Volume

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R0411

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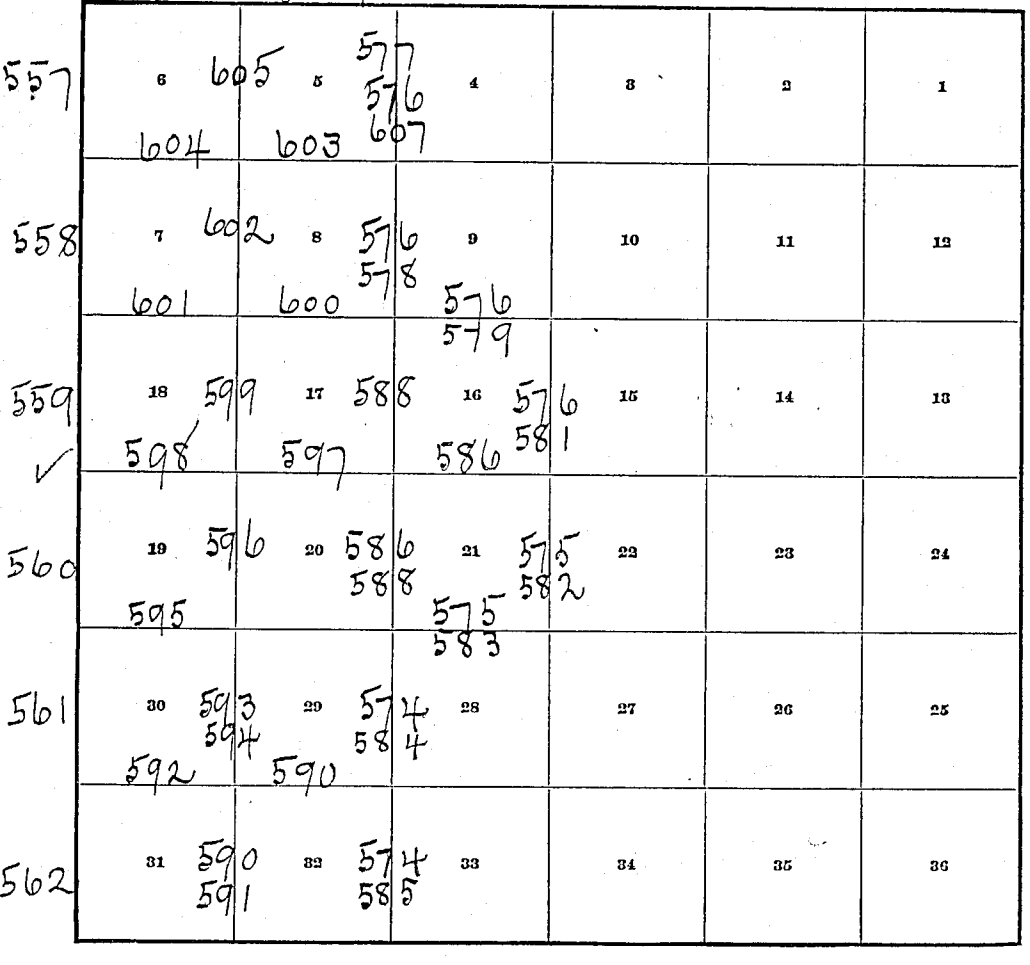
INDEX DIAGRAM.

Township 2 South, Range 6 West.



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E.R.
H.F.B

BOOK A-411

A.

FIELD NOTES

OF THE ~~XXXXXXXXXXXX~~

RETRACEMENT OF THE E. AND S. BDRS.

RESURVEY OF THE E. AND W. BDRS.

RESURVEY OF SUBDIVISION

AND

SURVEY OF SUBDIVISION

OF

T. 12 S. R. 13 E.

Of the Salt Lake Base and *Meridian,*

the State of UTAH

EXECUTED BY

RALPH GENTRY

the capacity of U. S. Surveyor, under instructions dated April 27 *, 1914,*

ed by the United States Surveyor General to govern surveys included in

up No. 28 *, which were approved by the Commissioner of the General Land*

e, May 16 *, 1914.*

Survey commenced July 8 *, 1914*

Survey completed September 16 *, 1914*

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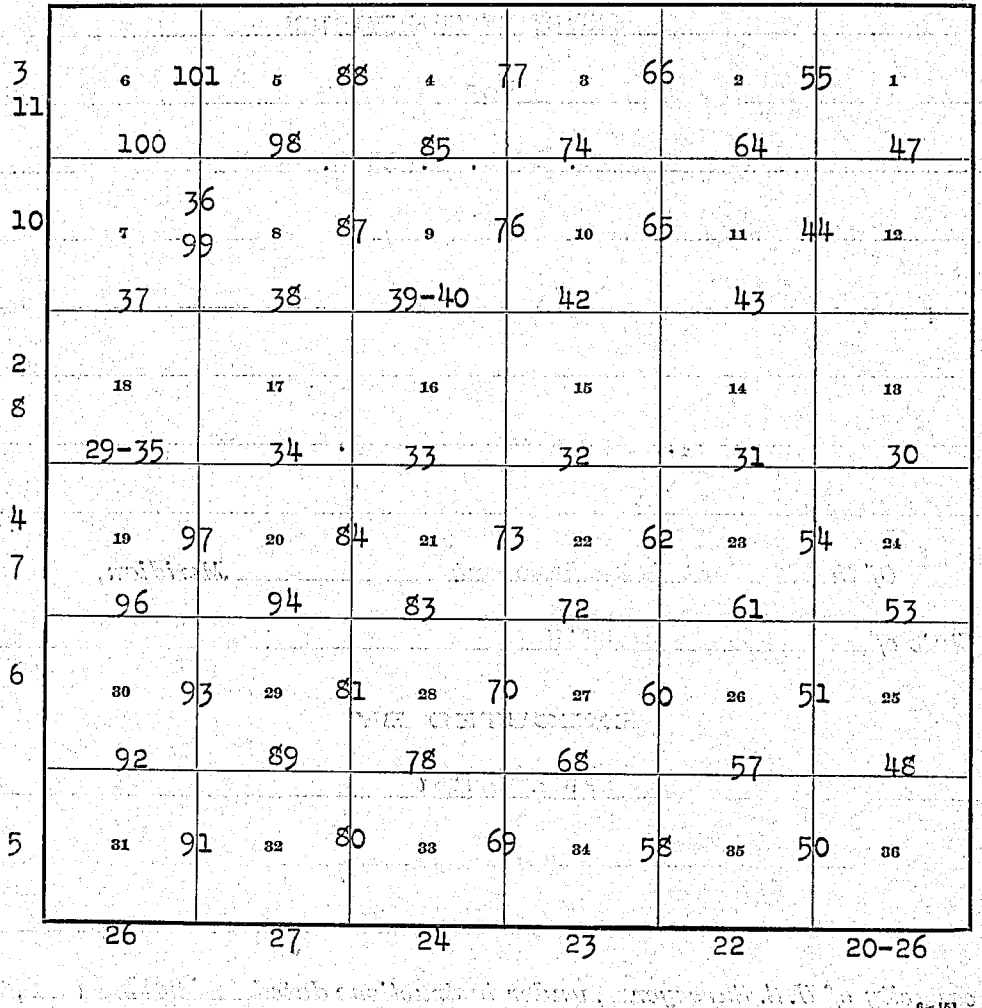
INDEX DIAGRAM.

Township 12 South, *Range* 13 East



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Chains

Survey commenced July 8, 1914, and executed with a Young and Sons light mountain transit No. 8584 with Smith solar attachment.. The horizontal limb is 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 lat. and decl. arcs. The instrument was approved for use in this survey by Mr. G.D.D.Kirkpatrick, Assistant Supervisor of Surveys.

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

At the cor. of secs. 13, 18, 19 and 24 on the W. bdy. of the tp. which is a sandstone 8x7x6 ins. above ground, firmly set, properly marked and witnessed, in approximate lat. 39°46'N., long. 110°33'W., I set off 39°46' on the lat. arc, 22°31'N. on the decl. arc. and at 4h 05m p.m. l.m.t., determine a meridian with the solar and mark the direction of the line thus determined by a nail driven in a peg set firmly in the ground about 5 chs. N. of my station.

July 8, 1914.

