flag, ...	0 0 00	
Star, ...	0 1 00	8 01 00
Flag, ...	0 0 00	
Mean, ...	0 1 15	7 58 45 p. m.
Watch fast, l. m. t., ...		28 08
L. m. t. of observation,		7h 30m 37s p. m.

U. C. of Polaris, June 20, 1915, . . . 7h 36.0m a. m.
Red. to long. of station, ... 1.2
U. C. of Polaris at station, . . . 7h 34.8m a. m.

Hour angle of Polaris, . . . 11h 55.8m.

W. azimuth of Polaris, ... 0° 1' 00"
Angle W., flag to star, . . . 0 1 15
Flag bears, ... N. 0 0 15 E.

The solar apparatus attached to Young & Sons light mountain transit No. 8477, by a. m. and p. m. observations, defines the position for the meridian approximately 15" W. of the meridian established by the Polaris observations; therefore, I conclude the adjustments of the instrument are satisfactory.

June 20, 1913.

Jos. C. Thoma

U. S. Surveyor.

June 29, 1913: At my camp in the SE. ¼ of sec. 27, T. 31 S., R. 2 W., at 1h 33.5m, a. m. by my watch, which is 28m fast of l. m. t., I obs. Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, approximately 10 chs. N. of my station.

June 29, 1913.

Chains.

June 30, 1913: I lay off the azimuth of Polaris, 1° 28' to the west, and mark a point thus determined on a stake driven in the ground approximately 10 chs. north of my station.

At 8h, a. m. app. t., I set off 38° 5' N. on the lat. arc; 23° 13' N. on the decl. arc, and determine a meridian with the solar, which coincides with the meridian as determined by observations on Polaris.

At apparent noon, I set off 23° 12' N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 38° 5' N.

At 3h, p. m., app. t., I set off 38° 5' N. on the lat. arc; 23° 11' 30" N. on the decl. arc, and determine a meridian with the solar, which coincides with the meridiam as determined by observations on Polaris.

June 30, 1913:

Edward R. Bunbury

U. S. Transitman.

Note: Buff & Buff transit No. 9218 was used in executing the work in this township during the year 1915. For description of transit see Book of Subdivision of T. 33 S., R. 1 W., this Group; for test of instrument see Book of Subdivision of T. 31 S., R. 1 W., this Group.

Retracements on the S. Bdy. of T. 31 S., R. 2 W.

July 2, 1913: At 8h a. m., app. t., I set off 38° 4' N. on the lat. arc; 23° 5' N. on the decl. arc, and determine a meridian at the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., which is

A trachyte, 10x6x8 ins. above ground, loosely set, mkd. and witnessed as described by the surveyor general.

Alongside cor., I set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 34 and 35, with brass cap mkd.

Chains.

T 31 S | R 2 W
S 34 | S 35
S 3 | S 2
T 32 S
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Thence I run

East, on retracement along the S. bdy. Sec. 35.

Desc. over rocky northeast slope, through short sage and shadscale undergrowth.

9.50 Dry wash, 10 lks. wide, drains NE.; asc. gradually:

24.00 Start asc. over rocky N. slope of ridge, bears NE. and SW.

39.88 Fall 36 lks. N. of the ¼ sec. cor., which is

A trachyte, 16x6x8 ins. above ground, loosely set, mkd. as described by the surveyor general.

I set stone firmly in the ground and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.

The course of this half mile is therefore S. 89° 29' E., and the distance is 39.88 chs.

I continue my line east from a point 36 lks. N. of the cor. with continuous measurement.

48.00 Start desc., bears N. and S.

65.50 Old road, bears NW. and SE.

70.00 Trail, bears N. and S.

71.00 Wash in hollow, drains SW.; asc.

79.76 Fall 18 lks. N. of the cor. of secs. 1, 2, 35 and 36, which is

A trachyte, 9x12x12 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

The course of this half mile is therefore N. 89° 45' E., and the dist. is 39.88 chs.

Land, rolling.

Soil, coarse gravel and rocky, more than 2 ft. deep.

Timber, none.

Undergrowth, short sage, shad scale and grass.

Poor grazing. Northwestern exposure.

Chains	
	East, on retracement from the cor. of secs. 1, 2, 35 and 36, along the S. bdy. of Sec. 36.
	Desc. over rolling land, through short sage brush and shad scale.
19.00	Draw, drains S.
27.00	Draw, drains SW.
39.80	Fall 18 lks. N. of the ¼ sec. cor., which is
	A trachyte, 12x10x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 89° 45' E., and the distance is 39.80 chs.
	I continue east from a point 18 lks. N. of the ¼ sec. cor. with continuous measurement.
61.50	Drywash, drains NW.; asc. over north slope of E. and W. ridge.
76.25	Trail bears NW. and SE. Top of ridge, bears NW. and SE., desc. gradually through scattering scrub piñon timber.
79.75	Fall 42 lks. S. of the cor. of Ts. 31 and 32 S., Rs. 1 and 2 W., which is
	A trachyte, 10x8x10 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	This cor. was subsequently changed to the cor. of Ts. 32 S., Rs. 1 and 2 W.
	The course of this half mile is therefore N. 89° 8' E., and the distance is 39.95 chs.
	Land, rolling.
	Soil, rocky and gravelly, more than 2 ft. deep.
	Timber, scattering scrub piñon in the extreme eastern portion.
	Undergrowth, short sage and shad scale.
	Poor grazing. Western exposure.
	Walking on line at noon, unable to observe for lat.
	July 2, 1913.
	July 8, 1913: At 9h. a. m., app. t., I set off 38° 10' N. on the lat. arc; 22° 31' N. on the decl. arc, and determine a meridian with the solar at the std. cor.

Chains	
	of secs. 34 and 35, T. 30 S., R. 2 W., which is
	A flint, 8x8x10 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	Thence I run
	East, on retracement along the S. bdy. of sec. 35.
	Asc. gradually over gently rolling bench land, through short sage brush and shad scale undergrowth.
27.50	Old wood road, bears NW. and SE.
27.95	Wash, 10 lks. wide, 2 ft. deep, drains NW.
40.83	Fall 43 lks. S. of the std. ¼ sec. cor., which is
	A flint, 10x6x24 ins. loosely set, mkd. and witnessed as described by the surveyor general. I reset stone firmly in the ground at this point and rebuild mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	The course of this half mile is therefore N. 89° 23' E., and the dist. is 40.83 chs.
	I offset over cor. and run E. on retracement with continuous measurement.
53.00	Start desc. into ravine, bears NE. and SW.
56.00	Wash in bottom of ravine, 10 lks. wide, drains NE., 60 ft. below west edge of ravine.
60.75	Draw, drains NW.; asc. through scattering cedar and piñon timber.
64.50	Old wood-road bears N. and S.
81.24	Fall 28 lks. S. of the std. cor. of secs. 35 and 36, T. 30 S., R. 2 W., which is
	A flint, 10x12x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The bearing of this half mile is therefore N. 89° 36' E., and the dist. is 40.41 chs.
	Land, rolling.
	Soil, rocky and gravelly more than 2 ft. deep.
	Timber, scrub cedar and piñon in the eastern portion.
	Undergrowth, short sage and shad scale.
	Poor grazing. Western exposure.

Chains	
	July 8, 1913: I set off 22° 30' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 10' N. (Obs. at St. cor. secs. 35&36).
	Thence I run
	East, from the cor. of secs. 35 and 36, retracing the Sixth Std. Par. S., along the S. bdy. of sec. 36, T. 30 S., R. 2 W.
	Asc. gradually over rolling land, through scattering cedar and piñon timber.
12.00	Start desc. into cañon, bears N. and S.
18.00	Bottom of cañon, drains NW., 100 ft. below top; asc. over rocky slope.
23.00	Top of slope of cañon, 130 ft. above bottom, bears NW. and SE., asc. gradually.
35.84	The std. ¼ sec. cor., which is
	A trachyte, 10x8x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore East, and the distance is 35.84 chs.
	East on same line with continuous measurement.
	Over mountainous land through dense cedar and piñon timber; asc. gradually.
75.70	The cor. of T. 30 S., R. 2 W., which is
	A trachyte, 10x8x8 ins. above ground, firmly set; mkd. as described by the surveyor general. I find no accessories. I destroy all mks. on cor. except those pertaining to T. 30 S., R. 2 W., and raise a mound of stone, 2 ft. base, 1½ ft. high, NW. of cor. No trees within reasonable distance suitable for bearing trees.
	The bearing of this half mile is therefore East, and the dist. is 39.86 chs.
	Land, rolling mountainous.
	Soil, gravel and rocky, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon, on west 35.84 chs.; balance dense cedar and piñon pine.
	Undergrowth, short sage, shad scale and grass.

Chains. Poor grazing. Western exposure.

July 8, 1913.

Jos. C. Thoma

U. S. Surveyor.

Note: The following retracements were made by E. R. Bunbury, U.S. Transitman, using transit No. 8477.

June 27, 1913: At 9h, a. m., app. t., I set off 38° 10' N. on the lat. arc; 23° 21' N. on the decl. arc, and determine a meridian with the solar, at the std. cor. of secs. 32 and 33, which is

A sandstone, 6x10x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Thence I run

West, retracing the Sixth Standard Parallel South, along the S. bdy. of secs. 32.

Asc. over rolling mountainous land, through sage brush and greasewood undergrowth.

15.00 Spur, projects SE.; desc.

24.00 Draw, drains SE.; asc.

31.70 Spur, projects SE.; desc.

40.06 Fall 33 lks. S. of the std. ¼ sec. cor., which is

A malapai, 10x8x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

The bearing of this half mile is therefore N. 89° 32' W., and the distance is 40.06 chs.

From St. ¼ sec. cor., west with continuous measurement.

44.30 Draw, drains SE.; asc.

71.00 Ridge, bears NW. and SE.; desc. gradually.

80.05 Fall 19 lks. S. of the std. cor. of secs. 31 and 32, which is

A malapai, 12x8x12 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

The course of this half mile is therefore N. 89° 44' W., and the distance is 39.99 chs.

Chains.	
	Land, rolling mountainous.
	Soil, rocky and gravel, more than 2 ft. deep.
	Timber, none.
	Undergrowth, sage brush, greaswwood and shad scale.
	Eastern exposure. Poor grazing.

	West, from the std. cor. of secs. 31 and 32, retracing the Sixth Std. Parallel South, along the S. bdy. of sec. 31.
	Asc. over rolling mountainous land, through sage brush, greasewood and shad scale undergrowth.
39.99	Fall 24 lks. S. of the std. ¼ sec. cor., which is
	A malapai, 8x5x14 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore N. 89° 39' W., and the distance is 39.99 chs.
	Continue my line west with continue measurement; asc. over rolling mountainous land, through scattering scrub cedar and piñon timber.
80.21	Fall 31 lks. S. of the std. cor. for Tp. 30 S., R. 2 W., which is
	A malapai, 8x6x13 ins. above ground, firmly set; mkd. as described by the surveyor general; from which
	A piñon, 8 ins. diam., bears N. 62° 30' E., 46 lks. dist., mkd. T30SR2WS31BT.
	A piñon, 12 ins. diam., bears S. 72° 30' E., 26 lks. dist., mkd. T31SR2WS6BT.
	Land, rolling mountainous.
	Soil, rocky and gravelly, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon in the western portion.
	Undergrowth, sage brush, greasewood and shad scale.
	Poor grazing. Easterm exposure.
	The course of this half mile is therefore N. 89° 54' W., and the dist. is 40.22 chs.
	June 27, 1913: At this cor. I set off 23° 21' N. on the

Chains.	
	decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 10' N.
	June 27, 1913.
	Edward R Bumbury
	U. S. Transitman.

Retracement of subduvisions in T. 31 S., R. 2 W.

September 16, 1915: At 3h, p. m., app. t., I set off 38° 5' N. on the lat. arc; 2° 49' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36, which is

A trachyte, 8x10x8 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. Note: This cor. was subsequently changed for the cor. of two secs.

Thence I run

East, retracing the western half of the line bet. secs. 25 and 36.

Desc. over rolling mountainous land, through short sage brush and bunch grass.

4.90	Draw, drains NE.65 ft. below sec. cor.; asc.
11.10	Low spur, projects N.; desc.
19.90	Draw, drains NW., 30 ft. below spur; asc. Trail from Coyoto to Gleaves ranch, bears NW. and SE.
29.00	Ridge, bears NW. and SE., 90 ft. above draw; desc.
36.40	County road, Coyoto to Winder, bears NW. and SE.,60 ft. below ridge.
38.90	Wash, drains NW., 5 ft. wide, 5 ft. deep.
40.31	Fall 122 lks. S. of the old ¼ sec. cor., which is

A trachyte, 14x10x12 ins. above ground, firmly set; mkd and witnessed as described by the surveyor general.

The true course of this mile is therefore N. 88° 15' E. and the dist. is 40.33 chs.

Land, rolling mountainous.

Soil, course gravel and rocky, more than 2 ft. deep.

Timber, none.

Undergrowth, short sage brush and bunch grass.

Chains.	
	Fair grazing. Northwestern exposure.
	September 16, 1915.

	September 17, 1915: At 3h 30m, p. m., app. t., I set off 38° 6' 30" N. on the lat. arc; 2° 25' N. on the decl. arc; and determine a meridian with the solar, at the old ¼ sec. cor., bet. secs. 23 and 24, which is
	A trachyte, 10x10x12 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	Thence I run
	North, bet. secs. 23 and 24, on retracement.
40.00	Afterdiligent search, I am unable to find evidence of the old cor. of secs. 13, 14, 23 and 24.
	I continue North on retracement bet. secs. 13 and 14, with continuous measurement.
80.00	After diligent search, I am unable to find any evidence of the old ¼ sec. cor., bet. secs. 13 and 14.
120.00	After diligent search, I am unable to find any trace of the old cor. of secs. 11, 12, 13 and 14. At this point I leave temp. point, which I designate "A", to be used in the restoration of the cor. of secs. 11, 12, 13 and 14.

	From the old cor. of secs. 10, 11, 14 and 15, which is
	A trachyte, 12x10x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general,
	I run
	East, bet. secs. 11 and 14.
39.88	After diligent search, I am unable to find any evidence of the old ¼ sec. cor.
79.76	(Record distance) I am unable to find any evidence of the old cor. of secs. 11, 12, 13 and 14, after diligent search. I therefore leave a temporary point, which I desigante "B", to be used in the restoration of the cor. of secs. 11, 12, 13 and 14.
	September 17, 1915.

Chains.	
	September, 18, 1915: At the restored cor. of secs. 12 and 13, on the E. bdy. of the Tp. heretofore described in the subdivisional notes of T. 31 S., R. 1 W., I set off 2° 5' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.
	Thence I run
	West, retracing line bet. secs. 12 and 13.
40.10	After diligent search, I am unable to find any evidence of the old ¼ sec. cor.
80.20	(Record distance) After diligent search, I am unable to find any evidence of the cor. of secs. 11, 12, 13 and 14, leave temp. point, which I designate "C".
	I restore the cor. of secs. 11, 12, 13 and 14, in accordance with the following:
	From point "A", point "B" bears S. 79° 12' W. 3.93 chs. dist.
	From point "A", point "C" bears North 4.32 chs. and West 1.74 chs.
	From point "B", point "C" bears North, 5.06 chs. and East, 2.14 chs.
	I restore the cor. of secs. 11, 12, 13 and 14, at a point 1.84 chs. East, and 2.05 chs. North of point "B".
	Note: I subsequently find a trachyte, 14x8x6 ins. lying loosely on the ground, mkd. with 4 grooves on the S. face, and 1 groove on the E. face, on top of ridge, S. 88° 12' E., 12.33 chs. from the restored cor. of secs. 11, 12, 13 and 14. This apparently is the original stone for the cor., but has been removed from it's original position; as the topography of the country in the vicinity of the restored cor. coincides reasonably close to the topography as returned in the notes of the original survey.
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the restored cor. of secs. 11, 12, 13,

Chains.	
	and 14, with brass cap mkd. T 31 S R 2 W S 11 | S 12 S 14 | S 13 1915
	I set the above described stone along side of post.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the line bet. secs. 12 and 13 is N. 87° 52' E., and the dist. is 80.56 chs. The course of the line bet. secs. 11 and 14 is N. 88° 34' E. and the dist. is 81.62 chs.
	September 18, 1915.
	September 19, 1915: At 9h a. m., app. t., I set off 38° 8' N. on the lat. arc; 1° 45' N. on the decl. arc, and at determine a meridian with the solar, at the restored cor. of secs. 11, 12, 13 and 14.
	Thence I run
	N. 87° 52' E., resurveying the line bet. secs. 12 and 13.
	Desc. over mountainoma land, through short sage brush and shad scale undergrowth.
5.00	Draw, drains SW., 45 ft. below sec. cor.; asc.
14.80	Ridge, bears NE. and SW., 110 ft. above draw; desc.
24.80	Draw, drains SW., 65 ft. below ridge; asc. Enter scattering scrub cedar and pinon timber, bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. sec. 12 with brass cap mkd. ¼ S 12 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.28	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. sec. 13 with brass cap mkd. ¼ S 13 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	No trees within limits suitable for bearing trees.
	Corner established 165 ft. above draw; continue asc.
55.40	Ridge, bears NE. and SW., 160 ft. above ¼ sec. cor.; desc. along S. slope of ridge.
80.56	The cor. of secs. 12 and 13, on the E. bdy. of the Tp.,

Chains. heretofore described.

Land, rolling mountainous.

Soil, gravelly and rocky, more than 2 ft. deep.

Timber, scattering scrub cedar and piñon.

Undergrowth, short sage, shad scale and bunch grass.

Fair grazing. Southwestern exposure.

September 19, 1915.

September 13, 1915: At 2h 30m p. m., app. t., I set off 38° 5' 30" N. on the lat. arc; 3° 58' N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor., bet. secs. 26 and 27, which is

A trachyte, 10x10x12 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Thence I run

South, bet. secs. 26 and 27.

40.00 After diligent search, I am unable to find any evidence of the old cor. for secs. 26, 27, 34 and 35.

Leave a temporary point which I designate "A" to be used in the restoration of the lost or obliterated cor.

From the temporary point I run

West, bet. secs. 27 and 34.

40.00 After diligent search, I am unable to find any evidence of the old ¼ sec. cor.

September 13, 1915.

September 14, 1915: At 8h 30m, a. m., app. t., I set off 38° 4' 30" N. on the lat. arc; 3° 41' N. on the decl. arc, and determine a meridian with the solar, at the old ¼ sec. cor., bet. secs. 34 and 35, which is

A trachyte, 8x8x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Thence I run

North, bet. secs. 34 and 35.

40.00 After diligent search, I am unable to find any evidence of the old cor. of secs. 26, 27, 34 and 35. Leave a

Chains.

a temporary point which I designate "C".

September 14, 1915.

September, 13, 1915.

From the old cor. of secs. 25, 26, 35 and 36, heretofore described, I run

West, bet. secs. 26 and 35.

40.00 After diligent search, I am unable to find any evidence of the old ¼ sec. cor. bet. secs. 26 and 35.

80.00 After diligent search, I am unable to find any evidence of the old cor. of secs. 26, 27, 34 and 35. Leave a temporary point which I designate "B".

From point "A", point "B" bears N. 40° 28' E., 2.55 chs. dist.

From point "A", point "C" bears S. 69° 54' E., 2.62 chs. dist.

From point "B", point "C" bears S. 16° 23' E., 2.96 chs. dist.

I restore the cor. of secs. 26, 27, 34 and 35, 6 lks N. and 1.30 chs. E. of the temp. point "A".

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 26, 27, 34 and 35, with brass cap mkd.

T 31 S, R 2 W	
S 27	S 26
S 34	S 35

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of the line bet. secs. 26 and 35 is therefore N. 88° 40' E., and the dist. is 80.35 chs.

The bearing of the south half mile bet. secs. 26 and 27 is therefore N. 1° 52' W., 39.96 chs. dist.

The bearing of the north half mile bet. secs. 34 and 35 is therefore S. 1° 38' E., and the dist. is 40.98 chs.

September 13, 1915.

Chains	
	September 14, 1915:
	From the cor. of secs. , , 34 and 35, on the S. bdy. of the tp., heretofore described, I run
	North, retracing the line bet. secs. 34 and 35.
	Desc, over mountainous land through short sage brush and shad scale undergrowth.
3.00	Start abrupt desc. into Cañon, bears N. 65° E. and S. 65° W.
25.00	East Fork of Sevier River, 40 lks. wide, 12 ins. deep, water clear, course N. 65° E., continue over level canon bottom.
30.00	Draw, dry, drains E.; start abrupt asc., bears E. and W.
35.00	Top of abrupt asc., bears E. and W., continue over rolling land.
39.96	Fall 1.69 chs. W. of the old ¼ sec. cor., heretofore described.
	The course of this half mile is therefore N. 2° 25' E., and the dist. is 40.00 chs.
	N. 1° 38' W., bet. secs. 34 and 35, from the old ¼ sec. cor.
	Over rolling bench land, through short sage brush and bunch grass.
35.00	Start desc. bears E. and W.
40.00	Bottom of desc., bears E. and W., 75 ft. below beginning of desc. Continue over nearly level bottom land, through dense scrub oak undergrowth.
40.98	The restored cor. of secs. 26, 27, 34 and 35, heretofore described.
	Land, rolling and broken.
	Soil, rocky and gravel on the benches and ridges, alluvial in canon bottom.
	Timber, a few scattered cottonwood in canon along river.
	Undergrowth, short sage and shad scale, willows in the canon along river.
	Fair grazing. Northern exposure.

Chains.	
	West, on resurvey bet. secs. 27 and 34, from restored cor. of secs. 26, 27, 34 and 35.
	Asc. gradually over river bottom land, through dense high sage brush.
5.00	Old wood-road, bears N. and S., leave bottom land; asc. over rolling mountainous land, through scattering scrub cedar and piñon timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the restored ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 27}{S\ 34}$$

1915 from which

A piñon, 10 ins. diam., bears N. 11° E., 12 lks. dist., mkd. ¼S27BT.

A piñon, 14 ins. diam., bears S. 60° 15' W., 22 lks. dist., mkd. ¼S34BT.

Cor. established 210 ft. above sec. cor.
Land, rolling, mountainous.
Soil, rocky and gravel. September 14, 1915.
Timber, scrub cedar and pinon pine. Undergrowth, sagebrush.

September 13, 1915:

N. 1° 52' W., bet. secs. 26 and 27.

Desc. gradually over bottom land, through dense sage brush undergrowth.

9.20	East Fork of the Sevier River, 50 lks. wide, 2 ft. deep, clear water, course NW; asc. Leave dense high sage brush, enter short sage and shad scale. Line crosses river at an old ford.
15.60	Pole and wire fence, bears NE. and SW.
20.00	Leave bottom land, bears E. and W., asc. over rocky ridge.
39.96	The old ¼ sec. cor. bet. secs. 26 and 27, heretofore described.

Thence I run

North, retracing the north half bet. secs. 26 and 27.

Asc. over rolling land, through sage brush and bunch grass.

Chains.	
8.40	Ridge, bears E. and W., 50 ft. above ¼ sec. cor.; desc.
9.10	Road, bears NE. and SW.
20.00	Stake and rider fence, bears E. and W.; leave sage brush undergrowth, enter cultivated land.
38.20	Stake and rider fence, bears E. and W.
40.23	Fall 114 lks. E. of the cor. of secs. 22, 23, 26 and 27, which is
	A granite, 12x10x18 ins., loosely set; mkd. as described by the surveyor general. I reset this stone firmly in the ground and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of this half mile is therefore N. 1° 38' W. and the distance is 40.25 chs.
	September 13, 1915: Cloudy at noon, unable to observe the sun for lat.
	Land, rolling.
	Soil, sandy loam and gravel, 2 ft. deep on rocky subsoil.
	Timber, none.
	Undergrowth, sage brush, shad scale, yellow top and bunch grass.
	Fair grazing. Western exposure.
	September 13, 1915.

	September 15, 1915: At 8h 30m, app. t., I set off 38° 7' N. on the lat. arc; 3° 18' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 14.15, 22 and 23, which is
	A granite, 10x10x7 ins. above ground, firmly set; mkd. as described by the surveyor general.
	Thence I run
	South, retracing the line bet. secs. 22 and 23.
	Desc. gradually over Frank King's cultivated land, along stake and rider fence, bearing N. and S.
40.08	Fall 6 lks. E. of the old ¼ sec. cor., which is
	A granite, 6x6x4 ins. above ground, firmly set; mkd.

Chains.	
	as described by the surveyor general.
	The course of this half mile is therefore S. 0° 5' W., and the distance is 40.08 chs.
	Continue line S. with continuous measurement.
	Stake and rider fence, bears E. and W., leave cultivated land, enter dense cottonwood, willows and high sage brush in Antimomy or Coyoto Creek bottom.
43.60	Irrigation canal, 20 lks. wide, 1 ft. deep, course NW.
52.00	Antimony or Coyoto Creek, 20 lks. wide, 1 ft. deep, clear water, course NW.; asc. gradually.
54.70	Same canal, course NE.
68.10	Leave dense undergrowth, bears E. and W., enter J. M. Riddle's cultivated field.
78.70	Stake and rider fence, bears E. and W.
80.57	Fall 217 lks. W. of the cor. of secs. 22, 23, 26 and 27, heretofore described.
	The course of this half mile is therefore S. 3° 09' E., and the distance is 40.55 chs.
	Land, nearly level and cultivated.
	Soil, dark rich sandy loam, alluvial, more than two ft. deep.
	Timber, cottonwood.
	Undergrowth, sage brush, wild rose and willows. Alfalfa in the cultivated portion.
	Western exposure.

	West, retracing the E. half bet. secs. 22 and 27.
	Desc. gradually over J. M. Riddle's cultivated land.
6.20	Wire fence, bears N. and S.
7.80	Irrigation canal, 15 ft. wide, 2 ft. deep, course N. Leave cultivated land, enter dense willows and wild rose bushed, bears N. and S.
18.90	East Fork of Sevier River, 40 lks. wide, 2 ft. deep, clear water, course N.
24.45	Foot of perpendicular ledge, bears N. and S., leave dense undergrowth.

Chains.	
24.95	Top of ledge, bears N. and S., 95 ft. above river bottom, asc. over rolling mountainous land, through scattering scrub cedar and piñon timber.
40.00	After diligent search, I am unable to find any indication of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the restored ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 22}{S\ 27}$$

1915

from which

A pinon, 12 ins. diam., bears N. 5° 45' W., 30 lks. dist., mkd. ¼S22BT.

A pinon, 10 ins. diam., bears S. 69° E., 71 lks. dist., mkd. ¼S27BT.

Corner established 260 ft. above river bottom.

Land, level and cultivated in the eastern portion. Rolling mountainous in the western portion.

Soil, dark sandy loam, alluvial, more than two ft. deep in the river bottom; rocky and gravel, shallow in the western portion.

Undergrowth, willows and wild rose bushes along river, alfalfa in the cultivated land.

Timber, cottonwood along river.

Western exposure.

September 15, 1915: Walking bet. cors. at noon, unable to observe the sun for lat.

West, retracing the line bet. secs. 15 and 22, from the cor. of secs. 14, 15, 22 and 23.

Desc. gradually over cultivated land.

20.00	Pole fence, bears N. and S.
32.90	Pole fence, bears N. and S.
34.00	East Fork of Sevier River, 40 lks. wide, 1½ ft. deep, water clear, course N. Dense cottonwood and willows

Chains.	along river.
35.00	Leave river bottom land, bears N. and S.; asc. over rolling mountainous land.
40.76	Fall 101 lks. N. of the old ¼ sec. cor., which is
	A trachyte, 10x18x12 ins., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	Corner located on top of spur projecting N., 90 ft. above river.
	The course of this half mile is therefore S. 88° 35' W., and the distance is 40.77 chs.
	Desc. over rolling mountainous land, on same line.
42/70	Draw, drains NE., 20 ft. below ¼ sec. cor.; asc.
64.50	Wood-road, bears NW. and SE.
71.00	Spur projects N., 60 ft. above draw; desc.
75.78	Fall 209 lks. N. of the closing cor. for secs. 21 and 22. Draw, drains NE., 30 ft. below spur; asc.
80.86	Fall 210 lks. N. of the old cor. of secs. 15, 16, 21 and 22, which is
	A trachyte, 16x14x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	This cor. was subsequently changed to stand for the cor. of sec. 15 only.
	The course of this half mile is therefore S. 88° 27' W., and the dist. is 40.11 chs.
	Land, level and cultivated in the eastern portion; rolling mountainous in the western portion.
	Soil, dark sandy loam of medium texture, alluvial and deep in the eastern portion; coarse gravel and rocky in the western portion.
	Timber, scattering scrub cedar and piñon; cottonwood along river.
	Undergrowth, alfalfa in the cultivated protion; dense wild rose and willows along river; sage brush in the western portion.
	Fair grazing. Eastern exposure.

Chains.	September 15, 1915.
	September 19, 1915: At 9h, a. m., app. t., I set off 38° 8' N. on the lat. arc; 1° 45' N. on the decl. arc, and determine a meridian with the solar at the restored cor. of secs. 11, 12, 13 and 14.
	Thence I run
	S. 88° 34' W., resurveying the line bet. secs. 11 and 14.
	Asc. over mountainous land, through sage brush and shad scale undergrowth.
3.00	Spur, projects S., 10 ft. above sec. cor.; desc.
7.00	Draw, drains S., 35 ft. below spur; asc. SE. slope.
31.50	Spur, projects SW., 320 ft. above draw; desc.
40.81	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 11 / S 14 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
41.10	Draw, drains SW., 160 ft. below spur; asc. over rolling mountainous land.
51.00	Spur, projects SW., 140 ft. above ¼ sec. cor.; desc.
81.62	The cor. of secs. 10, 11, 14 and 15.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, very scattering scrub cedar and piñon.
	Undergrowth, sage brush, shad scale and bunch grass.
	Fair grazing. Southwestern exposure.
	September 19, 1915.
	September 20, 1915: At 9h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 1° 22' N. on the decl. arc; and determine a meridian with the solar, at the old ¼ sec. cor. bet. secs. 2 and 11, which is
	A trachyte, 6x6x6 ins. above ground, firmly set; mkd.

Chains.	
	and witnessed as described by the surveyor general.
	Thence I run
	West, retracing the W. half of the line bet. secs. 2 and 11.
	Desc. over rolling mountainous land, through sage brush and bunch grass.
2.90	Draw, drains SW., 40 ft. below cor.; asc.
8.40	Low spur, projects SW.; desc.
23.30	Same draw, drains NW., 100 ft. below spur; continue desc.
40.07	Fall 8 lks. N. of the cor. of secs. 2, 3, 10 and 11, which is
	A trachyte, 12x8x12 ins. above ground, firmly set in md. of stone; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 89° 53' W., and the dist. is 40.07 chs.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, a few scattering scrub cedar and piñon in the eastern portion.
	Undergrowth, short sage brush, shad scale and bunch grass.
	Fair grazing. Western exposure.

	South, retracing the line bet. secs. 10 and 11.
	Desc. gradually over gently rolling bench land, through sage brush, shad scale and yellow top.
8.70	Old wood-road, bears N. 45° W. and S. 45° E.
40.22	The old ¼ sec. cor., which is
	A trachyte, 10x6x8 ins. above ground, firmly set in md. of stone, mkd. and witnessed as described by the surveyor general.
41.90	Old wood-road, bears N. 70° E., and S. 70° W.
55.00	Dry Wash, 2chs. wide, 4 ft. deep, drains W.; asc. gradually.
65.00	Wood-road, bears N. 60° E. and S. 60° W.
66.00	Start asc., bears N. 60° E. and S. 60° W.

Chains.	
73.00	Ridge, bears E. and W., 70 ft. above beginning of asc.; desc.
78.00	Draw, heads approximately 4 chs. NE., drains SW.; 40 ft below ridge; continue desc.
80.32	The cor. of secs. 10, 11, 14 and 15, heretofore described.
	The course of this mile is therefore South, and the distance is 80.32 chs.
	Land, rolling.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, none.
	Undergrowth, sage brush, shad scale, yellow top and bunch grass.
	Fair grazing. Western exposure.
	September 20, 1915.

	July 11, 1913: At 9h a. m., app. t., I set off 38° 9' N., on the lat. arc; 22° 9' N. on the decl. arc, and determine a meridian with the solar at the cor of secs. 2, 3, 10 and 11, heretofore described.
	Thence I run
	North, retracing the line bet. secs. 2 and 3.
	Desc. gradually over rolling bench land, through short sage, shad scale and yellow top.
8.20	Old road, bears NE. and SW.
14.00	Wash, 20 lks. wide, 5 ft. deep, drains W.
14.50	Start asc. over rocky S. slope of spur., bears E. and W.
24.00	Spur, projects W.; desc.
30.25	Wash, 20 lks. wide, 10 ft. deep, drains W.; asc.
40.03	Fall 61 lks. E. of the ¼ sec. cor. which is
	A malapai, 8x8x12 ins. above ground, firmly set; mkd., and witnessed as described by the surveyor general.
	The course of this half mile is therefore N. 0° 52' W., and the distance is 40.03 chs.
	Continue line N. with continuous chaining.
48.00	Ridge, bears E. and W., desc. gradually, along W. slope of ridge.

Chains.	
57.00	Edge of bench land, bears E. and W., desc. gradually.
80.15	Fall 119 lks. W. of the closing cor. for secs. 2 and 3, which is
	A malapai, 6x6x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore N. 2° 34' E., and the distance is 40.16 chs.
	Land, rolling.
	Soil, coarse gravel and rocky.
	Timber, none.
	Undergrowth, short sage brush, shad scale, yellow top and bunch grass.
	Fair grazing. Northwestern exposure.
	July 11, 1913.
	Jas. C. Thoma
	U. S. Surveyor.

	June 24, 1913: AT 9h a. m., app. t., I set off 38° 9' 30" N. on the lat. arc; 23° 26' N. on the decl. arc; and determine a meridian at the closing cor. for secs. 4 and 5, on the Sixth Standard Par. South, which is
	A malapai, 16x10x8 ins., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	Said closing cor. being 2.86 chs. E. of the std. cor. of secs. 32 and 33, heretofore described.
	Thence I run
	South, retracing the line bet. secs. 4 and 5.
	Desc. gradually over rolling foot hills, through sage brush and scattering grass.
7.00	Dry wash, drains E., 10 lks. wide, 2 ft. deep.
16.90	Dry wash, 10 lks. wide, 2 ft. deep, drains E.
25.00	Dry wash, 10 lks. wide, 2 ft. deep, drains NE.
40.29	Fall 84 lks. E. of the ¼ sec. cor., which is
	A granite, 8x8x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Chains	
	The course of this half mile is therefore S. 1° 12' W., and the distance is 40.30 chs.
	Thence I run
	South, from the ¼ sec. cor., retracing the S. half mile bet. secs. 4 and 5.
	Over rolling foot hills, through short sage, shad scale and bunch grass undergrowth.
40.14	Fall 78 lks. W. of the cor. of secs. 4, 5, 8 and 9, which is
	A sandstone, 10x8x12 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 1° 7' E., and the distance is 40.15 chs.
	Land, rolling foothills.
	Soil, rocky and coarse gravel, more than two feet deep.
	Timber, none.
	Undergrowth, short sage, shad scale and bunch grass.
	Fair grazing. Eastern exposure.
	June 24, 1913: At this cor. I set off 23° 26' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 9' N.
	June 24, 1913.
	Edward R. Bunbury
	U. S. Transitman.

	September 8, 1915: At 2h 30m, p. m., app. t., I set off 38° 8' 30" N. on the lat. arc; 5° 52' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 4, 5, 8 and 9, heretofore described.
	Thence I run
	West, retracing the line bet. secs. 5 and 8.
	Asc. over rolling mountainous land, through scattering scrub cedar and piñon timber.
24.80	Spur, projects N., 145 ft. above sec. cor; desc.
40.00	Afterdiligent search, I am unable to fine any trace of the old ¼ sec. cor.

Chains.	
	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the restored ¼ sec. cor., with brass cap mkd.
	¼ S 5 S 8 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Corner established in edge of old wood-road, bears NE. and SW, 60 ft. below spur.
	Land description hereinafter described at the end of the W. half of this mile.
	September 8, 1915. Jos. C. Thoma U. S. Surveyor.

	June 24, 1913:
	South, retracing the line bet. secs. 8 and 9.
	Over rolling foothills, through short sage, shad scale and bunch grass.
40.46	Fall 157 lks. W. of the ¼ sec. cor., which is
	A granite, 12x12x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 2° 13' E., and the distance is 40.49 chs.
	Continue line S. with continuous measurement.
80.72	Fall 2.02 chs. W. of the cor. of secs. 8, 9, 16 and 17, which is
	A sandstone, 10x10x8 ins. above ground, firmly set; mkd. and witnessed as d scribed by the surveyor general.
	The course of this half mile is therefore S. 0° 39' E., and the distance is 40.26 chs.
	Land, rolling foothills.
	Soil, rocky and coarse gravel, more than 2 ft. deep.
	Timber, none.
	Undergrowth, short sage, sgadscale and bunch grass.

Chains	
	Fair grazing. Eastern exposure.
	June 24, 1913.
	Edward R Bumbury
	U. S. Transitman.

	September 9, 1915: At 2h, 30m, p. m., app. t., I set off 38° 8' N. on the lat. arc; 5° 29' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 8, 9, 16 and 17, heretofore described.
	Thence I run
	West, retracing the line bet. secs. 8 and 17.
	Asc. over rolling mountainous land, through scatering scrub cedar and piñon timber.
9.90	Spur, projects N., 60 ft. above sec. cor.; desc.
11.90	Draw, drains N., asc.
18.50	S pur, projects N., 25 ft. above draw; desc.
31.90	Draw, drains NE., asc.
40.00	After diligent search, I am unable to find any evidence of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for the restored ¼ sec. cor. with brass cap mkd.
	¼ S 8 / S 17
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Land description hereinafter described at the end of this mile. September 9, 1915.

	September 10, 1915: At 2h 30m p. m., app. t., I set off 38° 8' N. on the lat. arc; 5° 7' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 8, 9, 16 and 17, heretofore described.
	Thence I run
	South, retracing the line bet. secs. 16 and 17.

Chains.	
	Desc. over rolling foothills, through scattering scrub cedar and piñon timber.
1.50	Ravine, drains E., 10 ft. below cor.; asc.
20.50	Ridge, bears E. and W., 180 ft. above ravine; desc.
40.00	After diligent search, I am unable to find any evidence of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the restored ¼ sec. cor., with brass cap mkd.
	¼ S 17 S 16 1915 from which
	A piñon, 12 ins. diam., bears S. 37° 45' W., 34 lks. dist., mkd. ¼S17BT.
	A cedar, 10 ins. diam., bears S. 54° 15' E., 5 lks. dist., mkd. ¼S16BT.
	Land description hereinafter described at the end of mile.
	September 10, 1915: Not on a meridian at noon, unable to observe the sun for lat.
	September 10, 1915.
	Jos. C. Thoma
	U. S. Surveyor.

	June 25, 1913: At 8h, a. m., app. t., I set off 38° 08' N. on the lat. arc; 23° 26' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence I run
	East, retracing the line bet. secs. 9 and 16.
	Desc. over rolling foothills, through short sage, shad scale and bunch grass.
40.00	After diligent search, I am unable to find any evidence of the old ¼ sec. cor.
79.72	Fall 107 lks. S. of the cor. of secs. 9, 10, 15 and 16, which is
	A granite, 10x6x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this mile is therefore N. 89° 14' E., and the distance is 79.73 chs.

Chains.	
	Land, rolling foothills.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, none.
	Undergrowth, short sage, shad scale and bunch grass.
	Fair geazing. Eastern exposure.
	June 25, 1913: I set off 23° 25' N. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.
	Thence I run
	South, retracing the line bet. secs. 15 and 16.
	Over rolling foot hills, through scattering scrub cedar and piñon timber.
40.19	Fall 33 lks. W. of the ¼ sec. cor., which is
	A granite, 10x10x8 ins. above graound, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 0° 28' E., and the dist. is 40.19 chs.
	Continue line S. with continuous measurement.
80.53	Fall 85 lks. W. of the cor. of secs. 15, 16, 21 and 22.
	The course of this half mile is therefore S. 0° 45' E., and the dist. is 40.34 chs.
	June 25, 1913.
	Edward R. Bunbury
	U. S. Transitman.
	July 3, 1913: I set off 38° 6' N. on the lat. arc; 23° 0' N. on the decl. arc, and at 8 a. m., app. t., determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30, described in book of subdivision of T. 31 S., R. 1 W. Thence I run
	West, retracing the line bet. secs. 24 and 25.
	Desc. gradually through cultivated land, along E. and W. fence.
16.00	Corral, 1 ch. S.
17.00	Orange Warner's house bears S., 2 chs.
19.85	Fence, bears N. and S., continue along E. and W. fence.
20.10	Irrigation ditch, 5 lks. wide, 6 ins. deep, course S.

Chains.	
24.00	End of E. and W. fence, continue across cultivated land.
40.09	Irrigation ditch, 5 lks. wide, 6 ins. deep, course S.
40.12	Fall 8 lks. S. of the ¼ sec. cor., which is
	A granite, 8x4x16 ins., buried in the ground, mkd. ¼ on the N. face. No accessories. Fence, bears N. and S., line runs along fence extending W. Culitvated land to the N., open sagebrush land to the S. of line.
	The course of this half mile is therefore N. 89° 53' W. and the dist. is 40.12 chs. Continue random west.
60.20	Fence, bears N. and S., leave cultivated land to the N., continue over rocky surface.
65.50	Small draw, drains S.
73.50	Start desc. into Coyote Creek bottom land, bears N. 70° W. and S. 70° E.
80.23	Fall 194 lks. N. of the cor. of secs. 23, 24, 25 and 26, which is
	A granite, 12x7x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 87° 07' W., and the dist. is 40.16 chs.
	Land, mostly level cultivated bench land.
	Soil, dark sandy loam and rocky.
	Timber, none.
	Undergrowth, sage brush and greasewood; alfalfa in the cultivated land.
	Southern exposure.
	July 3, 1913: At this cor. I set off 22° 59' N. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 38° 6' N.

	South, retracing line bet. secs. 25 and 26.
	Desc. gradually over cultivated bottom land.
8.50	Leave cultivated land, bears E. and W., enter cottonwood timber.
9.00	Coyote Creek, dry, bed, 20 lks. wide, drains W.; asc.

Chains.	
13.00	Leave bottom land, bears E. and W. start asc.
14.00	Irrigation ditch, 5 lks. wide, 12 ins. deep, course W.
15.30	Ridge, bears E. and W., 100 ft. above bottom land; desc.
17.00	Draw, 10 lks. wide, 3 ft. deep, drains W., 20 ft. below ridge; asc.
34.00	Ridge, bears E. and W., 30 ft. above draw; desc.
40.22	Fall 1.05 chs. W. of the ¼ sec. cor., which is
	A granite, 8x8x10 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 1° 30' E., and the dist. is 40.24 chs.
	Continue line south with continuous measurement.
46.00	Wash, 10 lks. wide, 8 ft. deep, drains W., 70 ft. below ridge; asc.
54.50	Old road bears NE. and SW.
55.00	Road, bears NE. and SW.
80.50	Fall 2.18 chs. W. of the cor. of secs. 25, 26, 35 and 36.
	The course of this half mile is therefore S. 1° 36' E., and the dist. is 40.30 chs.
	Land, rolling.
	Soil, gravelly and rocky more than 2 ft. deep; dark sandy loam in Coyote Creek Bottmm.
	Timber, cotton-wood along Coyote Creek bottom.
	Undergrowth, sagebrush, shad scale and greasewood; alfalfa in cultivated land.
	Western exposure. Fair grazing.

Edward R. Bumbury July 3, 1913.
U.S. Transitman.

Subdivision of T. 31 S., R. 2 W.

September 16, 1915.

From the cor. of secs. 35 and 36, on the S. bdy. of the twp., heretofore described, I run

N. 0° 01' W. on a random line bet. secs. 35 and 36.

Chains.	
40.00	Set temp. ¼ sec. cor.
82.40	Fall 115 lks. S. 88° 40' W., of the cor. of secs. 25, 26, 35 and 36, heretofore described.
	I destroy all mks. on cor. pertaining to secs. 35 and 36, and at point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 35 and 36, with brass cap mkd.

T 31 S R 2 W
S 26 | S 25
S 35 | S 36
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, S of cor. Thence
	S. 0° 1' E., on true line bet. secs. 35 and 36.
	Asc. gradually over rolling foothills, through sagebrush and bunch grass.
4.50	Ridge, bears E. and W., 45 ft. above sec. cor.; desc.
20.80	Draw, drains W., 160 ft. below ridge; asc.
29.30	Spur, projects W., 75 ft. above draw; desc.
41.00	Draw, drains NW., 65 ft. below spur; asc.
41.20	Proportional measurement, Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd.

¼
S 35 | S 36
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Continue asc. over rolling land.
57.40	Ridge, bears E. and W., 165 ft. above ¼ sec. cor.; desc.
69.00	Draw, drains W., 90 ft. below ridge; asc.
82.40	The cor. of secs. 25, 26, 35 and 36, previously described.

Land, rolling mountainous.

Soil, gravel and rocky, more than 2 ft. deep.

Timber, none.

Undergrowth, short sagebrush and bunch grass.

Chains.	
	Fair grazing. Northwestern exposure.
	September 16, 1915: Walking on line bet. points at noon, unable to observe the sun for lat.
	September 16, 1915.

	September 17, 1915.
	From the ¼ sec. cor. bet. secs. 25 and 36, heretofore described
	I run
	East, on true line bet. secs. 25 and 36.
	Desc. over rolling foothills, through sagebrush and bunch grass undergrowth.
31.60	Poison Creek, 2 lks. wide, 4 ins. deep, good water, course NW.; asc.
35.60	Wire fence, bears N. and S.
40.00	Set temp. cor. of secs. 25 and 36. This cor. subsequently set 69 lks. west, making the true distance of this half mile 39.31 chs. See page 21, Book of Boundaries, W. Bdy. T. 31 S., R. 1 W.
	Land, rolling.
	Soil, coarse gravel and rocky, more than 2 ft. deep, on rocky clay subsoil.
	Timber, none.
	Undergrowth, short sagebrush, shad scale and scattering bunch grass.
	Fair grazing.
	Southwestern exposure.
	September 17, 1915.

	September 18, 1915: At 4h, p. m., app. t., I set off 38° 8' N. on the lat. arc; 2° 2' N. on the decl. arc, and determine a meridian with the solar, at the restored cor. of secs. 11, 12, 13 and 14, heretofore described.
	Thence I run
	N. 0° 1' W., bet. secs. 11 and 12.

Chains.	
	Asc. over mountainous land, through scattering sagebrush and grass undergrowth.
15.10	Ridge, bears E. and W., 115 ft. above sec. cor. Enter scattering scrub cedar and pinon timber, bears E. and W.; desc.
24.90	Draw, drains NW., 90 ft. below ridge; leave timber, bears NW. and SE.
30.60	Spur, projects NW.; desc.
36.70	Bottom of desc., bears E. and W., 85 ft. below spur, continue over nearly level land.
39.09	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 11, with brass cap mkd.

$\frac{1}{4}$ S 11 | 1915.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W of cor.

Note: This cor. was subsequently set on September 20, to protect old areas.

40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 12, with brass cap mkd.

$\frac{1}{4}$ | S 12

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

40.20	Wood-road, bears NE. and SW.
48.00	Dry Wash, drains SW.; asc. gradually.
54.50	Wood-road, bears NE. and SW.
55.00	Start asc., bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 1 and 12, with brass cap mkd.

T 31 S R 2 W

S 1.

S 2 | S.12

S 11

1915

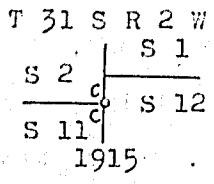
Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Chains.	
	Land, rolling mountainous.
	Soil, coarse sandy gravel and rocky, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, shage brush, shad scale, rabbit brush and bunch grass.
	Fair geazing. Western exposure.
	September 18, 1915.

	September 21, 1915: At 8h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 1° N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 1 and 12.
	Thence I run
	East, on random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.25	Intersect the E. bdy. of the tp., 5 lks. S. of the cor. of secs. 1 and 12, heretofore described.
	Thence
	S. 89° 58' W., on true line bet. secs. 1 and 12.
	Asc. over broken N. slope of Dry Wash cañon, through scattering scrub cedar and piñon timber.
40.12½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 1 / S 12
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Continue along broken N. slope of dry wash.
50.00	Draw, drains SW., 45 ft. below ¼ sec. cor.; asc.
69.90	Wood-road, bears NW. and SE.
74.80	Draw, drains S., 45 ft. below road.
80.25	The cor. of secs. 1 and 12.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.

Chains	
	Timber, scattering scrub cedar and piñon.
	Undergrowth, scrub sage brush, shad scale and bunch grass.
	Fair grazing. Southern exposure.
	Walking on line at noon. unable to observe the sun for lat.
	September 21, 1915.

	September 20, 1915: I set off 1° 18' 30" N. on the decl. arc; and at apparent noon observe the sun on the meridian at the ¼ sec. cor. for secs. 2 and 11, heretofore described, the resulting lat. is 38° 9' N.
	Thence I run
	East, on true line bet. secs. 2 and 11.
	Asc. over mountainous land, through dense scrub cedar and piñon timber, none of which is suitable for bearing trees.
19.80	Ridge, bears NE. and SW., 235 ft. above ¼ sec. cor.; leave timber, desc. over steep rocky slope.
41.39	Intersect the N. and S. line, 1.83 chs. S. 0° 1' E., of the cor. of secs. 1 and 12. At point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 2 and 11, with brass cap mkd.



	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scrub cedar and piñon.
	Undergrowth, short sage brush, shad scale and bunch grass.
	Fair grazing. Northwestern exposure in the western portion, southeastern exposure in the eastern portion.
	September 20, 1915.

Chains. September 22, 1915: At 9h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 35' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 1 and 12.

Thence I run

N. 0° 1' W., on true line bet. secs. 1 and 2, knowing that a closing cor. will benecessary on the Sixth Std. Par. South.

Asc. over mountainous land, through very scattering scrub cedar and pinon timber.

14.70 North edge of dry washcañon, bears E. and W. 210 ft. above sec. cor. Enter dense cedar and piñon timber; desc.

26.60 Draw, drains SW., 30 ft. below edge of cañon; asc.

29.70 Ridge, bears NE. and SW., 15 ft. above draw; desc. gradually over nearly level mountain top.

38.17 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor. for sec. 2, with brass cap mkd.

$\frac{1}{4}$ S 2 | 1915

from which

A piñon, 16 ins. diam., bears S. 78° W., 19 lks. dist., mkd. ¼S2BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees. Leave timber, bears E. and W.; enter short sage brush.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 1, with brass cap mkd.

$\frac{1}{4}$ | S 1

1915

from which

A piñon, 14 ins. diam., bears S. 23° E., 125 lks. dist., mkd. ¼S1BT.

Chains.	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Continue over nearly level open land.
46.50	Leave open land, bears E. and W., enter dense cedar and piñon timber. Desc: gradually.
79.25	Intersect the Sixth Std. Par. South, 254 lks. E. of the std. cor. of secs. 35 and 36, heretofore described.
	At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 1 and 2, with brass cap mkd.

T 30 S R 2 W
S 35 | S 36
S 2 | S 1
T 31 S
1915

from which

A piñon, 14 ins. diam., bears S. 67° 15' E., 64 lks: dist., mkd. T31SR2WS1CCBT.

A piñon, 12 ins. diam., bears S: 17° W., 82 lks. dist., mkd. T31SR2WS2CCBT.

Land, rolling and mountainous.

Soil, coarse gravel and rocky, more than 2 ft. deep.

Timber, cedar and piñon.

Undergrowth, short sage brush, shad scale, yellow top and grass.

Fair grazing. Western exposure.

September 22, 1915: I set off 32' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 10' N.

September 22, 1915.

Jos. C. Thoma

U. S. Surveyor.

July 3, 1913: At 8h, a. m., app. t., I set off 38° 4' N. on the lat. arc; 23° N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 33 and

Chains.	
	and 34, on the S. bdy. of the tp., heretofore described.
	Thence I run
	North, bet. secs. 33 and 34.
	Desc. over rough mountainous land, through cedar and piñon timber, sage brush and scattering grass undergrowt
3.50	Creek, 4 lks. wide, 2 ins. deep, clear water, course NE., creek in ravine 50 ft. below sec. cor.; asc.
22.40	Ridge, bears N. 60° E. and S. 60° W., 240 ft. above creek; desc.
26.30	Ravine heads 5 chs. W., drains E., 65 ft. below ridge; asc.
37.40	Spur, projects E., 185 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. for sec. 33, with brass cap mkd.
	¼ S 33 | 1913 from which
	A pinon, 12 ins. diam., bears S. 13° 45' W., 78 lks. dist., mkd. ¼S33BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance suitable for bearing trees.
40.35	Leave timber, bears E. and W., enter open land.
40.44	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 34, with brass cap mkd.
	| ¼ S 34 1915 from which
	A pinon 8 ins. diam., bears S. 23° E., 56 lks. dist., mkd. ¼S34BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	No other tree within reasonable distance suitable for bearing trees.
	Note: The ¼ sec. cor for sec. 34 was set on September 16, 1915, and the markings on the ¼ sec. cor forsec. 33 was changed as above described, to protect old area in sec. 34

Chains.	
43.75	Leave open land, bears E. and W., enter scattering scrub cedar and piñon timber.
45.30	Ravine heads approximately 6 chs. W., drains E., 85 ft. below spur; asc.
49.40	Spur, projects N. 60° E., 50 ft. above ravine; desc.
56.40	Leave, timber, bears NE. and SW., enter open land.
66.50	Road, bears E. and W.
67.50	Ravine, drains E., 145 ft. below spur; asc. Leave open land, bears E. and W., enter scattering scrub cedar and piñon timber.
77.10	Spur, projects E.; desc., enter dense scrub cedar and piñon timber, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 28 and 33, with brass cap mkd.

T 31 S R 2 W
S 28 | S 33

1913

from which

A cedar, 8 ins. diam., bears N. 51° W., 27 lks. dist., mkd. T31SR2WS28BT.

A cedar, 7 ins. diam., bears S. 58° 30' W., 41 lks. dist., mkd. T31SR2WS33BT.

Note: This cor. was originally marked for four secs., and the markings were subsequently changed to read as above, when the closing cor. was established bet. secs. 27 and 34.

Cor. established 50 ft. below spur.

Land, mountainous.

Soil, coarse gravel and rocky, more than two ft. deep.

Timber, scrub cedar and piñon.

Undergrowth, short sage, shad scale, yellow top and grass.

Fair grazing. Eastern exposure.

July 3, 1913: I set off 22° 59' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the

Chains. resulting lat. is 38° 5' N.

July 3, 1913.

Edward R Bunbury

U. S. Transitman.

September 14, 1915.

From the restored ¼ sec. cor. bet. secs. 27 and 34, heretofore described:

I run

West, on true line bet. secs. 27 and 34.

Asc. over mountainous land, through scattering scrub cedar and pinon timber.

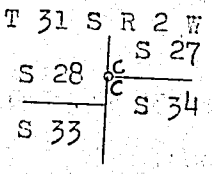
10.70 Old wood-road, bears NW. and SE.

24.90 Begin steep asc., bears NW. and SE., enter dense timber.

36.10 Top of asc., bears NW. and SE., 225 ft. above ¼ sec. cor.; thence along SE. slope of large draw.

40.80 Intersect the N. and S. line, 88 lks. North of the cor. of secs. 27, 28, 33 and 34, established by E. R. Bunbury, U. S. Transitman, on July 3, 1913. I destroy all mks. on the cor. and accessories pertaining to secs. 27 and 34, (see page ~~39~~ 41 (mw 127), this book) and at point of intersection

Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the closing cor. for secs. 27 and 34, with brass cap mkd.



1915 from which

A cedar, 14 ins. diam., bears N. 84° 15' E., 37 lks. dist., mkd. T31SR2WS27BT.

A cedar, 14 ins. diam., bears S. 53° 45' E., 78 lks. dist., mkd. T31SR2WS34BT.

Land, rolling mountainous.

Soil, coarse gravel and rocky, 2 ft. deep on rocky subsoil.

Chains.	
	Timber, cedar and piñon.
	Undergrowth, sage brush, shad scale and bunch grass.
	Fair grazing. Eastern exposure.
	September 14, 1915.
	Jos. C. Thorna
	U. S. Surveyor.

	July 5, 1913: At 8h, a. m., app. t., I set off 38° 5' N. on the lat. arc; 22° 50' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 27, 28, 33, and 34.
	Thence I run
	North, bet. secs. 27 and 28.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, scattering sage brush and grass.
4.50	Ravine, drains E., 95 ft. below sec. cor.; asc.
12.40	Ridge, bears NE. and SW., 135 ft. above ravine; desc.
30.40	Leave dense, enter scattering scrub cedar and piñon timber, bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor. for sec. 28, with brass cap mkd.
	S ¼ 28 | 1913 from which
	A piñon, 6 ins. diam., bears S. 38° W., 58 lks. dist., mkd. ¼S28BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Corner established on NW. slope of ridge, 120 ft. below top; continue desc.
41.05	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor. for sec. 27, with brass cap mkd.

Chains.	
	$\frac{1}{4}$ | S 27 1915 from which A cedar, 18 ins. diam., bears S. 27° E., 52 lks. dist., mkd. $\frac{1}{4}$S27BT. Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor. No other trees within reasonable distance suitable for bearing trees. Note: The $\frac{1}{4}$ sec. cor. for sec. 27 was set on September 13, 1915, and the markings on the $\frac{1}{4}$ sec. cor. for sec. 28 was changed as above described.
47.80	Foot of desc., bears E. and W., 380 ft. below $\frac{1}{2}$ sec. cor. for sec. 28; leave scattering timber, enter rabbit brush and dense willow undergrowth.
55.40	Creek, 4 lks. wide, 3 ins. deep. clear water, course E., 15 ft. below steep desc; asc. gradually. (Forest Creek.)
56.60	Start steep asc., bears E. and W., 15 ft. above creek; through scattering scrub cedar and piñon timber, sage brush and grass undergrowth.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 21 and 28, with brass cap mkd. T 31 S R 2 W S 21 | S 28 1913 from which A piñon, 12 ins. diam., bears S. 30° 30' W., 28 lks. dist., mkd. T31SR2WS28BT. Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. No other trees within reasonable distance suitable for bearing trees. Corner established 290 ft. above foot of steep asc. Note: This cor. was originally marked for four secs., and the markings were subsequently changed to read as above, when the closing cor. was established for secs. 22 and 27.

Chains.	
	Land, mountainous.
	Soil, light coarse gravel and rocky, on rocky subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sage brush, rabbit brush and grass. Willows along Forrest Creek.
	Good grazing. Eastern exposure.
	July 5, 1913: At this cor. I set off 22° 49' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 6' N.
	July 5, 1913.
	Edward R. Bunbury
	U. S. Transitman.

	September 15, 1915:
	From the restored ¼ sec. cor. for secs. 22 and 27, I run West, on true line bet. secs. 22 and 27.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber.
18.80	Ridge, bears N. and S., 195 ft. above ¼ sec. cor.; desc.
24.70	Draw, drains SE., 60 ft. below ridge; asc.
32.60	Ridge, bears N. and S., 40 ft. above draw; desc.
35.50	Draw, drains S., 65 ft. below ridge; asc.
38.00	Intersect the N. and S. line, 1.21 chs. N. of the cor. of secs. 21, 22, 27 and 28, established by E. R. Bunbury, U. S. Transitman, on July 5, 1913. I destroy all mks. on the cor. and accessories pertaining to secs. 27 and 22, (see page 44, (now 150) this book) and at point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 22 and 27, with brass cap mkd.
	T 31 S R 2 W S 22 S 21 C C S 27 S 28
	1915 from which

Chains	
	A piñon, 10 ins. diam., bears N. 82° 30' E.; 72 lks. dist., mkd. T31SR2WS22BT.
	A piñon, 12 ins. diam., bears S. 42° 45' E., 125 lks. dist., mkd. T31SR2WS27BT.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scrub cedar and piñon.
	Undergrowth, sage brush and bunch grass.
	Fair grazing. Eastern exposure.
	September 15, 1915.
	Jas. C. Thoma
	U. S. Surveyor.

	July 5, 1913:
	From the cor. of secs. 21, 22, 27, and 28, I run North, bet. secs. 21 and 22.
	Desc. over mountainous land, through scattering cedar and piñon timber, sage brush and scattering grass undergrowth.
2.30	Ravine, heads 4 chs. W., drains E., 15 ft. below sec. cor.
13.00	Ridge, bears E. and W., 100 ft. above ravine; desc.
25.00	Ravine, drains N. 60° E., 240 ft. below ridge; asc.
37.00	Spur, projects S. 65° E., 185 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 21, with brass cap mkd.
	S ¼ 21 | 1913 from which
	A pinon, 5 ins. diam., bears N. 56° W., 107 lks. dist., mkd. ¼S21BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance, suitable for bearing trees.
	Corner established 60 ft. below spur.

Chains.	
40.41	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., for sec. 22, with brass cap mkd.
	¼ | S. 22
	1915 from which
	A pinon, 12 ins. diam., bears N. 2° 30' E., 93 lks. dist., mkd. ¼S22BT.
	No other trees within reasonable distance suitable for bearing trees.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Note: The ¼ sec. cor. for sec. 22 was set on September 11, 1915, at which time the markings on the ¼ sec. cor. for sec. 21 were changed as above described.
43.00	Ravine, heads 3 chs. W., drains E., 60 ft. below ¼ sec. cor. for sec. 21; asc.
49.50	Spur, projects E., 125 ft. above ravine; desc.
59.40	Ravine, drains NE., 200 ft. below spur; asc.
67.00	Spur, projects NE., 90 ft. above ravine; desc.
79.61	Intersect the S. bdy. Sec. 15, 5.09 chs. N. 88° 27' E. of the old cor. of secs. 15, 16, 21 and 22. I destroy all mks. on the old cor. pertaining to secs. 21 and 22, and at point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 21 and 22, with brass cap mkd.
	T 31 S R 2 W S 15 S 21 | S 22 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Corner established 55 ft. below spur.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, short sage, yellow top and scattering grass.
	Fair grazing. Eastern exposure.
	July 5, 1913.

Chains.

Edward R. Bunbury

U. S. Transitman.

July 3, 1913: For a. m. observation see S. bdy. Tp.

At the cor. of secs. 32 and 33, on the S. bdy. of the tp., heretofore described, I set off 22° 59' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 4' N.

Thence I run

N. 0° 1' W., bet. secs. 32 and 33.

Desc. over mountainous land, through scattering scrub cedar and piñon timber, sage brush and scattering grass undergrowth.

17.40 Ravine, drains E., 240 ft. below sec. cor.; asc.

24.00 Spur, projects E., 6 chs., 130 ft. above ravine; desc.

31.40 Ravine, drains S. 30° E., 45 ft. below spur; asc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S ¼ 32	S 33
1913	

from which

A piñon, 10 ins. diam., bears S. 62° 30' W., 20 lks. dist., mkd. ¼S32BT.

A cedar, 5 ins. diam., bears N. 41° 45' E., 6 lks. dist., mkd. ¼S33BT.

Corner established on top of spur projecting E., 90 ft. above ravine; desc.

48.60 Ravine, drains E., 140 ft. below spur; asc.

57.00 Spur, projects E. 6 chs., 90 ft. above ravine; desc.

59.60 Ravine, heads 4 chs. W., drains E., 60 ft. below spur; asc.

66.00 Ridge, bears E. and W., 75 ft. above ravine; desc.

72.00 Head of ravine, drains E., 85 ft. below ridge; desc.

78.00 Spur, projects E., 55 ft. above head of ravine; desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 28, 29, 32 and 33,

Chains.	
	with brass cap mkd.
	T 31 S R 2 W S 29 | S 28 S 32 | S 33 1913 from which
	A piñon, 7 ins. diam., bears N. 33° W., 62 lks. dist., mkd. T31SR2WS29BT.
	A piñon, 6 ins. diam., bears N. 56° 45' E., 30 lks. dist., mkd. T31SR2WS28BT.
	A piñon, 5 ins. diam., bears S. 58° 15' E., 35 lks. dist., mkd. T31SR2WS33BT.
	A piñon, 6 ins. diam., bears S. 17° 30' W., 42 lks. dist., mkd. T31SR2WS32BT.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than two feet deep.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sage brush and scattering grass.
	Good grazing. Eastern exposure.
	July 3, 1913.

	July 5, 1913: At 8h, a. m., app. t., I set off 38° 5' N. on the lat. arc; 22° 50' N. on the d.cl. arc, and determine a meridian with the solar, at the cor. of secs. 28, 29, 32 and 33.
	Thence I run
	East, on random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
79.66	Intersect the N. and S. line, 10 lks. N. of the cor. of secs. 27, 28, 33, and 34.
	Thence
	N. 89° 56' W., on true line bet. secs. 28 and 33.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, scattering undergrowth of sage brush and grass.
28.60	Ravine, drains N. 75° E., 60 ft. below sec. cor.; asc.
35.70	Spur, projects NE., 95 ft. above ravine; decs.

Chains.	
39.83	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd. $\frac{\frac{1}{4}\ S\ 28}{S\ 33}$ 1913 from which
	A cedar, 14 ins. diam., bears N. 56° W., 68 lks. dist., mkd. ¼S28BT.
	A cedar, 8 ins. diam., bears S. 73° W., 80 lks. dist., mkd. ¼S33BT.
	Corner established 10 ft. below top of spur; continue desc.
56.30	Point of spur and ravine, drains N. 35° E., 50 ft. below ¼ sec. cor.; asc.
79.66	The cor. of secs. 28, 29, 32 and 33, 330 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scrub cedar and piñon.
	Undergrowth, sage brush and scattering grass.
	Good grazing. Eastern exposure.
	July 5, 1913: AT apparent noon, I set off 22° 49' N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 38° 5' N.

	Thence I run
	N. 0° 1' W., bet. secs. 28 and 29.
	Desc. over mountainous land, through dense cedar and piñon timber, scattering undergrowth of sage brush and grass.
11.30	Ravine, drains E., 110 ft. below sec. cor.; asc.
21.00	Spur, projects N. 75° E., 95 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd. $\frac{\frac{1}{4}\ S\ 29}{S\ 28}$ 1913 from which

Chains.	
	A red cedar, 6 ins. diam., bears N. 61° 30' E., 10 lks. dist., mkd. ¼S28BT.
	A yellow pine, 10 ins. diam., bears S. 10° 15' W., 28 lks. dist., mkd. ¼S29BT.
	Corner established 5 ft. above bottom of ravine on the S. side of same.
40.20	Ravine, drains N. 70° E., 255 ft. below spur; asc.
49.00	Leave timber, bears E. and W., enter open land.
55.00	Spur, projects SE., 385 ft. above ravine; desc.
66.30	Ravine, drains E., 75 ft. below spur; asc.
79.00	Ridge, bears NW. and E., 130 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 20, 21, 28 and 29, with brass cap mkd.

T 31 S R 2 W

S 20	S 21
S 29	S 28

1913

Raise a mound of stone, 2½ ft. base, 2 ft. high, W of cor.

Corner established 5 ft. below top of ridge.

Land, mountainous.

Soil, coarse gravel and rocky, more than 2 ft. deep.

Timber, scrub cedar and piñon.

Undergrowth, sage brush and grass.

Good grazing. Eastern exposure.

July 5, 1913.

Jos. C. Thoma

U. S. Surveyor.

July 5, 1913:

From the cor. of secs. 20, 21, 28 and 29, I run S. 89° 56' E., on a random line bet. secs. 21 and 28.

40.00	Set temp. ¼ sec. cor.
79.72	Intersect the N. and S. line, 8 lks. N. of the cor. of secs. 21, 22, 27, and 28.

Thence

Chains	
	N. 89° 53' W., on true line bet. secs. 21 and 28.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sage brush and scattering grass undergrowth.
3.70	Spur, projects S., 15 ft. above cor; desc.
9.10	Ravine, drains SE; heads 4 chs. NW., 20 ft. below spur; asc.
27.70	Ridge, bears NE. and SW., 395 ft. above ravine; desc.
39.86	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 21}{S\ 28}$$

1913

from which

A piñon, 5 ins. diam., bears N. 14° 15' E., 28 lks. dist., mkd. ¼S21BT.

A piñon, 6 ins. diam., bears S. 80° 15' E., 172 lks. dist., mkd. ¼S28BT.

	Corner established 40 ft. below ridge; asc.
69.70	Leave scattering scrub cedar and piñon timber, bears NW. and S.; enter open land.
79.72	The cor. of secs. 20, 21, 28 and 29, 130 ft. above ¼ sec. cor.

Land, mountainous.

Soil, coarse gravel and rocky, more than 2 ft. deep.

Timber, scattering scrub cedar and piñon.

Undergrowth, sage brush and scattering grass.

Good grazing. Eastern exposure.

July 5, 1913.

July 7, 1913: At 7h 30m, a. m., app. t., I set off 38° 6' N. on the lat. arc; 22° 39' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 20, 21, 28 and 29.

Thence I run

N. 0° 1' W., bet. secs. 20 and 21.

Chains.	
	Asc. over mountainous land, through a medium growth of sage brush and scattering grass.
4.00	Enter scattering scrub cedar and piñon timber, bears E. and W.
11.00	Top of asc., bears E. and W., 35 ft. above sec. cor.;desc.
23.00	Draw, drains E., 130 ft. below top of asc.; asc.
24.50	Wood-road, bears NE. and SW.
26.00	Ridge, bears E. and W., 30 ft. above draw; desc.
39.10	Ravine, drains N. 75° E., heads 8 chs. W., 80 ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼
S 20 | S 21
1913

from which

A piñon, 10 ins. diam., bears S. 51° 15' E., 113 lks. dist., mkd. ¼S21BT.

A piñon, 10 ins. diam., bears N. 84° W., 244 lks. dist., mkd. ¼S20BT.

Corner established on S. slope of spur, 25 ft. above ravine.

56.00	Ridge, bears E. and SW., 190 ft. above ravine; desc.
57.50	Leave scattering timber, bears NE. and W.
77.40	Pole Cañon, Creek, 5 lks. wide, 5 ins. deep, clear water, course E., 550 ft. below ridge; asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 20 and 21, with brass cap mkd.

T 31 S R 2 W
S 20 | S 21
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Corner established on N. side of cañon, 85 ft. above bottom.

Note: This corner was originally marked for the cor. of four secs. and the markings changed to read as above described at the time of the establishment of the clos-

Chains. ing cor. for secs. 16 and 17.

Land, mountainous.

Soil, coarse gravel and rocky, 12 ins. deep, with rocky subsoil and bed rock close to surface.

Timber, scattering scrub cedar and piñon.

Undergrowth, sage brush and scattering grass.

Good grazing. Eastern exposure.

July 7, 1913.

Edward R. Bumbery

U. S. Transitman.

September 11, 1915: At 8h 30m, a. m., app. t., I set off 38° 8' N. on the lat. arc; 4° 50' N. on the decl. arc and determine a meridian with the solar, at the restored ¼ sec. cor. bet. secs. 16 and 17. Thence

South, on true line bet. secs. 16 and 17, from the restored ¼ sec. cor. bet. secs. 16 and 17, heretofore described.

Desc. over mountainous land, through very scattering scrub cedar and piñon timber, undergrowth of sage brush and scattering grass.

.20 Ravine, drains E.; asc.

28.70 Ridge, bears NE. and SW., 175 ft. above ravine; desc.

38.81 Intersect the N. bdy. sec. 20, 5.88 chs., N. 89° 50' W. of the cor. of secs. 20 and 21. (see note on page 53, (now 109) this book). At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the the closing cor. for secs. 16 and 17, with brass cap mkd.

T 31 S R 2 W
S 17 | S 16
S 20 | S 21
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

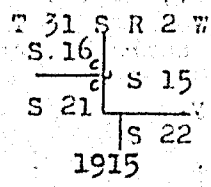
Land, mountainous.

Soil, coarse grocky gravel, shallow, on rocky subsoil.

Timber, very scattering scrub cedar and piñon.

Chains.	
	Undergrowth, sage brush and scattering grass.
	Good grazing. Eastern exposure.

	Thence I run
	East, on a random line bet. secs. 16 and 21, from the cor. of secs. 20 and 21, for distance, knowing that a closing cor. will be necessary on the W. bdy. of sec. 15.
40.00	Set temp. ¼ sec. cor.
74.75	Intersect the W. bdy. Sec. 15, 66 lks. N. 0° 45' W. of SW cor. of sec. 15.
	At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 16 and 21, with brass cap mkd.



	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	September 11, 1915: I set off 4° 46' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 7' N.
	Thence
	West, on true line bet. secs. 16 and 21.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sage brush and scattering grass undergrowth.
11.10	Wood-road, bears NE. and SW., on spur projecting NE., 105 ft. above cor.; desc.
19.70	Ravine, drains NE., 90 ft. below spur; asc.
29.70	Ridge, bears NE. and SW., 180 ft. above ravine; desc.
34.83	Proportionate point for the ¼ sec. cor. for sec. 21.
	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor. for sec. 21, with brass cap mkd.

Chains.	
	$\frac{1}{4}$
	S 21 1915
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
40.31	Proportionate point for $\frac{1}{4}$ sec. cor. for sec. 16.
	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the $\frac{1}{4}$ sec. cor. for sec. 16, with brass cap mkd.
	$\frac{1}{4}$ S 16 1915
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
42.00	Spur, projects N., 30 ft. above ravine; desc.
47.70	Ravine, drains NE., 100 ft. below spur; asc.
54.20	Spur, projects NE., 90 ft. above ravine; desc.
69.00	Bottom of desc., bears NE. and SW., 190 ft. below spur; desc. gradually.
71.00	Pole Cañon, Creek, 5 lks. wide, 5 ins. deep, water clear, course NE.; asc. gradually.
74.00	Foot of ledge on N. side of Pole Cañon, bears NE. and SW.; asc. abruptly.
74.75	The cor. of secs. 20 and 21.
	Land, mountainous.
	Soil, coarse gravel and stony, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon, cottonwood in Pole Cañon.
	Undergrowth, sage brush and scattering grass.
	Good grazing. Northeastern exposure.
	September 11, 1915.
	Jos. C. Thoma U. S. Surveyor.

July 8, 1913: At 9h. a. m., app. t., I set off 38° 4' N. on the lat. arc; 22° 31' N. on the decl. arc; and determine a meridian with the solar, at the cor. of

Chains	
	secs. 31 and 32 on the S. bdy. of the Tp., heretofore described.
	Thence I run
	N. 0° 1' W., bet. secs. 31 and 32.
	Asc. over mountainous land, through dense cedar and piñon timber, scattering undergrowth of sagebrush and grass.
9.00	Ridge, bears E. and W., 300 ft. above sec. cor.; desc.
27.00	Ravine, drains N. 80° E., 145 ft. below ridge; asc.
34.70	Wood-road, bears N. 75° E. and S. 75° W.
35.50	Ridge, bears N. 75° E. and S. 75° W., 80 ft. above ravine; desc.
36.00	Leave dense, enter scattering scrub cedar and piñon timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼
S 31 | S 32
1913 from which

A piñon, 5 ins. diam., bears S. 69° W., 123 lks. dist., mkd. ¼S31BT.

A piñon, 5 ins. diam., bears S. 10° E., 112 lks. dist., mkd. ¼S32BT.

	Corner established 55 ft. below ridge; continue desc.
50.70	Ravine, drains NE., 125 ft. below ¼ sec. cor.; asc.
56.00	Spur, projects E., 45 ft. above ravine; desc.
63.10	Ravine, drains N. 80° E., 65 ft. below spur; asc.
73.00	Ridge, bears N. 80° E. and S. 80° W., 105 ft. above ravine, enter dense cedar and piñon timber, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 29, 30, 31 and 32, with brass cap mkd.

T 31 S R 2 W
S 30 | S 29
S 31 | S 32
1913 from which

A cedar, 10 ins. diam., bears N. 46° 15' E., 24 lks. dist., mkd. T31SR2WS29BT.

Chains	
	A piñon, 6 ins. diam., bears N. 44° 30' W., 45 lks. dist., mkd. T31SR2WS30BT.
	A cedar, 10 ins. diam., bears S. 46° W., 33 lks. dist., mkd. T31SR2WS31BT.
	A cedar, 20 ins. diam., bears S. 60° 30' E., 33 lks. dist., mkd. T31SR2WS32BT.
	Land, mountainous.
	Soil, fine light gravel and stony, 2 ft. deep on hard gravel cement subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and scattering grass.
	Good grazing. Eastern exposure.
	July 8, 1913.
	July 9, 1913: At 7h 30m, a. m., app. t., I set off 38° 5' N. on the lat. arc; 22° 25' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 29, 30, 31 and 32.
	Thence I run
	East, on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
79.78	Intersect the N. and S. line, 4 lks. S. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	S. 89° 58' W., on true line bet. secs. 29 and 32.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, scattering sagebrush and grass undergrowth.
7.80	Ravine, drains NE., 55 ft. below sec. cor.; asc.
33.30	Spur, projects N., 320 ft. above ravine; desc.
37.80	Ravine, drains N. 80° E., 80 ft. below spur; asc.
39.89	Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

¼
S 29
S 32
1913

Chains	
	from which
	A cedar, 14 ins. diam., bears N. 54° 30' E., 60 lks. dist., mkd. ¼S29BT.
	A piñon, 10 ins. diam., bears S. 80° E., 46 lks. dist., mkd. ¼S32BT.
	Corner established 80 ft. above ravine; continue asc.
41.30	Leave dense, enter scattering scrub cedar and piñon timber; bears N. and SW.
56.30	Ridge, bears NE. and SW., 55 ft. above ¼ sec. cor.; leave scattering, enter dense cedar and piñon timber, bears NE. and S.
79.78	The cor. of secs. 29, 30, 31 and 32; 80 ft. below ridge.
	Land, mountainous.
	Soil, coarse gravel and rocky; shallow with rock close to the surface.
	Timber, scrub cedar and piñon.
	Undergrowth, scattering sagebrush and grass.
	Good grazing. Eastern exposure.
	July 9, 1913: I set off 22° 23' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 5' N.
	July 9, 1913.

	July 11, 1913: At 7h 30m, a. m., app. t., I set off 38° 5' N. on the lat. arc; 22° 10' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 29, 30, 31 and 32.
	Thence I run
	West, on random line bet. secs. 30 and 31.
40.00	Set temp. ¼ sec. cor.
90.88	Intersect the W. bdy. of the Tp., 18 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence
	S. 89° 53' E., on true line bet. secs. 30 and 31.
	Asc. over mountainous land, through scattering scrub cedar and pinon timber, scattering sage brush and grass.

Chains.	
16.20	Ridge, bears N. 70° E. and S. 70° W., 90 ft. above sec. cor.; desc.
34.90	Foot of desc., bears N. 70° E. and S. 70° W., 260 ft. below ridge; desc. gradually. Enter cottonwood timber.
37.80	Forest Creek, 4 lks. wide, 2 ins. deep, clear water, course N. 70° E.; asc. gradually.
41.10	Start steep asc., bears N. 70° E. and S. 70° W., leave cottonwood timber.
50.88	Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	$\frac{\frac{1}{4}\ S\ 30}{S\ 31}$
	1913 from which
	A cedar, 7 ins. diam., bears N. 15° E., 10 lks. dist., mkd. ¼S30BT.
	A piñon, 20 ins. diam., bears S. 38° 15' E., 17 lks. dist., mkd. ¼S31BT.
	Corner established 115 ft. above beginning of steep asc.
69.90	Enter dense scrub cedar and piñon timber, bears N. and S. 75° W.
71.60	Spur, projects N., 205 ft. above ¼ sec. cor.; desc.
76.80	Ravine, heads 4 chs. S., drains N., 130 ft. below spur; asc.
90.88	The cor. of secs. 29, 30, 31 and 32, 135 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, shallow, with bed rock close to surface.
	Timber, scrub cedar and piñon; cottonwood along Forest Creek.
	Undergrowth, sage brush and grass.
	Good grazing. Eastern exposure.
	July 11, 1913: Walking bet. cors. at noon, unable to observe the sun for lat.
	July 11, 1913.

Chains.	
	July 9, 1913:
	From the cor. of secs. 29, 30, 31 and 32, I run
	N. 0° 1' W., bet. secs. 29 and 30.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.
22.00	Leave dense, enter scattering scrub cedar and piñon timber, bears E. and W.
23.80	Bottom of desc., bears E. and W., 425 ft. below sec. cor. Enter scattering yellow pine and cottonwood timber.
26.50	Forest Creek, 7 lks. wide, 2 ft. deep, clear water, course E.
28.50	Start steep asc., bears E. and W. Leave scattering yellow pine and cottonwood timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 30 | S 29
	1913 from which
	A piñon, 10 ins. diam., bears S. 70° E., 42 lks. dist., mkd. ¼S29BT.
	A piñon, 10 ins. diam., bears S. 20° W., 39 lks. dist., mkd. ¼S30BT.
	Corner established on south side of spur.
42.00	Spur, projects S. 60° E., 30 ft. above ¼ sec. cor; desc.
44.90	Ravine, drains SE., heads 3 chs. west, 50 ft. below spur; asc.
52.00	Spur, projects E., 130 ft. above ravine; desc.
57.10	Ravine, heads 5 chs. W., drains S. 60° E., 90 ft. below spur; asc.
65.50	Wood-road, bears E. and S. 80° W., also ridge, bears E. and S. 80° W., 100 ft. above ravine; desc.
75.00	Ravine, drains E., 140 ft. below ridge; asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 19, 20, 29 and 30, with brass cap mkd.

Chains	
	T 31 S R 2 W S 19 | S 20 S 30 | S 29
	1913 from which
	A cedar, 10 ins. diam., bears N. 64° 30' E., 65 lks. dist., mkd. T31SR2WS20BT.
	A piñon, 7 ins. diam., bears N. 12° W., 50 lks. dist., mkd. T31SR2WS19BT.
	A cedar, 20 ins. diam., bears S. 68° 30' W., 110 lks. dist., mkd. T31SR2WS30BT.
	A piñon, 10 ins. diam., bears S. 36° 15' E., 214 lks. dist., mkd. T31SR2WS29BT.
	Corner established 75 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, 10 ins. deep, on rocky subsoil.
	Timber, scattering and dense scrub cedar and piñon; scattering yellow pine and cottonwood along Forest Creek
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.

	Thence I run
	N. 89° 58' E., on random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
79.82	Intersect the N. and S. line, 12 lks. N. of the cor. of secs. 20, 21, 28 and 29.
	Thence
	N. 89° 57' W., on true line bet. secs. 20 and 29.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergroth
16.00	Wood-road, bears N. 75° E. and S. 75° W.
17.30	Ridge, bears E. and S. 75° W., 305 ft. above sec. cor.; desc.
24.30	Ravine, drains NE., 65 ft. below ridge; asc.
32.80	Spur, projects NE., 90 ft. above ravine; desc.
39.91	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains.	
	the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 20 / S 29
	1913 from which
	A piñon, 8 ins. diam., bears N. 17° 45' E.,
	16 lks. dist., mkd. ¼S20BT.
	A piñon, 7 ins. diam., bears S. 19° W.,
	14 lks. dist., mkd. ¼S29BT.
	Corner established 15 ft. below spur; continue desc.
43.60	Ravine, drains N. 65° E., 10 ft. below ¼ sec. cor.; asc.
53.30	Spur, projects NE., 120 ft. above ravine; desc.
64.50	Ravine, drains NE., 130 ft. below spur; asc.
79.82	The cor. of secs. 19, 20, 29 and 30, 195 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 9, 1913.

	July 14, 1913: At 8h, a. m., app. t., I set off 38° 6' N. on the lat. arc; 21° 44' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 19, 20, 29 and 30.
	Thence I run
	N. 89° 53' W., on a random line bet. secs. 19 and 30.
40.00	Set temp. ¼ sec. cor.
91.14	Intersect the W. bdy. of the Tp., 18 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence
	East, on true line bet. secs. 19 and 30.
	Desc. over S. slope or ridge, rocky and rugged, through scattering scrub cedar and piñon timber.
46.90	Bottom of desc., bears N. 80° E. and S. 80° W., enter dense timber.
51.14	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains.	
	the ground for the ¼ sec. cor., with brass cap mkd.
	¼ / S 19 / S 30 / 1913 from which
	A cottonwood, 10 ins. diam., bears N. 3° W., 95 lks. dist., mkd. ¼S19BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance, suitable for bearing trees.
	Corner established in Pole Creek Cañon. Enter dense undergrowth.
52.00	Creek in S. Fork of Pole Cañon, 4 lks. wide, 2½ ins. deep, clear water, course N. 80° E. Leave dense cottonwood timber, birch and rabbitbrush undergrowth.
53.00	Start steep asc., bears N. 80° E. and S. 80° W.
73.10	Cabin, bears N. 47° 25' W. Portal of tunnel bears N. 45° 15' W.
90.10	Same cabin bears N. 70° 25' W. Same portal of tunnel bear N. 63° 50' W.
91.14	The cor. of secs. 19, 20, 29 and 30, 480 ft. above ¼ sec. cor.
	Land, mountainous and broken cañon.
	Soil, coarse gravel and rocky on the slopes; dark sandy loam, alluvial, in the canon bottom.
	Timber, cedar and piñon, cottonwood in cañon.
	Undergrowth, sage brush and grass; birch, willows and yellow top in cañon.
	Good grazing. Eastern exposure.
	July 14, 1913: I set off 21° 42' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 6' N.

	Thence I run
	N. 0° 1' W., bet. secs. 19 and 20.
	Desc. over mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth.

Chains.	
.75	Start abrupt desc. into Pole Cañon, bears NE. and SW.
21.00	Foot of steep desc., bears NE. and SW.; desc. gradually.
29.50	South Fork of Pole Creek, 2½ lks. wide, 2 ins. deep, clear water, course NE., 700 ft. below sec. cor.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 19 | S 20
1913 from which

A cedar, 8 ins. diam., bears S. 18° 15' W., 150 lks. dist., mkd. ¼S19BT.

A cedar, 6 ins. diam., bears S. 60° E., 138 lks. dist., mkd. ¼S20BT.

Corner established 60 ft. above Pole Creek; continue asc.

44.50	Spur, projects N. 10° E., 20 ft. above ¼ sec. cor.; desc.
61.90	North Fork of Pole Creek, 4 lks. wide, 2 ins. deep, water clear, course S. 70° E., 505 ft. below spur; asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 17, 18, 19 and 20, with brass cap mkd.

T 31 S R 2 W
S 18 | S 17
S 19 | S 20
1913 from which

A piñon, 10 ins. diam., bears N. 6° 45' E., 218 lks. dist., mkd. T31SR2WS17BT.

A piñon, 8 ins. diam., bears N. 41° 15' W., 150 lks. dist., mkd. T31SR2WS18BT.

A piñon, 10 ins. diam., bears S. 24° 15' E., 174 lks. dist., mkd. T31SR2WS20BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance, suitable for bearing trees.

Corner on ridge 120 ft. above North fork of Pole Creek.

Land, mountainous.

Soil, coarse gravel and rocky, more than 2 ft. deep.