July 9: At 0h 27m a.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 peg set firmly in the ground about 5 chs. N. of my station.

At 7h 45m a.m.,l.m.t., I lay off the azimuth of Polaris 1°30' to the West and mark the meridian thus determined by a small mark on the peg set July 8, on which the meridian falls 0.3 ins. W. of the mark determined with the solar.

At 8h 05m a.m.,l.m.t., I set off 39°46' on the lat. arc, 22°26'N. on the decl. arc, and mark a point in the

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains

meridian determined with the solar by a small mark on the peg. already set about 5 chs. N. of my station. This mark falls 0.4 ins. W. 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"E. and 0°21'W. of the meridian established by the Polaris observation, therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h 15m a.m. l.m.t., is N.16°00'W., the angle thus determined gives the mag. decl. 16°00'E.

A steel tape 2 chs. long was used in all the measurements in the field, together with a clinometer for determining slope angles and the reduced horizontal distances only appear in the official field notes. The tape was tested, comparison being made with a standard tape 1 ch. long, kept and used for that purpose.

I re-establish the cor. of secs. 13, 18, 19 and 24 as follows:

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside old cor. for the cor. of secs. 13, 18, 19 and 24, mkd. on brass cap

T 12 S
R 12 E | R 13 E
S 13 | S 18

S 24 | S 19
1914

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

Thence

North retracing bet. secs. 13 and 18.

40.00 No trace of the ¼ sec. cor. can be found. I therefore continue my line North, making careful searches at intervals of 40 and 80 chs. for ¼ sec. and sec. cors.

80.00 July 9: At this station I set off 22°25'N. on the decl.

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains

arc, and at 12h 05m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.

120.00 Cease work.

July 9, 1914.

July 10: At 8h 05m a.m.,l.m.t., I set off 39°47' on the lat. arc, 22°19'N. on the decl. arc, and determine a meridian with the solar.

Thence

North along W. bdy. of Tp.

156.22 W. 53 lks. from my line is the C.C. of secs. 1 and 12, T. 12 S. R. 12 E., which is a sandstone 16x10x6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.

159.36 Fall 18 lks. E. of the corner of sections 6 and 7, which is a sandstone 10x6x24 ins. above ground, firmly set, properly marked and witnessed by a mound of stone 2 ft. base, 1½ ft. high W. of cor.

This falling answers to a correction of 0°04' or 4½ lks. W. per ½ mile counting from the cor. of secs. 13, 18, 19 and 24.

From the cor. of secs. 1, 6, 7 and 12 I run.

North, retracing bet. secs. 1 and 6.

40.00 No trace of the old ¼ sec. cor. can be found.

July 10: At this ¼ sec. cor. I set off 22°18'N. on the decl. arc, and at 12h 05m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

80.00 No trace of old cor. of Tps. 11 and 12 S. Rs. 12 and 13 E. can be found.

July 10, 1914.

July 13: At 7h 35m a.m., l.m.t., I set off 39°46' on the lat. arc, 21°56'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains	
	Thence
	South, retracing bet. secs. 19 and 24.
40.00	No trace of the ¼ sec. cor. can be found, I therefore continue my line south, making careful searches at intervals of 40 and 80 chs. for ¼ sec. and sec. cors.
85.75	July 13: At this station I set off 21°53'N. on the decl. arc, and at 12h 05m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°45'.
160.00	Cease work.
	July 13, 1914.
	July 14: At 8h 06m a.m.,l.m.t., I set off 39°44' on the lat. arc, 21°47'N. on the decl. arc, and determine a meridian with the solar.
	Thence
	South, retracing on W. bdy. of tp.
230.00	July 14: At this station I set off 21°45'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
243.66	Fall 5.52 chs. E. of the cor. of Tp. 12 S. Rs. 12 and 13 E., which is a sandstone 16x12x10 ins., lying on the ground, marked with 6 notches on 4 edges of stone with mound of stone alongside the cor. I re-set stone 10 ins. in the ground and set an iron post, 3 ft. long, 3 ins. in dia., alongside for cor. of Tp. 12 S. Rs. 12 and 13 E., mkd. on brass cap

T 12 S.
R 12 E | R 13 E
S 36 | S 31

1914

from which

A spruce, 7 ins. dia.,bears N.63°W.,
24 lks. dist. mkd. T 12 S R 12 E S 36 B T.

A balsam fir, 3 ins. dia.,bears N.51°E.,
22 lks. dist. mkd. T 12 S R 13 E S 31 B T.

This falling answers to a correction of 1°18' or 184 lks. W. per mile, counting from the cor. of secs. 13, 18, 19 and 24; and the true distance is 243.72 chs.

July 14, 1914.

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains	
	July 15: At 8h 36m a.m.,l.m.t., I set off 39°43' on the lat. arc, 21°37'N. on the decl. arc; and determine a meridian with the solar at the cor. of T. 12 S. Rs. 12 and 13 E.
	Thence
	N.0°18'E. resurveying on E. bdy. of sec.36.
	Over rough mountainous land, through dense aspen and scattering spruce and balsam fir timber and undergrowth of medium service, buck and sagebrush.
	Descend abruptly NE. slope.
21.70	Canyon and stream, 3 lks. wide, 3 ins. deep, 605 ft. below the cor., course NW. Ascend abruptly.
22.66	Leave dense aspen timber bearing NW. and SE.
	Timber becomes more scattering with heavier undergrowth.
40.62	Proportionate measurement on SW. slope,215 ft. above canyon
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of E. bdy. of sec. 36, T. 12 S. R. 12 E., mkd. on brass cap
	S 36 ¼ |
	1914
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Continue ascent.
48.66	Top of ascent on W. slope, 100 ft. above ¼ sec. cor.
	Descend NE. slope of canyon.
62.16	Enter heavier timber and less undergrowth bearing NE. and SW.
78.51	Bottom of canyon and stream, 6 lks. wide, 4 ins. deep, 520 ft. below top of ascent, drains NE.
	Ascend 30 ft. to
81.24	Proportionate measurement
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 25 and 36 on E. bdy. T. 12 S. R. 12 E., mkd. on brass cap

Chains

T 12 S
R 12 E | S 25
S 36 | 1914

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

Land mountainous with steep NE. and SW. slopes into canyon.

Soil, sandy loam and loose rocks on sandy loam and rocky subsoil, 3rd rate.

Timber, aspen, spruce and balsam fir.

Undergrowth, service, buck and sagebrush with some short bunch grass.

July 15: At this cor. I set off 21°35'N. on the decl, arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.

N. 1°18'E., resurveying on E. bdy. of sec. 25.

Over mountainous land, through scattering aspen, spruce and balsam fir timber and medium undergrowth of sage, service and buck brush.

Ascend over rocky slope.

33.44 Spur, 390 ft. above sec. cor., bears NE.

Descend 170 ft. to

40.62 Proportionate measurement

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of sec. 25, T. 12 S.R. 12 E., mkd. on brass cap

S 25 ¼ | 1914

from which

An aspen, 3 ins. dia.,bears S.38°W., 22½ lks. dist. mkd. ¼ S 25 B T.

An aspen, 4 ins. dia.,bears N.61¾°W., 22 lks. dist. mkd. ¼ S 25 B T.

Descend 345 ft. to

RESURVEY W. BDY. T. 12 S., R. 13 E.

Chains	
65.34	Gulch drains E. 5 chs. to large canyon.
	Ascend 65 ft. to
76.69	Spur projects E. 4 chs.
	Descend 105 ft. to
81.24	Proportionate measurement

Set an iron post, 3 ft. long, 3 ins. in dia., 12 ins. in the ground and 12 ins. in a mound of stone for the cor. of secs. 24 and 25 on E. bdy. T. 12 S. R. 12 E., mkd. on brass cap

T 12 S
R 12 E
S 24
S 25
1914

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

Underlying rock prevents setting post more than 12 ins. in the ground.

Land, mountainous, drains NE. on steep slopes.

Soil, sandy loam and clay with loose rocks and shale on rocky and clay subsoil, 4th rate.

Timber, aspen, spruce and balsam fir.

Undergrowth, sage, service, buck and bunch grass.

	N.1°18'E. on resurvey on E. bdy. of sec. 24.
	Over mountainous land, through scattering pinon, cedar and aspen timber and undergrowth of sage and service brush.
	Descend 40 ft. to
6.00	Bottom of canyon and wash, 30 lks. wide, 15 ft. deep; stream in wash 4 lks. wide, 2 ins. deep, course NW.
	Thence in bottom of canyon.
16.22	Leave canyon, bears N.30°W. and S.30°E.
	Ascend abruptly.
35.22	Spur, 440 ft. above canyon, projects W.
	Descend NW. slope 115 ft. to

RESURVEY W. BDY. T. 12 S., R. 13 E.

Chains	
40.62	Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of sec. 24, T. 12 S. R. 12 E. mkd. on brass cap S 24 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
69.00	Base of descent, enter canyon bears NE. and SW. 505 ft. below ¼ sec. cor. Leave timber. Thence across canyon through sage, rabbit brush and scattering grass.
75.92	Wash, 3 chs. wide, 20 ft. deep, stream in bottom of same 8 lks. wide, 6 ins. deep course NE.
81.24	The cor. of secs. 13, 18, 19 and 24. Land, mountainous draining N. into Nine Mile Canyon. Soil, sandy loam and clay with loose rocks on sandy and rocky subsoil, 3rd rate. Timber, scattering cedar, pinon and aspen. Undergrowth, sage, service, buck, rabbit brush and grass. July 15, 1914.

July 11: At 7h 35m a.m.,l.m.t., I set off 39°46' on the lat. arc, 22°12'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

Thence

N.0°04'W. resurveying bet. secs. 13 and 18.

Ascend gradually over mountainous land, through scattering cedar timber and undergrowth of sagebrush and grass.

.60	Price-Vernal, Utah wagon road bears NE. and SW.
1.56	Telephone line Price to Vernal, Utah bears NE. and SW.
28.00	Spur, 295 ft. above canyon, projects NE. Descend 355 ft. to
39.84	Proportionate measurement

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains	
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 13 and 18, mkd. on brass cap S 13 $\frac{1}{4}$ | S 18 1914 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
45.50	Foot of spur, 110 ft. below $\frac{1}{4}$ sec. cor., projects NW. and SE. Leave timber bearing NW. and SE.
48.00	Nine Mile Creek, 15 lks. wide, 6 ins. deep, course SE.
48.62	Pole fence bearing NW. and SE. Enter alfalfa field.
57.60	Leave field bearing NW. and SE.
60.10	Pole fence bearing NW. and SE.
60.90	Road and foot of ascent, bears NW. and SE. Ascend.
66.00	Enter scattering pinon and cedar timber bearing NW. and SE.
79.68	455 ft. above the canyon. proportionate measurement Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 12, 13 and 18, mkd. on brass cap T 12 S R 12 E | R 13 E S 12 | S 7 S 13 | S 18 1914 from which A pinon, 16 ins. dia., bears N.17°E., 86 lks. dist. mkd. T 12 S R 13 E S 7 B.T. A pinon, 6 ins. dia., bears S.22½°E., 38 lks. dist. mkd. T 12 S R 13 E S 18 B.T. A pinon, 16 ins. dia., bears S.51°30'W., 46 lks. dist. mkd. T 12 S R 12 E S 13 B.T. A pinon, 16 ins. dia., bears N.28¼°W., 33 lks. dist. mkd. T 12 S R 12 E S 12 B.T. Land mountainous, draining E. N. and S. slopes of spurs on 64.28 chs. Soil sandy loam and rocky on rocky and sandy subsoil, 4th rate. 15.40 chs. gently rolling canyon bottom, rich

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains	
	sandy loam soil on deep sandy subsoil, 1st rate. Timber scattering cedar and pinon on mountainous portion of the mile. Undergrowth, sagebrush and grass.
	N.0°04'W., resurveying bet. secs. 7 and 12. Over rough mountainous land, through scattering cedar and pinon timber and undergrowth of sagebrush and grass. Ascend abruptly over rocky slope.
32.00	Ridge, 500 ft. above sec. cor. bears NW and SE. Descend NE. slope 235 ft. to
39.84	Proportionate measurement. Set an iron post, 3 ft. long, 1 ins. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 7 and 12, mkd. on brass cap S 12 ¼ | S 7 1914 from which A pinon 8 ins. dia., bears S.34°E., 47½ lks. dist. mkd. ¼ S 7 B T. A pinon, 6 ins. dia., bears S.43½°W., 79 lks. dist. mkd. ¼ S 12 B T. This ¼ sec. cor. will hereafter refer to sec. 12 only. July 11: At this ¼ sec. cor. I set off 22°10'N. on the decl. arc, and at 12h 05m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.
54.85	Bottom of ravine and creek, 2 lks. wide, 1 in. deep, 195 ft. below ¼ sec. cor., drains SE. Thence up ravine.
61.05	Leave ravine, bears NW and SE. Ascend.
70.00	Top of ascent on W. side of ravine, 200 ft. above bottom. Descend.
76.54	W.35 lks. from my line is the C.C. of secs. 1 and 12, heretofore described.
79.68	40 ft. below the top of ascent. The corner of sections 6 and 7. I do not re-establish same.
	Land rough mountains draining S. Soil sandy loam and loose rocks on sandy and rocky sub-

RESURVEY W. BDY. T. 12 S. R. 13 E.

Chains	
	soil, 3rd rate.
	Timber, pinon and cedar.
	Undergrowth, sagebrush and grass.
	North resurveying bet. secs. 1 and 6.
	Over mountainous land through scattering cedar and pinon timber and undergrowth of sage and buck brush and scattering grass.
	Descend.
17.80	Ravine, 35 ft. below sec. cor., drains S.10°E. heads NW.
	Ascend.
40.00	395 ft. above ravine. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 1 and 6, mkd. on brass cap S 1 $\frac{1}{4}$ | S 6 1914 and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high W. of cor. This cor. will hereafter refer to sec. 1 only.
45.00	Ridge, 45 ft. above $\frac{1}{4}$ sec. cor., bears SW. SE. and N.
	Thence on top of ridge.
52.00	Low divide in ridge bet. 2 gulches, drain SE. and SW. 30 ft. below top of ridge to the S.
	Ascend on W. slope of ridge.
73.74	Top of peak on ridge, 665 ft. above low divide, bears NW. and SE. Descend 195 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of Tps. 11 and 12 S. R. 12 E. mkd. on brass cap T 11 S R 12 E | S 36 S 1 | R 12 E T 12 S 1914 and raise a mound of stone 2 ft. base, 1$\frac{1}{2}$ ft. high W. of cor.
	Land mountainous.

RESURVEY E. BDY. T. 12 S., R. 13 E.

Chains

Soil sandy loam and loose rock on sandy loam and rocky subsoil, 3rd rate.

Timber, scattering cedar and pinon.

Undergrowth, sage, buck brush and grass.

July 11, 1914.

RETRACEMENT AND RESURVEY E. BDY. T.12 S.R.13 E.

July 29: At 10h 06m a.m.,l.m.t., I set off 39°49' on the lat. arc, 18°52'N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 11 and 12 S. Rs. 13 and 14 E. which is a sandstone 12x10x4 ins. firmly set in mound of stone, marked and witnessed as described by the Surveyor General.

Thence I run

South retracing bet. secs. 1 and 6.

40.00 After a long and careful search I am unable to find any trace of the old ¼ sec. cor.

July 29: At this station I set off 18°50'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

I continue my line south, making careful searches at intervals of 40 and 80 chs. for ¼ sec. and sec. cors.

80.00 Cease work.

July 29, 1914.

July 30: Rain storm prevents work in a.m.

At 1h 36m p.m.,l.m.t., I set off 39°48' on the lat. arc, 18°35'N. on the decl. arc, and determine a meridian with the solar at 80 chs. point.

Thence South, retracing E. bdy. of Tp.

200.00 Cease work.

July 30, 1914.

July 31: At 8h 36m a.m.,l.m.t., I set off 39°47' on the lat. arc, 18°24'N. on the decl. arc, and determine a meridian with the solar at the 200 chs. point.

Thence South, retracing E. bdy. of Tp.

RESURVEY E. BDY. T. 12 S., R. 13 E.