Chains.	
	Timber, scrub cedar and piñon.
	Undergrowth, sage brush and grass.
	Good grazing. Eastern exposure.
	July 14, 1913.
	July 15, 1913: At 8h, a. m., app. t., I set off 38° 7' N. on the lat. arc; 21° 35' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	S. 89° 57' E. on random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect the N. and S. line, 16 lks. N. of the cor. of secs. 16, 17, 20, and 21.
	Thence
	N. 89° 50' W., on true line bet. secs. 17 and 20.
	Asc. over mountainous land, through sage brush and grass, along S. slope of ridge.
5.88	The closing cor. for secs. 16 and 17. (see page 52, this book).
15.40	Enter scattering scrub cedar and piñon timber, bears N. and S.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 20, with brass cap mkd.
	¼ / S 20 / 1913 from which
	A cedar, 6 ins. diam., bears S. 87° 30' E., 86 lks. dist., mkd. ¼S20BT.
	Raise a mound of stone, 2 ft. base, 1½ft. high, S. of cor.
	No other trees within reasonable distance suitable for bearing trees.
41.90	Ridge, bears N. 75° E., and S. 75° W., 285 ft. above sec. cor.

Chains.	
45.88	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. sec. 17 with brass cap mkd.
	¼ S 17 1915
	from which
	A piñon, 12 ins. diam., bears N. 89° 59' E., 144 lks. dist., mkd. ¼S17BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Note: The ¼ sec. cor. for sec. 17, was set on September 10, 1915, at which time the mrakings on the ¼ sec. cor were changed to read as above described.
66.90	Head of ravine, drains NE., 120 ft. below ridge; asc.
79.86	The cor. of secs. 17, 18, 19 and 20, 120 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 15, 1913: At this cor. I set off 21° 33' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 7' N.

	Thence I run
	West, on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
91.06	Intersect the W. bdy. of the tp., at the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence
	East, on true line bet. secs. 18 and 19.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush, yellowtop and grass undergrowth.
9.10	Start abrupt asc., bears N. 80° W. and S. 80° E.
37.00	Spur, projects S., 5 chs.; desc.

Chains.	
37.20	Spring of clear water, bears S. 13° 25' W.
51.06	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap marked
	¼ S 18 S 19 1913
	from which
	A piñon, 12 ins. diam. bears N. 53° 30' E., 50 lks. dist., mkd. ¼S18BT.
	A piñon, 8 ins. diam., bears S. 44° 45' W., 52 lks. dist., mkd. ¼S19BT.
	Corner established 130 ft. below spur; continue desc.
55.10	Foot of desc. bears N. and S.; asc. along N. slope of cañon.
90.30	Same spring bears S. 81° 5' W.
91.06	The cor. of secs. 17, 18, 19 and 20, 390 ft. above foot of desc.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush, yellowtop and grass.
	Eastern exposure. Good grazing.
	July 15, 1913.

	July 16, 1913: At 8h, a. m., app. t., I set off 38° 7' N. on the lat. arc; 21° 25' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	N. 0° 1' W., bet. secs. 17 and 18.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
7.50	Ridge, bears N. 60° E. and W., 95 ft. above sec. cor.
13.50	Ravine, heads 6 chs. SW., drains N. 60° E., 110 ft. below ridge; asc.

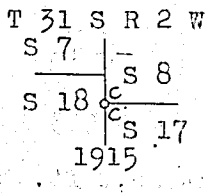
Chains.	
20.50	Spur, projects N. 70° E., 70 ft. above ravine; desc.
29.00	Ravine, drains E.,170 ft. below spur; asc.
33.60	Spur, projects E., 65 ft. above ravine; desc.
38.59	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 17, with brass cap mkd.
	¼ | S 17 1915 from which
	A pinon, 8 ins. diam., bears N. 77° E., 35 lks. dist., mkd. ¼S17BT.
	Raise a mound of stone,2 ft. base,1½ ft. high,E. of cor.
	No other tree within reasonable distance suitable for bearing trees.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for secs 18, with brass cap mkd.
	¼ S 18 | 1913 from which
	A piñon, 6 ins. diam., bears N. 87° W., 23 lks. dist., mkd. ¼S18BT.
	Raise a mound of stone,2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance, suitable for bearing trees.
	Note: The ¼ sec. cor. for sec. 17 was set on September 10, 1915, and the markings on the ¼ sec.cor. for sec. 18, changed to read as above described.
	¼ sec. cor. for sec. 18, established 130 ft. below spur; continue desc.
41.00	Ravine, drains N. 75° E., 20 ft. below ¼ sec. cor.;asc.
58.50	Ridge, bears E. and W., 165 ft. above ravine; desc.
61.80	Ravine, drains E., 25 ft. below ridge; asc.
68.00	Spur, projects E., 70 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 7, 8, 17 and 18, with brass cap mkd.

Chains.	
	T 31 S R 2 W S 7 S 18 1913 from which
	A piñon, 9 ins. diam., bears N. 33° 30' W., 49 lks. dist., mkd. T31SR2WS7BT.
	A piñon, 18 ins. diam., bears S. 84° W., 24 lks. dist., mkd. T31SR2WS18BT.
	Corner established 110 ft. below spur.
	Note: The markings on this cor. were changed to read as above on September 9, 1915.
	Land, mountainous.
	Soil, coarse gravel and rocky, shallow with rock close to the surface.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sagebrush, and grass.
	Good grazing. Eastern exposure.
	July 16, 1913: At this cor. I set off 21° 23' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.
	July 16, 1913.
	Edward R. Bamburg
	U. S. Transitman.

	September 9, 1915: Walking bet. points on line at noon, unable to observe the sun for lat.
	From the restored ¼ sec. cor. bet. secs. 8 and 17, I run
	West, on true line bet. secs. 8 and 17.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sage brush and grass undergrowth.
14.68	Spur, projects S., desc.
27.50	Draw, drains SE., 125 ft. below spur; asc.
54.15	Intersect the E. bdy. Sec. 18, 141 lks. S. 0° 1' E., of the cor. of secs. 7, 8, 17 and 18. I destroy all mks.

Chains. on the cor. of secs. 7,8, 17 and 18, and it's accessories pertaining to secs. 8 and 17. (See note on page 70, this book.) At point of intersection I .

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the closing cor. for secs. 8 and 17, with brass cap mkd.



Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

No trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, coarse gravel and rocky, shallow, with rock close to surface.

Timber, scattering scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

September 9, 1915.

Jos. C. Thoma

U. S. Surveyor.

July 17, 1913: At 9h, a. m., app. t., I set off 38° 8' N. on the lat. arc; 21° 15' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 7, 8, 17, and 18.

Thence I run

West, on random line bet. secs. 7 and 18.

40.00 Set temp. ½ sec. cor.

91.09 Intersect the W. bdy. of the tp., 5 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence

S. 89° 58' E., on true line bet. secs. 7 and 18.

Desc. over mountainous land, over S. slope of E. and W. ridge, through scattering cedar and piñon timber, and

Chains.	
	sagebrush and grass undergrowth.
18.20	Draw, drains NE., 90 ft. below sec. cor., asc. over N. slope of E. and W. ridge.
40.00	Ridge, bears NE. and SW., 175 ft. above draw; desc.
51.09	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 7}{S\ 18}$$

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

No trees within reasonable distance suitable for bearing trees.

53.30	Draw, drains NE., 70 ft. below ridge; asc. over S. side of rocky spur.
66.00	Spur, projects S., desc.
70.00	Draw, drains SE.; asc.
91.09	The cor. of secs. 7, 8, 17, and 18.

Land, mountainous.

Soil, coarse gravel and rocky, shallow with rock close to surface.

Timber, very scattering scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

July 17, 1913: At this cor. I set off 21° 13' 30" N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.

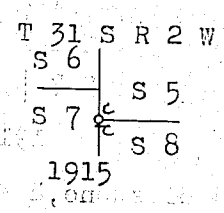
N. 0° 1' W., bet. secs. 7 and 8, from the cor. of secs. 7, 8, 17 and 18.

Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.

9.00	Spur, projects E., 30 ft. above cor.; desc.
30.20	Ravine, drains E., 660 ft. below spur; asc.
32.00	Wood-road, bears E. and W.
38.98	Set an iron post, 3 ft. long, 1 in. diam., 26 ins in the ground, for the ¼ sec. cor. for sec. 8, with

Chains.	
	brass cap mkd.
	$\frac{1}{4}$ | S 8 1915
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
	No trees within reasonable distance, suitable for bearing trees.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the $\frac{1}{4}$ sec. cor. for sec. 7, with brass cap mkd.
	$\frac{1}{4}$ S 7 | 1913
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Note: The $\frac{1}{4}$ sec. cor. for sec. 8 was set on September 9, 1915, at which time the marks thereon were changed to read as above described.
	The $\frac{1}{4}$ sec. cor. for sec. 7 is established 125 ft. above ravine.
46.00	Spur, projects E., 65 ft. above $\frac{1}{4}$ sec. cor; desc.
56.00	Leave scattering scrub cedar and piñon timber, bears E. and W., enter open land.
65.80	Ravine, drains E., 505 ft. below spur; asc.
72.50	Spur, projects E., 105 ft. above ravine; desc.
75.20	Ravine, drains SE., 40 ft. below spur; asc.
80.00	On point of ridge,
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 6 and 7, with brass cap mkd.
	T 31 S R 2 W S 6 | S 7 | 1913
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	Note: This cor. was originally set for the cor. of 4 secs. and the markings were changed to read as above described

Chains.	
	on September 9, 1915.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 17, 1913.
	Edward R. Bunbury
	U. S. Transitman.
	September 9, 1915: At 8 h. a. m., app. t. I set off 38° 9' N. on the lat. arc; 5° 36' N. on the decl. arc, and determine a meridian with the solar, at the restored ¼ cor. for secs. 5 and 8.
	Thence I run
	West, on true line bet. secs. 5 and 8.
	Desc. over rolling mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
5.00	Draw, drains NE., 20 ft. below ¼ sec. cor.; asc. NW. slope of draw.
32.39	Intersect the E. bdy. Sec. 7, 63 lks., S. 0° 1' E., of the cor. of secs. 5, 6, 7 and 8, set by E. R. Bunbury, U. S. Transitman, July 7, 1913. I destroy all mks. on this cor. pertaining to secs. 5 and 8, (see note on page 73 (www 159), this book) and at point of intersection, I Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 5 and 8, with brass cap mkd.



	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Land, rolling mountainous.

Chains	
	Soil, rocky and coarse gravel, more than 2 ft. deep.
	Timber, very scattering scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	September 9, 1915.

	July 19, 1913: At 8h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 20° 55' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 7, and 8.
	Thence I run
	N. 89° 58' W., on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
91.08	Intersect the W. bdy. of the Tp., 10 lks. N. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence
	N. 89° 58' E., on true line bet. secs. 6 and 7.
	Asc. over mountainous land, along S. slope of E. and W. ridge, through dense cedar and piñon timber, sagebrush and grass undergrowth.
1.50	Ridge, bears E. and W., desc. gradually along top of ridge.
21.70	Wood-road, bears NW. and SE., leave timber, enter open land.
30.00	Head of draw, drains SE.; continue desc.
51.08	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 6 / S 7 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
53.90	Trail, bears NE. and SW.
91.08	The cor. of secs. 5, 6, 7, and 8.
	Land, mountainous.
	Soil, coarse gravel, rocky, more than 2 ft. deep.
	Timber, scrub cedar and piñon.

Chains. Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

July 19, 1913: AT this cor. I set off 20° 52' 30" N. on t decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 9' N.

Thence I run

N. 0° 1' W. on true line bet. secs. 5 and 6, knowing that a closing cor. will be necessary on the Sixth Std. Par. South.

Desc. through sagebrush undergrowth, over mountainous land.

3.00 Foot of descent, bears NW. and SE., 50 ft. below sec. cor. Descend gradually.

4.00 Enter scattering scrub cedar and piñon timber, bears E. and W.

12.00 Leave scattering scrub cedar and piñon timber, bears E. and W., enter open land.

19.80 Bottom of steep desc., bears E. and W., desc. gradually.

20.70 Creek, 2 lks. wide, 2 ins. deep, water clear, course E., 215 ft. below spur; asc. gradually.

22.50 Start steep asc., bears E. and W.

38.50 Spur, projects SE., 250 ft. above creek; asc. gradually.

39.37 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 5, with brass cap mkd.

¼ | S 5
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 6, with brass cap mkd.

S ¼ 6 |
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Note: The ¼ sec. cor. for sec. 5 was set on September 9, 1915, at which time the markings on the ¼ sec. cor.

Chains.

for sec.6 were changed as above described.

$\frac{1}{4}$ sec.cor.for sec.6 set 30 ft.below spur.

42.00 Leave open land; enter scattering scrub cedar and pinon timber, bearing E.and W.

50.00 Ravine, drains E., 195 ft.below $\frac{1}{4}$ sec.cor.

Ascend.

57.00 Spur, projects E., 100 ft.above ravine.

Descend.

60.00 Ravine, drains SE., 40 ft.below spur.

Ascend.

80.32 Intersect the Sixth Standard Parallel South, 10.62 chs.S. 89° 44'E.of the standard cor.of secs.31 and 32, heretofore described. At point of intersection, I

Set an iron post, 3 ft. long, 2 ins.diam., 24 ins.in the ground, for the closing cor.for secs.5 and 6, with brass cap marked

T 30 S | R 2 W
S 31 | S 32
C C
S 6 | S 5
T 31 S
1913

Raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high S.of cor.

No trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, coarse gravel and rocky, more than 2 ft.deep.

Timber, very scattering scrub cedar and pinon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

July 19,1913.

Jos. C. Thorna

U.S.Surveyor.

GENERAL DESCRIPTION OF T.31 S., R.2 W.

The land in this township, within the portion surveyed under this assignment, is mostly mountainous and foothills, cut by numerous ravines draining in an easterly direction in the western portion, and in a westerly direction in the eastern portion. All drainage, however, is carried into the east fork of the Sevier river, which flows in a northerly and northwesterly direction, through the previously surveyed portion of the township.

The soil is a coarse light gravel, very rocky, and in most places more than two feet deep. In places where the soil is shallow it is usually underlaid with a conglomerate formation of cemented gravel. This soil cannot be tilled.

The timber is mostly scrub cedar and pinon, practically worthless, except for fuel and fence posts. An occasional yellow pine or cottonwood is found in the canons.

The cabin and tunnel in sec. 19 are claimed by Wesley DeWitt, and were built in an effort to find a meteor which is supposed to have fallen at that point. The tunnel is approximately 40 ft. in length, and bears approximately north from its portal.

There are no settlers in the portion of the township included in this survey. The settlement and post-office of Coyoto is located in the portion previously surveyed.

We noticed no indications of mineral or oil in this township.

Jos. C. Thoma
U.S. Surveyor.

Edward R. Bunbury
U.S. Transitman.

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants 1913 work see book "G" T.37 S.R.4 E.
For certificate of assistants 1915 work see book "M" T.31 S.R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

....
U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursu
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and tr
in my own proper person, and in strict conformity with said instructions, the Manual of Survey
Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma, U.S. Surveyor, see book "M" T. 31 S
R. 1 W.

For final oath of Edward R. Bunbury, U.S. Transitman see book "I" T.
32 S., R. 2 W.

..... of the .....
..... Meridian, in the State of ....., which are represented
the foregoing field notes as having been executed by me, and under my direction; and I do furt
solemnly swear that all the corners of said survey have been established and perpetuated in strict acco
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surve
General for ..... and in the specific manner described in the field notes, and t
the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 1917.

The foregoing field notes of the ~~survey of~~ retracement of part of south boundar
Township No. 31 South, Range No. 2 West; retracement of part of sixth
standard parallel south, through Range No. 2 West; and retracement,
resurvey, and survey of part of the subdivision of Township No. 31
South, Range No. 2 West of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma and Edward R. Bunbury
under ~~his~~ their special instructions dated June 11, 1913, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved. retracements, resurveys, and

M. A. Thorsen
U. S. 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.

C—2761

.....
U. S. Surveyor General.

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Page

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Page

4—679

BOOK A-419 —— I. ——

FIELD NOTES

In the book a 2

OF THE ~~SURVEY OF THE~~

RETRACEMENT OF PART OF SOUTH BOUNDARY

AND

RETRACEMENT AND SURVEY OF PART OF SUBDIVISION

OF

TOWNSHIP NO. 32 SOUTH, RANGE NO. 2 WEST

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

JOS. C. THOMA, EDWARD R. BUEBURY, AND JOS. C. CLARK,

and U.S. Transitmen

In the capacity of U. S. Surveyor, under instructions dated June 11, *1913,*

issued by the United States Surveyor General to govern surveys included in

Group No. 24, *which were approved by the Commissioner of the General Land*

Office, July 19, *1913.*

Survey commenced July 19, *1913*

Survey completed September 23, *1915.*

6—151

BOOK A-419

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INDEX DIAGRAM.

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6—4817

176.

Chains.

Survey commenced July 19, 1913, and executed with Young & Sons light mountain transits Nos. 8477 and 8146, both transits having Smith solar attachments. (For description and test of transits, see Book of Subdivision of T. 31 S., R. 2 W., this Group.)

July 23, 1913: At my camp which is located in Sec. 20, T. 32 S., R. 2 W., approximate latitude 38° 2' N., longitude 112° 5' W., I set off 38° 2' N., on the lat. arc; 20° 4' N. on the decl. arc, and at 4h, p. m., app. t., determine a meridian with the solar; and mark a point in line thereof by driving a stake approximately 10 chs. N. of my station.

At this station, at 11h 27m, p. m., l. m. t., I observe Polaris at eastern elongation in accordance with the instructions in the manual, and mark a point in the line thus determined by a tack in a wooden peg set in the ground approximately 10 chs. N. of my station.

July 23, 1913.

July 24, 1913: I lay off the azimuth of Polaris, 1° 28' to the west; and the meridian thus determined coincides with the meridian as obtained by the p, m. solar of July 23.

July 24, 1913: At 8h, a. m., app. t., I set off 38° 2' N. on the lat. arc; 20° 9' N. on the decl. arc, and determine a meridian with the solar, which coincides with the meridian as obtained by observations on Polaris.

Both transits were tested on the above meridian at the same hours, using the same arc settings, the final results being practicably the same.

July 24, 1913.

Note: Buff & Buff transit No. 9218, and Young & Sons. transit No. 8535, were used in executing the work in this township during the year 1915. For description of transits see Book of Subdivision of T. 33 S., R. 1 W.; for test

Chains.	
	of instruments, see Book of Subdivision of T. 31 S., R. 1 W., this Group.
	Five chain Lallie steel tapes with clinometers for determining slopes were used.

	Retracements on the S. Boundary T. 32 S., R. 2 W.
	July 23, 1913: For solar, see test of instruments Page 1.
	From the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the township, which is
	A trachyte, 5x6x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	Thence I run
	West, retracing the south bdy. of the tp., bet. secs. 4 and 33.
	Asc. over mountainous land, through sage brush and scattering grass undergrowth.
9.40	Wash, 8 lks. wide, 2 ft. deep, drains N. 75° E., continue asc.
29.50	Enter scattering scrub cedars amd piñon timber, bears NE. and SW.
40.07	Fall 15 lks. N. of the ¼ sec. cor., which is
	A granite, 8x10x6 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 89° 47' W., and the distance is 40.07 chs.
	I continue my line west with continuous chaining.
80.18	Fall 14 lks. N. of the cor. of secs. 4, 5, 32 and 33, which is
	A trachyte, 8x6x8 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	Corner established 200 ft. above ¼ sec. cor.
	The course of this half mile is therefore N. 89° 59' W., and the distance is 40.11 chs.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.

Chains.	
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 23, 1913: I set off 20° 6' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 59' N.
	July 23, 1913.

	July 24, 1913: For solar, see test of instruments, Page 1.
	West, retracing the S. bdy. of the tp., bet. secs. 5 and 32.
	Asc. over mountainous land, through scattering scrub cedar and pinon timber, sagebrush and grass undergrowth.
3.00	Ridge, bears E. and W., 20 ft. above cor.; continue asc.
12.00	Same ridge turns S. 60° W.
16.30	Ravine, drains N., heads approximately 2 chs. S., 55 ft. below ridge.; asc.
19.50	Spur, projects N., 35 ft. above ravine; desc.
27.80	Ravine, heads 4 chs. S., drains N., 60 ft. below spur; asc.
40.00	Fall 1 lk. N. of the old ¼ sec. cor., which is
	A trachyte, 10x8x8 ins. above ground, loosely set, mkd. and witnessed as described by the surveyor general.
	At this point, along side of old cor., I
	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 32 / S 5 / 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Corner established 90 ft. above ravine.
	The course of this half mile is therefore S. 89° 59' W., and the distance is 40.00 chs.
	I continue my line west with continuous measurement.
41.00	Spur, projects N., 10 ft. above ¼ sec. cor.; desc.
45.00	Ravine, heads 2 chs. S., drains N., 35 ft. below spur.
50.00	Spur, projects N., 40 ft. above ravine; desc.

Chains.

57.50 Ravine, heads 3 chs. S., drains N., 45 ft. below spur; asc.

61.50 Spur, projects N., 50 ft. above ravine; desc.

66.00 Ravine, heads 4 chs. S., drains N., 50 ft. below spur;asc.

80.00 The old cor. of secs. 5, 6, 31 and 32, which is

A trachyte, 10x7x10 ins. above ground, loosely set, mkd. and witnessed as described by the surveyor general.

At this point, along side of old cor., I

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

T 32 S R 2 W
S 31 | S 32
S 6 | S 5
T 33 S
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance, suitable for bearing trees.

The course of this half mile is therefore N. 89° 59' W., and the distance is 40.00 chs.

Land, mountainous.

Soil, coarse gravel and rocky, more than 2 ft. deep,

Timber, scattering scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

From the cor. of secs. 5, 6, 31 and 32.

West, retracing the S. bdy. of the tp., bet. secs. 6 and 31.

Asc. over mountainous land through sagebrush and grass undergrowth.

2.00 Spur, projects N., 10 ft. above sec. cor; desc.

6.50 Ravine, drains N., 60 ft. below spur; asc.

12.00 Spur, projects N., 80 ft. above ravine; desc.

17.00 Ravine, drains N. 15° E., 65 ft. below spur; asc.

37.50 Spur, projects N. 30° E., 145 ft. above ravine; desc.

40.00 The old ¼ sec. cor., which is

Chains.

A trachyte, 10x8x10 ins. above ground, loosely set, mkd. and witnessed as described by the surveyor general.

At this point, along side of old cor., I

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

$\frac{\frac{1}{4}}{\frac{S\ 31}{S\ 6}}$

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Corner established 40 ft. below spur.

July 24, 1913: At this cor. I set off 20° 6' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 59' N.

The course of this half mile is West and the distance is 40 chs.

I continue my line west with continuous measurement.

45.25 Ravine, drains NE., 60 ft. below ¼ sec. cor. Enter scattering scrub cedar and piñon timber, bears NE. and SW.

54.00 Spur, projects NE., 135 ft. above ravine; desc.

74.80 Ravine, drains N. 60° E., 185 ft. below spur; asc.

80.07 The cor. of Ts. 32 and 33 S., Rs. 2 and 2½ W., which is

A trachyte, 10x10x10 ins. above ground, loosely set; mkd. as described by the surveyor general.

At this point, along side of old cor., I

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of Ts. 32 and 33 S., Rs. 2 and 2½ W., with brass cap mkd.

T 32 S

R 2½ W	R 2 W
S 36	S 31
S 1	S 6

T 33 S

1913

from which

A cedar, 12 ins. diam., bears N. 13° 55' E., 160 lks. dist., mkd. T32SR2WS31BT.

A piñon, 14 ins. diam., bears N. 45° 30' W., 121 lks. dist., mkd. T32SR2½WS36BT.

Chains A piñon, 10 ins. diam., bears S. 72° 30' W., 112 lks. dist., mkd. T33SR2½WS1BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

No other trees within reasonable distance suitable for bearing trees.

The course of this half mile is West, and the distance is 40.07 chs.

Land, mountainous.

Soil, coarse gravel and rocky,

Timber, scattering scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

In order to verify the location of the tp. cor., there being such a difference in the distance as found on the ground and the record distance, I run South, on retracement, on the range line bet. Rs. 2 and 2½ W.

40.00 Find no evidence of the ¼ sec. cor.

78.26 Fall 7 lks. E. of the cor. of secs. 1, 6, 7 and 12, T. 33 R., Rs. 2 and 2½ W., which is

A trachyte, 12x8x8 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.

July 24, 1913.

Edward R. Bumbury

U. S. Transitman.

Retracement of Subdivision of T. 32 S., R. 2 W.

July 23, 1913: For solar ovservation, see test of instruments on page 1.

From the cor. of secs. 10, 11, 14 and 15, which is

A sandstone, 5x4x10 ins. above ground, loosely set, mkd. and witnessed as described by the surveyor general.

I reset stone firmly in the ground.

Thence I run

Chains.	
	West, retracing the line bet. secs. 10 and 15.
40.00	After diligent search, find no evidence of the $\frac{1}{4}$ sec. cor.
79.90	Fall 46 lks. N. of the cor. of secs. 9, 10, 15 and 16,
	which is
	A trachyte, 8x5x6 ins. above ground, loosely set; mkd.
	and witnessed as described by the surveyor general.
	At this point, along side of old cor., I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in
	the ground for the cor. of secs. 9, 10, 15 and 16,
	with brass cap mkd.
	T 32 S R 2 W S 9 | S 10 S 16 | S 15 1913
	from which
	A piñon, 5 ins. diam., bears N. 37° W.,
	57 lks. dist., mkd. T32SR2WS9BT.
	A piñon, 8 ins. diam. bears N. 39° E.,
	27 lks. dist., mkd. T32SR2WS10BT.
	A piñon, 10 ins. diam., bears S. 36° E.,
	2 lks. dist., mkd. T32SR2WS15BT.
	A piñon, 5 ins. diam., bears S. 38° W.,
	88 lks. dist., mkd. T32SR2WS16BT.
	The course of this mile is therefore N. 89° 40' E., and
	the dist. is 79.90 chs.; thence
	N.89° 40' E., resurveying the line bet. secs. 10 and 15.
	Asc. along N. side of ridge, through cedar and piñon timber.
7.00	Ridge, bears NE. and SW.; continue asc.
39.95	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in
	the ground for the $\frac{1}{4}$ sec. cor., with brass cap mkd.
	$\frac{1}{4}$ S 10 S 15 1913
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	No trees within limits suitable for bearing trees.
42.00	Ridge, bears NW. and SE.; desc.
68.90	Draw, drains S. 40° E., asc. along S. slope of ridge.
79.90	The cor. of secs. 10, 11, 14 and 15.
	Land, mountainous.
	Soil, coarse gravel and rocky.
	Timber, very scattering scrub cedar and pinon.

Chains. Undergrowth, sage brush and grass.

Good Grazing. Eastern exposure.

July 23, 1913: At the cor. of secs. 9, 10, 15 and 16, I set off 20° 6' N. on the decl. arc; and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 2' N.

Thence I run

South, retracing the line bet. secs. 15 and 16.

Asc. over mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth.

4.00 Ridge, bears NE. and SW.; desc.

16.00 Draw, drains E., 70 ft. below ridge; asc.

32.00 Ridge, bears E. and W., 50 ft. above draw; desc.

39.00 Wash, 10 lks. wide, 2 ft. deep, drains E.; asc.

40.05 Fall 2 lks. W. of the ¼ sec. cor., which is

A trachyte, 10x8x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

The course of this half mile is therefore S. 0° 2' E., and the dist. is 40.05 chs.

I continue my line south with continuous measurement.

44.00 Ridge, bears E. and W.; desc.

53.50 Foot of desc., bears E. and W.; desc. gradually.

54.50 Wire fence, bears N. 60° E. and S. 60° W.

67.70 Deer Creek, (dry), 20 lks. wide, 5 ft. deep, drains E.; asc.

77.00 Old road, bears E. and W.

80.06 Fall 5 lks. W. of the cor. of secs. 15, 16, 21 and 22, which is

A trachyte, 8x12x8 ins. above ground, firmly set; mkd. as described by the surveyor general. I build mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The course of this half mile is therefore S. 0° 2' E., and the dist. is 40.01 chs.

Land, rolling mountainous.

Soil, coarse gravel and rocky.

Timber, scattering scrub cedar and pinon, Cottonwood along Deer Creek.

Chains.	
	Undergrowth, sage brush and grass.
	Good, grazing. Southeastern exposure.
	From the cor. of secs. 15, 16, 21 and 22.
	South, retracing the line bet. secs. 21 and 22.
	Asc.over mountainous land,through sage brush undergrowth.
2.50	Wire fence, bears E. and W.
28.00	Ridge, bears E. and W., 50 ft. above sec. cor., enter dense scrub cedar and pinon timber.
36.00	Start steep desc., bears E. and W.
40.06	Fall 8 lks. W. of the ¼ sec. cor., which is
	A trachyte, 10x6x8 ins. above ground, firmly set; mkd. and witnessed a s described by the surveyor general.
	The course of this half mile is therefore S. 0° 7' E., and the dist. is 40.06 chs.
	I continue my line south with continuous measurement.
41.50	Wash, drains E.; asc.
72.00	Ridge, bears W. and E., 420 ft. above wash; desc.
75.50	Wash, drains S. 80° E.,; asc.
80.15	Fall 17 lks. W. of the cor. of secs. 21, 22, 27 and 28, which is
	A trachyte, 12x10x12 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S. 0° 7' E., and the dist. is 40.09 chs.
	Land, mountainous.
	Soil, coarse gravel and stony.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, sage brush and grass.
	Good grazing. Eastern exposure.
	July 23, 1913.
	Jos. E. Thoma
	U. S. Surveyor.
	July 23, 1913: At 8h, a. m., app. t., I set off 38° 1' N. on the lat. arc; 20° 8½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.
	Thence I run

Chains.	
	South, retracing the line bet. secs. 27 and 28.
	Asc. over mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth.
10.00	Spur, projects West, 60 ft. above cor; desc.
16.00	Ravine, drains E., 55 ft. below spur; asc.
25.50	Ridge, bears N. 75° E. and S. 75°W., 105 ft. above ravine.
29.75	Ravine, drains E., 35 ft. below ridge; asc.
36.50	Spur, projects E., 65 ft. above ravine; desc.
40.22	Subsequently, 2 lks. E. of this point, I
	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. for sec. 28, with brass cap mkd. S ¼ 28 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.30	Fall 2 lks. W. of the ¼ sec. cor., which is
	A trachyte, 10x8x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	I destroy all mks. on this cor. pertaining to sec. 28.
	The course of this half mile is therefore S. 0° 2' E., and the dist. is 40.30 chs.
	I continue on same line with continuous measurement.
43.60	Ravine, drains E., 70 ft. below spur; asc.
45.50	Spur, projects E., 130 ft. above ravine.
49.25	Ravine, drains E. 50 ft. below spur; asc.
68.30	Ridge, bears N. 75° E. and S. 75°W., 55 ft. above ravine; desc.
74.80	Ravine, drains E.; asc.
80.88	Fall 5 lks. W. of the cor. of secs. 27, 28, 33 and 34, which is
	A trachyte, 4x6x8 ins. above ground; firmly set; mkd. and witnessed as described by the surveyor general.
	Corner established 50 ft. above ravine.
	The course of this half mile is therefore S. 0° 2' E., and the dist. is 40.58 chs.
	Land, mountainous.
	Soil, coarse gravel and rocky.
	Timber, scattering scrub cedar and pinon.

Chains	
	Undergrowth, sagebrush andgrass.
	Good grazing. Eastern exposure.
	July 23, 1913: I set off 20° 6' N. on the decl. arc, and at apparent noon, observe the sun on the meridian the resulting lat. is 38° N.
	South, retracing bet. secs. 33 and 34.
	Desc. over rolling mountainous land, through scattering scrub cedar and piñon timber, sagebrush andgrass undergrowth.
3.00	Leave scattering timber, bears E. and W., enter open sagebrush land.
8.00	Ravine, drains E., 105 ft. below sec. cor.; asc.
14.00	Spur, projects E. 8 chs., 50 ft. above ravine; desc.
31.60	Ravine, drains E., 105 ft. below spur; asc.
39.94	Fall 1 lk. E. of the ¼ sec. cor., which is
	A trachyte, 6x6x8 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. The course of this half mile is S.0°1'W. 39.94 chs.
	Corner established 55 ft. above ravine.
48.50	Ridge, bears N. 70° E. and W., 100 ft. above sec. cor.;desc.
58.50	Ravine, drains S. 60° E., 110 ft. below ridge; asc.
71.00	Spur, projects E., 155 ft. above ravine; desc.
77.00	Wash, 5 lks. wide, 2 ft. deep, drains N. 75° E.; asc.
79.87	Fall 7 lks. E. of the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the tp., heretofore described.
	The course of this half mile is therefore S. 0° 5' W., and the dist. is 39.93 chs.
	Land, rolling mountainous.
	Soil, coarse gravel and stony.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.

July 23, 1913.

Edward R. Bumbury

U. S. Transitman.

Chains. September 23, 1915: At 9h, a. m., app. t. I set off 38° 2' N. on the lat. arc, 12' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 7, 12, 13 and 18 on the E. bdy. of the tp., heretofore described.

Thence I run

West, retracing the line bet. secs. 12 and 13.

40.05 (Record distance) After diligent search, I am unable to find any evidence of the ¼ sec. cor.

80.10 (Record distance) Leave temp. point to be used in the establishment of the cor. for secs. 11, 12, 13 and 14, which I designate "A".

September 23, 1915.

Jos. C. Clark

U. S. Transitman.

September 23, 1915: At 8h a. m., app. t. I set off 38° 2' N. on the lat. arc; 13' N. on the decl. arc, and determine a meridian with the solar, at the witness cor. bet. secs. 13 and 14, which is 36 chs. S. of the true point for the cor. of secs. 11, 12, 13 and 14, as per original survey. The W. C. is

A trachyte, 10x8x8 ins. above ground, firmly set, mkd. as described by the surveyor general. I raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Thence I run

North, bet secs. 13 and 14.

36.00 (Record distance) Leave temp. point to be used in the establishment of the cor. of secs. 11, 12, 13 and 14, which point I designate "B".

From the cor. of secs. 10, 11, 14 and 15, heretofore described, I run

East, retracing the line bet. secs. 11 and 14.

Over rolling mountainous land, through scattering scrub

Chains.	
	cedar and pinon timber, sagebrush and grass undergrowth.
14.00	Spur, projects SE.; desc.
24.00	The witness cor. to the ¼ sec. cor., which is
	Atrachyte rock in place, 2x2x2 ft. above ground, mkd.
	as described by the surveyor general. I build a mound
	of stone, 2 ft. base, 1½ ft. high, N. of cor.
79.90	(Record distnnce) Set a temp. point to be used in the
	establishment of the cor. of secs. 11, 12, 13 and 14,
	which point I designate "C".
	I establish the cor. of secs. 11, 12, 13 and 14, in
	accordance with the following:
	From point "A", point "B" bears N. 82° 4' E., 5.36 chs.dist.
	From point "A", point "C" bears N. 87° 59' E.,4.08 chs.dist.
	From point "C", point "B" bears N. 64° 6' E., 1.37 chs.dist.
	I establish the cor. of secs. 11, 12, 13 and 14, at a
	point 33 lks. W. and 25 lks. N. of point "C".
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in
	the ground for the cor. of secs. 11, 12, 13 and 14,
	with brass cap mkd.

T 32 S R 2 W

S 11	S 12
S 14	S 13

1915

	Raise a mound of stone,2 ft. base,1½ ft. high, W. of cor.
	The course of the line bet. secs. 12 and 13 is therefore
	S. 89° 42' E., and the dist. is 76.35 chs.
	The course of the line bet. secs. 11 and 14, from the
	established cor. of secs. 11, 12, 13 and 14 and the
	witness cor. for the ¼ sec. cor. is S. 89° 45' W., and
	the dist. is 55.57 chs.
	September 23, 1915: At the cor. of secs. 11, 12, 13 and 14,
	I set off 8' 30" N. on the decl. arc and at apparent
	noon observe the sun on the meridian, the resulting
	lat. is 38° 2' N.

	S. 89° 42' E., resurveying the line bet. secs. 12 and 13.
	Asc. gradually over rolling land,through sage brush and grass.
27.20	Start abrupt asc. over broken rocky W. slope of ridge,

Chains.	
	bears N. 20° E. and S. 20° W.
36.35	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. for sec. 12, with brass cap mkd. ¼ S 12 / 1915 from which A pinon, 5 ins. diam., bears N. 45° E., 14 lks. dist., mkd. ¼S12BT. Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. No other trees within reasonable distance s suitable for bearing trees. Continue abrupt asc. through dense timber.
38.17	The point for the ¼ sec. cor. for sec. 13. Cor. not set.
38.90	Top of abrupt asc., bears N. and S.; asc. gradually.
44.10	Ridge, bears N. 20° E. and S. 20° W., 380 ft. above sec. cor. Leave dense ti mber.
66.40	Enter dense scrub cedar and pinon timber, bears N. and S.
75.60	Leave dense, enter scattering scrub cedar and pinon timber, bears N. and S., Wire fence bears N. and S.
76.35	The cor. of secs. 7, 12, 13 and 18, heretofore described. Land, rolling mountainous. Soil, coarse gravel and rocky, shallow, on rocky subsoil. Timber, scrub cedar and pinon in the eastern portion. Undergrowth, sage brush, shad scale and grass. Fair grazing. Western exposure in the western portion, eastern exposure in the eastern portion.

	From the restored cor. of secs. 11, 12, 13 and 14. North, bet. secs. 11 and 12. Asc. gradually over rolling land, through short sage brush and grass under growth.
10.00	Top of gradual asc., bears E. and W.; desc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. ¼ S 11 | S 12 / 1915 Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains.	
45.00	Draw, drains W.; asc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam. 24 ins. in the ground, for the cor. of secs. 1, 2, 11 and 12, with brass cap mkd.

T 32 S R 2 W

S 2	S 1
S 11	S 12

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, gently rolling.

Soil, coarse gravel and rocky, with bed rock close to the surface.

Timber, a few scattering scrub cedar and piñon.

Undergrowth, short sage, shad scale and grass.

Fair grazing. Northern exposure.

September 23, 1915.

Jos. C. Thorna

U. S. Surveyor.

September 23, 1915.

S. 89° 42' E., on random line bet. secs. 1 and 12.

40.00	Set temp. ¼ sec. cor.
76.60	Intersect the E. bdy. of the tp., 13 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described.

Thence

N. 89° 48' W., on true line bet. secs. 1 and 12.

Desc. over rolling land, through short sage and grass undergrowth.

20.70	Wash in hollow, 15 lks. wide, 1 ft. deep. drains SW.; asc.
30.70	Ridge, bears N. 30° E. and S. 30° W., 20 ft. above wash; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼

S 1
S 12

1915

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Corner established 70 ft. below ridge.
52.60	Draw, drains N. 70° W., 25 ft. below ¼ sec. cor.; asc.
76.60	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling.
	Soil, light sandy clay and gravel, rocky, 12 ins. deep on rocky clay subsoil.
	Timber, none.
	Undergrowth, short sagebrush and shad scale and grass.
	Fair grazing. Western exposure.
	September 23, 1915.
	Jos. C. Clark
	U. S. Transitman.

September 23, 1915:

North, on true line bet. secs. 1 and 2, knowing that a closing cor. will be necessary on the N. bdy. of the Tp.

Desc. over mountainous land, through short sagebrush and grass undergrowth.

2.00	Start abrupt desc. into cañon, bears NE. and SW., through scattering piñon timber.
10.00	Bottom of desc., bears NE. and SW, leave scattering piñon timber; continue over nearly level bottom land.
13.00	Corral and alfalfa field bears W., approximately 2 chs.
28.00	Start abrupt asc., bears NW. and SE.
36.00	Top of abrupt asc., bears NW. and SE., 200 ft. above bottom, desc. gradually.

Note: After closing this line on the N. bdy., I set a ¼ sec. cor. for sec. 1, to protect the area platted in the NE. ¼, 40 chs. from the north or

39.59	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. for sec. 1, with brass cap mkd.

¼
S 1
1915

Chains.	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. for sec. 2, with brass cap mkd.
	¼ / S 2 / 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
68.10	Draw, drains W.; asc. gradually.
71.00	Dim road, bears NE. and SW.
79.59	Intersect the N. bdy. of the tp., 3.50 chs., S. 89° 45' E. of the cor. of secs. 1, 2, 35 and 36, heretofore described. At point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. for secs. 1 and 2, with brass cap mkd.
	T 31 S R 2 W / S 35 S 36 / C C / S 2 S 1 / T 32 S / 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	I destroy all mks. on the cor. of secs. 1, 2, 35 and 36, pertaining to secs. 1 and 2.
	Land, rolling and broken.
	Soil, coarse gravel and rocky, with bed rock close to surface. Dark sandy loam, alluvial in canon bottom.
	Timber, a few scattering pinon on rocky canon sides.
	Undergrowth, short sage brush and grass.
	Fair grazing. Northern exposure.
	From the witness ¼ sec. cor., bet. secs. 11 and 14, which is 24 chs. E. of the cor. of secs. 10, 11, 14 and 15, I run N. 89° 45' E., on true line bet. secs. 11 and 14.
	Desc. abruptly over broken W. slope of canon, bears N. & S.
14.50	East Fork of Sevier River, 40 lks. wide, 18 ins. deep, clear water, course N. Dense willows along banks.
15.79	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ / S 11 / S 14 / 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Chains.	
	Corner established 260 ft. below witness cor.
	Asc. abruptly over E. side of canon.
27.00	E. edge of canon, bears N. and S. 60° E., 260 ft. above river; asc. gradually.
55.57	The cor. of secs. 11, 12, 13 and 14.
	Land, rough and broken especially in canon.
	Soil, coarse gravel, rocky and shallow. Dark sandy loam, alluvial in the canon bottom.
	Timber, a few scattering cottonwood along river.
	Undergrowth, sagebrush and grass. Willows along river.
	Fair grazing. Northern exposure.

September 23, 1915.

Jos. C. Thoma

U. S. Surveyor.

July 19, 1913: At 8h, a. m., app. t., I set off 38° 2' N. on the lat. arc; 20° 55' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15, heretofore described.

Thence I run

N. 0° 1' W., bet. secs. 10 and 11.

Asc. over mountainous land, through scattering scrub cedar and pinon timber, sagebrush and grass undergrowth.

14.50	Spur, projects S. 65° E., 170 ft. above cor.; desc.
32.10	Ravine, drains N. 70° E., 220 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼ S 10	S 11

1913

from which

A pinon, 10 ins. diam., bears N. 4° E., 93 lks. dist., mkd. ¼S11BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

Chains.	
	Corner established 90 ft. above ravine; continue asc.
40.50	Spur, projects N. 70° E., 3 chs., 5 ft. above cor.; desc.
45.10	Ravine, drains E., 40 ft. below spur; asc.
54.00	Ridge, bears E. and W., 125 ft. above ravine; desc.
60.50	Ravine, heads 5 chs. W., drains E., 80 ft. below ridge; asc.
74.50	Spur, projects E., 145 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. lomg, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 2, 3, 10 and 11, with brass cap mkd.

T 32 S R 2 W

S 3	S 2
S 10	S 11

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing trees. Corner established 80 ft. below spur.

Land, mountainous.

Soil, coarse gravle and rocky.

Timber, scattering scrub cedar and pinon.

Undergrowth, sagebrush and grass.

Fair grazing. Eastern exposure.

July 19, 1913: I set off 20° 52' 30" N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.

July 19, 1913.

Edward R. Bensburg

U. S. Transitman.

September 23, 1915:

From the cor. of secs. 2, 3, 10 and 11, I run

N. 89° 45' E., on a random line bet. secs. 2 and 11.

40.00	Set temp. ¼ sec. cor.
79.55	Intersect the N. and S. line, 12 lks. N. of the cor. of secs. 1, 2, 11 and 12.

Thence

S. 89° 50' W., on true line bet. secs. 2 and 11.

Over mountainous land, through very scattering scrub cedar and pinon timber, sage brush and grass undergrowth.

9.60	Start abrupt desc. over broken slope of Willow Bend Canon,

Chains.	
	bears NE. and S. 80° W.
12.50	Irrigation ditch at foot of abrupt desc., course N. 75°E.
13.00	East Fork of Sevier River, 30 lks. wide, 18 ins. deep, clear water, course NE. from W. Thence along S. bank of river.
39.77½	Point for ¼ sec. cor. falls on unsafe ground near the Sevier River, therefore not set.
40.35	East Fork of Sevier River, 30 lks. wide, 18 ins. deep; course E? from the SW. Dense willows along bank.
43.70	Road, bears NE. and S.
44.37	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the witness ¼ sec. cor., with brass cap mkd.

T 32 S R 2 W
¼
W 8 CS 2
S 11
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

59.60	Start abrupt asc., bears N. 75° E., and S., enter scattering scrub cedar and pinon timber.
66.10	W. rim of Willow Bend Canon, bears NW. and S., 175 ft. above river; asc. gradually.
79.55	The cor. of secs. 2, 3, 10 and 11, 115 ft. above W. rim of canon.

Land; mountainous and broken.

Soil, coarse gravel and rocky; sandy loam and alluvial in cannonbottom.

Timber, scattering scrub cedar and pinon.

Undergrowth, sagebrush and grass, dense willows along river.

Fair grazing. Eastern exposure.

September 23, 1915.

Jos. C. Thorne

U. S. Surveyor.

Chains	
	July 19, 1913: N. 0° 01' W., bet. secs. 2 and 3, on true line, knowing that a closing cor. will be necessary on the N. bdy. of the Tp.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and scattering grass undergrowth.
12.00	Ravine, drains E., 155 ft. below sec. cor; asc.
21.00	Spur, projects E., 100 ft. above ravine; desc.
30.50	Road, bears NW. and SE,
33.50	Foot of desc., bears NW. and SE., leave timber, 370 ft. below spur.
36.75	Sevier River, 30 lks. wide, 18 ins. deep, course NW. (E. Fork)
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼ S 3 | S 2
1913

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
44.30	Start abrupt asc., bears N. 5° W. and SE.
62.00	Top of asc., bears N. 5° E. and SE., 230 ft. above river; asc. gradually.
79.74	Intersect the N. bdy. of the tp., 3.74 chs. S. 89° 29' E. of the cor. of secs. 34 and 35, heretofore described.
	At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. for secs. 2 and 3, with brass cap mkd.

T 31 S R 2 W
S 34 | S 35
S 3 C C S 2
T 32 S
1913

	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, rolling and broken.
	Soil, coarse gravel and rocky.
	Timber, scattering scrub cedar and piñon.
	Undergrowth, sagebrush and grass. Dense willows along river.
	Fair grazing. Northern exposure.
	July 19, 1913.

Chains.	
	July 21, 1913: At 8h. a. m., app. t., I set off 38° 2' N. on the lat. arc, 20° 32' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 9, 10, 15 and 16.
	Thence I run N. 0° 1' W., bet. secs. 9 and 10.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and scattering grass undergrowth.
2.00	Ravine, drains N. 65° E., 120 ft. below sec. cor.; asc.
9.20	Ridge, bears N. 70° E. and S. 70° W., 65 ft. above ravine; desc.
35.00	Ravine, drains E., 310 ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼ S 9	S 10
1913	

from which

A piñon, 10 ins. diam., bears N. 77° 30' W., 93 lks. dist., mkd. ¼S9BT.

A piñon, 8 ins. diam., bears S. 11° E., 21 lks. dist., mkd. ¼S10BT.

Corner established 140 ft. above ravine.

51.70	Ridge, bears NE. and SW., 125 ft. above ¼ sec. cor.; desc.
59.70	Ravine, drains NE., 95 ft. below ridge; asc.
67.20	Spur, projetcs NE., 80 ft. above ravine; desc.
76.70	Ravine, drains NE., 180 ft. below spur, asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, with brass cap mkd.

T 32 S R 2 W

S 4	S 3
S 9	S 10
1913	

from which

A piñon, 12 ins. diam., bears N. 27° E., 17 lks. dist., mkd. T32SR2WS3BT.

Chains	
	A pinon, 12 ins. diam., bears N. 42° W., 37 lks. dist., mkd. T32SR2WS4BT.
	A pinon, 18 ins. diam., bears S. 62° W., 68 lks. dist., mkd. T32SR2WS9BT.
	A pinon, 9 ins. diam., bears S. 51° E., 47 lks. dist., mkd. T32SR4ES10BT.
	Corner established 65 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky subsoil.
	Timber, dense scrub cedar and pinon.
	Undergrowth, sage brush and grass.
	Fair grazing. Eastern exposure.

	Thence I run
	N. 89° 40' E., on random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	Thence
	S. 89° 42' W., on true line bet. secs. 3 and 10.
	Asc, over mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth.
7.00	Spur, projects N., enter dense timber, bears N. and S.
14.80	Ravine, drains NE., 135 ft. below spur; asc.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 3 / S 10 1913 from which
	A pinon, 8 ins. diam., bears N. 38° E., 9 lks. dist., mkd. ¼S3BT.
	A pinon, 10 ins. diam., bears S. 15° E., 67 lks. dist., mkd. ¼S10BT.
	Corner established 150 ft. above ravine.
40.50	Ridge, bears NE. and SW., 40 ft. above cor.; desc.
60.75	Ravine, drains NE., 150 ft. below ridge; asc.
64.00	Spur, projects S., 20 ft. above ravine; desc.

Chains.	
68.60	Ravine, drains S. 60° E., 20 ft. below spur; asc.
72.50	Spur, projects N., 3 chs., thence NE., 50 ft. above ravine; de
76.50	Ravine, drains N. 75° E., 35 ft. below spur; asc.
79.86	The cor. of secs. 3, 4, 9 and 10, 95 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, scrub cedar and pinon.
	Undergrowth, sage brush and grass.
	Fair grazing. Eastern exposure.
	July 21, 1913: I set off 20° 30' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.
	N. 0° 1' W., on true line bet. secs. 3 and 4, knowing that a closing cor. will be necessary on the N. bdy. of the tp.
	Asc. over mountainous land, through dense cedar and pinon timber, sage brush and grass undergrowth.
9.00	Ridge, bears N. 60° W. and S. 60° E., 105 ft. above sec. cor.; desc.
18.40	Ravine, drains N. 65° E., 105 ft. below ridge; asc.
33.00	Ridge, bears NE. and SW., 115 ft. above rivine; desc.
37.00	Wash, 10 lks. wide, 2 ft. deep, drains NE.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S ¼ 4 | S 3
1913

from which

A pinon, 9 ins. diam., bears S. 32° 30' E., 31 lks. dist., mkd. ¼S3BT.

A pinon, 8 ins. diam., bears S. 58° 30' W., 41 lks. dist., mkd. ¼S4BT.

	Corner established 10 ft. above ravine.
44.50	Spur, projects N., 60° E., 20 ft. above ¼ sec. cor.; desc.
60.00	Wash, 8 lks. wide, 1 ft. deep, drains NE.; asc.
69.00	Ridge, bears NE. and SW., 20 ft. above wash; desc. Enter scattering scrub cedar and pinon timber, bears E. and W.
80.38	Intersect the N. bdy. of the tp., 3.91 chs. E. of the

Chains.

cor. of secs. 33 and 34. At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. for secs. 3 and 4, with brass cap mkd.

T 31 S R 2 W
S 33 | S 34
S 4 | S 3
T 32 S

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

No trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and pinon.

Undergrowth, sage brush and grass.

Fair grazing. Eastern exposure.

July 21, 1913.

Edward R. Bunbury

U. S. Transitman.

July 26, 1913: At 8h, a. m., app. t., I set off 37° 59' N. on the lat. arc; 19° 30' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the tp., heretofore described.

Thence I run

N. 0° 2' W., bet. secs. 32 and 33.

Desc. gradually over mountainous land, through dense scrub cedar and pinon timber, over numerous unimportant draws and ridges, draining E. and bearing E. and W.

32.00 Draw, drains E.; asc. through scattering scrub cedar and pinon timber.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

Chains

$\frac{1}{4}$ S 32 | S 33
1913

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor

No trees within reasonable distance suitable for bearing trees.

41.00 Ridge, bears E. and W., desc.

42.00 Draw, drains E., 40 ft. below ridge; asc.

51.00 Low ridge, bears E. and W., desc. over unimportant low ridges and draws.

73.00 Wash, 10 lks. wide, 1 ft. deep, drains E.; asc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 28, 29, 32 and 33, with brass cap mkd.

T 32 S R 2 W
S 29 | S 28
S 32 | S 33
1913

from which

A pinon, 12 ins. diam., bears N. 41° 30' E., 64 lks. dist., mkd. T32SR2WS28BT.

A pinon, 12 ins. diam., bears S. 72° E., 31 lks. dist., mkd. T32SR2WS33BT.

A pinon, 16 ins. diam., bears S. 56° 30' W., 61 lks. dist., mkd. T32SR2WS32BT.

A pinon, 8 ins. diam., bears N. 68° W., 31 lks. dist., mkd. T32SR2WS29BT.

Land, rolling mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and pinon.

Undergrowth, sage brush and scattering grass.

Fair grazing. Eastern exposure.

Thence I run

N. 89° 54' E., on random line for dist. only. bet. secs. 28&33.

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

July 26, 1913: I set off 19° 28' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° N.

Chains	
80.38	Intersect the N. and S. line, 44 lks. N. of the cor. of secs. 27, 28, 33 and 34. At point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 28 and 33, with brass cap mkd. T 32 S R 2 W / S 28 / S 33 / 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	I destroy all mks. on the old cor. of secs. 27, 28, 33 and 34, pretaining to secs. 28 and 33.
	From the cor. of secs. 28, 29, 32 and 33;
	N. 89° 54' E., on true line bet. secs. 28 and 33.
	Asc. over mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth, over unimportant small draws and ridges, draining SE., and bearing NW. and SE.
40.19	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. ¼ / S 28 / S 33 / 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within limits suitable for bearing trees.
80.38	The cor. of secs. 28 and 33.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, sage brush and scattering grass.
	Fair grazing. Eastern exposure.
	N. 0° 2' W., bet. secs. 28 and 29.
	Over rolling mountainous land, through scattering scrub cedar and pinon timber, sage brush and grass undergrowth.
1.00	Ridge, bears E. and W. desc.
10.00	Draw, drains E., 90 ft. below ridge; asc.
16.00	Ridge, 100 ft. above draw, bears E. and W., enter dense timber.
20.00	Draw, drains E., 95 ft. below ridge; asc.
28.00	Ridge, bears E. and W., 70 ft. above draw; desc.
32.00	Draw, drains E., 60° ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains.	
	the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 29 | S 28 1913 from which
	A cedar, 5 ins. diam., bears N. 46° 30' E., 34 lks. dist., mkd. ¼S28BT.
	A pinon, 10 ins. diam., bears N. 69° W., 21 lks. dist., mkd. ¼S29BT.
47.50	Draw, drains SE., 20 ft, below ¼ sec. cor.; asc.
54.00	Ridge, bears E. and W., 115 ft. above draw; d esc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 20, 21, 28 and 29, with brass cap mkd.
	T 32 S R 2 W S 20 | S 21 S 29 | S 28 1913 from which
	A pinon, 5 ins. diam., bears N. 57° E., 132 lks. dist., mkd. T32SR2WS21BT.
	A cedar, 10 ins. diam., bears S. 54° E., 124 lks. dist., mkd. T32SR2WS28BT.
	A cedar, 6 ins. diam., bears S. 14° W., 126 lks. dist., mkd. T32SR2WS29BT.
	A pinon, 6 ins. diam., bears N. 89° 30' W., 69 lks. dist., mkd. T32SR2WS20BT.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, scrub cedar and pinon.
	Undergrowth, sage brush and scattering grass.
	Fair grazing. Eastern exposure.
	July 26, 1913.

July 28, 1913: I set off 19° 3' N. on the decl. arc, 38° 1' N. on the lat. arc, and at 8h 30m, a. m., app. t., determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Chains	
	Thence I run
	N. 89° 54' E., on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
80.42	Intersect the N. and S. line, 14 lks. S. of the cor. of secs. 21, 22, 27 and 28.
	Thence
	S. 89° 48' W., on true line bet. secs. 21 and 28.
	Asc. over rolling mountainous land, through cedar and pinon timber.
18.50	Draw, drains S., asc.
25.50	Ridge, bears NW. and SE., 85 ft. above draw; continue asc.
40.21	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	¼ S 21 / S 28 1913 from which
	A pinon, 10 ins. diam., bears S. 1° E., 32 lks. dist., mkd. ¼S28BT.
	A pinon, 5 ins. diam., bears N. 40° 30' E., 35 lks. dist., mkd. ¼S21BT.
48.00	Ridge, bears N. and S., desc.
50.00	Draw, drains S., 20 ft. below ridge; asc.
52.00	Ridge, bears N. and S., 40 ft. above draw, desc.
80.42	The cor. of secs. 20, 21, 28 and 29.
	Land, rolling mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, scrub cedar and pinon.
	Undergrowth, short sagebrush and grass.
	Fair grazing. Eastern exposure.
	July 28, 1913: I set off 19° 1' N. on the decl. arc, and at apparent noon, observe the sun on the meridiam, the resulting lat. is 38° 1' N.

	Thence I run
	N. 0° 2' W., bet. secs. 20 and 21.
	Desc. over mountainous land, through scattering scrub

Chains.	
	cedar and pinon timber, sagebrush and grass undergrowth.
3.75	Wash, 20 lks. wide, 3 ft. deep, drains E.; asc.
12.00	Ridge, bears E. and W., 250 ft. above wash; desc. Enter dense scrub cedar and piñon.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 20 | S 21
1913

from which

A cedar, 5 ins. diam., bears S. 15° 30' W., 67 lks. dist., mkd. ¼S20BT.

A piñon, 10 ins. diam., bears N. 62° E., 111 lks. dist., mkd. ¼S21BT.

41.00	Small wash, drains E., asc.
48.50	Ridge, bears SW. and E., desc.
50.00	Bottom of desc., bears E. and W., desc. gradually, leave dense timber, enter open sage brush land.
67.50	Old road, bears E. and W.
72.00	Deer Creek, 30 lks. wide, 5 ft. deep, stream of water in bottom, 2 lks. wide, 2 to 3 ins. deep, clear, course E. Cottonwood timber along banks.
75.80	Start asc. over south slope, bears E. and W., enter scattering scrub cedar and piñon timber.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 16, 17, 20 and 21, with brass cap mkd.

T 32 S R 2 W
S 17 | S 16
S 20 | S 21
1913

from which

A cedar, 24 ins. diam., bears N. 21° E., 38 lks. dist., mkd. T32SR2WS16BT.

A piñon, 8 ins. diam., bears S. 75° E., 59 lks. dist., mkd. T32SR2WS21BT.

A cedar, 24 ins. diam., bears S. 22° W., 97 lks. dist., mkd. T32SR2WS20BT.

A piñon, 18 ins. diam., bears N. 64° W.,

Chains	
	88 lks. dist., mkd. T32SR2WS17BT.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep, on rocky subsoil.
	Timber, scrub cedar and piñon, cottonwood along Deer Creek.
	Undergrowth, shagebrush and grass.
	Fair grazing. Eastern exposure.
	July 28, 1913.

	July 29, 1913: At 7h 30m, a. m., app. t., I set off 38° 1' 30" N. on the lat. arc; 18° 50' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 16, 17, 20 and 21.
	Thence I run
	N. 89° 48' E., on a random line bet. secs. 16 and 21.
40.00	Set temp ¼ sec. cor.
80.17	Intersect the N. and S. line, 7 lks. N. of the cor. of secs. 15, 16, 21 and 22, heretofore described.
	Thence
	S. 89° 51' W., on true line bet. secs. 16 and 21.
	Asc. gradually over rolling land, through sage brush and grass undergrowth.
6.30	Wire fence, bears N. and S.
40.08½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 16 S 21 1913
	Dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
44.00	Old road, bears N. 70° E. and S. 70° W.
57.00	Deer Creek, 30 lks. wide, 5 ft. deep, stream in bottom, 2 lks. wide, 2 to 3 ins. deep, course N. 60° E., continue along creek bottom.
63.80	Leave Creek bottom, bears E. and S 60° W.; asc. through scattering scrub cedar and pinon timber.

Chains.	
77.00	Small gulch, drains SE., continue asc.
80.17	The cor. of secs. 16, 17, 20 and 21.
	Land, rolling and mountainous.
	Soil, light sandy loam, more than two ft. deep.; rocky and shallow on slopes.
	Timber, scattering cottonwood along Deer Creek. Scrub cedar and piñon in the western portion.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 29, At this cor. I set off 18° 47' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 1' N.

Thence I run

N. 0° 2' W., bet. secs. 16 and 17.

Asc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.

2.50	Small gulch, drains SE., continue asc.
17.00	Ridge, bears E. and W., 325 ft. above sec. cor.; desc.
22.50	Draw, drains E., 10 lks. wide, 5 ft. deep. 125 ft. below ridge; asc.
25.50	Head of small draw, drains SE.; continue asc.
34.00	Ridge, bears E. and W., 125 ft. above draw; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 17 | S 16
1913

from which

A piñon, 10 ins. diam., bears N. 70° W., 56 lks. dist., mkd. ¼S17BT.

A cedar, 12 ins. diam., bears N. 86° 30' E., 99 lks. dist., mkd. ¼S16BT.

53.00	Wash, 10 lks. wide, 3 ft. deep, drains N. 60° E.; asc.
55.90	Small wash, drains E.; continue asc.
60.00	Ridge, bears E. and W. 60 ft. above wash; desc.
64.00	Ravine drains NE., 60 ft. below ridge; asc.

chains.	
72.00	Ridge, bears N. 60° E. and S. 60° W., 80 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

T 32 S R 2 W

S 8	S 9
S 17	S 16

1913 from which

A piñon, 6 ins. diam., bears S. 63° 30' E., 71 lks. dist., mkd. T32SR2WS16BT.

A piñon, 5 ins. diam., bears N. 66° E., 32 lks. dist., mkd. T32SR2WS9BT.

A piñon, 10 ins. diam., bears N. 82° 30' W., 37 lks. dist., mkd. T32SR2WS8BT.

A piñon, 14 ins. diam., bears S. 51° 30' W., 141 lks. dist., mkd. T32SR2WS17 BT.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Fair grazing. Eastern exposure.

July 29, 1913.

July 31, 1913: At 9h, a. m., app. t., I set off 38° 2' N. on the lat. arc; 18° 19' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

Thence I run

N. 89° 51' E., on a random line bet. secs. 9 and 16.

40.00 Set temp. ¼ sec. cor.

July 31, 1913: I set off 18° 17' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 2' N.

80.28 Intersect the N. and S. line, 14 lks. S. of the cor. of secs. 9, 10, 15 and 16.

Chains.	Thence
	S. 89° 45' W., on true line bet. secs. 9 and 16.
	Asc. over mountainous land, through dense cedar and piñon timber, sage brush and grass.
1.25	Ravine drains N. 60° E.; continue asc.
8.00	Ridge, bears N. and S. 30° W., 70 ft. above ravine; desc.
19.80	Ravine, drains NE., 105 ft. below ridge; asc.
23.50	Spur, projects NE., 50 ft. above ravine; desc.
32.00	Ravine, drains N. 65° E., 70 ft. below spur; asc.
40.14	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.

¼

S 9
S 16

1913 from which

A piñon, 16 ins. diam., bears N. 44° W., 31 lks. dist., mkd. ¼S9BT.

A piñon, 16 ins. diam., bears S. 66° W., 37 lks. dist., mkd. ¼S16BT.

Corner established 30 ft. above ravine.

46.00	Spur, projects N. 35° E., 50 ft. above ¼ sec. cor; desc.
48.50	Ravine, heads 5 chs. S., drains NE., 55 ft. below spur; asc.
80.28	The cor. of secs. 8, 9, 16 and 17.

Land, mountainous, drains NE.

Soil, coarse gravel and rocky on rocky subsoil.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Fair grazing. Eastern exposure.

July 31, 1913.

August 1, 1913: At 8h, a. m., app. t., I set off 38° 2' N. on the lat. arc; 18° 6' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 8, 9, 16 and 17.

Thence I run

N. 0° 2' W., bet. secs. 8 and 9.

Desc. over mountainous land, through dense scrub cedar

Chains.	
	and piñon timber, sagebrush and grass undergrowth.
16.50	Ravine, drains E., 290 ft. below sec. cor.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 8	S 9

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing trees.

44.00	Ridge, bears E. and W., 300 ft. above ravine; desc.
52.00	Ravine, drains NW., 50 ft. below ridge, asc.
59.00	Ridge, bears E. and W., 60 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

T 32 S R 2 W

S 5	S 4
S 8	S 9

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, coarse gravel and rocky on rocky subsoil.

Timber, dense and scattering scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Fair grazing. Eastern exposure.

Thence I run

N. 89° 45' E., on a random line bet. secs. 4 amd 9.

40.00	Set temp. ¼ sec. cor.

August 1, 1913: I set off 18° 3' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.

80.35	Intersect the N. and S. line, 7 lks. S. of the cor. of

Chains. secs. 3, 4, 9 and 10.

Thence

S. 89° 42' W., on true line bet. secs. 4 and 9.

Asc. over mountainous land through dense scrub cedar and piñon timber over SE. slope of ridge, sagebrush and grass undergrowth.

18.30 Ridge, bears NE. and W., continue along ridge.

26.30 Leave ridge, bears SW., desc, over NW. slope.

34.90 Ravine, drains NE., 80 ft. below ridge.

35.30 Start asc. over E. slope of low ridge.

37.00 Ridge, bears N. and S.; desc.

40.17½ Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.

$\frac{S\ \frac{1}{4}\ 4}{S\ 9}$

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

No trees within reasonable distance of suitable size for bearing trees.

42.40 Head of shallow ravine, drains NE., continue asc.

55.40 Ridge, bears NE. and SW., 110 ft. above beginning of asc.; desc.

80.35 The cor. of secs. 4, 5, 8 and 9.

Land, mountainous, drains NE.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and piñon.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

Thence I run

N. 0° 2' W., on true line bet. secs. 4 and 5, knowing that a closing cor. will be necessary on the N. bdy. of the tp.

Desc. over mountainous land, through scattering yellow pine timber, sagebrush and grass undergrowth.

9.00 Dry draw, 20 lks. wide, 4 ft. deep, drains E.

12.00 Start asc. bears E. and W., through scattering scrub cedar

Chains	
	and piñon timber.
22.00	Spur, projects E., 175 ft. above draw; desc.
24.50	Ravine, drains SE.; asc.
36.00	Spur, projects E., 200 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S 5 | S 4
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
No trees within reasonable distance of suitable size for bearing trees. Cor. established on low ridge bears E. & W.

50.00	Ravine, drains E.; asc.
80.46	Intersect the N. bdy. of the tp., 3.87 chs. E. of the cor. of secs. 32 and 33, T. 31 S., R. 2 W., heretofore described. At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. for secs. 4 and 5, with brass cap mkd.

T 31 S R 2 W
S 32 | S 33
C C
S 5 | S 4
T 32 S
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
No trees within reasonable distance of suitable size for bearing trees.
Land, mountainous, drains E.
Soil, coarse gravel and rocky, on rocky subsoil.
Timber, scrub cedar and piñon and a few scattering yellow pine in the southern portion.
Undergrowth, sagebrush and grass.
Good grazing. Eastern exposure.

August 1, 1913.

Jos. C. Thoma
U. S. Surveyor.

Chains.

July 29, 1913: At 8h, a. m., app. t., I set off 37° 59' N. on the lat. arc; 18° 49' 30" N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the tp., heretofore described.

Thence I run

N. 0° 3' W., bet. secs. 31 and 32.

Desc. over mountainous land, through medium undergrowth of sagebrush and grass.

24.50 Ravine; drains N. 75° E., 170 ft. below sec. cor.; asc.

31.00 Enter dense scrub cedar and piñon timber, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼ S 31	S 32

1913

from which

A piñon, 12 ins. diam., bears N. 62° E., 27 lks. dist., mkd. ¼S32BT.

A piñon, 7 ins. diam., bears S. 67° 15' W., 12 lks. dist., mkd. ¼S31BT.

Corner established 215 ft. above ravine.

62.00 Spur, projects E., 205 ft. above ¼ sec. cor.; desc.

63.00 Leave dense, enter scattering timber, bears NE. and SW.

67.20 Ravine, drains E., 65 ft. below spur; asc.

75.00 Ridge, bears N. 70° E. and W., 85 ft. above ravine; desc.

79.50 Ravine, heads 6 chs. SW., drains N. 65° E., 35 ft. below ridge; asc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, with brass cap mkd.

T 32 S R 2 W

S 30	S 29
S 31	S 32

1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing

Chains.	
	trees.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.

	Thence I run
	East, on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
	July 29, 1913: I set off 18° 47' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° N.
80.00	Intersect the N. and S. line, 16 lks. S. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	S. 89° 53' W., on true line bet. secs. 29 and 32.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, scattering sagebrush and grass.
10.70	Ravine, drains SE., 120 ft. below sec. cor.; asc.
36.00	Leave dense, enter scattering timber, bears N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 29 / S 32
	1913 from which
	A piñon, 10 ins. diam., bears N. 20° E., 90 lks. dist., mkd. ¼S29BT.
	A piñon, 12 ins. diam., bears S. 14° 30' W., 83 lks. dist., mkd. ¼S32BT.
	Corner established 390 ft. above ravine.
74.00	Spur, projects SE., from the SW., 135 ft. above ¼ sec. cor.
78.80	Ravine, drains N. 65° E., 20 ft. below spur; asc.
80.00	The cor. of secs. 29, 30, 31 and 32., 15 ft. above ravine.
	Land, mountainous, drains E.

Chains. Soil, coarse gravel and rocky, on rocky clay subsoil.

Timber, scrub cedar and piñon.

Undergrowth, scattering sagebrush and grass.

Fair grazing. Eastern exposure.

Thence I run

West, on random line bet. secs. 30 and 31.

40.00 Set temp. ¼ sec. cor.

July 29, 1913.

July 30, 1913: At 8h, a. m., app. t., I set off 38° N. on the lat. arc; 18° 35' N. on the decl. arc, and determine a meridian with the solar.

80.00 Intersect the W. bdy. of the tp., 14 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.

Thence

S. 89° 54' E., on true line bet. secs. 30 and 31.

Desc. over mountainous land, through sagebrush and grass undergrowth.

8.50 Ravine, heads 4 chs. S., drains NW., 115 ft. below sec. cor

10.00 Enter scattering scrub cedar and piñon timber, bears NW. and S.

31.00 Ridge, bears N. 60° E. and S. 75° W., 120 ft. above ravine; desc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 30
S 31

1913 from which

A piñon, 10 ins. diam., bears N. 33° 45' W., 91 lks. dist., mkd. ¼S30BT.

A piñon, 6 ins. diam., bears S. 80° E., 123 lks. dist., mkd. ¼S31BT.

Corner established 80 ft. below ridge.

46.00 Ravine, drains NE., 85 ft. below ¼ sec. cor.; asc.

62.50 Spur, projects N. 75° E., 100 ft. above ravine; desc.

Chains	
80.00	The cor. of secs. 29, 30, 31 and 32. 120 ft. below spur.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Fair grazing. Eastern exposure.

	Thence I run
	N. 0° 3' W., bet. secs. 29 and 30.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and scattering grass undergrowth.
6.50	Ridge, bears E. and S. 60° W., 50 ft. above cor.; desc.
21.90	Ravine, drains N. 70° E., 185 ft. below ridge; asc.
25.20	Spur, projects E., 50 ft. above ravine; desc.
33.30	Ravine, drains N. 75° E., 105 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

	¼ S 30 | S 29
	1913
	from which
	A piñon, 5 ins. diam., bears N. 46° E., 44 lks. dist., mkd. ¼S29BT.
	A piñon, 6 ins. diam., bears S. 11° 45' W., 64 lks. dist., mkd. ¼S30BT.
	Corner established 125 ft. above ravine.
43.00	Ridge, bears N. 65° E., and S. 65° W., 40 ft. above cor.
52.50	Ravine, drains N. 60° E., 160 ft. below ridge; asc.
58.50	Ridge, bears N. 60° E. and S. 60° W., 65 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 19, 20, 29 and 30, with brass cap mkd.
	T 32 S. R 2 W.
	S 19 | S 20
	S 30 | S 29
	1913

Chains.	
	from which
	A piñon, 7 ins. diam., bears N. 41° 30' E., 79 lks. dist., mkd. T32SR2WS20BT.
	A piñon, 8 ins. diam., bears N. 36° W., 117 lks. dist., mkd. T32SR2WS19BT.
	A piñon, 10 ins. diam., bears S. 33° 15' W., 65 lks. dist., mkd. T32SR2WS30BT.
	A piñon, 5 ins. diam., bears S. 45° E., 45 lks. dist., mkd. T32SR2WS29BT.
	Corner established 365 ft. below ridge.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Fair grazing. Eastern exposure.
	July 30, 1913: I set off 18° 32' 30" N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 38° 1' N.

	Thence I run
	N. 89° 53' E., on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect the N. and S. line, 30 lks. N. of the cor. of secs. 20, 21, 28 and 29.
	Thence
	N. 89° 54' W., on true line bet. secs. 20 and 29.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.
6.50	Ravine, drains N. 65° E., 75 ft. below sec. cor.; asc.
21.00	Ridge, bears N. 60° E. and S. 60° W., 215 ft. above ravine; desc. Leave dense, enter scattering timber bears NE. and SW.
37.75	Ravine, drains NE., 70 ft. below ridge; asc.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 in. in the ground for the ¼ sec. cor. with brass cap mkd.

Chains.	
	$\frac{\frac{1}{4}\ S\ 20}{S\ 29}$ 1913 from which
	A pinon, 6 ins. diam., bears N. 70° W., 73 lks. dist., mkd. ¼S20BT.
	A pinon, 7 ins. diam., bears S. 14° 15' W., 12 lks. dist., mkd. ¼S29BT.
	Corner established 40 ft. above ravine.
48.00	Spur, projects NE., 70 ft. above ¼ sec. cor.; desc.
56.00	Ravine, drains NE., 85 ft. below spur; asc.
61.70	Spur, projects NE., 45 ft. above ravine; desc.
72.00	Ravine, drains N., heads 4 chs. S., 95 ft. below spur; asc.
74.70	Spur, projects N. 15° E., 50 ft. above ravine; desc.
79.40	Ravine. drains N. 10° E., 100 ft. below spur; asc.
79.95	The cor. of secs. 19, 20, 29 and 30, 10 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and pinon.
	Undergrowth, sagebrush and grass.
	Fair grazing. Eastern exposure.
	July 30, 1913.
	July 31, 1913: At 8h, a. m., app. t. I set off 38° 1' N. on the lat. arc; 18° 20' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 19, 20, 29 and 30.
	Thence I run
	N. 89° 54' W., on a random line bet. secs. 19 and 30.
40.00	Set temp. ¼ sec. cor.
80.07	Intersect the W. bdy. of the tp., 2 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	July 31, 1913: At this cor. I set off 18° 17' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 1' N.

Chains	
	Thence
	S. 89° 53' E., on true line bet. secs. 19 and 30.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
15.70	Deer Creek, drains N. 60° E., 3 lks. wide. 2 to 3 ins. deep, claar water, 120 ft. below sec. cor. Cottonwood timber along banks.
40.07	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	$\frac{\frac{1}{4}\ S\ 19}{S\ 30}$
	1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
47.60	Spur, projects N., 8 chs., 55 ft. above ¼ sec. cor.; desc.
50.10	Ravine, drains N., 35 ft. below spur; asc.
58.10	Spur, projects N., 120 ft. above ravine; desc.
66.20	Ravine, drains N., 130 ft. below spur; asc.
76.10	Spur, projects N. 10° E., 130 ft. above ravine; desc.
80.07	The cor. of secs. 19, 20, 29 and 30, 90 ft. below spur.
	Land, mountainous, drains N.
	Soil, coarse gravel and light sandy loam along Deer Creek, on rocky subsoil.
	Timber, scrub cedar and piñon, cottonwood along Deer Creek.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	July 31, 1913: I set off 18° 17' N., on the decl. arc, and at apparent noon, observe the sun on the meridian the resulting lat. is 38° 1' N.

	Thence I run
	N. 0° 3' W., bet. secs. 19 and 20.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber timber, sagebrush and grass.

Chains.	
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.

¼	
S 19	S 20
1913	

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Corner established 240 ft. below sec. cor.
48.90	Deer Creek, 3 lks. wide, 2 ins. deep, clear water, coarse N. 75° E., 35 ft. below ¼ sec. cor.; asc. Cottonwood and birch along banks.
51.00	Enter dense scrub cedar and piñon timber, bears E. and W.
60.00	Spur, projects S. 70° E., 155 ft. above creek; desc.
66.80	Ravine, drains SE., 65 ft. below spur; asc.
78.50	Spur, projects SE., 125 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 17, 18, 19 and 20, with brass cap mkd.

T 32 S R 2 W

S 18	S 17
S 19	S 20
1913	

from which

A cedar, 8 ins. diam., bears N. 41° 15' E., 44 lks. dist., mkd. T32SR2WS17BT.

A piñon, 6 ins. diam., bears N. 35° 30' W., 23 lks. dist., mkd. T32SR2WS18BT.

A cedar, 10 ins. diam., bears S. 51° 45' W., 25 lks. dist., mkd. T32SR2WS19BT.

A piñon, 6 ins. diam., bears S. 61° 30' E., 58 lks. dist., mkd. T32SR2WS20BT.

Corner established 10 ft. below spur.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and piñon, cottonwood along Deer Creek.

Undergrowth, sagebrush and grass, birch along Deer Creek.

Chains	
	Good grazing. Eastern exposure.
	July 31, 1913.
	August 1, 1913: At 8h, a. m., app. t., I set off 38° 1' 30" N. on the lat. arc; 18° 6' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	S. 89° 54' E., on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect the N. and S. line, 12 lks. S. of the cor. of secs. 16, 17, 20 and 21.
	Thence
	N. 89° 59' W., on true line bet. secs. 17 and 20.
	Asc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.
19.10	Spur, projects S., 95 ft. above sec. cor.; desc.
24.80	Ravine, drains S., 50 ft. below spur; asc.
32.10	Spur, projects S. 10° E., 140 ft. above ravine; desc.
40.05	Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, on solid rock in mound of stone, for the ¼ sec. cor. with brass cap mkd.
	¼ S 17 / S 20
	1913 from which
	A piñon, 6 ins. diam., bears N. 78° 15' W., 27 lks. dist., mkd. ¼S17BT.
	A piñon, 6 ins. diam., bears S. 35° 15' E., 82 lks. dist., mkd. ¼S20BT.
48.60	Ravine, drains S., 160 ft. below ¼ sec. cor; asc.
69.10	Spur, projects S., 240 ft. above ravine; desc.
78.20	Ravine, drains SE., 100 ft. below spur; asc.
80.10	The cor. of secs. 17, 18, 19 and 20, 40 ft. above ravine.
	Land, mountainous, drains S.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.

Chains	
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 1, 1913: I set off 18° 3' N. on the decl. arc, and at apparent noon, observe the sun on the meridian the resulting lat. is 38° 1' N.

	Thence I run
	N. 89° 53' W., on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect the W. bdy. of the tp., 11 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence
	S. 89° 48' E., on true line bet. secs. 18 and 19.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.
14.80	Ravine, drains N. 65° E., 165 ft. below sec. cor.; asc.
27.60	Spur, projects N. 70° E., 50 ft. above ravine; desc.
40.06	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	¼ S 18 / S 19
	1913 from which
	A piñon, 7 ins. diam., bears N. 41° 15' E., 22 lks. dist., mkd. ¼S18BT.
	A piñon, 6 ins. diam., bears S. 10° 30' W., 23 lks. dist., mkd. ¼S19BT.
	Corner established 210 ft. below spur.
66.80	Ravine, drains SE., 240 ft. below ¼ sec. cor.; asc.
76.10	Spur, projects SE., 125 ft. above ravine, desc.
80.06	The cor. of secs. 17, 18, 19 and 20, 75 ft. below spur.
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 1, 1913.

Chains.	
	August 2, 1913: At 8h 30m, a. m., app. t., I set off 38° 1' 30" N. on the lat. arc; 17° 50' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	N. 0° 3' W., bet. secs. 17 and 18.
	Asc. over mountainous land, through dense scrub cedar and piñon timber, scattering sagebrush and grass undergrowth
1.75	Ravine, drains SE., heads 6 chs. NW., 20 ft. below cor. asc
10.50	Ridge, bears E. and W., 180 ft. above ravine; desc.
18.10	Ravine, drains N. 60° E., 140 ft. below spur; asc.
32.50	Ridge, bears N. 70° E. and W., 250 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.

¼ S 18	S 17

1913 from which

A piñon, 6 ins. diam., bears S. 18° E., 16 lks. dist., mkd. ¼S17BT.

A piñon, 6 ins. diam., bears S. 69° 45' W., 16 lks. dist., mkd. ¼S18BT.

Corner established 135 ft. below ridge.

56.00	Leave dense, enter scattering timber, bears E. and W.
60.30	Ravine, drains E., 245 ft. below ¼ sec. cor.; asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 7, 8, 17 and 18, with brass cap mkd.

T 32 S R 2 W

S 7	S 8
S 18	S 17

1913 from which

A cedar, 5 ins. diam., bears N. 31° 15' E., 67 lks. dist., mkd. T32SR2WS8BT.

A piñon, 6 ins. diam., bears N. 22° 30' W., 36 lks. dist., mkd. T32SR2WS7BT.

A piñon, 8 ins. diam., bears S. 57° 30' W.,

Chains.	
	60 lks. dist., mkd. T32SR2WS18BT.
	A piñon, 6 ins. diam., bears S. 81° 15' E., 59 lks. dist., mkd. T32SR2WS17BT.
	Corner established 240 ft. above ravine.
	Land, mountainous.
	Soil, coarse gravel and rocky on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 2: Cloudy and rain at noon and in p. m.
	August 2, 1913.
	August 4, 1913: At 8h, a. m., app. t., I set pff 38° 2' N. on the lat. arc, 17° 19' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 7, 8, 17 and 18.
	Thence I run
	S. 89° 59' E., on a random line bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
80.25	Intersect the N. and S. line, 9 lks. N. of the cor. of secs. 8, 9, 16 and 17.
	Thence
	N. 89° 55' W., on true line bet. secs. 8 and 17.
	Desc. over mountainous land, through dense scrub cedar and piñon timber, sagebrush and grass undergrowth.
3.30	Ravine, drains N., 95 ft. below sec. cor.; asc.
13.80	Spur, projects N., 95 ft. above ravine; desc.
34.30	Foot of desc., bears N. 70° E., and S. 70° W., leave dense, enter scattering timber.
39.50	Ravine, drains N. 70° E., asc.
40.12½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	¼ S 8 / S 17
	1913

Chains.	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
47.80	Enter dense timber, bears N. 65° E. and S. 65° W.; asc. along N. slope of ridge.
78.80	Spur, projects S., 340 ft. above ravine; desc.
79.30	Leave dense, enter scattering timber, bears NW. and SE.
80.25	The cor. of secs. 7, 8, 17 and 18, 30 ft. below spur.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 4, 1913: I set off 17° 16' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 2' N.
	Thence I run
	N. 89° 48' W., on a random line bet. secs. 7 and 18.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect the W. bdy. of the tp., 23 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence
	S. 89° 58' E., on true line bet. secs. 7 and 18.
	Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
1.00	Spur, projects N., 10 ft. above sec. cor.; desc.
6.10	Ravine, drains N., heads 5 chs. S., 115 ft. below spur; asc.
12.00	Spur, projects N., 110 ft. above ravine; desc.
14.10	Ravine, drains N., 45 ft. below spur; asc.
21.20	Spur, projects N. 30° E., 220 ft. above ravine; desc.
27.50	Ravine, drains N. 30° E., heads 6 chs. S., 130 ft. below spur; asc.
39.98	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 7
S 18

1913

Chains.	
	from which
	A piñon, 6 ins. diam., bears N. 59° 45' E., 19 lks. dist., mkd. ¼S7BT.
	A piñon, 5 ins. diam., bears S. 22° 45' E., 42 lks. dist., mkd. ¼S18BT.
	Corner established 140 ft. above ravine on spur proj. N.
43.50	Ravine, heads 3 chs. SW., drains NE., 70 ft. below cor.
63.00	Ridge, bears N. 80° E. and S. 80° W., 135 ft. above ravine; desc.
79.98	The cor. of secs. 7, 8, 17 and 18, 190 ft. below ridge.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 4, 1913.

August 5, 1913: At 8h, a. m., app. t., I set off 38° 2' N. on the lat. arc; 17° 3' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 7, 8, 17 and 18.

Thence I run

N. 0° 3' W., bet. secs. 7 and 8.

Asc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass.

3.50	Ridge, bears N. 80° E. and S. 80° W., 90 ft. above sec. cor.; desc.
4.00	Enter dense timber, bears E. and W.
16.80	Ravine, drains NE., 170 ft. below ridge; asc.
21.00	Spur, projects NE., 50 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd.

¼ S 7 | S 8

1913

from which

A piñon, 7 ins. diam., bears S. 35° E.,

Chains. 33 lks. dist., mkd. ¼S8BT.

A piñon, 8 ins. diam., bears N. 67° 45' W.,

41 lks. dist., mkd. ¼S7BT.

Corner established 210 ft. below spur.

49.00 Leave dense, enter scattering timber, bears E. and W.

53.60 Deep Creek, 3 lks. wide, 3 ins. deep, clear water, course E., 105 ft. below spur. Cottonwood and aspen timber along banks. Asc.

57.00 Enter dense timber, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 5, 6, 7 and 8, with brass cap mkd.

T 32 S R 2 W

S 6	S 5
S 7	S 8

1913 fromwhich

A piñon, 8 ins. diam., bears N. 56° 15' E.,

25 lks. dist., mkd. T32SR2WS5BT.

A piñon, 14 ins. diam., bears N. 61° 30' W.,

56 lks. dist., mkd. T32SR2WS6BT.

A piñon, 6 ins. diam., bears S. 8° 45' W.,

45 lks. dist., mkd. T32SR2WS7BT.

A cedar, 8 ins. diam., bears S. 73° 30' E.,

33 lks. dist., mkd. T32SR2WS8BT.

Corner established 325 ft. above creek.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky subsoil.

Timber, scrub cedar and pinon, cottonwood and aspen along Deep Creek.

Undergrowth, sagebrush and grass.

Good grazing. Eastern exposure.

August 5, 1913: At this cor. I set off 17° N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.

Thence I run

Chains.	
	S. 89° 55' E., on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect the N. and S. line, 2 lks. S. of the cor. of secs. 4, 5, 8 and 9.
	Thence
	N. 89° 56' W., on true line bet. secs. 5 and 8.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
8.10	Deep Creek, (dry) drains NE.; asc.
40.10	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	¼ S 5 / S 8. 1913. from which
	A cedar, 6 ins. diam., bears N. 15° E., 10 lks. dist., mkd. ¼S5BT.
	A piñon, 6 ins. diam., bears S. 30° W., 63 lks. dist., mkd. ¼S8BT.
	Corner established 350 ft. above Deep Creek; asc. along S. slope of ridge.
80.20	The cor. of secs. 5, 6, 7 and 8, 80 ft. above ¼ sec. cor.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 5, 1913.

	August 6, 1913: At 8h. a. m., app. t., I set off 38° 3' N. on the lat. arc; 16° 47' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 7, and 8.
	Thence I run
	N. 89° 58' W., on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
80.05	Intersect the W. bdy. of the tp., 2 lks. N. of the cor. of

Chains.	
	secs. 6, 7, and 12, heretofore described.
	Thence I run
	S. 89° 59' E., on true line bet. secs. 6 and 7.
	Desc. over mountainous land, through scattering scrub cedar and piñon timber, sagebrush and grass undergrowth.
33.50	Ravine, drains N. 60° E., 200 ft. below sec. cor. asc.
40.05	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 6 / S 7 1913 from which
	A piñon, 6 ins. diam., bears N. 33° 45' W., 160 lks. dist., mkd. ¼S6BT.
	A piñon, 5 ins. diam., bears S. 43° E., 66 lks. dist., mkd. ¼S7BT.
	Corner established 15 ft. above ravine.
56.00	Enter dense timber, bears N. and SW.
58.00	Ridge, bears N. 75° E. and S. 75° W., 35 ft. above ¼ sec. cor.; desc.
80.05	The cor. of secs. 5, 6, 7 and 8, 175 ft. below ridge.
	Land, mountainous.
	Soil, coarse gravel and rocky, on rocky clay subsoil.
	Timber, scrub cedar and piñon.
	Undergrowth, sagebrush and grass.
	Good grazing. Eastern exposure.
	August 6, 1913: I set off 16° 44' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' N.

	Thence I run
	N. 0° 3' W., on true line bet. secs. 5 and 6, knowing that a closing cor. will be necessary on the N. bdy. of the tp.
	Asc. over mountainous land, through dense scrub cedar and pinon timber, sagebrush and grass undergroth.

Chains.	
12.50	Ridge, bears E. and S. 80° W., 165 ft. above sec. cor.;desc.
19.00	Leave dense, enter scattering timber, bears E. and W.
30.80	Ravine, drains N. 60° E., 250 ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼ S 6 | S 5

1913 from which

A cedar, 6 ins. diam., bears N. 59° 15' E., 22 lks. dist., mkd. ¼S5BT.

A pinon, 12 ins. diam., bears S. 20° W., 53 lks. dist., mkd. ¼S6BT.

Corner established on top of spur projecting NE., 15 ft. above ravine; desc.

41.00	Enter dense timber, bears E. and W.
48.50	Ravine, drains E., 155 ft. below ¼ sec. cor.; asc.
58.00	Ridge, bears E. and S. 75° W., 150 ft. above ravine; desc.
77.20	Pine Creek, dry, drains E., 285 ft. below ridge; asc.
80.45	Interscet the N. bdy. of the tp., 3.87 chs. E. of the cor. of secs. 31 and 32, heretofore described.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. of secs. 5 and 6, with brass cap mkd.

T 31 S R 2 W

S 31 | S 32

C C

S 6 | S 5

T 32 S

1913 from which

A pinon, 16 ins. diam., bears S. 60° E., 8 lks. dist., mkd. T32SR2WS5CCBT.

A pinon, 12 ins. diam., bears S. 47° W., 99 lks. dist., mkd. T32SR2WS6CCBT.

Land, mountainous.

Soil, coarse gravel and rocky, on rocky clay subsoil.

Timber, scrub cedar and pinon.

Undergrowth, sage brush and grass.

Chains. | Good grazing. Eastern exposure.

August 6, 1913.

Edward R. Bunbury

U. S. Transitman.

GENERAL DESCRIPTION.

The land embraced in this survey of the township is mountainous, with numerous ridges and ravines draining in an easterly direction into the East Fork of the Sevier River, which flows in a northerly direction through the eastern portion of the township.

The soil is of a coarse light gravel, 2 to 3 ft. in depth, on a rocky light clay subsoil, raising a fair crop of grass for grazing purposes. The only water found in this township, aside from the Sevier River, was in Deep and Deer Creeks, and a small spring in sec. 11. The water in both creeks is shallow and runs very slow. it rises to the surface in places, runs a short distance, then sinks, affording only enough water for stock, but not enough for irrigation. The water from the spring flows a short distance in an easterly direction into the Sevier River.

Scrub cedar and pinon timber abound, which is of little value other than for fuel and fence posts. A few scattering yellow pine and cottonwood timber is found along Deep and Deer Creeks.

George Black, whose post office address is Coyoto, Utah, claims a small log cabin in sec. 11, and has approximately 20 acres under cultivation in the canon bottom along the Sevier River, locally known as Willow Bend, in secs. 2 and 11. The principal crop is alfalfa.

Walter Gleaves, has approximately 20 acres of cultivated land in Sec. 12, adjoining his holdings in T. 32 S., R. 1 W.

I have been unsuccessful in obtaining the names of the

claimants of the corral in sec. 20 and the fence in secs. 16 and 21. Both corral and fence have apparently been abandoned.

I notice no indication of mineral or oil in this township.

Jos. C. Thoma
U. S. Surveyor.

Edward R. Bunbury
U. S. Transitman.

Jos. C. Clark
U. S. Transitman.

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Page

4—080

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants 1913 work see book "G" T.37 S.R.4 E.

For certificate of assistants 1915 work see book "M" T.31 S.R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

..... U. S. Surveyor.

6—276A

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuan of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and tru in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma U.S. Surveyor and Jos. C. Clark, U. S. Transitman, see book "M" T. 31 S., R. 1 W.

..... of the ..... Meridian, in the State of ....., which are represented the foregoing field notes as having been executed by me, and under my direction; and I do furth solemnly swear that all the corners of said survey have been established and perpetuated in strict accor ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey General for ..... and in the specific manner described in the field notes, and th the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....

executed by .....

under his special instructions dated ....., 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

U. S. 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.

.....

U. S. Surveyor General.

6—2761

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

.....

.....

.....

.....

.....

.....

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

6—2761

U. S. Surveyor.

FINAL OATH OF UNITED STATES ~~SURVEYOR~~

I, Edward R. Bunbury, U. S. ~~Surveyor~~ Transitman, do solemnly swear that, in pursuan of special instructions received from the U. S. Surveyor General for Utah, and supplemental special instructions dated July 9, 1913 bearing date of the 11 day of June, 1913, I have well, faithfully, and trul in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi Instructions, and the laws of the United States, surveyed all those parts or portions of E., N. & S.bdrs. and subdivision of T.31 S., R.2 W.; and the W. and S.bdrs. and subdivision of T.32 S., R.2 W.; and retracement of part of S.bdy. T.34 S., R.2 W.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in books "A", "D", "H" and "I" the foregoing field notes as having been executed by me, and under my direction; and I do furth solemnly swear that all the corners of said survey have been established and perpetuated in strict accor ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey General for Utah and in the specific manner described in the field notes, and th the foregoing are the original field notes of such survey.

Edward R. Bunbu
~~U.S. Surveyor.~~
U.S. Transitman

Subscribed by said Edward R. Bunbury, and sworn to before me this 19 day of March, 1915.

SEAL

L. C. Thorsen
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 1917

The foregoing field notes of the ~~survey~~ retracement of part of south boundary and retracement and survey of part of the subdivision of Townshi No. 32 South, Range No. 2 West, of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma, Edward R. Bunbury, and Jos. C. Clark under ~~the~~ special instructions dated June 11, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and surveys they describe, are hereby approved.

L. C. Thorsen
U. S. 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.

6—2764

U. S. Surveyor General.

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Page

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BOOK A-419

J.

FIELD NOTES

Index book A2

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESURVEY OF THE

WEST BOUNDARY,

AND

SURVEY OF THE SUBDIVISION

O F

TOWNSHIP NO.33 SOUTH, RANGE NO.1 WEST

Of the SALT LAKE BASE AND *Meridian,*

the State of U T A H

EXECUTED BY

JOS. C. THOMA AND JOS. C. CLARK

the capacity of U. S. Surveyor and U.S.Transitman *, under instructions dated* June 11 and July 9 *, 191 3*

ued by the United States Surveyor General to govern surveys included in

oup No. 24 *, which were approved by the Commissioner of the General Land*

fice, July 19 *, 1913*

Survey commenced May 29 *, 1915*

Survey completed August 5 *, 1915.*

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BOOK A-419

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BOOK A-419

Book A2

6 indexes

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INDEX DIAGRAM.

Township 33 S, Range 1 W

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Salt Lake Meridian

6—4817

Survey commenced May 29, 1915, and executed with Buff & Buff light mountain transit No. 9218; and Young & Sons' light mountain transit No. 8535; both transits having Smith solar attachments. The horizontal limbs are 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 instruments were examined and approved by the Assistant Supervisor of Surveys at Salt Lake City, Utah.

Measurements were made by using five-chain Lallie steel tapes, with clinometers for determining slopes.

I examine the adjustments of the transits and find them correct; then, to test the solar apparatus, by comparing their 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 my camp, which is located in the SW. ¼ of sec. 30, T. 33 S., R. 1 W.; approximate latitude 37° 55' N., approximate longitude 112° W.; I set off 37° 55' N. on the lat. arc; 21° 32' N. on the decl. arc; and at 9h 57m, a. m., l. m. t., determine with the solar a meridian and mark a point thereof, on a stake driven in the ground approximately 10 chs. N. of my station.

May 29, 1915: I make noon observation for time as follows:

	Watch time.
Sun's W. limb, ...	
Sun's E. limb, ...	12h 25m 10s
Sun's centre, (computed)	12h 24m 02s.

Apparent noon, ...	12h	00m	00s.
Equation of time, May 29, ...		2	54
L. m. t. of apparent noon, ...	11	57	06
Watch time of apparent noon, ...	12	24	02
Watch fast, l. mm. t., ...		26m	56s.

May 29, 1915: I set off 37° 55' N. on the lat. arc; 21° 34' N. on the decl. arc, and at 1h 57m, p. m., l. m. t., determine with the solar a meridian which coincides

with the meridian determined by the a. m. observation.

May 29, 1915: I observe Polaris as follows:

Telescope Direct.	Horizontal Angle. ° ' "	Watch time. h. m. s.
Star,	0 40 00	7 37 50 p
Flag,	0 00 00	
Star,	0 40 00	7 40 30
Flag,	0 00 00	
Telescope Reversed.		
Star,	0 39 00	7 42 00
Flag,	0 00 00	
Star,	0 38 00	7 43 50
Flag,	0 00 00	
Mean,	0 39 15	7 41 02 p.
Watch fast, l. m. t.		26 56
L. m. t. of observation,		7 14 06 p.

U. C. of Polaris, May 29, 1915, . . . 9h 05.2m, a. m.
Red. to long. of station, ... 1.2
U. C. of Polaris at station, . . . 9h 04.0m, a. m.

Hour angle of Polaris, ... 10h 10m.

W. azimuth of Polaris, ... 0° 39' 00"
Angle, W., flag to star, . . . 0 39 15
Flag bears, ... N. 0° 00' 15" E.

The solar apparatus, attached to the Buff & Buff transit, by a. m. and p. m. observations, defines the position for the meridian approximately 15" E. of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

I test the Young & Sons' instrument on the same meridian, at the same hours, a. m. and p. m.; using the latitude and declination arc settings as recorded in the tests of the Buff & Buff transit, and find the meridian thus determined to coincide with the meridian as obtained by the Polaris observations.

May, 29, 1915.

A correction of the tabulated refractions was allowed in the decl. arc settings, for 10000 ft. elevation in the east half and for 8000 ft. elevation in the west half of the township.

Note:

The west boundary of this township was run originally as the Emery Valley Guide Meridian.

Chains.	
	June 8, 1915: At the corner of Ts. 33 and 34 S., R. 2 W. which is
	An iron post, 3 ins. diam., 12 ins. above ground, firmly set; mkd. and witnessed as described in Book A[2] page 44 of this Group.
	June 8, 1915: At the above described cor. I set off 37° 54' N. on the lat. arc; 22° 48' N. on the decl. arc; and at 7h 59m, a. m., l. m. t., determine the meridian with the solar.
	Thence I run
	North, retracing the line bet. secs. 31 and 36.
	Desc. over mountainous land, through dense cedar, pinon, aspen and yellow pine timber.
2.96	Birch Creek, 30 ft. below cor., 5 lks. wide, 1 ft. deep, water clear, course west. Asc.
5.73	The closing cor. for Ts. 33 and 34 S., R. 1 W., heretofore described. Cor. located on ridge, bears E. & W.; continue asc. over SW. slope.
23.65	Top of ridge, 120 ft. above Birch Creek, bears E. and W.; continue gradual asc. over west slope.
29.85	Top of gradual asc., bears NE. and SW.; desc. gradually.
31.13	Draw, 15 lks. wide, 15 ft. deep, drains SW.; asc. grad.
39.64	Fall 31 lks. E. of the ¼ sec. cor., which is
	A trachyte, 8x6x6 ins. above ground, firmly set, mkd. ¼ on the west face. I rebuild mound of stone 3½ ft. base, 1½ ft. high W. of cor.
	The bearing of this half mile is therefore N. 0° 27' W., and the dist. is 39.64 chs.
	North, on 31 lks. offset to the east, with continuous measurement.
40.00	Top of asc., bears E. & W.; descend gradually.
50.60	South edge of small lake, bears E. and W., continue through water 3 ft. deep. The east edge of the lake bears east about 1.50 chs. dist.
56.60	Creek, 3 lks. wide, 1 ft. deep, enters the lake from the NE.
58.20	North edge of lake, bears E. and W.; asc.

Retracement of the West Boundary of T. 33 S., R. 1 W.

Chains.	
62.45	Top of ridge, 40 ft. above lake, bears E. and W.; desc.
77.40	Creek, 2 lks. wide, 3 ins. deep, water clear, course W.
80.00	After diligent search, I find no evidence of the old cor. of secs. 25, 30, 31 and 36. I restore this cor. 6 chs. north of a long leaf pine, 4½ ft. diam., plainly blazed, and mentioned in the notes of the original survey as being 6 chs. south of the original corner.
	Set a trachyte, 14x10x8 ins., 9 ins. in the ground mkd. with 1 notch on the S., and 5 notches on the N. edges, for the cor. of secs. 25, 30, 31 and 36. Impracticable to set iron post, none available.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of corner.
79.94	Fall 59 lks. E. of the restored corner of secs. 25, 30, 31 and 36, above described.
	The bearing of this ½ mile is N. 0° 24' W., and the dist. is 40.30 chs.
	June 8: Cloudy at noon; impossible to observe for lat.
	Land, mountainous.
	Soil, light sand and gravel.
	Timber, scattering cedar, pinon, aspen and yellow pine.
	Undergrowth, sage brush and bunch grass. Good grazing.
	Western exposure.

	Offset over restored corner.
	June 8, 1915: At 1h 59m, p. m., l. m. t., I set off 37° 55' N. on the lat. arc; 22° 49' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	North, retracing the line bet. secs. 25 and 30.
	Desc. gradually over swampy land.
5.89	Fall 143 lks. E. of temp. flag on random line bet. secs. 30 and 31, see page 73, this Book.
13.60	Bottom of gradual desc., bears NE. and SW.; asc. gradually.
27.86	Top of ridge, bears E. and W., 100 ft. above corner; desc.
32.60	Bottom of desc., bears E. and W.; continue level open

Chains.

park, 40 ft. below ridge.

39.72 Fall 13 lks. E. of the ¼ sec. cor., which is

A trachyte, 6x6x4 ins., 3 ins. above ground, firmly set; mkd. ¼ on W. face, at the side of which I set

A trachyte, 12x10x8 ins., 8 ins. in the ground for the ¼ sec. cor., mkd. ¼ on the W. face; 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 cor.

The bearing of this ½ mile is N. 0° 11' W., and the dist. is 39.72 chs.

June 8, 1915.

June 9, 1915: At 8h 29m, p. m., l. m. t., I set off 37° 55' N. on the lat. arc, 22° 53' 30" N. on the decl. arc; and determine the meridian with the solar, and continue my random line north.

70.00 Foot of rocky ridge, bears NE. and SW.; asc.

77.20 Top of rocky ridge, bears NE. and SW., 55 ft. above open park; desc. gradually.

79.62 Fall 23 lks. E. of the cor. of secs. 19, 24, 25 and 30, which is

A trachyte, 10x1x6 ins., 6 ins. above ground, loosely set, mkd. with 2 notches on the S. and 4 notches on the N. edges, at the side of which I set

A trachyte, 24x12x10 ins., 16 ins. in the ground, mkd. with 2 notches on the S. and 4 notches on the N. edges; raise mound of stone, 2 ft. base, 1½ ft. high, W. of cor. The bearing of this ½ mile is N. 0° 09' W., dist. 39.90 chs.

Land, rolling.

Soil, light gravel and rocky.

Timber, scattering yellow pine, cedar and pinon.

Undergrowth, sage brush and grass.

Good grazing. Western exposure.

Offset over corner and run

North, retracing the line bet. secs. 19 and 24.

Desc. over rolling land, through scattering timber.

Retracement of the West Boundry of T. 33 S., R. 1 W.

Chains.

12.00 Small draw, drains SE., 25 ft. below cor.; asc. graduall

28.15 Top of ridge, bears E. and W., 70 ft. above draw; desc.

34.90 Bottom of large darw, drains NE., 45 ft. below top of ridge; asc. gradually.

39.85 Fall 26 lks. E. of the ¼ sec. cor., which is

A trachyte, 3x1x3 ins., lying on the ground, mkd. ¼ on one face, at which point I set

A trachyte, 16x4x12 ins., 11 ins. in the ground, mkd. ¼ on the W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of this ½ mile is therefore, N. 0° 22' W., and the dist. is 39.85 chs.

June 9, 1915: At apparent noon I observe the sun on the meridian, the resulting lat. is 37° 56' N.; the decl. arc setting is 22° 54' N.

Continue my retracement line north.

51.80 Edge of draw, bears NE. and SW.

55.00 Bottom of draw, 15 ft. below ¼ sec. cor., drains NE.; asc. over E. slope of ridge.

69.90 Top of asc., bears E. and W., 105 ft. above draw; desc. over E. slope of ridge.

78.90 Bottom of draw, 25 ft. below top of asc., drains E.

79.56 Fall 74 lks. E. of the cor. of secs. 13, 18, 19 and 24, which is

A trachyte, 16x8x8 ins., 8 ins. above ground, firmly set, mkd. with three notches on the N. and S. edges; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of this ½ mile is therefore N. 0° 41' W., and the dist. is 39.71 chs.

Land, rolling mountainous.

Soil, gravel and rocky.

Timber, scattering scrub cedar and pinon.

Undergrowth, sage brush and bunch grass.

Good grazing. Western exposure.

Chains	
	June 9, 1915: At 1h 59m, p. m., l. m.t, I set off 37° 56' N. on the lat. arc; 22° 55' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.
	At this corner I offset 12.50 chs. east, in accordance with the original notes of the survey of this line.
	Thence I run
	North, on 12.50 chs. offset to the east, retracing the line bet. secs. 13 and 18.
40.00	After diligent search, I find no evidence of the witness ¼ sec. cor.
	June 9, 1915
	June 18, 1915: At this point I set off 37° 57' N. on the lat. arc; 23° 24' 30" N. on the decl. arc, and at 8h 29m, a. m., l. m. t., determine the meridian with the solar, and continue my same offset line north, with continuous measurement.
86.36	Intersect the random line bet. secs. 7 and 18, ran on June 17; See page 85, this book.
	Thence I run
	West, 12.50 chs. and South 6.36 chs., and at
80.00	North of the cor. of secs. 13, 18, 19 and 24; after diligent search, find no evidence of the old cor. of secs. 7, 12, 13 and 18; leave temp. point.
	June 18, 1915: Searching for old corner at noon, unable to observe for lat.
	I return to the point of intersection of my 12.50 chs. offset line to the E., and the random line bet. secs. 7 and 18, and run West, 2.50 chs., in accordance with the original notes.
	June 18, 1915: At 1h 59m, p. m., l. m. t., I set off 23° 25' N. on the decl. arc; 37° 57' 30" N. on the lat. arc; and at a point 10 chs. E. and 6.36 chs. N. of the temp. cor. of secs. 7, 12, 13 and 18, determine a meridian with the solar.
	Thence I run

Chains.	
	North, on 10 ch. offset to the east, retracing the line bet. secs. 7 and 12: starting measurement from the 80 ch. point north of the cor. of secs. 13, 18, 19 and 24.
40.00	Thence West 10 chs. to true line. After diligent search, find no evidence of the old ¼ sec. cor.
	June 18, 1915.
	June 19, 1915: At 7h 59m, a. m., l. m. t., I set off 23° 26' N. on the decl. arc; 37° 58' N. on the lat. arc and determine the meridian with the solar.
	I continue North on 10 ch. offset to the E., with continuous measurement.
80.26	Fall 90 lks. E. of the W. C. to the cor. of secs. 1, 6, 7 and 12, which is
	A trachyte, 20x14x10 ins. above ground, firmly set; mkd. with 5 notches on the S., 1 notch on the N. edges, WC on the W. face. witnessed by the old bearing trees.
	A pinon, 20 ins. diam., bears N. 24° 30' W., 30 lks. dist., mkd. T33SR1WWCBT (Old marks)
	A mahognay, 8 ins. diam., bears S. 22° W., 45 lks. dist., mkd. S7WCBT (Old marks)
	The course of this line is therefore N. 0° 19' W., and the dist. is 160.26 chs.

	Offset over cor.
	Thence I run
	North, on 10 chs. offset line to the east, retracing the line bet. secs. 1 and 6.
40.00	No ¼ cor. or witness ¼ sec. cor. established in the original survey.
	June 19, 1915: I set off 23° 26' N. on the decl. arc; and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 59' N.
79.36	Fall 8.93 chs. East of the cor. of Ts. 32 and 33 S., Rs. 1 and 2 W., which is
	A trachyte, 10x7x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Chains.	
	The bearing of this mile is therefore N. 0° 46' E., and the dist. is 79.36 ch's.

	S. 0° 46' W., resurveying the line bet. secs. 1 and 6, on 10 ch. offset to the East.
	Desc. gradually over rolling mountainous land, through scattering scrub cedar and pinon timber.
5.20	N. edge of North Creek canon, bears NW. and SE.; desc.
8.15	North Creek, 10 lks. wide, 1 ft. deep, water clear, course SW.; 70 ft. below N. edge; asc. grad.
15.60	S. edge of North Creek Canon, 70 ft. above Creek, bears NW. and SE.; asc. gradually.
35.35	Top of gradual asc., bears E. and W., 365 ft. above North Creek; continue over nearly level land.
39.68	By proportional measurement, Set a trachyte, 15x10x10 ins. 10 ins. in the ground for Witness ¼ sec. cor., mkd. ¼ WC on the W. face, from which A pinon, 20 ins. diam., bears S. 89° W., 114 lks. dist., mkd. WC¼S1BT.
	No other trees within reasonable distance suitable for bearing trees.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Impracticable to set iron post, none available.
47.20	Small draw, drains NW.; asc.
60.00	Top of asc. bears NE. and SW., 215 ft. above small draw; asc. gradually.
75.95	Top of gradual asc., bears NE. and SW.; desc. 40 ft. to
79.36	The old witness cor. of secs. 1, 6, 7 and 12, heretofore described.
	Land, mountainous and rolling.
	Soil, gravelly and stony.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Western exposure.

	S. 0° 19' E., resurveying the line bet. secs. 7 and 12,

Resurvey of the West Boundary of T. 33 S., R. 1 W.

Chains.	
	on a 10 chs. offset to the E.
	Desc. over rolling mountainous land, through dense mahogany, and scattering yellow pine timber.
1.70	Foot of slope, bears E. and W.; asc.
10.35	Top of asc., bears E. and W., 210 ft. above foot of slope; continue over nearly level land.
34.40	Draw, 10 lks. wide, 3 ft. deep, drains SE.; asc. 85 ft. t
40.06½	Proportional measurement, Mark a trachyte in place, 24x 24x18 ins. above ground, for witness ¼ sec. cor.; mkd. WC¼ on W. face; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
43.60	Top of asc., bears NW. and SE., 55 ft. above ¼ sec. cor. desc.
53.50	Bottom of draw, 10 lks. wide, 3 ft. deep, drains NW., 75 ft. below top of asc.; desc.
56.10	Top of asc., bears E. and W., 25 ft. above draw; desc.
80.14	Proportional measurement, I offset 10 chs. West and mark A trachyte in place, outcropping from solid ledge, 2 ft. above the surface, with a (X) cross for the exact cor. point, and 4 notches on the S., and 2 notches on the N. edges, for the cor. of secs. 7, 12, 13 and 18, from which
	A pinon, 20 ins. diam., bears N. 66° W., 25 lks. dist., mkd. T33SR2WS12BT.
	Cross (X) on solid ledge, bears S. 30° W., 4 lks. dist., mkd. S13BO.
	Land, rolling mountainous.
	Soil, gravelly and rocky.
	Timber, dense mahogany and scattering yellow pine, pinon and cedar.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Western exposure.

	S. 0° 19' E., resurveying the W. bdy. of T. 33 S., R. 1 W., bet. secs. 13 and 18, on a 12.50 chs. offset to the E.

Chains.	
	Asc. over rolling mountainous land, through scattering timber.
8.21	Top of ridge, bears NW. and SE., desc.
20.60	Draw, 12 lks. wide, 3 ft. deep, drains NW., 300 ft. below top of ridge; asc. abruptly.
36.30	Top of abrupt asc., 235 ft. above draw, bears NW. and SE.
40.06	Proportional measurement, Mark a trachyte in place, 14x 12x7 ins. above ground, WC¼ on the W. face, for witness ¼ sec. cor; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	Desc. over E. slope of ridge.
80.12	Proportional measurement. West 12.50 chs. to the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Land, rolling mountainous.
	Soil, gravelly and stony.
	Timber, scattering cedar, pinon and mohogany.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Western exposure.
	June 19, 1915.

Jos. C. Thoma.
U. S. Surveyor.

Subdivision of T. 33 S., R. 1 W.

Chains	
	June 29, 1915: At 8h 3m, a. m., l. m. t., I set off 37° 54' N. on the lat. arc; 23° 17' N. on the decl. arc, and at the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the tp. h heretofore described, determine a meridian with the so. Sun's declinations were corrected for 10000 ft. elevatio above the sea.
	Thence I run N. 0° 01' W., bet. secs. 35 and 36.
	Desc. gradually over rolling mountainous land, through dense timber.
5.00	Draw, 10 lks. wide, 3 ft. deep, drains NE., 10 ft. below sec. cor.; asc. gradually.
20.00	Low spur, projects N. 70° E., approximately 15 chs., 10 ft. above draw; desc. gradually.
32.50	Shallow wash in hollow from Griffen Spring, 10 lks. wide drains E. approximately 15 chs.; thence N. 60° E.; asc gradually.
33.90	Old road, Coyoto to Escalante, bears NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. ¼ S 35 | S 36 1915 from which
	A spruce, 22 ins. diam., bears N. 14° 15' E., 34 lks. dist., mkd. ¼S36BT.
	A spruce, 17 ins. diam., bears N. 7° 45' W., 28 lks. dist., mkd. ¼S35BT.
51.20	A spruce, 40 ins. diam. on line.
65.00	June 29, 1915: I set off 23° 16' 30" N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 54' N.
77.00	Leave dense spruce timber, bears N. 20° E. and S. 20° W., enter scattering spruce timber.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, with brass cap mkd.

Subdivision of T. 33 S., R. 1 W.

Chains	
	T33S R1W S26 | S25 S35 | S36 1915
	from which
	A spruce, 25 ins. diam., bears N. 32° 15' E., 103 lks. dist., mkd. T33SR1WS25BT.
	A spruce, 18 ins. diam., bears S. 78° 15' E., 91 lks. dist., mkd. T33SR1WS36BT.
	A spruce, 13 ins. diam., bears S. 80° 45' W., 399 lks. dist., mkd. T33SR1WS35BT.
	A spruce, 24 ins. diam., bears N. 86° 45' W., 558 lks. dist., mkd. T33SR1WS26BT.
	Land, gently rolling mountaintop, drains NE.
	Soil, sandy loam, 2 ft. deep; rocky in S. half; subsoil, dark sandy and clay loam, rocky.
	Timber, dense and scattering spruce and aspen.
	Scant undergrowth. Fair grazing. Volcanic formation.

	East, on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
	June 29, 1915.
	June 30, 1915: At 8h 3m, a. m., l. m. t., I set off 37° 55' N. on the lat. arc; 23° 14' N. on the decl. arc, and determine the meridian with the solar.
	Continue east on random line.
80.14	Intersect the E. bdy. of the township, 4 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	June 30, 1915: I set off 23° 13' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 55' N.
	Thence
	N. 89° 58' W., on a true line bet. secs. 25 and 36.
	Asc. over broken mountainous land, through dense spruce and aspen timber.
3.95	Head of hollow, drains NW.; asc.
8.55	Rocky ridge, 65 ft. above head of hollow, bears N. 20° W. and SE.; desc.

Subdivision of T. 33 S., R. 1 W.

Chains.	
11.15	Head of hollow, 30 ft. below rocky ridge, drains NW.; as
36.45	Rocky spur, projects North; 65 ft. above head of hollow; desc.
38.65	Head of hollow, drains N., 20 ft. below rocky spur; asc.
40.07	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd. ¼ S 25 S.36 1915 from which A spruce, 8 ins. diam., bears N. 7° W., 32 lks. dist., mkd. ¼S25BT. A spruce, 8 ins. diam., bears S. 15° 15' E., 26 lks. dist., mkd. ¼S36BT.
48.25	Spur, 30 ft. above hollow, projects N., approximately 15 chs.; desc.
63.30	Hollow, drains NW. and sinks; 30 ft. below spur; asc.
70.85	Base of broken ledge, 65 ft. high, bears N. 10° W. and S. 10° E., approximately 39 chs., thence SE., 200 ft. above hollow.
72.05	Top of broken ledge and E. edge of Griffen Top, bar s N. 10° W. and S. 10° E., approximately 30 chs., thence SE.; asc. gradually over nearly level mountain top.
79.25	Leave dense spruce and aspen timber, bears N. 20° W. and S. 20° E., enter scattering timber.
80.14	The cor. of secs. 25, 26, 35 and 36 Land, broken mountainous, drains NW. Soil, sandy and rocky, shallow. Timber, dense spruce and aspen. Undergrowth, bunch grass. Good grazing in hollows. Eastern exposure. Volcanic formation.
	N. 0° 01' W., bet. secs. 25 and 26. Over rolling mountain top, through scattering timber.

Subdivision of T. 33 S., R. 1 W.

Chains.	
5.00	Leave scattering timber, bears S. 20° E. and W., enter dense spruce and aspen.
12.40	Edge of broken ledge and Griffen Top, bears N. 10° W., and SE.; desc. abruptly over broken NE. slope.
20.50	Bottom of desc., bears E. and W., 40 ft. below top; asc. rocky SE. slope.
24.00	Edge of broken ledge and Griffen Top, bears E. and S. 20° W.; 30 ft. above bottom of desc.; asc. gradually.
31.15	Edge of broken ledge and Griffen Top, bears N. 30° W. and S. 30° E., 30 ft. above S. ledge; desc. abruptly over NE. slope.
38.01	Bottom of abrupt desc., bears E. and W., 90 ft. below top; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 26 | S 25

1915 from which

An aspen, 10 ins. diam., bears S. 25° 50' E., 28 lks. dist., mkd. ¼S25BT.

An aspen, 7 ins. diam., bears S. 45° 15' W., 46 lks. dist., mkd. ¼S26BT.

June 30, 1915.

July 1, 1915: I set off 37° 55' N. on the lat. arc,; 23° 10' 30" N. on the decl. arc, and at 8h 3m, a. m., l. m. t., determine the meridian with the solar.

50.61	Top of asc., bears E. and W., 65 ft. above ¼ sec. cor.; desc. rocky NE. slope.
58.17	Bottom of desc., bears E. and W., 40 ft. below top of asc.; asc. rocky SE. slope.
68.58	Edge of broken ledge and Griffen Top, bears NE. and S. 20° W., 165 ft. above bottom of desc.; desc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, 15 ft. below rim, for cor. of secs. 23, 24, 25 and 26, with brass cap mkd.

Chains.	
	T33S R1W S23 | S24 S26 | S25
	1915 from which
	A spruce, 20 ins. diam., bears N. 47° 30' E.,
	33 lks. dist., mkd. T33SR1WS24BT.
	A spruce, 18 ins. diam., bears S. 69° E.,
	30 lks. dist., mkd. T33SR1WS25BT.
	An aspen, 12 ins. diam., bears S. 29° 45' W.,
	90 lks. dist., mkd. T33SR1WS26BT.
	A spruce, 10 ins. diam., bears N. 59° 10' W.,
	35 lks. dist., mkd. T33SR1WS23BT.
	July 1, 1915: Walking on line at noon, unable to observe lat.
	Land, broken mountainous, drains E.
	Soil, shallow sandy loam and rocky.
	Timber, dense spruce and aspen on N. 75 chs.
	Undergrowth, brier and buck brush.
	Good grazing. Eastern exposure. Volcanic formation.

	S. 89° 58' E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect the E. bdy. of the Tp., 11 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence
	S. 89° 57' W., on a true line bet. secs. 24 and 25.
	Asc. over broken mountainous land, through scattering timber.
1.18	Top of ridge, bears NE. and SW., 15 ft. above cor., desc.
7.30	Hollow, 50 ft. below top of ridge, drains S. 20° E., asc.
14.60	Ridge, 105 ft. above hollow, bears N. and S. 30° E.; desc.
21.40	Small seepage, drains S., continue desc.
24.60	Creek, 10 lks. wide, 6 ins. deep, water clear, course S. 30° E., 50 ft. below top of ridge; asc. gradually.
40.05	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	$\frac{\frac{1}{4}}{\frac{S\ 24}{S\ 25}}$ 1915 from which
	An aspen, 8 ins. diam., bears N. 17° 30' W., 22 lks. dist., mkd. ¼S24BT.
	An aspen, 5 ins. diam., bears S. 16° 30' E., 5 lks. dist., mkd. ¼S25BT.
42.40	Ridge, bears N. 35° W. and S. 35° E., 210 ft. above creek; desc. Leave scattering timber, enter dense spruce and aspen timber.
53.07	Bottom of desc., bears S. 35° E. and N. 35° W., 25 ft. below ridge. Asc. abruptly over broken rocky E. slope.
71.10	Edge of broken ledge and Griffen Top, 60 ft. high, 370 ft. above bottom of desc., bears N. 30° E. and S. 80° W., approximately 5 chs., thence SW.; asc. gradually, over rolling mountain top.
80.10	The cor. of secs. 23, 24, 25 and 26.
	Land, broken mountainous, drains SE.
	Soil, decayed vegetation, black sandy loam in the hollows; 2 to 3 ft. deep; rocky and shallow on the ridges. Subsoil, sandy loam and rocky in the hollows.
	Timber, dense spruce and aspem.
	Undergrowth, buck brush, brier and grass.
	Good grazing. Eastern exposure. Volcanic formation.
	July 1, 1915.

	July 2, 1915: At 8h 4m, a. m., l. m. t., I set off 37° 55' 30" N. on the lat. arc; 23° 06' 30" N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 0° 01' W., bet. secs. 23 and 24.
	Asc. gradually over rolling mountain top, through dense spruce and scattering aspen timber.
8.00	Leave dense spruce and scattering aspen timber, bears NE. and NW. approximately 14 chs., thence W., enter rolling open land.

Chains:

22.50 Low ridge, bears NW. and SE., 20 ft. above sec. cor.; de gradually. Leave open land, bears NW. and E. 2 chs., thence S., enter dense spruce and scattering aspen timber.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 23	S24

1915 from which

A spruce, 30 ins. diam., bears S. 64° 45' E., 21 lks. dist., mkd. ¼S24BT.

A spruce, 34 ins. diam., bears S. 41° 15' W., 58 lks. dist., mkd. ¼S23BT.

Cor. established 15 ft. below top of low ridge; continue gradual desc.

43.00 Leave dense aspen and scattering spruce timber; enter open land, bears E. and NW.

July 2, 1915: Cloudy at noon.

55.00 Wash, 20 lks. wide, 1 ft. deep, drains NW.; asc. graduall

68.00 Leave open land, bears N. 35° W. and SE.; enter dense spruce and scattering aspen timber.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 13, 14, 23 and 24, with brass cap mkd.

T33S R1W

S 14	S 13
S 23	S 24

1915 from which

A spruce, 16 ins. diam., bears N. 29° 45' E., 65 lks. dist., mkd. T33SR1WS13BT.

A spruce, 18 ins. diam., bears S. 17° 45' E., 44 lks. dist., mkd. T33SR1WS24BT.

A spruce, 45 ins. diam., bears S. 14° 30' W. 40 lks. dist., mkd. T33SR1WS23BT.

A spruce, 16 ins. diam., bears N. 20° 30' W., 55 lks. dist., mkd. T33SR1WS14BT.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Land, rolling mountain top, drains NW.
	Soil, decayed vegetation and sandy loam, 2½ ft. deep, mixed with fine light gravel on the surface.
	Timber, dense spruce and scattering aspen.
	Undergrowth, bunch grass.
	Good grazing.

	N. 89° 57' E., on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
	July 2, 1915.
	July 3, 1915: At 8h 4m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc; 23° 02' N. on the decl. arc, and determine the meridian with the solar.
80.06	Intersect the E. bdy. of the Tp., 5 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	July 3, 1915: Cloudy at noon, impossible to observe for lat.
	Thence,
	S. 89° 55' W., on true line bet. secs. 13 and 24.
	Asc. over broken mountainous land, through dense spruce and aspen timber.
3.60	Spur, projects NE., approximately 1.50 chs., 85 ft. above cor.; desc. abruptly.
8.05	Bottom of abrupt desc., bears N. and S.; asc. gradually;
16.40	Base of rocky SE. slope, bears N. 65° E. and SW., 50 ft. above bottom of abrupt desc.; asc. abruptly over SE. slope of Griffen Top, covered with slide rock and large boulders.
37.50	Broken ledge, composed of loose volcanic rock, 100 ft. high, bears N. 70° E. and S. 30° W., 450 ft. above base of abrupt rocky SE. slope; continue gradual asc. over Griffen Top.
40.03	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, on solid rock, for ¼ sec. cor., with brass cap mkd.

¼
S 13
S 24
1915

Chains.	
	from which,
	A spruce, 12 ins. diam., bears N. 64° 45' E., 22 lks. dist., mkd. ¼S13BT.
	A spruce, 9 ins. diam., bears S. 73° 45' E., 30 lks. dist., mkd. ¼S24BT.
74.55	Ridge, bears N. 20° W. and SE., 105 ft. above ¼ sec. cor. desc. gradually.
80.06	The cor. of secs. 13, 14, 23 and 24; 25 ft. below top of ridge.
	Land, rough and broken in the E. half; rolling in the W. half mile.
	Soil, dark sandy loam, 2 ft. deep on subsoil of sandy loa and rock, in W. half; shallow and rocky in the E. half.
	Timber, dense spruce and aspen.
	Undergrowth, buck brush, young aspen and grass.
	Good grazing. Eastern exposure. Volcanic formation.
	July 3, 1915.

	July 7, 1915: At 8h 5m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc; 22° 41' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 0° 01' W., bet. secs. 13 and 14.
	Asc. gradually over rolling mountain top, through dense spruce and aspen timber.
15.00	Low ridge, bears NW. and S 20° E., 30 ft. above sec. cor.; desc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	S ¼ 14 | S 13 1915
	from which
	A spruce, 10 ins. diam., bears S. 16° 30' E., 8 lks. dist., mkd. ¼S13BT.

Chains.

A spruce, 12 ins. diam., bears S. 77° W.,
26 lks. dist., mkd. ¼S14BT.

Corner established 50 ft. below top of ridge; continue gradual desc.

41.00 Leave dense spruce and aspen timber, enter grassy opening, bears N. 35° W., and SE.

65.00 Hollow, drains NW., 70 ft. below top of ridge; asc. gradually.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 11, 12, 13 and 14, with brass cap mkd.

T 33 S. R 1 W

S 11	S 12
S 14	S 13

1915

from which

A spruce, 32 ins. diam., bears N. 41° 45' E.,
155 lks. dist., mkd. T33SR1WS12BT.

A spruce, 22 ins. diam., bears S. 59° 45' E.,
343 lks. dist., mkd. T33SR1WS13BT.

A spruce, 15 ins. diam., bears N. 2° 15' W.,
400 lks. dist., mkd. T33SR1WS11BT.

No other trees within reasonable distance, suitable for bearing trees.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

July 7, 1915: At this cor. I set off 22° 39' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 57' N.

Land, gently rolling mountain top, drains NW.

Soil, decayed vegetation, dark sandy loam and rocky, on subsoil of sandy loam and rock.

Timber, dense spruce and aspen.

Undergrowth, young spruce and aspen, wild currant and grass.

Good grazing. Eastern exposure. Volcanic formation.

Chains.	
	Thence I run
	N. 89° 55' E., on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
	July 7, 1915.
	July 10, 1915: At 8h 5m, a. m., l. m. t., I set off 37° 57' N. on the lat. arc; 22° 20' 30" N. on the decl. arc; and determine the meridian with the solar.
79.86	Intersect the E. bdy. of the Tp. 5 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	July 10, 1915: I set off 22° 19' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 57' N.
	Thence
	S. 89° 53' W., on true line bet. secs. 12 and 13.
	Asc. gradually over gently rolling mountain top, through dense spruce and aspen timber.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 12 / S 13
	1915
	from which
	An aspen, 10 ins. diam., bears N. 6° 30' W., 69 lks. dist., mkd. ¼S12BT.
	An aspen, 10 ins. diam., bears S. 83° 45' E., 17 lks. dist., mkd. ¼S13BT.
	This corner is established 230 ft. above sec. cor.
71.85	Low ridge, bears N. 10° E. and SE., 120 ft. above ¼ sec. cor.; desc. gradually.
76.85	Leave dense spruce and aspen timber, bears NW. and SE., enter grassy opening.
79.86	The cor. of secs. 11, 12, 13 and 14; 35 ft. below top of ridge.
	Land, rolling mountaintop, drains SE.
	Soil, decayed vegetation; dark, sandy loam, 2 ft. deep,

Chains	
	on rocky subsoil.
	Timber, dense spruce and aspen with windfall.
	Undergrowth, dense young aspen and spruce, wild currant and grass.
	Good grazing. Northeastern exposure. Volcanic formation.

	Thence I run
	N. 0° 01' W., bet. secs. 11 and 12.
	Asc. gradually over gently rolling mountain top, through grass opening.
4.00	Low spur, projects NW., approximately 20 chs.; narrow strip of dense spruce timber follows spur; desc. gradually.
10.00	Head of swale, drains NW.; asc. gradually.
27.50	Leave grass opening, enter dense spruce and aspen timber, bears SE. and NW. approximately 4 chs., thence N.
29.10	A spruce, 32 ins. diam. on line.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 11 | S 12
	1915 from which
	A spruce, 15 ins. diam., bears N. 38° 45' E., 5 lks. dist., mkd. ¼S12BT.
	A spruce, 17 ins. diam., bears S. 38° 15' W., 65 lks. dist., mkd. ¼S11BT.
	Corner established on low ridge, bears NW. and S. 35° E.; desc. abruptly.
53.40	Base of abrupt desc., bears NW. and SE., 105 ft. below ¼ sec. cor.; desc. gradually.
63.70	Wash, 15 lks. wide, 1 ft. deep, in hollow, 20 ft. below base of abrupt desc., drains E.; asc. gradually.
75.00	Leave dense spruce and aspen timber, bears NE. and SW.; enter sage brush opening.
78.60	Road, Coyoto to Griffen Spring, bears NE. and SW.
80.00	Leave open sage brush, bears E. and SW., enter dense

Chains.	
	spruce and aspen.
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 1, 2, 11 and 12, with brass cap mkd.

T 33 S R 1 W

S 2	S 1
S 11	S 12

1915 from which

An aspen, 10 ins. diam., bears N. 53° 30' E., 46 lks. dist., mkd. T33SR1WS1BT.

An aspen, 7 ins. diam., bears S. 59° 30' E., 121 lks. dist., mkd. T33SR1WS12BT.

An aspen, 7 ins. diam., bears S. 23° 30' W., 177 lks. dist., mkd. T33SR1WS11BT.

An aspen, 16 ins. diam., bears N. 55° 45' W., 90 lks. dist., mkd. T33SR1WS2BT.

Cor established 15 ft. above wash in hollow.

Land, rolling mountain top, drains NW. in S. half, and E. in the N. half.

Soil, dark sandy loam, 2 to 3 ft. deep on light gravelly subsoil.

Timber, dense spruce and aspen.

Undergrowth, young spruce and aspen, wild currant, sage brush and grass.

Good grazing. Eastern exposure. Volcanic formation.

July 10, 1915.

July 12, 1915: I set off 37° 58' N. on the lat. arc; 22° 05' N. on the decl. arc, and at 8h 5m, a. m., l. m. t., determine the meridian with the solar.

Thence I run

N. 89° 53' E., on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec cor.

July 12, 1915: At apparent noon, I set off 37° 58' N. on the lat. arc, and observe the sun on the meridian, the resulting decl. is 22° 03' N.

Chains.	
79.90	Intersect the E. bdy. of the Tp., 2 lks. N. of the cor. of secs., 1, 6, 7 and 12, heretofore described.
	Thence
	S. 89° 54' W., on true line bet. secs. 1 and 12.
	Asc gradually over open rolling land, through sage brush and grass undergrowth.
1.90	Leave sage brush and grass opening, bears NW. and S.; enter dense spruce and aspen timber.
39.95	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 1 S 12 1915
	from which
	A spruce, 9 ins. diam., bears N. 19° 45' E., 137 lks. dist., mkd. ¼S1BT.
	A spruce, 8 ins. diam., bears S. 17° 45' W., 21 lks. dist., mkd. ¼S12BT.
	Corner established 45 ft. above sec. cor.
69.90	Low ridge, bears NW. and SE. approximately 6 chs., thence E., 200 ft. above ¼ sec. cor.; desc. gradually.
79.10	Road, Coyoto to Griffen Spring, bears NE. and SW.
79.90	The cor. of secs. 1, 2, 11 and 12.
	Land, gently rolling, drains SE.
	Soil, dark sandy loam, 2 to 3 ft, deep, on rocky subsoil.
	Timber, dense spruce and aspen.
	Undergrowth, young aspen and spruce, wild currant, sage brush and grass.
	Good grazing. Eastern exposure. Volcanic formation.
	July 12, 1915.

July 13, 1915: At 8h 5m, a. m., l. m. t., I set off 37° 58' N. on the lat. arc; 21° 57' N. on the decl. arc, and determine the meridian with the solar.

Thence I run

N. 0° 01' W., on a random line bet. secs. 1 and 2.

40.00 Set temp. ¼ sec. cor.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	July 13, 1915: I set off 37° 58' 30" N. on the lat. arc, and at apparent noon, observed the sun on the meridian, the resulting decl. is 21° 54' 30" N.
80.07	Intersect the N. bdy. of the Tp., 8 lks. E. of the cor. of secs. 1, 2, 35 and 36, heretofore described.
	S. 0° 04' E., on true line bet. secs. 1 and 2.
	Asc. gradually over gently rolling land, through dense spruce and aspen timber.
35.05	Top of gradual asc., bears E. and W.; desc. gradually.
40.07	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 2 | S 1 1915
	from which
	An aspen, 7 ins. diam., bears S. 34° 15' E., 56 lks. dist., mkd. ¼S1BT.
	An spruce, 8 ins. diam., bears S. 65° 15' W., 29 lks. dist., mkd. ¼S2BT.
50.50	West end of grass opening, bears N. 80° W. and S. 80° E.; head of swale drains E.; asc. gradually.
72.10	Low ridge, bears N. 70° W. and SE., 135 ft. above head of swale; desc. gradually.
80.07	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling, drains E.
	Soil, decayed vegetation, dark and light sandy loam, 2 to 3 ft. deep, on rocky subsoil.
	Timber, dense aspen and spruce.
	Undergrowth, dense young aspen and spruce, and grass.
	Good grazing. Eastern exposure. Volcanic formation.

July 13, 1915.

Jos. C. Clark

U. S. Transitman.

Subdivision of T. 33 S., R. 1 W.

Chains. June 29, 1915: At the cor. of secs. 2, 3, 34 and 35, on S. bdy. of the Tp., which is an iron post, 3 ins. diam., 12 ins. high, heretofore described, in notes of the N. bdy. of T. 34 S., R. 1 W., this Group.

June 29, 1915: I set off 37° 54' N. on the lat. arc; 23° 17' N. on the decl. arc; and at 8h 3m, a. m., l. m. t., determine the meridian with the solar.

Thence I run

N. 0° 01' W., bet. secs. 34 and 35.

Asc. gradually over nearly level land, through dense aspen and spruce timber.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 34 | S 35
1915

from which

A spruce, 10 ind. diam., bears S. 40° W., 20 lks. dist., mkd. ¼S34BT.

An aspen, 10 ins. diam., bears S. 80° E., 42 lks. dist., mkd. ¼S35BT.

75.00 Leave dense spruce and aspen timber, bears NE. and SW.; enter dense young aspen timber.

78.30 Foot of slope of ridge, bears NE. and SW.; asc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, 40 ft. above foot of slope, for the cor. of secs. 26, 27, 34 and 35, with brass cap mkd.

T 33 S R 1 W
S 27 | S 26
S 34 | S 35
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Trees to small for bearing trees

Land, nearly level mountain top, drains SE.

Soil, light yellow gravel, rocky, with bed rock close to surface.

Timber, dense spruce and aspen.

Subdivision of T. 33 S., R. 1 W.

Chains. Undergrowth, dense young aspen and grass.

Good grazing. Southern exposure. Volcanic formation.

June 29, 1915: I set off 23° 16' 30" N. on the decl. arc and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 55' N.

June 29, 1915.

June 30, 1915.
East, on a random line bet. secs. 26 and 35.

40.00 Set temp. ¼ sec. cor.

79.95 Intersect the N. and S. line, 11 lks. N. of the cor. of secs. 25, 26, 35 and 36.

June 30, 1915: At 7h 33m, a. m., l. m. t., I set off 37° 55' N. on the lat. arc; 23° 14' N. on the decl. arc, and determine the meridian with the solar.

N. 89° 55' W., on true line bet. secs. 26 and 35.

Desc. gradually over gently rolling open land, through scattering spruce timber.

20.90 Bottom of gradual desc. in swale, drains S.; asc. gradual

33.80 Top of asc., bears N. and S., 15 ft. above swale; desc. gradually.

39.97½ Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 26}{S\ 35}$$

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of co

41.00 Road, Griffen Spring to Escalante, bears NW. and SE.

41.70 Creek from Griffen Spring, 3 lks. wide, 1 ft. deep, drains SE. Good clear water. Asc. gradually over grassy hollow.

55.00 Leave open grassy hollow, bears N. and S.; enter dense aspen and spruce timber.

77.95 Foot of ridge, bears NE. and SW.; asc. SE. slope of ridge.

79.95 The cor. of secs. 26, 27, 34 and 35, 95 ft. above foot of ridge.

Land, gently rolling.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Soil, light sandy loam, 2 to 3 ft, deep on subsoil of light yellow gravel.
	Timber, scattering and dense spruce and aspen.
	Undergrowth, yellow top and grass.
	Good grazing. Southern exposure.
	Thence I run:
	N. 0° 01' W., bet. secs. 26 and 27.
	Asc. over SE. slope of ridge, through dense young aspen timber.
1.45	Top of ridge, bears NE. and SW., 30 ft. above cor.; leave dense small aspen, enter dense spruce timber; continue along nearly level top of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 27 | S 26
1915

from which

A spruce, 20 ins. diam., bears N. 84° E., 63 lks. dist., mkd. ¼S26BT.

A spruce, 10 ins. diam., bears S. 87° W., 58 lks. dist., mkd. ¼S27BT.

June 30, 1915: I set off 23° 13' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' N.

60.00	Leave dense timber, bears NW. and SE.; thence across the W. edge of large open hollow, drains E.
70.00	Bottom of small draw, drains E.; asc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 22, 23, 26 and 27, with brass cap mkd.

T 33 S R 1 W

S 22	S 23
S 27	S 26

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, gently rolling mountain top.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Soil, dark sandy loam, very rocky. Numerous large boulders.
	Timber, dense spruce and aspen.
	Undergrowth, Samll young aspen and bunch grass.
	Good grazing. Eastern exposure.
	June 30, 1915.

	July 7, 1915: At 8h 5m, a. m., l. m. t., I set off 37° 56' N. on the lat. arc; 22° 40' 30" N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	S. 89° 55' E., on a random line bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect the N. and S. line, 3 lks. S. of the cor. of secs. 23, 24, 25 and 26.
	Thence
	N. 89° 56' W., on true line bet. secs. 23 and 26.
	Asc. gradually over gently rolling mountain top, through dense spruce and aspen timber.
7.85	Top of asc., bears N. and S., 60 ft. above sec. cor.; desc. gradually.
24.95	Leave dense spruce and aspen timber, bears N. and S.; enter open grassy park.
26.95	Road, Coyoto to Griffen Spring, bears N. and S.; asc. gradually.
39.98	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 23 / S 26 1915
	Dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
52.30	Leave open grassy park, bears NW. and SE.; enter dense spruce timber.
57.25	Top of asc., bears N. and S.; 40 ft. above ¼ sec. cor.

Subdivision of T. 33 S., R. 1 W.

Chains	
59.25	Leave dense spruce timber, bears N. and S., enter open park.
79.96	The cor. of secs. 22, 23, 26 and 27.
	Land, gently rolling mountain top.
	Soil, black loam, 2 to 3 ft. deep, on subsoil of gravel.
	Timber, dense spruce and aspen.
	Undergrowth, bunch grass.
	Good grazing. Eastern exposure.

	Thence I run
	N. 0° 01' W., bet. secs. 22 and 23.
	Asc. gradually over open rolling park.
20.00	Leave open park, enter dense spruce timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼ S 22 | S 23

1915 from which

A spruce, 30 ins. diam., bears N. 80° 45' E., 55 lks. dist., mkd. ¼S23BT.

A spruce, 24 ins. diam., bears S. 31° 15' W., 131 lks. dist., mkd. ¼S22BT.

57.15	Leave dense timber, bears NW. and SE., enter open park.
72.15	Leave open park, bears E. and W., enter dense spruce timber.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 14, 15, 22 and 23, with brass cap mkd.

T 33 S R 1 W

S 15 | S 14

S 22 | S 23

1915 from which

A spruce, 18 ins. diam., bears N. 63° E., 31 lks. dist., mkd. T33SR1WS14BT.

Chains.	
	A spruce, 16 ins. diam., bears S. 36° 45' E., 13 lks. dist., mkd. T33SR1WS23BT.
	A spruce, 20 ins. diam., bears S. 47° 30' W., 100 lks. dist., mkd. T33SR1WS22BT.
	A spruce, 10 ins. diam., bears N. 30° W., 27 lks. dist., mkd. T33SR1WS15BT.
	Land, gently rolling mountain top.
	Soil, dark sandy loam, very rocky, 2 to 3 ft. deep, on light gravel subsoil.
	Timber, dense aspen and spruce.
	Undergrowth, bunch grass.
	Good grazing. Eastern exposure.
	July 7, 1915: Walking on line at noon, unable to observe for lat.
	July 7, 1915.
	Jos. C. Thoma
	U. S. Surveyor.
	July 7, 1915.
	S. 89° 56' E., on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect the N. and S. line, 9 lks. N. of the cor. of secs. 13, 14, 23 and 24.
	Thence I run
	N. 89° 52' W., on true line bet. secs. 14 and 23.
	Desc. gradually over rolling land, through dense spruce timber.
4.00	Leave dense spruce timber, bears S. and N. approximately 5 chs., thence N. 70° W.; enter open land.
19.95	Wash, 20 lks. wide, 1 ft. deep, in swale, 60 ft. below sec. cor., drains NW.; asc. gradually.
24.95	Leave open land, enter dense spruce timber, bears SE. and N. approximately 5 chs., thence N. 70° W.
33.10	Road, Coyoto to Escalante, bears N. 10° W. and S. 10° E.
40.06	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains	
	the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 14 / S 23 / 1915 from which
	A spruce, 28 ins. diam., bears N. 40° E., 145 lks. dist., mkd. ¼S14BT.
	A spruce, 14 ins. diam., bears S. 56° 15' E., 69 lks. dist., mkd. ¼S23BT.
45.00	Low spur, projects N., 15 chs.; desc. gradually.
55.00	Leave dense spruce timber, bears N. and S.; enter grass opening.
58.00	Swale, drains N. 15° E., heads 5 chs. S. of line.
60.00	Leave grass opening, bears N. and S., enter dense aspen timber.
70.00	Enter N. edge of grass opening, 7 chs. wide, extends S.
80.12	The cor. of secs. 14, 15, 22 and 23; 70 ft. above swale.
	Land, rolling mountain top, drains NW.
	Soil, decayed vegetation, dark and light sandy loam, 2 to 3 ft. deep, rocky, on subsoil of sandy loam and rock.
	Timber, dense spruce and aspen.
	Undergrowth, young spruce and grass.
	Good grazing. Eastern exposure. Volcanic formation.
	July 7, 1915.
	Jos. C. Clark
	U. S. Transitman.

	July 7, 1915.
	N. 0° 01' W., bet. secs. 14 and 15.
	Desc. gradually, over nearly level mountain top, through dense aspen and spruce timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.
	¼ S 15 | S 14 / 1915 from which

Chains.	
	An aspen, 16 ins. diam., bears N. 73° 45' W., 20 lks. dist., mkd. ¼S15BT.
	An aspen, 14 ins. diam., bears S. 65° 45' E., 40 lks. dist., mkd. ¼S14BT.
	July 7, 1915.
	July 8, 1915: At 7h 5m, a. m., l. m. t., I set off 37° 57' N. on the lat. arc; 22° 35' N. on the decl. arc, and determine the meridian with the solar.
75.00	Leave dense timber, bears E. and W.; enter windfall and standing dead spruce.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 10, 11, 14 and 15, with brass cap mkd.

T 33 S R 1 W.

S 10	S 11
S 15	S 14

1915, from which

A spruce, 8 ins. diam., bears S. 67° E., 71 lks. dist., mkd. T33SR1WS14BT.

No other trees within reasonable distance, suitable for bearing trees.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, gently rolling mountain top, drains NW.

Soil, decayed vegetation, dark and light sandy loam, 2 to 3 ft. deep, on rocky subsoil.

Timber, dense aspen and spruce.

Undergrowth, bunch grass.

Good grazing. NW. exposure. Volcanic formation.

July 8, 1915: Walking on line at noon, unable to observe for lat. without serious delay to work.

S. 89° 52' E. on a random line bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.

79.98 Intersect the N. and S. line, 5 lks. S. of the cor. of sec. 11, 12, 13 and 14.

N. 89° 54' W., on true line bet. secs. 11 and 14.

Asc. over mountainous land, through scattering timber, in open park.

Chains.	
15.50	Draw, 10 lks. wide, 1 ft. deep, drains N.; continue asc.
17.00	Road, Coyoto to Griffen Spring, bears N. and S.
20.20	Leave scattering timber and grassy park, bears N. and S.; enter dense timber.
30.30	Leave dense timber, bears N. and S.; enter open park.
35.20	Foot of ridge, bears N. and S.; leave open park, enter dense timber.
39.99	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}}{\frac{S\ 11}{S\ 14}}$$

1915 from which

An aspen, 10 ins. diam., beams S. 25° W., 18 lks. dist., mkd. ¼S14BT

An aspen, 12 ins. diam., bears N. 30° 30' W., 71 lks. dist., mkd. ¼S11BT.

40.60	Top of ridge, bears N. and S., 90 ft. above ¼ sec. cor., desc.
75.00	Leave dense aspen and spruce timber, bears N. and S.; enter open park.
78.00	Small, shallow draw, drains N.; asc. gradually.
79.98	The cor. of secs. 10, 11, 14 and 15; in edge of dead timber.

Land, rolling mountainous.

Soil, dark sandy loam and gravel, 2 to 3 ft, deep, on rocky subsoil.

Timber, dense aspen and spruce.

Undergrowth, grass.

Good grazing. Northwestern exposure. Volcanic formation.

July 8, 1915.

July 10, 1915: At 8h 5m, a. m., l. m. t., I set off 37° 57' 30" N. on the lat. arc, 22° 20' 30" N. on the decl. arc, and determine the meridian with the solar.

Thence I run

Chains. N. 0° 01' W., bet. secs. 10 and 11.

Desc. gradually over gently rolling mountain top, through open sage brush park.

10.00 Leave open park, bears E. and W.; enter dense spruce and aspen timber. Asc. point of spur projecting E.

30.00 Top of low spur project E.; desc. Leave dense timber, bears NW. and SE.; enter grassy sage brush park.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 10 | S 11
1915

from which

An aspen, 10 ins. diam., bears S. 84° 15' W., 302 lks. dist., mkd. ¼S10BT.

Noother trees within reasonable distance suitable for bearing trees.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor

40.50 Wash, 10 lks. wide, 3 ft. deep, drains NW.; asc. graduall

58.50 Leave opening, bearing E. and W.; enter dense aspen and scattering spruce timber.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 2, 3, 10 and 11, with brass cap mkd.

T 33 S R 1 W
S 3 | S 2
S 10 | S 11
1915

from which

An aspen 8 ins. diam., bears N. 19° E., 86 lks. dist., mkd. T33SR1WS2BT.

An aspen, 10 ins. diam., bears S. 49° 30' E., 73 lks. dist., mkd. T33SR1WS11BT.

An aspen, 8 ins. diam., bears S. 26° W., 64 lks. dist., mkd. T33SR1WS10BT.

An aspen, 8 ins. diam., bears N. 79° W., 25 lks. dist., mkd. T33SR1WS3BT.

Land, gently rolling mountain top, drains NW.

Soil, light sandy loam and gravel, 2 to 3 ft. deep, on

Subdivision of T. 33 S., R. 1 W.

Chains.	
	subsoil of light gravel.
	Timber, dense aspen and spruce.
	Undergrowth, sage brush and grass.
	Good grazing. Northwestern exposure. Volcanic formation.
	July 10, 1915: I set off 22° 19' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 58' N.
	S. 89° 54' E., on a random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line, 11 lks. S. of the cor. of secs. 1, 2, 11 and 12.
	N. 89° 59' W., on true line bet. secs. 2 and 11.
	Asc. gradually over rolling land, through dense aspen and spruce timber.
39.50	Ledge, 20 ft. high, bears N. and S.; continue gradual asc.
40.02	Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 2 / S 11 / 1915 from which
	An aspen, 8 ins. diam., bears S. 87° 30' E., 32 lks. dist., mkd. ¼S11BT.
	A spruce, 10 ins. diam., bears N. 41° 30' E., 39 lks. dist., mkd. ¼S2BT.
47.35	Top of ridge, 40 ft. above ¼ sec. cor., bears NE. and SW.; desc.
66.25	Leave dense aspen and spruce timber, bears N. and S.; enter open park.
71.25	Leave open park, bears N. and S.; enter dense aspen and spruce timber.
80.04	The cor. of secs. 2, 3, 10 and 11, 105 ft. below top of ridge.
	Land, rolling mountain top, drains NW.
	Soil, decayed vegetation, sandy loam and gravel, 2 to 3 ft. deep, on subsoil of light gravel and rock.

Chains

Timber, dense aspen and spruce.

Undergrowth, sage brush and grass.

Good grazing. Northwestern exposure. Volcanic formation

July 10, 1915.

July 12, 1915: At 2h 5m, p. m., l. m. t., I set off 37° 58' 30" N. on the lat. arc, 22° 03' N. on the decl. arc, and determine the meridian with the solar.

Thence I run

N. 0° 01' W., on a random line bet. secs. 2 and 3.

40.00 Set temp. ¼ sec. cor.

80.00 Set. temp. point.

July 12, 1915.

July 13, 1915.

80.09 Intersect the N. bdy. of the T., 12 lks. E. of the cor. of secs. 2, 3, 34 and 35, heretofore described.

S. 0° 06' E., on true line bet. secs. 2 and 3.

Asc. gradually over nearly level land, through dense aspen and spruce timber.

15.10 Top of spur, projects NW., 45 ft. above cor.; desc. over SW. slope.

30.10 Foot of slope, bears NW. and SE., 180 ft. below top; asc. gradually.

40.09 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in mound of stone, on solid rock, for ¼ sec. cor., with brass cap mkd.

S ¼ 3 | S 2

1915

from which

An aspen, 8 ins. diam., bears N. 69° E., 57 lks. dist., mkd. ¼S2BT.

An aspen, 12 ins. diam., bears S. 45° W., 56 lks. dist., mkd. ¼S3BT.

80.09 The cor. of secs. 2, 3, 10 and 11.

Land, rolling.

Soil, light gravel and rocky, shallow, on rocky subsoil.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Timber, dense spruce and aspen.
	Undergrowth, grass.
	Good grazing. Western exposure. Volcanic formation.
	July 13, 1915.

	May 30, 1915: At the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the Tp., which is an iron post, 3 ins. diam., 12 ins. above ground, firmly set., mkd. as heretofore described.
	At this cor. I set off 37° 54' N. on the lat. arc, 21° 41' 30" N. on the decl. arc, and at 9h 57m, a. m., l. m. t., determine the meridian with the solar.
	Thence I run
	N. 0° 02' W., bet. secs. 33 and 34.
	Desc. over mountainous land, through dense aspen, scattering spruce timber, and bunch grass.
.70	S. edge of swale, bears NW. and SE.; desc. abruptly.
4.35	Bottom of swale, drains W., 70 ft. below sec. cor.; asc.
8.00	Top of asc., bears E. and W., 55 ft. above bottom of swale.; desc.
10.10	Creek, 4 lks. wide, 1 ft. deep, clear water, course W.; 35 ft. below top of asc.; continue desc.
14.10	Bottom of draw, 15 ft. deep, drains NW.; continue desc.
17.90	Bottom of small draw, drains SW., forks 3 chs. W. of line., 50 ft. below top of asc.; ascend.
19.95	Top of spur, projects SW., 30 ft. above bottom of small draw; desc. gradually.
23.50	Head of shallow draw, drains SW.
26.20	Creek, 2 lks. wide, 1 ft. deep, clear water, course W.; asc. gradually.
29.30	Creek, 2 lks. wide, 1 ft. deep, clear water, course S. 15° W., asc. along creek.
38.80	Leave creek bed, bears NE. and SW., asc. over SE slope of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Subdivision of T. 33 S., R. 1 W.

Chains.	
	the ground, for ¼ sec. cor., with bass cap mkd.
	¼ S 33 | S 34
	1915 from which
	An aspen, 6 ins. diam., bears N. 26° E., 9 lks. dist., mkd. ¼S34BT.
	An aspen, 8 ins. diam., bears S. 58° W., 18 lks. dist., mkd. ¼S33BT.
	Cor. established 105 ft. above Creek.
45.90	Top of ridge, bears E. and W., 85 ft. above ¼ sec. cor.; descend.
49.10	Head of draw, drains SW.; 10 ft. below top of ridge; asc.
52.20	Top of ridge, bears NE. and SW., 90 ft. above head of draw; desc. over large igneous boulders.
57.20	Bottom of canon, drains SW. East edge of mountain lake, 4 chs. wide, N. and S.; 10 chs. long, E. and W., 60 ft. below top of ridge; asc.
60.70	Top of large pile of igneous rock, 60 ft. above bottom of canon; desc.
63.60	Bottom of desc., bears NE. and SW.; asc.
68.00	Top of asc., bears NE. and SW., 210 ft. above draw; continue over nearly level land.
76.00	Start abrupt asc. over S. slope of ridge, bears E. and W.
80.00	Set and iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 27, 28, 33 and 34, with brass cap mkd.
	T 33 S R 1 W S 28 | S 27 S 33 | S 34 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No trees within reasonable distance large enough for bearing trees.
	Land, rolling mountainous, drains SW.
	Soil, dark sandy loam, over 2 ft. in depth; rocky.
	Timber, dense aspen and scattering spruce.
	Undergrowth, bunch grass.

Chains	
	Good grazing. Western exposure. Volcanic formation:
	May 30, 1915: Cloudy at noon, unable to observe the sun for latitude.
	May 30, 1915.
	June 29, 1915.
	East, on random line bet. secs. 27 and 34.
40.00	Temp. point for ¼ sec. cor. falls on steep mountain side on slide rock.
51.62	Leave temp. witness ¼ sec. cor.
79.87	Intersect the N. and S. line, 14 lks. S. of the cor. of secs. 26, 27, 34 and 35.
	S. 89° 54' W., on true line bet. secs. 27 and 34.
	Asc. over mountainous land, through dense aspen and spruce timber.
1.50	Top of ridge, bears NE. and SW., 30 ft. above cor.; asc. gradually over top of ridge.
28.25	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the witness ¼ sec. cor., with brass cap mkd. T 33 S R 1 W ¼ S 27 W S 34 C 1915 from which
	A spruce, 30 ins. diam., bears N. 12° 15' W., 85 lks. dist., mkd. ¼S27WCBT.
	A spruce, 24 ins. diam., bears S. 62° 45' E., 200 lks. dist., mkd. ¼S34WCBT.
28.50	West edge of Griffen Top; ledge 200 ft. high, bears NW. and S.; desc. abruptly from bottom of ledges, over broken W. slope covered with dense timber and slide rock.
39.93½	Point for ¼ sec. cor. Cor. not set.
50.00	Bottom of steep slope, bears NW. and SE., 350 ft. below witness ¼ sec. cor., continue over broken mountainous land, through dense spruce and aspen timber.
79.87	The cor. of secs. 27, 28, 33 and 34.
	Land, broken mountainous.
	Soil, dark sandy loam, very rocky.

Chains.	
	Timber, dense spruce and aspen.
	Undergrowth, grass.
	Good grazing. Western exposure. Volcanic formation.
	June 29, 1915.
	June 2, 1915: Sky over cast, unable to take solar observation. Back sight along line bet. secs. 33 and 34. N. 0° 2' W., bet. secs. 27 and 28.
	Asc. over mountainous land, through dense aspen timber.
1.63	Top of ridge, bears E. and W., 45 ft. above sec. cor.
	It is impossible to chain farther along the line on account of Griffen Point, projecting W. with perpendicular ledges, 300 ft. high. I offset 5.27 chs. W., in order to avoid same. Thence N. 0° 2' W. on offset 38.37 chs., thence E. 5.27 chs. to point on true line
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone for the ¼ sec. cor., with brass cap mkd.
	¼ S 28 | S 27 1915
	from which
	A spruce, 8 ins. diam., bears N. 26° W., 67 lks. dist., mkd. ¼S28BT.
	A spruce, 24 ins. diam., bears S. 86° E., 56 lks. dist., mkd. ¼S27BT.
	June 2, 1915: Cloudy at noon, unable to observe the sun for latitude.
	June 2, 1915.
	June 5, 1915: At 8h 58m, a. m., l. m. t., I set off 37° 55' 30" N. on the lat. arc; 22° 29' N. on the decl. arc, and determine a meridian with the solar.
	N. 0° 2' W., on true line bet. secs. 27 and 28, with continuous measurement.
	Desc. over rocky west slope of Griffen Top.
43.00	Bottom of rocky ravine, drains SW., 25 ft. below ¼ sec. cor.; asc.
47.30	Top of N. slope of ravine, bears NE. and SW., 25 ft. above bottom of ravine, continue along W. slope of

Chains.	
	Griffen Top, over numerous unimportant small draws, and large loose boulders.
	June 5, 1915: Cloudy at noon, unable to observe the sun for latitude.
78.70	Bottom of steep desc., bears NE. and SW.; 105 ft. below top of N. slope of ravine.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 21, 22, 27 and 28, with brass cap mkd.

T 33 S R 1 W.

S 21	S 22
S 28	S 27

1915

from which

A spruce, 12 ins. diam., bears N. 55° 30' E., 48 lks. dist., mkd. T33SR1WS22BT.

A spruce, 8 ins. diam., bears S. 35° 15' E., 77 lks. dist., mkd. T33SR1WS27BT.

A spruce, 14 ins. diam., bears S. 83° W., 71 lks. dist., mkd. T33SR1WS28BT.

A spruce, 14 ins. diam., bears N. 49° 30' W., 63 lks. dist., mkd. T33SR1WS21BT.

Land, mountainous, drains W.

Soil, black loam and decayed vegetation, covered with numerous igneous boulders and rock.

Timber, scattering spruce and dense aspen.

Undergrowth, none.

No grazing. Western exposure. Volcanic formation.

June 5, 1915.

July 1, 1915: At 2h 33m, p. m., l. m. t., I set off 37° 56' N. on the lat. arc; 23° 09' N. on the decl. arc, a and determine a meridian with the solar.

Thence I run

N. 89° 54' E., on a random line bet. secs. 22 and 27.

40.00 Set temp. ¼ sec. cor.

79.81 Intersect the N. and S. line at the cor. of secs. 22, 23, 26 and 27.

Chains.	
	S. 89° 54' W., on true line bet. secs. 22 and 27.
	Asc. gradually over gently rolling mountain top, through open grassy park.
5.00	Shallow swale, drains SE.; continue asc.
15.00	Shallow swale, drains SE.; continue asc.
18.30	Small stream, 2 lks. wide, 3 ins. deep, course NE.; sprin of clear water, bears SW. 2 chs.; continue gradual asc.
23.50	Point of dense timber, bears SW. and SE.; continue in open grassy park, through scattering spruce timber.
39.90½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$\frac{\frac{1}{4}\ 22}{S\ 27}$
1915

from which

A spruce, 10 ins. diam., bears N. 29° W., 290 lks. dist., mkd. ¼ S22BT.

Dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.

No other trees within reasonable limits suitable for bearing trees.

50.00	Leave open park, bears NE. and SW.; enter dense timber.
74.00	W. edge of Griffen Top, bears NE. and SW.; desc. abruptly over broken rocky slope.
79.81	The cor. of secs. 21, 22, 27 and 28; 235 ft. below top.

Land, gently rolling mountain top, and rocky slope.

Soil, on top, dark sandy loam, 2 to 3 ft. deep, on subsoil of light gravel.

Timber, spruce and aspen.

Undergrowth, grass.

Good grazing. Eastern exposure. Volcanic formation.

July 1, 1915.

June 6, 1915: At 9h 28m, a. m., l. m. t., I set off 37° 56' N. on the lat. arc; 22° 36' N. on the decl. arc, and determine the meridian with the solar.

Thence I run

N. 0° 02' W., bet. secs. 21 and 22.

Chains.	
	Desc. gradually over rolling land, through scattering spruce and aspen timber.
5.00	Leave scattering, enter dense spruce and aspen timber, bears E. and W.
18.20	Start desc. over NW. slope, bears NE. and SW. 30 ft. below sec. cor.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the groung, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

¼ S 21 | S 22
1915

from which

A spruce, 12 ins. diam., bears S. 61° 30' E., 40 lks. dist., mkd. ¼S22BT.

A spruce, 10 ins. diam., bears S. 68° 45' W., 25 lks. dist., mkd. ¼S21BT.

Corner established 280 ft. below beginning of desc. over NW. slope.

June 6, 1915: I set off 22° 37' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' N.

49.70	Base of steep desc., bears NE. and SW., 150 ft. below ¼ sec. cor.; asc.
59.70	Top of asc., bears E. and W., continue along toe of W. slope of Griffen Top, 30 ft. above base of steep desc.
77.20	Start desc., bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 15, 16, 21 and 22, with brass cap mkd.

T 33 S R 1 W
S 16 | S 15
S 21 | S 22
1915

from which

A spruce, 10 ins. diam., bears N. 32° E., 33 lks. dist., mkd. T33SR1WS15BT.

A spruce, 14 ins. diam., bears S. 41° E., 76 lks. dist., mkd. T33SR1WS22BT.

Chains. A spruce, 10 ins. diam., bears S. 41° 30' W.,
51 lks. dist., mkd. T33SR1WS21BT.
A spruce, 30 ins. diam., bears N. 9° W.,
32 lks. dist., mkd. T33SR1WS16BT.

Corner established 25 ft. below beginning of desc.

Land, rough and broken, drains W.

Soil, dark sandy loam and gravel, covered with large boulders.

Timber, dense spruce and aspen.

Undergrowth, grass.

Fair grazing. Western exposure. Volcanic formation.

June 6, 1915.

July 7, 1915.

N. 89° 54' E., on a random line bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

79.71 Intersect the N. and S. line, 7 lks. S. of the cor. of secs. 14, 15, 22 and 23.

S. 89° 51' W., on true line bet. secs. 15 and 22.

Over gently rolling mountain top, through dense spruce and aspen timber.

31.60 Edge of Griffon top, bears N. and S.; desc. abruptly over rocky W. slope.

39.85½ Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 15
S 22

1915 from which

An aspen, 6 ins. diam., bears S. 15° E.,
16 lks. dist., mkd. ¼S22BT.
An aspen, 10 ins. diam., bears N. 1° W.,
10 lks. dist., mkd. ¼S15BT.

Corner established 225 ft. below top.

67.72 Bottom of steep desc., bears N. and S.; desc. gradually.

79.71 The cor. of secs. 15, 16, 21 and 22; 380 ft. below ¼ sec. cor.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Land, rolling and broken.
	Soil, dark sandy loam, 2 to 3 ft. deep, on light gravel subsoil, on Griffen Top; rocky on slope.
	Timber, dense aspen and spruce.
	Undergrowth, grass, on Griffen top, good grazing. Barren on rocky slopes. No grazing.
	Western exposure. Volcanic formation.
	July 7, 1915.

	June 12, 1915: At 9h 59m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc, 23° 08' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 0° 02' W., bet. secs. 15 and 16.
	Desc. over mountainous land, through dense aspen and spruce timber.
2.00	Bottom of rocky draw, drains W., 20 ft. below cor.; asc.
5.70	Top of asc., bears E. and W., 15 ft. above draw; continue along toe of W. slope of Griffen Top.
28.00	I set off 23° 08' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' 30" N.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd. ¼ S 16 | S 15 1915 from which
	A spruce, 8 ins. diam., bears N. 26° W., 74 lks. dist., mkd. ¼S16BT.
	A spruce, 20 ins. diam., bears N. 40° 30' E., 63 lks. dist., mkd. ¼S15BT.
60.00	June 12, 1915.
	June 14, 1915: At 9h a. m., l. m. t., I set off 37° 57' 30" N. on the lat. arc; 23° 15' N. on the decl. arc, and determine the meridian with the solar.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in

Chains | the ground, for the cor. of secs. 9, 10, 15 and 16, with brass cap mkd.

T 33 S R 1 W

S 9	S 10
S 16	S 15

1915 from which

An aspen, 6 ins. diam., bears N. 32° 45' E., 42 lks. dist., mkd. T33SR1WS10BT.

A spruce. 12 ins. diam., bears S. 35° 30' E., 58 lks. dist., mkd. T33SR1WS15BT.

A spruce, 8 ins. diam., bears S. 36° W., 22 lks. dist., mkd. T33SR1WS16BT.

An aspen, 10 ins. diam., bears N. 32° 30' W., 57 lks. dist., mkd. T33SR1WS9BT.

Corner established 195 ft. below ¼ sec. cor.

Land, mountainous, and covered with large igneous boulders

Soil, black loam, 2 to 3 ft. deep.

Timber, dense aspen and spruce.

Undergrowth, young aspen and spruce, and grass.

Fair grazing. Western exposure. Volcanic formation.

June 14, 1915.

July 8, 1915: At 7h 5m, a. m., l. m. t., I set off 37° 57' 30" N. on the lat. arc; 22° 35' N. on the decl. arc, and determine the meridian with the solar.

N. 89° 51' E., on a random line bet. secs. 10 and 15.

40.00 Set temp. ¼ sec. cor.

79.84 Intersect the N. and S. line, 11 lks. N. of the cor. of secs. 10, 11, 14 and 15.

S. 89° 56' W., on true bet. secs. 10 and 15.

Desc. gradually over mountainous land, through dense dead spruce timber and wind fall.

22.60 Leave dead, enter dense live spruce timber, bears N. and S.

32.60 Bottom of gradual desc., bears N. and S.; 125 ft. below sec. cor.; asc. abruptly over E. slope of ridge.

Chains.

37.80 Top of rocky ridge, bears N. and S., 140 ft. above bottom of gradual desc.; desc.

39.92 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 10}{S\ 15}$$

1915. from which

A spruce, 36 ins. diam., bears N. 64° W., 17 lks. dist., mkd. ¼S10BT.

A spruce, 20 ins. diam., bears S. 38° W., 38 lks. dist., mkd. ¼S15BT.

Corner established 20 ft. below top of ridge.

51.80 Bottom of rocky hole, 1 ch. in diam., 460 ft. below ¼ sec. cor.

63.35 Top of rocky ridge, bears N. and S., 45 ft. above bottom of hole.

75.70 Foot of slope of rocky ridge, bears NE. and SW., 305 ft. below top of ridge; desc. gradually.

79.84 The cor. of secs. 9, 10, 15 and 16.

Land, rolling and broken mountainous.

Soil, dark loam in E. half. No soil in the W. half.

Large igneous boulders.

Timber, dense live and dead spruce.

Undergrowth, dense windfall in E. half.

Good grazing in E. half. Western exposure. Volcanic formation July 8, 1915.

June 14, 1915: I set off 23° 15' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 58' N.

Thence I run

N. 0° 02' W., bet. secs. 9 and 10.

Over gently rolling land, through dense spruce and aspen timber.

Chains	
5.00	SW. edge of mountain lake, 10 lks. E. of line. Lake, 5 chs. E. and W., and approximately 8 chs. N. and S., clear water. No apparent intake or outlet.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\begin{array}{c|c} \frac{1}{4} & \\ S\ 9 & S\ 10 \\ \hline & 1915 \end{array}$$

from which

An aspen, 8 ins. diam., bears N. 10° W., 16 lks. dist., mkd. ¼S9BT.

An aspen, 9 ins. diam., bears East, 36 lks. dist., mkd. ¼S10BT.

74.90	Leave dense, enter scattering aspen and spruce timber, bears NE. and SW. Bottom of swale, drains N. 10° E., 80 ft. below ¼ sec. cor.; continue gradual desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 3, 4, 9 and 10, with brass cap mkd.

$$\begin{array}{c|c} \multicolumn{2}{c}{T\ 33\ S\ R\ 1\ W} \\ S\ 4 & S\ 3 \\ \hline S\ 9 & S\ 10 \\ & 1915 \end{array}$$

from which

A spruce, 14 ins. diam., bears N. 55° E., 93 lks. dist., mkd. T33SR1WS3BT.

An aspen, 10 ins. diam., bears S. 68° E., 63 lks. dist., mkd. T33SR1WS10BT.

A spruce, 8 ins. diam., bears S. 55° W., 29 lks. dist., mkd. T33SR1WS9BT.

Raise a mound of stone, 2 ft. base, 1½ ft. High, W. of cor. No other trees within reasonable dist. suitable for bearing trees.

A large spring of clear cool water, bears E., 150 lks. from cor., flows NW.

Land, rolling mountainous.

Soil, dark sandy loam, over 2 ft. deep, very rocky.

Timber, dense aspen and spruce.

Undergrowth, dense young aspen and spruce, and grass.

Chains.	
	Good grazing. Western exposure. Volcanic formation.
	June 14, 1915.

	July 12, 1915.
	N. 89° 56' E., on random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.87	Intersect the N. and S. line, 2 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	July 12, 1915: Walking between points on line at noon, unable to observe the sun for lat.
	S. 89° 57' W., on true line bet. secs. 3 and 10.
	Desc. over mountainous land, through dense aspen and scattering spruce timber.
1.00	W. edge of Griffen Top, bears N. and SW.; desc. abruptly over roughm broken W. slope.
28.80	Foot of steep desc., bears N. and S., 520 ft. below top.
33.70	Stagnant lake, 3 chs. S. of line, approximately 2 chs. wide N. and S., and 1 ch. E. and W.; asc. gradually.
39.93½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 3 / S 10
	1915 from which
	An aspen, 8 ins. diam., bears S. 24° E., 42 lks. dist., mkd. ¼S10BT.
	An aspen, 6 ins. diam., bears N. 60° E., 29 lks. dist., mkd. ¼S3BT.
41.50	Top of ridge, bears N. and S., 20 ft. above ¼ sec. cor.; desc.
45.00	Bottom of desc., bears N. and S., 55 ft. below top of ridge, leave dense timber, bears N. and S., enter open park.
50.00	Leave open park, bears N. and S., enter dense aspen and spruce timber.
55.10	Top of ridge, bears N. and S., 50 ft. above open park; desc.

Chains.	
78.20	Bottom of slope of ridge, 375 ft. below top, bears NE. and SW.
78.70	Creek, 20 lks. wide, 1½ ft. deep, water clear and cool, drains NW.
79.87	The cor. of secs. 3, 4, 9 and 10.
	Land, rough mountainous.
	Soil, dark loam, shallow and rocky.
	Timber, dense aspen and spruce.
	Undergrowth, dense young aspen and spruce.
	Poor grazing. Western exposure. Volcanic formation.
	July 12, 1915.

	June 15, 1915: At 8h, a. m., l. m. t., I set off 37° 58' N. on the lat. arc; 23° 18' N. on the decl. arc, and determine the meridian with the solar.
	N. 0° 02' W., on a random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
	June 15, 1915: At the temp. ¼ sec. cor. I set off 23° 18' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 58' 30" N.
80.00	Leave temp. pt.
	June 15, 1915.
	August, 3, 1915.
80.18	Intersect the N. bdy. of the twp., 21 lks. E. of the cor. of secs. 3, 4, 33 and 34, heretofore described.
	S. 0° 11' E., on true line bet. secs. 3 and 4.
	Desc. over mountainous land, through dense aspen and spruce timber.
5.40	Bottom of desc., bears NW. and SE.
7.70	Fork of Central Creek, 20 lks. wide, 1½ ft. deep, drains NW. clear cold water.; 75 ft. below sec. cor. asc. gradually.
17.10	Start abrupt asc., over NE. slope of ridge, bears NW. and SE.

Chains.	
22.70	Top of rocky ridge, bears NE. and SW., 80 ft. above Centre Creek.; desc.
26.20	Bottom of desc., bears NE. and SW., 60 ft. below top of ridge, asc. gradually.
40.18	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 4 | S 3

1915 from which

An aspen, 10 ins. diam., bears West, 94 lks. dist., mkd. ¼S4BT.

An aspen, 10 ins. diam., bears S. 60° E., 103 lks. dist., mkd. ¼S3BT.

76.90	Creek, 10 lks. wide, 6 ins. deep, drains NW.
78.80	Creek, 10 lks. wide, 6 ins. deep, drains NW., clear cool water; junction of the two creeks 50 lks. W. of line.
80.18	The cor. of secs. 3, 4, 9 and 10.

Land, mountainous.

Soil, dark loam and rocky, more than 3 ft. deep.

Timber, dense spruce and aspen.

Undergrowth, young aspen and spruce, and grass.

Good grazing. Western exposure. Volcanic formation.

August 3, 1915.

Jos. C. Thoma

U. S. Surveyor.

May 30, 1915: At the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the Tp., which is; an iron post, 3 ins. diam., 12 ins. above ground, firmly set, heretofore described in the notes of the N. bdy. of T. 34 S., R. 1 W., of this Group; I set off 37° 54' N. on the lat. arc, 21° 41' N. on the decl. arc, and at 8h 57m, a. m., l. m. t., determine the meridian with the solar.