Chains	
280.00	July 31: At this station, I set off 18°21'N. on the decl. arc, and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
306.10	Fall 18 lks. W. of the cor. of secs. 19, 24, 25 and 30, which is a sandstone 14x10x4 ins. lying on the ground, marked 4 notches on one and 2 notches on opposite edge and witnessed as described by the Surveyor General. I re-set stone 10 ins. in the ground.
	The course of the line bet. the cor. of Tps. 11 and 12 S. Rs. 13 and 14 E. and the cor. of secs. 19, 24, 25 and 30 is S.0°02'E. I will resurvey this bdy. on this course bet. said corners setting the proper ¼ sec. and sec. cors. at proportionate distances.
	July 31, 1914.
	Aug. 1: At 9h 06m a.m., l.m.t., I set off 39°45' on the lat. arc, 18°09'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30.
	Thence I run
	South, retracing bet. secs. 25 and 30.
40.00	No trace of ¼ sec. cor. can be found.
77.06	Fall 64 lks. W. of the cor. of secs. 25, 30, 31 and 36, which is a sandstone 16x8x6 ins. above ground, firmly set, properly marked and witnessed.
	The true bearing of this mile is N.0°29'W. and the distance 77.06 chs.
	Aug. 1: At this cor. I set off 18°07'N. on the lat. arc, and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
	South retracing bet. secs. 31 and 36.
	Over mountainous land on E. side of canyon, through scattering pinon and cedar timber and undergrowth of sage and service brush and grass.

RETRACEMENT AND RESURVEY E. BDY.T.12 S.R.13 E.

Chains	
3.50	Leave timber, bears NW. and SE.
21.00	Begin descent into fork of Sheep Canyon.
27.30	Enter canyon bottom, 50 ft. below top of descent, bears N.10°W. and SE. Thence in canyon.
33.85	East fork of Sheep Creek, 5 lks. wide, 3 ins. deep, course N.5°W.
35.50	Ascend from canyon.
39.93	65 ft. above canyon.
	Intersect the ¼ sec. cor., which is a sandstone 16x14x4 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	The bearing of this ½ mile is therefore North, and the distance 39.93 chs.
	From the ¼ sec. cor. I continue South.
18.75	Enter scattering aspen timber bearing NW. and SE.
39.69	575 ft. above the ¼ sec. cor.
	Fall 89 lks. E. of the cor. of Tps.12 and 13 S. Rs. 13 and 14 E., which is a sandstone 16x10x10 ins. above the ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	The true bearing of this ½ mile is therefore N.1°16'E. and the distance is 39.70 chs.
	Land mountainous draining W. and N. into Sheep Canyon.
	Soil sandy loam and rocky on sandy and rocky subsoil, 3rd rate.
	Timber pinon, cedar and some aspen.
	Undergrowth sage, service brush and some grass.
	August 1, 1914.

Aug. 3: At 8h 36m a.m.,l.m.t., I set off 39°44' on the lat. arc, 17°39'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36.

Thence

N.0°29'W. resurveying bet. secs. 25 and 30.

Over mountainous land sloping W. into Sheep Canyon,

RETRACEMENT AND RESURVEY E. EDY.T.12 S.R.13 E.

Chains	
	through scattering cedar, spruce and pinon timber and undergrowth of sage, service brush and grass.
12.55	Descend into Sheep Canyon, land facing NW.
15.05	Thence through more scattering timber.
17.75	Enter bottom of Sheep Canyon, 190 ft. below the sec. cor. bears NE. and SW. Thence in canyon.
21.80	Sheep Creek in canyon, 6 lks. wide, 4 ins. deep course N.30°E.
35.80	Leave canyon, enter heavier timber bearing N.30°E. and S.30°W.
	Ascend 40 ft. to
38.53	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 25 and 30, mkd. on brass cap
	S 25 ¼ | S 30
	1914
	from which
	A pinon, 8 ins. dia., bears N.18½°E.,
	42 lks. dist. mkd. ¼ S 30 B T.
	A pedar, 12 ins. dia., bears S.28½°W.,
	40 lks. dist. mkd. ¼ S 25 B T.
	This ¼ sec. cor. will hereafter refer to sec. 30 only.
	Ascend abruptly.
71.06	Spur, 810 ft. above the ¼ sec. cor. projects E.
	Descend 110 ft. to
74.05	Gulch drains E. Ascend 60 ft. to
77.06	The cor. of secs. 19, 24, 25 and 30.
	Land rough mountains draining into Sheep Canyon.
	Soil light blue clay, packed hard and rocky on clay and rocky subsoil, 3rd rate.
	Timber cedar, spruce and pinon. Medium growth on mile.
	Undergrowth sage, service and grass.

N.0°02'W., resurveying on W. bdy. sec. 19.

RETRACEMENT AND RESURVEY E. BDY. T.12 S. R. 13 E.

Chains	
	Over rough mountainous land through pinon, spruce and cedar timber and scattering undergrowth of sage, service brush and grass.
	Ascend 65 ft. to
7.52	Spur projects E.
	Descend 595 ft. to
40.21	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 19 and 24, mkd. on brass cap
	S 24 ¼ | S 19 1914
	from which
	A cedar, 10 ins. dia., bears S.75°E.,
	12 lks. dist. mkd. ¼ S 19 B T.
	A balsam fir, 3 ins. dia., bears S.51°W.,
	24 lks. dist. mkd. ¼ S 24 B T.
	This ¼ sec. cor. will hereafter refer to sec. 19 only.
	Aug. 3: At this cor. I set off 17°36'N. on the decl. arc. and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
68.82	Canyon, 675 ft. below ¼ sec. cor. drains E.
	Ascend 200 ft. to
80.42	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 18, 19 and 24, mkd. on brass cap
	T. 12 S. R 13 E. | R 14 E. S 13 | S 18 S 24 | S 19 1914
	from which
	A cedar, 18 ins. dia., bears N.73°E.,
	1.53 chs. dist. mkd. T 12 S R 14 E S 18 B T.
	A cedar, 3 ins. dia., bears S.55½°E.,
	29 lks. dist. mkd. T 12 S R 14 E S 19 B T.
	A cedar, 3 ins. dia., bears S.30½°W.,
	29 lks. dist. mkd. T 12 S R 13 E S 24 B T.

RETRACEMENT AND RESURVEY E. BDY. T. 12 S. R. 13 E.

Chains

No other bearing trees available, raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Land rough mountains with general NE. drainage.

Soil sandy loam and loose rocks on sandy and rock subsoil, 3rd rate.

Timber cedar, spruce, pinon and some balsam.

Undergrowth sage, scattering service brush and grass.

N.0°02'W. resurveying bet. secs. 13 and 18.

Ascend over rough mountainous land through scattering spruce and pinon timber and scattering undergrowth of sagebrush and grass.

24.54 Proportionate measurement, 830 ft. above the sec. cor.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 13 and 18, mkd. on brass cap

S 13 ¼ | S 18

1914

from which

A cedar, 7 ins. dia., bears N.37°E., 26 lks. dist. mkd. ¼ S 18 B T.

A pinon, 24 ins. dia., bears S.67°W., 78 lks. dist. mkd. ¼ S 13 B T.

Continue ascent.

35.04 Ridge, 280 ft. above the ¼ sec. cor. bears NE. and SW.

Descend 760 ft. to

64.84 Proportionate measurement

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

T 12 S
R 13 E | R 14 E
S 12 | S 7

S 13 | S 18

1914

and raise a mound of stone 2 ft. base, 1½ ft. high W. of the cor.

RETRACEMENT AND RESURVEY E. BDY. T. 12 S. R. 13 E.

Chains	
	Land rough broken mountains.
	Soil hard dry blue clay mixed with shale rock and rocky on clay and rock subsoil, 4th rate.
	Timber spruce and pinon.
	Undergrowth sagebrush and some grass.
	Aug. 3, 1914.
	Aug. 24: At 8h 02m a.m.,l.m.t., I set off 39°47' on the lat. arc, 11°17'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.
	Thence
	N.0°02'W. resurveying bet. secs. 7 and 12.
	Over rough mountainous land descending through scattering pines and cedars and undergrowth of sagebrush.
33.12	Bottom of Nine Mile Canyon and leave timber, 1265 ft. below sec. cor. bears E. and W. Thence across canyon.
40.21	Nine Mile Creek, 20 lks. wide, 8 ins. deep, course NE.
	Point for ¼ sec. cor. falls in creek. No corner set.
40.41	On south side of field, bears E. and W.
	Set an iron post, 3 ft. long, 1 in. in dia.,24 ins. in the ground for the W.C. to ¼ sec. cor. of secs.7 and 12, mkd. on brass cap
	T 12 S R 13 E | R 14 E S 12 | S 7 WC¼ 1914
	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.
43.82	Leave field and telephone line and pole fence, all bearing E. and W.
44.22	Wagon road Price to Vernal, Utah, bears E. and W.
44.32	Leave canyon, enter pinon and cedar timber bearing E.and W. Ascend abruptly 450 ft. to
54.87	Spur projects SE. Descend abruptly.
63.50	Canyon, 225 ft. below spur, drains SE.