Thence I run

N. 0° 03' W., bet. secs. 32 and 33.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Asc. abruptly over mountainous land, through dense spruce yellow pine, scrub cedar and pinon timber, on N. slope of Birch Creek Canon.
10.00	Asc. over a series of lime stone ledges, from 25 to 60 ft. high, bears E. and W.
14.50	Top of series of lime stone ledges, bears E. and W.
28.00	Leave dense spruce, yellow pine, scrub cedar and pinon, enter dense appen timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 32 | S 33
1915

from which

An aspen, 6 ins. diam., bears S. 64° 15' E., 35 lks. dist., mkd. ¼S33BT.

An aspen, 5 ins. diam., bears N. 77° W., 32 lks. dist., mkd. ¼S32BT.

Corner established 750 ft. above sec. cor.

May 30, 1915: I set off 21° 42' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 54' N.

43.00	Top of spur, projects W., approximately 15 chs., 55 ft. above ¼ cor.; desc. gradually.
60.60	S. edge of lake, bears East, 60 lks.; 1 ch. wide, extends N. 2 chs.
65.00	Basin, 20 ft. below top of spur, asc. gradually.
70.00	Small spur, porjects S. 30° W., approximately 17 chs., 10 ft. above basin; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 28, 29, 32 and 33, with brass cap mkd.

T 33 S R 1 W
S 29 | S 28
S 32 | S 33
1915

from which

A spruce, 12 ins. diam., bears N. 43° 45' E., 57 lks. dist., mkd. T33SR1wS28BT.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	An aspen, 5 ins. diam., bears S. 28° 45' E., 43 lks. dist., mkd. T33SR1WS33BT.
	An aspen, 5 ins. diam., bears S. 43° 45' W., 41 lks. dist., mkd. T33SR1WS32BT.
	An aspen, 5 ins. diam., bears N. 37° 45' W., 43 lks. dist., mkd. T33SR1WS29BT.
	Corner established 40 ft. below spur.
	Land, mountainous.
	Soil, light sandy loam and decayed vegetation, on red sandy loam and rocky subsoil.
	Timber, dense spruce, yellow pine, cedar, pinon and aspen.
	Undergrowth, scattering buck brush and grass.
	Good grazing. Southwestern exposure. Lime stone and volcanic formation.
	May 30, 1915.

	May 31, 1915: At 8h 57m, a. m., l. m. t., I set off 37° 55' N. on the lat. arc, 21° 50' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	East, on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
	May 31, 1915: I set off 21° 51' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 55' N.
79.92	Intersect the N. and S. line, 23 lks. N. of the cor. of secs. 27, 28, 33 and 34.
	N. 89° 50' W., on true line bet. secs. 28 and 33.
	Desc. over S. slope of ridge, through dense spruce and aspen timber.
9.20	Top of ridge, bears N. 80° E., and S. 35° W., 45 ft. below cor., continue desc.
32.20	Small basin, 140 ft. below top of ridge; asc. gradually.
33.00	Spur, projects SW., approximately 20 chs., 10 ft. above basin; desc.
39.96	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains	
	the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 28 / S 33
	1915 from which
	A spruce, 10 ins. diam., bears N. 14° 15' E.,
	71 lks. dist., mkd. ¼S28BT.
	An aspen, 6 ins. diam., bears S. 23° W.,
	65 lks. dist., mkd. ¼S33BT.
	Corner established 50 ft. below top of spur.
	Continue desc. over broken northwesterly slope, on S.
	side of draw, draining W.
79.92	The cor. of secs. 28, 29, 32 and 33.
	Land, mountainous, drains NW.; E. 10 chs. drains SE.
	Soil, rocky sandy loam and decayed vegetation, on rocky
	sandy loam subsoil.
	Timber, dense aspen and scattering spruce.
	Undergrowth, scattering buck brush and grass.
	Good grazing. Northwestern exposure. Volcanic formation
	May 31, 1915.

	June 1, 1915: At 8h 57m, a. m., l. m. t., I set off 37°
	55' N. on the lat. arc; 21° 59' N. on the decl. arc,
	and determine the meridian with the solar.
	Thence I run
	N. 0° 03' W., bet. secs. 28 and 29.
	DEsc. over mountainous land, through scattering spruce
	and dense aspen timber, over NW. slope of ridge.
17.40	Creek, 5 lks. wide, 5 ins. deep, clear water, course W.
20.20	Creek, 5 lks. wide, 5 ins. deep, clear water, course NE.
20.80	Creek, 5 lks. wide, 7 ins. deep, clear water, course W.
28.20	Head of creek, in bottom of ravine, 4 lks. wide, 5 ins.
	deep, water clear, course W., 95 ft. below sec. cor.;
	Asc. over rocky surface.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in
	the ground, for ¼ sec. cor., 55 ft. above creek, with
	brass cap mkd.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	¼ S 29 | S 28
	1915 from which
	An aspen, 9 ins. diam., bears S. 47° 45' E., 41 lks. dist., mkd. ¼S28BT.
	An aspen, 8 ins. diam., bears N. 58° 30' W., 30 lks. dist., mkd. ¼S29BT.
	June 1, 1915: I set off 22° N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 55' N.
	The ¼ sec. cor. is established on low rolling ridge, bears E. and W.; desc. gradually.
49.30.	Creek, in bottom of ravine, 6 lks. wide, 6 ins. deep, clear water, course W., 25 ft. below ¼ sec. cor.; asc.
73.00	Rocky spur, projects N. 60° W., approximately 12 chs., 140 ft. above creek; desc. abruptly. Enter dense spruce timber, bears N. 60° W. and SE.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 20, 21, 28 and 29, with brass cap mkd.

T 33 S R 1 W

S 20	S 21
S 29	S 28

1915 from which

An aspen, 8 ins. diam., bears N. 49° 45' E., 50 lks. dist., mkd. T33SR1WS21BT.

An aspen, 6 ins. diam., bears S. 29° 30' E., 38 lks. dist., mkd. T33SR1WS28BT.

A. spruce, 13 ins. diam., bears S. 30° 30' W., 39 lks. dist., mkd. T33SR1WS29BT.

A. spruce, 8 ins. diam., bears N. 53° W., 36 lks. dist., mkd. T33SR1WS20BT.

Land, mountainous, drains W. and N.

Soil, rocky sandy loam and decayed gegetation, on subsoil of rocky sandy loam.

Timber, dense spruce and aspen.

Undergrowth, grass.

Chains	
	Good grazing. Western exposure, volcanic formation.
	June 1, 1915.
	June 2, 1915: 8h 58m, a. m., l. m. t., I set off 37° 55' 30" N. on the lat. arc, 22° 07' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	S. 89° 50' E., on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
	June 2, 1915: Cloudy at noon, unable to observe the sun for lat.
80.05	Intersect the N. and S. line, 2 lks. N. of the cor. of secs. 21, 22, 27 and 28.
	N. 89° 49' W., on true line bet. secs. 21 and 28.
	Desc. over mountainous land, through dense aspen and spruce timber.
22.70	Bottom of abrupt desc., bears N. and S.; desc. gradually.
34.40	Draw, drains S. 35° W., 555 ft. below sec. cor.; asc.
40.02½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 21 / S 28
	1915 from which
	A spruce, 18 ins. diam., bears S. 38° 15' W., 9 lks. dist., mkd. ¼S28BT.
	A spruce, 16 ins. diam., bears N. 8° 15' W., 34 lks. dist., mkd. ¼S21BT.
	Corner established on low spur, projects S. 30° W., approximately 5 chs., 15 ft. above draw; desc.
58.10	Draw, drains SW., 210 ft. below ¼ sec. cor.; asc.
62.80	Spur, projects S., approximately 5 chs., thence S. 75° W., approximately 7 chs. to a saddle., 30 ft. above draw; desc.
70.20	Head of hollow, drains NW., 100 ft. below top of spur; asc.
80.05	The cor. of secs. 20, 21, 28 and 29, 15 ft. above head

Chains. of hollow.

Land, mountainous, drains NW. and SW.

Soil, decayed vegetation and sandy loam in the W. half; rocky in the E. half.

Subsoil, rocky sandy loam.

Timber, dense spruce and aspen.

Undergrowth, grass.

Fair grazing. Western exposure. Volcanic formation.

June 2, 1915.

June 5, 1915: At 8h 58m., a. m., l. m. t., I set off 37° 55' 30" N. on the lat. arc; 22° 29' 30" N., on the decl. arc, and determine the meridian with the solar.

Thence I run

N. 0° 03' W., bet. secs. 20 and 21.

Desc. gradually over mountainous land, through dense spruce and aspen timber.

11.40 Hollow, 40 ft. below sec. cor., drains N. 60° W., 15 chs., thence West.

26.00 Spur, projects S. 60° W., 160 ft. above hollow; enter scattering yellow pine timber, bears E. and W.; desc. abruptly over NW. slope of spur.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, 105 ft. below top of spur, for ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 20 | S 21
1915

from which

A spruce, 8 ins. diam., bears N. 68° 45' E., 23 lks. dist., mkd. ¼S21BT.

A spruce, 9 ins. diam., bears N. 61° 45' W., 14 lks. dist., mkd. ¼S20BT.

Corner established at base of abrupt desc., bears NE. and SW.

June 5, 1915: Cloudy at noon, unable to observe the sun for lat.

Chains.	
48.70	Leave dense timber, bears NE. and SW., enter open grass land.
70.90	S. edge of Grass Lake, 50 ft. below ¼ sec. cor., bears E. 6 chs, and S. 59° W., 13 chs., thence N. 10° E., 8 chs. Inlet to lake is a small creek, 5 lks. wide, 5 ins. deep, near the SE. cor.
	At this point, I offset 6 chs. E., and continue N. 0° 03' W.
80.00	On true line, falls in lake. Cor. not set.
84.50	Offset W. 6 chs., at which point I set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the witness to the cor. of secs. 16, 17, 20 and 21, with brass cap mkd.

T 33 S. R1W

S 17	S 16
W	C
S 20	S 21

1915 from which

An aspen, 12 ins. diam., bears N. 73° 15' E., 569 lks. dist., mkd. T33SR1WS16WCBT.

An aspen, 16 ins. diam., bears S. 80° 15' E., 636 lks. dist., mkd. T33SR1WS16WCBT.

An aspen, 16 ins. diam., bears S. 62° W., 315 lks. dist., mkd. T33SR1WS17WCBT.

An aspen, 18 ins. diam., bears N. 29° W., 230 lks. dist., mkd. T33SR1WS17WCBT.

Corner established, N. 0° 3' W., 90 lks. from the N. edge of the lake, which bears NE. and SW.

Land, mountainous, drains NW.

Soil, decayed vegetation, rocky sandy loam, on subsoil of rocky sandy loam.

Dense spruce and aspen. timber.

Undergrowth, grass.

Good grazing. Western exposure. Volcanic formation.

June 5, 1915.

Subdivision of T. 33 S., R. 1 W.

Chains	
	June 6, 1915: At 8h 58m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc; 22° 36' N. on the decl. arc, and determine the meridian with the solar. at the cor. of secs. 16, 17, 20 and 21. Thence I run
	S. 89° 49' E., on a random line bet. secs. 16 and 21, from the true cor. point for secs. 16, 17, 20 and 21.
40.00	Set temp. ¼ sec. cor.
	June 6, 1915: I set off 22° 37' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' 30" N.
79.95	Intersect the N. and S. line, 38 lks. S. of the cor. of secs. 15, 16, 21 and 22.
	S. 89° 55' W., on true line bet. secs. 16 and 21.
	Desc. over mountainous land, through dense spruce and aspen timber and windfall.
28.30	Top of abrupt desc., bears N. and S., 165 ft. below cor.
35.52	Base of abrupt desc., bears N. and S., 150 ft. below top of abrupt desc.; desc. gradually.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 16 / S 21 1915 from which
	An aspen, 10 ins. diam., bears N. 42° 45' E., 33 lks. dist., mkd. ¼S16BT.
	An aspen, 8 ins. diam., bears S. 56° 15' E., 18 lks. dist., mkd. ¼S21BT.
45.30	Leave dense timber, bears N. and S., enter sage brush and willows.
55.70	Two old cabins, 50 lks. apart, E. and W., bears N. approximately 2 chs. dist.
56.20	Creek, 8 lks. wide, 6 ins. deep, in bottom of hollow, clear water, course SW., 15 ft. below ¼ sec. cor.; asc.
59.90	Leave sage brush and willows, bears NE. and SW., enter dense spruce and aspen timber. An old corral bears N. 35° E., approximately 5 chs. dist.

Chains	
64.30	Spur, projects SW., approximately 8 chs., 25 ft. above creek; desc.
73.80	Leave dense spruce and aspen timber, bears N. and S., enter dense short sage brush undergrowth.
75.60	East edge of Grass Lake, bears N. 7° W., 4.50 chs., and S. 10° E., 9.30 chs.
79.95	The true point for the cor. of secs. 16, 17, 20 and 21, in Grass Lake, 120 ft. below top of spur.
	Land, mountainous. W½ drains SW., and E½ drains NW.
	Soil, decayed vegetation, sandy loam and rocky, on rocky sandy loam subsoil.
	Timber, dense spruce, aspen and windfall.
	Undergrowth, scattering willows, short sage and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 6, 1915.

	June 12, 1915: At 8h 59m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc, 23° 07' 30" N. on the decl. arc, and determine the meridian with the solar. Thence I run
	N. 0° 03' W., bet. secs. 16 and 17, from the true point for the cor. of secs. 16, 17, 20 and 21.
3.60	N. edge of Grass Lake, bears N. 77° E., 4 chs., and S. 40° W., 15.20 chs.
	Asc. gradually through short sage brush opening.
4.50	Witness cor. to the true cor. of secs. 16, 17, 20 and 21.
13.00	Leave sage brush opening, bears NE. and S. 25° W., enter dense aspen timber.
23.00	Ridge, bears NE. and S. 25° W., 75 ft. above cor.; desc. gradually.
27.50	Enter dense spruce timber, bears E. and W.
	June 12, 1915: I set off 37° 57' N. on the lat. arc, and at apparent noon, observe the sun on the meridian, the resulting decl. is 23° 08' N.
33.00	Enter dense windfall, bears NE. and W.

Subdivision of T. 33 S., R. 1 W.

Chains.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

S ¼ 17	S 16

1915 from which

An aspen, 8 ins. diam., bears S. 66° 45' E., 52 lks. dist., mkd. ¼S16BT.

A spruce, 32 ins. diam., bears S. 77° 45' W., 20 lks. dist., mkd. ¼S17BT.

Corner established 50 ft. below top of ridge.

Leave dense windfall, bears E. and W., continue through dense spruce timber, on gradual desc.

56.30 Leave dense spruce timber, bears E. and W., continue through dense aspen.

70.50 Leave dense aspen timber, bears E. and W., enter open sage brush land.

73.00 Hollow, drains N. 70° W., 160 ft. below ¼ sec. cor.; asc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

T 33 S R 1 W

S 8	S 9
S 17	S 16

1915 from which

An aspen, 8 ins. diam., bears N. 38° 15' E., 337 lks. dist., mkd. T33SR1WS9BT.

An aspen, 4 ins. diam., bears S. 36° 15' E., 116 lks. dist., mkd. T33SR1WS16BT.

An aspen, 6 ins. diam., bears S. 38° 45' W., 167 lks. dist., mkd. T33SR1WS17BT.

An aspen, 6 ins. diam., bears N. 71° 15' W., 152 lks. dist., mkd. T33SR1WS8BT.

From the cor., a small spring of clear water bears S. 31° W., 5.75 chs. dist.

Land, mountainous, southern portion drains SW., and the

Chains.	
	northern portion drains NW.
	Soil, decayed vegetation, and rocky sandy loam, 2 ft. deep, on subsoil of red, rocky sandy loam.
	Timber, dense spruce and aspen timber, with an occasional patch of windfall.
	Undergrowth, short sage and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 12, 1915.

	June 14, 1915: At 8h a. m., l. m. t., I set off 37° 57' N. on the lat. arc; 23° 15' N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 89° 55' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
	June 14, 1915: I set off 23° 15' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 57' 30" N.
79.94	Intersect the N. and S. line, 16 lks. S. of the cor. of secs. 9, 10, 15 and 16.
	S. 89° 48' W., on true bet. secs. 9 and 16.
	Desc. over mountainous land, through dense aspen and scattering young spruce timber.
2.40	Leave dense timber, bears N. and SW., enter sage brush opening.
9.10	Leave sage brush opening, bears N. and S., enter dense aspen timber.
12.60	A small lake, 2 chs. long, 1 ch. wide, bears N. approximately 5 chs. dist.
16.10	Leave dense aspen timber, bears NE. and SW., enter sage brush opening.
17.90	A small lake, 2 chs. long, 1 ch. wide, bears S., approximately 3 chs. dist.
19.10	Leave sage brush opening, bears N. and S., enter dense aspen timber.
21.10	Start desc. over W. slope, bears N. and S.

Chains.	
39.97	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 9 / S 16
	1915 from which
	An aspen, 6 ins. diam., bears N. 50° 30' E., 16 lks. dist., mkd. ¼S9BT.
	An aspen, 7 ins. diam., bears S. 12° 45' W., 30 lks. dist., mkd. ¼S16BT.
	Corner established 170 ft. below beginning of desc.
52.40	Creek, 4 lks. wide, 3 ins. deep, in bottom of hollow, 190 ft. below ¼ sec. cor., clear water, course SW.; asc.
62.10	Old road, bears N. 20° E. and S. 20° W.
64.90	Ridge, bears S. 25° W. and N. 25° E., 20 ft. above creek; desc.
75.00	Leave dense aspen timber, bears N. 70° W. and SE.; enter sage brush opening.
79.94	The cor. of secs. 8, 9, 16 and 17, 65 ft. below top of ridge.
	Land, mountainous, drains SW. in the western portion, and N. in the eastern portion.
	Soil, rocky, dark sandy loam, on subsoil of dark red sandy loam and clay.
	Timber, dense aspen and scattering spruce.
	Undergrowth, sage brush, buck brush, brier, wild currant and grass.
	Good grazing. Western Exposure. Volcanic formation.

	N. 0° 03' W., bet. secs. 8 and 9.
	Asc. gradually over mountainous land, through sage brush opening.
4.00	Leave sage brush opening, bears S. 70° E. and W., enter dense aspen timber.
24.40	Enter scattering spruce timber, bears E. and W.
28.70	Low spur, projects W.; desc. gradually.

Subdivision of T. 33 S., R. 1 W.

Chains.	
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$
S 8 | S 9
1915 from which

A spruce, 16 ins. diam., bears N. 50° E., 66 lks. dist., mkd. ¼S9BT.

An aspen, 6 ins. diam., bears S. 6° 45' W., 26 lks. dist., mkd. ¼S8BT.

Corner is established 30 ft. below top of low spur.

June 14, 1915.

June 15, 1915: At 8h, a. m., l. m. t., I set off 37° 58' N. on the lat. arc; 23° 18' N. on the decl. arc, and determine the meridian with the solar.

Desc. over rocky NW. slope.

53.50	Leave dense aspen and scattering spruce timber, bears N. 30° E. and SW., enter sage brush opening.
62.40	Leave sage brush opening, bears E. and W., enter dense aspen and scattering spruce timber.
66.40	Leave dense aspen timber, bears E. and W., enter scattering cedar and pinon timber and sage brush undergrowth.
71.70	Head of draw, drains W., 15 ft. below ¼ sec. cor.; asc. gradually.
73.00	Ridge, bears E. and W., 75 ft. above head of draw; desc. abruptly over N. slope, through dense spruce and aspen timber.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

T 33 S R 1 W
S 5 | S 4
S 8 | S 9
1915 from which

An aspen, 4 ins. diam., bears N. 60° 30' E., 19 lks. dist., mkd. T33SR1WS4BT.

An aspen, 6 ins. diam., bears S. 41° 45' E.,

Chains	
	87 lks. dist., mkd. T33SR1WS9BT.
	A spruce, 5 ins. diam., bears S. 2° W.,
	36 lks. dist., mkd. T33SR1WS8BT.
	A spruce, 6 ins. diam., bears N. 33° 15' W.,
	31 lks. dist., mkd. T33SR1WS5BT.
	This corner is established on the S. slope of North
	Creek canon, 145 ft. below top.
	June 15, 1915: I set off 23° 18' N. on the decl. arc,
	and at apparent noon, observe the sun on the meridian,
	the resulting lat. is 37° 58' N.
	Land, mountainous, drains W.
	Soil, decayed vegetation, rocky dark sandy loam, 2 ft.
	deep, on subsoil of dark red sandy loam and clay,
	rocky.
	Timber, dense aspen, scattering and dense spruce, cedar
	and pinon. A few scattering yellow pine.
	Undergrowth, sage brush, brier, buck brush and grass.
	Good grazing. Western exposure. Volcanic formation.

	N. 89° 48' E., on a random line bet. secs. 4 and 9.
40.00	Set temp. ¼ sec. cor.
	June 15, 1915.
	June 16, 1915: At 8h, a. m., l. m. t., I set off 37° 58'
	N. on the lat. arc; 23° 20' 30" N. on the decl. arc,
	and determine the meridian with the solar.
80.01	Intersect the N. and S. line, 7 lks. S. of the cor. of
	secs. 3, 4, 9 and 10.
	S. 89° 45' W., on true line bet. secs. 4 and 9.
	Asc. over mountainous land, through scattering and dense
	aspen timber.
4.50	Low ridge, bears N. 20° E. and S. 20° W., 20 ft. above
	cor.; desc.
11.80	Creek, 3 lks. wide, 2 ins. deep, drains N. 10° W., heads
	approximately 1 ch. S., 30 ft. below top of ridge.; asc.
22.40	Spur, projects N. 30° E., 30 ft. above creek; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in

Chains.	
	the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 4 / S 9
	1915 from which
	An aspen, 7 ins. diam., bears N. 23° 30' W.,
	19 lks. dist., mkd. ¼S4BT.
	An aspen, 8 ins. diam., bears S. 27° 15' W.,
	61 lks. dist., mkd. ¼S9BT.
	Corner established 150 ft. below spur.
42.90	Head of draw, drains N., 25 ft. below ¼ sec. cor.; asc.
46.50	Old road, bears N. 10° E. and S. 10° W.
48.60	Ridge, bears N. approximately 20 chs. and S. 30° W., 25 ft. above head of draw; desc. Enter dense spruce timber.
62.50	Draw, drains N. 35° W., 235 ft. below top of ridge. A spring of clear water, at the head of the S. fork of N. Creek, bears N. about 3.50 chs. dist.
65.50	Spur, projects N. 3 chs., 20 ft. above draw; desc. steep Northwesterly slope of ridge.
80.01	The cor. of secs. 4, 5, 8 and 9, 165 ft. below spur.
	June 16, 1915: I set off 23° 21' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 58' N.
	Land, mountainous, the eastern portion drains NE. and the western portion drains NW.
	Soil, decayed vegetation, dark sandy loam, rocky, on sub-soil of dark red sandy loam and clay, rocky.
	Timber, dense aspen, dense and scattering spruce.
	Undergrowth, buck brush, sage brush, brier and grass.
	Good grazing. Northwestern exposure. volcanic formation.

	N. 0° 03' W., on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
80.00	Set temp. pt.
	June 16, 1915.
	August 5, 1915.
80.22	Intersect the N. bdy. of the twp. 21 lks. E. of the cor. of sec

Chains	
	4, 5, 32 and 33, heretofore described.
	S. 0° 12' E., on true line bet. secs. 4 and 5.
	Asc. gradually over mountainous land, through dense aspen and spruce timber.
16.10	Old road, bears N. 80° E. and S. 80° W.
31.20	Spur, projects SW.; desc. abruptly.
36.80	North Creek, in bottom of canon, 10 lks. wide, 6 ins. deep, water clear, course S. 50° W., 205 ft. below spur; asc. abruptly.
40.22	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 5	S 4
1915	from which

A spruce, 9 ins. diam., bears S. 57° 30' E., 41 lks. dist., mkd. ¼S4BT.

A spruce, 10 ins. diam., bears N. 46° W., 35 lks. dist., mkd. ¼S5BT.

Cor. established 115 ft. above bottom of North Creek Canon.

43.10	Leave dense aspen and spruce timber, bears E. and W., enter sage brush and scattering cedar, pinon and spruce timber.
58.40	Spur, projects N. 65° W., 205 ft. above ¼ sec. cor.; desc. abruptly.
75.40	Leave sage brush and scattering cedar and pinon timber, bears N. 60° W. and S. 60° E., enter dense aspen and spruce.
76.80	South fork of North Creek, 8 lks. wide, 4 ins. deep, clear water, course N. 60° W., 200 ft. below top of spur; asc. abruptly.
80.22	The cor. of secs. 4, 5, 8 and 9, 130 ft. above creek.
	Land, mountainous, drains W.
	Soil, sandy loam, mixed with gravel and rock, 2 ft. deep, on subsoil of red sandy clay and rock.
	Timber, aspen, spruce, cedar, pinon and yellow pine.
	Undergrowth, sage brush, brier, buck brush and grass.
	Good grazing. Western exposure. Volcanic formation.

August 5, 1915.

Chains.

Jos. C. Clark
U. S. Transitman.

June 7, 1915: At the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp., which is, and iron post, 3 ins. diam., 12 ins. above ground, firmly set, heretofore described in the notes of the N. bdy. of T. 34 S., R. 1 W., of this Group; I set off 37° 54' N., on the lat. arc; 22° 42' N. on the decl. arc, and at 7h 58m, a. m., l. m. t., determine the meridian with the solar.

Thence I run

N. 0° 03' W., bet. secs. 31 and 32.

Asc. over mountainous land, through dense cedar and pinon timber.

31.60 Top of ridge, bears NE. and SW., 520 ft. above cor.; leave dense timber, enter scat tering timber and sage brush undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

S 31 ¼ | S 32
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

59.10 Top of ridge, bears NW. and SE., 720 ft. above sec. cor.; desc.

64.10 Bottom of desc., bears NW. and SE., 40 ft. below top of ridge; desc. gradually. Leave sage brush undergrowth, enter dense aspen timber.

67.50 Creek, 2 lks. wide, 2 ins. deep, clear water, course NW.; asc.

68.50 Low ridge, bears NW. and SE., 20 ft. above creek; desc.

69.10 Creek, 10 lks. wide, 6 ins. deep, water clear, course N. 80° W.; 15 ft. below top of low ridge; asc.

72.50 Top of rocky ridge, bears E. and W., 25 ft. above creek.

77.45 Leave dense, enter scattering aspen timber, bears E. and W.

Chains.	
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 29, 30, 31 and 32, with brass cap mkd.

T 33 S R1W

S 30	S 29
S 31	S 32

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, mountainous, drains S. and W.

Soil, dark sandy loam, 12 ins. deep, covered with large igneous boulders, on subsoil of dark red clay.

Timber, dense cedar and pinon.

Undergrowth, grass.

Good grazing. Southwestern exposure. Volcanic formation.

June 7, 1915: Walking on line at noon, unable to observe the sun for lat.

June 7, 1915.

Jos. C. Thoma

U. S. Surveyor.

June 7, 1915: At 2h 58m, p. m., l. m. t., I set off 37° 55' N. on the lat. arc, 22° 44' N. on the decl. arc, and determine the meridian with the solar.

Thence I run

East, on a random line bet. secs. 29 and 32.

40.00	Set temp. ¼ sec. cor.
79.79	Intersect the N. and S. line, 7 lks. S. of the cor. of secs. 28, 29, 32 and 33.

S. 89° 57' W., on true line bet. secs. 29 and 32.

Desc. over mountainous land, through dense aspen and spruce timber.

2.10	Start abrupt desc., bears N. and S.
7.80	Base of abrupt desc., bears N. and S., 125 ft. below top.; desc. gradually. Creek, course N. 60° W., bears N. approximately 4 chs. dist.

Chains.	
19.60.	Creek, 7 lks. wide, 6 ins. deep, course SW., water clear.
39.89½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 29
S 32
1915 from which

An aspen, 7 ins. diam., bears S. 7° 15' E., 132 lks. dist., mkd. ¼S32BT.

An aspen, 6 ins. diam., bears N. 41° 30' W., 97 lks. dist., mkd. ¼S29BT.

Corner is established 350 ft. below sec. cor. and 220 ft. below base of abrupt desc.

40.40	Creek, 3 lks. wide, 2 ins. deep, water clear, course SW. Dense willows along creek; asc.
44.10	Spur projects SW., 15 ft. above creek; desc.
49.00	Creek, 5 lks. wide, 6 ins. deep, course SW., 10 ft. below top of spur; asc. gradually.
54.20	Spur, projects SW., 10 ft. above creek, desc.
57.80	Leave dense aspen timber, bears N. and S., enter short sage brush.
67.40	Creek, 6 lks. wide, 3 ins. deep, clear water, course SW.; desc. over rocky surface.
79.79	The cor. of secs. 29, 30, 31 and 32.

Land, mountainous, drains SW.

Soil, decayed vegetation, sandy loam and rocky, on subsoil of rocky sandy loam.

Timber, dense aspen and scattering spruce.

Undergrowth, scattering yellow top, grass and willows along creek banks.

Good grazing. Southwestern exposure. Volcanic formation.

June 7, 1915.

Jos. C. Clark

U. S. Transitman.

June 7, 1915: Knowing a closing corner will be necessary

Chains.	
	on the W. bdy. of the Tp., I run
	West, on true line bet. secs. 30 and 31.
	Desc. over mountainous land, over numerous small unimportant draws and ridges.draining NW.
14.60	Enter dense aspen timber, bears NW. and SE. Desc. over N. slope of hollow. Creek in bottom of hollow, approximately 1 ch. S. of line, draining S. 85° W.
33.30	Creek, 5 lks. wide, 6 ins. deep, water clear, course S. 385 ft. below cor.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 30 / S 31 1915 from which
	A yellow pine, 30 ins. diam., bears N. 37° 30' W., 54 lks. dist., mkd. ¼S30BT.
	An aspen, 6 ins. diam., bears S. 17° E., 57 lks. dist., mkd. ¼S31BT.
50.30	Creek, 8 lks. wide, 6 ins. deep, clear water, course SW.
59.50	Bottom of desc., bears NW. and SE., 235 ft. below ¼ sec. cor.; desc. gradually.
63.30	Creek, 10 lks. wide, 6 ins. deep, clear water, course NW., 250 ft. below ¼ sec. cor., continue gradual desc.
70.40	Same creek, 260 ft. below ¼ sec. cor., dourse SW.
72.00	Creek, 3 lks. wide, 6 ins. deep, clear water, course SW., 270 ft. below ¼ sec. cor.
75.00	Set temp. closing corner.
	June 7, 1915.
	June 8, 1915:
73.59	Intersect the W. bdy. of the Tp. 5.89 chs. N. 0°11' W. of the cor. of secs. 25, 30, 31 and 36, heretofore described. I destroy all markings pertaining to secs. 30 and 31, and at point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for closing cor. of secs. 30 and 31, with brass cap mkd.

Subdivision of T. 33 S., R. 1 W.

Chains.

T 33 S
R 2 W | R 1 W
S 25 | S 30
S 36 | S 31
1915

Dig pits, 24x18x12 ins., crosswise on each line, N. and S., 3 ft., and E. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.

Land, mountainous, draining W. and SW.

Soil, light gravel, 2 ft. deep, on subsoil of light yellow clay.

Timber, dense aspen and scattering yellow pine.

Undergrowth, sage brush, yellow top and grass.

Good grazing. Western exposure. Volcanic formation.

June 8, 1915.

Jos. C. Thoma

U. S. Surveyor.

June 8, 1915: At 8h 59m, a. m., l. m. t., I set off 37° 55' N. on the lat. arc; 22° 48' N. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 29, 30, 31 and 32.

Thence I run

N. 0° 03' W., bet. secs. 29 and 30.

Desc. over mountainous land, through scattering aspen timber.

8.00 Draw, 8 lks. wide, 3 ft. deep, drains NW., 30 ft. below sec. cor.

11.50 Spur, 10 ft. above draw, projects N. 60° W., approximately 6 chs.; desc. over NW. slope of spur.

28.50 Creek, 10 lks. wide, 6 ins. deep, clear water, course SW., 85 ft. below spur; asc.

39.50 Enter dense aspen timber, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., with brass cap mkd.

¼
S 30 | S 29
1915

Chains. from which

An aspen, 6 ins. diam., bears N. 84° 15' E.,

24 lks. dist., mkd. ¼S29BT.

An aspen, 7 ins. diam., bears N. 64° W.,

35 lks. dist., mkd. ¼S30BT.

Corner established 65 ft. above creek.

44.50 Creek, 5 lks. wide, 5 ins. deep, clear water, course SW.

73.30 Spur, projects SW., 25 ft. above ¼ sec. cor.; desc. gradually over NW. slope of same.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 19, 20, 29 and 30, with brass cap mkd.

T 33 S R 1 W

S 19	S 20
S 30	S 29

1915 from which

An aspen, 9 ins. diam., bears N. 55° 15' E.,

60 lks. dist., mkd. T33SR1WS20BT.

An aspen, 6 ins. diam., bears S. 64° 45' E.,

26 lks. dist., mkd. T33SR1WS29BT.

An aspen, 10 ins. diam., bears S. 52° W.,

17 lks. dist., mkd. T33SR1WS30BT.

A spruce, 24 ins. diam., bears N. 48° 30' W.,

105 lks. dist., mkd. T33SR1WS19BT.

June 8, 1915: Walking on line at noon, unable to observe the sun for lat.

Land, mountainous and rolling benches, drains NW. and SW.

Soil, dark-sandy loam and rocky, 2 ft. deep, on subsoil of loam and rock.

Timber, scattering and dense aspen, spruce and yellow pine.

Undergrowth, sage brush and grass; willows along creek banks.

Good grazing. Western exposure. Volcanic formation.

June 8, 1915.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	June 9, 1915: At 7h 59m, a. m., l. m. t., I set off 37° 55' 30" N. on the lat. arc; 22° 53' 30" N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 89° 57' E., on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
	June 9, 1915: I set off 22° 54' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 55' N.
79.86	Intersect the N. and S. line, 10 lks. S. of the cor. of secs. 20, 21, 28 and 29.
	S. 89° 53' W., on true line bet. secs. 20 and 29.
	Asc. over rocky mountainous land, through dense spruce and aspen timber.
4.70	Spur, projects N. 20° E., approximately 8 chs., 55 ft. above cor.; desc.
14.90	Draw, 5 lks. wide, 2 ft. deep, drains N. 35° W., 205 ft. below spur; asc. gradually.
23.60	Rocky ridge, bears N. approximately 5 chs. and S. 5 chs., 35 ft. above draw.; desc.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor. with brass cap mkd.
	¼ S 20 / S 29 1915
	from which
	An aspen, 8 ins. diam., bears N 16° E., 32 lks. dist., mkd. ¼S20BT.
	An aspen, 6 ins. diam., bears S. 2° E., 36 lks. dist., mkd. ¼S29BT.
	Corner established 200 ft. below rocky ridge.
49.10	Head of hollow, drains NW. A small lake, 3 chs. in diam. bears N. approximately 1 ch. Another small lake, 5 chs. in diam., bears NW. approximately 1 ch. from the north edge of the first lake, 100 ft. below ¼ sec. cor.
59.60	Spur, projects S. 70° W., desc.

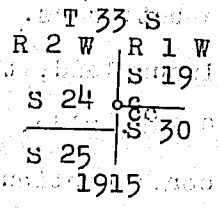
Chains.	
79.86	The cor. of secs. 19, 20, 29 and 30, 205 ft. below spur.
	Land, mountainous, drains NW.
	Soil, sandy loam and clay, 2 ft. deep, on subsoil of rocky red sandy loam.
	Timber, dense aspen and spruce, with scattering wind fall.
	Undergrowth, scattering buck brush and grass.
	Good grazing in W. half. Western exposure. Volcanic formation. June 9, 1915.
	Jos. C. Clark U. S. Transitman.

	June 10, 1915: I set off 37° 56' N. on the lat. arc; 22° 58' 30" N. on the decl. arc, and at 8h 29m, a. m., l. m. t., determine the meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence I run
	West, on true line bet. secs. 19 and 30.
	Desc. over mountainous land, through dense aspen timber.
3.40	Bottom of draw, 10 lks. wide, 3 ft. deep, drains SW., 55 ft. below sec. cor.; continue desc.
19.40	Bottom of draw 5 lks. wide, 3 ft. deep, drains SW., 225 ft. below sec. cor.
31.30	Leave dense aspen timber, bears N. and S., enter scattering yellow pine.
	June 10, 1915: I set off 22° 59' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' N.
39.90	Top of abrupt desc., bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

	¼ S 19 S 30
	1915
	from which
	A yellow pine, 16 ins. diam., bears N. 9° E., 22 lks. dist., mkd. ¼S19BT.
	A yellow pine, 30 ins. diam., bears S. 55° W.,

Subdivision of T. 33 S., R. 1 W.

Chains.	
	37 lks. diat., mkd. ¼S30BT.
	Cor. established 350 ft. below sec. cor. Desc. abruptly over western slope, through dense spruce timber.
54.00	Bottom of abrupt desc. and draw, 5 lks. wide, 2 ft. deep, drains N., 310 ft. below ¼ sec. cor. Leave dense timber, enter open sage brush.
58.00	Dim road, Coyoto to Riddle Lake, bears N. and S.
64.00	Start asc. over E. slope of ridge, bears NE. and SW.
68.90	Top of ridge, bears NE. and SW., 70 ft. above draw.
73.78	Intersect the W. bdy. of the Tp. 5.91 chs. N. 0°22' W. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	I destroy all marks pertaining to secs. 19 and 30, and at point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for closing cor. to secs. 19 and 30, with brass cap mkd.



	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Land, mountainous, drains N.
	Soil, sandy loam and rocky, 2 ft. deep, on subsoil of rocky, red sandy loam.
	Timber, dense aspen, and spruce, scattering yellow pine
	Undergrowth, buck brush, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.

June 10, 1915.

Jos. C. Thorna

U. S. Surveyor.

June 10, 1915: I set off 37° 55' 30" N. on the lat. arc; 22° 58' 30" N. on the decl. arc, and at 7h 59m, a. m., l. m. t., determine the meridian with the solar at the cor. of secs. 19, 20, 29 and 30.

Thence I run

N. 0° 03' W., bet. secs. 19 and 20.

Chains. Desc. gradually over mountainous land, through dense aspen, and scattering spruce and yellow pine timber.

31.20 Creek, 7 lks. wide, 5 ins. deep, clear water, course NW. A small draw bears W. 1 ch. dist., course NW. from SW.; asc. gradually. 160 ft. below sec. cor.

35.00 Point of low spur projects W., approximately 1 ch.; desc.

37.10 Draw, 7 lks. wide, 3 ft. deep, drains W.; 20 ft. below spur. Leave dense aspen, bears E. and W.; asc. abruptly over rocky surface.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

¼ S 19	S 20

1915 from which

A pinon, 24 ins. diam., bears N. 47° 30' E., 132 lks. dist., mkd. ¼S20BT.

A yellow pine, 30 ins. diam., bears S. 41° 30' W., 116 lks. dist., mkd. ¼S19BT.

Corner established 65 ft. above draw.

42.90 Top of abrupt asc., bears E. and W., 110 ft. above ¼ sec. cor.

June 10, 1915: I set off 22° 59' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 56' N.

47.60 Start desc. over NW. slope of ridge, bears NE. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 17, 18, 19 and 20, with brass cap mkd.

T 33 S R 1 W

S 18	S 17
S 19	S 20

1915 from which

An aspen, 5 ins. diam., bears N. 79° 30' E., 106 lks. dist., mkd. T33SR1WS17BT.

A cedar, 12 ins. diam., bears S. 15° 30' E., 82 lks. dist., mkd. T33SR1WS20BT.

Chains. An aspen, 5 ins. diam., bears S. 34° 45' W., 148 lks. dist., mkd. T33SR1WS19BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

Land, mountainous, drains NW.

Soil, sandy loam and rocky, on subsoil of red, rocky sandy loam.

Timber, dense aspen, scattering spruce, yellow pine, cedar and piñon.

Undergrowth, short black sage, mohogany and grass.

Good grazing. Western exposure. Volcanic formation.

June 10, 1915.

June 11, 1915: At 8h 29m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc; 23° 03' N. on the decl. arc, and determine the meridian with the solar.

Thence I run

N. 89° 53' E., on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

June 11, 1915: I set off 37° 56' 30" N. on the lat. arc, and at apparent noon, observe the sun on the meridian, the resulting decl. is 23° 04' N.

79.89 Intersect the N. and S. line, 16 lks. N. of the true point for the cor. of secs. 16, 17, 20 and 21.

West, on true line bet. secs. 17 and 20, from true point for cor of secs. 16, 17, 20 and 21.

Asc. gradually over mountainous land, through sage brush.

2.50 W. edge of grass lake, bears N. 40° E., 4.70 chs. and S. 40° W., 10.50 chs.

5.50 Leave sage opening, bears N. 35° E. and S. 35° W., enter dense aspen timber.

9.60 Ridge, bears N. 25° E. and S. 25° W., 65 ft. above sec. cor.; desc. along top of ridge.

32.00 Ridge, bears E. and SW., desc. Enter dense spruce timber, bears N. and S.

Chains.	
36.70	Leave dense spruce timber, bears N. and S., continue in dense aspen and scattering spruce.
39.94½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 17
S 20
1915 from which

An aspen, 9 ins. diam., bears S. 21° 30' E., 15 lks. dist., mkd. ¼S20BT.

An aspen, 9 ins. diam., bears N. 1° 30' W., 31 lks. dist., mkd. ¼S17BT.

Corner established 140 ft. below top of ridge.

54.40	Enter dense spruce timber, bears N. and S.
60.10	Leave dense spruce and aspen timber, bears N. and SW., enter scattering spruce, yellow pine, aspen, piñon, and cedar.
62.60	Start abrupt desc., bears N. 30° E. and S. 30° W.
79.89	The cor. of secs. 17, 18, 19 and 20, 480 ft. below beginning of abrupt desc.

Land, mountainous, drains NW. and SE.

Soil, light sandy loam, rocky, 2 ft. deep, on subsoil of red, rocky, sandy loam and clay.

Timber, dense and scattering aspen and spruce, scattering yellow pine, cedar and piñon.

Undergrowth, brier, wild currant, sage brush and grass.

Good grazing. Western exposure. Volcanic formation.

June 11, 1915.

Jos. C. Clark

U. S. Transitman.

June 11, 1915: At 7h 59m, a. m., l. m. t., I set off 37° 56' 30" N. on the lat. arc; 23° 03' N. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

Thence I run

West, on true line bet. secs. 18 and 19.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	Desc. gradually over mountainous land, through sage brush undergrowth, and scattering aspen timber.
10.00	Hollow drains S., 45 ft. below cor.; asc.
24.90	Ridge, bears N. and S., 70 ft. above hollow. Enter scattering spruce and yellow pine timber. Desc. abruptly.
35.80	Head of hollow, drains S. 10° W. into a lake approximately 15 chs. dist. 190 ft. below ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in mound of stone, for ¼ sec. cor., with brass cap mkd.

¼
S 18
S 19
1915

from which

A cedar, 12 ins. diam., bears S. 44° 30' W., 129 lks. dist., mkd. ¼S19BT.

A piñon, 4 ins. diam., bears N. 2° 15' W., 52 lks. dist., mkd. ¼S18BT.

41.30	Ridge, bears N. and S., 7 ft. above ¼ sec. cor.; desc.
51.60	Road from Coyoto to Riddle Lake, bears N. and S.
52.20	Draw, 5 lks. wide, 2 ft. deep, drains N., 110 ft. below ridge.
	June 11, 1915: I set off 37° 56' 30" N. on the lat. arc, and at apparent noon, observe the sun on the meridian, the resulting decl. is 23° 04' N.
74.43	Intersect the W. bdy. of the Tp., 6.14 chs. N. 0°19' W. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	I destroy all marks pertaining to secs. 18 and 19, and at point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. of secs. 18 and 19, with brass cap mkd.

T 33 S R 1
R 2 W | R 1 W
S 18
S 13 | c
c | S 19
S 24
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Chains.	
	Land, mountainous.
	Soil, light sandy loam, 2 ft. deep, on rocky clay subsoil.
	Timber, scattering aspen, spruce and yellow pine.
	Undergrowth, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 11, 1915.

	June 16, 1915: At 9h, a. m., l. m. t., I set off 37° 57' 30" N. on the lat. arc; 23° 20' 30" N. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	N. 0° 03' W., bet. secs. 17 and 18.
	Asc. over gently rolling land, through sage brush and bunch grass.
5.00	Small draw, drains W., continue gradual asc. over numerous unimportant small ridges and draws draining W.
20.00	Top of ridge, bears E. and W., 45 ft. above draw; desc. gradually over west slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼ S 18 | S 17
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Corner established 105 ft. below top of ridge.
50.00	Draw, 5 lks. wide, 2 ft. deep, drains NE.; asc. gradually.
	June 16, 1915: I set off 23° 21' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 37° 57' N.
70.00	Top of ridge, bears NE. and SW., 20 ft. above bottom of draw. Enter dense cedar and piñon timber. Continue along rocky W. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 7, 8, 17 and 18, with brass cap mkd.

T 33 S R 1 W

S 7	S 8
S18	S 17

1915

Chains.	
	from which
	A cedar, 10 ins. diam., bears N. 14° E., 34 lks. dist., mkd. T33SR1WS8BT.
	A cedar, 20 ins. diam., bears S. 27° 30' E., 23 lks. dist., mkd. T33SR1WS17BT.
	A yellow pine, 20 ins. diam., bears S. 43° W., 19 lks. dist., mkd. T33SR1WS18BT.
	A cedar, 16 ins. diam., bears N. 31° 30' W., 36 lks. dist., mkd. T33SR1WS7BT.
	Corner established 70 ft. below top of ridge.
	Land, rolling.
	Soil, light yellow gravel and rocky, 1 to 2 ft. deep on rocky clay subsoil.
	Timber, dense cedar and piñon; scattering aspen, spruce and yellow pine.
	Undergrowth, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 16, 1915.
	Jos. C. Thoma
	U. S. Surveyor.

	June 17, 1915: At 2h, p. m., l. m. t., I set off 37° 57' N. on the lat. arc; 23° 23' N. on the decl. arc, and determine the meridia n with the solar at the cor. of secs. 7, 8, 17 and 18.
	Thence I run
	East, on random line bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
79.90	Intersect the N. and S. line, 7 lks. N. of the cor. of secs. 8, 9, 16 and 17.
	N. 89° 57' W., on true line bet. secs. 8 and 17.
	Desc. over mountainous land, through dense aspen timber.
8.40	Creek in hollow, 8 lks. wide, 5 ins. deep, clear water, course N. 20° W., 70 ft. below cor.; asc. gradually.
16.70	Low spur, projects N. 20° W., approximately 25 chs., 35 ft. above creek.; desc.

Chains.	
30.00	Leave dense aspen timber, bears N. and S., enter sage brush and scattering spruce, cedar, piñon and mohogany.
39.95	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd. $\frac{\frac{1}{4}\ S\ 8}{S\ 17}$ 1915 from which
	A cedar, 12 ins. diam., bears N. 74° 45' W., 34 lks. dist., mkd. ¼S8BT.
	A cedar, 10 ins. diam., bears S. 70° 15' W., 93 lks. dist., mkd. ¼S17BT.
	Corner established 325 ft. below low spur.
64.90	Draw, 5 lks. wide, 3 ft. deep, drains NW., 435 ft. below ¼ sec. cor.; asc. gradually.
73.60	Ridge, bears N. 20° E. and S. 20° W., 80 ft. above draw; desc. abruptly.
79.90	The cor. of secs. 7, 8, 17 and 18, 140 ft. below ridge.
	Land, mountainous, drains NW.
	Soil, dark sandy loam mixed with rock and gravel, 2 to 3 ft. deep, on rocky sandy loam subsoil.
	Timber, dense aspen and scattering aspen, spruce, cedar, piñon, and mohogany.
	Undergrowth, buck brush, brier and short sage, and grass.
	Good grazing. Western exposure. Volcanic formation.

June 17, 1915.

Jos. C. Clark

U. S. Transitman.

June 17, 1915: At 2h, p. m., l. m. t., I set off 37° 57' N. on the lat. arc; 23° 23' N. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

Thence I run

West, on true line bet. secs. 7 and 18.

Desc. over steep rocky W. slope, through dense cedar, piñon and yellow pine timber.

Chains.	
9.40	Bottom of steep slope, bears N. and S., 215 ft. below sec. cor. Leave dense timber, enter sage brush undergrowth.
19.40	Small lake, 2 chs. N. of line.
21.40	Draw, 10 lks. wide, 2 ft. deep, drains N. Road from Coyoto to Riddles lake, bears N. and S.; start steep asc. through scattering cedar and piñon timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 7
S 18
1915 from which

A pinon, 24 ins. diam., bears N. 3° W., 54 lks. dist., mkd. ¼S7BT.

A pinon, 8 ins. diam., bears S. 6° E., 109 lks. dist., mkd. ¼S18BT.

Corner established 250 ft. above draw and road.

59.70	Top of ridge, bears N. and S., 215 ft. above ¼ sec. cor.
68.70	Start abrupt over densly timbered, rocky W. slope, ledge 25 ft. high, bears N. and S.
75.05	Set temp. point for closing cor.

June 17, 1915.

June 19, 1915.

74.60	Intersect the W. bdy. of the tp. 6.36 lks. N. 0°19' W. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

I destroy all marks pertaining to secs. 7 and 18, and at point of intersection, I

Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the closing cor. of secs. 7 and 18, with brass cap mkd.

T 33 S
R 2 W R 1 W
S 7
S 12 c
c S 18
S 13
1915 from which

A pinon, 24 ins. diam., bears S. 13° E.,

Chains.	
	13 lks. dist., mkd. T33SR1WS18CCBT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Land, mountainous.
	Soil, light gravel, 2 to 3 ft. deep, on subsoil of light red clay.
	Timber, dense and scattering cedar, piñon and yellow pine.
	Undergrowth, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 19, 1915.
	Jos. C. Thoma
	U. S. Surveyor.

	June 18, 1915: At 8h 1m, a. m., l. m. t., I set off 37° 57' N. on the lat. arc; 23° 24' 30" N. on the decl. arc, and determine the meridian with the solar.
	Thence I run
	N. 0° 03' W., bet. secs. 7 and 8.
	Desc. abruptly over mountainous land, through scattering timber, over rocky surface.
12.50	Small creek, 3 lks. wide, 3 ins. deep, clear water, course W. at base of abrupt desc, bears NE. and SW. and mouth of ravine to the E., 115 ft. below sec. cor.; asc. gradually.
24.00	Spur, projects N. 60° W., approximately 15 chs. dist., 70 ft. above bottom of ravine; desc. gradually.
34.20	Leave timber, bears NE. and SW., enter scrub oak and buck brush.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in md. of stone, for ¼ sec. cor., with brass cap mkd.

¼
S 7 | S 8
1915

Chains.	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
54.00	Draw, 10 lks. wide, 2 ft. deep, drains W., 55 ft. below ¼ sec. cor.; asc. gradually.
59.70	Creek, 4 lks. wide, 3 ins. deep, clear water, course W.
64.00	Low point of spur projects W. approximately 8 chs.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 5, 6, 7 and 8, with brass cap mkd.

T 33 S R 1 W

S 6	S 5
S 7	S 8

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, mountainous and rolling, drains NW.

Soil, dark sandy loam, gravelly and rocky, 2 to 3 ft. deep, on gravel and rocky subsoil.

Timber, scattering aspen, spruce, yellow pine, cedar, piñon, and mohogany.

Undergrowth, scrub oak, buck brush, yellow top, sage brush andgrass.

Good grazing. western exposure. Volcanic formation.

June 18, 1915: Cloudy at noon, unable to observe for lat.

S. 89° 57' E., on a random line bet. secs. 5 and 8.

40.00	Set temp. point for ¼ sec. cor.
79.85	Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 4, 5, 8 and 9.

N. 89° 59' W., on true line bet. secs. 5 and 8.

Asc. over mountainous land, through dense aspen and spruce timber.

8.80	Spur, projects N. approximately 15 chs., 100 ft. above sec. cor.; desc. abruptly.
19.00	Leave dense spruce and aspen timber, bears N. and S., enter sage brush undergrowth.
31.90	Bottom of abrupt desc., bears N. and S.; desc. gradually.
39.92½	Set an iron post, 3 ft. long, 1 in. diam., 15 ins. in

Chains	
	in the ground, on solid rock, in md. of stone, for ¼ sec. cor., with brass cap mkd.
	$\frac{\frac{1}{4}\ S\ 5}{S\ 8}$
	1915, from which
	A cedar, 12 ins. diam., bears S. 65° 45' W., 460 lks. dist., mkd. ¼S8BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable dist. suitable for bearing trees.
	Corner established 565 ft. below beginning of abrupt desc.
47.80	Spur, projects NW., approximately 15 chs., thense N. 60° W., 45 ft. below ¼ sec. cor. continue desc.
53.10	Leave scattering cedar and piñon timber, bears NE. and SW.
74.80	Bottom of abrupt desc., bears N. and S., desc. gradually.
79.85	The cor. of secs. 5, 6, 7 and 8, 355 ft. below spur.
	Land, mountainous, drains NW.
	Soil, dark sandy loam and gravelly, 2 to 3 ft. deep, on subsoil of dark sandy loam and rock.
	Timber, dense aspen and spruce, and scattering cedar and piñon.
	Undergrowth, sage and buck brush, brier, yellow top and grass.
	Good grazing. Western exposure. Volcanic formation.
	June 18, 1915.

	June 19, 1915:
	West, on true line bet. secs. 6 and 7.
	Asc. gradually over rolling mountainous land, through short sage brush undergrowth.
8.80	Low ridge, bears N. 20° E. and S., approximately 15 chs., 15 ft. above sec. cor.; desc. abruptly.
10.60	Creek, 4 lks. wide, 3 ins. deep, water clear, course N. 20° E., 20 ft. below ridge.
10.90	Road, Coyoto to Riddles Lake, bears N. 20° E. and S. 20° W.; asc. abruptly through scattering cedar, piñon and

Chains. and yellow pine timber.

19.00 Top of abrupt asc., bears N. and S., 90 ft. above creek; asc. gradually.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 6}{S\ 7}$$

1915 from which

A piñon, 14 ins. diam., bears N. 26° 15' E., 74 lks. dist., mkd. ¼S6BT.

A yellow pine, 24 ins. diam., bears S. 49° W., 100 lks. dist., mkd. ¼S7BT.

Corner established 120 ft. above top of abrupt asc.

June 19, 1915: I set off 37° 58' N. on the lat. arc, and at apparent noon, observe the sun on the meridian, the resulting decl. is 23° 25' N.

55.00 Spur, projects NE., 105 ft. above ¼ sec. cor.

59.50 Draw, 5 lks. wide, 2 ft. deep, drains NE., 60 ft. below spur.; asc.

64.30 Ridge, bears N. 30° W. and S. 20° E., 80 ft. above draw.

64.76 Intersect the 10.00 chs. offset line to the W. bdy. of the Tp., 6.24 chs. N. 0°46' E. of the witness cor. to cor. of secs. 1, 6, 7 and 12, heretofore described.

I destroy all marks on the W. C. pertaining to secs. 6 and 7, and at point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in md. of stone, for the W.C. closing cor. of secs. 6 and 7, with brass cap mkd.

T 33 S

R 2 W	R 1 W
S 1	S 6 WC CC
S 12	S 7

1915 from which

A piñon, 16 ins. diam., bears N. 69° 45' E., 40 lks. dist., mkd. T33SR1WS6WCCCBT.

Chains.	
	A piñon, 15 ins. diam., bears S. 20° 45' E., 35 lks. dist., mkd. T33SR1WS7WCCCBT.
	Land, rolling mountainous, drains NE.
	Soil, sand and gravel, 2 to 3 ft. deep, on subsoil of sandy clay and rock.
	Timber, scattering cedar, piñon, yellow pine and mahogany.
	Undergrowth, sage and buck brush and grass.
	Good grazing. Western exposure. Volcanic and lime stone formation.

	June 19, 1915: At 8h 1m, a. m., l. m. t., I set off 37° 58' N. on the lat. arc; 23° 26' N. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 5, 6, 7 and 8.
	Thence I run
	N. 0° 03' W., on random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
80.00	Set temp. point.
	June 19, 1915.
	August 5, 1915:
80.26	Intersect the N. bdy. of the Tp., 21 lks. E. of the cor. of secs. 5, 6, 31 and 32, heretofore described.
	S. 0° 12' E., on true line bet. secs. 5 and 6.
	Desc. over mountainous land, through scattering cedar, piñon, and yellow pine timber.
1.40	Road, Coyoto to Riddles Lake, bears NW. and SE.
7.20	Spur, projects NW., desc.
33.50	Draw, 5 lks. wide, 2 ft. deep, drains W., 180 ft. below spur.
35.30	Spur, projects W., 10 ft. above draw.
40.26	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 6 | S 5 1915
	from which
	A piñon, 10 ins. diam., bears N. 44° 30' E., 446 lks. dist., mkd. ¼S5BT.

Subdivision of T. 33 S., R. 1 W.

Chains.	
	A cedar limb, 8 ins. diam., bears S. 56° 30' W., 195 lks. dist., mkd. ¼S6BT.
41.30	Road, Coyoto to Riddles Lake, bears NE. and S. 20° W.
43.30	North Creek, 12 lks. wide, 8 ins. deep, clear water, course NW., asc. gradually.
47.00	Spur, projects N. 60° W., 20 ft. above North Creek.
55.30	Draw, 5 lks. wide, 2 ft. deep, drains NW., 15 ft. below spur. Leave scattering timber, bears E. and W., enter short sage brush undergrowth.
80.26	The cor. of secs. 5, 6, 7 and 8, 50 ft. above draw.

Land, rolling mountainous, drains NW. in the southern, and SW. in the northern portions.

Soil, light sandy loam with gravel and rock, 2 to 3 ft. deep, on subsoil of sandy clay and rock.

Timber, scattering cedar, piñon, and yellow pine.

Undergrowth, sage and buck brush, yellow top and grass.

Good grazing. Southern exposure. Volcanic formation.

August 5, 1915.

Jos. C. Clark

U. S. Transitman.

GENERAL DESCRIPTION.

The interior of this township can be reached with wagons by two roads. One known as the Riddle Lake Road, and the other as the Griffen Top Road. Both roads are characteristic of all mountain roads, rough and steep in places, which prohibits the transportation of heavy loads. The Riddle Lake Road leaves the main county road between Coyoto and Winder approximately 9 miles south of Coyoto, and wends its way over several steep ridges, through gnarled cedar and piñon, until it reaches North Creek in Sec. 6, where it turns almost due South on an even ascending grade. This road is little used and is almost obliterated toward the southern end.

The Griffen Top road leaves the same county road between Coyoto and Winder, approximately 6 miles south of Coyoto. This, like the Riddle Lake road, wends it's way up the side of the mountain, but is more steep and rocky until the top is reached where the grade becomes gentle. These roads are only used by cattlemen and sheepmen while hauling salt to the range.

The eastern portion of the township lies wholly, or nearly so, on a plateau 10000 ft. above sea level, locally known as Griffen Top. The top is gently rolling and covered with a dense growth of spruce and aspen timber; frequent openings or parks afford an excellent growth of grass and brouse, which late in the summer reaches the height of from 6 to 12 inches, supplying feed for cattle sheep and deer which are numerous. Snow lies until late in the summer, consequently the land is well watered.

Griffen Top is the divide between the prehistoric lake Bonneville and the Colorado River basin. The water on the east slope flows southeast into the Escalante River, thence to the Colorado River, while the western drainage flows generally west into the East Fork of the Sevier River where it joins the South Fork of the same river at the town of Junction.

Griffen Top is well defined by perpendicular ledges 25 to 100 ft. high. The land in the western portion of the township, which lies along the slopes, is particularly rough and broken and in many places, entirely covered with large boulders broken from the ledges. The slopes, like the top, is covered with a dense growth of spruce and aspen timber, which, in my opinion, would not make first class lumber on account of the numerous knots. A few yellow pine trees exist, which would make good lumber, but there is not enough trees to warrant the expense of erecting a saw mill, even though they

were allowed to be cut. The township lies within the boundaries of the Powell National Forrest.

The township is well watered, especially along the slopes The water, generally is excellent, except in a few of the numerous small lakes where the water is inclined to become more or less stagnant. Griffen Spring in the SW. ¼ of sec. 26, is not seen from line. There are no settlers in the tp. and we notice no indication of valuable mineral or oil.

Jos. C. Thoma

U. S. Surveyor.

Jos. C. Clark

U. S. Transitman.

4—680

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificates of assistants see book "M" T.31 S.R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursu
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and t
in my own proper person, and in strict conformity with said instructions, the Manual of Surve
Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma, U.S. Surveyor and Jos. C. Clark, U.S. Transitman, see book "M" T.31 S., R.1 W.

..... of the .....
..... Meridian, in the State of ....., which are represente
the foregoing field notes as having been executed by me, and under my direction; and I do fur
solemnly swear that all the corners of said survey have been established and perpetuated in strict acc
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surve
General for ..... and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey.

.....
U. S. Surveyo

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 191

The foregoing field notes of the ~~survey of~~ retracement and resurvey of west boundary, and survey of the subdivision of Township No. 33 South, Range No. 1 West, of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma and Jos. C. Clark
under special instructions dated June 11, 1913 and supplemental special instructions dated July 9, 191 3, having be
critically examined, and the necessary corrections and explanations made, the said field notes, and t
retracements, resurveys, and surveys they describe, are hereby approved.

.....
U. S. 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.

.....
U. S. Surveyor General.

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Page

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Page

4—070

K.

BOOK A-419

FIELD NOTES

Index Book

OF THE SURVEY OF THE

SALT LAKE MERIDIAN

THROUGH

TOWNSHIPS NOS. 31, 32, and 33 SOUTH,

Of the SALT LAKE BASE *Meridian,*

the State of U T A H

EXECUTED BY

JOS. C. THOM

the capacity of U. S. Surveyor, under instructions dated June 11 and July 9, *1913,*

ued by the United States Surveyor General to govern surveys included in

roup No. 24, *which were approved by the Commissioner of the General Land*

fice, July 19, *1913.*

Survey commenced June 24, *1915*

Survey completed August 21, *1915.*

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BOOK A-419

INDEX DIAGRAM.

Township 31 South, *Range* 1 West

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INDEX DIAGRAM.

Township 32 South, *Range* 1 West

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INDEX DIAGRAM.

Township 33 South, *Range* 1 West

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19	20	21	22	23	24	5
30	29	28	27	26	25	3
31	32	33	34	35	36	2

6—4817

Chains

Survey commenced June 24, 1915, and executed with Buff & Buff light mountain transit No. 9218; the horizontal limb having two double verniers placed opposite to each other and reading to single minutes of arc.

The instrument was examined and approved by the Assistant Supervisor of Surveys at Salt Lake City, Utah.

Measurements were made by two sets of chainmen, using five-chain Lallie steel tapes, with clinometer for determining slopes.

I begin at the corner of townships 33 and 34 S., Rs. 1 E. and 1 W., in approximate latitude 37° 54' N.; lingitude 111° 54' W.; which is a 3 in. iron post, firmly set, marked and witnessed as described in Book "C", page 11 of this Group, Res. N.bdy. T.34 S.R.1 W.

June 24, 1915: I make noon observation for time as follows:

	Watch time. h.	m.	s.
Sun's W. limb, ...	12	26	30
Sun's E. limb, ...	12	28	50
Mean, ...	12	27	40

	h.	m.	s.
Apparent noon, ...	12	00	00
Equation of time, June 24, . . .	00	02	00
L. m. t. of apparent noon, . . .	12	02	00
Watch time of apparent noon . . .	12	27	40
Watch fast, l. m. t.	00	25	40

June 24, 1915: At said township corner I observe Polaris as follows: I set a stake 10 chs. north of the corner and proceed:

Telescope Direct.	Horizontal Angle. °	'	"	Watch Time. h.	m.	s.
Star, ...	0	07	00	7	24	30 p.m.
Flag, ...	0	00	00			
Star, ...	0	06	30	7	26	40
Flag, ...	0	00	00			
Telescope Reversed:						
Star, ...	0	06	30	7	28	40
Flag, ...	0	00	00			
Star, ...	0	05	00	7	32	30
Flag, ...	0	00	00			
Mean, ...	0	06	15	7	28	05 p.m.
Watch fast, l. m. t.					25	40
L. m. t. of observation . . .				7	02	25 p.m.

U. C. of Polaris, June 24, 1915 . . 7h 23.4m a. m.
Red. to long. of station 1.2
U. C. of Polaris at station . . 7h 22.2m a. m.

Hour angle of Polaris 11h 40.3m

Chains.

W. azimuth of Polaris, . . 0° 06' 50"
Angle, W., flag to star, . 0 06 15
Flag bears, ... N. 0 00 35 W.

June 24, 1915.

June 25, 1915: I deflect an angle of 35" to the East and project this line North as a transit line, using double back and fore sights.

From the standard cor. above described, I run North, on a true line bet. secs. 31 and 36.

Over nearly level top of mountain, or Griffen Top, throug dense spruce and aspen timber.

11.70 E. edge of Griffen Top, bears N. 65° W. and SE.; desc. abruptly over broken, rocky slope.

18.40 Ravine, 190 ft. below Griffen Top, course S. 65° E.; asc.

20.60 Spur, 25 ft. above ravine, projects S. 65° E., about 40 chs; desc. abruptly.

24.12 Ravine, 75 ft. below spur, course S. 60° E.; asc. abruptl

27.01 Spur, 80 ft. above ravine, projects S. 70° E., about 40 chs.; desc. abruptly.

28.90 Ravine, 75 ft. below spur, course S. 70° E. about 10 chs., thence NE.; asc. abruptly.

35.97 Spur, 75 ft. above ravine, course N. 70° W. and S. 70° E. about 10 chs., thence NE.; desc. abruptly.

Difference between measurements of 40.00 chs. by two sets of chainmen is 1 lk.; position of middle point

By 1st set, 40.00½ chs.

By 2nd set, 39.99½ 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 36 | S 31

1915

from which

A spruce, 18 ins. diam., bears N. 53° 30' E., 18 lks. dist., marked ¼S31BT.

A spruce, 16 ins. diam., bears S. 83° 45' W., 33 lks. dist., marked ¼S36BT.

Chains.

Continue abrupt desc.

52.70 Hollow, 120 ft. below ¼ sec. cor., course SE.; asc. grad.

69.10 Spur, 30 ft. above hollow, projects N. 60° W.; desc. abruptly.

74.40 Ravine, 115 ft. below spur, course E.; asc. gradually.

Difference between measurements of 80.00 chs. by two sets of chainmen is 9 lks.; position of middle point

By 1st set, 80.04½ chs.

By 2nd set, 79.95½ chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 25, 30, 31 and 36, marked on brass cap

T 33 S
R 1 W | R 1 E
S 25 | S 30
S 36 | S 31
1915

from which

A spruce, 8 ins. diam., bears N. 31° 45' E., 36 lks. dist., marked T33SR1ES30BT.

A spruce, 9 ins. diam., bears S. 35° E., 54 lks. dist., marked T33SR1ES31BT.

A spruce, 20 ins. diam., bears S. 12° 15' W., 32 lks. dist., marked T33SR1WS36BT.

A spruce, 7 ins. diam., bears N. 23° 30' W., 43 lks. dist., marked T33SR1WS25BT.

This corner is 35 ft. above ravine on small spur projecting E.

Land, broken and mountainous, draining NW.

Soil, dark sand, clay loam and rocky; shallow; on subsoil of dark clay and rock.

Timber, dense spruce and aspen.

Undergrowth, brier and buck brush. Good grazing.

Volcanic formation.

N., bet. secs. 25 and 30.

Descending through dense spruce and aspen timber.

22.40 Base of abrupt desc., 135 ft. below spur, bears W. and SE.; descend gradually.

Chains	
29.70	South Fork of North Creek, 12 lks. wide, 8 ins. deep; water clear; course E. An old reservoir, about 8 chs, square, bears West, about 8 chs. dist. Asc. gradually
33.80	Ridge, 15 ft. above Creek, bears E. and W., about 30 chs each side of line; descend gradually.
	Difference between measurements of 40.00 chs. by two set 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 th ground for ¼ sec. cor., marked on brass cap
	¼ S 25 | S 30 1915
	from which
	A spruce, 20 ins. diam., bears N. 47° E., 31 lks. dist., marked ¼S30BT
	A spruce, 16 ins. diam., bears N. 86° 45' W., 19 lks. dist., marked ¼S25BT.
	June 25, 1915. June 26, 1915.
47.90	Bottom of gradual descent, bears NE. and SW., 30 ft. below ¼ cor.; start abrupt descent.
49.70	Base of abrupt descent, 45 ft. below top of gradual desc bears NE. and SW.; desc. gradually.
52.15	Creek, 6 lks. wide, 6 ins. deep; water clear; course NE. Dense willows along creek banks. Asc. gradually through scattering spruce timber.
60.90	South edge of marsh; extends East about 50 lks. and west about 150 lks.
62.70	North edge of marsh; extends east about 50 lks., and West about 150 lks.
65.50	Lake, about 1½ chs. in diam., bears East, about 2 chs. dist.
67.00	Ridge, 40 ft. above creek, bears E. and SW.; descend.
69.10	Creek in hollow, 25 ft. below ridge, 4 lks. wide, 6 ins. deep; water clear; course east. Ascend gradually.
	Difference in measurements of 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point

Chains.	
	By 1st set, 80.01 chs.
	By 2nd set, 79.99 chs., the mean of which is
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground on solid rock, in mound of stone, for the cor. of secs. 19, 24, 25 and 30, marked on brass cap

T 33 S

R 1 W	R 1 E
S 24	S 19
S 25	S 30

1915

from which

An spruce, 20 ins. diam., bears N. 43° E., 57 lks. dist., marked T33SR1ES19BT.

An aspen, 10 ins. diam., bears S. 59° 15' E., 33 lks. dist., marked T33SR1ES30BT.

An aspen, 10 ins. diam., bears S. 40° 45' W., 55 lks. dist., marked T33SR1WS25BT.

An aspen, 9 ins. diam., bears N. 66° 30' W., 32 lks. dist., marked T33SR1WS24BT.

This corner is located 105 ft. above creek.

Land, mountainous.

Soil and sub-soil, dark sandy loam and rocky.

Timber, dense spruce and aspen.

Undergrowth, service, and willow along creek banks.

Good grazing. Eastern exposure. Volcanic formation.

N., bet. secs. 19 and 24.

Ascend gradually through scattering spruce and dense aspen timber.

1.80	Ridge, 20 ft. above sec. cor., bears NE and SW; descend through dense spruce timber.
10.30	Draw, 60 ft. below ridge, drains NE.; ascend through scattering spruce timber.
17.80	Ridge, 75 ft. above draw, bears N. 35° E., about 15 chs., and SW.; descend.
24.30	Hollow, 40 ft. below ridge, drains NE.; ascend.
31.25	Spur, 30 ft. above hollow, projects NE. about 10 chs.; descend.

Chains.	
33.40	Hollow, 40 ft. below spur, drains NE.; ascend.
35.90	Spur, 35 ft. above hollow, projects NE. about 12 chs.; descend gradually.
	Difference between measurements of 40.00 chs. by two set of chainmen is nothing.
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 24 | S 19
	1915 from which
	A spruce, 12 ins. diam., bears S. 36° 30' E., 24 lks. dist., marked ¼S19BT
	A spruce, 9 ins. diam., bears S. 81° 15' W., 47 lks. dist., marked ¼S24BT.
	June 28, 1915. June 26, 1915.
48.45	Creek in hollow, 12 lks. wide, 6 ins. deep; water clear; 60 ft. below ¼ cor; course N. 70° E.; ascend.
54.00	Ridge, 50 ft. above creek, bears NE. and SW.; descend gra
65.20	Hollow, 20 ft. below ridge, drains N. 60° E.; ascend abruptly over rocky SE. slope.
72.40	Ridge, 175 ft. above hollow, parallels rim of Griffen Top, bears NE. and approximately S. 70° W.; descend abruptly.
78.70	Hollow, 90 ft. below ridge, drains N. 60° E.; asc. gradually over SE. slope.
	Difference in 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	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 13, 18, 19 and 24, marked on brass cap
	T 33 S R 1 W | R 1 E S 13 | S 18 S 24 | S 19 1915 from which

Chains.

A spruce, 7 ins. diam., bears N. 55° 45' E., 21 lks. dist., marked T33SR1ES18BT.

A spruce, 10 ins. diam., bears S. 71° 15' E., 25 lks. dist., marked T33SR1ES19BT.

A spruce, 8 ins. diam., bears S. 42° 30' W., 60 lks. dist., marked T33SR1WS24BT.

A spruce, 12 ins. diam., bears N. 33° 30' W., 23 lks. dist., marked T33SR1WS13BT.

Land, broken and mountainous.

Soil, dark sandy loam; rocky.

Sub-soil, light sandy loam, clay; rocky.

Timber, dense spruce and aspen.

Undergrowth, buck-brush and brier. Good grazing. North-eastern exposure.

Formation, volcanic.

N., bet. secs. 13 and 18.

Ascend over broken mountainous land, through dense spruce and aspen timber.

7.15 Start abrupt ascent over rocky SE. slope, over large boulders and slide rock, 20 ft. above sec. cor., bears NE. and S. 65° W.

14.15 Base of broken ledge, 250 ft. above base of abrupt ascent, bears NE. and S. 70° W.

15.45 Top of broken ledge and Griffen Top, 80 ft. above base of ledge, bears NE. and S. 70° W. Desc. gradually over rolling mountain top.

Difference in measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By the 1st set, 39.99 chs.

By the 2nd set, 40.01 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 13 | S 18

1915

from which

Chains.

A spruce, 8 ins. diam., bears N. 59° 45' E., 48 lks. dist., marked ¼S18BT.

An aspen, 15 ins. diam., bears S. 63° 15' W., 18 lks. dist., marked ¼S13BT.

July 6, 1915. June 28, 1915.

Difference in measurements of 80.00 chs. by two sets of chainmen is nothing.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 18 ins. in the ground on solid rock, in mound of stone, for cor. of secs. 7, 12, 13 and 18, marked on brass cap

T. 33 S

R 1 W	R 1 E
S 12	S 7
S 13	S 18

1915

from which

An aspen, 10 ins. diam., bears N. 52° 30' E., 46 lks. dist., marked T33SR1ES7BT.

A spruce, 9 ins. diam., bears S. 67° 15' E., 57 lks. dist., marked T33SR1ES18BT.

A spruce, 14 ins. diam., bears S. 52° 45' W., 16 lks. dist., marked T33SR1WS13BT.

A spruce, 8 ins. diam., bears N. 22° 45' W., 7 lks. dist., marked T33SR1WS12BT.

Land, broken and rolling mountainous.

Soil, decayed vegetation, dark sandy loam and rocky, approximately 18 ins. deep.

Timber, dense spruce and aspen.

Undergrowth, dense young spruce and aspen. Good grazing.

Formation, volcanic.

N., bet. secs. 7 and 12.

Descend gradually over rolling mountainous land, through dense aspen and spruce timber.

Difference in measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st set, 39.99 chs.

By 2nd set, 40.01 chs., the mean of which is

Chains.

40.00 Set an iron post, 3 ft., long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap

¼	
S 12	S 7

1915

from which

A spruce, 12 ins. diam., bears N. 78° 15' E., 29 lks. dist., marked ¼S7BT.

A spruce, 17 ins. diam., bears S. 12° 15' W., 54 lks. dist., marked ¼S12BT.

This corner is located in the south edge of sage brush opening, extending N. 70° W., approximately 12 chs. and East, 2 chs.; 9 chs. wide; 60 ft. below sec. cor.

July 6, 1915.

July 9, 1915.

54.28 Sage brush opening in timber bears E. 40 lks.; opening bears SE. and N. 20° W.

62.25 Wash, 20 lks. wide, 1 ft. deep, in hollow 40 ft. below ¼ cor., drains E. approximately 10 chs., thence SE.; ascend gradually through scattering spruce timber.

A sage brush and grass opening in the timber extends W., approximately 16 chs. and N.

76.30 Top of gradual ascent, bears E. approximately 20 chs., and W.; descend gradually.

76.50 Leave scattering spruce timber, bears NE. and SW.; enter opening.

Difference in measurements of 80.00 chs. by two sets of chainmen is nothing.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 1, 6, 7 and 12., marked on brass cap

T 33 S

R 1 W	R 1 E
S 1	S 6
S 12	S 7

1915

from which

A spruce, 18 ins. diam., bears S. 40° 15' E., 160 lks. dist., marked T33SR1ES7BT.

Chains	
	A spruce, 20 ins. diam., bears S. 25° 45' W., 290 lks. dist., marked T33SR1WS12BT.
	A spruce, 14 ins. diam., bears N. 85° 45' W., 207 lks. dist., marked T33SR1W S1BT.
	No other tree within reasonable distance which could be utilized as a bearing tree.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	This corner is established 15 ft. above wash.
	Land, rolling mountainous.
	Soil, dark red sandy loam, 2 ft. deep, on rocky subsoil.
	Timber, dense spruce and aspen.
	Undergrowth, wild currant, brier, young spruce and aspen.
	Good grazing. Eastern exposure. Volcanic formation.

	N., bet. secs. 1 and 6.
	Descend gradually over rolling mountainous land, through sage brush undergrowth.
10.00	Creek, 3 lks. wide, 2 ft. deep, clear water, in marsh in hollow, course S. 60° E.; ascend gradually.
13.70	Road from Coyoto to Griffen Top, bears N. 70° W. and S. 70° E.
16.00	Leave sage brush opening, bears SE. and W.; enter dense spruce and aspen timber.
28.30	Ridge, 80 ft. above hollow, bears E. and W.; descend gradually.
36.00	Leave dense spruce and aspen timber, enter small sage brush opening, bears E. & W.
	Difference in measurements of 40.00 chs. by two sets of chainmen is 7 lks.; position of middle point
	By 1st set, 40.03½ chs.
	By 2nd set, 39.96½ 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 1 | S 6
1915

Chains.

from which

A spruce, 12 ins. diam., bears S. 22° 45' E., 184 lks. dist., marked ¼S6BT.

An aspen, 12 ins. diam., bears N. 86° 50' W., 259 lks. dist., marked ¼S1BT.

43.50 Leave small sage brush opening, enter dense spruce and aspen timber, bears E. and W.

Difference in 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 the cor. of townships 32 and 33 S., Rgs. 1 E. and 1 W., marked on brass cap

T 32 S

R 1 W	R 1 E
S 36	S 31
S 1	S 6

T 33 S

1915

from which

A spruce, 20 ins. diam., bears N. 49° 15' E., 62 lks. dist., marked T32SR1ES31BT.

A spruce, 14 ins. diam., bears S. 27° 15' E., 24 lks. dist., marked T33SR1ES6BT.

A spruce, 10 ins. diam., bears S. 65° 45' W., 43 lks. dist., marked T33SR1WS1BT.

A spruce, 12 ins. diam., bears N. 48° 45' W., 84 lks. dist., marked T32SR1WS36BT.

Land, rolling mountainous.

Soil, dark red sandy loam, 2 to 3 ft. deep in hollows; sandy loam and rocky on ridges; on sub-soil of light rocky clay.

Timber, dense spruce and aspen.

Undergrowth, young aspen and spruce, sage brush and grass.

Good grazing. Eastern exposure. Volcanic formation.

July 9, 1915.

Chains.	
	T. 32 S.
	July 14, 1915.
	N., bet. secs. 31 and 36.
	Descend gradually over rolling mountainous land, through dense spruce and aspen timber.
4.50	Creek in marsh, 4 lks. wide, 4 ins. deep; water clear; course N. 75° E. Narrow opening in timber extends W., approximately 6 chs. and east. Ascend gradually.
10.00	Low spur, projects E.; descend gradually.
16.00	Sage brush opening, 3 chs. wide, extends E. and W.
21.00	Sage brush opening, 3 chs. wide; extends E. and W.
38.00	Sage brush opening, 5 chs. wide; extends E. and W.
	Difference in measurements of 40.00 chs. by two sets of chainmen is nothing.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., marked on brass cap
	¼ S 36 | S 31. 1915
	from which
	A. spruce, 32 ins. diam., bears S. 23° 30' E., 164 lks. dist., marked ¼S31BT.
	A. spruce, 8 ins. diam., bears N. 86° 45' W., 66 lks. dist., marked ¼S36BT.
41.20	Creek in hollow, 5 lks. wide, 4 ins. deep; water clear; course N. 70° E. Dense willows along banks. Ascend gradually through scattering spruce and aspen timber, and sage brush undergrowth.
50.00	Low spur, projects E.; descend gradually.
57.70	Leave sage brush undergrowth, enter dense spruce and aspen timber, bears NE. and SW.
70.00	Leave dense spruce and aspen timber, enter open sage brush land, bears N. 60° E., and SW.
73.20	Leave open sage brush land, enter dense spruce and aspen timber, bears N. 60° E. and SW.
	Difference in measurements of 80.00 chs. by two sets of

Chains.

chainmen is nothing.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 25, 30, 31 and 36, marked on brass cap

T 32 S
R 1 W | R 1 E
S 25 | S 30
S 36 | S 31
1915

from which

A spruce, 18 ins. diam., bears N. 89° 45' E., 41 lks. dist., marked T32SR1ES30BT.

A spruce, 10 ins. diam., bears S. 57° E., 42 lks. dist., marked T32SR1ES31BT.

A spruce, 10 ins. diam., bears S. 40° 45' W., 29 lks. dist., marked T32SR1WS36BT.

A spruce, 6 ins. diam., bears N. 78° 45' W., 36 lks. dist., marked T32SR1WS25BT.

Land, gently rolling, draining NE.

Soil, decayed vegetation, dark and light sandy loam, 1½ ft. deep on sub-soil of gravel and light clay.

Timber, dense spruce and aspen.

Undergrowth, sage brush, young spruce and aspen.

Good grazing. Formation, volcanic.

N., bet. secs. 25 and 30.

Descend gradually over rolling land, through dense spruce and aspen timber.

6.40 Old road, Coyoto to Griffin Top, bears W. approximately 5 chs.; thence S. 20° W. W. end of sage brush opening bears NE. and SE.

18.00 Sage brush opening, 4 chs. wide, extends E. approximately 3 chs. and W.

38.00 Leave dense spruce and aspen timber, enter open sage brush land, bears N. 35° W., and E. approximately 1 ch., thence N.

Difference in measurements of 40.00 chs. by two sets of chainmen is nothing.

Chains.	
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone for the ¼ sec. cor., marked on brass cap ¼ S 25 | S 30 1915 from which A spruce, 13 ins. diam., bears S. 37° 45' E., 33 lks. dist., marked ¼S30BT. An aspen, 12 ins. diam., bears S. 8° 15' W., 308 lks. dist., marked ¼S25BT. July 14, 1915. July 17, 1915.
43.00	Head of hollow, drains N. 20° W., approximately 20 chs., thence NE. Creek, 3 lks. wide, 3 ins. deep; water clear; sinks, about 5 chs. SW.
52.90	Leave open sage brush land, enter dense spruce and young aspen timber, bears E. and N. 70° W., approximately 6 chs., thence N.
58.80	Spur, 40 ft. above hollow, projects W.; descend.
65.50	Leave dense spruce and young aspen timber, enter open sage brush land, bears NE. and SW.
73.86	Creek, 6 lks. wide, 5 ins. deep, 80 ft. below spur; water clear; course N. 35° E., 20 chs., thence NE. Ascend gradually.
	Difference in measurements of 80.00 chs. by two sets of chainmen is nothing.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 19, 24, 25 and 30, marked on brass cap T 32 S R 1 W | R 1 E S 24 | S 19 S 25 | S 30 1915 from which An aspen, 8 ins. diam., bears S. 38° 30' W., 197 lks. dist., marked T32SR1WS25BT. An aspen, 10 ins. diam., bears N. 89° 45' W., 488 lks. dist., marked T32SR1WS24BT.

Chains.

No other trees within reasonable distance which could be utilized for bearing trees.

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.

Land, rolling; northeastern exposure.

Soil, dark sandy loam in hollows, 2 to 3 ft. deep; dark sandy loam, decayed vegetation and gravel on ridges; on rocky subsoil.

Timber, dense spruce and aspen.

Undergrowth, dense young spruce and aspen.

Good grazing. Formation, volcanic.

N., bet. secs. 19 and 24.

Ascend gradually over rolling mountainous land, through sage brush.

3.90 Spur, projects NE. approximately 5 chs.; descend gradually.

6.30 Draw, drains N. 50° E.; ascend gradually.

10.00 Leave open sage brush land, enter dense spruce and aspen timber, bears NE. and SW.

19.40 Spur, 25 ft. above draw, projects NE.; descend gradually.

25.00 Open sage brush hollow, 5 chs. wide, 25 ft. below spur, drains N. 75° E.; ascend gradually.

32.40 Ridge, 40 ft. above hollow, bears N. 70° E. and S. 70° W.; ascend gradually.

37.10 Enter open sage brush land, 4 chs. wide, extends NE. and W.

Difference in measurements of 40.00 chs. between 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. diam. 26 ins. in the ground, for the ¼ sec. cor., marked on brass cap

¼ S 24 | S 19

1915

from which

Chains.

A spruce, 8 ins. diam., bears S. 67° 45' E., 106 lks. dist., marked ¼S19BT.

An aspen, 6 ins. diam., bears N. 19° 45' W., 107 lks. dist., marked ¼S24BT.

Continue gradual descent through scattering spruce and dense aspen timber.

60.00 Start abrupt descent, bears NE. and SW.

67.20 Draw, 190 ft., below top of abrupt descent, drains NE.; ascend gradually.

78.35 Spur, 55 ft. above draw, projects NE.; descend abruptly

Difference in measurements of 80.00 chs, by two sets of chainmen is 5 lks.; position of middle point

By 1st set, 79.97½ chs.

By 2nd set, 80.02½ chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 13, 18, 19 and 24, marked on brass cap

T 32 S

R 1 W	R 1 E
S 13	S 18
S 24	S 19

1915

from which

An aspen, 6 ins. diam., bears N. 27° 45' E., 57 lks. dist., marked T32SR1ES18BT

An aspen, 6 ins. diam., bears S. 53° 45' E., 22 lks. dist., marked T32SR1ES19BT.

An aspen, 6 ins. diam., bears S. 34° 30' W., 21 lks. dist., marked T32SR1WS24BT.

An aspen, 6 ins. diam., bears N. 41° 45' W., 17 lks. dist., marked T32SR1WS13BT.

This corner is established 35 ft. below top of spur.

Land, rolling mountainous, draining NW.

Soil, dark sandy loam and rocky, 2 to 3 ft. deep, on rocky subsoil.

Timber, dense spruce and aspen.

Undergrowth, sage brush, young spruce and aspen.

Good grazing, Northeastern exposure. Formation, volcanic.

July 17, 1915.

Chains.

July 27, 1915: At this cor. I observe Polaris as follows:

I select a prominent tree on the horizon, N. of my station and proceed:

Telescope Direct.	Horizontal Angle. ° ' "	Watch Time. h. m. s.
Star, ...	0 11 00 . . .	7 28 00p. m.
Tree, ...	0 00 00	
Star, ...	0 11 30 . . .	7 30 30
Tree, ...	0 00 00	
Telescope Reversed.		
Star, ...	0 13 30 . . .	77 32 40
Tree, ...	0 00 00	
Star, ...	0 14 00 . . .	7 34 10
Tree, ...	0 00 00	
Mean, ...	0 12 30 . . .	7 31 20p. m.
Watch fast, l. m. t., ...		23 20
L. m. t. of observation, . . .		7 08 00p. m.

U. C. of Polaris, July 27, 1915, . . 5h 14.2m, a. m.
Red. to long. of station, ... 1.2
U. C. of Polaris at station, . . . 5h 13.0m, a. m.

Time interval to next U. C. . . . 10h 01.1m.

E. azimuth of Polaris, . . . 0° 42' 18"
Angle E., tree to star, . . . 0 12 30
Tree bears, ... N. 0° 29' 48" E.

July 27, 1915.

July 28, 1915:

I deflect an angle of 30' to the west, from the tree used in the foregoining Polaris observation, and the line thus determined, coincides with the prolongation of the meridian.

North, bet. secs. 13 and 18.

Desc. over rolling mountainous land, through dense spruce and aspen timber.

22.00 Wash, 15 lks. wide, 12 ins. deep, 105 ft. below sec. cor., drains SE.; asc. gradually.

22.90 Road from Coyoto to Antimony Creek, bears E. and W.

26.40 Outcrop of broken ledge and large boulders, 35 ft. above wash, bears E. and W.; desc. gradually.

Difference in measurements of 40.00 chs., between two sets of chainmen is nothing.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for ¼ sec. cor., marked on brass cap.

Chains.

¼ S 13	S 18

1915 from which

A spruce, 20 ins. diam., bears N. 88° W., 8 lks. dist., mkd. ¼S13BT.

A spruce, 24 ins. diam., bears S. 39° E., 24 lks. dist., mkd. ¼S18BT.

This cor. is established 115 ft. below top of broken l

Continue desc. through dense aspen and spruce timber.

68.40 Antimony Creek, 10 lks. wide, 6 ins. deep; clear water; 190 ft. below ¼ sec. cor., course NW.; leave dense aspen and spruce timber, bears NW. and SE. Ascend over NE. slope of Antimony Cañon, through dense young aspen, 3 to 4 ft. high.

Difference in measurements in 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st set, 79.99 chs.

By 2nd set, 80.01 chs., the mean of which

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24ins. in the ground, for the cor. of secs. 7, 12, 13 and 18, marked on brass cap

T 32 S.

R 1 W	R 1 E
S 12	S 7
S 13	S 18

1915 from which

An aspen, 10 ins. diam., bears N. 44° 30' E., 72 lks. dist., mkd. T32SR1ES7BT.

An aspen, 10 ins. diam., bears S. 24° E., 51 lks. dist., mkd. T32SR1ES18BT.

An aspen, 12 ins. diam., bears S. 12° 30' W., 87 lks. dist., mkd. T32SR1WS13BT.

An aspen, 12 ins. diam., bears N. 39° W., 76 lks. dist., mkd. T32SR1WS12BT.

This corner is established 95 ft. above Antimony Creek.

Land, rolling mountai nous.

S oil, light sandy loam, gravel and rocky, on subsoil of

Chains.

coarse gravel.

Timber, dense spruce and aspen.

Undergrowth, young aspen and spruce; sage and buck brush.

Poor grazing. Northeastern exposure. Volcanic formation.

N., bet. secs. 7 and 12.

Ascend over rolling mountainous land over NE. slope of Antimony Canon, through dense aspen timber.

7.90 Ledge on N. edge of Antimony Canon, 125 ft. above sec. cor., bears NW. and SE. Large lake with no apparent outlet bears East, approximately 8 chs. Ascend gradually over easterly slope draining into lake.

Leave dense aspen timber, enter open, rolling sage brush land.

Difference in 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. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

¼ S 12	S 7
1915	

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Descend gradually over gently rolling land.

Difference in measurements of 80.00 chs. by two sets of chainmen is 1 lk.; position of middle point

By 1st set, 80.00½ chs.

By 2nd set, 79.99½ chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 1, 6, 7 and 12, marked on brass cap

T. 32 S.

R 1 W	R 1 E
S. 1	S. 6
S 12	S 7
1915	

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains.	
	This cor. is located 30 ft. below ¼ sec. cor.
	Land, gently rolling.
	Soil, gravel and rocky, on rocky subsoil.
	Timber, dense aspen in southern portion.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Eastern exposure. Volcanic formation.
	N., bet. secs. 1 and 6.
	Descend gradually over gently rolling mountainous land, through sage brush and bunch grass.
0.20	Draw, 15 lks. wide, 3 ft. deep, drains W.; ascend gradually.
34.95	Leave open sage brush land, enter dense aspen and scattering spruce timber, bears NW. and SE.
	Difference in measurements of 40.00 chs. by two sets of chainmen is nothing.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of earth and stone for ¼ sec. cor., marked on brass cap ¼ S 1 | S 6 1915 from which
	An aspen, 10 ins. diam., bears N. 68° E., 71 lks. dist., marked ¼S6BT.
	An aspen, 20 ins. diam., bears N. 78° W., 100 lks. dist., marked ¼S1BT.
	This cor. is established 90 ft. above sec. cor. on top of ascent, bears E. and W.; descend abruptly.
48.20	Draw, 85 ft. below ¼ sec. cor., drains NW.; ascend.
49.56	Old road, bears NW. and SE.
51.45	Rocky spur, 30 ft. above draw, projects NE.; descend.
54.70	Swale, 15 ft. below rocky spur, drains W.; continue over low ridges and swales bearing E. and W.
67.20	Spur, 110 ft. above swale, projects W.; descend.
73.60	Draw, 20 lks. wide, 5 ft. deep, 25 ft. below spur, drains W. Ascend through scattering spruce and aspen timber.

Chains. Difference in measurements of 80.00 chs. by two sets of chainmen is 3 lks.; position of middle point

By 1st set, 79.98½ chs.

By 2nd set, 80.01½ chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of Ts. 31 and 32 S., Rs. 1 E. and 1W., marked on brass cap

T 31 S
R 1 W | R 1 E
S 36 | S 31

S 1 | S 6
T 32 S
1915

from which

An aspen, 10 ins. diam., bears N. 18° E., 234 lks. dist., mkd. T31SR1ES31BT.

No other trees within reasonable distance suitable for bearing trees.

Rasie a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Note: The marking on this corner was subsequently changed to two refer to Tps. 31 and 32 S., R. 1 E. only.

Land, rolling and mountainous.

Soil, rocky and shallow, on rocky subsoil.

Timber, aspen and scattering spruce.

Undergrowth, sage brush and bunch grass.

Fari grazing. Northwestern exposure. Volcanic formation.

July 28. 1915.

---------- T. 31 S. ----------

August 19, 1915: At this township corner, I observe Polaris as follows: I set a flag approximately 10 chs. N. and proceed:

Telescope Direct.	Horizontal Angle. ° ' "	Watch Time h. m. s.
Star, ...	1 04 00. . .	7 16 40 p. m.
Flag, ...	0 00 00	
Star, ...	1 05 00. . .	7 20 10
Flag, ...	0 00 00	
Telescope Reversed:		
Star, ...	1 05 30. . .	7 24 00
Flag, ...	0 00 00	
Star, ...	1 06 00. . .	7 27 40
Flag, ...	0 00 00	
Mean, ...	1 05 07. . .	7 22 07 p. m.
Watch fast, l. m. t., ...		24 51
L. m. t. of observation, . .		6 57 16 p. m.

U. C. of Polaris, August 19, 1915, 3h 44.2m a. m
Red. to long. of station, ... 1.2
U. C. of Polaris at station, ... 3h 43.0m a. m

Time interval to next U. C., 8h 41.6m.

E. azimuth of Polaris, ... 1° 05' 24"
Angle E., flag to star, . . . 1 05 07
Flag bears, ... N. 0° 00' 17" E.

August 19, 1915.

August 20, 1915: Knowing that closing cors. will be neces-
sary on this boundary, I set cors. for R. 1 E. only.
N., bet. secs. 31 and 36.

Descend gradually over rolling mountainous land, throug
patches of dense aspen timber, rabbit brush and yello
top.

Difference in measurements of 40.00 chs. by two sets of
chainmen is nothing.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in
the ground, on solid rock, in mound of earth and stone
for ¼ sec. cor., marked on brass cap

¼
S 31
1915

from which

An aspen, 7 ins. diam., bears S. 41° 45' E.,
14 lks. dist., mkd. ¼S31BT.

No other trees within reasonable distance suitable for
bearing trees.

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor
This corner is established 25 ft. below sec. cor.

Difference in measurements of 80.00 chs. by two sets of
chainmen is nothing.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in
the ground, for the cor. of secs. 30 and 31, marked
on brass cap

T 31 S
R 1 W R 1 E
S 30
S 25
S 31
S 36
1915

from which

An aspen, 7 ins. diam., bears N. 31° 15' E.,
536 lks. dist., mkd. T31SR1ES30BT.

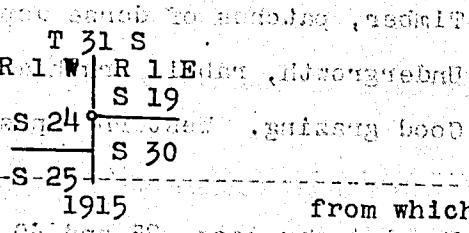
Chains.	
	An aspen, 8 ins. diam., bears S. 76° E., 754 lks. dist., marked T31SR1ES31BT.
	This corner is established 215 ft. below ¼ sec. cor.
	Land, rolling mountainous.
	Soil, stony light sandy loam, about 18 ins. deep, on sub-soil of hard red clay and gravel.
	Timber, patches of dense aspen and scattering spruce.
	Undergrowth, rabbit brush and yellow top.
	Good grazing. Western exposure, Volcanic formation.
	N., between secs. 25 and 30.
	Descend gradually over rolling mountainous land, through patches of dense aspen timber; rabbit brush and yellow top undergrowth.
21.75	Old road, bears N. 60° E. and S. 60° W.
31.60	Draw, 10 lks. wide, 3 ft. deep, 40 ft. below sec. cor, drains W.; ascend.
	Difference in 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. diam., 26 ins. in the ground, for the ¼ sec. cor., marked on brass cap ¼ S 30 1915, from which
	An aspen, 10 ins. diam., bears S. 31° 45' E., 491 lks. dist., marked ¼S30BT.
	No other trees within reasonable distance suitable for bearing trees.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	This corner is established 60 ft. above draw. Continue ascent.
42.75	Top of ascent, 130 ft. above ¼ sec. cor., bears E. and W.; continue over rolling land.
68.50	Start descent, bears E. and W.

Chains. Difference in measurements of 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st set, 79.99 chs.

By 2nd set, 80.01 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 19 and 30, marked on brass cap



1915 from which

An aspen, 8 ins. diam., bears N. 58° 15' E., 106 lks. dist., marked T31SR1ES19BT.

An aspen, 11 ins. diam., bears S. 34° 15' E., 98 lks. dist., marked T31SR1ES30BT.

This corner is established 30 ft. below top of descent.

Land, rolling and mountainous.

Soil, light red sandy loam and gravel, 18 ins. deep, on subsoil of hard red clay and gravel.

Timber, patches of dense aspen.

Undergrowth, rabbit brush, yellow top and black sage.

Good grazing. Western exposure. Volcanic formation.

N., bet. secs. 19 and 24.

Descend gradually over rolling mountainous land patches of dense aspen timber, undergrowth of rabbit brush, yellow top and grass.

9.15 Hollow, 30 ft. below sec. cor., drains from NE. to W.; ascend abruptly over SE. slope.

25.60 Top of abrupt ascent, 225 ft. above hollow, bears NE. and W.

31.00 Low ridge, bears NE. and W.; descend gradually.

Difference in measurement of 40.00 chs. by two sets of chainmen is 1 lk.; position of middle point

By 1st set, 40.00½ chs.

By 2nd set, 39.99½ chs., the mean of which is

Chains.
40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for ¼ sec. cor., marked on brass cap

¼
S 19
1915

from which

An aspen, 8 ins. diam., bears S. 13° E., 4 lks. dist., marked ¼S19BT.

49.80 Draw, 10 lks. wide, 3 ft. deep, 35 ft. below ridge, drains S. 70° W.; heads approximately 20 chs. NE.; ascend gradually.

Difference in measurements of 80.00 chs. by two sets of chainmen is nothing.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for cor. secs. 18 and 19, marked on brass cap

T 31 S
R 1 W | R 1 E
S 18
S 13 | S 19
S 24
1915

Raise a mound of stone, 2 ft.base, 1½ ft.high, E. of cor.

This cor. is established on spur projecting W., 180 ft. above draw.

Land, rolling mountainous.

Soil, light red sandy loam and rocky, 1 ft. deep, on sub-soil of hard red clay and gravel.

Timber, scattering patches of dense aspen.

Undergrowth, yellow top and short black sage.

Good grazing. Southern exposure. Volcanic formation.

N., bet. secs. 13 and 18.

Descend gradually over rolling mountainous land, through short sage brush and bunch grass.

25.00 Draw, 10 lks. wide, 2 ft. deep, 15 ft. below sec. cor., drains W. approximately 10 chs., thence N.; ascend gradually.

Chains.

30.00 Spur, 20 ft. above draw, projects NW. approximately 8 chs.; descend gradually.

Difference in measurements of 40.00 chs. by two sets of chainmen is nothing.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$
S 18
1915

Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

Continue gradual descent.

August 20, 1915.

August 21, 1915.

55.00 Hollow, 35 ft. below $\frac{1}{4}$ sec. cor., drains NW. approximatel 15 chs.; thence N. 10° W.; ascend gradually.

65.00 Spur, 20 ft. above hollow, projects N. 50° W., approximately 10 chs.; descend gradually.

Difference in measurement of 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st set, 79.99 chs.

By 2nd set, 80.01 chs., the mean of which is

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for cor. secs. 7 and 18, marked on brass cap

T 31 S
R 1 W | R 1 E
S 7
S 12 | S 18
S 13
1915

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor.

Land, rolling mountainous, draining NW.

Soil, light red sandy loam and rocky, 12 ins. deep, on subsoil of hard red clay and gravel.

Timber, scattering aspen and spruce.

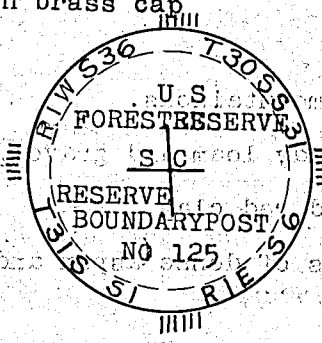
Undergrowth, short sage and bunch grass.

Good grazing. Northwestern exposure. Volcanic formation.

Chains.	
	N., bet. secs. 7 and 12.
	Descend over rolling mountainous land, through dense aspen and spruce timber; short sage and bunch grass.
13.50	Leave dense timber, enter open, rolling land, bears E. and W.
38.50	Hollow, 190 ft. below sec. cor., drains S. 80° W.; ascend gradually.
	Difference in measurement of 40.00 chs. by two sets of chainmen is 5 lks., position of middle point
	By 1st set, 39.98½ chs.
	By 2nd set, 40.02½ chs., the mean of which is
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., marked on brass cap
	¼ S 7
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Continue gradual ascent.
	Difference in measurements of 80.00 chs. by two sets of chainmen is 1 lk.; position of middle point
	By 1st set, 79.99½ chs.
	By 2nd set, 80.00½ chs., the mean of which is
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 6 and 7, marked on brass cap
	T 31 S R 1 W | R 1 E S 6 S 1 | S 7 S 12 | 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	This corner is located on a spur, 50 ft. above ¼ sec. cor., projects SW.
	Land, rolling mountainous.
	Soil, light sandy loam and gravel 12 ins. deep, on subsoil of rocky hard red clay.
	Timber, patches of dense aspen and spruce.

Chains.	
	Undergrowth, short sage, rabbit brush and bunch grass. Good grazing. Volcanic formation.

	N., bet. secs. 1 and 6.
	Descend gradually over rolling mountainous land, through short sage, rabbit brush and bunch grass.
12.00	Hollow, drains SW.; ascend gradually.
	Difference in measurements of 40.00 chs. by two sets of chainmen is 1 lk.; position of middle point
	By 1st set, 39.99½ chs.
	By 2nd set, 40.00½ chs., the mean of which is
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., marked on brass cap
	¼ S 6 1915
	Raise mound of stone, 2 ft. base, 1½ ft. high E. of cor.
80.00	Top of gradual ascent, bears E. and W.; descend gradually
90.00	Draw, 10 lks. wide, 3 ft. deep, drains S. 70° E.; ascend gradually.
	Difference in measurement of 103.84 chs. by two sets of chainmen is 4 lks.; position of middle point
	By 1st set, 103.82 chs.
	By 2nd set, 103.86 chs., the mean of which is
103.84	Intersect the Sixth Standard Parallel South, 13.87 chs. East of the standard corner to T. 30 S., R. 1 E. and 1 W., or the Boundary Post No. 125 of the Powell National Forest Reserve, which is
	An iron post 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, with brass cap having a beveled edge, marked on brass cap



Chains. A sand stone, 16x12x6 ins. lying on the ground along side of post, marked "COUNTY LINE".

At point of intersection I set

An iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the closing township cor., marked on brass cap

T 30 S
S 36 | S 31
R 1 W ——— ~~C o C~~ R 1 E
S 1 | S 6
T 31 S
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

I destroy all markings on the standard corner pertaining to T. 31 S.

Land, rolling mountainous.

Soil, light sandy loam and rocky, 1 ft. deep, on subsoil of stony hard red clay.

Undergrowth, short black sage, yellow brush and bunch grass.

No timber.

Good grazing. Volcanic formation.

August 21, 1915.

Jos. C. Thoma

U. S. Surveyor.

For General Descriptions, see subdivisional notes of the townships.

For final oath of Jos. C. Thoma, U. S. Surveyor, and certificate of assistants, see book of subdivision of T. 31 S., R. 1 W. book "M".

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BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificates of assistants see book "M" T.31 S., R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pur
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and
in my own proper person, and in strict conformity with said instructions, the Manual of Surv
Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of Jos. C. Thoma, U.S. Surveyor, see book "M" T. 31 S.
R. 1 W.

..... of the .....
..... Meridian, in the State of ....., which are represen
the foregoing field notes as having been executed by me, and under my direction; and I do fu
solemnly swear that all the corners of said survey have been established and perpetuated in strict ac
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Sur
General for ..... and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey.

.....
U. S. Surveyo

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 191

The foregoing field notes of the survey of Salt Lake Meridian, through Town-
ships Nos. 31, 32, and 33 South of the Salt Lake Base,

executed by Jos. C. Thoma
under his special instructions dated June 11, 1913, and supplemental special instructions dated July 9, 1913, having be
critically examined, and the necessary corrections and explanations made, the said field notes, and t
surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

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Page

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3008 A-419 L.

In the Book a2

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT OF WEST AND PART OF NORTH BOUNDARIES

AND

SURVEY OF THE SUBDIVISION

OF

TOWNSHIP NO. 32 SOUTH, RANGE NO. 1 WEST

Of the SALT LAKE BASE AND *Meridian,*

the State of U T A H

EXECUTED BY

JOS. C. THOMA AND JOS. C. CLARK

and U.S.Transitman June 11 and

the capacity of U. S. Surveyor, under instructions dated July 9, *1913,*

ued by the United States Surveyor General to govern surveys included in

roup No. 24, *which were approved by the Commissioner of the General Land*

fice, July 19, *1913*

Survey commenced July 15, *1913*

Survey completed September 4, *1915.*

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BOOK A-419

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INDEX DIAGRAM.

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Boundary of Powell Station Forest

Salt Lake Meridian

6—4817

Chains.	
	Survey commenced July 12, 1913, and executed with the instruments described in book "H" T.31 S., R.2 W., where tests and approval are also recorded.
	July 12, 1913: At 8h 30m a.m.l.m.t., I set off 38° 04' on the lat.arc; 22° 01'N.on the decl.arc; and determine a meridian with the solar at the cor.of Tps.31 and 32 S., Rs.1 and 2 W., which is a granite 8 x 10 x 10 ins.above ground, firmly set, marked and witnessed as described by the surveyor-general. Thence I run
	South, retracing the line between secs.1 and 6 T.32 S. Rs.1 and 2 W.
	Ascend over rolling land; through short sage undergrowth.
2.00	Ridge, bears NW. and SE., 10 ft.above Tp.cor. Descend.
11.00	Draw, 2 lks.wide, 1 ft.deep, drains NE., 20 ft.below ridge. Ascend.
22.00	Top of ridge, bears NE. and SW., 30 ft.above draw. Descend.
26.00	Draw, drains W., 20 ft.below ridge. Ascend.
38.00	Ridge, bears E.and W., 30 ft.above draw; continue over rolling unimportant ridges and draws, draining W.
39.93.	Fall 14 lks.W.of the ¼ sec.cor., which is a trachyte stone 10 x 8 x 8 ins.above ground, firmly set, marked and witnessed as described by the surveyor-general.
	The course of this half-mile is therefore S.0° 12'E., and the distance 39.93 chs.
	Continue line south, with continuous measurement.
43.00	Old road, bears E.and W.
64.00	Small dry wash, drains W.
65.00	Old road, bears E.and W, Ascend.
80.02	Fall 31 lks.W.of the cor.of secs.1,6,7,and 12, which is a trachyte 12 x 12 x 10 ins.above ground, firmly set, marked and witnessed as described by the surveyor general.
	The course of this half-mile is therefore S.0° 15'E. and the distance 40.09 chs.

Chains.	
	Land, rolling, drains W.
	Soil, gravel and rocky.
	Timber, very scattering cedar and pinon in the northern portion.
	Undergrowth, short sage and shadscale.
	Poor grazing. Western exposure.
	From point 31 lks. W. of the cor. of secs. 1, 6, 7, and 12, I continue my line south, retracing the line between secs. 7 and 12.
	Over rolling land; through short sage and shadscale.
25.20	Rail fence bears N.70° E., and S.70° W.
	Leave rolling land; enter cultivated field of Walter Gleaves.
40.00	After diligent search, find no evidence of the ¼ sec. cor. Point falls in cultivated field.
49.75	Small irrigation ditch, course N.20° E.
52.40	Barbed wire fence bears N.20° E., and S.20° W.
60.20	Barbed wire fence, bears N.30° W., and S.30° E.
63.00	Irrigation ditch, 5 lks. wide, 1½ ft. deep, course N.30°W.
74.00	Irrigation ditch, 5 lks. wide, 1½ ft. deep, course N.30°W.
74.04	Barbed wire fence, bears E. and W. Leave cultivated land.
80.20	Fall 33 lks. W. of the cor. of secs. 7, 12, 13, and 18, which is a trachyte 10 x 8 x 8 ins. above ground, firmly set, marked and witnessed as described by the surveyor-general.
	The course of this mile is therefore S.0° 01' E., and the distance 80.20 chs.
	Land, gently rolling.
	Soil, gravel and stony in the N. half; dark sandy loam in the cultivated portion, raising an average crop of alfalfa.
	Undergrowth, short sage and shadscale in the northern portion. No timber.
	July 12, 1913.

Chains.	
	Surveys 1915 executed with Buff and Buff light mountain transit No.9218, and Young & Sons light mountain transit No.8535, both transits having Smith solar attachments. For description, approval, and tests of instruments, see page 1, book"A^2" T.33 S., R.1 W.
	Measurements were made by using Lallie five-chain steel tapes, with clinometers for determining slopes.
	A correction of the tabulated refractions was allowed in the decl.arc settings, for 10000 ft.elevation in the E.half, and for 8000 ft.elevation in the W.half of the township.
	September 4, 1915: At 2h 59m p.m.l.m.t., I set off 38° 02' 30" N.on the lat.arc; 7° 21'N.on the decl.arc, and determine a meridian with the solar at the cor.of secs.7,12,13, and 18.
	Thence I run
	South, retracing the line bet.secs.13 and 18,
	Ascending over rolling land; through dense cedar and pinon timber.
4.00	Barbed wire fence, bears S.8° 30'E., and N.8° 30'W.
10.00	Top of gradual ascent, bearing E.and W., 20 ft.above sec. cor.; descend gradually.
39.86	Fall 31 lks.W.of the ¼ sec.cor., which is a trachyte stone 8 x 10 x 10 ins.above ground, firmly set, mkd. and witnessed as described by the surveyor-general.
	Leave dense; enter scattering cedar and pinon timber.
	The course of this half-mile is therefore S.0° 27'E., and the distance 39.86 chs.
	I continue my line south,
43.80	Brush fence, bears NE. and SW.
50.60	Center Creek, 4 lks.wide, 14 ins.deep, good water, course W., 90 ft.below ¼ sec.cor. Ascend.
53.60	Road, bears NE. and SW.

Chains.

64.60 Ridge, bears E.and W., 80 ft.above creek. Descend.

70.40 Rail fence, bears E.and W.

76.50 Foot of descent bears E.and W., 90 ft.below ridge.

Enter cultivated land.

77.65 Fall 38 lks.W.of the cor.of secs.13,18,19, and 24,which is a trachyte stone 14 x 12 x 6 ins.above ground,firml set in mound of stone, marked and witnessed as described by the surveyor-general.

The course of this half-mile is therefore S.0° 06'E., and the distance 39.79 chs.

Land, rolling. Eastern exposure.

Soil, gravelly and dark loam, more than 2 ft.deep, on rocky subsoil.

Undergrowth, sagebrush. Good grazing.

Timber, cedar and pinon.

September 4, 1915. Cloudy at noon; observation for lat. impossible.

From point 38 lks.W.of the cor.of secs.13,18,19, and 24, I continue my line south, retracing between secs.19 and 24,

Across cultivated field.

39.33 Fall 103 lks.E.of the ¼ sec.cor., which is a trachyte stone 6 x 6 x 6 ins.above ground, firmly set in mound of stone, marked with ¼ on W.face.

This corner is evidently not in its original location.

Continue across cultivated land.

43.00 Rail fence bears NE. and SW. Leave cultivated land; enter scattering cedar and pinon timber.

54.30 County road, Coyoto to Winder, bears NE. and SW.

Thence along W.side of road from Coyoto to Riddle Lake.

78.40 Road, Coyoto to Riddle Lake turns SE.

79.55 Fall 41 lks.W.of the cor.of secs.19,24,25, and 30,

Chains.

which is a trachyte stone 12 x 6 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor-general.

Powell National Forest boundary post No.141, which is an iron post, extending 2 ft. above the ground, 3 ins. in dia., firmly set and marked and witnessed as described by the surveyor-general, bears S.0° 9'E. 5 lks. dist.

The course of this mile is therefore S.0° 19'E., and the distance 79.95 chs.

Land, level.

Soil, coarse, sandy loam, more than 2 ft. deep.

Undergrowth, sagebrush. No grazing.

Timber, scattering scrub cedar and pinon in the southern portion.

September 4, 1915.

Jos. C. Thoma

U.S. Surveyor.

August 14, 1915: At 3h 5m p.m. l.m.t., I set off 38° N. on the lat. arc; 14° 30'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31, and 36, which is a trachyte stone 8 x 6 x 6 ins. above ground, firmly set, marked, and witnessed as described by the surveyor-general. This corner is 5 lks. N.24'W. of Powell National Forest boundary post No.142, which is an iron post, 2 ft. above ground, firmly set in mound of stone, marked and witnessed as described by the surveyor-general. Thence I run

S.0° 21'E. retracing the line bet. secs. 31 and 36,

Descending over rolling mountainous land; through dense cedar and pinon timber.

6.00 Leave dense cedar and pinon timber, bearing N.20°E., and SW.; enter dense sagebrush.

Chains.	
30.90	North Creek, 7 lks.wide, 6 ins.deep, water clear, course NE.for approximately 20.00 chs.; thence N.; 10 ft. below sec.cor.
40.06	Fall 4 lks.W.of the ¼ sec.cor., which is a trachyte stor 12 x 8 x 8 ins.above ground, firmly set, marked and witnessed as described by the surveyor-general.
	The course of this half-mile is therefore S.0° 24'E., and the distance 40.06 chs.
	From the ¼ sec.cor. I run S.0° 21'E., retracing the S. half between secs.31 and 36,
5.80	Road, Coyoto to Riddle Lake bears N.30° E., and SW.
26.50	Same road, bears NW. and SE.
28.00	Leave sagebrush, bears E.and W.; enter scattering cedar and pinon timber.
40.81	Fall 16 lks.W.of the old cor.of Tps.32 and 33 S., Rs.1 and 2 W., heretofore described. This corner is 5 lks.S 89° 48'E.of Powell National Forest boundary post No.14 which is an iron post, extending 2 ft.above the ground, marked and witnessed as described by the surveyor-general.
	The course of this half-mile is, therefore S.0° 35'E., and the distance 40.81 chs.
	Land, rolling, mountainous, draining N.
	Soil, light, rocky, sandy loam, on rocky subsoil.
	Timber, cedar and pinon.
	Undergrowth, dense sage.
	Poor grazing. Northwestern exposure. Volcanic formation.
	August 14, 1915.
	Jos. C. Clark
	U.S.Transitman.

Retracement of the N.Bdy.of T.32 S., R.1 W.

August 13, 1915: From the cor.of secs.31 and 32, T.31 S. R.1 W., heretofore described in notes of the N.bdy.

Chains.	
	T.32 S., R.1 W., book "A 2" page 14, I retrace the line west between secs.6 and 31 Tps.31 and 32 S.R.1.W.
	Descending gradually over rolling land; through sagebrush.
5.50	Draw, 5 lks.wide, 2 ft.deep, drains NW., 30 ft.below sec. cor. Ascend.
10.30	Top of spur, projects N., 70 ft.above draw; thence over rolling land, draining N.; through scattering cedar and pinon timber.
39.96	The ¼ sec.cor., which is a sandstone 9 x 12 x 8 ins. above ground, firmly set, marked and witnessed as described by the surveyor-general.
47.00	County road, Coyoto to Winder, bears NW. and SE., 15 ft. above ¼ sec.cor. Descend.
56.80	Draw, 6 lks.wide, 2 ft.deep, drains N., 50 ft.below road. Ascend.
67.80	Spur, projects N., 80 ft.above draw. Descend.
76.66	The closing cor.for T.31 S., Rs.1 and 2 W., which is an iron post, 3 ins.diam., 12 ins.above ground, firmly set, and hereinafter described in notes of W.bdy.of T.31 S. R.1 W.
77.76	The cor.of Tp.32 S., Rs.1 and 2 W., heretofore described in notes of S.bdy.T.31 S., R.2 W.
	Land, rolling. Western exposure.
	Soil, gravel, more than 2 ft.deep.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, sagebrush, yellow top, and bunch grass.
	Good grazing. August 13, 1915.

SUBDIVISION OF T.32 S.R.1 W.

July 16, 1915: At 8h 6m a.m.l.m.t., I set off 37° 59'N. on the lat.arc; 21° 30'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.1,2, 35, and 36 on the S.bdy.of the Tp., heretofore described in notes of N.bdy.T.33 S., R.1 W. Thence

Chains. N.0° 1'W.bet.secs.35 and 36,

Ascending gradually over gently rolling mountain top; through dense spruce and aspen timber.

8.20 Pile of large igneous boulders on line, 20 ft.high.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

¼
S 35 | S 36
1915 from which

A spruce 10 ins.dia., bears N.61° W., 9 lks.dist. marked ¼ S 35 B T

A spruce, 8 ins.dia., bears S.42° 30'E. 23 lks. dist., marked ¼ S 36 B T

Continue over nearly level mountain top.

80.00 Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.25,26,35, and 36, with brass cap marked

T 32 S R 1 W
S 26 | S 25
S 35 | S 36
1915

from which

A spruce, 16 ins.dia., bears N.50° 30'E.70 lks. dist., marked T 32 S R 1 W S 25 B T

A spruce, 18 ins.dia., bears S.44° 45'E. 28 lks. dist.; marked T 32 S R 1 W S 36 B T

A twin spruce, 10 ins.diam., bears S.30° 15'W. 33 lks.dist., marked T 32 S R 1 W S 35 B T

A spruce, 20 ins.diam., bears N.67° 30'W. 46 lks. dist., marked T 32 S R 1 W S 26 B T

Land, gently rolling mountain top.

Soil, light, fine gravel, more than 2 ft.deep.

Timber, dense aspen and spruce.

Undergrowth, bunch grass and wild clover.

Good grazing. Northern exposure. Volcanic formation.

July 16, 1915: Cloudy at noon; obs.for lat.impossible.

Chains.	
	East, on a random line, bet. secs. 25 and 36,
40.00	Set temp. $\frac{1}{4}$ sec. cor. July 16, 1915.
	July 19, 1915: At 7h 36m a.m.l.m.t., I set off 38° N. on the lat. arc; 21° N. on the decl. arc; and determine a meridian with the solar, at temp. $\frac{1}{4}$ sec. cor.
79.91	Intersect the E.bdy. of Tp. 1 lk. N. of the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence
	West, on true line bet. secs. 25 and 36,
	Asc. gradually over gently rolling mountain top; through dense aspen and spruce timber, and dense windfall.
36.90	Leave dense aspen and spruce timber, bearing NE. and SW.; enter open park.
39.95½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4}$ S 25 / S 36 / 1915
	from which
	An aspen, 10 ins. dia., bears N.23° 15'W. 185 lks. dist., marked $\frac{1}{4}$ S 25 B T
	An aspen, 14 ins. dia., bears S.86° 30'W. 206 lks. dist., marked $\frac{1}{4}$ S 36 B T
	Corner established 45 ft. below sec. cor.
41.90	Leave open park, bearing NE. and SW.; enter dense aspen and spruce timber.
79.91	The cor. of secs. 25, 26, 35, and 36, 45 ft. above $\frac{1}{4}$ sec. cor.
	Land, gently rolling mountain top.
	Soil, light gravel, more than 2 ft. deep; volcanic formation.
	Undergrowth, grass and wild clover. Good grazing.
	Timber, dense aspen, spruce, and windfall.
	July 19, 1915: Cloudy at noon.
	N.0° 1'W. bet. secs. 25 and 26,
	Descending gradually over gently rolling mountain top; through dense aspen and spruce timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the

Chains. ground, for ¼ sec. cor., with brass cap marked

¼
S 26 | S 25
1915

from which

An aspen, 12 ins. dia., bears S.71° 30'E.32 lks. dist., marked ¼ S 25 B T

An aspen 8 ins. dia. bears S.71° 30'W. 40 lks. dist., marked ¼ S 26 B T

Corner established 40 ft. below sec. cor.

Leave dense timber, bearing NE. and SW.; enter scattering spruce and sagebrush.

45.00 Wash, 6 lks. wide, 1 ft. deep, drains NE.

52.00 Leave sagebrush undergrowth; enter dense young aspen, and scattering spruce timber.

65.00 Begin gradual ascent bearing NE. and SW.

72.80 Top of ascent, bearing NE. and SW., 95 ft. above beginning of gradual ascent; thence over nearly level land.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for cor. of secs. 23, 24, 25, and 26, with brass cap marked

T 32 S R 1 W
S 23 | S 24
S 26 | S 25
1915

from which

A spruce, 14 ins. diam., bears N.73° 30'E. 79 lks. dist., marked T 32 S R 1 W S 24 B T

An aspen, 5 ins. diam., bears N.57°W. 30 lks. dist., marked T 32 S R 1 W S 23 B T

No other trees large enough for bearing trees within reasonable limits; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Corner established 15 ft. below top of ascent.

Land, rolling mountain top.

Soil, light gravel approximately 2 ft. deep, on rocky subsoil, Volcanic formation.

Undergrowth, sagebrush and bunch grass. Good grazing.

Chains.	Timber, dense aspen and spruce. July 19, 1915.
	July 21, 1915: At 8h 51m a.m.l.m.t., I set off 38° 01'N. on the lat.arc; 20° 37'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.23, 24,25, and 26. Thence I run
	East on a random line bet.secs.24 and 25,
40.00	Set temp.¼ sec.cor.
79.97	Intersect E.bdy.of Tp.3 lks.N.of the cor.of secs.19,24, 25, and 30, heretofore described.
	July 21, 1915: At this cor.I set off 20° 35' 30" N.on the decl.arc; and, at apparent noon, observe the sun on the meridian; the resulting lat.is 38° 01'N.
	N.89° 59'W.on true line bet.secs.24 and 25,
	Desc.gradually over rolling mountain top; through sagebrush undergrowth.
3.00	Leave sagebrush undergrowth, bearing NE. and SW.; enter dense aspen and scattering spruce timber.
10.00	Draw, 10 lks.wide, 2 ft.deep, drains NE. Ascend.
35.00	Enter dense spruce and aspen timber, bearing N.and S.
39.98½	Set an iron post, 3 ft.long, 1 in.diam., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked
	¼ S 24 S 25 1915 from which
	A spruce, 30 ins.diam., bears N.44° 30'E. 23 lks. dist., marked ¼ S 24 B T
	A spruce, 14 ins.diam.bears S.38° E. 120 lks. dist., marked ¼ S 25 B T
	Corner established 160 ft.above draw. Leave dense aspen and spruce timber,bearing N.and S enter sagebrush opening.
53.70	Grassy hollow,drains SE. Ascend.
54.20	Road, Coyoto to Griffen Springs, bears NW. and SE.
58.50	Leave sagebrush opening, bears N.and S.; enter dense aspen and scattering spruce timber.
79.97	

Chains.	
79.97	The cor. of secs. 23, 24, 25, and 26, 160 ft. above grassy holl[illegible] Land, gently rolling mountain top. Southeastern exposure Soil, light gravel and stone, more than 2 ft. deep. Volcanic formation. Timber, dense aspen and scattering spruce. Undergrowth, short sagebrush and grass. Good grazing.
	N.0° 01'W. bet. secs. 23 and 24, Desc. gradually over rolling mountain top; through dense small aspen and scattering spruce timber.
14.50	Road, Coyoto to Griffen Springs, bears E. and W., 50 ft. below sec. cor. Asc. gradually; leave small aspen; enter dense large aspen and spruce timber.
34.50	Top of low ascent, bearing NE. and SW. Desc. along NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 23 ¼ | S 24 1915 from which A spruce, 8 ins. diam., bears N.36° W. 21 lks. dist., marked ¼ S 23 B T A spruce, 10 ins. diam., bears S.72° E. 26 lks. dist., marked ¼ S 24 B T Corner established 80 ft. below top of ascent.
57.10	Hollow, drains NE., 115 ft. below ¼ sec. cor. Leave dense timber, bearing NE. and SW.; cross sagebrush opening.
61.10	Road, Coyoto to Griffen Springs, bears NE. and SW.
72.10	Leave open sagebrush land, bearing NE. and SW.; enter dense aspen and spruce timber. Continue gradual ascent.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 13, 14, 23, and 24, with brass cap marked T 32 S R 1 W S 14 | S 13 S 23 | S 24 1915 from which An aspen, 10 ins. dia. bears N.75°E. 33 lks. dist.

Chains	
	marked T 32 S R 1 W S 13 B T
	An aspen, 8 ins. diam., bears S.29° 30'E. 23 lks. dist., marked T 32 S R 1 W S 24 B T
	An aspen, 12 ins. diam., bears S.57° W., 39 lks. dist., marked T 32 S R 1 W S 23 B T
	An aspen 12 ins. diam., bears N.46° W. 30 lks. dist., marked T 32 S R 1 W S 14 B T
	Land, rolling mountain top.
	Soil, light, sandy and rocky loam, more than 2 ft. deep.
	Timber, dense aspen and spruce.
	Undergrowth, sagebrush and bunch grass.
	Goos grazing. Eastern exposure. Volcanic formation.
	July 21, 1915.
	July 24, 1915: At 8h 6m a.m. l.m.t. I set off 38° 01' 30" N. on the lat. arc; 20° 02'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13 14, 23, and 24. Thence I run
	S.89° 59'E. on a random line bet. secs. 13 and 24,
40.00	Set temp. ¼ sec. cor.
80.02	Intersect the E. bdy. of the Tp. 4 lks. N. of the cor. of secs. 13, 18, 19, and 24, heretofore described.
	N.89° 57'W. on true line bet. secs. 13 and 24,
	Asc. over mountainous land; through dense aspen and spruce timber.
7.20	Top of sharp ascent of NE. slope, bearing NW. and SE.; continue ascent.
40.01	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 13 / S 24 / 1915 from which
	An aspen, 4 ins. diam. bears S.3° 45'W. 35 lks. dist. marked ¼ S 24 B T
	An aspen, 6 ins. diam. bears N.21° 45'E. 45 lks.

Chains.	
	dist., marked ¼ S 13 B T
62.40	Top of ascent, bears NE. and SW., 115 ft. above ¼ sec. cor. Descend.
70.11	Leave dense aspen and spruce timber, bearing NE. and SW.; enter large open hollow.
72.70	Bottom of hollow, 130 ft. below ridge, drains NE. Ascend. Road from Coyoto to Griffen Springs bears NE. and SW.
75.10	Leave open hollow, bears NE. and SW.; enter dense aspen and spruce timber.
80.02	The cor. of secs. 13, 14, 23, and 24, 85 ft. above hollow. Land, rolling mountain top. Soil, very rocky, sandy loam, more than 2 ft. deep. Timber, dense aspen and spruce. Undergrowth, sagebrush and bunch grass. Good grazing. Northern exposure. Volcanic formation. July 24, 1915: Cloudy at noon. ,July 24, 1915.

July 26, 1915: At 8h 6m a.m.l.m.t., I set off 38° 01'30" N. on the lat. arc; 19° 36" 30" N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23, and 24. Thence I run

N. 0° 01' W. bet. secs. 13 and 14,

Asc. over mountainous land; through dense aspen and spruce timber.

14.70	Top of ascent, bears NE. and SW., 185 ft. above sec. cor.; continue over nearly level mountain top.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 14 ¼ | S 13
1915

from which

A spruce, 12 ins. diam., bears N. 25° 30' W. 26 lks. dist., marked ¼ S 14 B T

A spruce, 8 ins. diam., bears N. 35° 15' E. 12 lks. dist., marked ¼ S 13 B T

50.10	Start descent over NW. slope.

Chains.	
	July 26, 1915: Cloudy and rain at noon and in p.m.
	July 26, 1915.
	July 27, 1915: At 8h 6m a.m.l.m.t., I set off 38° 02'N. on the lat. arc; 19°23'30"N. on the decl. arc; and determine a meridian with the solar at 50.10 ch. point on line.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, with brass cap marked T 32 S R 1 W S 11 | S 12 S 14 | S 13 1915 from which
	An aspen, 8 ins. diam., bears N.12° E. 20 lks. dist., mkd. T 32 S R 1 W S 12 B T
	An aspen, 6 ins. diam., bears S.21° E. 26 lks. dist., marked T 32 S R 1 W S 13 B T
	An aspen, 8 ins. diam., bears S.39°W. 27 lks. dist., marked T 32 S R 1 W S 14 B T
	An aspen, 8 ins. diam., bears N.22° W. 26 lks. dist., marked T 32 S R 1 W S 11 B T
	Land, rolling. Northern exposure. Volcanic formation.
	Soil, rocky and coarse gravel, more than 2 ft. deep.
	Timber, dense aspen and spruce.
	Undergrowth, bunch grass. Good grazing.
	Corner established 325 ft. below ¼ sec. cor.
	S.89° 57'E. on a random line bet. secs. 12 and 13,
40.00	Set temp. ¼ sec. cor.
	July 27, 1915: At this cor. I set off 19° 21'N. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is 38° 02'N.
80.00	Intersect the E. bdy. of the Tp. 3 lks. S. of the cor. of secs. 7, 12, 13, and 18, heretofore described.
	N.89° 58'W. on true line bet. secs. 12 and 13,
	Desc. over mountainous land; through dense aspen and spruce timber.
3.30	Antimony Creek, 10 lks. wide, 7 ins. deep, water clear, course NW., 100 ft. below sec. cor. Ascend over SW.

Chains.	
	slope of Antimony Canon; through dense aspen and spruce timber.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S S 12 S 13 1915 from which A spruce, 20 ins. diam., bears N.73° W. 24 lks. dist., marked ¼ S 12 B T An aspen, 10 ins. diam., bears S.34° W. 25 lks. dist., marked ¼ S 13 B T
49.40	Top of ascent, bears NW. and SE., 85 ft. above ¼ sec. cor. and 305 ft. above Antimony Creek. Descend.
57.30	Foot of slope or rocky ridge, bears NW. and SE., 80 ft. below top. Descend gradually.
59.60	Leave dense aspen and spruce timber, bears NW. and SE. Enter large open park.
59.90	Wash, 10 ft. wide, 1 ft. deep, drains NW. Ascend.
60.90	Road, Coyoto to Griffen Springs, bears NW. and SE.
72.30	Leave large open park, bears NW. and SE.; enter dense aspen timber.
80.00	The cor. of secs. 11, 12, 13, and 14.
	Land, mountainous.
	Soil, rocky sandy loam, more than 2 ft. deep.
	Timber, dense aspen and spruce. Undergrowth, bunch grass sagebrush, and scattering wild currant.
	Southern exposure in W. half; northern exposure in E. half.
	Good grazing. Volcanic formation.

	N.0° 01' W. bet. secs. 11 and 12,
	Des c. over mountainous land; through dense aspen and spruce timber.
20.40	Bottom of descent, bears NW. and SE., 100 ft. below sec. cor.
	Leave dense timber, continue across NW. end of large open park.
30.40	Road, Coyoto to Griffen Springs, bears NW. and SE.
32.90	Leave open park, bears NW. and SE.; enter dense aspen and scattering spruce timber.

Chains.	
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 11 | S 12

1915 from which

An aspen, 10 ins. diam., bears S. 75° W., 32 lks. dist., mkd. ¼S11BT.

An aspen, 8 ins. diam., bears S. 47° E., 29 lks. dist., mkd. ¼S12BT.

July 27, 1915.

July 29, 1915: At 7h 36m, a. m., l. m. t., I set off 38° 03' N. on the lat. arc; 18° 56' 30" N. on the decl. arc, and determine a meridian with the solar.

48.90	Large draw, 15 lks. wide, 2 ft. deep, drains NW., 65 ft. below ¼ sec. cor.; asc. rocky slope.
53.20	Top of asc., bears NW. and SE., 35 ft. above draw; desc. gradually over SE. slope of Antimony Cañon.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 1, 2, 11 and 12, with brass cap mkd.

T 32 S R 1 W
S 2 | S 1
S 11 | S 12

1915 from which

An aspen, 8 ins. diam., bears N. 29° 15' E., 24 lks. dist., mkd. T32SR1WS1BT.

An aspen, 9 ins. diam., bears S. 19° 45' E., 17 lks. dist., mkd. T32SR1WS12BT.

An aspen, 7 ins. diam., bears S. 12° 30' W., 39 lks. dist., mkd. T32SR1WS11BT.

An aspen, 6 ins. diam., bears N. 33° W., 25 lks. dist., mkd. T32SR1WS2BT.

Land, rolling mountainous.

Soil, rocky sandy loam, 1 to 2 ft. deep, on rocky subsoil.

Timber, dense aspen and spruce.

Undergrowth, sage brush and bunch grass.

Chains	
	Good grazing. Northeastern exposure. Volcanic formation
	S. 89° 58' E., on random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
	July 29, 1915: Walking bet. points on line at noon, unable to observe for lat.
79.95	Intersect the E. bdy. of the Tp., 9 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	S. 89° 58' W., on true line bet. secs. 1 and 12.
	Asc. gradually over rolling land, through sage brush, and scattering aspen timber.
14.90	South edge of small cañon, bears N. 85° E. and N. 85° W.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ / S 1 / S 12
	1915 from which
	A spruce, 20 ins. diam., bears N. 24° 30' W., 196 lks. dist., mkd. ¼S1BT.
	An aspen, 6 ins. diam., bears S. 31° 30' E., 23 lks. dist., mkd. ¼S12BT.
41.20	E. edge of Antimony Cañon, rim 30 ft. high, bears NW. and SE.; desc. abruptly. Enter dense spruce and aspen.
55.90	Antimony Creek, 10 lks. wide, 1 ft. deep, water clear, current swift, 390 ft. below E. edge of cañon; asc. abruptly. Course of stream N. 20° W.
79.95	The cor. of secs. 1, 2, 11 and 12, 390 ft. above Antimony Creek.
	Land, mountainous.
	Soil, coarse gravel and rocky, more than 2 ft. deep.
	Timber, dense aspen and spruce in the W. half, scattering aspen in the E. half.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Northeastern exposure. Volcanic formation.
	July 29, 1915.

Chains

July 30: For observations on this date, see Page 13, Book of Boundaries, this Group.

N. 0° 01' W., on random line bet. secs. 1 and 2.

40.00 Set temp. ¼ sec. cor. July 30, 1915.

August 23, 1915.

73.23 Intersect the N. bdy. of the Tp., at the cor. of secs. 1, 2, 35 and 36, heretofore described.

S. 0° 01' E., on true line bet. secs. 1 and 2.

Asc. over mountainous land, through dense aspen and spruce timber.

33.23 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

¼ S 2	S 1
1915	

from which

A spruce, 10 ins. diam., bears N. 60° mE., 32 lks. dist., mkd. ¼S1BT.

A spruce, 8 ins. diam., bears S. 78° W., 7 lks. dist., mkd. ¼S2BT.

Corner established 300 ft. above sec. cor.

Continue asc. along steep rocky slope of Antimony Cañon.

73.23 The cor. of secs. 1, 2, 11 and 12, 300 ft. above ¼ sec. cor.

Land, mountainous.

Soil, dark sandy loam and rocky, less than 2 ft. deep. on rocky subsoil.

Timber, dense aspen and spruce.

Undergrowth, bunch grass and wild currant.

Good grazing. Northeastern exposure. Volcanic formation.

July 30, 1915.

Jos. C. Thoma

U. S. Surveyor.

July 15, 1915: At 8h 6m, a. m., l. m. t., I set off 37° 59' N. on the lat. arc; 21° 39' N. on the decl.

Chains.	
	arc, and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the tp. heretofore described.
	Thence I run
	N. 0° 01' W., bet. secs. 34 and 35.
	Desc. gradually over rolling mountainous land, through dense aspen and spruce timber.
5.00	Small draw, drains W., 40 ft. below sec. cor.; asc. grad
15.60	Point of low ridge, bears NE. and SW., 10 ft. above draw desc. abruptly over NW. slope.
	July 15, 1915: Walking on line between transit points at noon, unable to observe for lat.
31.60	Base of abrupt desc., bears NE. and SW., 220 ft. below ridge; desc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 34 | S 35
1915 from which

An aspen, 9 ins. diam., bears S. 24° 30' E., 9 lks. dist., mkd. ¼S35BT.

A spruce, 8 ins. diam., bears N. 62° 15' W., 10 lks. dist., mkd. ¼S34BT.

47.00	Leave dense spruce and aspen timber, bears N. 30° E. and SW., enter open sage brush land.
53.00	Hollow, drains N. 25° E.; asc. gradually.
59.00	Leave open sage brush land, bears N. 20° E. and SW., enter dense spruce and aspen timber.
68.00	Ridge, bears S. 20° W. and N., 15 ft. above hollow; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 26, 27, 34 and 35, with brass cap mkd.

T 32 S R 1 W
S 27 | S 26
S 34 | S 35
1915 from which

A spruce, 9 ins. diam., bears N. 45° 45' E.,

Chains.	
	33 lks. dist., mkd. T32SR1WS26BT.
	A spruce, 8 ins. diam., bears S. 65° 30' E., 44 lks. dist., mkd. T32SR1WS35BT.
	A spruce 7 ins. diam., bears S. 18° 45' W., 43 lks. dist., mkd. T32SR1WS34BT.
	A spruce, 10 ins. diam., bears N. 46° 30' W., 7 lks. dist., mkd. T32SR1WS27BT.
	Ridge, bears N. 30° E. and S.
	Land, rolling mountainous, drains W. in the southern portion and NE. in the northern postion.
	Soil, dark sandy loam, 2 to 3 ft. deep, in the hollows; sandy loan, decayed vegetation and rocky on the ridges, on rocky subsoil.
	Timber, aspen and spruce.
	Undergrowth, young aspen and spruce, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.
	July 15, 1915.

	July 16, 1915: At 8h 6m, a. m., l. m. t., I set off 38° N. on the lat. arc; 21° 30' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 26, 27, 34 and 35.
	Thence I run
	East, on random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
	July 16, 1915: I set off 21° 28' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° N.
79.86	Intersect the N. and S. line, 7 lks. N. of the cor. of secs. 25, 26, 35 and 36.
	N. 89° 57' W., on true line bet. secs. 26 and 35.
	Asc. over rolling mountainous land, through dense aspen and spruce timber.
18.30	Ridge, bears N. 30° E. and SW., 25 ft. above sec. cor.; desc.
24.00	Hollow, drains N. 10° E., 45 ft. below ridge; asc.

Chains	
25.90	Sage brush opening in the dense timber, 4 chs. wide, bea N. and SW.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 26}{S\ 35}$$

1915 from which

A spruce, 11 ins. diam., bears N. 41° 15' E., 34 lks. dist., mkd. ¼S26BT.

A spruce, 6 ins. diam., bears S. 2° 15' E., 22 lks. dist., mkd. ¼S35BT.

Corner established 80 ft. above hollow.

41.90	Low spur, projects N. 20° E., approximately 30 chs.; desc
65.90	Leave dense aspen and spruce timber, bears N. 30° E. and S. 30° W., enter open sage brush land.
67.90	Hollow, drains NE., 85 ft. below low ridge; asc.
72.40	Leave open sage brush land, bears N. 10° E. and S. 10° W. enter dense spruce and aspen timber.
79.86	The cor. of secs. 26. 27, 34 and 35, 45 ft. above hollow.

Land, rolling mountainous, drains NE.

Soil, dark sandy loam in the hollows, 2 to 3 ft. deep; decayed vegetation, dark, rocky, sandy loam on ridges, on subsoil of rock.

Timber, spruce and aspen, and wind fall.

Undergrowth, young aspen and spruce, sage brush and grass

Good grazing. Volcanic formation.

July 16, 1915.

July 19, 1915: At 8h 6m, a. m., l. m. t., I set off 38° N. on the lat. arc; 20° 59' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 26, 27, 34 and 35.

Thence I run

N. 0° 01' W., bet. secs. 26 and 27.

Desc. gradually over rolling mountainous land, through

Chains	
	dense spruce and aspen timber.
37.00	Open sage brush opening in the timber, 5½ chs. wide, extends N. 35° E. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 27 | S 26
1915 from which

A spruce, 7 ins. diam., bears S. 26° E., 191 lks. dist., mkd. ¼S26BT.

A spruce, 10 ins. diam., bears N. 14° 30' W., 300 lks. dist., mkd. ¼S27BT.

Corner established 40 ft. below sec. cor.; continue gradual desc.

41.00	Head of open hollow, drains NW.; asc. gradually.
74.00	Spur, projects W., approximately 6 chs., 35 ft. above head of hollow; desc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 22, 23, 26 and 27, with brass cap mkd.

T 32 S R 1 W
S 22 | S 23
S 27 | S 26
1915 from which

A spruce, 7 ins. diam., bears N. 70° 15' E., 36 lks. dist., mkd. T32SR1WS23BT.

An aspen, 12 ins. diam., bears S. 64° 15' E., 85 lks. dist., mkd. T32SR1WS26BT.

An aspen, 9 ins. diam., bears S. 24° 15' W., 17 lks. dist., mkd. T32SR1WS27BT.

An aspen, 9 ins. diam., bears N. 22° 30' W., 34 lks. dist., mkd. T32SR1WS22BT.

Corner established 25 ft. below spur.

Land, rolling mountainous, S. half drains NW. and the N. half drains W.

Soil, light gravelly sandy loam and decayed vegetation, on rocky subsoil.

Chains	
	Timber, dense spruce and aspen.
	Undergrowth, young spruce and aspen, and grass.
	Good grazing. Volcanic formation.
	The W. rim of Griffen Top, parallels the entire miles, about 7 chs. to the W.
	July 19, 1915: Cloudy at noon, unable to observe for lat.
	July 19, 1915
	July 20, 1915.
	S. 89° 57' E., on random line bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect the N. and S. line, at the cor. of secs. 23, 24, 25 and 26.
	N. 89° 57' W., on true line bet. secs. 23 and 26.
	Asc. gradually over rolling mountainous land, through dense young aspen, and spruce timber, and wind fall.
20.70	Ridge, bears NE. and SW., 100 ft. above sec. cor.; desc. gradually through dense aspen timber.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 23
S 26

1915 from which

An aspen, 9 ins. diam., bears N. 60° W., 10 lks. dist., mkd. ¼S23BT.

An aspen, 8 ins. diam., bears S. 11° W., 5 lks. dist., mkd. ¼S26BT.

	Corner established 25 ft. below ridge; continue gradual desc.
58.50	Leave dense spruce and aspen timber, bears N. 65° W. and SE, enter open sage brush land.
67.00	Hollow, drains N. 65° W., 15 ft. below ¼ sec. cor.; asc. gradually.
69.00	Leave sage brush open land, bears N. 65° W. and S. 35° E., enter dense spruce and aspen timber.
79.95	The cor. of secs. 22, 23, 26 and 27.
	Land, rolling mountainous, drains NE. and NW.

Chains	
	Soil, dark and light sandy loam, gravel, and decayed vegetation, 2 to 3 ft. deep, on rocky subsoil.
	Timber, dense spruce and aspen.
	Undergrowth, young aspen and spruce, sage brush and grass.
	Good grazing. Southeastern exposure. Volcanic formation.
	July 20, 1915: At this cor. I set off 38° 1' N. on the lat. arc; 20° 48' 30" N. on the decl. arc; and at 8h 6m, a. m., l. m. t., determine a meridian with the solar.
	July 20, 1915: Cloudy at noon, unale to observe the sun for lat.
	July 20, 1915.
	July 21, 1915: At 8h 6m, a. m., l. m. t., I set off 38° 1' N. on the lat. arc; 20° 37' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 22, 23, 26 and 27.
	Thence I run
	N. 0° 01' W., bet. secs. 22 and 23.
	Desc. gradually over rolling mountainous land, through dense spruce and aspen timber.
4.50	Leave dense spruce and aspen timber, bears N. 65° W. and S. 65° E., enter open sage brush land.
7.00	Hollow, drains N. 65° W., 10 ft. below sec. cor.; asc. gradually.
17.00	Leave open sage brush land, bears NE. and S. 65° W., enter dense aspen and scattering spruce timber.
26.00	Ridge, bears N. 70° E. and W. approximately 60 chs.; desc. gradually.
31.20	July 21, 1915: I set off 20° 35' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 01' N.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 22 | S 23

1915

Chains. from which

An aspen, 8 ins. diam., bears N. 75° 45' E.,
24 lks. dist., mkd. ¼S23BT.

A spruce, 7 ins. diam., bears N. 29° W.,
27 lks. dist., mkd. ¼S22BT.

Corner established 70 ft. below ridge; continue desc. through dense young aspen timber.

53.60 Draw, drains W., 90 ft. below ¼ sec. cor. Sage brush opening in the timber, 2 chs. wide, extends E. and W.; asc gradually.

62.40 Ridge, bears E. and W., 15 ft. above draw; desc.

78.50 Draw, drains W., 90 ft. below ridge; asc. gradually.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 14, 15, 22 and 23, with brass cap mkd.

T 32 S R 1 W

S 15	S 14
S 22	S 23

1915

from which

An aspen, 6 ins. diam., bears N. 60° 15' E.,
44 lks. dist., mkd. T32SR1WS14BT.

An aspen, 16 ins. diam., bears S. 56° 15' E.,
59 lks. dist., mkd. T32SR1WS23BT.

An aspen, 6 ins. diam., bears S. 63° 45' W.,
49 lks. dist., mkd. T32SR1WS22BT.

An aspen, 6 ins. diam., bears N. 3° W.,
53 lks. dist., mkd. T32SR1WS15BT.

Land, rolling mountainous.

Soil, light sandy loam, light gravel, decayed vegetation and rocky, on rocky subsoil.

Timber, aspen and spruce.

Undergrowth, young aspen and spruce, and grass.

Good grazing. Western exposure. Volcanic formation.

July 21, 1915.

July 22, 1915: At 8h 6m, a. m., l. m. t., I set off 38°

Chains.	
	01' 30" N. on the lat. arc; 20° 26' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 14, 15, 22 and 23.
	Thence I run
	S. 89° 57' E., on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
	July 22, 1915: I set off 20° 24' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 01' 30" N.
79.95	Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 13, 14, 23 and 24.
	N. 89° 55' W., on true line bet. secs. 14 and 23.
	Asc. over rolling mountainous land, through dense aspen timber.
5.60	Top of abrupt asc., bears N. 20° E. and S. 20° W., 100 ft. above cor.; continue gradual asc.
14.50	Ridge, bears N. 20° E. and S. 20° W., 40 ft. above top of abrupt asc.; desc. gradually. Enter dense spruce and aspen timber.
23.00	Leave dense spruce and aspen timber, bears N. 20° W. and S., enter open sage brush land.
28.70	Head of hollow, drains N. 10° E., 45 ft. below ridge; asc. gradually.
33.50	Leave open sage brush land, bears N. 35° E. and S., enter dense aspen and scattering spruce timber.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$$\frac{S\ \overset{\frac{1}{4}}{14}}{S\ 23}$$

1915 from which

An aspen, 6 ins. diam., bears N. 29° 45' W., 39 lks. dist., mkd. ¼S14BT.

A spruce, 8 ins. diam., bears S. 42° 45' E., 20 lks. dist., mkd. ¼S23BT.

Corner established 60 ft. above head of hollow.

Chains.

51.20 Ridge, bears N. 20° E., and S. 60° W., 20 ft. above ¼ s cor.; desc.

79.95 The cor. of secs. 14, 15, 22 and 23, 230 ft. below top of ridge.

Land, rolling mountainous, drains W. in the western portion and NE. in the eastern portion.

Soil, dark and light sandy loam, decayed vegetation and gravel, 2 to 3 ft. deep, on rocky and gravel subsoil.

Timber, spruce and aspen.

Undergrowth, young aspen and spruce, and grass.

Good grazing. Volcanic formation.

July 22, 1915.

July 24, 1915: At 2h 6m, p. m., l. m. t., I set off 38° 01' 30" N. on the lat. arc; 19° 58' 30" N. on the dec arc, and determine a meridian with the solar, at the cor. of secs. 14, 15, 22 and 23.

Thence I run

N. 0° 01' W., bet. secs. 14 and 15.

Asc. gradually over rolling mountainous land, along W. slope of ridge, through dense aspen timber and dense young aspen undergrowth.

12.00 Spur projects W., approximately 5 chs., 60 ft. above sec cor.; desc. gradually.

23.60 Head of draw, drains W., 50 ft. below spur; asc. gradual

29.00 Spur, projects W. approximately 25 chs., 20 ft. above head of draw; desc. abruptly.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 15 | S 14

1915 from which

A spruce, 7 ins. diam., bears S. 6° E., 36 lks. dist., mkd. ¼S14BT.

A spruce, 9 ins. diam., bears S. 66° 30' W., 33 lks. dist., mkd. ¼S15BT.

Chains: Corner established 130 ft. below spur. Continue desc., over rocky surface.

62.30 Small draw, drains N., 70° W., approximately 8 chs., thence North approximately 20 chs., thence West., asc. gradually.

67.60 Spur on rocky slope of ridge, projects W., approximately 6 chs., 40 ft. above draw; desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, with brass cap mkd.

T 32 S R 1 W	
S 10	S 11
S 15	S 14

1915 from which

A spruce, 9 ins. diam., bears N. 58° 15' E., 107 lks. dist., mkd. T32SR1WS11BT.

A spruce, 8 ins. diam., bears S. 44° 45' E., 27 lks. dist., mkd. T32SR1WS14BT.

A spruce, 18 ins. diam., bears S. 58° 45' W., 95 lks. dist., mkd. T32SR1WS15BT.

A spruce, 14 ins. diam., bears N. 75° W., 87 lks. dist., mkd. T32SR1WS10BT.

Corner established at foot of abrupt desc., bears E. and W., 125 ft. below spur.

Land, rolling mountainous in the S. half, rough mountainous in the N. half. Draining W.

Soil, , dark sandy loam and decayed vegetation, 2 to 3 ft. deep, rocky on the S. half, on rocky subsoil.

Timber, spruce and aspen.

Undergrowth, young aspen and spruce, and grass.

Good grazing. Western exposure. Volcanic formation.

July 24, 1915.

July 26, 1915: At 8h 6m, a. m., l. m. t., I set off 38° 02' 30" N. on the lat. arc; 19° 36' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 10, 11, 14 and 15.

Thence I run

Chains.	
	S. 89° 55' E., on random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect the N. and S. line, 3 lks. N. of the cor. of sec. 11, 12, 13 and 14.
	July 26, 1915: Cloudy at noon, unable to observe the sun for lat.
	N. 89° 54' W., on true line bet. secs. 11 and 14.
	Asc. gradually over rolling mountainous land, through dense spruce and aspen timber.
3.40	Leave dense spruce and aspen timber, bears N. and S., enter grass and sage brush opening.
23.90	Leave grass and sage brush opening, bears N. 60° E. and S., enter dense aspen timber.
39.96	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 11}{S\ 14}$$

1915 from which

An aspen, 5 ins. diam., bears N. 76° 15' E., 11 lks. dist., mkd. ¼S11BT.

An aspen, 5 ins. diam., bears S. 66° 30' E., 16 lks. dist., mkd. ¼S14BT.

Corner established 270 ft. above sec. cor.

43.90	Ridge, bears N. and S., 45 ft. above ¼ sec. cor.; desc. gradually.
71.70	Start abrupt desc. over rocky W. slope, bears N. and S., 215 ft. below ridge.
79.92	The cor. of secs. 10, 11, 14 and 15, 240 ft. below beginning of abrupt desc.

Land, rolling mountainous, drains W. in the western portion, and NE. in the eastern portion.

Soil, light sandy loam, rocky, and decayed vegetation, 2 to 3 ft. deep, on rocky subsoil.

Timber, aspen and spruce.

Undergrowth, young aspen, brier, buck brush, sage and grass.

Chains	
	Good grazing. Northeastern exposure in the E. portion and Western exposure in the western portion. Volcanic formation.
	July 26, 1915.

	July 27, 1915: At 8h 6m, a. m., l. m. t., I set off 38° 02' 30" N. on the lat. arc; 19° 23' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 10, 11, 14 and 15.
	Thence I run
	N. 0° 01' W., bet. secs. 10 and 11.
	Desc. gradually over rolling mountainous land, through dense aspen timber.
5.00	Head of hollow, drains W., 25 ft. below sec. cor.; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 10 | S 11
	1915
	from which
	An aspen, 6 ins. diam., bears S. 47° E., 27 lks. dist., mkd. ¼S11BT.
	An aspen, 6 ins. diam., bears N. 62° 45' W., 33 lks. dist., mkd. ¼S10BT.
	Corner established on low spur projecting S. 60° W.
51.50	Leave dense aspen timber, bears E. and W., enter open sage brush land.
53.30	Road, Coyoto to Griffen Springs, bears N. 55° E. and S. 55° W. Road crosses low saddle of spur projecting N. 30° W. Two hollows head at saddle, draining NW. and N.
63.50	Spur projects N. 30° W., approximately 15 chs., thence N. 10° E., enter dense aspen timber, E. and W.
67.00	Leave dense timber, bears E. and W., enter rocky opening.
73.50	Leave rocky opening, bears E. and W., enter dense aspen timber.

Chains.
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 2, 3, 10 and 11, with brass cap mkd.

T 32 S R 1 W

S 3	S 2
S 10	S 11

1915

from which

An aspen, 7 ins. diam., bears N. 10° 40' E., 35 lks. dist., mkd. T32SR1WS2BT.

An aspen, 6 ins. diam., bears S. 41° E., 22 lks. dist., mkd. T32SR1WS11BT.

An aspen, 6 ins. diam., bears S. 23° 15' W., 49 lks. dist., mkd. T32SR1WS10BT.

An aspen, 5 ins. diam., bears N. 35° 45' W., 19 lks. dist., mkd. T32SR1WS3BT.

Corner established on low spur projecting N. 10° E.

Land, rolling mpuntainous, draining W. and NW.

Soil, light sandy and clay loam, 2 to 3 ft. deep, on rocky subsoil.

Timber, aspen.

Undergrowth, young aspen, sage and buck brush, yellow top and grass.

Good grazing. Western exposure. Volcanic formation.

July 27, 1915: Cloudy at noon, unable to observe the sun for lat.

July 27, 1915.

July 29, 1915: At 8h 6m, a. m., l. m. t., I set off 38° 03' N. on the lat. arc; 18° 56' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 2, 3, 10 and 11.

Thence I run

S. 89° 54' E., on a random line bet. secs. 2 and 11.

40.00 Set temp. ¼ sec. cor.

July 29, 1915. I set off 18° 53' N. on the decl. arc, and at apparent noon, observe the sun on the meridian,

Chains	
	the resulting lat. is 38° 04' N.
80.00	Intersect the N. and S. line, 7 lks. S. of the cor. of secs. 1, 2, 11 and 12.
	N. 89° 57' W., on true line bet. secs. 2 and 11.
	Asc. over rolling mountainous land, through dense spruce and aspen timber.
11.10	Rocky ridge, bears N. 35° W. and S. 35° E., 50 ft. above sec. cor.; desc.
16.60	Open hollow, drains NW., 80 ft. below rocky ridge; asc.
33.85	Road, Coyoto to Griffen Springs, bears N. 45° W. and S. 45° E.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor. with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 2}{S\ 11}$$

1915 from which

An aspen, 15 ins. diam., bears N. 39° 45' W., 31 lks. dist., mkd. ¼S2BT.

An aspen, 6 ins. diam., bears S. 30° E., 7 lks. dist., mkd. ¼S11BT.

	Corner established 260 ft. above open hollow. Continue asc.
46.70	Ridge, bears NW. and SE., 90 ft. above ¼ sec. cor.;desc.
52.90	Leave spruce timber, bears N. and S., continue in dense aspen.
70.10	Hollow, drains N., 290 ft. below ridge; asc.Road, N. & SE.
80.00	The cor. of secs. 2, 3, 10 and 11., 65 ft. above hollow.

Land, rolling and rough mountainous, draining NW.

Soil, light sandy loam, decayed vegetation and rocky, 2 to 3 ft. deep, on rocky subsoil.

Timber, aspen and spruce.

Undergrowth, young aspen and spruce and grass.

Good grazing. Northeastern exposure. Volcanic formation.

July 29, 1915.

Chains.	
	July 30, 1915: At 8h 6m, a. m., l. m. t., I set off 38° 04' N. on the lat. arc; 18° 42' N. on the decl. arc, and determine a meridian with the solar at the cor. secs. 2, 3, 10 and 11.
	Thence I run
	N. 0° 01' W., on random line bet. secs. 2 and 3.
40.00	Set temp. ¼ sec. cor.
73.00	Set temp. sec. cor.
	July 30, 1915.
	August 23, 1915.
73.25	Intersect the N. bdy. of the Tp., at the cor. of secs. 2, 3, 34 and 35, heretofore described.
	S. 0° 01' E., on true line bet. secs. 2 and 3.
	Desc. over rolling mountainous land, through short sage and yellow top undergrowth.
3.70	Leave short sage and yellow top undergrowth, bears NW. and SE., enter dense aspen timber.
14.80	Wash in Poison Creek Cañon, 15 lks. wide, 2 ft. deep, drains NW., 150 ft. below sec. cor.; asc. gradually.
15.50	Old road, Coyoto to Griffen Springs, bears NW. and SE.
33.25	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 3 | S 2
	1915
	from which
	An aspen, 5 ins. diam. bears S. 79° 45' E., 23 lks. dist., mkd. ¼S2BT.
	An aspen, 5 ins. diam., bears S. 69° 45' W., 29 lks. dist., mkd. ¼S3BT.
	Corner established 190 ft. above wash; continue asc.
73.25	The cor. of secs. 2, 3, 10 and 11, 55 ft. above ¼ sec. cor.
	Land, rolling mountainous; drains NW.
	Soil, light sandy loam and rocky, 2 to 3 ft. deep in the southern portion; shallow coarse gravel and rocky in the northern portion.

Chains.	
	Timber, dense aspen with scattering spruce on ridges.
	Undergrowth, young aspen, short sage, yellow top and grass.
	Good grazing. Northwestern exposure. Volcanic formation.
	August 23, 1915.
	Jos. C. Clark
	U. S. Transitman.
	August 4, 1915: At 7h 36m, a. m., l. m. t., I set off 37° 59' N. on the lat. arc; 17° 27' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the tp., heretofore described.
	Thence I run
	N. 0° 02' W., bet. secs. 33 and 34.
	Asc. over mountainous land, through dense aspen and spruce timber.
3.80	Ridge, bears NW. and SE., 75 ft. above sec. cor.; desc.
10.20	Bottom of hollow, drains NW., 60 ft. below ridge, continue along gentle W. slope
21.70	Start desc., bears NW. and SE.
32.80	Bottom of hollow, drains NW., 255 ft. below top of ridge.; asc.
36.50	Spur, projects NW. 20 ft. above hollow; desc. abruptly.
38.70	Hollow, drains W., 65 ft. below spur; asc. W. slope of rocky ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 33 | S 34

1915

from which

An aspen, 10 ins. diam., bears S. 25° E., 56 lks. dist., mkd. ¼S34BT.

A spruce, 12 ins. diam., bears N. 16° W., 15 lks. dist., mkd. ¼S33BT.

Chains. Corner established 10 ft. above hollow.

45.00 Top of asc., bears E. and W., 70 ft. above ¼ sec. cor.; desc.

51.80 Desc. gradually over gentle NE. slope; leave dense aspen and spruce timber, bears NW. and SE., enter scattering aspen and sage brush undergrowth.

80.00 Set an iron post, 3 ft. long, 2 ins. diam, 24 ins. in the ground, for the cor. of secs. 27, 28, 33 and 34, with brass cap mkd.

T 32 S R 1 W

S 28	S 27
S 33	S 34

1915

from which

An aspen, 10 ins. diam., bears S. 44° 30' W., 254 lks. dist., mkd. T32SR1WS33BT.

Dig pits, 18x18x12 ins., in each sec. 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

No other trees within reasonable dist. suitable for bearing trees

Corner established 90 ft. below beginning of gradual desc

Land, rolling mountainous, drains NE. in the northern portion and NW. in the southern portion.

Soil, dark sandy loam, very rocky in the southern portion light gravel and stony in the northern portion, 2 to 3 ft. deep, on rocky light clay subsoil.

Timber, aspen and spruce.

Undergrowth, wild currant, sage brush and bunch grass.

Good grazing. Northern exposure. Volcanic formation.

August 4, 1915: I set off 17° 24' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° N.

East, on a random line bet. secs. 27 and 34.

40.00 Set temp. ¼ sec. cor.

80.12 Intersect the N. and S. line, 14 lks. N. of the cor. of

Chains.	
	secs. 26, 27, 34 and 35.
	N. 89° 54' W., bet. secs. 27 and 34.
	Desc. gradually over nearly level mountain top, through dense aspen and spruce timber.
10.00	Start desc. bears N. and S.,
35.00	Draw, 10 lks. wide, 2 ft. deep, drains N., 545 ft. below sec. cor.; asc.
36.00	Spur, projects N., 15 ft. above draw; desc.
38.60	Hollow, drains N., 70 ft. below spur; asc.
40.06	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 27
S 34

1915 from which

An aspen, 12 ins. diam., bears S. 55° W., 2 lks. dist., mkd. ¼S34BT.

An aspen, 12 ins. diam., bears N. 44° W., 38 lks. dist., mkd. ¼S27BT.

46.50	Spur, projects N., 30 ft. above ¼ sec. cor.; desc.
64.90	E. edge of Grass Lake, bears N. approximately 15 chs., and S. approximately 5 chs. Leave dense timber.
70.80	W. edge Grass Lake bears N. and S.; asc. grad. Lake is 365 ft. below spur.
80.12	The cor. of secs. 27, 28, 33 and 34.
	Land, mountainous.
	Soil, in the E. half, rocky dark sandy loam, more than 2 ft. deep, light gravelly clay in the W. half, on light clay subsoil.
	Timber, spruce and aspen.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Southwestern exposure. Volcanic formation.

August 4, 1915.

August 6, 1915: At 7h 36m, a. m., l. m. t., I set off 38° N. on the lat. arc; 16° 55' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 27, 28, 33 and 34.

Chains.	
	Thence I run
	N. 0° 02' W., bet. secs. 27 and 28.
	Asc. gradually over rolling mountainous land; through mumerous clusters of dense aspen and scattering spruce timber, and sage brush undergrowth.
10.00	Small ridge, bears E. and W.; desc. gradually.
37.70	Creek, 5 lks. wide, 6 ins. deep, clear water, course W.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground; for ¼ sec. cor., with brass cap mkd.

¼
S 28 | S 27
1915

from which

An aspen, 10 ins. diam., bears S. 15° 45' W., 345 lks. dist., mkd. ¼S28BT.

An aspen, 20 ins. diam., bears S. 16° 15' E., 340 lks. dist., mkd. ¼S27BT.

Corner established 15 ft. above creek.

48.20	Knob, bears NW. and SE., 75 ft. above creek; desc.
57.50	Bottom of desc., bears NW. and SE., 180 ft. below top of knob; continue over rolling land.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, with brass cap mkd.

T 32 S R 1 W
S 21 | S 22
S 28 | S 27
1915

from which

An aspen, 10 ins. diam., bears N. 69° 30' E., 47 lks. dist., mkd. T32SR1WS22BT.

An aspen, 20 ins. diam., bears S. 76° E., 129 lks. dist., mkd. T32SR1WS27BT.

An aspen, 6 ins. diam., bears S. 12° W., 24 lks. dist., mkd. T32SR1WS28BT.

An aspen, 10 ins. diam., bears N. 48° W., 60 lks. dist., mkd. T32SR1WS21BT.

Chains.	
	Land, rolling mountainous.
	Soil, gravelly and rocky, on rocky subsoil.
	Timber, aspem and spruce.
	Undegrowth, sage amd buck brush and grass.
	Good grazing. Westerh exposure. Volcanic formation.
	Cloudy at noon. August 6, 1915.

	August 7, 1915: At 7h 36m, a. m., l. m. t., I set off 38° 1' N. on the lat. arc; 16° 39' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.
	Thence I run
	S. 89° 54' E., on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect the N. and S. line, 1 lk. N. of the cor. of secs. 22, 23, 26 and 27.
	August 7, Walking on line at noon, unable to observe the sun for lat.
	N. 89° 54' W., on true line bet. secs. 22 and 27.
	Desc. gradually over nearly level Griffen Top, through dense aspen and spruce timber.
14.40	Edge of Griffen Top, bears N. and S., desc. abruptly over broken rocky slope.
31.60	Rocky spur projects SW., continue desc.
40.03	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 22}{S\ 27}$$

1915

from which

A spruce, 8 ins. diam., bears N. 50° W., 3 lks. dist., mkd. ¼S22BT.

A spruce, 15 ins. diam., bears S 33° W., 27 lks. dist., mkd. ¼S27BT.

Corner established 635 ft. below W. edge of Griffen Top, and 249 ft. below rocky spur.

Chains	
	Bottom of draw, drains NW.; asc.
50.70	Top of ridge, bears NW. and SE., 175 ft. above ¼ sec. c desc.
80.06	The cor. of secs. 21, 22, 27 and 28, 365 ft. below top of ridge.
	Land, mountainous.
	Soil, very rocky sandy loam, shallow, on rocky subsoil.
	Timber, aspen and spruce.
	Undergrowth, wild currant brush and grass.
	Good grazing. Western exposure. Volcanic formation.

	N. 0° 02' W., bet. secs. 21 and 22.
	Desc. over rolling mountainous land, through dense aspen and scattering spruce timber.
4.70	Bottom of desc., bears NW. and SE., continue over rolling land, leave dense aspen, enter numerous clusters of aspen.
24.50	Start asc., bears E. and W.
31.20	Knoll, bears E. and W., 60 ft. above beginning of asc.; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 21 | S 22
1915

from which

An aspen, 8 ins. diam., bears N. 40° W., 33 lks. dist., mkd. ¼S21 BT.

An aspen, 12 ins. diam., bears N. 3° E., 112 lks. dist., mkd. ¼S22BT.

	Corner established 140 ft. below knoll; continue desc.
40.60	Bottom of draw, drains W., 10 ft. below ¼ sec. cor.; asc.
48.50	Ridge, bears E. and W., 65 ft. above draw; desc.
50.90	Bottom of draw, drains W., 70 ft. below ridge; asc.
58.50	Knoll, bears NW. and SE., 175 ft. above draw; desc.
72.50	Draw, drains W., 110 ft. below knoll; asc.
77.72	Top of asc., bears E. and W., 140 ft. above draw; desc. gradually.

Chains	
79.92	Intersect the temp flag set on line bet. secs. 15 and 22, on August 2. (see random line bet. secs. 15 and 22.)
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 15, 16, 21 and 22, with brass cap mkd.

T 32 S R 1 W

S 16	S 15
S 21	S 22

1915 from which

An aspen, 6 ins. diam., bears N. 59° E., 18 lks. dist., mkd. T32SR1WS15BT.

An aspen, 6 ins. diam., bears S. 80° 45' E., 29 lks. dist., mkd. T32SR1WS22BT.

An aspen, 8 ins. diam., bears S. 41° 30' W., 44 lks. dist., mkd. T32SR1WS21BT.

An aspen, 6 ins. diam., bears N. 26° 30' W., 22 lks. dist., mkd. T32SR1WS16BT.

Land, mountainous.

Soil, rocky loam, shallow, on rocky subsoil.

Timber, spruce and aspen.

Undergrowth, mohogany, sage brush and grass.

Good grazing. Western exposure. Volcanic formation.

August 7, 1915.

August 2, 1915: In order to ecomomize in time while moving camp, a line was run West from the cor. of secs. 14, 15 22 and 23, setting temp. ¼ sec. cor. at 40 chs. and a temp. point at 80 chs.

August 2: At 8h 6m, a. m., l. m. t., I set off 38° 1' 30" N. on the lat. arc; 17° 58' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 14, 15, 22 and 23

August 2: Walking bet. points on line at noon, unable to observe for lat.

The corner of secs. 15, 16, 21 and 22, was established on August 7, 8 lks. N. of the temp. 80 ch. point on

x	Chains.	
		line bet. secs. 15 and 22, (see top of page 41) therefore, a random line of S. 89° 54' E., from the cor. of secs. 15, 16, 21 and 22, would intersect the N. and S. line, 6 lks. S. of the cor. of secs. 14, 15, 22 and 23, and the dist. would be 80 chs.
		August 2, 1915.
		August 7, 1915.
		N. 89° 57' W., on true line bet. secs. 15 and 22.
		Desc. abruptly over mountainous land, through dense aspen and scattering spruce timber.
	6.60	Bottom of slope, bears N. and S., 135 ft. below sec. cor. asc. gradually.
	31.50	Leave dense aspen timber, bears NE. and SW., enter open land.
	40.00	Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground for ¼ sec. cor., with brass cap mkd.
		¼ S 15 S 22 1915
		Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
		No trees within reasonable distance suitable for bearing trees.
	47.00	Spur, projects SW., 30 ft. above ¼ sec. cor.; desc.
	52.00	Bottom of draw, drains SW., 35 ft. below spur; asc.
	59.80	Rocky spur, projects SW., 100 ft. above draw; ledge 75 ft high, bears N. and S.; desc. over rocky slope.
	69.90	Draw, drains SW., 310 ft. below spur; asc.
	74.80	Spur, projects S., 25 ft. above draw; desc.
	80.00	The cor. of secs. 15, 16, 21 and 22.
		Land, mountainous.
		Soil, rocky sandy loam, shallow, on rocky subsoil.
		Timber, aspen, spruce, yellow pine and piñon.
		Undergrowth, mohogany, sage brush and bunch grass.
		Good grazing. Western exposure. Volcanic formation.

Chains. N. 0° 2' W., bet. secs. 15 and 16.

Desc. over mountainous land, through dense aspen and scattering spruce timber.

26.20 Bottom of draw, drains W., 135 ft. below sec. cor.; asc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for ¼ sec. cor., with brass cap mkd.

S ¼ 16	S 15

1915 from which

An aspen, 8 ins. diam., bears N. 10° E., 78 lks. dist., mkd. ¼S15BT.

An aspen 8 ins. diam., bears N. 42° W., 7 lks. dist., mkd. ¼S16BT.

51.10 Leave dense aspen timber, bears E. and W., enter scattering aspen, yellow pine and mohogany.

75.70 Ridge, bears E. and W., 165 ft. above draw; desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 9, 10, 15 and 16, with brass cap mkd.

T 32 S R 1 W

S 9	S 10
S 16	S 15

1915 from which

A spruce, 36 ins. diam., bears N. 23° W., 92 lks. dist., mkd. T32SR1WS9BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, light gravel and rocky, shallow, on rocky gravel subsoil.

Timber, aspen and spruce.

Undergrowth, sage brush, bunch grass and mohogany.

Good grazing. Southwestern exposure. Volcanic formation.

August 7, 1915.

Jos. C. Thorna

U. S. Surveyor.

Chains	
	August 12, 1915.
	Thence I run
	S. 89° 57' E., on random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
79.75	Intersect the N. and S. line, 34 lks. S. of the cor. of secs. 10, 11, 14 and 15.
	Thence
	S. 89° 48' W., on true line bet. secs. 10 and 15.
	Desc. gradually over mountainous land, through dense aspen timber.
15.50	Draw, drains N., 3 chs., thence W., 140 ft. below sec. cor.; asc. gradually.
38.00	Spur, projects N., 5 chs.; desc. gradually.
39.87½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 10 / S 15
	1915 from which
	A spruce, 18 ins. diam., bears N. 21° 45' W., 98 lks. dist., mkd. ¼S10BT.
	An aspen, 4 ins. diam., bears S. 71° 15' W., 36 lks. dist., mkd. ¼S15BT.
64.90	Start abrupt desc. over rocky S. side of cañon, 90 ft. below ¼ sec. cor.
79.75	The cor. of secs. 9, 10, 15 and 16, 255 ft. below beginning of abrupt desc.
	Land, rolling mountainous, drains W.
	Soil, rocky sandy loam, shallow, on rocky subsoil.
	Timber, aspen and spruce.
	Undergrowth, young aspen, spruce, buck brush and grass.
	Poor grazing. Western exposure. Volcanic formation.
	August 12, 1915.
	Jos. C. Clark
	U.S. Transitman.

Chains.	
	August 9, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 2' 30" N. on the lat. arc; 16° 5' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 9, 10, 15 and 16.
	Thence I run
	N. 0° 2' W., bet. secs. 9 and 10.
	Desc. over mountainous land, through aspen and spruce timber.
.50	Draw, drains W., 15 ft. below sec. cor.; asc. abruptly.
10.50	Spur, projects W., 255 ft. above draw; ledge 150 ft. high, bears E. and W.; desc. along NW. slope.
23.80	Hollow, drains W., 75 ft. below spur; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 9 | S 10
1915

from which

A pinon, 14 ins. diam., bears N. 6° W., 253 lks. dist., mkd. ¼S9BT.