Chains

Ascend abruptly 470 ft. to

80.42 Proportionate measurement.

Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in the ground and 16 ins. in mound of stone and earth for the cor. of secs. 1, 6, 7 and 12, mkd. on brass cap

T 12 S
R 13 E | R 14 E
S 1 | S 6
S 12 | S 7
1914

from which

A pinon, 6 ins. dia., bears N.41¼°E.,
95 lks. dist. mkd. T 12 S R 14 E S 6 B T.

A spruce, 12 ins. dia.; bears S.83½°E.,
52 lks. dist. mkd. T 12 S R 14 E S 7 B T.

A spruce, 10 ins. dia., bears S.22¾°W.,
65 lks. dist. mkd. T 12 S R 13 E S 12 B T.

A spruce, 14 ins. dia., bears N.57½°W.,
42 lks. dist. mkd. T 12 S R 13 E S 1 B T.

NOTE: Underlying rock prevents setting post more than 8 ins. in the ground.

Land rough broken mountains on S.33.12 chs. and N.36.10 chs.

Soil clay, loose shale rock and slide rock on clay and rocky subsoil, 4th rate.

11.20 chs. level canyon bottom.

Soil rich sandy loam on deep sandy subsoil, 1st rate.

Timber cedar, pinon and spruce.

Undergrowth, sagebrush and grass.

N.0°02'W. resurveying bet. secs. 1 and 6.

Over rugged mountainous land through pinon and cedar timber and undergrowth of scattering sagebrush and grass.

Ascend abruptly.

18.00 Ridge and divide of Nine Mile and Argyle Canyon, 505 ft. above the sec. cor. bearing NW. and SE.

Thence over rolling mountain top through dense timber.

40.21 Proportionate measurement.

RETRACEMENT AND RESURVEY E. BDY. T. 12 S.R.13 E.

Chains	
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 1 and 6, mkd. on brass cap S 1 ¼ | S 6 1914 from which A pinon, 12 ins. dia.,bears N.48½°E., 8 lks. dist. mkd. ¼ S 6 B T. A spruce, 16 ins. dia.,bears N.65°W., 37 lks. dist. mkd. ¼ S 1 B T.
	Aug. 24: At this cor. I set off 11°13'N. on the decl. arc, and at 12h 02m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.
80.42	The cor. of Tps. 11 and 12 S., Rs. 13 and 14 E.
	Land rough mountains with S. exposure on S.18 chs and rolling mountain top on N.62.42 chs.
	Soil on S.18 chs. loose shale rock and clay on hard clay and rock subsoil, 4th rate. N. 62.42 chs. rolling mountain, sandy loam soil mixed with coarse gravel on sandy loam and gravelly subsoil, 2nd rate.
	Timber pinon, cedar and some spruce.
	Undergrowth sagebrush and grass.
	Aug. 24, 1914.

RETRACEMENT S. BDY. T. 12 S. R. 13 E.

	Aug. 7: At 8h 06m a.m.,l.m.t., I set off 39°43' on the lat. arc, 16°35'N. on the decl. arc. and determine a meridian with the solar at the cor. of Tps. 12 and 13 S., Rs. 13 and 14 E. heretofore described.
	Thence I run
	West retracing bet. secs. 1 and 36.
	Over rough mountainous land through scattering aspen timber and undergrowth of medium sage, service brush and grass. Ascend abruptly.
13.00	Ridge, 140 ft. above tp. cor., bears N. and S.
	Descend 345 ft. to

RETRACEMENT S. BDY. T. 12 S.R.13 E.

Chains	
34.50	Gulch, drains N. Ascend 60. ft. to
39.00	Spur projects N. Descend 150 ft. to.
42.10	Enter aspen grove bearing N. and S.
46.69	Fall 1.68 chs. S. of the ¼ sec. cor., which is a sandstone 14x12x4 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	Cor. sets in W. edge of grove of aspen timber. This cor. does not refer to any section; is merely angle point on line. The true bearing of this ½ mile is therefore N.87°56'W., and the dist. 46.72 chs.
	August 7: At this cor. I set off 16°31'E. on the decl. arc, and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°43'.
	From my point 1.68 chs. S. of ¼ cor., I continue West
49.60	Bottom fork of Sheep Canyon, 90 ft. below ¼ sec. cor., bears NE. and SW.
	Enter small patch aspen timber bearing NE. and SW.
53.25	Creek 4 lks. wide, 2 ins. deep, course NE. Ascend.
64.50	Flat spur, 420 ft. above canyon, projects NE. and SW. Gradually ascend.
66.80	Enter dense aspen grove bearing N. and S.
81.00	Main top of spur, 150 ft. above foot of ascent, bears NE. and SW.
	Descend abruptly to
85.50	Ravine bears NE. Ascend 10 ft. to
86.17	Fall 1.18 chs. S. of the cor. of secs. 35 and 36 which is a sandstone 14x8x6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	NOTE: Knowing that the subdivisional line bet. secs. 35 and 36 will not intersect this bdy. within limits at the cor. of secs. 35 and 36; and as closing corners have already been set on this bdy. for T. 13 S. and closing corners will be necessary for T. 12 S., I destroy all marks on stone pertaining to this Tp. and mark same W P, also destroying marks referring to secs. on the bearing trees.

RETRACEMENT S. BDY. T.12 S. R. 13 E.

Chains	
	This cor. stands on W. edge of dense aspen grove bearing NE. and SW.
	The course of this ½ mile is therefore S.89°17'W. and the dist. 39.48 chs.
	Land rough mountains draining NE.
	Soil sandy loam and loose rocks on sandy and rocky sub-soil, 3rd rate.
	Timber scattering aspen.
	Undergrowth sagebrush and grass.
	August 7, 1914.
	Aug. 13: At 8h 05m a.m.,l.m.t., I set off 39°43'S. on the lat. arc; 14°50'N. on the decl. arc, and determine a meridian with the solar at the old cor. of secs. 35 and 36.
	Thence
	West, retracing bet. secs. 2 and 35.
	Over rough mountainous land, through scattering pinon and cedar timber and medium undergrowth of sage and service brush and grass.
	Ascend 610 ft. to
24.00	Divide between Cow and Sheep Canyons bearing N. and S.10°W.
	Descend 265 ft. to
31.15	Gulch drains SW. Ascend 115 ft. to
39.05	Fall 73 lks. S. of the ¼ sec. cor. which is a sandstone 20x12x3 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. This cor. does not refer to any section; is merely angle point on line.
	The true bearing of this ½ mile is therefore N.88°56'W. and the dist. 39.06 chs.
	From a point 73 lks. S. of the ¼ sec. cor. I continue West
41.25	Spur, 20 ft. above ¼ sec. cor., projects SW.
	Descend 520 ft. to
52.55	Gulch drains SW. Ascend 85 ft. to
63.00	Top of ascent on N. side of ravine.

RETRACEMENT S. BDY. T. 12 S. R. 13 E.

Chains	
	Descend abruptly 350 ft. to
78.88	Fall 80 lks. S. of the cor. of secs. 34 and 35, which is a limestone 18x8x4 ins. lying on the ground, mkd. 4 notches on one and 2 notches on opposite edge with mound of stone W. of cor.
	For reasons already explained I re-set this stone 12 ins. in the ground, destroying all marks on same pertaining to this Tp. and marking stone W.P. on face.
	The true bearing of this ½ mile is therefore N.89°54'W. and the dist. 39.83 chs.
	Land rough broken mountains.
	Soil sandy loam and loose rocks on sandy and rocky sub-soil, 3rd rate.
	Timber, pinon and cedar.
	Undergrowth sage, service brush and grass.
	Aug. 13: At this cor. I set off 14°47'N. on the decl. arc, and at 12h 05m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°43'.