An aspen, 6 ins. diam., bears S. 28° E., 204 lks. dist., mkd. ¼S10BT.

	Continue over rolling land, through numerous clusters of dense aspen timber.
54.80	Draw, drains W., 115 ft. below ¼ sec. cor. Road, Coyote to Griffen Springs, bears E. and W.; asc.
64.60	Ridge, bears NW. and SE., 140 ft. above draw; desc.
74.40	Draw, drains W., 120 ft. below ridge; asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor of secs. 3, 4, 9 and 10, with brass cap mkd.

T 32 S R 1 W
S 4 | S 3
S 9 | S 10
1915

from which

A spruce, 24 ins. diam., bears N. 6° W., 301 lks. dist., mkd. T32SR1WS4BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains	
	No other trees within reasonable distance suitable for bearing trees.
	Land, rolling mountainous.
	Soil, light gravelly and rocky, shallow, on rocky subsoil.
	Timber, aspen and scattering spruce.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Southwestern exposure. Volcanic formation
	August 9, 1915.
	Jos. C. Thorna
	U. S. Surveyor.

	August 12, 1913:
	N. 89° 48' E., on random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.82	Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 2, 3, 10 and 11.
	Thence
	S. 89° 46' W., on true line bet. secs. 3 and 10.
	Desc. gradually over rolling mountainous land, through dense aspen and scattering spruce timber.
10.00	Spur, projects N.
32.40	Begin abrupt desc., bears N. and S., 155 ft. below sec. cor.
39.91	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 3 / S 10
	1915 from which
	An aspen, 5 ins. diam., bears N. 87° 15' E., 130 lks. dist., mkd. ¼S3BT.
	An aspen, 5 ins. diam., bears S. 7° 30' E., 113 lks. dist., mkd. ¼S10BT.
	Corner established 120 ft. below beginning of abrupt desc.
44.90	Leave dense aspen timber, bears N. and S., enter rocky opening. Dec. gradually along S. side of low saddle

Chains.	
	on N. side of draw.
79.82	The cor. of secs. 3, 4, 9 and 10.
	Land, rolling mountainous, drains W.
	Soil, light rocky sandy loam, 2 to 3 ft. deep, on rocky subsoil.
	Timber, dense aspen and scattering spruce.
	Undergrowth, young aspen and spruce, and grass.
	Fair grazing. Western exposure. Volcanic formation.
	August 12, 1915.
	Jos. C. Clark
	U. S. Transitman.
	August 9, 1915: I set off 16° 1' N. on the decl. arc, and at apparent noon, observe the sun on the meridian at the cor. of secs. 3, 4, 9 and 10, the resulting lat. is 38° 3' N.
	Thence I run
	N. 0° 2' W., on random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
73.00	Leave temp. point.
	August 9, 1915.
	August 23, 1915.
73.39	Intersect the N. Bdy. of Twp, 14 lks. E. of the cor. of secs. 3, 4, 33 and 34, heretofore described.
	Thence
	S. 0° 8' E., on true line bet. secs. 3 and 4.
	Desc. gradually through scattering clusters of dense aspen timber and scattering spruce, along W. slope.
33.39	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.
	¼ S 4 | S 3
	1915 from which
	An aspen, 8 ins. diam., bears S. 73° W., 132 lks. dist., mkd. ¼S4BT.

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance suitable for bearing tree.
	Asc. gradually along W. slope.
58.50	Draw, drains W., 30 ft. above ¼ sec. cor.
73.39	The cor. of secs. 3, 4, 9 and 10, 110 ft. above draw.
	Land, rolling.
	Soil, rocky gravel and shallow, on rocky subsoil.
	Timber, scattering aspen and spruce.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Northern exposure. Volcanic formation.
	August 23, 1915.

August 5, 1915: At 7h 36m, a. m., l. m. t., I set off 37° 59' N. on the lat. arc; 17° 11' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 4, 5, 32 and 33 on the S. bdy. of the Tp., heretofore described.

Thence I run

N. 0° 3' W., bet. secs. 32 and 33.

Desc. over mountainous land, through dense aspen, spruce and yellow pine timber.

7.80	S. edge of Center Creek Cañon, bears SE. and N.; desc. over NE. slope of same.
18.50	Center Creek, 25 lks. wide, 14 ins. deep, course NW., 130 ft. below S. edge of cañon. Thence along nearly level rocky E. slope of cañon.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 32 | S 33

1915

from which

A yellow pine, 30 ins. diam., bears N. 20° 30' W., 22 lks. dist., mkd. ¼S32BT.

A yellow pine, 34 ins. diam., bears N. 33° 15' E., 68 lks. dist., mkd. ¼S33BT.

Chains.	
	Continue along rocky slope of cañon, through dense aspen and yellow pine.
69.50	N. edge of Center Creek Cañon, ledge 30 ft. high, bears S. and NW., leave dense timber, enter scattering yellow pine and sage brush; asc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone, for the cor. of secs. 28, 29, 32 and 33, with brass cap mkd.

T 32 S R 1 W

S 29	S 28
S 32	S 33

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No trees within reasonable distance suitable for bearing trees.

Land, mountainous.

Soil, gravelly and rocky, shallow, on rocky subsoil.

Timber, aspen, spruce and yellow pine.

Undergrowth, sage brush and bunch grass, and wild currant bushes.

Good grazing. Western exposure. Volcanic formation.

August 5: Cloudy at noon.

East, on random line bet. secs. 28 and 33.

40.00	Set temp. ¼ sec. cor.
79.94	Intersect the N. and S. line, 6 lks. S. of the cor. of secs. 27, 28, 33 and 34.

S. 89° 57' W., on true line bet. secs. 28 and 33.

Asc. gradually over rolling mountainous land, through scattering aspen and spruce timber.

10.90	Ridge, bears N. and S., 15 ft. above sec. cor.; desc. gradually.
34.60	Leave scattering aspen, enter dense aspen and spruce timber, bears N. and S.
39.97	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in

Chains	
	the ground, on solid rock, in mound of earth and stone, for ¼ sec. cor., with brass cap mkd.
	¼ S 28 / S 33
	1915 from which
	An aspen, 12 ins. diam., bears S. 59° W., 30 lks. dist., mkd. ¼S33BT.
	A spruce 12, ins. diam., bears N. 67° E., 47 lks. dist., mkd. ¼S28BT.
	Corner established 325 ft. below ridge.
52.10	Hollow, drains SW., 245 ft. below ¼ sec. cor. Leave dense aspen and spruce timber, bears N. and S., enter scattering yellow pine timber; asc.
60.00	Ridge, bears N. and S., 25 ft. above hollow; desc.
65.90	Hollow, drains SW., 60 ft. below ridge; asc.
79.94	The cor. of secs. 28, 29, 32 and 33.
	Land, rolling mountainous.
	Soil, light gravel and clay, shallow, on light clay sub-soil.
	Timber, aspen, spruce and yellow pine.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Western exposure.
	August 5, 1915.
	Jos. C. Thorna
	U. S. Surveyor.
	August 7, 1915: At 8h 6m, a. m., l. m. t., I set off 38° N. on the lat. arc; 16° 38' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.
	Thence I run
	N. 0° 3' W., bet. secs. 28 and 29.
	Desc. gradually over rolling mountainous land, through sage brush undergrowth.
20.00	Leave sage brush undergrowth, enter scattering aspen,

Chains	
	spruce, yellow pine and mohogany, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼ S 29	S 28

1915 from which

An aspen, 6 ins. diam., bears S. 83° 15' E., 92 lks. dist., mkd. ¼S28BT.

An aspen, 5 ins. diam., bears N. 81° 15' W., 115 lks. dist., mkd. ¼S29BT.

Corner established 45 ft. below sec. cor.

54.00	Draw, drains NW., approximately 15 chs., thence N., 25 ft. below ¼ sec. cor.; asc. gradually.
62.00	Spur, projects NW., 20 ft. above draw; desc.
66.50	Hollow, drains NW., 20 ft. below spur; asc. rocky SW. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 20, 21, 28 and 29, with brass cap mkd.

T 32 S R 1 W.

S 20	S 21
S 29	S 28

1915 from which

A yellow pine, 15 ins. diam., bears N. 8° 45' E., 86 lks. dist., mkd. T32SR1WS21BT.

A yellow pine, 5 ins. diam., bears S. 14° 15' E., 132 lks. dist., mkd. T32SR1WS28BT.

A yellow pine, 14 ins. diam., bears S. 41° W., 130 lks. dist., mkd. T32SR1WS29BT.

A yellow pine, 18 ins. diam., bears N. 61° 45' W., 9 lks. dist., mkd. T32SR1WS20BT.

Corner established 100 ft. above hollow.

Land, rough and rolling mountainous, drains NW.

Soil, light rocky sandy loam, 2 to 3 ft. deep, on rocky subsoil.

Timber, scattering aspen, spruce, yellow pine.

Undergrowth, mohogany, young aspen and spruce, sage brush

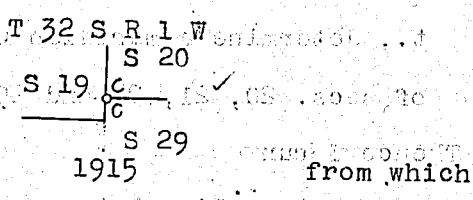
Chains	
	and grass.
	Fair grazing. Northwestern exposure. Volcanic formation
	August 7, 1915: I set off 16° 35' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 1' N.

	N. 89° 57' E., on random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 21, 22, 27 and 28.
	Thence
	S. 89° 59' W., on true line bet. secs. 21 and 28.
	Asc gradually over mountainous land, through scattering spruce, aspen, yellow pine and cedar and pinon timber.
21.00	Ridge, bears N. and S., 20 ft. above sec. cor.; desc. abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 21 / S 28
	1915 from which
	A yellow pine, 40 ins. diam., bears N. 70° 30' W., 138 lks. dist., mkd. ¼S21BT.
	A yellow pine, 24 ins. diam., bears S. 26° 45' E., 188 lks. dist., mkd. ¼S28BT.
	Corner established 300 ft. below ridge; continue abrupt desc. over large boulders.
49.40	Bottom of abrupt desc, bears NE. and SW.; desc. grad.
51.60	Creek, 6 lks. wide, 5 ins. deep, clear water, course N. 30° E. Creek is in hollow approximately 5 chs. wide, 90 ft. below ¼ sec. cor.; asc.
54.10	Dim road, bears N. 20° E. and S. 20° E.
60.20	Spur, projects N. 20° E., approximately 40 chs.; desc. gradually.
65.30	Basin, 10 ft. below spur; asc. gradually.
76.00	Ridge, bears N. and SE., 35 ft. above basin; desc. abruptly

Chains.	
80.00	The cor. of secs. 20, 21, 28 and 29, 90 ft. below ridge.
	Land, mountainous, drains NW.
	Soil, light sandy laom and clay, rocky, 3 to 4 ft. deep, on rocky light clay subsoil.
	Timber, scattering cedar, piñon, spruce, yellow pine and aspen.
	Undergrowth, sage and grass.
	Good grazing. Northwestern exposure. Volcanic formation.
	August 7, 1915.
	Jos. C. Clark
	U. S. Transitman.

	August 10, 1915: I set off 38° 1' N. on the lat. arc; 15° 42' N. on the decl arc, and at 3h 5m, p. m., l. m. t., determine a meridian with the solar, at the cor. of secs. 20, 21, 28 and 29.
	Thence I run
	West, on true line bet. secs. 20 and 29, knowing that a closing corner will be necessary on the Powell National Forest Boundary.
	Desc. into Center Creek Cañon, through scattering yellow pine and aspen timber.
33.25	Center Creek, 20 lks. wide, 14 ins. deep, course NW., clear water, 280 ft. below sec. cor. An old dim road 20 lks. E. of creek, bears NW. and SE.; asc.
39.30	West edge of Center Creek Cañon, and ledge 20 ft. high, bears NW. and SE., 235 ft. above creek; desc. through dense mahogany.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 20 / S 29
	1915 from which
	A mahogany, 10 ins. diam., bears N. 7° 30' W., 22 lks. dist., mkd. ¼S20BT.

Chains.	
	A mahogany, 10 ins. diam., bears S. 3° W., 71 lks. dist., mkd. ¼S29BT.
	Continue desc. through dense mahogany and scattering yellow pine and cedar timber.
76.20	Intersect the Powell National Forest Boundary, which is also the line bet. secs. 19 and 20, N. 0° 3' W., 6.83 chs. of the cor. No. 140, which is
	An iron post, 3 ins. diam., 24 ins. above ground, firmly set in md. of stone, mkd. and witnessed as described by the surveyor general. I destroy all mks. on cor. and accessories pertaining to sec. 20,
	At point of intersection I set
	An iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. bet. secs. 20 and 29, with brass cap mkd.



from which

A yellow pine, 12 ins. diam., bears N. 31° E., 88 lks. dist., mkd. T32SR1WS20CCBT.

A yellow p ine, 36 ins. diam., bears S. 46° E., 93 lks. dist., mkd. T32SR1WS29CCBT.

Corner established 405 ft. below ¼ sec. cor.

Land, mountainous, drains NW.

Soil, Light gravel and large boulders, shallow, on rocky light clay subsoil.

Timber, yellow pine, aspen and cedar.

Undergrowth, mahogany, sage brush and grass.

Good grazing. Western exposure. Volcanic formation.

August 10, 1915.

Jos. C. Thorna

U. S. Surveyor.

August 9, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 1' N. on the lat. arc; 16° 4' 30" N. on the decl. arc;

Chains	
	and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.
	Thence I run
	N. 0° 3' W., bet. secs. 20 and 21.
	Asc. over rough mountainous land, through scattering spruce, aspen, yellow pine, cedar, piñon and mahogany.
6.20	Spur, projects NW., 60 ft. above sec. cor.; desc.
12.20	Draw, drains NW., 100 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, on solid rock, in md. of stone, for ¼ sec. cor., with brass cap mkd.

¼
S 20 | S 21
1915 ffom which

A yellow pine, 17 ins. diam., bears N. 13° E., 105 lks. dist., mkd. ¼S21BT.

A yellow pine, 10 ins. diam., bears S. 9° 15' W., 57 lks. dist., mkd. ¼S20BT.

Corner established 80 ft. above draw.

Continue gradual asc., through dense mahogany.

59.50	Ledge, 40 ft. high, bears N. 20° W. and S. 20° E., 50 ft. above ¼ sec. cor.; desc. abruptly through dense buck brush.

August 9, 1915: I set off 16° 1' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 1' 30" N.

80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 16, 17, 20 and 21, with brass cap mkd.

T 32 S R 1 W
S 17 | S 16
S 20 | S 21
1915 from which

An aspen, 7 ins. diam., bears N. 17° 45' E., 143 lks. dist., mkd. T32SR1WS16BT.

An aspen, 7 ins. diam., bears S. 16° 45' E., 111 lks. dist., mkd. T32SR1WS21BT.

Chains

A yellow pine, 20 ins. diam., bears N. 79° 50' W., 135 lks. dist., mkd. T32SR1WS17BT.

An aspen, 9 ins. diam., bears S. 88° 30' W., 54 lks. dist., mkd. T32SR1WS20BT.

Corner established 185 ft. below ledge.

Land, rough mountainous, drains NW.

Soil, rocky light sandy loam, 2 ft. deep, on rocky subsoil.

Timber, scattering spruce, aspen, yellow pine, cedar and piñon.

Undergrowth, dense mahogany and buck brush.

Poor grazing. Southern portion exposed to the SW., and northern portion exposed to the NE. Volcanic formation.

N. 89° 59' E., on random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.12 Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 15, 16, 21 and 22.

Thence

N. 89° 59' W., on true line bet. secs. 16 and 21

Desc. over rolling mountainous land, through scattering spruce, aspen, cedar and piñon timber.

12.10 Leave scattering timber, bears N. and S., enter sage brush undergrowth.

21.90 Hollow, draining N. 70° W., 400 ft. below sec. cor. continue gradual desc.

40.06 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}}{\frac{S\ 16}{S\ 21}}$$

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Corner established 125 ft. below head of hollow.

52.90 Bottom of desc., bears N. and S., 135 ft. below ¼ sec. cor.

Chains.	
61.60	Road, Coyoto to Griffen Springs, bears N. and SW. A dim road follows Creek from Mud Lake to Center Creek.
74.00	Creek from Mud Lake, 6 lks. wide, 5 ins. deep, clear water, course N. 35° W., leave open land, enter scattering timber, bears N. and SW.; asc. gradually.
78.90	Same road, Coyoto to Griffen Springs, bears NW. and SE.
80.12	The cor. of secs. 16, 17, 20 and 21, 10 ft. above creek.
	Land, rolling mountainous, drains NW.
	Soil, light sandy loam and clay, rocky, 2 to 3 ft. deep, on rocky clay subsoil.
	Timber, scattering cedar, piñon, spruce, yellow pine and aspen.
	Undergrowth, sage brush and grass.
	Good grazing. W. to Northwestern exposure. Volcanic formation.

August 9, 1915.

Jos. B. Clark
U. S. Transitman.

August 11, 1915: At 2h 35m, p. m., l. m. t., I set off 38° 1' 30" N. on the lat. arc; 15° 25' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.

Thence I run

West, on true line bet. secs. 17 and 20.

Asc. over mountainous land, through scattering aspen and spruce timber.

2.30	Foot of sharp asc., bears NW. and SE.
7.90	Top of ridge, and ledge 50 ft. high, bears NW. and SE., 205 ft. above sec. cor., enter dense mahogany and scattering yellow pine timber, desc.
31.10	Draw, drains NW., 140 ft. below top of ridge; asc.
34.50	Ridge, bears NW. and SE., 55 ft. above draw; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for ¼

Chains. . sec. cor., with brass cap mkd.

$\frac{1/4}{S\ 17 \mid S\ 20}$

1915 from which

A cedar, 10 ins. diam., bears N. 70° W.,

33 lks. dist., mkd. ¼S17BT.

A yellow pine, 24 ins. diam., bears S. 41° 30' W.,

53 lks. dist., mkd. ¼S20BT.

Corner established 50 ft. below ridge.

Continue desc. through mahogany, yellow pine and cedar timber.

55.70 Leave dense mahogany, bears N. and S., enter dense cedar and piñon timber, and large boulders.

65.40 Draw, drains SW., 455 ft. below ¼ sec. cor.; asc.

68.20 Spur, projects SW., 35 ft. above draw; desc.

August 11, 1915.

August 17, 1915. At 8h34m, a. m., l. m. t., I set off 38° 1' 30" N. on the lat. arc; 13° 39' 30" N. on the decl. arc, and determine a meridian with the solar, and continue my line west.

75.90 The line bet. secs. 17 and 18, and true point for closing

76.33 Fall 6.63 chs. N. 0°3' W. of W.C. to the Powell National Forest Boundary Post No. 139, which is 43 lks. S. 89°59' W. of true point, which is

An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. I destroy all mks. on this cor. and accessories pertaining to secs. 17 and 20.

The true point for the closing cor. for secs. 17 and 20 falls on ledge where it is impossible to establish a permanent cor., therefore, at a point 43 lks. W. of the true point for the closing cor. and 6.63 chs. N. 0° 3' W. of the witness to the Powell National Forest Boundary Post No. 139, I set

An iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the witness closing cor. for secs. 17 and

Chains. 20, with brass cap mkd.

T 32 S R 1 W

S 18	S 17
	W C C C
	S 20
S 19	

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

No trees within reasonable distance suitable for bearing trees.

This cor. is established 290 ft. below ridge.

Center Creek, 15, lks. wide, 15 ins. deep, clear water, course NW., is approximately 2 chs. S. of the witness closing cor.

Land, mountainous.

Soil, light gravel and rocky, 2 to 3 ft. deep, on rocky light clay subsoil.

Timber, aspen, spruce, yellow pine, cedar and piñon.

Undergrowth, mahogany, wild raspberry and willows.

Poor grazing. Western exposure. Volcanic formation.

Note: The true distance of this mile is 75.90 chs.

August 17, 1915.

Jos. C. Thoma

U. S. Surveyor.

August 10, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 1' 30" N. on the lat. arc; 15° 47' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 16, 17, 20 and 21:

Thence I run

N. 0° 3' W., bet. secs. 16 and 17.

Asc. gradually over mountainous land, through dense spruce, aspen, yellow pine, cedar, piñon and mahogany.

1.40 Road, Coyote to Griffen Springs, bears NW. and SE. Road crosses saddle bearing N. and S., approximately 3 chs. W.

10.00 Rocky ridge, bears NW. and SE., 40 ft, above sec. cor., desc.

Chains.	
17.40	Creek from Mud Lake, 6 lks. wide, 5 ins. deep, clear wate course W., 65 ft. below ridge, asc. Creek drops abrupt ly approximately 5 chs. W.
23.30	Spur, projects S. 35° E., 80 ft. above creek; desc.
26.90	Head of hollow drains SE., asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

¼ S 17 | S 16

1915 from which

A spruce, 9 ins. diam., bears S. 41° 30' E., 29 lks. dist., mkd. ¼S16BT.

A yellow pine, 28 ins. diam., bears N. 28° 15' W., 74 lks. dist., mkd. ¼S17BT.

Desc. gradually through dense timber.

47.20	NW. edge of basin, 3 chs. wide, asc. gradually over large boulders.
49.80	A boulder, 40x30x30 ft. high on line.
52.20	Saddle in ridge, bears NE. and SW., 15 ft. above basin.
54.30	Basin, extends NW. and SE., approximately 8 chs.; asc.
74.70	August 10, I set off 15° 44' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 2' 30" N.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

T 32 S R 1 W

S 8 | S 9

S 17 | S 16

1915 from which

A yellow pine, 26 ins. diam., bears N. 64° E., 95 lks. dist., mkd. T32SR1WS9BT.

A yellow pine, 15 ins. diam., bears S. 2° 30' E., 42 lks. dist., mkd. T32SR1WS16BT.

A spruce, 17 ins. diam., bears S. 85° 45' W., 71 lks. dist., mkd. T32SR1WS17BT.

Chains	
	A spruce, 12 ins. diam., bears N. 28° 15' W., 56 lks. dist., mkd. T32SR1WS8BT.
	Land, mountainous, drains SE.
	Soil, sandy loam, rocky and shallow, on rocky subsoil.
	Timber, spruce, yellow pine, aspen, cedar and piñon.
	Undergrowth, young aspen and spruce, mahogany and buck brush.
	Poor grazing. Southwestern exposure. Volcanic formation.

	S. 89° 59' E., on random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
80.28	Intersect the N. and S. line, 9 lks. N. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	N. 89° 55' W., on true line bet. secs. 9 and 16.
	Desc. over mountainous land, through dense aspen and spruce timber and buck brush.
12.30	Five chs. N. of line: Cañon, drains N. 60° W., asc.
19.40	Leave dense timber and buck brush, bears N. 70° W. and S., enter scattering aspen and spruce.
30.30	Leave scattering aspen and spruce timber, bears N. and SE., enter sage brush undergrowth.
40.14	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. ¼ S 9 / S 16 1915 from which
	An aspen, 6 ins. diam., bears N. 3° 30' W., 305 lks. dist., mkd. ¼S9BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance suitable for bearing trees.
43.00	Road, Coyoto to Griffen Springs, bears N. 35° E. and S. 35° W.
50.30	Hollow, drains N., 30 ft. below ¼ sec. cor.; asc. Leave sage brush, enter dense timber and buck and service

Chains. brush.

55.10 Ledge, 30 ft. high, bears N. and S.; continue asc.

61.30 Ridge, bears N. and S., 115 ft. above hollow; desc.

64.30 Head of hollow, drains N., asc., 33 ft. below ridge.

69.00 Ridge, bears N. and S. 35° E.; desc.

80.28 The cor. of secs. 8, 9, 16 and 17, 35 ft. below ridge.

Land, rolling and rough mountainous, drains NW.

Soil, light rocky sandy loam, 2 to 3 ft. deep, on rocky subsoil.

Timber, spruce, aspen, yellow pine.

Undergrowth, mahogany, buck brush, young aspen and servi brush and grass.

Good grazing. Northwestern exposure. Volcanic formation

August 10, 1915.

Jos. B. Clark

U. S. Transitman.

August 12, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 2' 30" N. on the lat. arc; 15° 12' N. on the decl. arc, and determine a meridian with the solar, at the cor of secs. 8, 9, 16 and 17.

Thence I run

West, on true line bet. secs. 8 and 17.

Desc. over large boulders, through dense yellow pine, aspen and mahognay.

4.80 Small draw, drains N., 75 ft. below sec. cor.; asc.

7.30 Rocky ridge, bears N. and S., 10 ft. above draw; desc.

21.50 Draw, drains NW., 270 ft. below rocky ridge; asc.

22.50 Road, Coyoto to Griffen Springs, bears NW. and SE.

23.60 Ridge, bears N. and S., 15 ft. above road; desc.

34.90 Draw, drains NW., 90 ft. below ridge; asc.

39.20 Ridge, bears NW. and SE., 70 ft. above draw; desc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the 1 sec. cor., with brass cap mkd.

Chains.

$\frac{S\ \frac{1}{4}\ 8}{S\ 17}$

1915 from which

A yellow pine, 13 ins. diam., bears S. 35° 30' E., 68 lks. dist., mkd. ¼S17BT.

A cedar, 12 ins. diam., bears N. 84° W., 21 lks. dist., mkd. ¼S8BT.

August 12, 1915: Walking between corners at noon, unable to observe for lat.

August 12, 1915.

August 14, 1915: At this cor. I set off 14° 32' 30" N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 2' N.

Thence I run West on true line from the ¼ sec. cor. with continuous measurement.

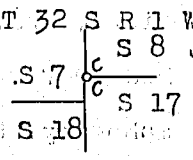
Desc. over mountainous land, through dense yellow pine, cedar and mahogany, over large boulders

75.92 Intersect the Powell National Forest Boundary, N. 0° 3' W., 6.44 chs. of the Forestry Boundary Post No. 138, which is

An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. I destroy all mks. pertaining to secs. 8 and 17 on this cor. and accessories.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the closing cor. of secs. 8 and 17, with brass cap mkd.



1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, mountainous.

Soil, light sandy loam, shallow and very rocky, on very rocky subsoil.

Chains.	
	Timber, spruce, yellow pine and cedar.
	Undergrowth, mahogany, sage brush and grass.
	Good grazing. Western exposure. Volcanic formation.
	August 14, 1915.
	Jos. C. Thoma
	U. S. Surveyor.

	August 11, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 2' 30" N. on the lat. arc; 15° 30' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence I run
	N. 0° 3' W., bet. secs. 8 and 9.
	Asc. gradually over mountainous land, through dense aspen spruce, yellow pine, mahogany and piñon.
1.00	Spur, projects W.; desc. gradually over large boulders.
24.30	Hollow, 6½ chs. wide, drains N. 20° E., 125 ft. below sec. cor.; asc.
28.30	Low spur, projects N. 20° E.; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 8 | S 9
	1915 from which
	A yellow pine, 30 ins. diam., bears S. 57° 45' E., 70 lks. dist., mkd. ¼ S9BT.
	A yellow pine, 19 ins. diam., bears S. 54° 30' W., 23 lks. dist., mkd. ¼S8BT.
	Corner established 70 ft. below spur. Continue grad. desc. Leave mahogany, bears NE. and SW.
47.00	Hollow, 5 chs. wide, drains N. 20° E., approximately 7 chs., thence NW.; asc. gradually.
53.60	Spur, projects E., 50 lks.; desc.
57.10	Same hollow, drains NW. 10 chs., thence W., 30 ft. below spur; asc.

Chains.	
59.80	Spur, projects NW., 40 ft. above hollow; desc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

T 32 S R 1 W

S 5	S 4
S 8	S 9

1915 from which

A yellow pine, 15 ins. diam., bears N. 43° 15' E., 415 lks. dist., mkd. T32SR1WS4BT.

A yellow pine, 17 ins. diam., bears S. 5° 45' E., 76 lks. dist., mkd. T32SR1WS9BT.

A yellow pine, 14 ins. diam., bears S. 30° 30' W., 71 lks. dist., mkd. T32SR1WS8BT.

A yellow pine, 14 ins. diam., bears N. 82° 45' W., 123 lks. dist., mkd. T32SR1WS5BT.

Corner esrablished 80 ft. below spur.

Land, rough mountainous, drains W.

Soil, light sandy loam, shallow and rocky, on rocky subsoil.

Timber, spruce, aspen, yellow pine, cedar and piñon.

Undergrowth, young aspen, mahogany, buck, service and sage brush, and grass.

Poor grazing. Western exposure. Volcanic formation.

August 11, 1915: I set off 15° 26' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 3' 30" N.

S. 89° 55' E., on a random line bet. secs. 4 and 9.

40.00	Set temp. ¼ sec. cor.
80.19	Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 3, 4, 9 and 10.

August 11, 1915.

August 17, 1915.

N. 89° 57' W., on true line bet. secs. 4 and 9.

Chains.	
	Desc. gradually over rough mountainous land, through sag and buck brush, scattering yellow pine, cedar and piñ
11.60	Base of abrupt asc. and head of draw, drains S., 35 ft. below sec. cor. asc. abruptly.
22.00	Rocky ridge, bears N. and S., 110 ft. above base of abrupt asc.; desc. abruptly.
40.09½	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, on solid rock, in mound of earth and stone for ¼ sec. cor., with brass cap mkd.
	¼ S 4 S 9 1915 from which
	A yellow pine, 18 ins. diam., bears N. 62° E., 48 lks. dist., mkd. ¼S4BT.
	A yellow pine, 16 ins. diam., bears S. 64° W., 214 lks. dist., mkd. ¼S9BT.
	Corner established 350 ft. below rocky ridge, and in head of swale, draining S. 20° E. Asc. gradually.
44.80	Top of gradual ascent., bears N. and S., 10 ft. below ¼ sec. cor.; desc. abruptly.
65.30	Bottom of abrupt desc., bears N. and SE., 310 ft. below bottom of gradual desc.; desc. gradually.
80.19	The cor. of secs. 4, 5, 8 and 9, 132 ft. below bottom of abrupt desc.
	Land, mountainous, drains W.
	Soil, light sandy loam, shallow and rocky, on rocky subsoil.
	Timber, yellow pine, cedar, piñon and scattering spruce.
	Undergrowth, sage and buck brush, and grass.
	Good grazing. Exposed to the W. in the western portion, and eastern exposure in the eastern portion.
	Volcanic formation.

August 17, 1915.

Jos. C. Clark

U. S. Transitman.

Chains	
	August 12, 1915.
	West, bet. secs. 5 and 8.
	Desc. gradually over rolling mountainous land, through sage and buck brush and scattering yellow pine timber.
14.90	Enter dense cedar and piñon timber., bears N. and S.
28.30	Start abrupt desc., bears N. and S.
35.00	Bottom of abrupt desc., and draw, drains NW., 410 ft. below sec. cor.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 5}{S\ 8}$$

1915 from which

A spruce, 10 ins. diam., bears S. 18° W., 59 lks. dist., mkd. ¼S8BT.

A spruce, 8 ins. diam., bears N. 8° E., 20 lks. dist., mkd. ¼S5BT.

Corner located on top of spur, projecting NW., 25 ft. above draw.

August 12, 1915.

August 14, 1915; At 7h 35m, a. m., l. m. t., I set off 38° 3' N. on the lat. arc; 14° 36' 30" N. on the decl. arc, and determine a meridian with the solar.

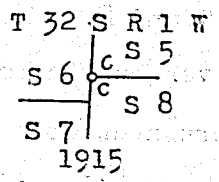
Desc. through dense cedar and piñon timber.

75.87	Intersect the Powell National Forest Boundary, N. 0° 3' W., 6.36 chs. from the National Forest Monument No. 137, which is

An iron post, 3 ins. diam., 2 ft. above ground, firmly set in mound of stone, witnessed and marked as described by the surveyor general. I destroy all mks. on cor. and accessories pertaining to secs. 5 and 8 and at point of intersection.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. bet. secs. 5 and 8,

Chains. with brass cap mkd.



from which

A piñon, 8 ins. diam., bears S. 71° E.,
33 lks. dist., mkd. T32SR1WS8CCBT.

A pinon, 12 ins. diam., bears N. 48° 30' E.,
70 lks. dist., mkd. T32SR1WS5CCBT.

Corner established 590 ft. below ¼ sec. cor.

Land, mountinous, drains NW.

Soil, light sandy loam, shallow and rocky, on rocky clay subsoil.

Timber, dense cedar and piñon and scattering yellow pine.

Undergrowth, sage, and buck brush and grass.

Fair grazing. Western exposure. Volcanic formation.

August 14, 1915.

Jos. C. Thoma

U. S. Surveyor.

August 12, 1915: At 8h 5m, a. m., l. m. t., I set off 38° 3' N. on the lat. arc; 15° 12' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence I run

N. 0° 3' W., on a random line bet. secs. 4 and 5.

40.00 Set temp. ¼ sec. cor.

70.00 Set temp. point.

August 12, 1915: Walking on line at noon, unable to observe for latitude.

August 12, 1915.

August 17, 1915.

73.44 Intersect the N. Bdy. of the Tp., 14 lks. E. of the cor. of secs. 4, 5, 32 and 33, heretofore described.

Thence

Chains.	
	S. 0° 9' E., on true line bet. secs. 4 and 5.
	Asc. gradually over rolling mountainous land, through dense cedar and piñon timber.
3.40	Spur, projects W., 25 ft. above sec. cor.; desc.
9.50	Hollow, drains W., 40 ft. below spur; asc.
13.40	Low spur, projects W., 40 ft. above hollow; desc. gradually.
33.44	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$$\begin{array}{c|c} \frac{1}{4} & \\ S\ 5 & S\ 4 \\ \hline 1915 & \end{array}$$

from which

A piñon, 12 ins. diam., bears S. 72° 45' E., 45 lks. dist., mkd. ¼S4BT.

A piñon, 9 ins. diam., bears S. 75° 15' W., 39 lks. dist., mkd. ¼S5BT.

Continue gradual desc.

48.40	Hollow, drains W., 30 ft. below ¼ sec. cor.; asc. gradually.
53.40	Leave dense cedar and piñon timber, bears E. and W.
73.44	The cor. of secs. 4, 5, 8 and 9, 30 ft. above hollow.

Land, rolling mountainous, draining W.

Soil, light sandy loam and rocky, 12 ins. deep, on rocky clay subsoil.

Timber, scattering yellow pine and dense cedar and piñon.

Undergrowth, sage brush andgrass.

Good grazing. Western exposure. Volcanic formation.

August 17, 1915.

August 5, 1915: At 2h 5m, p. m., l. m. t., I set off 37° 59' N. on the lat. arc; 17° 6' 30" N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp. heretofore described.

Thence I run

N. 0° 3' W., bet. secs. 31 and 32.

Chains	
	Desc. gradually over rough mountainous land, through dense cedar, piñon, and mahogany.
3.30	Draw, drains S. 70° W., heads approximately 25 chs. NE.; asc. abruptly.
11.70	Spur, projects W., approximately 10 chs., 100 ft. above draw; desc. gradually.
18.90	Draw, drains S. 60° W., 20 ft. below spur; heads approximately 23 chs. NE.; asc.
21.90	Enter sage brush undergrowth, bears NW. and SE.
37.00	Spur, projects W., 80 ft. above draw; desc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼ S 31	S 32

1915

from which

A cedar, 15 ins. diam., bears N. 3° 45' E., 158 lks. dist., mkd. ¼S32BT.

A yellow pine, 18 ins. diam., bears N. 38° 45' W., 226 lks. dist., mkd. ¼S31BT.

	Continue gradual desc.
71.80	Draw, drains NW., 140 ft. below ¼ sec. cor.; asc. grad.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 29, 30, 31 and 32, with brass cap mkd.

T 32 S R 1 W

S 30	S 29
S 31	S 32

1915

from which

A piñon, 20 ins. diam., bears N. 15° E., 53 lks. dist., mkd. T32SR1WS29BT.

A piñon, 8 ins. diam., bears S. 27° 45' E., 80 lks. dist., mkd. T32SR1WS32BT.

A piñon, 14 ins. diam., bears S. 44° 15' W., 56 lks. dist., mkd. T32SR1WS31BT.

A piñon, 13 ins. diam., bears N. 50° 45' W., 234 lks. dist., mkd. T32SR1WS30BT.

Chains.	
	Land, rough mountainous, drains NW. in the northern portion and SW. in the southern postion.
	Soil, light sandy loam, rocky and shallow, on rocky subsoil.
	Timber, cedar, piñon, and yellow pine.
	Undergrowth, buck and sage brush, and mahogany.
	Poor grazing. Western exposure. Volcanic fromation.
	August 5, 1915.

	August 6, 1915: At 8h 6m, a. m., l. m. t., I set off 38° N. on the lat. arc; 16° 54' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 29, 30, 31 and 32.
	Thence I run
	East, on random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. and S. line, 14 lks. N. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	N. 89° 54' W., on true line bet. secs. 29 and 32.
	Desc. over mountainous land, through dense spruce timber.
13.00	Old road in bottom of Center Creek Cañon, bears N. and S. 35° E.
13.30	Center Creek, 14 lks. wide, 10 ins. deep, clear water, course N. 25° W., 230 ft. below sec. cor. asc. abruptly.
18.40	Spur projects N., 120 ft. above creek. Leave dense timber, enter sage brush, bears N. and S.; desc.
20.00	Old road, bears N. and S. Hollow drains N., 20 ft. below spur; enter scattering spruce and aspen timber.
29.00	Ridge, bears N. and S., 120 ft. above hollow; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

Chains	
	$\frac{\frac{1}{4}}{S\ 29 / S\ 32}$
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Corner established 40 ft. below ridge. Continue desc.
65.60	Draw, drains N., 270 ft. below ¼ sec. cor.; asc.
70.30	Ridge, bears N. 35° W. and S., 160 ft. above draw; desc.
72.00	Enter dense cedar and piñon timber, bears N. and S.
80.00	The cor. of secs. 29, 30, 31 and 32, 160 ft. below ridge
	Land, rolling mountainous, drains Northwesterly.
	Soil, light sandy loam, rocky approximately 2 ft. deep in W. 60 chs/, shallow in the E. 20 chs. on rocky subsoil.
	Timber, spruce, aspen in the eastern portion and cedar and piñon in the western portion.
	Undergrowth, sage brush and grass.
	Poor grazing. Western exposure. Volcanic formation.
	August 6, 1915: Cloudy at noon.
	August 6, 1915.

	August 14, 1915: 10h 5m, a. m., l. m. t., I set off 38° N. on the lat. arc; 14° 34' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.
	Thence I run
	West, on true line, bet secs. 30 and 31, knowing that a closing cor. will be necessary on the W. bdy. of the township.
	Desc. abruptly over rough mountainous land, through dense cedar and piñon and scattering yellow pine and spruce timber.
7.60	Draw, drains NW. approximately 13 chs., thence N. 70° W., 120 ft. below sec. cor.; asc. gradually.

Chains.	
12.40	Spur, projects N.35° W., 15 ft. above draw.
	Descend.
28.70	Begin abrupt descent, bearing N. and S., 200 ft. below spur.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 10 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.
	$\frac{1}{4}$ S 30 / S 31 / 1915
	from which
	A pinon pine, 10 ins. dia., bears N.80° 45'E. 103 lks. dist., mkd. ¼ S 30 B T
	A pinon pine, 40 ins. diam., bears S.47° W. 166 lks. dist., mkd. ¼ S 31 B T
	Corner 240 ft. below beginning of abrupt descent.
52.10	Base of abrupt descent, bearing N. and S., 195 ft. below ¼ sec. cor.
	Descend gradually.
	Leave timber, bearing N. and S.
58.80	Creek, 6 lks. wide, 5 ins. deep, clear water, course N., 40 ft, below base of abrupt descent.
	Ascend gradually.
63.20	Road, Coyoto to Riddle Lake, bears N. and S.30° W.
71.70	Small draw, drains E.
	Ascend along draw; through cedar and pinon pine timber.
74.05	Intersect W. bdy. of Tp. or the Powell National Forest Reserve boundary, 6.51 chs. N.0° 9'W. of the old cor. of secs. 25, 30, 31, and 36, heretofore described.
	I destroy all marks on this corner and on boundary post No. 142 that pertain to secs. 30 and 31; and, as my point of intersection falls in a draw, where it is impracticable to establish the closing corner for secs. 30 and 31 on line between these sections within a distance of approximately 8.00 chs.; therefore, I set a witness

Chains.

closing corner N.0° 9'W.6.31 chs. from the old cor. of secs. 25, 30, 31, and 36, or S.0° 9'E.20 lks. from the true point for the closing corner, as follows:

Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground, for witness closing cor. of secs. 30 and 31, with brass cap marked

```
        T 32 S
R 2 W      R 1 W
 S 25 |     S 30
      |C
      |C
      WC
      |     S 31
 S 36 |
      1915
```

from which

A pinon pine, 8 ins. dia., bears N.18° E. 88 lks. dist., marked T32SR1WS30WCCCBT

A pinon pine, 12 ins. diam., bears S.15°30'E.27 lks. dist., marked T32SR1WS31WCCCBT

Corner established 90 ft. above creek.

Land, rolling, mountainous; drainage NW.

Soil, light, sandy, loam, rocky and shallow, except in hollows, where it is from 2 to 3 ft. deep, on rocky subsoil,. Volcanic formation. Western exposure.

Undergrowth, sagebrush and some grass. Poor grazing.

Timber, cedar, pinon pine and scattering spruce.

August 14, 1915: Cloudy at noon, observation for lat. impossible.

August 14, 1915.

August 6, 1915:

N.0°3'W. bet. secs. 29 and 30,

Ascending gradually over rolling mountainous land; through dense cedar and pinon pine, and scattering yellow pine.

5.00 Spur, projects S.60° W.4.00 chs. Descend.

11.50 Head of draw, drains SW., 40 ft. below spur; ascend.

24.90 Ridge, bears N.35°W. and SE., 65 ft. above draw. Desc. gradually

40.00 Set an iron post 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of earth and stone

Chains. for ¼ sec. cor., with brass cap mkd.

S ¼ 30 | S 29
1915

from which

A piñon, 10 ins. diam., bears S. 84° E., 200 lks. dist., mkd. ¼S29BT.

A pinon, 12 ins. diam., bears N. 70° W., 43 lks. dist., mkd. ¼S30BT.

August 6, 1915.

Jos. B. Clark.

U. S. Transitman.

August 10, 1915: At 8h 5m, a. m., l. m. t., I set off 38° N. on the lat. arc; 15° 47' 30" N. on the decl. arc, and determine a meridian with the solar.

N. 0° 3' W., from ¼ sec. cor. with continuous measurement.

Desc. gradually over rolling mountainous land, through cedar, piñon and scattering yellow pine timber.

73.17 Intersect the S. bdy. of secs 19, or the Powell National Forrst Bdy., 3.74 chs. W. of Forest Bdy. Mon. No. 140, which is

An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. I destroy allmarks pertaining to sections, 29 and 30, and at point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the closing cor. of secs. 29 and 30, with brass cap mkd.

T 32 S R 1 W

S 19 |

S 30 C|C S 29
1915

from which

A yellow pine, 24 ins. diam., bears S. 53° 30' W., 116 lks. dist., mkd. T32SR1WS30CCBT.

A piñon, 10 ins. diam., bears S. 22° 30' E., 156 lks. dist., mkd. T32SR1WS29CCBT.

Chains.	
	Land, rolling mountainous, drains NW.
	Soil, light yellow gravel, 2 to 3 ft, deep, with rock close to the surface in places.
	Timber, cedar, piñon and scattering yellow pine.
	Undergrowth, sage brush and grass.
	Fair grazing. Western exposure. Volcanic formation.
	August 10, 1915.

	Note: The lines bet. secs. 19 and 30, 19 and 20, 17 and 18, 7 and 8, and 5 and 6, being the Boundary of the Powell National Forest, were not run under this assignment.

	August 17, 1915:
	I proceed to the Forest Bdy. post No. 139, heretofore described. Which is a W.C. 43 lks. N. 89° 59' W. of true corner point. Thence I run
	West, on random line bet. secs. 18 and 19, from true cor.
40.00	Set temp. ¼ sec. cor.
78.05	Fall 2 lks. N. of the cor. of secs. 13, 18, 19 and 24, previously described.
	N. 89° 59' E., on true line bet. secs. 18 and 19.
	Asc. gradually over cultivated land.
20.43	Barbed wire fence, bears N. and S. E. bdy. of Wm. Gleaves' field.
21.75	County Road, Coyoto to Winder, bears N. and S.; asc.
	Enter dense cedar and piñon timber.
38.05	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	¼ S 18 / S 19
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Corner established 90 ft. above road.

Chains.	
73.60	Top of ascent, bearing NW. and SE., 305 ft. above ¼ sec. cor.
	Descend.
78.05	The true point for boundary monument post No.139, or the cor. of secs. 18 and 19.
	Land, rough mountainous in the eastern portion; gently rolling in the western portion.
	Soil, rocky and gravelly; shallow in the eastern portion; dark, alluvial, sandy loam, more than 2 ft. deep, in the western portion.
	Timber, dense cedar and pinon pine.
	Undergrowth, scattering service brush and grass in the eastern portion. Cultivated land in the western portion.
	Fair grazing. Western exposure. Volcanic formation.
	August 17, 1915: Cloudy at noon, unable to observe the sun for lat. August 17, 1915.
	August 14, 1915:
	S.39°59'W. on random line bet. secs. 7 and 18, from Forest Reserve Bdy. Post No.138.
40.00	Set temp. ¼ sec. cor.
78.61	Intersect W. bdy. of Tp. 24 lks. N. of cor. of secs. 7, 12, 13, and 18, heretofore described. Thence
	N.89° 40'E. on true line bet. secs. 7 and 18,
	Descend gradually over gently rolling field.
10.80	Irrigation ditch, 5 lks. wide, 6 ins. deep, course NW.
	Enter cultivated land.
13.70	Irrigation ditch, 10 lks. wide, 6 ins. deep, course N.
22.30	Stake and rider fence, bears N. and S.; leave cultivated land; enter sagebrush and greasewood undergrowth.
25.40	County road, Coyoto to Winder, bears N. and S.
31.60	Irrigation ditch, 10 lks. wide, 16 ins. deep, course N.
	Ascend, through scattering cedar and pinon pine timber.
38.61	Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the

Chains.	
	ground, on solid rock, in mound of stone, for $\frac{1}{4}$ sec.cor. with brass cap marked
	$\frac{1}{4}$ S 7 / S 18
	1915
	Raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor.
	No trees within reasonable distance suitable for bearing trees.
	Walter Gleaves' ranch house bears S.52° 50'W.
50.90	Walter Gleaves' ranch house bears S.65° W.
78.61	The cor.of secs.7 and 18, or the Forest Reserve boundary post No.138, 300 ft.above $\frac{1}{4}$ sec.cor.
	Land, rolling; mountainous in the eastern postion; gently rolling bottom land in the western portion.
	Soil, light gravel and rocky, shallow, on rocky subsoil.
	Undergrowth, sagebrush and bunch grass.
	Good grazing. Western exposure. Volcanic formation.
	Timber, scattering cedar and pinon pine.
	August 14, 1915.
	August 16, 1915: At 8h 34m a.m.l.m.t., I set off 38° 3'N. on the lat.arc; 13° 58'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.6 and 7 or Forest Reserve boundary post No.137.Thence I run S.89°49'W.on random line bet.secs.6 and 7,
40.00	Set temp.$\frac{1}{4}$ sec.cor.
78.73	Intersect the W.bdy.of the Tp., 7 lks.S.of the cor.of secs.1,6,7, and 12,heretofore described. Thence N.89° 52'E.on true line bet.secs.6 and 7,
	Ascending gradually over rolling land; through sagebrush undergrowth.
18.80	Road, Coyoto to Winder, bears N.and S.
23.80	Road, Coyoto to Griffen Springs, bears NW. and SE.
28.80	Begin ascent, bears N.and S.; enter dense cedar and pinon pine timber.

Chains.

38.73 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

$\frac{S\ \overset{\frac{1}{4}}{6}}{S\ 7}$

1915 from which

A piñon, 12 ins. diam., bears S. 21° W., 86 lks. dist., mkd. ¼S7BT.

A cedar, 24 ins. diam., bears N. 13° 30' W., 20 lks. dist., mkd. ¼S6BT.

Corner established 65 ft. above beginning of asc.

Continue asc. through dense cedar and piñon timber.

78.73 The cor. of secs. 6 and 7 or Forest Bdy. Post No. 137, 270 ft. above ¼ sec. cor.

Land, rolling mountainous, drains NW.

Soil, light gravel and rocky, more than 2 ft. deep, on rocky light clay subsoil.

Timber, dense cedar and piñon in the eastern portion.

Undergrowth, sage and buck brush, bunch grass and yellow top.

Good grazing. Western exposure. Volcanic formation.

August 16, 1915.

U. S. Surveyor.

GENERAL DESCRIPTION.

This township is mostly rough mountainous land, the eastern portion lying on top of what is locally known as the East Mountain, the top of which is know as Griffen Top, especially in the SE. portion of the Tp. The remaining portion lying on the side or west slope of the mountain is more or less broken by ridges, spurs and ravines projecting in a westerly direction from the main top.

Chains.	
	The soil is mostly a light rocky sandy loam and gravel, and in most places shallow, and in many places on a light yellow clay subsoil, which, like the surface, is very rocky, and not well adapted for cultivation.
	Center or Crystal Creek flows northwesterly through the southwest quarter of the township, which supplies good water in abundance for the Gleave's ranches located in Secs. 7, 18 and 19. A small creek from Grass Lake flows northwesterly through Secs. 34 and 27 and sinks after leaving Sec. 21. Antimony, or Coyoto Creek flows in a northwesterly direction through the extreme northeastern portion of the township. These creeks constitute all the water within the bounds of this township.
	The township is covered with a dense growth of spruce, aspen, yellow pine, cedar and pinon timber. Much yellow pine having been cut, especially in the fourth and fifth ranges of secs. The remains of an old saw mill was found in Sec. 20. Dense cedar, piñnn and mountain mahogany is found principally in the fourth and fifth ranges of sections.
	The entire township lies entirely on the Sevier water shed, draining in a northwesterly direction into the East Fork of the Sevier River.
	This township can be reached by wagon over a typical mountain road, rough and steep in places. The forks of the Griffen Springs road and the main county road from Coyoto to Winder, in Sec. 6, is 7 miles south of Coyoto.
	Wm. Walter Gleave's ranch in Sec. 18, consists of approximately 160 acres of cultivated land in this township, raising wild hay, alfalfa and oats. The improvements consist of a one story frame dwelling, barn, sheds, corrals and fence with an approximate value of $1000.

Subdivision of T. 32 S., R. 1 W.

Robert B. Gleave's claim in Sec. 19, consists of approximately 80 acres in this township. Alfalfa and oats being the principal crops. The impnovements consist of a log dwelling, bran, sheds, corrals and fence, with an approximate value of $500

Cattle raising is the principl industry, the land to the east affording excellent grazing.

Thomas Wilbur Roberts' claim in Sec. 18 has been abandoned.

I noticed no indication of oil or mineral in this township.

Jos. C. Thoma

U. S. Surveyor.

Jos. C. Clark

U. S. Transitman.

For oaths of U. S. Surveyor and U. S. Transitman, and certificates of assistants, see Book of Subdivision of T. 31 S., R. 1 W., this Group, (Book "M").

For table of latitudes, departures and closing errors, see Book of boundaries of this township, (Book "A^2").

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Page

4—080

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificates of assistants see book "M" T.31 S., R.1 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—770

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursua
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and tru
in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi
Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of Jos. C. Thoma, U.S. Surveyor and Jos. C. Clark, U.S. Transitman, see book "M" T. 31 S., R. 1 W.

..... of the .....
..... Meridian, in the State of ....., which are represented
the foregoing field notes as having been executed by me, and under my direction; and I do furth
solemnly swear that all the corners of said survey have been established and perpetuated in strict accor
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey
General for ..... and in the specific manner described in the field notes, and th
the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 191 7.

The foregoing field notes of the ~~survey of~~ retracement of west and part of north boundaries and survey of the subdivision of Township No. 32 South, Range No. 1 West of the Salt Lake Base and Meridian, Utah,

executed by Jos. C. Thoma and Jos. C. Clark
under his special instructions dated special instructions dated July 9 June 11, 1913 and supplemental, 1913, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

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BOOK A-419

M.

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT OF PART OF WEST BOUNDARY,

TOWNSHIP NO.31 SOUTH, RANGE NO.1 WEST,

RETRACEMENT OF PART OF SIXTH STANDARD PARALLEL SOUTH,

THROUGH RANGE NO.1 WEST,

AND

SURVEY OF THE SUBDIVISION

O F

TOWNSHIP NO.31 SOUTH, RANGE NO.1 WEST,

Of the SALT LAKE BASE AND *Meridian,*

the State of U T A H

EXECUTED BY

JOS. C. THOMA AND JOS. C. CLARK

the capacity of U. S. Surveyor and U.S.Transitman, *under instructions dated* June 11 and July 9, *1913,*

ued by the United States Surveyor General to govern surveys included in

oup No. 24, *which were approved by the Commissioner of the General Land*

ce, July 19, *1913.*

Survey commenced August 17, *1915*

Survey completed September 22, *1915.*

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BOOK A-419

INDEX DIAGRAM.

Township 31 South, *Range* 1 West

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POWELL NATIONAL FOREST BOUNDARY

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INDEX DIAGRAM.

Township 31 S, Range 1 W

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466												
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Boundary of Powell National Forest

21

6—4817

Retracements on the W. bdy. of T. 31 S., R. 1 W.

Chains.	
	Survey commenced August 17, 1915, and executed with Buff & Buff light mountain transit No. 9218, and Young & Sons light mountain transit No. 8535, both transits having Smith solar attachments. For description and approval of transits see Book of Subdivision of T. 33 S., R. 1 W.
	Measurements were made by using five-chain Lallie steel tapes, with clinometers for determining slopes.
	I examine the adjustments of the transits and find them correct; then, to test the solar apparatus, by comparing their 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:
	August 22, 1915: At the cor. of Ts. 31 and 32 S., Rs. 1 E. and 1 W., on the Salt Lake Principal Meridian, I set off 38° 4' N. on the lat. arc; 12° 2' N. on the decl. arc, and at 8h. a. m., app. t., determine a meridian with the solar, which coincides with the meridian as determined by Polaris observations. (For Polaris observation, see notes of the Salt Lake Principal Meridian.)
	August 22, At apparent noon I set off 11° 58' N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 38° 4' N.
	August 22, At the same station, I set off 38° 4' N. on the lat. arc; 11° 56' N. on the decl. arc, and at 3 h. p. m., app. t., determine a meridian with the solar, the meridian thus determined coincides with the meridian as determined by Polaris observations.
	I therefore conclude that the adjustments of the Buff & Buff transit are satisfactory.
	I test the Young & Sons instrument on the same meridian, at the same hours, a. m. and p. m., using the latitude and declination arc settings as recorded in the tests of the Buff & Buff transit, and find the meridian thus determined to coincide with the meridian as obtained

Chains | by Polaris observations.

August 22, 1915.

A correction of the tabulated refractions was allowed in the decl. arc settings for 10000 ft. elevation in the east half and for 8000 ft. elevation in the west half of the township.

September 16, 1915: At 8h, a. m., app. t., I set off 38° 6' 30" N. on the lat. arc; 2° 55' 30" N. on the decl. arc, and determine a meridian with the solar at the old cor. of secs. 19, 24, 25 and 30, which is

A granite, 6x8x6 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.

Thence I run

South, retracing the line bet. secs. 25 and 30.

Desc. gradually over cultivated land, along rail fence.

10.00 Antimony or Coyoto Cañon bottom land, 20 ft. below old sec. cor., bears N. 80° E. and W., continue over cultivated land.

11.15 Antimony or Coyoto Creek, 25 lks. wide, 1½ ft. deep, water clear, course N. 75° W. Cotton wood timber along banks.

20.00 Rail fence, bears N. 75° E. and W. Leave cañon bottom and cultivated land, asc. abruptly over N. slope of ridge, through scattering cedar and piñon timber and sage brush undergrowth.

27.50 Top of abrupt asc., bears E. and W., 240 ft. above creek; asc. gradually.

37.00 Ridge, bears E. and W., 55 ft. above top of abrupt asc.; desc.

39.55 Fall 153 lks. W. of the old ¼ sec. cor., which is

A granite, 12x9x7 ins. above ground, firmly set., mkd. and witnessed as described by the surveyor general.

The bearing of this half mile is therefore S. 2° 13' E., and the dist. is 39.58 chs.

Chains	
	I return to the cor. of secs. 19, 24, 25 and 30, heretofore described and run
	North, retracing line bet. secs. 19 and 24.
	Asc. gradually over nearly level land, along fence.
23.20	Levi King's log cabin, 15x30 ft., bears E. 58 lks. dist.
24.20	Irrigation ditch, course SW.
24.30	A granary, 15x15 ft., bears E., 129 lks. Stock yard and corral bears N. 70° E., 129 lks. dist.
26.90	Wire fence, bears N. 70° E. and S. 70° W.
39.20	Irrigation ditch, course NW.
40.00	Road, Coyoto to Antimony Cañon, bears N.70°E. and S. 70° W.
40.36	Fall 106 lks. E. of the ¼ sec. cor., which is
	A granite, 7x6x3 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The bearing of this half mile is therefore N. 1° 30' W., and the distance is 40.37 chs.
	Offset over old ¼ sec. cor. and continue North on retracement.
16.00	Same road, bears N.20°W., 7 chs., thence N.70°W. and S.20°E.
18.00	Low ridge, bears NE. and SW.; desc.
30.00	Draw, drains SW.; asc.
40.28	Fall 100 lks. E. of the cor. of secs. 13, 18, 19, and 24, which is
	A granite, 8x8x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The bearing of this half mile is therefore N. 1° 25' W., and the distance is 40.30 chs.
	Land, gently rolling.
	Soil, light red sandy loam and rocky clay, 2 ft deep, on rocky clay subsoil.
	Timber, none.
	Undergrowth, rabbit brush, yellow top and black sage.
	Poor grazing. Southern exposure.
	September 16, 1915.

	September 10, 1915: Cloudy, unable to take solar observation. I deflect an angle from the line bet. secs. 18 and 19, and run
	North, on retracement bet. secs. 13 and 18, from the old

Chains.	
	cor. of secs. 13, 18, 19 and 24.
	Asc.over rolling land,through short yellow top undergrowt
5.00	Spur, projects SW.; desc.
14.50	Draw, drains S. 60° W., asc.
20.00	Spur, projects S. 60° W., 35 ft. above draw; desc.
27.00	Head of draw, drains SW.; asc.
40.57	Spur, projects S. 60° W., 160 ft. above draw.
	Fall 109 lks. E: of the old ¼ sec. cor., which is
	A sandstone, 10x10x7 ins. above ground; firmly set, mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore N. 1° 32' W.; and the distance is 40.58 chs.
	September 10, 1915.
	September 18,1915: At 9h, a. m., app. t.,Iset off 38° 7' N. on the lat.arc;2°8'N.on the decl.arc,and determine a meridian with the solar at the ¼ sec.cor. and run North on retracement.
	Desc.over rolling land,through sage brush undergrowth.
7.00	Draw, drains SW.; asc.
19.90	Wood road,bears NE. and SW.
29.80	Spur,projects SW.,185 ft. above draw,enter dense cedar and piñon timber, bears NE. and SW.
39.70	Draw, drains SW., 95 ft. below spur; asc.
40.00	After diligent search, find no evidence of the old cor. of secs. 7, 12, 13 and 18. I restore the cor. at this point by setting
	An iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the cor. of secs. 12 and 13,T31S.,R.2W., with brass cap mkd.

T31S
R 2 W
S 12 | S 13
1915

from which

A cedar, 14 ins. diam., bears S. 50° 45' W., 18 lks. dist., mkd. T31SR2WS13BT.

A piñon, 10 ins. diam., bears N. 50° 45' W., 39 lks. dist., mkd. T31SR2WS12BT.

Land, rolling mountainous. Soil, rocky and shallow.

Chains	
	Timber, cedar and piñon. Undergrowth, sage brush.
	Poor grazing. Western exposure.
	September 18, 1915.
	Jos. C. Thoma
	U. S. Surveyor.

	Retracement of the Sixth Standard Parallel South.
	September 21; I set off 38°10' on the lat.arc;58' N.on the decl.arc,and at 9h a.m.,app.t.determine a meridian with the solar at the cor.of secs. 32 and 33,T.30 S.,R.1 W.
	Thence I run
	West,retracing the 6th Std.Par.S.,along S.bdy.of sec.32.
	Desc. over mountainous land, through dense cedar and piñon timber, mohogany and sage brush undergrowth.
21.30	Draw, drains N. 35° W., 225 ft. below sec. cor.; asc.
24.10	Spur, projects N. 35° W., 60 ft. above draw, desc.abruptly.
	September 21, I set off 55' N.on the decl.arc,and at appt. noon,observe the sun on the meridian,the resulting lat. is 38° 10' 30" N.
39.16	Fall 4 lks. N.of the witness std.¼ sec.cor.,which is
	A trachyte, 15x4x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.
	The course of this half mile is therefore S.89° 57' W., and the true dist. is 39.76 chs. (The witness std. ¼ sec. cor. being 60 lks. E. of the true point.)
	Offset over witness cor. and run
	West, retracing the W. half on S. bdy. sec. 32.
2.60	Dry wash in cañon, 35 lks. wide, 4 ft. deep, 65 ft. below ¼ sec. cor., drains SW.; asc. gradually.
7.60	Start abrupt asc., bears N. and S.
21.60	Spur, projects S., 155 ft. above cañon; desc.
24.00	Fall 4 lks. N. of the closing cor. bet. secs. 5 and 6, T. 31 S., R. 1 W., which is
	An iron post, 2 ins. diam., 12 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general. Cor. established 35 ft. below spur.
27.40	Ravine, drains S., 105 ft. below closing cor.; asc.
40.19	Fall 4 lks. N. of the std. cor. of secs. 31 and 32,which is

Chains. A trachyte, 10x9x7 ins. above ground, firmly set., mkd. and witnessed as described by the surveyor general.

The bearing of this half mile is therefore, S. 89° 57' W. and the dist. is 39.59 chs.

Land, rough and rolling mountainous, drains SW.

Soil, light sandy clay, shallow and rocky, 18 ins. to 2 ft. deep in cañon, on rocky subsoil.

Timber, dense cedar and piñon, scattering yellow pine and spruce, cottonwood and birch along banks of wash.

Undergrowth, buck, service and sage brush, mohogany and gras

Good grazing. Southeastern exposure. Volcanic formation.

September 21, 1915

Jos. C. Clark

U. S. Transitman.

Subdivision of T. 31 S., R. 1 W.

August 24, 1915: At 8h, a.m., app.t., I set off 38°4' on the la arc; 11°22' N. on the decl. arc, and determine a meridian wi the solar at cor. of secs. 1, 2, 35 and 36, on S. bdy. of Tp. heretofore described.

Thence I run

N. 0° 1' W., bet. secs. 35 and 36.

Over rolling mountainous land, along W. slope of Antimony Cañon, through sage brush and yellow top undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 35 | S 36
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

51.20 Spur, projects E., 70 ft. above ¼ sec. cor.; desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 25, 26, 35 and 36, with brass cap mkd.

T 31 S R 1 W
S 26 | S 25
S 35 | S 36
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, rolling mountainous, drains E.

Soil, gravel, shallow, on rocky hard clay subsoil.

Timber, scattering clusters of aspen.

Undergrowth, yellow top, sage brush and grass. Good grazing.

Chains.	
	East, on random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
80.03	Intersect the E. bdy. of the tp., 6.72 chs. S. of the cor. of secs. 30 and 31, T. 31 S., R. 1 E., heretofore described.
	At point of intersection
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. for secs. 25 and 36, with brass cap mkd:

T 31 S
R 1 W | R 1 E
S 30
S 25 | S 31
S 36
1915

	Dig pits, 24x18x12 ins. cross wise on each line, N. and S., 3 ft. dist., and W. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
	Thence
	West, on true line bet. secs. 25 and 36.
	Desc. gradually over rolling mountainous land, through short sage and yellow top.
5.20	East edge of Antimony Cañon, bears S. and NW.; desc. abruptly.
40.01½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

¼
S 25
S 36
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Corner established 210 ft. below E. edge of Antimony Cañon. Continue desc.
68.40	Antimony Creek, 30 lks. wide, 8 ins. deep, good clear water, course NW.; 270 ft. below ¼ sec. cor.; asc.
80.03	The cor. of secs. 25, 26, 35 and 36, 110 ft. above Antimony Creek.
	August 24, 1915: Cloudy at noon, unable to observe the sun for latitude.

Chains	
	Land, rolling mountainous.
	Soil, light gravel, 2 to 3 ft. deep, on rocky light clay subsoil.
	Timber, scattering clusters of dense aspen; dense spruce along Antimony Creek.
	Undergrowth, short sage, yellow top and bunch grass.
	Good grazing. Western exposure. Volcanic formation.
	August 24, 1915.

August 25, 1915: At 8h, a. m., apparent t., I set off 38° 5' N. on the lat. arc; 11° 1' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence I run

N. 0° 1' W., bet. secs. 25 and 26.

Asc. gradually over rolling mountainous land, along W. slope of Antimony Cañon.

8.40	Draw, drains NE., 75 ft. below sec. cor., asc.
13.70	Spur, projects E., 80 ft. above draw; desc.
24.90	Enter dense aspen and spruce timber, bears NW. and SE.
29.90	Start abrupt desc., bears NW. and SE., over ledge.
32.60	Antimony Creek, 30 lks. wide, 8 ins. deep, clear water, course NW., 155 ft. below top of spur; asc.
35.20	Rocky spur, projects W., 110 ft. above Creek; desc.
38.20	Antimony Creek, course NE., 140 ft. below rocky spur; asc.
40.00	Point for ¼ sec. cor. falls on ledge on N. slope of Antimony Canon, impossible to set cor.
41.50	Top of steep asc. and N. edge of Antimony Cañon, bears NE. and SW., 140 ft. above Creek. Leave dense aspen and spruce timber, bears NE. and SW.

Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on top ledge, 30 ft. high, in mound of stone, for witness ¼ sec. cor., with brass cap mkd.

T 31 S R 1 W

¼ S 26 WBC S 25

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains.	
51.50	Spur projects E., 35 ft. above WC. ¼ sec. cor.; desc.
60.20	Start sharp desc. into Antimony Creek, bears NW. and SE.; enter dense aspen, spruce, cedar and piñon timber.
67.40	Antimony Creek, course NW., 365 ft. below spur; asc. steep rocky slope through dense mahogany.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 23, 24, 25 and 26, with brass cap mkd.

T 31 S R 1 W

S 23	S 24
S 26	S 25

1915

from which

A cedar, 14 ins. diam., bears N. 35° E., 63 lks. dist., mkd. T31SR1WS24BT.

A cedar, 8 ins. diam., bears S. 74° 30' E., 39 lks. dist., mkd. T31SR1WS25BT.

A yellow pine, 12 ins. diam., bears S. 83° W., 47 lks. dist., mkd. T31SR1WS26BT.

A mahogany, 8 ins. diam., bears N. 53° W., 48 lks. dist., mkd. T31SR1WS23BT.

Corner established on spur projecting W., 260 ft. above Antimony Creek.

Land, mountainous.

Soil, light rocky gravel, shallow, on rocky clay subsoil.

Timber, aspen, spruce, cedar, piñon and yellow pine.

Undergrowth, mahogany, sage brush, yellow top, and bunch grass. Dense willows, birch and wild raspberries in cañon bottom.

Good grazing. Eastern exposure. Volcanic formation.

August 25, 1915: I set off 10° 57' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 6' N.

	East, on random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.05	Intersect the E. bdy. of the Tp., 6.78 chs. S. of the

Subdivision of T. 31 S., R. 1 W.

Chains. cor. of secs. 19 and 30, T. 31 S., R. 1 E., heretofore described.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. of secs. 24 and 25, with brass cap mkd.

T 31 S
R 1 W | R 1 E
S 19
S 24 C
C S 30
S 25
1915

from which

An aspen, 10 ins. diam., bears N. 74° W., 59 lks. dist., mkd. T31SR1WS24BT.

An aspen, 10 ins. diam., bears S. 52° 30' W., 47 lks. dist., mkd. T31SR1WS25BT.

Thence

West, on true line bet. secs. 24 and 25.

Desc. over rolling mountainous land, through dense aspen and scattering spruce timber.

8.50 Leave dense, enter scattering aspen and spruce timber, bears N. and S.

20.40 Draw, drains NW., 125 ft. below closing cor.; asc.

25.40 Ridge, bears NW. and SE., 20 ft. above draw; leave scattering aspen and spruce timber, bears NW. and SE., enter sage brush undergrowth. Desc. gradually.

40.02½ Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 24
S 25

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Corner established 210 ft. below ridge.; continue desc.

46.30 Rocky draw, drains NW., 135 ft. below ¼ sec. cor.; asc.

64.50 Top of asc., bears N. and S., 140 ft. above rocky draw; desc.

80.05 The cor. of secs. 23, 24, 25 and 26, 195 ft. below top of asc.

Land, rolling mountainous.

Chains.	
	Soil, light gravel and rocky, 2 to 3 ft. deep, on rocky light clay subsoil.
	Timber, aspen, spruce, cedar and piñon.
	Undergrowth, mahogany, sage brush and bunch grass.
	Good grazing. Western exposure. Volcanic formation.
	August 25, 1915.

	August 26, 1915: At 8h 30m, a. m., app. t., I set off 38° 6' N. on the lat. arc; 10° 40' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 23, 24, 25 and 26.
	Thence I run
	N. 0° 1' W., bet. secs. 23 and 24.
	Desc. gradually over mountainous land, through dense cedar, piñon and mohogany.
2.50	Start abrupt desc. over rocky slope, bears E. and W.
9.60	Rocky draw, drains NW., 230 ft. below top of abrupt desc.; asc. over steep rocky slope. Leave dense timber, bears NW. and SE., enter scattering cedar and piñon.
20.60	Top of spur, projects W. 1 ch., 385 ft. above draw; desc. over steep rocky slope and ledge 250 ft. high.
29.30	Draw, drains W., 310 ft. below spur; asc.
38.00	Top of steep asc., bears E. and W., 320 ft. above draw; desc. along rocky slope of draw.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 23 | S 24
	1915
	from which
	A yellow pine, 12 ins. diam., bears N. 55° E., 53 lks. dist., mkd. ¼S24BT.
	Raise a mound, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance suitable for bearing trees.

Chains	
	August 26, 1915: Cloudy at noon, unable to observe the sun for latitude.
43.90	Top of rocky knoll, bears NW. and SE., 35 ft. above ¼ sec cor.; desc. along very steep rocky NW. slope, through dense cedar, piñon, yellow pine and mohogany.
59.10	Draw, 10 lks. wide, drains W., 260 ft. below knoll. A sho ledge, 150 ft. high, bears N. and S. Spring of clear cool water at bottom of ledge on S. side of draw; ledge bears E. and W. Asc. over rough SW. slope of ridge, over large boulders and outcropping of conglomerate rock.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 13, 14, 23 and 24, with brass cap mkd.

T 31 S R 1 W

S 14	S 13
S 23	S 24

1915 from which

A cedar, 8 ins. diam., bears N. 6° E., 29 lks. dist., mkd. T31SR1WS13BT.

A pinon, 18 ins. diam., bears S. 81° E., 11 lks. dist., mkd. T31SR1WS24BT.

A pinon, 10 ins. diam., bears S. 14° 30' W., 65 lks. dist., mkd. T31SR1WS23BT.

A pinon, 12 ins. diam., bears N. 74° W., 42 lks. dist., mkd. T31SR1WS14BT.

Corner established 200 ft. above draw.

Land, rough mountainous.

Soil, light dry sandy loam, very rocky and covered with large boulders, shallow, on rocky clay subsoil.

Timber, cedar, piñon and yellow pine.

Undergrowth, sage brush and bunch grass.

Fair grazing. Western exposure. Volcanic formation.

East, on random line bet. secs. 13 and 24.

40.00	Set temp. ¼ sec. cor.

Chains	
79.95	Intersect the E. bdy. of the Tp., 6.75 chs. S. of the cor. of secs. 18 and 19, T. 31 S., R. 1 E., heretofore described.
	At point of intersection, I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 13 and 24, with brass cap mkd.

T 31 S
R. 1 W. R. 1 E
S 18
S 13 C
C
S 19
S 24
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	West, on true line bet. secs. 13 and 24.
	Desc. gradually over nearly level mountain top, through short sage and yellow top.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

¼
S 13
S 24
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.80	Edge of mountain top and ledge 150 ft. high, bears N. and S.; desc. abruptly over rough broken slope, through dense cedar and piñon timber.
79.95	The cor. of secs. 13, 14, 23 and 24, 1100 ft. below top of ledge.
	West half.
	Land, rough, broken mountainous.
	Soil, rocky blue clay with numerous conglomerate rock outcroppings, shallow.
	Timber, dense cedar and piñon.
	Undergrowth, mahogany. No grazing.
	East half.
	Land, gently rolling mountain top.

Chains.	
	Soil, light gravel and covered with large malapai boulders shallow, on light red clay subsoil.
	Timber, scattering clusters of aspen.
	Undergrowth, sage brush and bunch grass.
	Good grazing. Western exposure. Volcanic formation.
	August 26, 1915.

	August 27, 1915: At 8h, a. m., app. t., I set off 38° 7' N. on the lat. arc; 10° 20' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 13, 14, 23 and 24.
	Thence I run
	N. 0° 1' W., bet. secs. 13 and 14.
	Asc. over broken mountainous land, over NE. slope of Antimony Cañon, through dense cedar, piñon, yellow pine and mahogany.
	August 27, 1915: Walking on line at noon, unable to observe the sun for latitude.
25.40	Spur, projects W., 790 ft. above sec. cor. Continue along steep east slope of draw.
28.90	Draw, drains W., 160 ft. below spur; asc.
34.30	Top of asc., bears E. and W., 155 ft. above draw,; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 14 | S 13
	1915 from which
	A spruce, 10 ins. diam., bears S. 74° E., 13 lks. dist., mkd. ¼S13BT.
	A mahogany, 8 ins. diam., bears S. 33° W., 49 lks. dist., mkd. ¼S14BT.
	Continue along broken E. slope of draw. Leave dense timber, bears E. and W., enter scattering cedar and piñon.
54.80	Draw, drains W., 100 ft. below top of asc.; asc.
65.40	Spur, projects W., 200 ft. above draw; desc.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 11, 12, 13 and 14, with brass cap mkd.

T 31 S R 1 W

S 11	S 12
S 14	S 13

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, mountainous.

Soil, rocky and light gravel, 2 to 3 ft. deep, on rocky hard light yellow clay subsoil.

Timber, cedar and piñon.

Undergrowth, mahogany, sage and bunch grass.

Good grazing. Western exposure. Volcanic formation.

East, on random line bet. secs. 12 and 13.

40.00	Set temp. ¼ sec. cor.
79.93	Intersect the E. bdy. of the Tp., 6.78 chs. S. of the cor. of secs. 7 and 18, T. 31 S., R. 1 E., heretofore described.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the closing cor. for secs. 12 and 13, with brass cap mkd.

T 31 S

R 1 W	R 1 E
S 12	S 7
S 13	S 18

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Thence

West, on true line bet. secs. 12 and 13.

Asc. gradually over rolling mountain top through short sage, yellow top and grass.

3.60	Top of gradual asc., bears NW. and SE.; desc.
13.30	Draw, drains NW., 140 ft. below top of gradual asc; asc.

Chains.	
	Enter dense aspen and scattering spruce timber.
21.10	Top of gradual asc., bears NW. and SE., continue over gently rolling land.
39.96½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}}{\frac{S\ 12}{S\ 13}}$$

1915.

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

No trees within reasonable distance suitable for bearing trees.

70.30	Leave dense timber, bears NW. and SE., enter short sage undergrowth.
79.93	The cor. of secs. 11, 12, 13 and 14, 445 ft. below top of asc.

Land, rolling mountainous.

Soil, light gravel and rocky, 2 to 3 ft. deep, on light red clay subsoil, hard and rocky.

Timber, spruce and aspen.

Undergrowth, short sage and bunch grass.

Good grazing. Northwestern exposure. Volcanic formation.

August 27, 1915.

August 28, 1915: At 9h30m, a. m., app. t., I set off 38° 8' N. on the lat. arc; 9° 58' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 11, 12, 13 and 14.

Thence I run

N. 0° 1' W., bet. secs. 11 and 12.

Desc. over rolling mountainous land, through scattering clusters of dense aspen timber.

14.90	Death Hollow, drains S. 10° W., 110 ft. below sec. cor.

Hollow forks at this point, one fork coming from the NW. and one from the NE.; asc.

30.70	Top of asc., bears E. and W., 315 ft. above Death Hollow; desc.

Chains.	
35.70	Hollow, drains SW, 20 ft below top of asc.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 11 | S 12
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

August 28, 1915: I set off 9° 54' 30" N. on the decl. arc; and at apparent noon observe the sun on the meridian, the resulting lat. is 38° 8' N.

48.00	Top of asc., bears E. and W., 110 ft. above ¼ sec. cor.; asc. gradually over nearly level land.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone for the cor. of secs. 1, 2, 11 and 12, with brass cap mkd.

T 31 S R 1 W
S 2 | S 1
S 11 | S 12
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, gently rolling.

Soil, light gravel and rocky, 2 to 3 ft. deep, on light red clay subsoil, hard and rocky.

Timber, scattering clusters of aspen.

Undergrowth, short sage, scant bunch grass and yellow top.

Fair grazing. Southern exposure. Volcanic formation.

August 28, 1915.

August 30, 1915: At 10 a. m., app. t., I set off 38° 9' N. on the lat. arc; 9° 14' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 1, 2, 11 and 12.

Thence I run

East, on random line bet. secs. 1 and 12.

40.00	Set temp. ¼ sec. cor.

Chains.	
79.96	Intersect the E. bdy. of the Tp., 6.75 chs. S. of the cor. of secs. 6 and 7, T. 31 S., R. 1 E., heretofore described.
	At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the closing cor. bet. secs. 1 and 12, with brass cap mkd.
	T 31 S R 1 W | R 1 E S 6 S 1 C C S 7 S 12 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence West, on true line bet. secs. 1 and 12.
	Desc. gradually over rolling land through short sage brush undergrowth.
10.00	Swale, drains SW.; asc. gradually.
26.20	Leave short sage brush undergrowth, bears N. and S., enter dense aspen timber.
39.98	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 1 S 12 1915 from which
	An aspen, 9 ins. diam., bears N. 1° E., 22 lks. dist., mkd. ¼S1BT.
	An aspen, 10 ins. diam., bears S. 15° W., 29 lks. dist., mkd. ¼S12BT.
41.00	Leave dense timber, bears N. and S., continue through scattering clusters of dense aspen timber.
79,96	The cor. of secs. 1, 2, 11 and 12.
	Land, gently rolling mountain top.
	Soil, light gravel and loam, 1 to 2 ft. deep, on hard light red, rocky clay subsoil.
	Timber, aspen.
	Undergrowth, short sage brush and bunch grass.

Chains.	
	Fair grazing. Eastern exposure. Volcanic formation.
	August 30, 1915: Walking between points on line at noon, unable to observe the sun for latitude.
	August 30, 1915.

	August 31, 1915: At 9h 30m, a. m., app. t., I set off 38° 9' N. on the lat. arc; 8° 53' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 1, 2, 11 and 12.
	Thence I run
	N. 0° 1' W., on true line bet. secs. 1 and 2, knowing from previously closings that a closing cor. will be necessary on the Sixth Std. Par. S.
	Asc. slightly over gently rolling mountain top, through scattering clusters of dense aspen timber, and sage brush undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	S ¼ 2 | S 1 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Continue over gently rolling mountain top.
110.64	Intersect the Sixth Standard Parallel South, 13.52 chs. East of the Forest Bdy. Post. No. 126, or the cor. of secs. 35 and 36, T. 30 S., R. 1 W., which is
	An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the closing cor. for secs. 1 and 2, with brass cap mkd.

Chains.

T 30 S R 1 W
S 35 | S 36
C C
S 2 | S 1
T 31 S

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, rolling mountain top.

Soil, light gravel and rocky loam, shallow, on rocky clay and rock subsoil.

Timber, scattering clusters of dense aspen.

Undergrowth, short sage and bunch grass.

Fair grazing. Southeastern exposure. Volcanic formation.

August 31, 1915: Cloudy at noon.

August 31, 1915.

Jos. C. Thoma
U. S. Surveyor.

August 23, 1915: At 8h a. m., app. t., I set off 38° 4' N. on the lat. arc; 11° 42' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., heretofore described.

Thence I run

N. 0° 1' W., bet. secs. 34 and 35.

Asc. over rolling mountainous land, through scattering aspen timber and short yellow underbrush undergrowth.

15.10 Asc. abruptly over rocky surface, bears NW. and SE.

18.00 Top of abrupt asc., bears NW. and SE., 230 ft. above sec. cor.; asc. gradually.

22.00 Ridge, 20 ft. above top of abrupt asc., bears N. 35° W. and SE.; enter dense aspen timber; desc. gradually.

37.10 Ledge, 10 ft. high, bears W. and NE. 10 chd., thence SE.; desc. abruptly over NW. slope of ledges.

40.00 Set an iron post, 30 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼
S 34 | S 35

1915 from which

Chains.

A piñon, 9 ins. diam., bears N. 68° 15' E., 16 lks. dist., mkd. ¼S35BT.

An aspen, 7 ins. diam., bears N. 78° 15' W., 20 lks. dist., mkd. ¼S34BT.

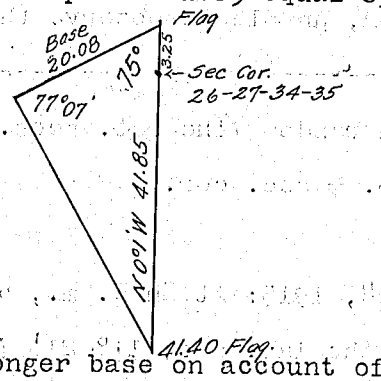
Continue abrupt desc.

41.40 Ledge, 240 ft. high, bears NE. and SW. It being impossible to chain over ledge, I set a flag at this point, and another flag ahead on line, and triangulate as follows: At the flag ahead on line, with the telescope pointing South, I deflect an angle of 75° to the right and chain a base of 20.08 chs. The angle at the 20.08 chs. point on the base, between the two flags is 77° 7'; the third angle of the triangle is computed to be 27° 53'. I compute the distance bet. flags as follows:

$$\frac{x}{\sin 77° 7'} \text{ as } \frac{20.08}{\sin 27° 53'}$$

x equals 41.85 chs.

41.40 plus 41.85 equal 83.25 chs.



Unable to obtain longer base on account of natural obstacles. I measure S. 0° 1' E., from the flag ahead on line, 3.25 chs. and at.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, for the cor. of secs. 26, 27, 34 and 35, with brass cap mkd.

T 31 S R 1 W

S 27	S 26
S 34	S 35

1915 from which

A cedar, 17 ins. diam., bears N. 50° 45' E., 231 lks. dist., mkd. T31SR1WS26BT.

An aspen, 6 ins. diam., bears S. 11° E.,

Chains.	
	40 lks. dist., mkd. T31SR1WS35BT.
	An aspen, 6 ins. diam., bears S. 35° 15' W.,
	18 lks. dist., mkd. T31SR1WS34BT.
	A cedar, 14 ins. diam., bears N. 63° 30' W.,
	180 lks. dist., mkd. T31SR1WS27BT.
	Corner established 450 ft. below top of ledge.
	Land, rolling mountainous in S. half, exceptionally rough in the N. half.
	Soil, light sandy loam, 2 ft. deep, and rocky in the southern portion; light sandy loam, shallow and rocky in the northern portion.
	Subsoil, rocky; clay on N. 10 chs.
	Timber, aspen, spruce, yellow pine, cedar and piñon.
	Undergrowth, mahogany, sage rabbit and buck brush.
	Poor grazing. Southern portion exposed to the SW.; northern portion exposed to the N. Volcanic formation.
	August, 23, 1915: Walking bet. transit points on line at noon, unable to observe the sun for lat.

	East, on random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
	August 23, 1915.
	August 24, 1915: At 8h a. m., app. t., I set off 38° 5' N. on the lat. arc; 11° 21' 30" N. on the decl. arc; and determine a meridian with the solar.
79.95	Intersect the N. and S. line, 9 lks. N. of the cor. of secs. 25, 26, 35 and 36.
	Thence
	N. 89° 56' W., on true line bet. secs. 26 and 35.
	Desc. gradually over rolling mountainous land, through clusters of dense aspen timber.
6.90	Draw, drains NE., 45 ft. below sec. cor.; asc. abruptly.
37.00	Top of abrupt asc., bears N. and S.; asc. gradually.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the

Chains	
	$\frac{1}{4}$ sec. cor., with brass cap mkd. $\frac{\frac{1}{4}}{S\ 26 / S\ 35}$ 1915 from which
	A spruce, 8 ins. diam., bears N. 27° 30' W., 64 lks. dist., mkd. ¼S26BT.
	A spruce, 18 ins. diam., bears S. 76° 30' E., 125 lks. dist., mkd. ¼S35BT.
	Corner established 475 ft. above draw. Enter scattering cedar, piñon, yellow pine and spruce timber, and mohogany, buck and service brush. A ledge, bears N. 20° E., and S. 6 chs., thence W. 4 chs., thence S.; desc. abruptly.
44.10	Bottom of abrupt desc., bears N. and S.; desc. gradually.
47.90	Start abrupt desc., bears N. and S., 185 ft. below ledge.
52.80	Draw, drains S. 20° W., 170 ft. below beginning of abrupt desc.; asc. abruptly.
54.30	Spur, projects S. 20° W., 7 chs., 30 ft. above draw; desc. abruptly.
64.20	Hollow, 2 chs. wide, drains N., 205 ft. below spur; asc. abruptly. Leave dense, enter scattering timber.
69.00	Ridge, bears N. and SW., 80 ft. above hollow; desc.
79.95	The cor. of secs. 26, 27, 34 and 35, 65 ft. below ridge.
	Land, rough mountainous in the W. half; rolling mountainous in the E. half.
	Soil, light sand and gravel, rocky, 18 ins. deep in the east half; light rocky sand, shallow in the W. half, on rocky subsoil.
	Timber, cedar, piñon, spruce, yellow pine and scattering clusters of aspen.
	Undergrowth, mahogany, buck, service, and sage brush in the west half; short sage, yellow top and grass in the east half.
	Good grazing in the east half. Volcanic formation.
	August 24, 1915.

Chains.	
	August 27, 1915: At 8h, a. m., app. t., I set off 38° 5' N. on the lat. arc; 10° 19' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 26, 27, 34 and 35.
	Thence I run
	N. 0° 1' W., bet. secs. 26 and 27.
	Asc. abruptly over mountainous land, through scattering cedar, piñon and aspen timber, short sage, yellow top, buck and service brush undergrowth.
3.20	Ridge, bears E. and W., 50 ft. above sec. cor.; desc. abruptly.
10.20	W. edge of basin, extends E. 5 chs., 110 ft. below ridge; asc.
18.15	Trail, bears NW. and S. 70° E.
22.82	Ridge, bears N. 70° E. and SW. 7 chs. thence S. 70° W.; desc.
30.30	Small draw, drains N. 75° E., 145 ft. below ridge, continu desc.
35.30	Enter scattering yellow pine timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

¼ S 27 | S 26
1915

from which

A spruce, 32 ins. diam., bears S. 19° 45' E., 66 lks. dist., mkd. ¼S26BT.

A yellow pine, 32 ins. diam., bears N. 13° 30' W., 149 lks. dist., mkd. ¼S27BT.

	Continue desc. over numerous unimportant small draws and spurs projecting and draining NW.
67.80	Hollow, drains NW., 160 ft. below ¼ sec. cor.; asc.
73.50	Ridge, bears N. 70° W. and NE.; desc.
	August 27, 1915: I set off 10° 16' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 6' N.

Chains.	
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, with brass cap mkd.

T 31 S R 1 W	
S 22	S 23
S 27	S 26

1915 from which

A cedar, 9 ins. diam., bears N. 46° E., 74 lks. dist., mkd. T31SR1WS23BT.

A cedar, 10 ins. diam., bears S. 24° 15' E., 48 lks. dist., mkd. T31SR1WS26BT.

A piñon, 9 ins. diam., bears S. 16° 30' W., 98 lks. dist., mkd. T31SR1WS27BT.

A yellow pine, 32 ins. diam., bears N. 27° 15' W., 162 lks. dist., mkd. T31SR1WS22BT.

Corner established 40 ft. below ridge. A draw, heads approximately 5 chs. SW. of cor., drains NE. approximately 11 chs., thence N. 70° W.

Land, rough and rolling mountainous, drains NW.

Soil, light sandy clay and rocky, on rocky sandy clay subsoil.

Timber, cedar, piñon, spruce, yellow pine and aspen.

Undergrowth, buck, service and sage brush, yellow top and mahogany and grass.

Fair grazing. Northern exposure. Volcanic formation.

S. 89° 56' E., on a random line bet. secs. 23 and 26.

40.00 Set temp. ¼ sec. cor.

August 27, 1915.

August 28, 1915: At 9h, a. m., app. t., I set off 38° 6' N. on the lat. arc; 9° 57' 30" N. on the decl. arc, and determine a meridian with the solar.

79.78 Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence

N. 89° 54' W., on true line bet. secs. 23 and 26.

Chains.	
	Desc. abruptly over rough mountainous land, through dense cedar and piñon, scattering spruce, aspen and yellow pine timber; mahogany, buck, service and rabbit brush.
12.80	Antimony Creek, 30 lks. wide, 2½ ft. deep, clear water, course N. 20° W., 300 ft. below sec. cor.; asc.
31.80	Ridge and ledge, 110 ft. high, bears N. 20° E. and S. 20° W., 300 ft. above Antimony Creek; desc. abruptly.
33.30	Base of broken ledge, 110 ft. below ridge; continue abrupt desc.
35.80	Bottom of abrupt desc., bears N. 20° E. and S. 20° W.; desc. gradually.
39.89	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd. ¼ S 23 / S 26 1915 from which A yellow pine, 12 ins. diam., bears N. 14° E., 153 lks. dist., mkd. ¼S23BT. A yellow pine, 17 ins. diam., bears S. 20° 15' E., 52 lks. dist., mkd. ¼S26BT.
50.20	Draw, drains N. 20° W., approximately 7 chs., thence N. A small stream of clear water sinks below the surface at this point and rises again approximately 4 chs. N.; asc.
55.10	Spur, projects N., approximately 4 chs., 20 ft. above draw; desc.
60.10	Head of draw, drains NE. 30 ft. below spur; asc. A small stream of water sinks below the surface, 2 chs. S.
79.78	The cor. of secs. 22, 23, 26 and 27, 200 ft. above head of hollow.
	Land, rough mountainous, west half drains NE. and exposed to the N., east half drains NW.
	Soil, light sandy loam and rocky on rocky subsoil.
	Timber, dense cedar and piñon, scattering yellow pine and spruce.

Chains.	
	Undergrowth, buck, service and sage brush, mohogany and yellow top.
	Poor grazing. volcanic and lime stone formation.
	August 28, 1915: Walking on line bet. transit points at noon, unable to observe the sun for lat.

	N. 0° 1' W., bet. secs. 22 and 23.
	Asc. over rough mountainous land, through dense cedar and piñon timber, and scattering yellow pine and spruce; service, buck brush and mahogany undergrowth.
4.60	Ridge, bears NE. and SW.; desc. abruptly.
13.50	Draw, drains N. 20° W., 185 ft. below sec. cor., continue gradual desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 22 | S 23
	1915 from which
	A piñon, 12 ins. diam., bears S. 69° 45' E., 60 lks. dist., mkd. ¼S23BT.
	A piñon, 10 ins. diam., bears N. 49° 30' W., 12 lks. dist., mkd. ¼S22BT.
	Corner established 130 ft. below draw; continue desc.
43.00	Desc. over S. slope of Antimony Cañon, bears E. and W.
63.90	Ravine, drains N. from S. 35° W., 590 ft. below top of abrupt desc.; continue gradual desc. down ravine.
70.80	Antimony Creek, 30 lks. wide, 2½ ft. deep, clear water, course NW., approximately 20 chs., thence S. 60° W., 50 ft. below ravine; asc. gradually.
72.90	Old road, bears NW., approximately 20 chs., thence S. 60° W.; and E.
73.00	Base of abrupt asc., bears E. and NW. 20 chs. and S. 70° W.
76.30	Base of conglomerate ledge 90 ft. high, bears E. and NW.
76.79	Top of conglomerate ledge, bears E. and NW., 145 ft. above base of abrupt asc., continue asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in

Chains.	
	the ground, on solid rock, in mound of stone, for the cor. of secs. 14, 15, 22 and 23, with brass cap mkd.

T 31 S R 1 W

S 15	S 14
S 22	S 23

1915 from which

A piñon, 12 ins. diam., bears N. 41° 30' E., 145 lks. dist., mkd. T31SR1WS14BT.

A piñon, 10 ins. diam., bears S. 38° E., 73 lks. dist., mkd. T31SR1WS23BT.

A piñon, 8 ins. diam., bears S. 62° 15' W., 29 lks. dist., mkd. T31SR1WS22BT.

A piñon, 12 ins. diam., bears N. 13° 30' W., 128 lks. dist., mkd. T31SR1WS15BT.

Corner established 75 ft. above top of ledge.

Land, rough mountainous, drains NW.

Soil, light sandy clay, rocky, shallow, on light clay subsoil.

Timber, cedar, piñon, spruce and yellow pine; cottonwood along creek.

Undergrowth, buck and service brush, mahogany, birch and willows along creek.

Poor grazing. Northern exposure S. of creek; southern exposure N. of creek.

August 28, 1915.

August 30, 1915: At 8h a.m., app. t., I set off 38° 7' N. on the lat. arc; 9° 16' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 14, 15, 22 and 23.

Thence I run

S. 89° 54' E., on a random line bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect the N. and S. line, 14 lks. S. of the cor. of secs. 13, 14, 23 and 24.

Thence

West, on true line bet. secs. 14 and 23.

Chains.	
	Desc. abruptly over mountainous land, through dense cedar and piñon timber and scattering buck brush.
5.10	Gulch, drains S. 35° W., 150 ft. below sec. cor.; continue abrupt desc.
18.50	Small cañon, 260 ft. below gulch, drains S. 30° E.; asc. abruptly.
23.70	Ridge, bears N. 30° W. and S. 30° E., 145 ft. above small cañon; desc. abruptly.
30.13	Bottom of abrupt desc., bears N. 30° W. and S. 30° E.; desc. gradually.
40.03	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec, cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 14}{S\ 23}$$

1915 from which

A piñon, 8 ins. diam., bears N. 9° E., 61 lks dist., mkd. ¼S14BT.

A piñon, 8 ins. diam., bears S. 22° 30' E., 70 lks. dist., mkd. ¼S23BT.

Corner established 220 ft. below top of ridge.

51.00	Ravine, drains S. 35° W., 80 ft. below ¼ sec. cor.; asc.
52.40	Low spur, projects S. 30° W., desc.
54.60	Ravine, drains S. 60° W., 35 ft. below low spur; asc.
60.50	Spur, projects S., 40 ft. above ravine; desc.
73.40	Start abrupt desc., bears NW. and S. 70° E.
80.06	The cor. of secs. 14, 15, 22 and 23, 150 ft. below beginning of abrupt desc.

Land, rough mountainous, drains SW.

Soil, light sandy clay and rocky, 6 to 8 ins. deep, on rocky light clay subsoil.

Timber, aspen, cedar, piñon, spruce and yellow pine.

Undergrowth, buck, service, sage and rabbit brush.

Poor grazing. Southern exposure. Volcanic formation.

August 30, 1915: Raining at noon, unable to observe for lat.

August 30, 1915.

Chains:

August 31, 1915: At 8h, a. m., apparent t., I set off 38° 7' N. on the lat. arc; 8° 54' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 14, 15, 22 and 23.

Thence I run

N. 0° 1' W., bet. secs. 14 and 15.

Asc. over N. side of Antimony Cañon, over rough mountainous land, through dense cedar, piñon and scattering spruce timber, and buck and service brush and mahogany undergrowth.

6.00 Spur, projects W., 35 ft. above sec. cor.; desc. abruptly

7.50 Ravine, drains S. 70° W., 40 ft. below spur; asc. abruptl

12.50 Top of abrupt asc., bears E. and N. 12.50 chs., thence S. 70° W., 100 ft. above ravine; asc. gradually along W. edge of steep slope exposed to the W.

27.00 Draw, 55 ft. above top abrupt asc., drains S. 50° W.; asc abruptly.

34.30 Top of abrupt asc., bears E. and S. 70° W., 195 ft. above draw; desc. gradually.

36.30 Draw, drains SE. 2 chs., thenceS.; asc.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.

¼ S 15 | S 14

1915

from which

A piñon, 16 ins. diam., bears S. 77° 30' E., 90 lks. dist., mkd. ¼S14BT.

A yellow pine, 8 ins. diam., bears S. 63° 30' W., 91 lks. dist., mkd. ¼S15BT.

Continue asc. through undergrowth of short sage, rabbit brush, cedar and piñon timber.

59.65 August 31, 1915: I set off 8° 50' 30" N. on the decl. arc; and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.

69.50 Edge of rolling bench, extends N. 70° W., and S. 60° E.;

Chains.	
	desc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 10, 11, 14 and 15, with brass cap mkd.

T 31 S	R 1 W
S 10	S 11
S 15	S 14

1915 from which

A cedar, 12 ins. diam., bears S. 71° E., 383 lks. dist., mkd. T31SR1WS14BT.

A piñon, 8 ins. diam., bears S. 13° 30' W., 394 lks. dist., mkd. T31SR1WS15BT.

A red cedar limb, 7 ins. diam., bears N. 50° 45' W., 344 lks. dist., mkd. T31SR1WS10BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other tree within reasonable distance suitable for bearing tree.

Land, rough mountainous, drains SW.

Soil, light rocky, shallow clay, on light hard rocky clay subsoil.

Timber, dense cedar and piñon and scattering spruce and yellow pine.

Undergrowth, buck, service, black sage and rabbit brush, and mahogany.

Poor grazing. Southern portion of the mile exposed to the SW., northern portion exposed to the N. Volcanic formation.

East, on a random line bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.

80.01 Intersect the N. and S. line, 19 lks. S. of the cor. of secs. 11, 12, 13 and 14.

Thence

S. 89° 52' W., on true line, bet. secs. 11 and 14.

Desc. over rolling mountainous land, through scattering cedar and piñon timber, short sage and yellow top undergrowth.

Chains.	
8.50	Wash in Death Hollow, 20 lks. wide, 4 ft. deep, drains S. 20° W., 120 ft. below sec. cor.; asc.
9.70	Spur, projects SE. 2 chs., 25 ft. above Death Hollow; desc
12.50	Draw, drains SE., from N. 70° W., 20 ft. below spur; asc. abruptly over NE. slope.
25.90	Ridge, bears N. 30° W., 15 chs., thence N. 70° W., and S. 30° E., 260 ft. above draw; desc.
26.00	Top of broken ledges, bears NW. 14 chs., thence W., and SE., 80 ft. below ridge; desc. abruptly.
35.50	Bottom of broken ledges, bears SE. and NW. 12 chs., thenc W., 560 ft. below top; desc. over SW. slope.
40.00½	Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd. ¼ / S 11 / S 14 1915 from which A piñon, 12 ins. diam., bears N. 67° 45' W., 19 lks. dist., mkd. ¼S11BT. A piñon, 16 ins. diam., bears S. 23° 45' E., 364 lks. dist., mkd. ¼S14BT. Corner established 145 ft. below bottom of broken ledges. Continue desc.
43.90	Bottom of desc. over SW. slope, bears W. and SE., 115 ft. below ¼ sec. cor.; desc. gradually.
53.50	Draw, drains S. 5 chs., thence S. 70° W., 40 ft. below bottom of desc. over SW. slope.; asc.
58.20	Spur, projects S. 5 chs., 70 ft. above draw; desc. abruptl
70.00	Hollow, drains SE. 15 chs. into basin, 170 ft. below spur; asc.
80.01	The cor. of secs. 10, 11, 14 and 15, 55 ft. above hollow. Land, rough and rolling mountainous in the western portion, rolling mountainous in the eastern portion. Soil, light sand, gravel and rocky, 10 ins. deep, 66 chs., light sand and exceptionally rocky, 14 chs., on hard

Cahins. clay and rocky subsoil.

Timber, scattering cedar and piñon, 64 chs.

Undergrowth, shart sage, yellow top, bunch grass and scattering mahogany.

Good grazing. Western portion exposed to the SW., eastern portion exposed to the NE. and NW. Volcanic formation.

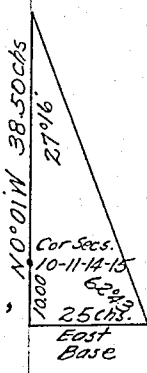
August 31, 1915.

September 1, 1915: At 9h a. m., app. t., I set off 38° 8' N. on the lat. arc; 8° 32' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

It being impracticable to chain over a series of perpendicular ledges to the north, I triangulate to the top of the ledges in accordance with the following. It being impossible to see the top of the ledges from the cor. of secs. 10, 11, 14 and 15, I run S. 0° 1' E., 10 chs., from said cor. and from this point, set a flag ahead on line on top of ledge, and then measure a base line due East, a distance of 25 chs. From the 25 ch. point on the base line, the flag on top of the ledge to the north, bears N. 27° 17' W. I compute the dist. as follows:

$$\frac{x}{\sin 62°43'} : \frac{25.00}{\sin 27°16'} \text{ equal } \frac{x}{.88875} : \frac{25.00}{45813} \text{ equal}$$

48.50-10.00 equal 38.50 chs., the distance from the cor. of secs. 10, 11, 14 and 15, to the flag set N. 0° 1' W. on top of the ledge.



The approximate topography N. from the cor. of secs. 10, 11, 14 and 15 is as follows:

Desc: gradually over rough mountainous land, through short sage brush undergrowth and scattering cedar and piñon and mohogany.

12.00 Hollow, drains SE., 45 ft. below sec. cor.; asc. abruptly over rocky SW. slope.

30.50 Base of ledge, bears S. 70° E. and N. 70° W., 645 ft. above base of abrupt desc.

31.50 Top of ledge, bears S. 70° E. and N. 70° W., 140 ft. high.

Chains.	
38.50	Triangulation point, and top of ledge, 240 ft. above top of lower ledge, bears N. 70° W. and S. 70° E.
	From this point I continue my line N. 0° 1' W., bet. secs. 10 and 11, giving exact topograph
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

S 10	S 11

1915 from which

A spruce, 32 ins. diam., bears S. 44° 45' W., 78 lks. dist., mkd. ¼S10BT.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

Asc. gradually over rolling land.

46.00	Ridge, bears W. and S. 70° E., 30 ft. above ¼ sec. cor., desc. gradually. Leave mahogany, bears E. and W.
60.00	Swale, drains S. 60° E., asc. gradually.
74.90	Small cluster of aspen timber on line.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 16 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 2, 3, 10 and 11, with brass cap mkd.

T 31 S R 1 W

S 3	S 2
S 10	S 11

1915 from which

An aspen, 4 ins. diam., bears S. 8° 45' E., 110 lks. dist., mkd. T31SR1WS11BT.

An aspen, 4 ins. diam., bears S. 8° 30' W., 146 lks. dist., mkd. T31SR1WS10BT.

Raise a mound of stone, 2 ft. base; 1½ ft. high, W. of cor.

No other trees within reasonable distance suitable for bearing trees.

Land, rough mountainous in the southern portion, rolling mountainous in the northern portion. The southern

Chains	
	portion drains SE. and the northern portion drains E.
	Soil, light sand and rocky, shallow, on the south half, sandy loam and gravel, 10 ins. deep in north half, on subsoil of hard rocky clay.
	Timber, scattering cedar and piñon in the south half; clusters of dense aspen in the north half.
	Undergrowth, dense short sage, yellow top, bunch grass and scattering mohogany.
	Good grazing in northern portion. Northern portion exposed to the E., and the southern portion is exposed to the S.
	September 1, 1915: Cloudy at noon.

	N. 89° 52' E., on a random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect the N. and S. line, at the cor. of secs. 1, 2, 11 and 12.
	Thence
	S. 89° 52' W., on true line bet. secs. 2 and 11.
	Desc. gradually over rolling mountainous land, through dense short sage brush and bunch grass and yellow top undergrowth, and scattering clusters of dense aspen timber.
24.60	Hollow, drains S. 30° E., approximately 30 chs., thence SE., 60 ft. below sec. cor.; asc. gradually.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 2 / S 11
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
60.90	Spur, projects S. 60° E., 15 chs., 80 ft. above ¼ sec. cor.; desc. gradually.
72.40	Swale, drains S. 60° E., asc. gradually.

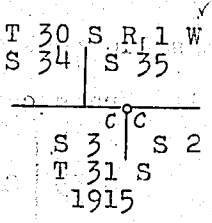
Chains.	
79.86	The cor. of secs. 2, 3, 10 and 11, 40 ft. above swale.
	Land, rolling mountainous, drains SE.
	Soil, light sand, gravel and rocky, 10 ins. deep, on hard red clay and gravel subsoil.
	Timber, clusters of dense aspen.
	Undergrowth, dense short sage, yellow top and bunch grass
	Good grazing. Southern exposure.
	September 1, 1915.

	September 2, 1915: At 9h 30m, a. m., app. t., I set off 38° 9' N. on the dat. 8° 10' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 2, 3, 10 and 11.
	Thence I run
	N. 0° 1' W. on true line bet. secs. 2 and 3, knowing that a closing cor. will be necessary on the Sixth Std. Par. S.
	Desc. gradually over rolling mountainous land, through clusters of dense aspen timber, short sage, yellow top and bunch grass undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 3 | S 2
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Continue gradual desc.
43.20	Hollow, drains E. 12 chs., thence SE.; asc. gradually.
47.50	Low spur, projects SE., 5 chs.; desc. gradually.
58.00	Hollow, drains SE.; asc. gradually.
103.60	Spur, projects S. 60° E., 5 chs., 80 ft. above hollow; desc. gradually through cluster of dense aspen timber.
110.81	Intersect the Sixth Standard Parallel South, 13.84 chs. East of the std. cor. to secs. 34 and 35, T. 30 S., R.

Chains. 1 W., or the Powell Forest Reserve Bdy. Post No. 127, which is

An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. bet. secs. 2 and 3, with brass cap mkd.



from which

An aspen, 7 ins. diam., bears S. 20° 15' E., 125 lks. dist., mkd. T31SR1WS2BT.

An aspen 11 ins. diam., bears S. 8° 45' W., 115 lks. dist., mkd. T31SR1WS3BT.

Corner established in north edge of a cluster of aspen timber.

Land, rolling mountainous, drains SE.

Soil, light sand gravel and rocky, 10 ins. deep, on hard red clay, and rocky subsoil.

Timber, clusters of dense aspen.

Undergrowth, short sage, yellow top and bunch grass.

Good grazing. Eastern exposure. Volcanic, sandstone and conglomerate formation.

September 2, 1915: Cloudy at noon, unable to observe the sun for lat.

September 2, 1915.

August 24, 1915: From the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the tp., heretofore described.

N. 0° 2' W., bet. secs. 33 and 34.

Desc. gradually along NW. slope, over rough and rolling mountainous land, through scattering cedar, piñon, and yellow pine timber, and dense sage, rabbit and buck brush undergrowth.

13.50 Draw, drains N. 60° W., 60 ft. below sec. cor.; asc.

Chains.

17.00 Spur, projects NW., 16 chs., 25 ft. above draw; desc. abruptly over NE. slope, through scattering aspen timbe

26.70 Poison Creek Cañon Road; bears SW. and NW. 15 chs., thenc W., approximately 7 chs., thence NW. Leave aspen timbe bears NW. and SE.

27.00 Poison Creek Cañon, drains NW., 190 ft. below spur; asc. abruptly over SW. slope.

40.00 Set an iron post, 3 ft. long; 1 in. diam., 16 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

S ¼ 33	S 34

1915

from which

A piñon, 14 ins. diam., bears S. 74° 15' E., 468 lks. dist., mkd. ¼S34BT.

A pinon, 20 ins. diam., bears S. 28° 45' W., 284 lks. dist., mkd. ¼S33BT.

Corner established 100 ft. above Poison Creek Cañon.

August 24, 1915: I set off 11° 17' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 5' N.

48.10 Ridge, bears E. and W., 45 ft. above ¼ sec. cor.; desc.

53.80 Draw, drains N. 80° W., 60 ft. below ridge; asc.

68.80 Spur, projects W., approximately 25 chs., 50 ft. above draw; desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 27, 28, 33 and 34, with brass cap mkd.

T 31 S R 1 W

S 28	S 27
S 33	S 34

1915

from which

A piñon, 12 ins. diam., bears N. 30° 30' E., 210 lks. dist., mkd. T31SR1WS27BT.

A spruce, 14 ins. diam., bears S. 55° 45' E., 435 lks. dist., mkd. T31SR1WS34BT.

Chains	
	A piñon, 9 ins. diam., bears S. 24° W., 274 lks. dist., mkd. T31SR1WS33BT.
	A spruce, 12 ins. diam., bears N. 50° 15' W., 374 lks. dist., mkd. T31SR1WS28BT.
	Corner established 125 ft. below spur.
	Land, rough and rolling mountainous, drains NW.
	Soil, light sand, clay and rocky, 1½ to 2½ ft. deep, on rocky clay subsoil.
	Timber, scattering cedar, piñon, aspen, yellow pine and spruce.
	Undergrowth, short sage, rabbit, and buck brush and mahogany, and grass.
	Fair grazing. Volcanic formation. Southern portion exposed to the NW., northern portion exposed to the W.

	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
80.22	Intersect the N. and S. line, 10 lks. N. of the cor. of secs. 26, 27, 34 and 35.
	Thence
	N. 89° 56' W., on true line bet. secs. 27 and 34.
	Desc. gradually over rolling mountainous land, through scattering aspen and yellow pine timber, and rabbit, sage and buck brush undergrowth.
2.80	Bottom of gradual desc., bears NE. and SW., 25 ft. below sec. cor.; asc.
13.70	A small shallow lake 3 chs. in diam. bears South 2 chs. dist.
21.90	Ridge, bears NW. and SE., 115 ft. above small lake; desc.
38.20	N. end of basin. Basin extends S., approximately 15 chs.
	Antimony Lake bears approximately North, 30 chs. The Lake, bears N. 65° E. and S. 65° W. and about 5 chs. wide; and 15 chs. long.
40.11	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

Chains.	
	$\frac{1}{4}$ S 27 / S 34
	1915 from which
	An aspen, 8 ins. diam., bears N. 34° W., 238 lks. dist., mkd. $\frac{1}{4}$S27BT.
	A piñon, 20 ins. diam., bears S. 6° W., 296 lks. dist., mkd. $\frac{1}{4}$S34BT.
	Asc. abruptly.
44.10	Top of abrupt asc., bears N. and S.; asc. gradually.
51.20	Spur, projects NW., approximately 6 chs., thence N. 20° E 155 ft. above $\frac{1}{4}$ sec. cor.; desc. through scattering aspen and pine timber.
61.40	Head of hollow, drains NW. into basin, 130 ft. below spur asc.
69.60	Ridge, bears N. 35° W. and SE., 25 ft. above head of hollow; desc.
80.22	The cor. of secs. 27, 28, 33 and 34, 60 ft. below ridge.
	Land, rough and rolling mountainous, drains NW.
	Soil, light rocky sandy loam, $1\frac{1}{2}$ to $2\frac{1}{2}$ ft. deep, on rocky subsoil.
	Timber, scattering cedar, piñon, yellow pine, spruce and aspen.
	Undergrowth, short sage, rabbit and buck brush, service and wild rose bushes, and grass.
	Fair grazing. Western portion exposed to the NW., eastern portion exposed to the N. Volcanic formation.
	August 24, 1915.
	Jos. C. Clark
	U. S. Transitman.

September 2, 1915: At 7h 30m, a. m., app. t., I set off 38° 5' N. on the lat. arc; 8° 12' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 27, 28, 33 and 34.

Thence I run

N. 0° 2' W., bet. secs. 27 and 28.

Chains.	
	Desc. over mountainous land, through dense cedar, piñon, yellow pine and spruce timber.
2.90	Hollow, drains W., 25 ft. below sec. cor.; asc.
11.70	Ridge, bears E. and W., 30 ft. above hollow; desc. over steep broken S. slope of Antimony Cañon.
40.00	Set an iron post, 3 ft. long, 1 ins. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼ S 28	S 27

1915 from which

A spruce, 8 ins. diam., bears N. 37° E., 67 lks. dist., mkd. ¼S27BT.

A yellow pine, 30 ins. diam., bears S. 76° W., 44 lks. dist., mkd. ¼S28BT.

Corner established 215 ft. below ridge. Continue desc. over S. slope of Antimony Cañon, through dense cedar, piñon, yellow pine and spruce timber.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 21, 22, 27 and 28, with brass cap mkd.

T 31 S R 1 W

S 21	S 22
S 28	S 27

1915 from which

A spruce, 10 ins. diam., bears N. 46° 30' E., 31 lks. dist., mkd. T31SR1WS22BT.

A spruce, 10 ins. diam., bears S. 66° E., 58 lks. dist., mkd. T31SR1WS27BT.

A cedar, 12 ins. diam., bears S. 48° 40' W., 26 lks. dist., mkd. T31SR1WS28BT.

A spruce, 12 ins. diam., bears N. 69° 30' W., 29 lks. dist., mkd. T31SR1WS21BT.

Corner established 585 ft. below ¼ sec. cor.

Land, mountainpus, drains N.

Soil, light rocky sandy loam, rocky, 1½ to 2½ ft. deep, on rocky clay subsoil.

Timber, cedar, piñon, yellow pine and spruce.

Chains	
	Undergrowth, short sage, rabbit and buck brush, mohogany and grass.
	Fair grazing. Northern exposure.
	September 2, 1915: Cloudy and raining at noon, unable to observe the sun for lat.
	September 2, 1915.

	September 4, 1915: At 7h 30m, a. m., app. t., I set off 38° 6' N. on the lat. arc; 7° 29' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 21, 22, 27 and 28.
	Thence I run
	S. 89° 56' E., on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect the N. and S. line, 17 lks. S. of the cor. of secs. 22, 23, 26 and 27.
	Thence
	S. 89° 57' W., on true line bet. secs. 22 and 27.
	Over rolling mountainous land along the S. slope of Antimony Cañon, through scattering yellow pine timber, dense wild rose, service, and mohogany undergrowth.
2.90	Spur, projects NW.; desc.
15.30	Draw, drains NW., 100 ft. below spur; asc. along rolling S. slope of Antimony Cañon, across numerous unimportant draws draining NW.
40.10	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 22 / S 27
	1915 from which
	A yellow pine, 30 ins. diam., bears N. 31° 30' E., 113 lks. dist., mkd. ¼S22BT.
	A yellow pine, 30 ins. diam., bears S. 24° E., 52 lks. dist., mkd. ¼S27BT.
57.70	Top of asc., bears NW. and SE., desc.

Chains.	
77.20	Trail, from the upper mill in Antimony Cañon to Henry's old ranch, bears NW. and SE.
78.80	Draw, 470 ft. below top of asc., drains NW.
80.20	The cor. of secs. 21, 22, 27 and 28, 30 ft. above draw.
	Land mountainous, drains NW. into Antimony Cañon.
	Soil, light sandy loam, rocky, 1 to 2 ft. deep, on rocky light clay subsoil.
	Timber, yellow pine, spruce, cedar and piñon.
	Undergrowth, sage, service and wild rose brush and mahogany, grass.
	Fair grazing. Northern exposure.
	September 4, 1915: Walking on line bet. corners at noon, unable to observe the sun for lat.
	September 4, 1915.

	September 2, 1915.
	N. 0° 2' W., bet. secs. 21 and 22.
	Desc. over mountainous land, over broken S. slope of Antimony Cañon, through dense cedar, piñon, and yellow pine timber, sage, service, wild rose brush and mahogany undergrowth.
13.60	Draw, drains NW., 420 ft. below sec. cor.; asc. over rocky slope and precipitious ledges.
35.90	High spur projects NW., approximately 10 chs., 720 ft. above draw.
39.00	Edge of steep desc., bears NW. and SE. As the true point for the ¼ sec. cor. will fall on a steep slope of Antimony Cañon, where it will be liable to be destroyed by snow and rock slides, at this 39 ch. point I Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the witness ¼ sec. cor., with brass cap mkd.

T 31 S R 1 W

¼ W | C

S 21 | S 22

1915

Coyote?

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	From the witness ¼ sec. cor. the U. S. Mineral Monument No. 1, Coyoto Mining District, bears N. 38° 33' E., which is A pine post, 5 ins. diam., approximately 7 ft. long, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	Desc. abruptly over steep rocky slope.
40.00	Point for ¼ sec. cor.; cor. not set.
60.15	Bottom of Antimony Canon, bears E. and W., desc. graduall
65.15	Road in bottom of canon, bears E. and W., 800 ft. below witness ¼ sec. cor.
	September 2, 1915.
	September 6, 1915: At 7h 30m, a. m., app. t., I set off 38° 7' N. on the lat. arc; 6° 44' N. on the decl. arc, and determine a meridian with the solar,
68.15	Antimony Creek, 20 lks. wide, 18 ins. deep, clear water, swift current, course W. Dense cottonwood timber and willow and birch undergrowth along creek banks. Asc. abruptly over steep N. side of Antimony Cañon over ledges and conglomerate rock.
80.00	Set an iron post, 3 ft. long, 2 ins. diam. 24 ins. in the ground for the cor. of secs. 15, 16, 21 and 22, with brass cap mkd.

T 31 S R 1 W

S 16	S 15
S 21	S 22

1915

from which

A piñon, 8 ins. diam., bears N. 34° 15' E., 39 lks. dist., mkd. T31SR1WS15BT.

A piñon, 8 ins. diam., bears S. 37° 15' E., 69 lks. dist., mkd. T31SR1WS22BT.

A piñon, 8 ins. diam., bears S. 15° 45' W., 85 lks. dist., mkd. T31SR1WS21BT.

A piñon, 8 ins. diam., bears N. 46° 45' W., 70 lks. dist., mkd. T31SR1WS16BT.

Corner established 530 ft. above Antimony Creek.

Land, mountainous.

Soil, light sandy loam and hard rocky red clay on canon

Chains	
	sides, alluvial in the canon bottom.
	Timber, cedar, piñon, scattering yellow pine, and cotton wood along Antimony Creek.
	Undergrowth, sage, service, wild rose, mahogany, willows and birch along creek.
	Fair grazing. Southwestern exposure. Sandstone and conglomerate formation.
	September 6, 1915: I set off 6° 39' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 7' N.
	N. 89° 57' E., on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 14, 15, 22 and 23.
	Thence
	S. 89° 55' W., on true line bet. secs. 15 and 22.
	Desc. over mountainous land, over very rocky NE. slope of Antimony Cañon, through scattering cedar and piñon timber.
8.00	Trail, bears NW. and SE.
10.70	Antimony Creek, 20 lks. wide, 18 ins. deep, clear water, swift current, course NW., 340 ft. below sec. cor.; asc.
19.80	Spur, projects N. 1 ch., 275 ft. above Antimony Creek; desc.
27.00	Antimony Creek, course SW., 280 ft. below spur; asc. gradually in bottom of Antimony Cañon.
35.30	Start abrupt asc., over NE. slope of Antimony Cañon, bears NE. and SW.
40.02	Set an iron post, 3 ft. long, 1 in. diam., 24 ins in the ground, for ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 15}{S\ 22}$$

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
No trees within reasonable distance suitable for bearing trees.

Chains.	
	Corner established 115 ft. above beginning of abrupt asc
47.90	Spur, projects S., 40 ft. above ¼ sec. cor.; desc.
54.70	Cañon, drains S., 165 ft. below spur; asc.
63.63	Spur, projects S., 275 ft. above canon. From this point the U. S. Mineral Monument N. 1, Coyoto Mining Distric previously described, bears S. 19° 33' W.; desc.
65.70	Draw, drains S., 75 ft. below spur; asc.
80.04	The cor. of secs. 15, 16, 21 and 22, 230 ft. above draw.

Land, mountainous and ledgy, drains S.

Soil, light red clay and sandy loam, very rocky and shall

Timber, cedars and piñon, cottonwood along creek.

Undergrowth, sage, service and wild rose bushes, willows and birch along creek.

Poor grazing. Southwestern exposure.

September 6, 1915.

September 7, 1915: At 8h 30m, a. m., app. t., I set off 38° 7' N. on the lat. arc; 6° 20' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 15, 16, 21 and 22.

Thence I run

N. 0° 2' W., bet. secs. 15 and 16.

Asc. over steep, broken, N. slope of Antimony Canon, throu dense cedar and piñon timber and large boulders.

September 7, Cloudy at noon.

40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 16 | S 15

1905

from which

A piñon, 12 ins. diam., bears N. 66° 15' E., 22 lks. dist., mkd. ¼S15BT.

A piñon, 12 ins. diam., bears S. 69° 45' W., 32 lks. dist., mkd. ¼S16BT.

Corner established 550 ft. above sec. cor. Continue asc.

Chains	
	over steep, broken N. slope of Antimony Cañon, through dense cedar and piñon timber.
49.10	Ridge, bears E. and W., 135 ft. above ¼ sec. cor.; continue asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 9, 10, 15 and 16, with brass cap mkd.

T 31 S R 1 W

S 9	S 10
S 16	S 15

1915 from which

A piñon, 10 ins. diam., bears N. 42° E., 38 lks. dist., mkd. T31SR1WS10BT.

A cedar, 18 ins. diam., bears S. 40° 45' E., 28 lks. dist., mkd. T31SR1WS15BT.

A piñon, 12 ins. diam., bears S. 69° W., 47 lks. dist., mkd. T31SR1WS16BT.

A piñon, 10 ins. diam., bears N. 44° 15' W., 64 lks. dist., mkd. T31SR1WS9BT.

Corner established 350 ft. above ¼ sec. cor.

Land, mountainous.

Soil, rocky and coarse gravel, shallow, with sand stone and conglomerate rock close to the surface.

Timber, cedar and piñon.

Undergrowth, sage brush, cactus and some grass.

Fair grazing. Southern exposure. Sandstone and conglomerate formation.

September 7, 1915.

Jos. C. Thoma

U. S. Surveyor.

September 8, 1915: At 2h, p. m., app. t., I set off 38° 8' N. on the lat. arc; 5° 52' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 9, 10, 15 and 16.

Chains.	
	Thence I run
	N. 89° 55' E., on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
80.27	Intersect the N. and S. line, 7 lks. N. of the cor. of secs. 10, 11, 14 and 15.
	Thence
	S. 89° 58' W., on true line bet. secs. 10 and 15.
	Asc. gradually over rolling mountainous land, through scattering cedar and piñon timber, over NE. slope of bench.
14.40	Top of asc., bears N. and SE.; desc. gradually.
28.30	Low saddle bears NW. and SE. Two draws, one drains NE. approximately 8 chs.; thence S. 70° E., and the other drains SW., 20 ft. below top of asc.; asc. gradually.
36.40	Spur, projects S., desc. gradually.
40.13½	Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, on solid rock, in mound of stone, for ¼ sec. cor., with brass cap mkd.
	¼ S 10 / S 15
	1915 from which
	A piñon, 12 ins. diam., bears N. 32° 30' W., 50 lks. dist., mkd. ¼S10BT.
	A pinon, 8 ins. diam., bears S. 15° 15' E., 18 lks. dist., mkd. ¼S15BT.
	Corner established 20 ft. below spur.
47.90	Bottom of gradual desc., bears N. and S., 15 ft. below ¼ sec. cor., asc. gradually through dense cedar and piñon timber.
69.60	Ridge, bears N. 70° E. and S. 70° W., 155 ft. above bottom of gradual desc.; desc. gradually.
80.27	The cor. of secs. 9, 10, 15 and 16, 55 ft. below ridge.
	Land, rolling mountainous.
	Soil, light sandy clay and gravel, rocky, shallow, on rocky subsoil.
	Timber, cedar and piñon.

Chains	
	Undergrowth, sage brush.
	Poor grazing. Mostly southern exposure. Volcanic formation.
	September 8, 1915.

	September 17, 1915: At 9h a. m., app. t., I set off 38° 8' N. on the lat. arc; 2° 31' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 9, 10, 15 and 16.
	Thence I run
	N. 0° 2' W., bet. secs. 9 and 10.
	Desc. over rolling mountainous land, through scattering cedar and piñon timber, and short sage brush undergrowth,
15.00	Hollow, drains S. 70° W., 60 ft. below sec. cor.; asc. gradually.
25.00	Start abrupt asc., bears E. and W.
34.40	Top of abrupt asc., bears E. and W., 225 ft. above hollow; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 9 | S 10
	1915 from which
	A piñon, 8 ins. diam., bears S. 75° 45' E., 112 lks. dist., mkd. ¼S10BT.
	A piñon, 6 ins. diam., bears S. 83° 30' W., 97 lks. dist., mkd. ¼S9BT.
	Continue gradual asc.
57.40	Base of abrupt asc., bears S. 70° W. and S. 70° E., 70 ft. above ¼ sec. cor.; asc. abruptly.
64.10	Ledge, 40 ft. high, bears NE., approximately 7 chs., thence S. 50° E. and S. 70° W.
78.20	Ledge, 20 ft. high, bears N. 65° E., approximately 7 chs., thence SE. and S. 65° W., 635 ft. above base of abrupt asc.; desc. gradually through dense young aspen and mahogany.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in

Chains.	
	the ground, along side of ledge outcropping, for the cor. of secs. 3, 4, 9 and 10, with brass cap mkd.
	T 31 S R 1 W S 4 | S 3 S 9 | S 10 1915 from which
	An aspen, 8 ins. diam., bears N. 29° 45' E., 45 lks. dist., mkd. T31SR1WS3BT.
	An aspen, 7 ins. diam., bears S. 13° 15' E., 52 lks. dist., mkd. T31SR1WS10BT.
	An aspen, 8 ins. diam., bears S. 10° W., 54 lks. dist., mkd. T31SR1WS9BT.
	An aspen, 7 ins. diam., bears N. 12° W., 9 lks. dist., mkd. T31SR1WS4BT.
	Land, mountainous, drains S. 70° W.
	Soil, light sandy and rocky clay; shallow, on rocky subso except in the hollows where it is hard sand and clay.
	Timber, cedar, piñon, and young aspen in the northern portion.
	Undergrowth, short sage, yellow top, mahogany and grass.
	Good grazing, especially in the S. half. Southern portion of mile exposed to the north, northern portion exposed to the S. Volcanic formation.
	September 17, 1915: I set off 38° 9' N. on the lat. arc, and at apparent noon, observe the sun on the meridian, the resulting decl. is 2° 28' N.

	N. 89° 58' E., on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect the N. and S. line, 2 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	Thence
	S. 89° 59' W., on true line bet. secs. 3 and 10.
	Asc. over rolling mountainous land, through short sage and yellow top undergrowth.
5.20	Ridge, bears NE. and S. 65° W., 20 ft. above sec. cor.;

Chains	
	desc. gradually.
20.20	Swale, drains N. 35° E., 60 ft. below ridge; asc. gradually.
40.10	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ ✓ S 3 S 10 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Corner established 40 ft. above swale. Continue gradual asc.
65.90	Ridge, bears N. 50° W. and SE.; desc.
72.70	Ledge, bears NW. and SE., 20 ft. high; enter dense young aspen and mahogany.
73.70	Base of desc., bears N. and S., 50 ft. below ridge; asc.
77.70	Ledge, 20 ft. high, bears N. 65° E. and S. 65° W., asc. gradually.
80.20	The cor. of secs. 3, 4, 9 and 10.
	Land, rolling mountainous; western portion drains S., eastern portion drains NE.
	Soil, light sandy loam, clay and rocky; shallow in the western portion, 2 to 3 ft. deep, on rocky subsoil in the eastern portion.
	Timber, clusters of dense aspen, some cedar and piñon
	Undergrowth, sage brush, yellow top, mahogany and grass.
	Good grazing. Western portion exposed to the SW., eastern portion exposed to the N. Volcanic formation.
	September 17, 1915.

September 18, 1915: At 10 a. m., app. t., I set off 38° 9' N. on the lat. arc; 2° 7' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10.

Thence I run

N. 0° 2' W., on true line bet. secs. 3 and 4, knowing that a closing cor. will be necessary on the Sixth

Chains.	
	Standard ParallelSouth.
	Desc. gradually over mountainous land, through dense asp and scattering spruce timber, mahogany, buck and servi brush undergrowth.
12.40	Draw, drains N. 70° W., 25 ft. below sec. cor.; asc. gradually.
20.20	Ledge, 10 ft. high, bears N. 35° E. and S. 35° W., 25 ft above draw; desc. over rocky NW. slope, through dense undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd. S ¼ 4 | S 3 1915 from which An aspen, 4 ins. diam., bears S. 51° 15' E., 23 lks. dist., mkd. ¼S3BT. An aspen, 4 ins. diam., bears S. 60° 45' W., 20 lks. dist., mkd. ¼S4BT.
	Corner established at foot of desc., bears E. and W., 110 ft. below ledge. Asc. gradually over exceptionally rocky SW. slope.
54.90	Ledge, 60 ft. high, and spur projects W., 120 ft. above beginning of gradual asc.; desc. over rocky NW. slope.
110.63	Intersect the Sixth Standard Parallel South, 13.85 chs. East of the std. cor. of secs. 33 and 34, or the U. S. Forest Bdy. Post No. 128, which is
	An iron post, 3 ins. diam., approximately 3 ft. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. At point of intersection I set
	An iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the closing cor. bet. secs. 3 and 4, with brass cap mkd. T 30 S R 1 W S 33 | S 34 S 4 | S 3 T 31 S 1915

Chains.	
	from which
	A spruce, 9 ins. diam., bears S. 7° 15' E.,
	163 lks. dist., mkd. T31SR1WS3CCBT.
	An aspen, 5 ins. diam., bears S. 9° 15' W.,
	268 lks. dist., mkd. T31SR1WS4CCBT.
	Corner established 600 ft. below spur.
	Land, mountainous, drains N.
	Soil, light sandy clay and dark loam, rocky and shallow,
	on rocky subsoil.
	Timber. cedar, piñon, spruce and aspen.
	Undergrowth, mahogany, buck and service brush, brier,
	sage brush, ypung spruce and aspen.
	Poor grazing. Northwestern exposure. Volcanic formation.
	September 18, 1915: Cloudy at noon, showers in the p. m.,
	unable to observe the sun for lat.
	September 18, 1915.

	August 17, 1915: At 10h a. m., app. t., I set off 38° 4'
	N. on the lat. arc; 13° 38' N. on the decl. arc, and
	determine a meridian with the solar at the cor. of
	secs. 4, 5, 32 and 33, on the S. bdy. of the Tp., hereto-
	fore described.
	Thence I run
	N. 0° 3' W., bet. secs. 32 and 33.
	Desc. gradually over mountainous land, through dense
	cedar, piñon and yellow pine timber, over NW. slope.
32.60	August 17, 1915: I set off 38° 4' 30" N. on the lat. arc,
	and at apparent noon, observe the sun on the meridian,
	the resulting decl. is 13° 36' N.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in
	the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 32 | S 33
	1915 from which
	A piñon, 10 ins. diam., bears N. 83° 15' E.,
	71 lks. dist., mkd. ¼S33BT.
	A piñon, 10 ins. diam., bears N. 12° W.,
	10 lks. dist., mkd. ¼S32BT.

Chains	
	Cor.established 120 ft. below sec. cor.; continue gradual desc.
43.50	Start abrupt desc., bears SW. and SE., 30 ft. below ¼ sec. cor.
53.60	Poison Creek road, bears S. 80° W. and S. 70° E.
55.10	Poison Creek, 6 lks. wide, 5 ins. deep, clear water, course S. 80° W. Stream comes from a large spring approxiamtely 30 chs. easterly. Asc. abruptly.
63.00	Ridge, bears S. 70° E. and S. 70° W., 205 ft. above creek; desc. abruptly.
66.80	Fork of two small ravines. One heads approximately 10 chs. SE., the other drains from the NE., both drain W., 95 ft. below ridge; asc. abruptly.
76.10	Ledge, 30 ft. high, bears NE. and S. 70° W., approximatel 15 chs., thence NW.; asc. gradually; 115 ft. above ravine.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 28, 29, 32 and 33, with brass cap mkd.

T 31 S R 1 W

S 29	S 28
S 32	S 33

1915 from which

A piñon, 9 ins. diam., bears N. 39° E., 81 lks. dist., mkd. T31SR1WS28BT.

A piñon, 26 ins. diam., bears S. 64° 15' E., 193 lks. dist., mkd. T31SR1WS33BT.

A piñon, 7 ins. diam., bears S. 14° 30' W., 50 lks. dist., mkd. T31SR1WS32BT.

A piñon, 14 ins. diam., bears N. 81° 30' W., 120 lks. dist., mkd. T31SR1WS29BT.

Land, mountainous, drains NW.

Soil, light sand, clay and rocky, 10 ins. deep, on light clay and rocky subsoil.

Timber, dense cedar, piñon and yellow pine.

Undergrowth, short sage, buck and service brush.

Chains.	Poor grazing. Northwestern exposure. Volcanic formation. August 17, 1915.
	August 25, 1915: At 8h a. m., apparent t., I set off 38° 5' N. on the lat. arc; 11° 1' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 28, 29, 32 and 33.
	Thence I run
	East, on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect the N. and S. line, 6 lks. S. of the cor. of secs. 27, 28, 33 and 34.
	August 25, 1915: Cloudy and showers at noon, unable to observe the sun for lat.
	Thence
	S. 89° 57' W., on true line bet. secs. 28 and 33.
	Desc. over rolling mountainous land, through scattering cedar and piñon timber.
12.50	Draw, drains S., 125 ft. below sec. cor.; asc. abruptly.
14.90	Spur, projects S. 5 chs., 55 ft. above draw; desc. gradually through dense cedar and piñon timber.
35.00	Leave dense timber, bears N. and S., enter rolling sage brush land, with scattering timber.
39.97½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd. ¼ / S 28 / S 33 / 1915 from which
	A piñon, 7 ins. diam., bears N. 54° 30' W., 149 lks. dist., mkd. ¼S28BT.
	A piñon, 8 ins. diam., bears S. 24° 15' W., 161 lks. dist., mkd. ¼S33BT.
	Continue over rolling land; through scattering cedar and piñon timber.
70.00	Ridge, bears N. and S., desc: gradually over rocky surface.

Chains.	
79.95	The cor. of secs. 28, 29, 32 and 33, 75 ft. below ridge.
	Land, rolling mountainous, drains W.
	Soil, light sandy loam, rocky, 2 to 3 ft. deep on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, sage and buck brush and grass.
	Fair grazing. W. and SW. exposure. Volcanic formation.

	N. 0° 3' W., bet. secs. 28 and 29.
	Asc. gradually over rocky SW. slope, over mountainous land, through dense cedar and piñon timber, and buck brush undergrowth.
36.00	Ridge, bears E. and N. 65° W., 105 ft. above sec. cor.; desc. gradually.
37.00	Ledge, bears NE. and SW.; desc. abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 29 | S 28 1915
	from which
	A piñon, 8 ins. diam., bears S. 79° E., 27 lks. dist., mkd. ¼S28BT.
	A piñon, 9 ins. diam., bears N. 85° 45' W., 13 lks. dist., mkd. ¼S29BT.
	Corner established 95 lks. below ledge. Continue abrupt desc.
54.30	Head of draw, drains W. approximately 10 chs., thence N., 275 ft. below ¼ sec. cor.; continue abrupt desc.
74.20	Ravine, drains W., approximately 8 chs., thence NW., 290 ft. below head of draw; asc. abruptly.
79.80	Spur, projects S. 70° W., 75 ft. above ravine; desc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 20, 21, 28 and 29, with brass cap mkd.

Chains.	
	T 31 S R 1 W S 20 | S 21 S 29 | S28
	1915 from which
	A cedar, 9 ins. diam., bears N. 39° 30' E., 46 lks. dist., mkd. T31SR1WS21BT.
	A piñon, 13 ins. diam., bears S. 64° 15' E., 64 lks. dist., mkd. T31SR1WS28BT.
	A piñon, 8 ins. diam., bears S. 11° 15' W., 11 lks. dist., mkd. T31SR1WS29BT.
	A piñon, 12 ins. diam., bears N. 61° 40' W., 94 lks. dist., mkd. T31SR1WS20BT.
	Land, mountainous; southern portion drains SW.; morthern portion drains NW.
	Soil, light rocky clay, 10 ins. deep, on light rocky clay subsoil.
	Timber, cedar, piñon, yellow pine and spruce.
	Undergrowth, black sage, rabbit brush and mahogany.
	Poor grazing. Western exposure. Volcanic formation.
	August 25, 1915.

	September 4, 1915: At 8h, a. m., app. t., I set off 38° 6' N. on the lat. arc; 7° 27' 30" N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 20, 21, 28 and 29.
	Thence I run
	N. 89° 57' E., on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
79.88	Intersect the N. and S. line, 2 lks. S. of the cor. of secs. 21, 22, 27 and 28.
	Thence
	S. 89° 56' W., on true line bet. secs. 21 and 28.
	Asc. over mountainous land, through dense cedar and piñon timber.
8.90	Spur, projects N., 105 ft. above sec. cor.; desc. abruptly.
11.80	Bottom of abrupt desc., bears N. and S.; desc. gradually.
21.50	Ravine, drains S. 30° E., 105 ft. below spur; asc.

Chains.	
39.94	Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 21 / S 28
	1915 from which
	A piñon, 15 ins. diam., bears N. 29° 15' W., 64 lks. dist., mkd. ¼S21BT.
	A piñon, 15 ins. diam., bears S. 51° 30' W., 15 lks. dist., mkd. ¼S28BT.
	Corner established on spur, projects N. 65° W. 285 ft. above ravine; desc.
51.80	Ravine, drains NW., 175 ft. below ¼ sec. cor.; asc.
53.40	Spur, projects NW., approximately 8 chs., 65 ft. above ravine.; desc. over rocky surface.
79.88	The cor. of secs. 20, 21, 28 and 29, 200 ft. below spur.
	Land, mountainous, drains W.
	Soil, light sandy and rocky clay, shallow, on light yellow clay subsoil.
	Timber, cedar, piñon and yellow pine.
	Undergrowth, sage and buck brush and mahogany.
	Poor grazing. Northern exposure. Volcanic formation.
	September 4, 1915: Cloudy at noon, unable to observe the sun for lat.

	N. 0° 3' W., bet. secs. 20 and 21.
	Desc. gradually over rough mountainous land, through dense cedar, piñon and scattering spruce timber, and mahogany undergrowth.
2.00	Head of small draw, drains NW.; asc. gradually.
7.00	Spur, projects N. 70° W., approximately 10 chs.; desc. abruptly over NW. slope.
18.10	Ravine, drains W.; 390 ft. below spur; asc. abruptly.
26.80	Spur, projects N. 70° W., approximately 12 chs., 90 ft. above ravine; desc. abruptly over NW. slope.

Chains	
30.80	Head of gulch, drains N. 60° W., 100 ft. below spur; asc.
31.50	Spur, projects N. 60° W., 65 ft. above head of gulch; desc. abruptly.
34.60	Head of gulch, drains N. 60° W., 125 ft. below spur; asc.
39.00	Spur, projects N. 60° W., approximately 10 chs.; 35 ft. above head of gulch; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd. S ¼ 20 | S 21 1915 from which A piñon, 7 ins. diam., bears S. 48° 15' E., 52 lks. dist., mkd. ¼S21BT. A piñon, 8 ins. diam., bears S. 23° W., 29 lks. dist., mkd. ¼S20BT. September 4, 1915 September 6, 1915: At 8h, a. m., app. t., I set off 38° 6' 30" N. on the lat. arc; 6° 43' N. on the decl. arc; and determine a meridian with the solar. Continue desc.
40.80	The NE. cor. of mill for mining purposes bears N. 11° W., the SE. cor., bears N. 14° 27' W., and the SW. cor. bears N. 16° 31' W. The mill is a frame structure, 55½ x 70 ft., containing the necessary machinery for treating antimony ore, and is owned by Romley & Clawson.
47.00	Base of abrupt desc., bears N. 80° E. and SW., 165 ft. below ¼ sec. cor.; desc. gradually.
47.90	Old flume and ditch to mill, drains NW. from the E.
50.90	The above described mill bears W., 158 lks. dist.
53.99	Road, bears N. 75° E. and S. 75° W.
54.80	One branch of Antimony Creek, clear water, swift current, 25 lks. wide, 1½ ft. deep, course S. 80° W.
58.00	Antimony Creek, 30 lks. wide, 1½ ft. deep, course S. 70° W.; asc. gradually.
67.00	Leave cañon bottom, bears E. and S. 50° W., 30 ft.

Chains.	
	above Antimony Creek. Asc. abruptly over SE. slope.
74.80	The NW. cor. of the above described mill bears S. 5° 29' W.; the SW. cor. beats S. 6° 53' W. Top of abrupt asc., bears E. and S. 50° W., 260 ft. above base.; asc gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 16, 17, 20 and 21, with brass cap mkd.

T 31 S R 1 W

S 17	S 16
S 20	S 21

1915

from which

A cedar, 16 ins. diam., bears N. 46° E., 66 lks. dist., mkd. T31SR1WS16BT.

A piñon, 16 ins. diam., bears S. 29° 15' E., 26 lks. dist., mkd. T31SR1WS21BT.

A cedar, 12 ins. diam., bears S. 39° 15' W., 139 lks. dist., mkd. T31SR1WS20BT.

A piñon, 12 ins. diam., bears N. 49° 30' W., 76 lks. dist., mkd. T31SR1WS17BT.

Corner established 25 ft. above top of abrupt asc.

Land, mountainous, drains W.

Soil, light rocky and sandy clay, 12 ins. deep, on rocky clay subsoil.

Timber, cedar, piñon, spruce and cottonwood along creek.

Undergrowth, Sage brush, brier, willows and birch along creek.

Poor grazing. Southern portion exposed to the NW., northern portion exposed to the SE. Sandstone and volcanic formation.

N. 89° 56' E., on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

September 6, 1915: I set off 6° 39' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 7' 30" N.

79.70 Intersect the N. and S. line, 22 lks. N. of the cor. of

Chains	
	the cor. of secs. 15, 16, 21 and 22.
	Thence
	N. 89° 54' W., on true line bet. secs. 16 and 21.
	Asc. over mountainous land, through dense cedar and piñon timber.
3.40	Ridge, bears NW. and SE., 110 ft. above sec. cor.; desc. over SW. slope.
28.00	Ravine, drains S., ; asc.
35.00	Spur projects S., 120 ft. above ravine; desc.
36.90	Ravine, drains S., 30 ft. below spur; asc.
39.85	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 16 / S 21
	1915 from which
	A piñon, 16 ins. diam., bears N. 10° 45' W., 59 lks. dist., mkd. ¼S16BT.
	A piñon, 13 ins. diam., bears S. 34° 45' W., 12 lks. dist., mkd. ¼S21BT.
	Corner established 35 ft. above ravine.
53.10	Ridge, bears NW. and S., 130 ft. above ¼ sec. cor.; desc. gradually.
66.20	Start abrupt desc., bears N. and S., 65 ft. below ridge.
71.30	Ravine, drains S., 185 ft. below beginning of abrupt desc.; asc.
79.70	The cor. of secs. 16, 17, 20 and 21, 50 ft. above ravine.
	Land, rough mountainous, drains S.
	Soil, rocky clay, shallow, on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, none.
	No grazing. Southern exposure. Volcanic and sandstone formation.
	September 6, 1915.

September 7, 1915: At 8h, a. m., app. t., I set off 38° 7' N. on the lat. arc; 6° 21' N. on the decl. arc; and

Chains.	
	determine a meridian with the solar, at the cor. of secs. 16, 17, 20 and 21.
	Thence I run
	N. 0° 3' W., bet. secs. 16 and 17.
	Asc. over rough mountainous land, through dense cedar and piñon timber, over rocky SE. slope along W. slope of draw.
5.80	Spur, projects S. 20° E., 90 ft. above sec. cor.; desc. gradually.
8.80	Head of draw, drains SE., 90 ft. below spur; asc. over rocky SW. slope of ridge.
13.00	Ridge, bears NE. and S. 30° W.
36.00	Start gradual asc. over W. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

¼ S 17 | S 16
1915

from which

A piñon, 8 ins. diam., bears S. 9° 45' E., 51 lks. dist., mkd. ¼S16BT.

A piñon, 9 ins. diam., bears N. 64° 45' W., 18 lks. dist., mkd. ¼S17BT.

	Corner established 300 ft. above head of draw; continue asc.
42.40	Spur, projects S. 50° W., 20 ft. above ¼ sec. cor.; desc. gradually.
44.50	Draw, drains SW., 40 ft. below spur; asc. over SW. slope.
60.80	S. edge of small bench, bears E. and NW., 170 ft. above draw, continue over bench.
69.50	Begin gradual asc., bears NW. and SE.
77.70	Ridge, bears NW. and SE., 130 ft. above beginning of gradual asc.; desc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, on solid rock, in mound of stone, for the cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

Chains	
	T 31 S R 1 W S 8 | S 9 S 17 | S 16
	1915 from which
	A piñon, 8 ins. diam., bears N. 61° 15' E., 31 lks. dist., mkd. T31SR1WS9BT.
	A piñon, 14 ins. diam., bears S. 13° E., 46 lks. dist., mkd. T31SR1WS16BT.
	A piñon, 24 ins. diam., bears S. 12° 30' W., 93 lks. dist., mkd. T31SR1WS17BT.
	A piñon, 10 ins. diam., bears N. 63° W., 59 lks. dist., mkd. T31SR1WS8BT.
	Land, mountainous, drains S.
	Soil, light sandy clay, rocky and shallow, on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, none.
	Poor grazing. Southwesterly exposure. Volcanic and sandstone formation.
	September 7, 1915: Cloudy at noon, unable to observe the sun for lat.
	S. 89° 54' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
	September 7, 1915.
	September 8, 1915: At 8h, a. m., apparent t., I set off 38° 8' N. on the lat. arc; 5° 58' N. on the decl. arc, and determine a meridian with the solar.
79.86	Intersect the N. and S. line, 3 lks. S. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	N. 89° 55' W., on true line bet. secs. 9 and 16.
	Asc. gradually over mountainous land, through dense cedar and piñon timber.
14.40	Head of hollow, drains NW., 85 ft. below sec. cor.; asc. gradually.
22.50	Ridge, bears NW. and SE., 25 ft. above head of draw; desc.

Chains	
	gradually through sage brush undergrowth.
34.50	Head of hollow, drains NW., 85 ft. below ridge; asc. gradually.
39.93	Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}}{\frac{S\ 9}{S\ 16}}$$

1915

from which

A piñon, 9 ins. diam., bears N. 42° 15' E., 82 lks. dist., mkd. ¼S9BT.

A pinon, 14 ins. diam., bears S. 6° 30' W., 175 lks. dist., mkd. ¼S16BT.

Corner established 10 ft. above head of hollow.

41.40	Ridge, bears SW. and SE., approximately 15 chs., thence NW., desc. gradually.
50.00	Start abrupt desc., bears NE. and S., 50 ft. below ridge.
59.20	Head of draw, drains NW., 160 ft. below beginning of abrupt desc.; asc. gradually over NE. slope of spur.
61.30	Spur, projects NW., ; desc.
77.60	Head of draw, drains N. 30° W., 195 ft. below spur; asc. abruptly.
79.86	The cor. of secs. 8, 9, 16 and 17, 55 ft. above head of draw.

Land, mountainous, drains W.

Soil, light sandy rocky clay, shallow, on rocky clay subsoil.

Timber, cedar and piñon.

Undergrowth, sage brush.

Poor grazing. Northwestern exposure. Volcanic formation.

September 8, 1915: I set off 5° 54' N. on the decl. arc, and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 8' N.

September 8, 1915.

September 11, 1915: The sky being over cast, it is impossible to determine a meridian with the solar, I back

Chains.	
	sight along line bet. secs. 16 and 17.
	Thence I run
	N. 0° 3' W., bet. secs. 8 and 9.
	Desc. over mountainous land, through dense cedar and piñon timber, and scattering buck brush undergrowth.
13.80	Ravine, drains S. 70° W., 220 ft. below sec. cor.; asc. gradually.
16.20	Spur, projects S. 70° W., approximately 4 chs., 10 ft. above ravine, desc.
19.10	Ravine, drains W. approximately 3 chs., thence S. 50° W.; asc.
34.00	Spur, projects SW., 300 ft. above ravine; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

S ¼ 8 | S 9

1915 from which

A piñon, 20 ins. diam., bears N. 46° E., 49 lks. dist., mkd. ¼S9BT.

A piñon, 16 ins. diam., bears S. 64° W., 6 lks. dist., mkd. ¼S8BT.

	Corner established 30 ft. below spur; continue desc.
40.40	Draw, drains SW.; asc.
49.40	Ridge, bears NE. and SW.; 185 ft. above draw; desc. abruptly.
66.40	Ravine, drains S. 60° W., 160 ft. below ridge; asc.
76.10	Head of gulch, 50 lks. SW., drains SW.; asc.
77.40	Spur, projects SW., 210 ft. above ravine; continue asc.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

T 31 S R 1 W

S 5	S 4
S 8	S 9

1915 from which

A piñon, 8 ins. diam., bears S. 79° W., 242 lks. dist., mkd. T31SR1WS8BT.

Chains.	
	A piñon limb, 9 ins. diam., bears N. 54° 30' W., 183 lks. dist., mkd. T31SR1WS5BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within reasonable distance suitable for bearing trees.
	Corner established 45 ft. above spur.
	Land, mountainous, drains SW.
	Soil, light sandy and rocky clay, shallow, on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, scattering buck brush and black sage.
	Poor grazing. Southwestern exposure. Volcanic and sand stone formation.
	September 11, 1915: Cloudy at noon, unable to observe the sun for lat.
	September 11, 1915.

	September 13, 1915: Sky overcast, unable to determine a meridian with the solar in the p. m., deflect an angle from the line bet. secs. 8 and 9.
	Thence I run
	S. 89° 55' E., on random line bet. secs. 4 and 9.
40.00	Set temp. ¼ sec. cor.
80.00	Set temp. point.
	September 13, 1915.
	September 17, 1915:
79.85	Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 3, 4, 9 and 10.
	Thence
	N. 89° 57' W., on true line bet. secs. 4 and 9.
	Desc. gradually over rolling mountain top, through dense aspen timber.
7.40	Leave dense aspen timber, bears N. and S., enter scattering cedar and piñon timber.
15.30	Start abrupt desc. and point of mountain top, bears E. and N. 80° W.; desc.

Chains.	
39.92½	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	$\frac{\overset{\frac{1}{4}}{S\ 4}}{S\ 9}$
	1915 from which
	A piñon, 5 ins. diam., bears N. 20° W., 168 lks. dist., mkd. ¼S4BT.
	A piñon, 5 ins. diam., bears S. 21° 45' E., 25 lks. dist., mkd. ¼S9BT.
	Corner established 525 ft. below beginning of abrupt desc.
64.00	Draw, drains SW.; asc. 440 ft. below ¼ sec. cor.
67.30	Spur, projects S., 60 ft. above spur; desc.
79.60	Base of perpendicular ledge, 25 ft. high, bears NW. and SE. 5 chs.; continue desc.
79.85	The cor. of secs. 4, 5, 8 and 9.
	Land, mountainous, drains SW.
	Soil, light sandy and rocky clay, shallow, on rocky subsoil.
	Timber, cedar and piñon, and aspen in the eastern portion.
	Undergrowth, mahogany, buck, service and black sage brush.
	Poor grazing. Southwestern exposure. Volcanic and sand stone formation.
	September 17, 1915.

	September 11, 1915.
	N. 0° 3' W., bet. secs. 4 and 5.
	Asc. abruptly over mountainous land, through dense cedar and piñon timber, over SW. slope.
.40	Base of perpendicular ledge, 25 ft. high, bears NW. and SE. 5 chs.
3.80	Top of abrupt asc., bears NW. and SE., 110 ft. above sec. cor.; asc. gradually.
11.80	Ridge, bears NE. and W., 50 ft. above top of abrupt asc.; desc. gradually through scattering cedar and piñon

Chains. timber and short sage undergrowth.

37.50 Draw, drains SW., 30 ft. below ridge; asc. gradually.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

S ¼ 5 | S 4

1915 from which

A piñon 8 ins. diam., bears N. 82° E., 98 lks. dist., mkd. ¼S4BT.

A piñon, 9 ins. diam., bears S. 71° 15' W., 80 lks. dist., mkd. ¼S5BT.

September 11, 1915.

September 13, 1915; Continue transit line.

48.00 Spur, projects SW., 20 ft. above ¼ sec. cor.; desc. gradually through dense cedar and piñon timber.

September 13, 1915: At 10h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 4° 2' N. on the decl. arc, and determine a meridian with the solar.

105.20 A small spring bears E. approximately 5 chs. dist.

109.70 A small spring, bears W., approximately 3.75 chs. dist., drains NW.

110.70 Intersect the Sixth Standard Parallel South, 13.61 chs. E. of the standard cor. of secs. 32 and 33, or the U. S. Forest Bdy. Post No. 129, which is

An iron post, 3 ins. diam., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. bet. secs. 4 and 5, with brass cap mkd.

T 30 S R 1 W
S 32 | S 33
S 5 C | C S 4
T 31 S

1915 from which

A cedar, 10 ins. diam., bears S. 18° 50' E., 189 lks. dist., mkd. T31SR1WS4CCBT.

A piñon, 14 ins. diam., bears S. 27° 45' W.,

Chains.	
	158 lks. dist., mkd. T31SR1WS5CCBT.
	Corner established 295 ft. below spur.
	Land, mountainous, drains SW.
	Soil, light sandy loam, clay and gravel, shallow, on light rocky clay subsoil.
	Timber, cedar and piñon.
	Undergrowth, black sage, rabbit, buck and service brush and mahogany, and grass.
	Good grazing. Southwestern exposure. Sandstone and volcanic formation.
	September 13, 1915: Cloudy at noon, unable to observe the sun for lat.
	September 13, 1915.

	Note: The line bet. secs. 31 and 32, 29 and 30, 19 and 20, 17 and 18, 7 and 8, and 5 and 6, is the Boundary of the Powell National Forest Reserve and was previously surveyed, therefore it was not run under this assignment.

	August 26, 1915: At 8h, a. m., app. t., I set off 38° 5' N. on the lat. arc; 10° 40' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 29, 30, 31 and 32, or Bdy. Post No. 135 of the Powell National Forest Bdy., which is
	An iron post, 3 ins. diam., 24 ins. above ground, firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	Thence I run
	East, on random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
76.74	Intersect the N. and S. line, 13 lks. S. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	S. 89° 54' W., on true line bet. secs. 29 and 32.
	Desc. gradually over mountainous land, through dense cedar and piñon timber and mahogany undergrowth.

Chains.	
8.60	Ledge, 15 ft. high, bears NE. and S., 85 ft. below sec. cor.; desc. abruptly.
19.10	Base of abrupt desc., bears NE. and S., 375 ft. below ledge. A draw, drains S. 80° W. from the NE. Desc. gradually through dense rabbit, brier, buck and service brush and cotton wood timber.
37.00	Small spring, drains S. into little Poison Creek.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 29}{S\ 32}$$

1915 from which

A piñon, 10 ins. diam., bears N. 20° 15' E., 64 lks. dist., mkd. ¼S29BT.

A cedar, 6 ins. diam., bears S. 78° W., 51 lks. dist., mkd. ¼S32BT.

Corner established 260 ft. below base of abrupt desc.

Continue gradual desc.

43.00	Creek, 5 lks. wide, 5 ins. deep, clear water, course NW., 3 chs., thence S. 80° W. Asc. gradually over NE. slope of spur.
60.00	Spur, projects N. 70° W.; desc. gradually.
75.20	Poison Creek road, bears S. 70° E. and NW. 2 chs., thence N. along fence.
76.74	The cor. of secs. 29, 30, 31 and 32.

Land, mountainous, drains W.

Soil, light sandy and rocky clay, 12 ins. deep, on light clay and rocky subsoil.

Timber, dense cedar and piñon, and scattering cottonwood.

Undergrowth, young cottonwood, brier, buck, service and rabbit brush.

Poor grazing. Southwestern exposure. Volcanic formation.

August 26, 1915: Cloudy and showers at noon, unable to observe the sun for lat.

Chains.	
	West, on true line bet. secs. 30 and 31, knowing that a closing cor. will be necessary on the W. bdy. of the Tp.
	Desc. gradually over rolling land, through scattering cedar, piñon and cottonwood timber, and dense sage brush undergrowth.
.04	Wire fence bears N. 3° 30' E. and N. 89° 45' W. I measure N. 3° 30' E., along wire fence, 4.86 chs., from this point Daniel Day's cabin, bears W. 1 ch. dist., which is a log structure, 47 x 16½ ft. A pole corral bears N. 3.40 chs. from cabin. Little Poison Creek, 3 lks. wide, 4 ins. deep, flows W., 1.40 chs. N. of the cabin.
2.20	Irrigation ditch, course NW., drains the entire flow of Poison Creek,
5.00	Poison Creek wash, dry, 30 lks. wide, 2 ft. deep, 40 ft. below sec. cor., drains N. 70° W., continue desc.
19.90	Leave timber, bears NE. and S.
20.50	Wire fence, bears N. 3° 45' E. and S. 3° 45' W. A sheep dipping pen bears S. 3° 45' W., 20.28 chs. and extends S. 4 chs. and W. 2 chs.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ \text{S}\ 30}{\text{S}\ 31}$$

1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Corner established 215 ft. below sec. cor.; continue gradual desc.
66.30	Poison Creek, 5 lks. wide, 4 ins. deep, course S. 70° W., 20 chs., thence N. 70° W., 85 ft. below ¼ sec. cor.
70.40	Same creek, course N. 70° W.; continue gradual desc.
76.73	Intersect the W. bdy. of the tp., 3.21 chs. S. of the cor. of secs. 25 and 36, T. 31 S., R. 2 W., heretofore described. At point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 30 and 31, with brass cap mkd.

Chains.	
	T 31 S R 2 W R 1 W S 25 | S 30 S 36 C C S 31 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Corner established 35 ft. below Poison Creek.
	Land, rolling mountainous, drains W.
	Soil, light sandy and rocky clay, 12 ins. deep, on light clay and rocky subsoil.
	Timber, scattering cedar, piñon and cottonwood in the eastern portion.
	Undergrowth, black sage and rabbit brush.
	Poor grazing. Western exposure. Volcanic formation.
	August 26, 1915.

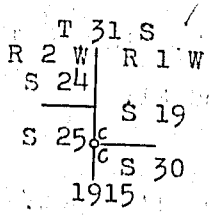
	September 15, 1915: At 8h, a. m., app. t., I set off 38° 6' N. on the lat. arc; 3° 19' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 19, 20, 29 and 30, which is
	A trachyte, 15x7x8 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general. This is also Forest Bdy. Post No. 134.
	Thence I run
	N. 89° 54' E., on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
76.92	Intersect the N. and S. line, 2 lks. S. of the cor. of secs. 20, 21, 28 and 29.
	Thence
	S. 89° 53' W., on true line bet. secs. 20 and 29.
	Desc. over mountainous land, through dense cedar and piñon and scattering spruce timber.
10.20	Spur, projects N. 60° W., 145 ft. below sec. cor.; continue desc.
19.30	Head of draw, drains S. 30° W., 90 ft. below spur; asc. gradually.
20.90	Low spur, projects S. 35° W.; desc.
35.50	Creek, 6 lks. wide, 4 ins. deep, clear water, course NW.,

Chains.	
	205 ft. below spur; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 20 / S 29
	1915 from which
	A piñon, 8 ins. diam., bears N. 7° W., 45 lks. dist., mkd. ¼S20BT.
	A piñon, 7 ins. diam., bears S. 14° 15' E., 87 lks. dist., mkd. ¼S29BT.
	Corner established 20 ft. above creek; continue asc.
49.30	Spur, projects NW., 195 ft. above ¼ sec. cor.; desc.
59.50	Draw, drains N., 290 ft. below spur; asc.
64.80	Spur, projects N. 20° W., 50 ft. above draw; desc.
	September 15, 1915: I set off 3° 14' N. on the decl. arc and at apparent noon, observe the sun on the meridian, the resulting lat. is 38° 6' 30" N.
76.40	The SE. cor. of T. C. King's house bears N. 57° 1' W., the SW. cor. of stack yard in W. Black's field bears N. 6° 1' E., approximately 28 chs.; the SW. cor. of an old log house, bears N. 6° 33' E., approximately 34 chs. the SW. cor. of another log house, bears N. 19° 7' E., approximately 40 chs.
76.92	The cor. of secs. 19, 20, 29 and 30, 200 ft. below spur.
	Land, mountainous, drains NW.
	Soil, light sandy, rocky clay, shallow, on rocky subsoil.
	Timber, dense cedar, piñon, scattering spruce, yellow pine and cottonwood.
	Undergrowth, willow, brier and birch along creek.
	Poor grazing. Northwestern exposure. Volcanic formation.

	West, on true line bet. secs. 19 and 30, knowing that a closing cor. will be necessary on the W. bdy. of the Tp.
	Desc. over mountainous land, through dense cedar and pinon timber, and scattering black sage undergrowth.

Chains.	
13.00	Leave mountainous land, bears NE. and S. 65° W., enter rolling foot-hills, 130 ft. below sec. cor.; desc. gradually.
18.00	Barbed wire fence, bears N. and S.
36.10	Antimony Creek, 30 lks. wide, 1½ ft. deep, clear water, swife current, course S. 65° W., 50 ft. below foot of mountainous land. Cottonwood trees along creek.
39.40	Leave dense cedar and piñon timber, bears N. and S., enter scattering sage brush and greasewood undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 19 / S 30
	1915 from which
	A pinon, 8 ins. diam., bears S. 12° 45' W., 82 lks. dist., mkd. ¼S30BT.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No other trees within reasonable distance suitable for bearing tree.
	Corner established 30 ft. above Creek.; desc. gradually, over rolling land.
51.90	Leave scattering sage brush and greasewood undergrowth, bears N. and S., enter cultivated land.
65.80	A corral, 1.90 x 1.90 chs., bears S., 4.26 chs. dist.
69.90	A log house, 26 x 24 ft., owned by H. Haight, bears S. 4.26 chs. dist.
73.10	Irrigation ditch, course S. 30° W.
78.09	Intersect the W. bdy. of the Tp., 4.76 chs. S. 2° 13' E. of the cor. of secs. 19, 24, 25 and 30, heretofore described. I destroy all mks. on old cor. per taining to secs. 19 and 30, and at point of intersection I
	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 19 and 30, with brass cap mkd.

Chains



Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Cor. established 5 lks. E. of an old rail fence, bearing N. 1° 47' W., and S. 1° 47' E. From the closing cor. the SE. cor. of T. C. King's house bears N. 36° 31' E.

Note: On September 15, a temporary closing cor was set; the true closing cor. above described was not set till after the retracement of the line bet. secs. 25 and 30, on September 16, 1915.

Land, mountainous and rolling foothills, drains S. 60° W.

Soil, light sandy clay, rocky, in the E. half; gravel, red sandy loam and clay in the W. half. Subsoil, red sandy loam and clay, rocky in the W. half; rocky in the E. half.

Timber, dense cedar and piñon in the eastern portion, cottonwood along creek banks.

Undergroth , black sage and greasewood.

Poor grazing. Southern and northwestern exposure.

Volcanic and sandstone formation.

September 15, 1915.

September 10, 1915: At 8h, a. m., app. t., I set off 38° 7' N. on the lat. arc; 5° 13' 30" N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 17, 18, 19 and 20, or Forestry Bdy. Post. No. 133, which is

An iron post, 3 ins. diam., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.

Thence I run

N. 89°53' E., on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

Chains.	
76.86	Intersect the N. and S. line, 8 lks. N. of the cor. of secs. 16, 17, 20 and 21.
	Thence
	S. 89° 56' W., on true line bet. secs. 17 and 20.
	Asc. over mountainous land; through dense cedar and piñon timber.
5.20	Ridge, bears N. 30° E. and S. 30° W., 110 ft. above sec. cor; desc. abruptly.
20.50	Small cañon, drains S., 335 ft. below ridge; asc. abruptly over rocky E. slope.
38.10	Ridge, bears N. 20° W. and S. 20° E., 530 ft. above cañon; desc. abruptly over rocky SW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 17 / S 20
	1915 from which
	A cedar, 12 ins. diam., bears N. 46° 45' W., 25 lks. dist., mkd. ¼S17BT.
	A piñon, 8 ins. diam., bears S. 6° 45' W., 50 lks. dist., mkd. ¼S20BT.
	Corner established 20 ft. below ridge; continue abrupt desc.
56.10	Base of abrupt desc., bears N. 35° E. and S. 20° W., 445 ft. below ¼ sec. cor.; desc. gradually.
61.10	Draw, drains SW., 55 ft. below base of abrupt desc; asc. gradually.
63.90	Spur projects SW., 3 chs. dist., 35 ft. above draw; desc. gradually.
69.60	Wash, 30 lks. wide, 3 ft. deep, drains S. 35° W., 50 ft. below spur; asc. gradually.
72.10	Leave dense cedar and piñon timber, bears N. 35° E. and S. 35° W., continue over rolling land, through rabbit brush undergrowth.
76.86	The cor. of secs. 17, 18, 19 and 20.

Chains	
	Land, mountainous and rolling foot-hills, drains S.
	Soil, light sandy clay, rocky and shallow in the eastern portion, light sandy clay and gravel in the western portion, on gravelly subsoil.
	Timber, dense cedar and piñon.
	Undergrowth, rabbit brush and yellow top.
	Poor grazing. General western exposure. Volcanic and sandstone formation.
	September 10, 1915: Cloudy at noon, unable to observe the sun for lat.

	West, on true line bet. secs. 18 and 19, knowing that a closing cor. will be necessary on the W. bdy. of the Tp.
	Desc. gradually over rolling land, through rabbit brush and yellow top.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd.
	¼ S 18 / S 19
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N' of cor.
	Continue gradual desc.
40.15	Road, bears NE. and SW.
45.00	Draw, drains SW., 25 ft. below ¼ sec. cor.; asc. gradually.
50.00	Spur, projects SW.; desc. gradually.
52.20	Draw, drains SW.; asc. gradually.
55.00	Low spur, projects S. 30° W., 5 chs.; desc.
60.00	Draw, drains S. 20° W.; asc. gradually.
69.00	Low flat spur, projects SW.; desc. gradually.
73.00	Draw, drains SW.; asc. gradually.
80.00	Set temp. point.
	September 10, 1915.
	September 16, 1915.
80.00	Intersect the W. bdy. of the Tp. S. 1° 25' E., 5.41 chs. of the cor. of secs. 13, 18, 19 and 24, heretofore

Samples.

described.

I destroy all mks. on old cor. pertaining to secs. 18 and 19, and at point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, on solid rock, in mound of stone, for the closing cor. to secs. 18 and 19, with brass cap mkd.

T 31 S
R 2 W | R 1 W
S 13 | S 18
S 24 | C
C S 19
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, rolling foot-hills, drains SW.

Soil, light sandy clay and rocky, shallow, on rocky sub-soil.

Timber, none.

Undergrowth, short yellow top.

Poor grazing. Southwestern exposure.

September 16, 1915.

September 9, 1916: At 8h, a. m., app. t., I set off 38° 8' N. on the lat. arc; 5° 36' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18, which is

An iron post, 3 ins. diam., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general. This is also Forest Bdy. Post No. 132.

Thence I run

N. 89° 56' E., on a random line bet. secs. 8 and 17.

40.00 Set temp. ¼ sec. cor.

76.81 Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 8, 9, 16 and 17.

Thence

S. 89° 54' E., on true line bet. secs. 8 and 17.

Asc. over mountainous land, through dense cedar and piñon timber.

1.88 Ridge, bears NE. and SE., 15 ft. above sec. cor.; desc.

Chains.	
	over SW. slope of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	$\frac{\frac{1}{4}\ S\ 8}{S\ 17}$
	1915 from which
	A pinon, 8 ins. diam., bears N. 47° W., 62 lks. dist., mkd. ¼S8BT.
	A pinon, 8 ins. diam., bears S. 18° E., 56 lks. dist., mkd. ¼S17BT.
	Corner established 415 ft. below ridge, continue desc.
50.20	Small ridge, bears N. 70° E. and SW.; continue desc.
57.90	Cañon wash, 20 lks. wide, 3 ft. deep, drains S. approximately 7 chs., thence SW., 150 ft. below ¼ sec. cor.; asc. SE. slope.
76.81	The cor. of secs. 7, 8, 17 and 18, 145 ft. above wash.
	Land, mountainous, drains SW.
	Soil, light sandy clay, rocky and gravel, shallow, on rocky subsoil.
	Timber, cedar and piñon.
	Undergrowth, none.
	Poor grazing. Southeastern exposure. Volcanic and sandstone formation.
	September 9, 1915: Cloudy at noon, unable to observe the sun for lat.

	West, on true line bet. secs. 7 and 18, knowing that a closing cor. will be necessary in the W. bdy. of the Tp.
	Asc. gradually over mountainous land, through dense cedar and piñon timber.
7.50	Ridge, bears N. 30° E. and S. 30° W., 50 ft. above sec. cor.; desc.
15.90	Hollow, drains S. 30° W., 145 ft. below ridge; asc.
25.30	Ridge, bears N. 35° E. and S. 35° W., 125 ft. above hollow; desc.

Chains.	
29.00	Head of draw, drains SW., 40 ft. below ridge; asc. gradually.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.

$\frac{\frac{1}{4}}{\frac{S\ 7}{S\ 18}}$

1915

from which

A cedar, 11 ins. diam., bears S. 46° 30' W., 56 lks. dist., mkd. ¼S18BT.

A piñon, 12 ins. diam., bears N. 24° 45' E., 28 lks. dist., mkd. ¼S7BT.

Corner established on spur projecting SW., desc. gradually.

60.80	Hollow, drains SW., 165 ft. below ¼ sec. cor.; asc. SE. slope.
80.00	Ridge, bears NE. and SW., 100 ft. above hollow; desc.

At this point I leave temp. point.

September 9, 1916.

September 22, 1915.

81.19	Intersect the W. bdy. of the Tp., 5.96 chs. S. of the cor. of secs. 12 and 13, T. 31 S., R. 2 W., heretofore described.

At point of intersection I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor to secs. 7 and 18, with brass cap mkd.

T 31 S

R 2 W | R 1 W

S 12 | S 7

S 13 | C S 18

1915

from whcih

A piñon, 13 ins. diam., bears N. 60° E., 206 lks. dist., mkd. T31SR1WS7CCBT.

A piñon, 8 ins. diam., bears S. 80° 30' E., 180 lks. dist., mkd. T31SR1WS18CCBT.

Land, mountainous, drains SW.

Soil, light sandy clay and rocky, shallow, on rocky sub soil.

Chains	
	Timber, dense cedar and piñon.
	Undergrowth, scattering sage brush.
	Poor grazing. Southwestern exposure. Volcanic and sandstone formation.
	September 22, 1915.

	September 14, 1915: At 8h, a. m., app. t., I set off 38° 9' N. on the lat. arc; 3° 42' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 5, 6, 7 and 8, or the Forest Bdy. Post No. 131, which is
	An iron post, 3 ins. diam., firmly set in mound of stone, mkd. and witnessed as described by the surveyor general.
	Thence I run
	N. 89° 54' E., on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
76.68	Intersect the N. and S. line, 18 lks. S. of the cor. of secs. 4, 5, 8 and 9.
	Thence
	S. 89° 46' W., on true line bet. secs. 5 and 8.
	Desc. gradually over mountainous land, through scattering cedar and piñon timber, over broken land along head of numerous spurs and ravines projecting and draining SW.
11.00	Spur, projects SW.; continue desc.
18.50	Ravine, drains SW., 315 ft. below sec. cor.; asc.
20.70	Spur, projects SW., 2 chs., 10 ft. above ravine; desc. abruptly.
21.40	Gulch, drains S., 35 ft. below spur; asc. abruptly.
29.70	Spur, from mesa point, 3 chs. NE., projects S. 35° W., 70 ft. above gulch; desc. over NW. slope exposed to the SW., over numerous unimportant small ravines and spurs draining and projecting S. 60° W., through buck and service brush, mohogany, spruce and yellow pine.
38.80	Ravine, drains S. 6 0° W., 175 ft. below spur; asc. grddually.

Chains.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd,

¼
S 5
S 8

1915 from which

A piñon, 10 ins. diam., bears N. 35° 45' W., 56 lks. dist., mkd. ¼S5BT.

A piñon, 24 ins. diam., bears S. 61° W., 117 lks. dist., mkd. ¼S8BT.

Corner established 30 ft. above ravine; continue gradual asc.

44.00 Spur, projects SW., 6 chs., 30 ft. above ¼ sec. cor.; desc.

48.30 Head of raxine, drains SW., 65 ft. below spur; asc. gradually.

49.30 Low saddle, bears NE. and SW., 15 ft. above ravine, from which, land drains NW. and S. Desc. along S. side of ravine.

58.30 Small ravine, drains N. 1 ch, into ravine draining N. 70° W., 140 ft. below saddle; asc. NE. slope through sage undergrowth.

7190 Small creek in draw, course NW. from NE., bears N. 7 chs. from line.

76.68 The cor. of secs. 5, 6, 7 and 8, 75 ft. above small ravine.

Land, mountainous, drains S in the eastern portion, NW. in the central portion and NE. in the western portion.

Soil, light yellow clay, rocky and shallow, on light yellow, rocky clay subsoil.

Timber, cedar, piñon, scattering yellow pine and spruce.

Undergrowth, mahogany, buck, sage and service brush.

Poor grazing. Volcanic and sandstone formation.

September, 14, 1915: Cloudy at noon, unable to observe the sun for lat.

West, on true line bet. secs. 6 and 7, knowing that a closing cor. will be necessary on the W. bdy. of the Tp.