	From the old cor. of secs. 34 and 35
	West retracing on S. bdy. sec. 34.
	Over rugged mountainous land through scattering pinon and cedar timber and undergrowth of medium sage, service brush and grass. Descend.
6.50	Enter grove of aspen timber, 2½ chs. wide, bears N.and S.
8.25	Fork Cow Canyon and creek, 4 lks. wide, 3 ins. deep, 185 ft. below sec. cor. course N. Ascend.
	Leave timber bearing N. and S.
40.55	255 ft. above canyon. Fall 12 lks. S. of the ¼ sec. cor. which is a sandstone 18x12x6 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General. This cor. does not refer to any section; is merely angle poine on line.
	The true bearing of this ½ mile is therefore N.89°50'W. and the dist. 40.55 chs.
	Aug. 13, 1914.

RETRACEMENT S. BDY. T 12 S. R. 13 E.

Chains	
	Aug. 14: At 8h 05m a.m., l.m.t., I set off 39°43' on the lat. arc, 14°32'N. on the decl. arc, and determine a meridian with the solar at a point 12 lks. S. of ¼ sec. cor. on S. bdy. of sec. 34.
	Thence
	West retracing S. bdy. of sec. 34.
47.00	Spur, 65 ft. above the cor., projects N.35°E. Descend.
53.54	North 2.34 chs. from my line is the C.C. of secs. 3 and 4 T. 13 S. R. 13 E., which is a sandstone 20x16x6 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
67.30	Bottom of Cow Canyon, 680 ft. below spur, course from E. to NE.
	Thence in canyon through rabbit and sagebrush.
75.45	Wash 50 lks. wide, 25 ft. deep, Cow Creek in same 7 lks. wide, ½ ins. deep, course NE.
80.32	Fall 41 lks. S. of the cor. of secs. 33 and 34, which is a sandstone 20x14x12 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	For reasons already explained, I destroy all marks on stone pertaining to this Tp. and mark same W P on face.
	The true bearing of this ½ mile is therefore N.89°35'W. and the dist. 39.77 chs.
	Land rough broken mountains.
	Soil sandy loam and rocky on sandy and rocky subsoil, 3rd rate.
	Timber, pinon and cedar.
	Undergrowth, sage, service, rabbit brush and grass.

	From the old sec. cor.
	West retracing on S. bdy. sec. 33.
	Over bottom of Cow Canyon, through undergrowth of sage, rabbit brush and grass.
1.75	Enter dense aspen timber bearing NW. and SE.

RETRACEMENT. S. BDY. T.12 S. R. 13 E.

Chains	
2.15	Wash, 50 lks. wide, 25 ft. deep, Cow Creek in same, 7 lks. wide, 4 ins. deep, course S.85°E.
14.50	Leave canyon, brs. NW. and S.85°E. Asc. 205 ft. to
40.20	Fall 12 lks. S. of the ¼ sec. cor. which is a sandstone 20x16x6 ins. above ground, firmly set, properly mkd. and witnessed as described by the Surveyor General.
	The true bearing of this ½ mile is therefore N.89°50'W., and the dist. 40.20 chs. This cor. does not refer to any section; is merely angle point on line.
	Aug. 14: At this cor. I set off 14°28'E. on the decl. arc, and at 12h 05m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°43'.
	From a point 12 lks. S. of the ¼ sec. cor. I continue West
49.10	Spur, 70 ft. above the ¼ sec. cor., projects N. Descend.
53.41	N.47 lks. from my line is the C.C. of secs. 4 and 5 T. 13 S. R. 13 E., which is a sandstone 22x20x4 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
55.35	Bottom of ravine and stream, 4 lks. wide, 4 ins. deep, 185 ft. below spur, course N. Leave aspen timber bearing N. and S. Ascend.
73.00	Enter dense aspen, bears NE. and SW.
77.75	Leave aspen bearing NE. and SW.
80.28	455 ft. above ravine. Fall 47 lks. S. of the cor. of secs. 32 and 33 which is a sandstone 16x10x8 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	For reasons already explained I destroy all marks on stone pertaining to this Tp. and mark same W P on face.
	The true bearing of this ½ mile is therefore N.89°30'W., and the dist. 40.08 chs.
	Land rough mountains draining into Cow Canyon.
	Soil sandy loam and rocky on sandy and rocky subsoil, 3rd rate.
	Timber aspen.
	Undergrowth sage and rabbit brush and grass.

RETRACEMENT S. BDY. T. 12 S. R. 13 E.

Chains	Aug. 14, 1914.
	July 16: At 8h 36m a.m., l.m.t., I set off 39°43' on the lat. arc, 21°28'N. on the decl. arc, and determine a meridian at the C.C. of Tps. 12 and 13 S. R. 13 E., which is a sandstone 24x13x4 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. Thence
	N.15°52'E. on E. bdy. of sec. 1 T. 13 S. R. 12 E.
3.11	Intersect C C T 13 S.R. 12 E., which is a sandstone 16x12x8 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	Thence
	West on the N. bdy. sec. 1, T. 13 S. R. 12 E.
	Ascend along N. slope of rough mountainous land, through aspen, spruce and balsam fir timber and undergrowth of medium buck, service brush and grass.
25.60	Fall 25 lks. N. of the cor. of T. 12 S. Rs. 12 and 13 E. heretofore described.
	The true bearing of this line is therefore S.89°25'W. and the dist. 25.60 chs.
	Land rough mountains with N. exposure.
	Soil sandy loam and loose rocks on sandy and rocky subsoil, 3rd rate.
	Timber, dense aspen and scattering spruce and balsam fir.
	Undergrowth medium buck and service brush. Some grass.
	From C.C. to Tps. 12 and 13 S. R. 13 E.
	East retracing bet. secs. 6 and 31.
	Descend over rough mountainous land through dense aspen and scattering spruce and balsam fir timber and medium undergrowth of buck, service brush and grass.
	Descend 50 ft. to
1.65	Canyon draining N. Ascend 100 ft. to
6.55	Spur projects N. Descend 115 ft. to
13.15	Ravine draining NW. Ascend 85 ft. to

RETRACEMENT S. BDY. T. 12 S.R. 13 E.

Chains	
15.80	Fall 9 lks. S. of the ¼ sec. cor., which is a sandstone 10x10x6 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General. This cor. does not refer to any sec; is merely angle point on line. The true bearing of this line is therefore S.89°39'W. and the dist. 15.80 chs.
	July 16: The sky is overcast at noon, observations for lat. impossible. Storm of rain at 1 p.m. prevents further field work this day.
	July 16, 1914.
	July 17: At 9h 06m a.m., l.m.t., I set off 39°43' on the lat. arc, 21°17'N. on the decl. arc. and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 6 and 31. Thence
	East, retracing from ¼ sec. cor.
1.65	Leave aspen timber bearing NW. and SE.
5.70	Ridge, 100 ft. above the cor., bears N.15°W. and S.15°E. Descend 170 ft. to
12.55	Canyon drains N.15°W. Ascend 110 ft. to
18.70	Spur projects NE. Descend.
39.88	Fall 1.04 chs. N. of the cor. of secs. 31 and 32, which is a sandstone 12x12x6 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	For reasons already explained I destroy all marks on stone pertaining to this Tp. and mark same W P on face.
	The true bearing of this ½ mile is N.88°31'W. and the dist. 39.89 chs.
	Land rough mountains draining N.
	Soil sandy loam and rocky on sandy and rocky subsoil, 3rd rate.
	Timber aspen, spruce and balsam fir.
	Undergrowth medium buck, service brush and grass.
	East, retracing on S. bdy. sec. 32.
	Over rough mountainous land, descending through undergrowth of sage, service brush and grass.

RETRACEMENT S. BDY. T. 12 S. R. 13 E.