Chains.	
	Desc. over mountainous land, through dense cedar and piñon timber, and mahogany, buck; service and sage brush undergrowth.
7.00	Draw, drains N. 60° W., 150 ft. below sec. cor.; asc. over NE. slope.
17.50	Spur, projects NW., 35 ft. above draw; desc.
25.10	Draw, drains NW., 150 ft. below spur; asc. NE. slope.
38.00	Spur, projects N. 30° W., 35 ft. above draw; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 6
S 7

1915 from which

A piñon, 10 ins. diam., bears N. 23° 30' W., 12 lks. dist., mkd. ¼S6BT.

A piñon, 12 ins. diam., bears S. 66° E., 36 lks. dist., mkd. ¼S7BT.

Corner established 45 ft. below spur; continue desc.

80.00 Set temp. point.

September 14, 1915.

September 22, 1915:

81.10 Intersect the W. bdy. of the Tp., 3.18 chs. S. of the cor. of secs. 1 and 12, T. 31 S. R 2 W., heretofore described.

At point of intersection, I

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the closing cor. for secs. 6 and 7, with brass cap mkd.

T 31 S
R 2 W | R 1 W
S 1 | S 6
S 12 | c
c S 7
1915 from which

A pinon, 28 ins. diam., bears N. 61° 45' E., 516 lks. dist., mkd. T31SR1WS6COBT.

A pinon, 6 ins. diam., bears S. 17° 30' E., 405 lks. dist., mkd. T31SR1WS7COBT.

Chains | Corner established 410 ft. below ¼ sec. cor.

Land, mountainous, drains W.

Soil, light sandy loam, clay and rocky on the ridges; sandy loam in hollows, on subsoil of gravel and rock.

Timber, dense cedar and piñon and scattering yellow pine.

Undergrowth, black sage, buck and service brush, and scattering mahogany.

Poor grazing. Northwestern exposure. Volcanic formation.

September 22, 1915.

Jos. C. Clark

U. S. Transitman.

GENERAL DESCRIPTION.

The land in this township is mostly rough mountainous, cut by numerous draws, ravines and cañons draining into Antimony Cañon and Creek, formerly known as Coyote Creek. Antimony Creek enters the township in the southeastern portion and flows northnorthwesterly for approximately three miles where it flows in a general westerly direction. The water is clear and cold, and the current swift, affording an excellent opportunity for power purposes.

The soil is mostly rocky and shallow and not well adapted for farming, except in the western portion along Antimony Creek, where several ranches have been located.

The township is well timbered with yellow pine, spruce, aspen, cedar and piñon, none however is of a marketable value. Generally the township is adapted to grazing.

About 10 years ago antimony deposits were discovered in Antimony Canon and several claims were located and considerable ore treated in two mills which were erected for that purpose. One mill is located in sec. 20 and the other in sec. 21. These mills being operated at a loss, I am informed, owing to the low price

Chains.	
	of antimony, have been closed and now stand idle. There are indications, however, of the mills starting operation in the near future.
	The center of the township can be reached by a good wagon road from Coyoto. The upper mill, or the mill in sec. 20, being approximately 8 miles from Coyoto.
	H. Haight's claim in Sec. 30, consists of 80 acres under fence, approximately 40 of which is under cultivation, his improvements consist of a house, barn, fence, corrals and irrigation ditches, valued at approximately 500 dollars.
	T. C. King's claim, which was formerly John E. Wilcox claim, in sec. 19, consists of 160 acres under fence, 50 acres of which is under cultivation, his improvements consist of a frame house, barn, corral, fence and irrigation ditch, valued at approximately $800.
	C. L. King's claim in Sec. 19, consists of 80 acres under fence, 40 of which is under cultivation, his improvements consist of a log house, barn, corral, fence and irrigation ditch, valued at approximately $1000.
	WM. Black's claim in Secs. 19 and 20, consists of 160 acres, approximately 10 of which is under cultivation, his improvements consist of a log house, corral, fence and irrigation ditch, valued at approximately $400.
	Daniel Day's claim, located in secs. 30 and 31, consists of approximately 40 acres under cultivation, his improvements consist of a log house, corral, sheep dipping pen, fence and irrigation ditch, valued at approximately $800.
	The land bordering Antimony Creek from the middle of Sec. 20 to the middle of Sec. 23, should be set aside as mineral lands.

Subdivision of T. 31 S., R. 1 W.

Jos. C. Thomas

U. S. Surveyor.

Jos. C. Clark

U. S. Transitman.

For oaths of U. S. Surveyor and U. S. Transitman, and certificate of assistants, see Book of Subdivision of T. 31 S., R. 1 W., this Group, (Book "M").

For table of latitudes, departures and closing errors, see Book of Boundaries of this township, (Book "A^2").

BOOK A-419

CERTIFICATE OF ASSISTANTS.

I ~~We~~, the undersigned, hereby certify upon honor that ~~we~~ I assisted, to the best of ~~our~~ my skill and ability, Joseph C. Clark, U. S. Transitman, ~~XXXXXXXXXX~~ during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of Tps. 31, 32 and 33 S., R. 1 W. and the Salt Lake Prin. Mer. through Tps. 31, 32 and 33 S.

of the Salt Lake Meridian, in the State of Utah.

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of ~~our~~ my knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Warren Clark	May 13, 1915	Sept. 15, 1915	Flagman

Subscribed and certified to before me on the dates of the final service as shown above.

Jos. C. Thoma
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....
.....
.....
.....
.....
..... of the .....
..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....
.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....
.....
.....
.....
.....
.....
.....
executed by .....
under his special instructions dated ....., 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. 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.

.....
U. S. Surveyor General.

6—2761

BOOK A-419

CERTIFICATE OF ASSISTANTS.

~~We~~ I, the undersigned, hereby certify upon honor that ~~we~~ I assisted, to the best of ~~our~~ my skill and ability, Jos. C. Thoma, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the subdivisional lines in T. 33 S., R. 1 W. and the retracement of the W. Bdy. T. 33 S., R. 1 W.

of the S. L. B. & M. Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of ~~our~~ my knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
E. J. Shell	May 12, 1915.	June 11, 1915	Axeman

Subscribed and certified to before me on the dates of the final service as shown above.

Jos. C. Thoma
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____

_____

_____

_____

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____

U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

_____, 191

The foregoing field notes of the survey of _____

_____

_____

_____

_____

_____

_____

executed by _____

under his special instructions dated _____, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____

U. S. 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.

_____

U. S. Surveyor General.

BOOK A-419

CERTIFICATE OF ASSISTANTS.

I ~~We~~, the undersigned, hereby certify upon honor that I ~~we~~ assisted, to the best of my ~~our~~ skill and ability, Jos. C. Thoma, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of Ts. 33 S., 32 S. and 31 S., R. 1 W. and the S. L. B. & M. through Tps. 31, 32 and 33 S.

of the S. L. B. & M. Meridian, in the State of Utah which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of my ~~our~~ knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
David Woodbury	June 18, 1915	July 31, 1915	Axeman.
David Woodbury	Aug. 1, 1915	Sept. 14, 1915	Cornerman.

Subscribed and certified to before me on the dates of the final service as shown above.

Jos. C. Thoma
U. S. Surveyor.

6—276A

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ _____ of the _____ _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____
U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

_____, 191

The foregoing field notes of the survey of _____ _____ executed by _____ under his special instructions dated _____, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____
U. S. 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.

_____
U. S. Surveyor General.

BOOK A-419

CERTIFICATE OF ASSISTANTS.

I ~~We~~, the undersigned, hereby certify upon honor that I ~~we~~ assisted, to the best of my ~~our~~ skill and ability, Jos. C. Thoma, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of T. 33 S., R. 1 W.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of my ~~our~~ knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
W. H. Shelley	May 10, 1915	June 14, 1915	Chainman.

Subscribed and certified to before me on the dates of the final service as shown above.

Jos. C. Thoma
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES ~~SURVEYOR~~.

I, Jos. C. Clark, Transitman, U. S. ~~Surveyor~~, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah and supplemental special instructions dated July 9, 1915, bearing date of the eleventh day of June, 1915, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Tps. 31, 32 and 33 S., R. 1 W., and Tps. 31 and 32 S., R. 2 W., and retracements in T. 31 S., R. 2 W., and the Salt Lake Meridian through Tps. 31, 32 and 33 S.; and retracements and surveys in T. 34 S. R. 2 W.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes, as having been executed 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 U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

in books A, D, J, L, and M.

Jos. C. Clark
~~U. S. Surveyor.~~
U. S. Transitman

Subscribed by said Jos. C. Clark, and sworn to before me this 26th day of May, 1916

M. A. Thorsen
U. S. Surveyor General

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....

executed by .....

under his special instructions dated ....., 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. 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.

.....
U. S. Surveyor General.

BOOK A-419

4—679 b

INDEX DIAGRAM.

Township 16 S, Range 3 E

611

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BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Jos. C. Thoma, and Jos C. Clark U S Transitman, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of Tps. 31, 32, and 33 S., R. 1 W., and Tps. 31, 32, and 34 S., R. 2 W., and retracements in T. 31 S., R. 2⅓ W., and the Salt Lake Meridian through Tps. 31, 32 and 33 S.,

of the Salt Lake Base and Meridian, in the State of Utah.

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
F. M. Wright	May 11, 1915	October 1, 1915	Chainman.
H. A. Bailey	May 4, 1915	October 1, 1915	Chainman.
R. C. Pay	May 11, 1915	October 1, 1915	Chainman.
Robert Quillian	May 11, 1915	October 1, 1915	Flagman and Chainman.
Leon Warner	June 13, 1915	October 1, 1915	Axeman and Flagman.
W. L. Bean	May 12, 1915	October 1, 1915	Axeman
H. F. Elliott	May 11, 1915	October 1, 1915	Cornerman.

Subscribed and certified to before me on the dates of the final service as shown above.

Jos. C. Thoma
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, Jos. C. Thoma, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah and supplemental special instructions dated July 9, 1913, bearing date of the eleventh day of June, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Tps. 31, 32 and 33 S., R. 1 W., and Tps. 31 and 32 S., R. 2 W., and retracements in T. 31 S., R. 2½ W.; the Salt Lake Meridian through Tps. 31, 32 and 33 S.; and retracements and surveys in T.34 S., R.2 W.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books A, D, H, I, J, K, L, & M. as having been executed 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 U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Jos. C. Thoma
U. S. Surveyor.

Subscribed by said Jos. C. Thoma, and sworn to before me this 22 day of April, 1916

SEAL

M. C. Thoresen
U. S. Surveyor General.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 13, 1917.

The foregoing field notes of the ~~survey of~~ retracement of part of west boundary Township No.31 South, Range No.1 West; retracement of part of Sixth Standard Parallel South, through Range No.1 West; and survey of the subdivision of Township No.31 South, Range No.1 West of the Salt Lake Base and Meridian, Utah,

executed by Jos.C.Thoma and Jos.C.Clark under special instructions dated June 11, 1913 and supplemental special instructions dated July 9, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and surveys they describe, are hereby approved.

M. C. Thoresen
U. S. 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.

6—2761

U. S. Surveyor General.

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Page

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Page

4—679

BOOK A-419

U. S. Land Office
APR 3 1917
SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE SURVEY OF ~~THE~~

A PORTION OF THE SUBDIVISION OF

T. 34 S., R. 5 E.

Of the Salt Lake Base and *Meridian,*

In the State of Utah.

EXECUTED BY

Jos. C. Thoma,

In the capacity of U. S. Surveyor, under instructions dated June 10, *191* 6,

Issued by the United States Surveyor General to govern surveys included in

Group No. 24, *which were approved by the Commissioner of the General Land*

Office, June 23, *191* 6.

Survey commenced June 30th, *191* 6.

Survey completed July 1st, *191* 6.

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INDEX DIAGRAM.

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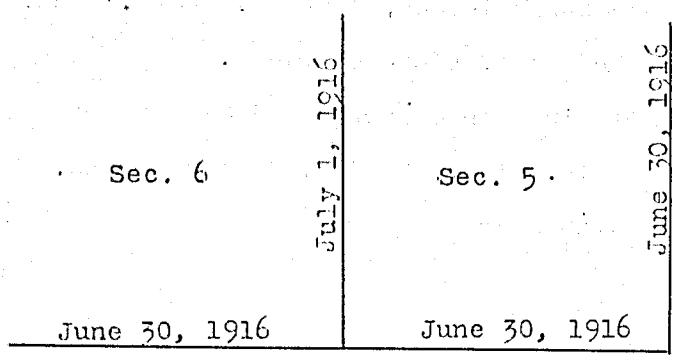
6—4817

Chsina.

DATE DIAGRAM.

T. 34 S., R. 5 E.



Lines along which dates are colored black were surveyed by Jos. C. Thoma, U. S. Surveyor.

Survey commenced June 30, 1916 and executed with Buff & Buff transit No. 9218, equipt with full vertical circle and Smith solar attachment.

For description and test of instrument, see notes of T. 33 S., R. 4 E.

The instrument was approved by the assistant supervisor of surveys for Utah in assignment instructions dated May 17, 1916.

Five chain Lallie steel tape was used in making all measurements, together with clinometer for determining slopes. The tape was tested, comparison being made with a standard steel tape, 1 chain long kept for that purpose only.

I begin at the cor. of secs. 1, 6, 7 and 12, T. 34 S., Rs. 4 and 5 E., which is

A trachyte, 12x8x8 ins. above ground, firmly set., mkd. and witnessed as described by the surveyor general.

Thence

East, on true line bet. secs. 6 and 7.

Asc. gradually over rolling land, through short sage

Chains

brush undergrowth.

10.00 Wash, 50 lks. wide, 10 ft. deep, drains SE.; continue asc.

18.50 Wash, 100 lks. wide, 30 ft. deep, drains SE.; continue asc.

21.80 Sandstone ledges, bears N. and S.; asc. abruptly over broken W. slope of ridge.

38.98 (Allowing for convergency) Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. with brass cap mkd.

$$\frac{S\ \frac{1}{4}\ 6}{S\ 7}$$

1916

Raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

45.00 Ridge, bears N. and S., 300 ft. above sec. cor.; desc. gradually, through scattering cedar and pinon timber.

57.10 Start abrupt desc. over W. slope of ridge.

78.98 (Allowing for convergency) Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of sec. 5, 6, 7 and 8, with brass cap mkd.

$$\begin{array}{c|c} T\ 34\ S\ R\ 5\ E & \\ S\ 6 & S\ 5 \\ \hline S\ 7 & S\ 8 \end{array}$$

1916 from which

A cedar, 12 ins. diam., bears N. 77° E., 107 lks. dist., mkd. T34SR5ES5BT.

A cedar, 14 ins. diam., bears S. 61° W., 8 lks. dist., mkd. T34SR5ES7BT.

A cedar, 16 ins. diam., bears N. 70° W., 38 lks. dist., mkd. T34SR5ES6BT.

No other trees within reasonable distance suitable for bearing trees.

Dig pits, 18x18x12 ins., in each sec. 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling and mountainous.

Soil, light sand, shallow on ridges, and approximately

Chains.	
	10 ft. deep in the valley.
	Undergrowth, sage brush and brigham tea.
	Timber, scattering scrub cedar and pinon.
	Poor grazing. Western exposure in the western portion; eastern exposure in the eastern portion. Sand stone formation.

	From the cor. of secs. 5, 6, 7 and 8.
	N. 0° 3' W., on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect the N. bdy. of the tp. 44 lks. W. of the cor. of secs. 5, 6, 31 and 32, which is also boundary post No. 39, of the Powell National Forest, heretofore described in the Notes of the subdivision of T. 33 S., R. 5 E.
	Thence
	S. 0° 16' W., on true line bet. secs. 5 and 6.
	Desc. gradually over nearly level cultivated land of Bert Peters.
32.90	Brush fence, bears NW. and SE.
36.10	Fence, bears E. and W., leave cultivated land, enter rolling land covered with scattering scrub cedar and pinon timber.
40.02	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	½ S 6 | S 5
	1916 from which
	A cedar, 12 ins. diam., bears N. 26° E., 214 lks. dist., mkd. ½S5BT.
	A cedar, 14 ins. diam., bears S. 23° 30' W., 177 lks. dist., mkd. ½S6BT.
70.00	Draw, drains SE.; asc.
76.80	White sand spur, projects SE., 35 ft. above draw; desc.
80.02	The cor. of secs. 5, 6, 7 and 8.

Chains.	
	Land, gently rolling.
	Soil, light sand, more than 2 ft. deep.
	Timber, scattering scrub cedar and pinon in the southern portion.
	Undergrowth, none in the northern portion; short sage and brigham tea in the southern portion.
	Poor grazing. Southern exposure. Sandstone formation.

	From the cor. of secs. 5, 6, 7 and 8.
	East on true line bet. secs. 5 and 8.
	Desc. gradually over rolling land, through scattering cedar and pinon timber.
6.50	Draw, drains S. 20° W., 30 ft. below sec. cor.; asc.
11.30	Spur, projects S. 20° W., 50 ft. above draw; desc.
31.50	Wash, 50 lks. wide, 3 ft. deep, drains S. 15° W., 50 ft. below spur; asc,
38.00	Small sand spur, projects S. 15° W., 30 ft. above wash; desc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap mkd.
	¼ S 5 / S 8
	1916 from which
	A cedar, 14 ins. diam., bears S. 30° W., 189 lks. dist., mkd. ¼S8BT
	A cedar, 12 ins. diam., bears N. 17° W., 156 lks. dist., mkd. ¼S5BT
	Continue desc.
50.20	Gulch, drains S. 20° W., 40 ft. below spur; asc.
56.50	Sand spur, projects SW.; 50 ft. above gulch; desc.
61.10	Draw, drains SW.; 50 ft. below spur; asc. abruptly over sandstone ledges covered with large malapai boulders.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., over cross on solid rock, in mound of stone, 6 ft. base, 3 ft. high, for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

Chains	
	T. 34 S. R. 5 E. S 5 | S 4 S 8 | S 9
	1916 from which
	A yellow pine, 14 ins. diam., bears N. 43° E., 234 lks. dist., mkd. T34SR5ES4BT.
	A yellow pine, 12 ins. diam., bears N. 49° 30' W., 124 lks. dist., mkd. T34SR5ES5BT.
	No other trees within reasonable distance suitable for bearing trees.
	Impracticable to build mound of stone on account of sloping ledges.
	Land, rolling in the western portion; mountainous in the eastern portion.
	Soil, deep sand in the western portion; barren sandstone in the eastern portion.
	Timber, scattering scrub cedar and pinon with a few scattering yellow pine in the extreme eastern portion.
	Undergrowth, scattering bitter brush.
	Poor grazing. Southern exposure. Sandstone formation.

	From the cor. of secs. 4, 5, 8 and 9.
	N. 0° 3' W., on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. bdy. of the tp. at the cor. of secs. 4, 5, 32 and 33, or bdy. post No. 40 of the Powell National Forest, which is
	An iron post, 4 ins. diam., firmly set on solid rock in a large mound of stone; mkd. and witnessed as described by the surveyor general.
	Thence
	S. 0° 3' E., on true line bet. secs. 4 and 5.
	Asc. over mountainous land, over sloping sandstone ledges, through scattering scrub cedar and pinon timber.
4.90	Top of ridge, bears NW. and SE., 50 ft. above sec. cor.
5.20	Start desc. over sandstone ledges and malapai boulders, bears NW. and SE.

Chains

40.00 Set an iron post, 3 ft. long, 1 in. in diam., over a cross on solid rock, in mound of stone, 5 ft. base, 3 ft. high, for the ½ sec. cor., with brass cap mkd.

$\frac{1}{4}$ S 5 | S 4

1916 from which

A cedar, 8 ins. diam., bears S. 57° E., 88 lks. dist., mkd. ¼S4BT.

A cedar, 12 ins. diam., bears S. 28° W., 52 lks. dist., mkd. ¼S5BT.

Continue desc.

49.80 Draw, drains SW., 650 ft. below ridge; asc.

80.00 The cor. of secs. 4, 5, 8 and 9, 190 ft. above draw.

Land, rough and broken mountainous.

Soil, white sand, shallow, with white sandstone exposed or close to surface.

Timber, scattering cedar and pinon and scattering yellow pine in the extreme southern portion.

Undergrowth, scattering bitter brush.

Poor grazing. Southern exposure. Sandstone formation.

Latitudes, departures and closing errors.

Lines Designated	Course.	Dist.	Latitude. N.	Latitude. S.	Deaprture. E.	Deaprture. W.
W. bdy. Twp.	North.	80.00	80.00	.....	.....	.....
N. bdy. Twp.	East.	158.88	.....	.....	158.88	.....
Bet.Secs.4 & 5	S. 0° 03' E.	80.00	.....	80.00	.07	.....
Bet.Secs.5-8 & 6 & 7,	West.	158.98	.....	.....	.....	158.98
Convergency,		.....	.....	.....	.03	.....
			80.00	80.00	158.98	158.98

GENERAL DESCRIPTION:

The land embraced in the surveyed portion of this township, viz. Secs. 5 and 6, is mostly gently rolling and covered with scattering cedar and pinon timber, except in the eastern portion and the extreme western portion which is broken by ridges and sandstone ledges. The unsurveyed portion

of the township is rough and broken mountainous land, cut by numerous canons with perpendicular white sandstone walls 200 to 500 ft. high, with narrow white sand ridges between, covered with large malapai boulders, gnarled pinon and cedar timber of no commercial value.

The soil in the valley in the surveyed portion is a deep white sand and not an ideal soil for cultivation.

Bert Peter claim in secs. 5 and 6, is located approximately 5 miles SE. of Boulder postoffice. His improvements consist of approximately 80 acres cleared and ready for cultivation, a log house, corral and fencing valued at approximately $1000. Not seen from line.

S. G. Shuffield, died shortly after the completion of this survey. His claim was located in Sec. 5. The improvements consist of a dug-out, ditches fencing and approximately 80 acres of cleared land with an approximate value of $800. Not seen from line.

There is practically no grazing in the township and I notice no indication of mineral or oil.

Jos. C. Thoma

U. S. Surveyor.

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Page

BOOK A-419

~~CERTIFICATE OF ASSISTANTS.~~

~~We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,~~ ....., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

~~of the~~ ..... ~~Meridian, in the State of~~ .....

~~which are represented in the foregoing field notes as having been executed 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 executed~~.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Walter Byergo			Chainman.
Phil Halvorsen			Chainman
E. Leavitt			Flagman.
D. H. Bemis			Cornerman.
Note: The above is a list of the assistants employed and who assisted in making the survey of that portion of T. 34 S., R. 5 E., as represented in the foregoing field notes.			

~~Subscribed and certified to before me on the dates of the final service as shown above.~~

Jos. C. Thoma
U. S. Surveyor.

6—2764

FINAL ~~OATH~~ OF UNITED STATES SURVEYOR.

I, Jos. C. Thoma, U. S. Surveyor, do ~~solemnly swear~~ certify on honor that, in pursuance of supplemental special instructions received from the U. S. Surveyor General for Utah bearing date of the 10th day of June, 1916, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

T. 34 S., R. 5 E.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes and date diagram on page 1 as having been executed by me, and under my direction on dates shown on diagram; and I do further ~~solemnly swear~~ certify on honor 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 U. S. Surveyor General for Utah. and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Dated April 2, 1917

Jos. C. Thoma
U. S. Surveyor.

~~Subscribed by said, and sworn to before me this day of, 191~~

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 18 1917.

The foregoing field notes of the survey of the subdivision of a portion of Township No. 34 South, Range No. 5 East of the Salt Lake Base and Meridian, Utah

executed by Joseph C. Thoma under supplemental special instructions dated June 10, 1916, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. 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.

U. S. Surveyor General.

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Page

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U. S. Surveyor General's Office
APR 9 1917
SALT LAKE CITY, UTAH.

BOOK A-419

FIELD NOTES

OF THE SURVEY OF ~~THE~~

A PORTION OF THE SUBDIVISION OF

T. 33 S., R. 5 East

Of the Salt Lake Base and *Meridian,*

In the State of Utah.

EXECUTED BY

Jos. C. Thoma,

In the capacity of U. S. Surveyor, under instructions dated June 10th, *1916, issued by the United States Surveyor General to govern surveys included in Group No.* 24, *which were approved by the Commissioner of the General Land Office,* June 23, *1916.*

Survey commenced July 1st, *1916.*

Survey completed July 1st, *1916.*

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BOOK A-419

INDEX DIAGRAM.

Township 33 South, *Range* 5 East

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

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BOOK A-419

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INDEX DIAGRAM.

Township 13 S, Range 5 E

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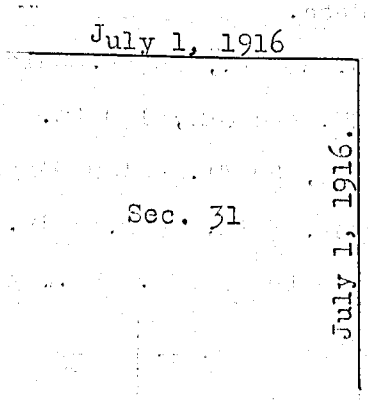
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31 581 579	32	33	34	35	36

6—1817

DATE DIAGRAM:



Lines along which dates are colored black were surveyed by Jos. C. Thomá, U. S. Surveyor.

Survey commenced July 1, 1916 and executed with Buff & Buff transit No. 9218, equipt with full vertical circle and Smith solar attachment.

For description and test of instrument, see notes of T. 33 S., R. 4 E.

The instrument was approved by the assistant supervisor of surveys for Utah in assignment instructions dated May 13, 1916.

Five chain Lallie steel tape was used in making all measurements, together with clinometer for determining slopes. The tape was frequently tested, comparison being made with a standard steel tape, 1 chain long kept for that purpose only.

I begin at the Forest Boundary Post No. 39, of the Powell National Forest, which is also the cor. of secs. 5, 6, 31 and 32, Ts. 33 and 34 S., R. 5 E., which is

An iron post, 4 ins. diam., 24 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.

North 0° 03' W., bet. secs. 31 and 32.

Asc. over mountainous land, through scattering cedar and pinon timber.

Chains.	
8.50	Spur, projects SE., approximately 10 chs., 20 ft. above sec. cor.; desc.
13.60	Draw, drains S. 50° E., 20 ft. below spur; asc.
30.00	Ridge, bears NW. and SE., 130 ft. above draw; desc.
37.60	Draw, drains SE., 20 ft. below ridge; asc.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S ¼ 31	S 32

1916 from which

A pinon, 14 ins. diam., bears S. 47° E., 125 lks. dist., mkd. ¼S32BT.

A pinon, 10 ins. diam., bears S. 33° W., 69 lks. dist., mkd. ¼S31BT.

Continue asc.

68.20	Ridge, bears NW. and SE., 500 ft. above draw, desc.
78.20	Draw, drains SE., 20 ft. below ridge; asc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for the cor. of secs. 29, 30, 31 and 32, with brass cap mkd.

T 33 S R 5 E

S 30	S 29
S 31	S 32

1916 from which

A cedar, 10 ins. diam., bears N. 43° E., 91 lks. dist., mkd. T33SR5ES29BT.

A cedar, 14 ins. diam., bears S. 66° E., 279 lks. dist., mkd. T33SR5ES32BT.

A cedar, 8 ins. diam., bears S. 42° W., 46 lks. dist., mkd. T33SR5ES31BT.

A pinon, 8 ins. diam., bears N. 43° W., 41 lks. dist., mkd. T33SR5ES30BT.

Land, mountainous.

Soil, light sand, shallow and covered with large malapai boulders.

Timber, scrub cedar and pinon.

Chains.	
	Undergrowth, sage brush and brigham tea.
	Poor grazing. Sandstone formation. Southern exposure.

	From the cor. of secs. 29, 30, 31 and 32.
	West, on a random line bet. secs. 30 and 31.
40.00	Set temp. ¼ sec. cor.
78.39	Intersect the W. bdy. of the tp., 16 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described in the notes of T. 33 S., R. 4 E.
	Thence
	N. 89° 53' E., on true line bet. secs. 30 and 31.
	Desc. over mountainous land, through scattering scrub cedar and pinon timber and sage brush undergrowth.
14.90	Draw, drains SE., 50 ft. below sec. cor.; asc. abruptly over broken SW. slope of ridge.
38.39	Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, on solid rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.
	¼ S 30 / S 31 1916 from which
	A pinon, 8 ins. diam., bears N. 25° E., 73 lks. dist., mkd. ¼S30BT.
	A pinon, 6 ins. diam., bears S. 58° E., 40 lks. dist., mkd. ¼S31BT.
	Continue abrupt asc.
40.30	Ridge, bears NW. and SE., 430 ft. above draw; desc. gradually.
78.39	The cor. of secs. 29, 30, 31 and 32, 60 ft. below ridge.
	Land, mountainous.
	Soil, deep white sand in the bottom land, shallow in the slopes, covered with large malapai boulders.
	Timber, cedar and pinon.
	Undergrowth, sage brush.
	Poor grazing. Southern exposure. Sandstone formation.

Latitudes, departures and closing errors.

Lines Designated.	Course.	Dist.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
W. Bdy. Twp.	North.	80.00	80.00	.....	.....	.....
Bet. Secs. 30 & 31.	N. 89°53' E.	78.39	.16	.....	78.39	.....
Bet. Secs. 31 & 32.	S. 0°03' E.	80.00	.....	80.00	.07	.....
S. Bdy. Twp.	West.	78.88	.....	.....	.....	78.88
Convergency					.02	
			80.16	80.00	78.48	78.88
			80.00			78.48
Error in latitude, ...			.16			
Error in departure, ...						.40

GENERAL DESCRIPTION:

The land embraced in the surveyed portion of this township, viz. in Sec. 31, is mostly gently rolling and covered with dense cedar and pinon timber; the remainder of the township is rough mountainous land, broken by numerous canons with perpendicular white sandstone walls 200 to 500 ft. high, with narrow white sand ridges between, covered with large malapai boulders, gnarled pinon and scrub cedar timber, of no commercial value.

The soil in Sec. 31, is mostly a deep white sand and not an ideal soil for cultivation.

W. A. and J. C. Liston, whose post office address is Boulder, Utah, have claims in Sec. 31. Their improvements consist of one log cabin, fencing, ditches and approximately 20 acres of plowed land. The value of the improvements are valued at approximately $500.

There is practically no grazing in the township and I notice no indication of mineral or oil.

Liston's improvements not seen from line.

Jos. C. Thoma

U. S. Surveyor.

BOOK A-419

~~CERTIFICATE OF ASSISTANTS.~~

~~We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,~~ _____, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of _____

of the _____ Meridian, in the State of _____

~~which are represented in the foregoing field notes as having been executed 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 executed.~~

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Walter Byergo			Chainman.
Phil. Halvorsen			Chainman.
E. Leavitt			Flagman.
D. H. Bemis			Cornerman.
Note: The above is a list of the assistants employed and who assisted in making the survey of that portion of T. 33 S., R. 5 E., as represented in the foregoing notes.			

~~Subscribed and certified to before me on the dates of the final service as shown above.~~

Jas. L. Thomas

U. S. Surveyor.

FINAL ~~OATH~~ OF UNITED STATES SURVEYOR.

I, Jos. C. Thoma, U. S. Surveyor, do ~~solemnly swear~~ certify on honor that, in pursuance of supplemental special instructions received from the U. S. Surveyor General for Utah bearing date of the 10th day of June, 1916, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of T. 33 S., R. 5 East of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes and date diagram on page 1 as having been executed by me, and under my direction; on dates shown on diagram; and I do further ~~solemnly swear~~ certify on honor 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 U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Signed March 30, 1917

Jos. C. Thoma
U. S. Surveyor.

~~Subscribed by and sworn to before me~~

~~this day of, 19~~

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 18, 1917.

The foregoing field notes of the survey of the subdivision of a portion of the Township No. 33 South, Range No. 5 East of the Salt Lake Base and Meridian, Utah,

executed by Joseph C. Thoma under ~~his~~ supplemental special instructions dated June 10, 1916, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

C. C. Thoreson
U. S. 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.

6—2761

U. S. Surveyor General.

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MAR 7 1916
SALT LAKE CITY, UTAH

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BOOK A-419

E.

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESUVEY OF THE SOUTH BOUNDARY:
3RD. STANDARD PARALLEL SOUTH THROUGH RANGE 3EAST
AND SUBDIVISION AND SURVEY OF THE SUBDIVISION OF
T.16 S.,R.3 E.

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

Howard W. Miller, U. S. Surveyor

and

Thomas C Rathbone, U. S. Transitman

~~In the capacity of U.S. Surveyor~~ *under instructions dated* July 19, *1913,*
issued by the United States Surveyor General to govern surveys included in
Group No. 26, *which were approved by the Commissioner of the General Land*
Office, August 13, *1913*

Survey commenced November 15, *1913*

Survey completed October 8, *1915*

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INDEX DIAGRAM.

Township 16 South, Range 3 East

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

chains

Survey commenced November 15,1913 and executed with Young and Sons light mountain transits Nos. 8515, 8582 and 8589, with Smiths solar attachment. The horizontal limbs are provided with two double verniers, placed opposite to each other and reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs.

The instruments were approved for use in this survey by The Assistant Supervisor of Surveys for Utah.

I examine the adjustments of the transits and correct the level and collimation errors; then, to test the solar apparatus, by comparing their indications, resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations made on Polaris, I proceed as follows:

Test of transits 8515 and 8589

At my camp which is situated near the ¼ sec. cor., bet. secs. 13 and 18 on the E. bdy. of the Tp., approximate latitude 39° 26'N.; longitude 111° 34' W., I set off 39° 26' on the lat. arc; 20° 42'S., on the decl. arc; and at 3h. 47m.p.m.l.m.t., determine a meridian with transit No. 8589, and mark a point thereof on a nail, driven in a peg, set firmly in the ground about 5 chs. N. of the station. With this same lat. and decl. set off on the arcs of transit No. 8515, I determine a meridian with the solar and find that this meridian coincides with the meridian established with transit No.8589.

At 6h. 22m.p.m.l.m.t., I set transit No.8589 in the above meridian, clamp the verniers at zero and direct the telescope to the nail set in the peg about 5 chs. N.

At 6h.27m.p.m.l.m.t., I unclamp the vernier plate, obs. Polaris in accordance with the Manual of Instructions, and mark the direction thus determined by a nail driven in a peg, set firmly in the ground about 5 chs. N. The

chains

readings of the vernier at the time of obsn. are as follows:

Telescope direct	1° 00'.
Telescope reversed	1° 00'.

Astronomical time of obsn. Nov.25	6h. 27m.
Equivalent to time of Nov. 24	30h. 27m.

Astron. time of U.C.Pol. Nov.24	9h. 15m.
Hour angle of Pol. at obsn.	21h. 12m.
Subtract from	23h. 56m.
Time arguement	2h. 44m.

Azimuth of Polaris at obsn. 1° 00'E.

The true meridian established with the solars therefore bears North.

November 25,1913

November 26: At 7h. 47m. a.m.l.m.t., I set off 39° 26' on the lat. arc; 20° 52'S., on the decl. arc; and determine a meridian with transit No. 8589 and find that the meridian determined by observations on Pol. bears N.1° 00'E.At 8h. 17m.a.m.l.m.t., I set off 39° 26' on the lat. arc; 20° 53'S., on the decl. arc; and determine a meridian with transit No. 8515 and find that the Pol. meridian bears N.0°59'E. The solar meridians determined by a.m. and p.m. hours with the transits do not vary more than 1' from the meridian established by observations made on Pol., I therefore conclude that the adjustments of the instruments are satisfactory,

The magnetic bearing of the true meridian at 8h.30m.a.m.l. m.t. is N.16° 45'W., the angle thus determined gives the magnetic decl. 16° 45'E.

Test of transit No. 8582

May 14,1915: Station near the cor. of secs. 4,5,8 and 9, T.17 S.,R.3 E., approximate lat. 39° 22'N., longitude 111° 38'W.

At 7h. 10 m.p.m.l.m.t., I obs. Pol. in accordance with instructions in the Manual and note that an angle to a point on a barn about 25 chs. distant is N.17° 08'E.

chains

L.M.T. of obsn. May 14,1915 ---------- 7h. 10 m.p.m.

L.M.T.of U.C.Pol. May.14,1915 ----------10h. 04 m.a.m.
Corrected for long. 111°38'W., subtract--00h. 01.2m.
Correct L.M.T.of U.C.Pol. May 14,1915 10h. 02.8m.p.m.

Time elapsed from U.C. to time of obsn.- 9h. 07.2m.
Hour angle of Pol. at obsn. ---------- 9h. 07.2m.

Azimuth of Pol. at obsn. ---------- N.1° 00'W.

The true bearing of the point on the barn is therefore N.16° 08'E.

May 14,1915

May 15: At 8h. 26m.a.m.l.m.t., I set off 39° 22' on the lat. arc; 18° 44'N., on the decl. arc; and determine a meridian with the solar and find that the point on the barn bears N.16°04'E.

With the instrument in the meridian; I setoff39° 22' on the lat. arc; and at apparent noon obs, the sun on the meridian; the resulting decl. is 18° 46' N.

At 2h. 56m.p.m.l.m.t., I set off 39° 22' on the lat. arc; 18° 48'N., on the decl. arc; and determine a meridian with the solar and find that the point on the barn bears N.16° 03'E.

I adjust the instrument to agree with the meridian.

May 15,1916.

May 16: At 7h. 56m.a.m.l.m.t, I set off 39° 22' on the lat. arc; 18° 58'N., on the decl. arc; and determine a meridian with the solar and find that the point on the barn, bears N.16° 08'E.

At 2h. 56m.p.m.l.m.t., I set off 39° 22' on the lat. arc; 19°02'N., on the decl. arc; and determine a meridian with the solar and find that the point on the barn bears N. 16° 08'E.

The instruments a.m. and p.m. solar meridians agree with the meridian determined by observations made on Pol., I therefore conclude that the adjustments of the transits are satisfactory.

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chains	
	November 15:
	For solar obsn. see line bet. secs. 25 and 30, E. bdy. of this Tp.
	From the cor. of T.17 S.,Rs. 3 and 4 E., heretofore described, I run
	West, bet. secs. 1 and 36
40.00	No trace of the old ¼ sec. cor. can be found, I therefore continue my line west and at 120.21 chs. fall 2.00 chs. N. of the ¼ sec. cor. bet. secs. 2 and 35 which is a limestone, 20 x 6 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 35 / ¼ / S 2 / 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	This falling answers to a correction of 66 2/3 lks. or 57' per half mile counting from the cor. of T.17 S., Rs. 3 and 4 E.
	Thence from ¼ sec. cor. bet. secs. 2 and 35
	N.89° 03'E., resurveying bet. secs. 2 and 35
	Over rolling mountainous land, gradually descend over SE. slope of spur through scattering scrub cedar timber and undergrowth of sage brush.
5.05	S. end of Jacob Petersons rock quarry bears N. about 5 chs.
6.05	Road, rock quarry to Ephraim, Utah, bears NE. and SW.
8.90	Hollow, 40 ft. below ¼ sec. cor., drains SW.
	Gradually ascend over W. slope.
18.45	Road, rock quarry to Ephraim, Utah, bears N. and SE.
25.70	Spur, 60 ft. above hollow, projects SW. about 5 chs.
	Gradually descend over E. slope.
36.00	Base of mountain and leave timber, bears N. and S.
	Thence over rolling land.

chains	
37.55	Road, Ephraim, Utah to Canal canyon, bears NE. and SW.
40.08	Proportionate measurement. Knowing that the line bet. secs. 35 and 36, T.16 S.,R.3 E. will not intersect this bdy. within limits, I establish the cors. along this line for T.17 S.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 1 and 2, T.17 S.,R.3 E., with brass cap marked

T 16 S R 3 E
S 2 | S 1
T 17 S
1913

	raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, rolling mountainous, general SW. drainage.
	Soil, 3rd. rate; stony and rocky on rocky sub-soil.
	Timber, 36.00 chs. of scattering cedar.
	Undergrowth, sage brush.

	N.89° 03'E., on N. bdy. sec.1, T.17 S.,R.3 E.
	Gradually ascend over gently rolling ground sloping W., through short undergrowth of sage brush.
.63	Wire fence, bears N., S. and E.
	Thence along S. side of fence in lane, land subject to floods.
38.87	The point for ¼ sec. cor. will fall on land subject to floods, I therefore perpetuate cor. on safe ground as follows: North 66 lks. from this point,
	Set an iron post, 3 ft, long, 1 in. in dia., 26 ins. in the ground for witness cor. to the ¼ sec. cor., with brass cap marked

T 16 S R 3 E
WC¼
S 1
T 17 S R 3 E
1913

	raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
40.08	Proportioned point for the ½ sec. cor. falls on ground

chains	
	subject to overflow, no cor. set at this point.
40.45	Wash, 10 lks. wide, 5 ft. deep, drains S.80°W.
40.95	Old corral bears S.1.30 chs.
45.45	Leave gently rolling land and land subject to floods, enter mountainous land and scrub cedar and pinon timber, bears NE. and SW. Ascend over W. slope.
63.58	Spur, 60 ft. above valley, projects N. Descend.
71.35	Hollow, 35 ft. below spur, drains NW. Gradually ascend.
78.99	The closing cor. of T. 16 S.,Rs. 3 and 4 E. heretofore described.
80.16	The cor. of T.17 S.,Rs.3 and 4 E.
	Cor stands 45 ft. above hollow on N. slope.
	Land, W. 45.45 chs. level. E. 34.71 chs. mountainous. General drainage W.
	Soil, dry, brown loam, largely mixed with rock and stones on rocky sub-soil, 3 rd. rate.
	Timber, scrub cedar and pinon on E. 34.71 chs.
	Undergrowth, sage brush
	November 15,1913.

November 26: For solar obsn. see line bet. secs. 25 and 36, subdivision of T.16 S.,R.3 E.

From the ¼ sec. cor. bet. secs. 2 and 35, I run West, retracing W. ½ mile bet. secs. 2 and 35.

Over rolling mountainous land, ascending SE. slope of spur through scattering scrub cedar and pinon timber and undergrowth of sage brush.

2.75	Spur, 20 ft. above ¼ sec. cor., projects SW. Gradually descend.
16.45	Hollow. 60 ft. below spur, drains S. 30°W. Ascend.
21.75	Spur, 75 ft. above hollow, projects SW. Gradually descend.
33.45	Hollow, 75 ft. below spur, drains SW. gradually ascend.
36.55	Spur, 60 ft. above hollow, projects SW. Gradually descend.
40.15	Wood road, bears NE. and SW.

chains

40.25 Fall 13 lks. N. of the cor. of secs. 2, 3, 34 and 35 which is a limestone, 10 x 8 x 5 ins., above ground, firmly set, and marked and witnessed as described by the surveyor general.

I destroy all traces of the old cor. and reestablish it at the same point as follows:

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 2,3,34 and 35, with brass cap marked

T 16 S S 34	R 3 E S 35
S 3	S 2

T 17 S
1913

dig pits, 18 x 18 x 12 ins., in each sec., 5½ ft. dist.; raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

The bearing of this ½ mile is S.89° 49'W., and the distance is 40.25 chs.

Land, rolling mountainous, general SW. exposure and drainage.

Soil, clay and rocky on rocky sub-soil; 4th. rate.

Timber, scattering scrub cedar and pinon.

Undergrowth, sage brush.

November 26,1913.

Howard W. Miller
U. S. Surveyor.

Resurvey of the 3rd. Stan. Par. S., through R.3 E.

November 29: For solar obsn., see N. ½ mile bet. secs. 7 and 12., W. bdy. of T.16 S.,R.4 E.

From the cor. of Tps. 15 and 16 S., Rs. 3 and 4 E., heretofore described, I run

chains	
	S.89° 20'W., retracing bet. secs. 1 and 36
	Over rolling hills draining NW., through scattering scrub cedar amd pinon timber and undergrowth of sage brush.
	Gradually descend.
19.85	Wash, 10 lks. wide, 5 ft. deep, drains NW.
	Thence over land sloping nearly N.
39.97	Fall 6 lks. N. of the St. ¼ sec. cor., which is a sandstone, 10 x 10 x 4 ins. above ground, firmly set, and marked and witnessed as described by the Surveyor general.
	I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 36 / ¼ / S 1 / 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The bearing of this ½ mile is S.89° 15'W., and the distance is 39.97 chs.
	From the ¼ sec. cor., I continue
	S.89° 20'W.
49.18	Irrigation ditch, 5 lks. wide, flows NW.
50.30	Wagon road, bears NE. and SW.
50.65	Western Union Telegraph line, bears N.29°E. and S.29°W.
51.45	Center D. and R.G.Ry tracks, bears N.29°03'E., and S.29°03'W.
53.15	Wire fence and leave rolling hills, bears NE. and SW.
	Enter cultivated land.
56.55	Enter a lane from the N., bears W.
	Wire fence on N. side of lane bears N. and W.
66.65	Irrigation ditch, 10 lks. wide, 14 ins. deep, flows NW.
78.15	Farm house bears S.40 lks.

chains

80.41 Fall 2 lks. S.of the cor. of secs. 1,2,35 and 36, which is a limestone 12 x 9 x 4 ins., buried in the center of lane, marked as described by the surveyor general. No accessories to cor.

I rebury the same stone in the same place together with another limestone, glass and charcoal and set a witness cor. 33 lks. S. of the true cor. as follows:

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for witness cor. to secs. 1,2,35 and 36, with brass cap marked

T 15 S | R 3 E
S 35 | S 36
WC
S 2 | S 1
T 16 S
1913

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of this ½ mile is S.89° 22'W., and the distance is 40.44 chs.

Land, rolling hills on E. 53.15 chs. and nearly level cultivated land on remainder of mile.

Soil, E. 53.15 chs. stony and rocky mixed with some sandy loam on rocky sub-soil,3 rd. rate. Soil, W. 27.26 chs. rich sandy loam on deep sandy loam sub-soil, 1st. rate.

Timber, a few scattering cedar and pinon on E. 53.15 chs.

Undergrowth, short sage brush.

Some grass, good for grazing purposes.

November 29: At this cor., I set off 21° 28'S., on the decl. arc; and at 11h. 48m.a.m.l.m.t, obs. the sun on the meridian; the resulting lat. is 39° 28'.

November 29,1913.

Thos. C. Kathbone

U. S. Transitman.

chains	
	November 26,1913
	From the cor. of secs. 25 and 36 on the E. bdy. of the Tp., I run
	S.89°00'W., retracing bet. secs. 25 and 36 for visible signal set the ¼ sec. cor.
	Gradually descend over rolling mountainous land facing W., through short undergrowth of sage brush and scattering scrub cedar timber.
18.30	Wagon road and leave mountainous land and timber, bears N. and S. Thence over rolling land.
20.40	Wire fence and enter John Armstrong's cultivated field, bears N. and S.
40.15	Wash, 10 lks. wide, 6 ft. deep, drains N.
	Leave cultivated land bears N. and S.
40.25	Wire fence, bears N. and S.
40.30	The ¼ sec. cor., which is a sandstone, 10 x 8 x 2 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 25 / ¼ / S 36 / 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The bearing of this ½ mile is S.89° 00'W., and the distance is 40.30 chs.
	From the ¼ sec. cor., I continue
	S.89°00'W.
54.50	Pigeon Creek wash, 30 lks. wide, 10 ft. deep, drains NW.
	Gradually ascend.

Retracement and resurvey of subdivision of T.16 S.,R.3 E.

chains	
56.60	Wagon road, bears NW. and SE.
70.30	Base of mountain ridge, bears NW. and SE.
	Ascend abruptly over NE. slope through scattering scrub cedar and pinon timber.
77.30	Top of ridge, 75 ft. above base, bears NW. and SE.
	Descend
80.30	Fall 9 lks. S. of the cor. of secs. 25,26,35 and 36, which is an oolite stone, 9 x 16 x 9 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 25,26,35 and 36, with brass cap marked

T 16 S	R 3 E
S 26	S 25
S 35	S 36

1913

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of this ½ mile is S.89° 08'W., and the distance is 40.00 chs.

Land, mountainous and rolling, drains NW. E.18.30 chs. and W. 10.00 chs. mountainous land with E. and W. slopes of ridges. Remainder of mile low rolling land.

Soil, mountainous part generally rocky and gravelly mixed with some rich mountain soil, on a hard, dry sub-soil of sand and rocks; 3rd. rate. Soil of rolling land rich sandy loam with some gravel and rock, on deep, moist sub-soil of sand and gravel, 1st. rate.

Timber, scrub cedar and pinon on E.18.30 and W.10.00 chs.

Undergrowth, short salt sage brush. Some grass, good for grazing purposes.

November 26,1913

Retracement and resurvey of subdivision of T.16 S.,R.3 E.

chains	
	Howard Mills U. S. Surveyor.
	November 26: For solar obsn. see test of instrument at beginning of this survey.
	From the true cor. point of secs. 13,18,19 and 24 on the E. bdy. of this Tp. heretofore described, I run
	S.89° 35'W., retracing bet. secs. 13 and 24
40.00	No trace of the old ¼ sec. cor.
80.82	Fall 31 lks. N. of the cor. of secs. 13,14,23 and 24 which is a sandstone, 7 x 10 x 6 ins. above ground, firmly set, properly marked. No accessories to cor.
	I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 13,14,23 and 24, with brass cap marked
	T 16 S | R 3 E S 14 | S 13 S 23 | S 24 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The bearing of this mile is N.89° 22'E., and the distance is 80.82 chs.
	Thence
	N.89° 22'E., resurveying bet. secs. 13 and 24
	Over gently rolling plowed ground sloping N.
5.40	Wash, 25 lks. wide, 8 ft. deep drains N.
21.10	Wash, 30 lks. wide, 20 ft. deep, drains N.80°W.
	Thence along N. side of wash.
40.41	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 13 ¼ S 24 1913

chains	
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
50.80	Wash, 30 lks. wide, 20 ft. deep, drains SW. for about 3 chs., thence W.
	Thence along edge of wash.
60.52	Wire fence, bears N. and S.
80.75	Wire fence, bears N. and S.
80.82	The true cor. point of secs. 13,18,19 and 24.
	Land, rolling,
	Soil, 1 st. rate; rich sandy loam and gravelly on deep sandy sub-soil.
	No timber.
	No undergrowth.
	Land all under cultivation.
	November 26,1913

	November 29: For solar obsn. see line bet. secs. 7 and 12, E. bdy. of this Tp.
	From the true cor. point of standard cor. of secs. 1,2; 35 and 36 on the N. bdy. of the Tp., heretofore described; I run
	S.0° 35'E. retracing bet. secs. 1 and 2
40.00	No trace of the old ½ sec. cor. can be found.
80.28	Fall 6 lks. W. of the cor. of secs. 1,2,11 and 12 which is a sandstone, 6 x 6 x 2 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.
	The bearing of this line is S.0° 40'E., and the distance is 80.28 chs.
	I return to the true cor. point of standard cor. of secs. 1,2,35 and 36,
	Thence
	S.0° 40'E., resurveying bet. secs. 1 and 2
	Over cultivated land sloping gently W.

chains

.33 The witness cor. to secs. 1,2,35 and 36 heretofore described.

.40 Wire fence, bears E. and W.

Thence along W. side of corral.

2.40 S. end of corral, bears E.

15.05 Wire fence, bears E. and W.

20.00 Wire fence, bears E. and W.

40.30 Proportionate measurement.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ½ sec. cor., with brass cap marked

S ½ 2 | S 1

1913

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

51.30 Wire fence of D.& R.G.Ry. right of way, bears N.21°E. and S.21°W.

55.40 Center of D.& R.G.Ry tracks, bears N.21°E. and S.21°W.

57.20 Western Union Telegraph line, bears N.21°E. and S.21°W.

59.80 Wagon road, bears E. and W.

72.40 Wagon road at forks of same, bears NE., NW. and SW.

76.16 Wagon road, bears NW. and SE.

76.42 Wash, 12 lks. wide, 2 ft. deep, drains NW.

80.28 The cor. of secs. 1,2,11 and 12

Knowing that a closing cor. will be necessary for secs. 11 and 12, I reestablish this cor., for secs. 1 and 2 at the same point as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 1 and 2, with brass cap marked

T 16 S | R 3 E
S 2 | S 1

1913

dig pits, 24 x 24 x 12 ins., in each sec., 6 ft. dist.; raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.

chains

Land, gently rolling.

Soil, sandy and gravelly on hard, dry sub-soil of gravel and sand.

No timber.

Undergrowth, sage brush.

November 29,1913.

Thos. C. Rathbone

U. S. Transitman.

November 26: For solar obsn see test of instrument book "I" of this survey.

From the cor. of secs. 2,3,34 and 35 on the S. bdy. of the Tp. heretofore described, I run

N.0° 35'W., bet. secs. 34 and 35.

Gradually ascend over rolling mountainous land facing W., through short undergrowth of sage brush, along E. side of wire fence.

24.65 Old road, bears N.80°E. and S.80°W.

40.56 Fall 35 lks. E. of the ¼ sec. cor., which is a sandstone 16 x 8 x 6 ins., above ground, loosely set, and marked and witnessed as described by the surveyor general.

I destroy all traces of the old cor. and reestablish it at the same point as follows:

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in a mound of stone and earth, 4 ft. base, 26 ins. high, for ¼ sec. cor., with brass cap marked

S 34 | S 35
¼

1913

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Note: On account of underlying rock, I am unable to set post in the ground.

The bearing of this ½ mile is N.1° 05'W., and the

chains	
	distance is 40.56 chs.
	From the ¼ sec. cor., I continue N.0°35'W.
43.43	Wire fence, bears E. and W.
	Thence along E. side of fence.
58.43	Wood road, bears E. and W.
81.26	Leave fence, bears W.
81.43	Fall 5 lks. E. of the cor. of secs. 26,27,34 and 35, which is an oolite stone, 19 x 8 x 4 ins. above ground, firmly set and properly marked. No accessories to cor.
	I destroy all traces of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 26,27,34 and 35, with brass cap marked

T 16 S	R 3 E
S 27	S 26
S 34	S 35

1913

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The bearing of this ½ mile is N.0° 39'W., and the distance is 40.87 chs.

Land, rolling mountainous, general W. exposure.

Soil, gravelly, rocky and hard, dry sand on sub-soil of rocks and sand; 3 rd. rate.

No timber.

Undergrowth, short sage brush.

November 26: At this cor., I set off 20° 56'S., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39° 23'.

	N.89° 25'E., retracing bet. secs. 26 and 35
40.00	No trace of the old ¼ sec. cor. can be found.
80.18	Fall 37 lks. N. of the cor. of secs. 25,26,35 and 36.
	The bearing of this line is S.89° 41'W., and the distance

chains	
	is 80.18 chs.
	Thence from cor. of secs. 25,26,35 and 36,
	S.89° 41'W., resurveying bet. secs. 26 and 35
	Over rolling mountainous land draining NW., through short undergrowth of sage brush and scattering scrub cedar and pinon timber.
10.00	Hollow, 60 ft. below sec. cor., drains N. Ascend.
14.70	S. end of oolite rock quarry. Rock strata about 30 ft. high.
19.40	Spur, 50 ft. above hollow, projects N.
	Gradually descend.
39.50	Hollow, 60 ft. below spur, drains SW.
	Thence over land facing S. Outcroppings of oolite rock along line.
40.09	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 26 / ¼ / S 35 / 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Wide draw, drains NW. Gradually ascend.
58.00	Spur, 40 ft. above draw, projects N.
60.00	Wood road, bears N. and S.
	Gradually descend over W. slope.
80.18	30 ft. below spur. The cor. of secs. 26,27,34 and 35.
	Land, rolling mountainous, general drainage NW. E. and W. slopes of spurs.
	Soil, 4th. rate; rocky and sandy of oolite rock formation on rock sub-soil.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, short sage brush.
	November 26,1913

Retracement and resurvey of subdivision of T.16 S., R.3 E.

chains	
	Howard W. Miller U. S. Surveyor.
	November 26; For solar obsn. see line bet. secs. 19 and 24, E. bdy. of this Tp.
	From the cor. of secs. 13,14,23 and 24, I run S.89° 35'W., retracing bet. secs. 14 and 23.
40.00	No trace of the old ¼ sec. cor., can be found.
80.83	Intersect N. and S. line, 31 lks. N. of evident remains of the old cor. of secs. 14,15,22 and 23 which is a stump of an old cedar post, greatly decayed, but bearing evidence of having been marked. I destroy all trace of the old cor. and reestablish it at the same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 14,15,22 and 23, with brass cap marked
	T 16 S R 3 E S 15 | S 14 S 22 | S 23 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The bearing of this mile is N.89° 22'E., and the distance is 80.83 chs.
	Thence from cor. of secs. 14,15,22 and 23.
	N.89° 22'E., resurveying bet. secs. 14 and 23
	Over rolling land, through short undergrowth of sage brush.
2.00	Center of county road from Manti to Nephi, Utah, bears N. and S.
6.91	Center of D.& R.G.Ry. tracks, bears N.6° 30'E. and S.6° 30'W.
7.51	Telegraph line, bears N.6° 30'E. and S.6° 30'W.
	Begin ascent over rolling hills.
32.80	Top of low ridge, bears N.10°W. and S.10°E.

chains	
	Descend.
39.30	Hollow. 70 ft. deep, drains N. Gradually ascend.
40.41½	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 14 / ¼ / S 23 / 1913
	dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
58.15	Ridge, 70 ft. high, bears NW. and SE.
	Descend.
72.00	Hollow, drains N.
	Thence over land sloping nearly N.
80.00	Enter plowed ground, bears N. and S.
80.83	The cor. of secs. 13,14,23 and 24.
	Land, rolling hills, draining N.
	Soil, 3rd. rate; sandy, gravelly and rocky on sandy and gravelly sub-soil.
	Timber, a few scattering cedar on both sides of line.
	Undergrowth, sage brush.

November 26,1913

Thos. Rathbone

U. S. Transitman.

May 17,1915: At 8h. 26m.a.m.l.m.t., I set off 39° 25' on the lat. arc; 19° 12'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 14,15,22 and 23

Thence I run

N.0° 45'W., retracing bet. secs. 14 and 15

chains	
40.00	No trace of the ¼ sec. cor. can be found.
80.50	Fall 1 lk. W. of the cor. of secs. 10,11,14 and 15

chains

which is the stump of an old red pine post buried in the center of county road. Marks on post are obliterated. At exact position of old cor., I bury a 2 inch iron post, 1 ft. under surface of road for cor. of secs. 10,11,14 and 15, with brass cap marked

T 16 S S 10	R 3 E S 11
S 15	S 14

1915

No accessories to cor.

The bearing of this line is N.0° 45'W. and the distance is 80.50 chs.

Thence from cor. of secs. 14,15,22 and 23,

N.0° 45'W., recurveying bet. secs. 14 and 15

Over gently rolling land along E. side of fence, through scattering greasewood and sage brush.

14.70 Road, bears E. and W.

20.12 Cor. of wire fences, bears N.20°W., W. and S.

32.00 Enter center county road from Manti to Nephi, Utah, bears N.0° 45'W. and S.10°E.

Thence in road.

40.25 Proportionate measurement, on E. edge of road.

I bury an iron post, 3 ft. long, 1 in. in dia., 1 ft. under surface of road for ¼ sec. cor., with brass cap marked

S 15 ¼	S 14

1915

No accessories to cor.

80.50 The cor. of secs. 10,11,14 and 15.

Land, nearly level.

Soil, black and brown clay loam on sandy clay sub-soil; 1 st. rate.

No timber.

Undergrowth, some greasewood and sage brush along road.

Cultivated land on both sides of line.

Retracement and resurvey of subdivision of T.16 S.,R.3 E.

chains	
	May 17: Raining at noon, obsn. for latitude impossible, May 17,1915.

	May 20: Storm of rain prevents field work in a.m.
	At 1h. 56m.p.m.l.m.t., I set off 39° 26' on the lat. arc; 19° 54'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10,11,14 and 15
	Thence I run
	East, retracing bet. secs. 11 and 14
40.00	No trace of the old ¼ sec. cor. can be found. This point falls in a cultivated field and 70 lks. S. of an old wire fence bearing N.89°E. and S.89°W. I am informed by settlers that this fence line is recognized to be on the sec. line bet. secs. 11 and 14, and that the point for ¼ sec. cor., falls along fence, therefore at a point 70 lks. N. and along fence, I restore cor. as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	3 11 / ¼ / S 14 / 1915
	dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
	The bearing of this line is S.89°W., and the distance is 40.01 chs.
	Thence from ¼ sec. cor.,
	S.89°00'W., resurveying bet. secs. 11 and 14.
	Over gently rolling land sloping W., through short undergrowth of sage and rabbit brush. Gradually descend.
3.44	Cor. of wire fence bears N.89°E. and S.
3.72	Western Union Telegraph line, bears N.31°E. and S.31°W.
4.45	Center D.& R.G.Ry. tracks, bears N.31°E. and S.31°W.

Retracement and resurvey of subdivision of T.16 S., R.3 E.

chains	
5.60	Leave sage and rabbit brush, bears N.15°E. and S.15°W., enter cultivated land.
11.70	Wash, 10 lks. wide, 5 ft. deep, drains S.75°W.
39.75	Leave cultivated land, bears N. and S. Thence across county road.
40.01	The cor. of secs. 10,11,14 and 15 in center of road.
	Land, gently rolling, W. exposure.
	Soil, sandy loam and gravelly on sandy sub-soil; 1 st. rate.
	No timber.
	Undergrowth, short sage and rabbit brush on E.5.60 chs.
	May 20,1915.

May.17: For solar obsn. see line bet. secs. 14,and 15.

From cor. of secs. 10,11,14 and 15, I run

N.0°35'W., bet. secs. 10 and 11

Over level land along county road.

40.27 Intersect the ½ sec. cor., which is a sandstone, 16 x 9 x 4 ins. lying on the ground, marked ¼ on one face. Point for cor. falls 10 lks. E. of the center of the county road. I reestablish cor. as follows:

I bury an iron post, 3 ft. long, 1 in. in dia., 1 ft. under surface of road for ¼ sec. cor., with brass cap marked

S 10 ¼ | S 11

1915

No accessories to cor. Old stone cor. buried alongside post.

The bearing of this ½ mile is N.0° 35'W., and the distance is 40.27 chs.

May 17,1915.

May 18: Storm of rain prevents field work in a.m.

At 1h. 56m.p.m.l.m.t., I set off 39° 26' on the lat. arc; 19° 28'N., on the decl. arc; and determine a meridian

chains	
	with the solar at the ¼ sec. cor. bet. secs. 10 and 11
	Thence I run
	North, bet. secs. 10 and 11
40.00	No trace of the cor. of secs. 2,3,10 and 11 can be found. Set temp. point.
	May 18,1915.

	October 7,1915: At 8h. 48m.a.m.l.m.t., I set off 39° 28' on the lat. arc; 5° 14'S., on the decl. arc; and determine a meridian with the solar at the true cor. point of secs. 1,2,35 and 36 on the N. bdy. of the Tp. hereto fore described.
	Thence I run
	S.89° 10'W., retracing along the N. bdy. of T.16 S.,R.3 E. making careful searches and setting temp. points at intervals of 40.00 chs. for ¼ sec. and sec. cors.
240.00	Searching for cor. at noon, no obsn. for lat. taken.
282.80	Fall 10 lks. N. of the ½ sec. cor. bet. secs. 5 and 32, which is a sandstone, 8 x 10 x 5 ins., set in the ground, marked ½ on upper face. No accessories to cor.
	To establish the indentity of this cor., I continue my retracement line S.89°10'W., from point 10 lks. N. of the ¼ sec. cor.
404.60	Fall 10 lks. N. of the cor. of Tps. 15 and 16 S.,Rs. 2 and 3 E., set by me in 1914. I conclude that the ¼ sec. cor. bet. secs. 5 and 32 is the old ½ sec. cor., and return and adjust the temp. cor. of secs. 2,3,34 and 35 to its proper proportionate latitudinal position.
	October 7,1915
	October 8: At 7h. 48m. a.m.l.m.t., I set off 39° 28' on the lat. arc; 5° 36'S., on the decl. arc; and determine a meridian with the solar at the adjusted position for cor. of secs. 2,3,34 and 35 on the N. bdy. of the Tp.
	Thence I run

chains

S.0°35'E., retracing bet. secs. 2 and 3

81.12 Fall 48 lks. W. of the temp. cor. of secs. 2,3,10 and 11 set 40.00 chs. N. of the ¢ sec. cor. bet. secs. 10 and 11, May 18,1915.

I adjust the temp. position for cor. of secs. 2,3,10 and 11 to its proper proportionate latitudinal position.

October 8,1915.

May 19,1915: At 8h. 56m.a.m.l.m.t., I set off 39° 27' on the lat. arc; 19° 39'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 and 2, heretofore described.

Thence I run

S.89°00'W., retracing bet. secs. 2 and 11 and 3 and 10.

161.84 Fall 1.21 chs. N. of the cor. of secs. 3,4,9 and 10, which is a cedar post, 4 ins. square, extending 18 ins. above ground, firmly set, marked with 2 notches on E. and 5 notches on S. edge. No accessories to cor.

I return and adjust temp. position for cor. of secs. 2, 3,10 and 11 to its proper proportionate meridianal position.

May 19: The sky is overcast at noon, obsn. for lat. is impossible.

May 19,1915.

October 8,1915.

From proportioned point for cor. of secs. 2,3,10 and 11 on meridional line, point for same cor. on latitudinal line bears 26 lks. W. and 30 lks. S. I restore cor. of secs. 2,3,10 and 11, 26 lks. W. of the point on the meridinal line. Point for cor. falls on W. edge of grade of county road, for description of cor. see N.¼ mile bet. secs. 10 and 11

The bearing of the N.½ mile bet. secs. 10 and 11 is N.0° 59'W. and the distance is 40.31 chs.

The bearing of the line bet. secs. 2 and 11 is N.88°47'E. and the distance is 80.92 chs.

Retracement and resurvey of subdivision of T.16 S., R.3 E.

chains	
	From ¼ sec. cor., bet. secs. 10 and 11, I run
	N.0° 59'W., resurveying bet. secs. 10 and 11
	Over nearly level land along county road.
16.80	Junction of road with county road, bears S.35°W.
40.31	Set an iron post, 3 ft. long, 2 ins. in dia., 1 ft. under surface of road for cor. of secs. 2,3,10 and 11 with brass cap marked

T 16 S | R 3 E
S 3 | S 2
S 10 | S 11
1915

No accessories to cor.

Land, level.

Soil, sandy clay on sandy sub-soil; 1 st. rate.

No timber.

No undergrowth.

	N.88° 47'E., resurveying bet. secs. 2 and 11
	Over gently rolling land through short undergrowth of sage brush and greasewood.
.15	Center of county road from Manti to Nephi, Utah, bears N.35'W. and S.35'E.
.90	Telephone line, bears N. and S.
20.28	Cor. of wire fence bears N. and E. Enter cultivated land, thence along S. side of fence.
40.30	Cor. of wire fence bears S. and W.
40.46	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 2
¼

S 11
1915

I do not build any accessories to cor. as cor falls in cultivated field.

49.15	Small irrigation ditch, drains S.20°W.
64.80	Leave cultivated land, bears N.20°E. and S.20°W. Enter

chains	
	sage brush and begin ascent towards foot hills.
69.07	Wire fence, bears N.20°E. and S.20°W.
71.00	Center D. & R.G.Ry. tracks, bears N.20°E. and S.20°W.
71.83	Telegraph line, bears N.20°E. and S.20°W.
72.00	Road, bears N.20°E. and S.20°W.
80.92	The cor. of secs. 1 and 2, heretofore described.

Land, gently rolling, W. exposure.

Soil, sandy loam and gravelly , becomes shallow on E. 20 chs. of mile. Sub-soil sandy and is very dry.

No timber.

Undergrowth, sage and greasewood.

October 8,1915.

Howard W. Miller
U. S. Surveyor.

Subdivision of T.16 S.,R.3 E.

November 30: At 9h. 49m.a.m.l.m.t., I set off 39° 23' on the lat. arc; 21° 37'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26,35 and 36.

Thence I run

S.0°01'E., on a random line bet. secs. 35 and 36

40.00	Set temp. ¼ sec. cor.
81.14	Intersect S. bdy. of the Tp., 1.10 chs. S.89° 03'W., of the cor. of secs. 1 and 2, T.17 S.,R.3 E., heretofore described. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 35 and 36, with brass cap marked

T 16 S | R 3 E
S 35 | S 36
C | C
S 2 | S 1
T 17 S R 3 E
1913

Chains	
	dig pits 24x18x12 ins. crosswise on each line, E. and W., 3 ft. and N. of post, 7 ft. dist., raise a mound of earth, 4 ft. base, 2 ft. high N. of cor.
	Thence
	N.0°01'W. on a true line bet. secs. 35 and 36.
	Gradually ascend over gently rolling land sloping SE., through short undergrowth of sage brush.
2.28	Wagon road, from Ephraim, Utah to Canal canyon, bears NE. and SW.
	Enter mountainous land, bears NE. and SW. Ascend over SE. slope through scattering scrub cedar, pinon and mohogany timber.
17.95	Ridge, 125 ft. above closing cor., bears NE. and SW.
	Old road on ridge, bears NE. and SW.
	Gradually descend.
36.19	Point for ¼ sec. cor. will fall in rock quarry where cor. will be destroyed, I therefore perpetuate cor. on safe ground as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for witness cor. to the ¼ sec. cor., with brass cap marked
	T 16 S R 3 E WC¼ S 35 | S 36 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
	Gradually descend across head of ravine draining SW., across Jacob Peterson's rock quarry.
40.57	Point for ¼ sec. cor. for sec. 36 only falls in rock quarry. No cor. set. Gradually ascend.
41.14	Point for ¼ sec. cor. for sec. 35 only falls in quarry. No cor. set.
42.17	Leave quarry, bears E. and W.
49.65	Ascend abruptly over S. slope.
56.55	Ascend more gradually.

Subdivision of T. 16 S. R. 3 E.

Chains	
61.55	Top of ridge, 75 ft. above quarry, bears E. and W.
	Descend over N. and NW. slopes of ridge, 200 ft. to
81.14	The cor. of secs. 25, 26, 35 and 36.
	Land mountainous general W. drainage.
	Soil gravelly and rocky on nearly solid bed rock of oolite rock; 4th rate.
	Timber scattering scrub cedar, pinon and mahogany.
	Undergrowth sage brush.
	Cease work, 11 a.m.
	November 30, 1913.
	Thos. C. Gadstone
	U.S. Transitman.

November 29: At 7h 48m a.m., l.m.t., I set off 39°25' on the lat. arc; 21°24'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence I run

Chains	
	North bet. secs. 13 and 14.
	Gradually descend over plowed ground sloping N.
7.50	Leave plowed ground, bears E. and W.
	Wash 30 lks. wide, 20 ft. deep, drains W.
8.00	Enter cultivated field, bears E. and W.
13.10	Leave field, bears E. and W.
	Wash 20 lks. wide, 10 ft. deep, drains W.
	Gradually ascend through sage brush undergrowth.
18.50	State road, bears E. and W.
25.00	Base of steep ascent, bears E. and W. Ascend abruptly over S. slope through scattering scrub cedar and pinon timber.
33.40	Ridge, 75 ft. above wash, bears E. and W.
	Descend abruptly over N. slope.
40.00	50 ft. below ridge.

chains	
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in a mound of stone and earth on solid rock for ¼ sec. cor., with brass cap marked S ¼ 14 | S 13 1913 raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
45.80	Wood road, bears E. and W.
46.00	Hollow, 40 ft. below ½ sec. cor., drains W.
49.00	Base of steep ascent, ascend abruptly over S. slope.
56.10	Ridge, 70 ft. above hollow, bears E. and W.
	Thence gradually descend along NW. slope of ridge.
57.80	Wood road, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in a mound of stone and earth on solid rock for cor. of secs. 11,12,13 and 14, with brass cap marked T 16 S | R 3 E S 11 | S 12 S 14 | S 13 1913 raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling mountainous, general W. exposure and drain.
	Soil, 3rd. rate; gravelly and rocky on gravelly sub-soil.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, short sage brush.
	November 29,1913.

	May 20: For solar obsn. see W. ½ mile bet. secs. 11 and 14
	East, on a random line bet. secs. 12 and 13
40.00	Set temp. ¼ sec. cor.
79.54	Intersect E. bdy. of the Tp. 2.07 chs. S.0° 45'E., of the cor. of secs. 7 and 18 heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 12 and 13, with

chains	
	brass cap marked T 16 S R 3 E | R 4 E S 12 | S 7 CC S 18 S 13 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	West, on a true line bet. secs. 12 and 13
	Over mountainous land, through scrub cedar and pinon timber and undergrowth of sage brush, Ascend over E. slope of ridge.
16.05	Top of ridge, 160 ft. above closing cor., bears NE. and SW.
	Gradually descend along S. slope near top of ridge spur, bears E. and W.
39.77	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S 12 ¼ S 13 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Descend 50 ft. to
42.80	Head of ravine, drains S. about 5 chs., thence SW.
	Ascend over SE. slope.
47.25	Ridge, 15 ft. above head of ravine, bears NE. and SW.
	Gradually descend over land sloping nearly N.
55.30	Spur, 60 ft. below ridge, projects NW.
	Descend over rocky SW. slope.
70.15	Ravine, 135 ft. below spur, drains NW.
	Thence on near level line, on N. slope.
76.75	Begin gradual descent over W. slope.
79.54	The cor. of secs. 11,12,13 and 14.

Subdivision of T. 16 S.R. 3 E.

Chains	
	Land mountainous, E. exposure and drainage on E. 16.04 chs. and W. exposure and drainage on W. 63.50 chs.
	Soil gravelly and rocky with some sandy soil on surface, on gravelly and rocky subsoil; 4th rate.
	Timber scattering scrub cedar and pinon.
	Undergrowth sage brush. Some grass, good for grazing purposes.
	May 20, 1915.
	November 29: At the cor. of secs. 12 and 13 which has been changed to the cor. of secs. 11, 12, 13 and 14, I set off 21°28'S. on the decl. arc; and at 11h 48m a.m. l.m.t., obs. the sun on the meridian; the resulting lat. is 39°26'.
	Knowing that the line bet. secs. 11 and 12 will not intersect the E. and W. line within limits at the cor. of secs, 1, 2, 11 and 12, I run
	North on a true line bet. secs. 11 and 12 from the cor. of secs. 12 and 13, which is changed to the cor. of secs. 11, 12, 13 and 14 on May 20, 1915.
	Gradually descend over rolling mountainous land sloping W., through scattering scrub cedar and pinon timber and undergrowth of sage brush.
20.10	Wood road bears E. and W.
21.60	Begin descent over N. slope.
26.60	Hollow, 40 ft. deep, drains W.
	Gradually ascend over S. slope.
40.00	Top of ascent, 50 ft. above hollow.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in a mound of stone and earth on solid rock for $\frac{1}{4}$ sec. cor., with brass cap marked
	S $\frac{1}{4}$ 11 | S 12 1913
	raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	The cor. will hereafter refer to sec. 12 only.
40.90	Point for $\frac{1}{4}$ sec. cor. for sec. 11 only. Cor. not set.

Subdivision of T. 16 S. R. 3 E.

Chains	
	Thence gradually descend over W. slope of mountain.
50.89	From this point House No. 1 at rocky quarry bears S.60°05' E., house No. 2 bears S.58°55'E., N. point of house No. 3 bears S.57°37'E.
55.51	From this point house No. 1 at rocky quarry bears S.52°12' E.; SW. cor. of house No. 2 bears S.51°30'E., N. point on house No. 3 bears S.49°54'E.
62.90	Bottom of hollow, 50 ft. below ¼ sec. cor., drains NW. Road from rock quarry to railroad siding bears NW. and SE. Gradually ascend.
72.00	Low point, falls NW.
	Gradually descend over N. slope.
81.81	Set temp. point.

November 29, 1913.

May 21, 1915: Intersect E. and W. line, 2.13 chs. E. of the cor. of secs. 1 and 2, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 11 and 12, with brass cap marked.

T 16 S	R 3 E
S 2	S 1
C	C
S 11	S 12

1915

dig pits 24x18x12 ins. crosswise on each line, E. and W. 3 ft., and S. of post, 7 ft. dist., raise a mound of earth, 4 ft. base, 2 ft. high S. of cor.

Land rolling mountainous, general W. exposure and drainage.

Soil gravelly and rocky mixed with some rich sandy loam on gravelly and rocky subsoil, 3rd rate.

Timber scattering scrub cedar and pinon.

Undergrowth sage brush. Some grass, good for grazing purposes.

May 21: At 7h 56m a.m., l.m.t., I set off 39°27' on the

chains	
	lat. arc; 20° 04'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 and 2
	Thence I run
	East, on a random line on S. bdy. sec. 1
2.13	The temp. closing cor. of secs. 11 and 12
40.00	Set temp. ¼ sec. cor.
80.42	Intersect E. bdy. of the Tp. 1.13 chs. S.0°06'E., of the cor. of secs. 1,6,7 and 12 heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 1 and 12, with brass cap marked

T 16 S
R 3 E | R 4 E
S 6
S 1 | CC S 7
S 12

1915

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Note: I destroy all marks on old cor. pertaining to secs. 1 and 12.

Thence

West, on true line bet. secs. 1 and 12

Over rolling mountainous land, through scattering scrub cedar and pinon timber and undergrowth of sage brush.

Gradually descend over W. slope.

17.90 Ravine, 125 ft. below closing cor., drains SW.

Gradually ascend over rocky S. slope.

25.65 Top of ascent, 20 ft. above ravine, bears NE. and SW.

Gradually descend.

33.10 Enter rock quarry workings and top of steep descent, bears NW. and SE. Descend abruptly.

37.10 Base of steep descent, leave rock quarry workings and enter ravine, bears NW. and SE.

Gradually descend.

38.29 An easting of 40.00 chs. from point for closing cor. of secs. 11 and 12

chains

Set an iron post, 3 ft. long, 1 in. in dia., 13 ins. in the ground on solid rock and 13 ins. in a mound of stone for ¼ sec. cor., on N. bdy. sec. 12, with brass cap marked

S 12
¼
1915

raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

38.75 Bottom of ravine and wash, 8 lks. wide, 4 ft. deep, drains NW.

Gradually ascend over gentle NE. slope.

40.21 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., S. bdy. sec. 1, with brass cap marked

S 1
¼
1915

raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

53.60 Spur, projects NW. Descend abruptly over SW. slope.

64.20 Leave timber, bears N. and S.

68.50 Base of steep descent and enter ravine, 125 ft. below spur, bears NW. and SE.

Gradually descend in mouth of ravine draining NW.

75.50 Road, bears NW. and SE.

76.00 Wash, in bottom of ravine, 10 lks. wide, 4 ft. deep, drains NW.

78.29 The temp. closing cor. of secs. 11 and 12

80.42 The cor. of secs. 1 and 2

Land, rolling mountainous, W. exposure and drainage.

Soil, Gravelly and rocky, mixed with considerable rich sand on hard, dry sand and rock sub-soil; 4th. rate.

Timber, scattering scrub cedar and pinon.

Undergrowth, sage brush.

Some grass, good for grazing purposes.

chains	
	May 21: Not on line at noon, obsn. for lat. impossible.
	May 21,1915.
	May 20: For solar obsn. see W.½ mile bet. secs. 11 and 14
	From the ¼ sec. cor., bet. secs. 11 and 14, I run
	East, on a random line bet. secs. 11 and 14
41.96	Fall 15 lks. N. of the cor. of secs. 12 and 13 which I remark for cor. of secs. 11,12,13 and 14. For description of same see line bet. secs. 13 and 14.
	Thence
	N.89° 49'W., on a true line bet. secs. 11 and 14
	Gradually descend over broken W. slope of mountainous land through very scattering scrub cedar and pinon timber and undergrowth of sage brush.
14.35	Low spur, projects NW. Descend more rapidly.
18.65	Leave timber, bears N. and S.
19.75	Ravine, 65 ft. below spur, drains NW.
	Gradually ascend.
23.65	Low spur, projects N. Gradually descend.
25.20	The NE. cor. of a field and fence, bears S.89°W. and S., bears N.30 lks.
	Leave undergrowth, thence descend across cultivated land.
41.96	125 ft. below spur. The ¼ sec. cor.
	Land, rolling mountainous, W. exposure and drainage.
	Soil, gravelly and light, shallow sandy loam on sandy and gravelly sub-soil; 2nd. and 3 rd. rates.
	Timber, very scattering scrub cedar and pinon on E.18.65 chs.
	Undergrowth, sage brush and grass.
	May 20,1915.
	Howard W. Keller
	U. S. Surveyor

chains

Latitudes, departures and closing errors.

Lines designated	True bearing	Dist-ances.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
S.bdy.sec.14	N.89°22'E.	80.83	.89	.....	80.83	.....
S.bdy.sec.13	N.89°22'E.	80.82	.89	.....	80.82	.....
E.bdy.Tp.						
W.bdy.sec.18	N.0°46'W.	40.52	40.52	.....	.....	.54
"	N.0°45'W.	40.59	40.59	.....	.....	.53
W.bdy.sec. 7	N.1°11'W.	40.13	40.12	.....	.....	.83
"	N.0°06'W.	40.68	40.68	.....	.....	.07
W.bdy.sec.6	N.0°26'W.	40.06	40.06	.....	.....	.30
"	N.0°40'W.	40.21	40.21	.....	.....	.47
N.bdy.sec.1	S.89°15'W.	39.97	.....	.52	.....	39.97
"	S.89°22'W.	40.44	.....	.44	.....	40.44
W.bdy.sec.1	S.0°40'E.	80.28	.....	80.28	.93	.....
N.bdy.sec.11	S.88°47'W.	80.92	.....	1.72	.....	80.91
W.bdy.sec.11	S.0°59'E.	40.31	.....	40.30	.69	.....
W.bdy.sec.11	S.0°35'E.	40.27	.....	40.27	.41	.....
W.bdy.sec.14	S.0°45'E.	80.50	.....	80.50	1.05	.....
Convergency			.....	.....	.....	.08
			243.96	244.03	164.73	164.14
				243.96		
Error in latitude --				.07	164.14	
Departure ----------					.59	

Lines designated	True bearing	Dist-ances	Latitudes N.	Latitudes S.	Departures E.	Departures W.
N.bdy.sec.36	S.89°00'W.	40.30	.....	.70	.....	40.29
"	S.89°08'W.	40.00	.....	.61	.....	39.99
N.bdy.sec.35	S.89°41'W.	80.18	.....	.44	.....	80.18
W.bdy.sec.35	S.0°39'E.	40.87	.....	40.87	.46	.....
"	S.1°05'E.	40.56	.....	40.55	.76	.....
S.bdy.sec.35	N.89°49'E.	40.25	.13	.....	40.25	.....
S.bdy.sec.35 &						
S.bdy.sec.36	N.89°03'E.	119.07	1.97	.....	119.03	.....
E.bdy.sec.36	North	81.00	81.00	.....	.....	.....
Convergency			.....	.....	.....	.03
			83.10	83.17	160.50	160.49
				83.10	160.49	
Error in latitude ------				.07		
Error in departure ----------					.01	

General Description

The portion of T.16 S., R.3 E. included in this survey consists of two varieties of land, gently rolling and low rolling mountains or foot hills. The soil of the gently rolling land in the N. central part of sec.36, S.½ of sec. 13, NW.¼ of sec.1; W. ½ of sec. 11 and the W.½ of sec. 14 is generall a rich sandy loam and light

clay on a sandy and gravelly sub-soil and may be classed as first rate. The remaining part of the township is mountainous and is cut by numerous small ravines and ridges and the soil is gravelly and rocky with enough sandy soil on the surface to support a scant growth of bunch grass, useful for grazing purposes. The subsoil is rocky and in many places the bed rock is close to the surface. A scrubby growth of cedar and pinon timber grows on this part of the township.

The S. portion of the township is watered by Pigeon creek which flows through sec. 36 in a northwesterly direction to John Armstrong's ranch in sec.25, there used for irrigation purposes. There is no water in the north part of the Tp.

There are oolite rock quarries in secs. 12, 35 and 36 which produce excellent building stone, and, from surface indications large bodies of this rock underlie the greater part of the mountainous portion of the Tp.

The gently rolling land on the previously surveyed portion of the Tp. is all under cultivation and settlers are living thereon.

Howard W. Miller
U. S. Surveyor

Thos. C. Cathcart
U. S. Transitman.

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Page

4—680

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants and final oath of Howard W. Miller, U. S. Surveyor for work done in 1913, see book "H" of this survey, T.18 S.,R.3 E.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

6—2764 *U. S. Surveyor.*

FINAL OATH OF UNITED STATES ~~SURVEYOR~~ TRANSITMAN.

I, Thomas C. Rathbone, U. S. ~~Surveyor~~ Transitman, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 19 day of July, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of N.bdy. and subdivision, and resurvey of W.bdy.T.17 S.R.4 E; subdivision T.18 S.R.4 E.; retracement, resurvey and survey of subdivision and retracement and resurvey of W. bdy. T. 16 S. R. 4 E.; resurvey of north boundary and resurvey and survey of subdivision of T.16 S. R.3 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books A.B.C.D.& E. as having been executed 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 U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Thos C Rathbone
~~U.S. Surveyor~~ U.S. Transitman

Subscribed by said Thomas C. Rathbone, and sworn to before me this 20th day of December, 1915

I. C. Thoreson
U. S. Surveyor General

SEAL
UNITED STATES SURVEYOR GENERAL'S OFFICE
OFFICIAL SEAL
UTAH

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

_____, 191

The foregoing field notes of the survey of _____

executed by _____

under his special instructions dated _____, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

_____
U. S. 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.

_____
U. S. Surveyor General.

6—2761

4—680

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Howard W. Miller, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of retracement of the N. bdy. and retracement, resurvey and survey of the subdivision of T.16 S.,R.3 E.

of the _____ Meridian, in the State of _____

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Carl Roup	May 17,1915	May 21,1915	chainman
Edward Nelson	May 17,1915	May 21,1915	"
Edward Jones	May 17,1915	May 21,1915	flagman cornerman
William Fredrickson	May 17,1915	May 21,1915	axman

Subscribed and certified to before me on the dates of the final service as shown above.

Howard W. Miller
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....

executed by .....

under his special instructions dated ....., 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

U. S. 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.

.....

U. S. Surveyor General.

6—2761

BOOK A-419

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

.....

.....

.....

.....

.....

.....

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

630

FINAL OATH OF UNITED STATES SURVEYOR.

I, Howard W. Miller, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 19 day of July, 191 3, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the retracement and resurvey of the south boundary Township No. 16 South, Range No. 3 East; retracement of Third Standard Parallel South through Range No. 3 East; and retracement, resurvey, and survey of the subdivisional lines of Township No. 16 South, Range No. 3 East

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Howard W. Miller
U. S. Surveyor.

Subscribed by said Howard W. Miller, and sworn to before me this 31st day of May, 191 6

M. C. Thoresen
U. S. Surveyor General, Ut

SEAL
OFFICIAL SEAL
UTAH

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, May 31, 1916

The foregoing field notes of the ~~survey of~~ retracement and resurvey of the south boundary Township No. 16 South, Range No. 3 East; retracement of Third Standard Parallel South through Range No. 3 East; and retracement, resurvey and survey of the subdivisional lines of Township No. 16 South, Range No. 3 East, of the Salt Lake Base and Meridian,

executed by Howard W. Miller
under His special instructions dated July 31, 193, having been critically examined, and the necessary corrections and explanations made, the ~~said~~ field notes, and the retracements, resurveys and surveys they describe, are hereby approved.

M. C. Thoresen
U. S. 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.

6—2761

U. S. Surveyor General.