Chains	
14.65	Enter dense aspen timber and scattering spruce and balsam fir bearing NE. and SW.
15.60	Canyon, 185 ft. below cor., drains NE. Ascend 200 ft. to
26.70	Spur projects N.15°E. Descend.
30.00	July 17: At this station I set off 21°16'N, on the decl. arc, and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°43'.
40.27	250 ft. below spur..
	Fall 49 lks. S. of the ¼ sec. cor., which is a sandstone 18x14x6 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General. This c does not refer to any sec; is merely angle point on line. The true bearing of this ½ mile is therefore S.89°18'W. and dist. 40.27 chs.
	From a point 49 lks. S. of the ¼ sec. cor. I continue East
40.75.	Bottom of ravine and stream, 3 lks. wide, 2 ins. deep, course N.
	Ascend 335 ft. to
62.95	Spur projects NE. Descend 170 ft. to
79.96	Fall 25 lks. S. of the cor. of secs. 32 and 33 heretofore described.
	The true bearing of this ½ mile is N.89°39'W. and dist. 39.69 chs.
	Land, rough mountains draining N.
	Soil sandy loam and loose rocks on sandy and rocky sub-soil; 3rd rate.
	Timber aspen, spruce and balsam fir.
	Undergrowth, sage, service brush and grass.
	July 17, 1914.

RESURVEY OF SUBDIVISION OF T.12 S. R. 13 E.

July 18: At 7h 36m a.m., l.m.t., I set off 39°46' on the lat. arc, 21°08'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24 on the W. bdy. of the Tp.

Thence

RESURVEY OF SUBDIVISION OF T. 12 S. R. 13 E.

Chains	
	East retracing bet. secs. 18 and 19.
37.90	No trace of the ¼ sec. cor. can be found. I therefore continue my line East, making careful searches at intervals of 40 and 80 chs. for ¼ sec. and sec. cors.
117.90	At this station I set off 21°06'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
197.90	Cease work.
	July 18, 1914.
	Aug. 4: At 8h 36m a.m.,l.m.t., I set off 39°46' on the lat. arc, 17°23'N. on the decl. arc, and determine a meridian with the solar at the temp. point set at 197.90 chs.
	Thence East.
277.90	Aug. 4: At this station I set off 17°20'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
357.90	Cease work.
	Aug. 4, 1914.
	Aug. 5: At 8h 06m a.m.,l.m.t., I set off 39°46' on the lat. arc, 17°07'N. on the decl. arc, and determine a meridian with the solar at the temp. point set at 357.90 chs.
	Thence East
437.90	Aug. 5: At this station I set off 17°04'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
480.11	Intersect E. bdy. of the tp. 13.13 chs. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	The course of the line from cor.secs.13,18,19 and 24 on the W. bdy. of the tp. to the cor. of secs. 13, 18, 19 and 24 on the E. bdy. of the tp. is S.88°26'E. and the distance is 480.29 chs.
	I will survey this line setting cors. at proportionate distances connecting said cors.
	Aug. 5, 1914.

RESURVEY OF SUBDIVISION T.12 S.R.13 E.

Chains	
	Aug. 6: At 8h 06m a.m.,l.m.t.; I set off 39°46' on the lat. arc, 16°51'N. on the decl. arc; and determined a meridian with the solar at the cor. of secs. 13, 18, 19 and 24 on the E. bdy. of the Tp.
	Thence
	N.88°26'W. resurveying on S. bdy. sec. 13.
	Over rough mountainous land through scattering pinon, spruce and cedar timber and undergrowth of sage, service brush and grass.
	Ascend eastern slope of high ridge.
38.90	Ridge, 1250 ft. above sec. cor. bears NE. and SW.
	Descend 35 ft. to
40.20	Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. on S. bdy. of sec. 13, mkd. on brass cap
	S 13 $\frac{1}{4}$ 1914
	from which
	A pinon, 13 ins. dia.,bears N.83°E., 13 lks. dist. mkd. $\frac{1}{4}$ S 13 B T.
	A spruce, 13 ins. dia.,bears N.10½°W., 60 lks. dist. mkd. $\frac{1}{4}$ S 13 B T.
	NOTE: Knowing that subdivisional lines from the S. will not intersect this line within limits at the sec. cors. I re-established this line setting cors. for the north secs. only.
65.35	Canyon, 790 ft. below $\frac{1}{4}$ sec. cor., drains N.
	Abrupt ascent 515 ft. to
76.65	Spur projects N.10°E. Descend 110 ft. to
80.40	Proportionate measurement. Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the cor. of secs. 13 and 14, mkd. on brass cap
	T 12 S R 13 E S 14 | S 13 1914
	from which
	A pinon, 20 ins. dia.,bears N.52½°E.,

Chains	
	25 lks. dist. mkd. ¼ S 13 B T. A pinon, 8 ins. dia.,bears N.60½°W., 70 lks. dist. mkd. T 12 S R 13 E S 14 B T. Land rough mountains and steep slopes of ridges. Soil sandy loam, light, hard, dry blue clay, loose shale rocks and rocky on hard clay, sandy loam and rocky subsoil, 4th rate. Timber pinon, spruce and cedar. Undergrowth sage, service and scattering grass.
	N.88°26'W. on S. bdy. of sec. 14. Descend abruptly over rough mountainous land through scattering pinon, cedar and spruce timber and under-growth of service brush and grass.
13.80	Canyon, 280 ft. below the cor., drains N.30°E. Enter heavier timber bearing N. and S. Ascend 925 ft. to
40.20	Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia.,24 ins. in the ground for the ¼ sec. cor. on S. bdy. sec. 14, mkd. on brass cap S ¼ 14 1914 from which A pinon, 7 ins. dia.,bears N.2¾°E., 71 lks. dist. mkd. ¼ S 14 B T. A cedar, 10 ins. dia.,bears N.19°W., 62 lks. dist. mkd. ¼ S 14 B T. Aug. 6: At this ¼ sec. cor. I set off 16°48'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'. Ascend 50 ft. to
42.40	Spur projects NE. Descend abruptly 185 ft. to
47.90	Ravine course N. Ascend abruptly 275 ft. to
58.40	Spur projects N. Descend 115 ft. to
71.35	Gulch drains N. Ascend 85 ft. to
76.50	Spur projects N. Descend 130 ft. to

RESURVEY OF SUBDIVISION I. 12 S.R. 13 E.

Chains

80.40 Proportionate measurement. Set an iron post, 3 ft. long 2 ins. in dia., 12 ins. in the ground and 12 ins. in a mound of stone for the cor. of secs. 14 and 15, mkd. on brass cap

T 12 S R 13 E
S 15 | S 14

1914

from which

A pinon, 7 ins. dia., bears N.4½°E.,
1.35 chs. dist. mkd. T 12 S R 13 E S 14 B T.

A pinon, 8 ins. dia., bears N.8½°W.,
1.25 chs. dist. mkd. T 12 S R 13 E S 15 B T.

Underlying rock prevents setting post more than 12 ins. in the ground.

Land rough broken mountains, steep slopes into ravines, drains N.

Soil sandy loam, coarse gravel and rocks on rocky and gravelly subsoil, 4th rate.

Timber medium growth of pinon, cedar and spruce.

Undergrowth, service brush and scattering grass.

N.88°26'W. resurveying on S. bdy. sec. 15.

Descend abruptly over rough mountainous land through pinon and cedar timber and undergrowth of scattering sage, service brush and grass.

26.30 Base of descent and enter Cow Canyon 610 ft. below sec. cor., bears N. and S.

Leave timber bearing N. and S. Thence across canyon.

32.10 Cow Creek, 10 lks. wide, 4 ins. deep, course N.

32.45 Old road bears N. and S.

40.80 Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. on S. bdy. of sec. 15, mkd. on brass cap

S ¼ 15

1914

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

Chains	
40.90	Leave canyon, drains N. Ascend.
42.40	Enter pinon and cedar timber with some spruce, bears N. and S.
75.90	Ridge, 840 ft. above canyon, bears NE. and SW. Descend 100 ft. to
80.40	Proportionate measurement. Set an iron post, 3 ft. long 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 15 and 16, mkd. on brass cap T 12 S R 13 E S 16 | S 15 1914 from which A spruce, 10 ins. dia., bears N.60½°E., 1.48 chs. dist. mkd. T 12 S R 13 E S 15 B T. A pinon, 12 ins. dia., bears N.50°W., 1.96 chs. dist. mkd. T 12 S R 13 E S 16 B T.
	Land rough broken mountains with steep slopes into ravines draining N.
	Soil sandy and black loam and loose rocks and boulders on sandy and rocky subsoil, 4th rate.
	Timber pinon, cedar and spruce.
	Undergrowth sage, service brush and scattering grass.
	Aug. 6, 1914.
	Sept. 11: For solar observations see line bet. secs. 20 and 21.
	N.88°26'W. resurveying on S. bdy. sec. 16.
	Over mountainous land draining north, through cedar and pinon timber and undergrowth of dense sage and grass.
	Descend along N. slope of ridge.
3.20	Spur, 30 ft, below cor., projects N. Descend abruptly 165 ft. to
9.65	Gulch draining N. Ascend 325 ft. to
18.10	Spur projects N. Descend abruptly 460 ft. to
39.50	Ravine draining N. Ascend 40 ft, to
40.20	Proportionate measurement. Set an iron post, 3 ft. long,

RESURVEY OF SUBDIVISION T. 12 S. R.13 E.

Chains	
	1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. on S. bdy. sec. 16, mkd. on brass cap S ¼ 16 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Ascend 115 ft. to
48.90	Ridge bearing NE. and SW. Descend 90 ft. to
59.00	Foot of ridge and enter flat bearing NE. and SW. Leave timber and enter dense sagebrush bearing NE. and SW. Thence across flat.
78.05	Road bears NW. and SE.
80.40	Proportionate measurement. Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the cor. of secs. 16 and 17, mkd. on brass cap T 12 S R 13 E S 17 | S 16 1914 and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Land broken mountains draining N. on E. 59 chs. and W. 21.40 chs. nearly level sagebrush flat.
	Soil sandy loam and rocky on sandy and rocky subsoil, 3rd rate.
	Timber cedar and pinon on E. 59 chs.
	Undergrowth sagebrush and grass.
	Sept. 11: At this cor. I set off 4°41'N. on the decl. arc, and at 11h 57m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.
	N.88°26'W. resurveying on S. bdy. sec. 17.
	Over nearly level flat through dense undergrowth of sagebrush.
9.80	Leave flat bearing N. and S. Descend 70 ft. to
12.30	Gulch draining N.20°E. Thence over broken mountainous land. Ascend.

RESURVEY OF SUBDIVISION T. 12 S. R. 13 E.

Chains	
40.20	Proportionate measurement, 335 ft. above gulch. Set an iron post, 3 ft. long, 1 in. dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. on S. bdy. sec. 17, mkd. on brass cap $\frac{S\ \frac{1}{4}\ 17}{1914}$ and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor. Gradually ascend.
46.80	Spur, 15 ft. above the cor., projects N. Descend 110 ft. to
51.90	Ravine draining N.15°E. Ascend 175 ft. to
68.45	Spur projects N. Descend 220 ft. to
80.40	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 17 and 18, mkd. on brass cap $\frac{T\ 12\ S \mid R\ 13\ E}{S\ 18 \mid S\ 17}$ 1914 and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Land broken mountains draining N. on W. 70.60 chs. and level flat on E.9.80 chs.
	Soil sandy clay and black loam mixed with rocks on loam and rocky subsoil, 3rd rate.
	No timber.
	Undergrowth sagebrush, scattering service brush and grass.

N.88°26'W. resurveying on S. bdy. sec. 18.

Over low broken mountainous land draining N. through medium undergrowth of service and sagebrush and scattering grass.

Descend 150 ft. to

2.75	Ravine draining N. Thence ascend over broken ground.

RESURVEY OF SUBDIVISION T. 12 S. R. 13 E.

Chains	
40.20	Proportionate measurement, 320 ft. above ravine Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. on S. bdy. sec. 18, mkd. on brass cap $\frac{S\ 18}{\frac{1}{4}}$ 1914 and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Gradually ascend 70 ft. to
52.40	Top of ascent, bears N. and S. Descend 520 ft. to
70.90	Base of descent and enter canyon bearing NE. and SW. Thence in canyon through dense sage and rabbit brush.
76.10	Wash, 2 chs. wide 20 ft. deep; fork of Nine Mile Creek in same 6 lks. wide 4 ins. deep draining NE.
78.29	The cor. of secs. 13, 18, 19 and 24. Land broken mountains, draining N. Soil black loam and rocky on loam and rock subsoil, 3rd rate. No timber. Undergrowth sage, scattering service, rabbit brush and grass. Sept. 11, 1914.
	July 20: At 8h 36m a.m.,l.m.t., I set off 39°47' on the lat. arc, 20°47'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18 on the W. bdy. of the Tp. Thence I run East retracing bet. secs. 7 and 18.
37.80	No trace of old $\frac{1}{4}$ sec. cor. can be found. I therefore continue my line East.
117.80	July 20: The sky is overcast at noon, observations for latitude impossible. Storm of rain at 2h p.m. prevents further field work this day. July 20, 1914. July 21: Continuous storm of rain prevents field work this day.

RESURVEY OF SUBDIVISION T. 12 S. R. 13 E.

Chains	
	July 22: At 7h 36m a.m.,l.m.t., I set off 39°47' on the lat. arc, 20°24'N. on the decl. arc, and determine a meridian with the solar at 117.80 ch. point.
	Thence I continue East
158.60	Fall 38 lks. S. of the cor. of secs. 8, 9, 16 and 17, which is a sandstone 12x10x8 ins. above ground, firmly set, properly marked and witnessed as described by the Surveyor General.
	July 22: At this cor. I set off 20°21'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.
	The true bearing of this line is therefore N.89°52'E. and dist. 158.60 chs.
	I return to the cor. of secs. 7, 12, 13 and 18 on the W. bdy. of Tp. and resurvey the lines bet. secs. 7 and 18 and 8 and 17, setting cors. at proportionate distances for secs. 18 and 17, knowing that closing cors. will be necessary upon this line for the surveys to the N.
	From the cor. of secs. 7, 12, 13 and 18 on W. bdy. of Tp. N.89°52'E. resurveying N. bdy. sec. 18.
	Over broken mountainous land through medium cedar and pinon timber and undergrowth of sage, service brush and grass.
	Desc. 150 ft. to
6.25	Gulch draining S. Ascend 205 ft. to
15.00	Spur projecting S. Descend 415 ft. to
37.85	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground and 18 ins. in a mound of stone for the $\frac{1}{4}$ sec. cor. on N. bdy. sec. 18, mkd. on brass cap
	$\frac{S\ 18}{\frac{1}{4}}$
	1914
	from which
	4 pinon, 12 ins. dia., bears S.$80\frac{1}{2}$°E.,
	38 lks. dist. mkd. $\frac{1}{4}$ S 18 B T.

Chains	
	A cedar, 8 ins. dia., bears S.10¼°W., 82 lks. dist. mkd. ¼ S 18 B T.
	NOTE: Underlying rock prevents setting post more than 6 ins. in the ground.
42.40	Canyon, 155 ft. below the cor., drains S. Ascend 620 ft. to
62.80	Spur projecting S. Descend 140 ft. to
77.90	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 17 and 18, mkd. on brass cap T 12 S R 13 E S 18 | S 17 1914 from which A spruce, 6 ins. dia., bears S.37½°E., 58 lks. dist. mkd. T 12 S R 13 E S 17 B T. A spruce, 6 ins. dia., bears S.36°W., 33 lks. dist. mkd. T 12 S R 13 E S 18 B T.
	Land rough broken mountains, steep slopes into ravines draining S.
	Soil sandy loam, coarse gravel and hard, dry, blue clay and rocks on clay and rock subsoil, 4th rate.
	Timber cedar, pinon and some spruce.
	Undergrowth sage, service brush and grass.
	N.89°52'E. resurveying on N. bdy. sec. 17.
	Over rugged mountainous land through medium cedar and pinon timber and scattering undergrowth of sagebrush and grass.
	Descend abruptly 155 ft. to
4.50	Canyon draining S. Ascend abruptly 550 ft. to
19.00	Spur projecting S. Descend abruptly 400 ft. to
29.10	Gulch draining S. Ascend abruptly 265 ft. to
40.35	Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia., in

RESURVEY SUBDIVISION T. 12 S. R. 13 E.

Chains

mound of stone on solid bed rock for the $\frac{1}{4}$ sec. cor. on N. bdy. sec. 17, mkd. on brass cap

$\frac{S}{\frac{1}{4}}$ 17

1914

from which

A spruce, 13 ins. dia., bears S.44½°E., 53 lks. dist. mkd. $\frac{1}{4}$ S 17 B T.

A spruce, 12 ins. dia., bears S.50½°W., 40 lks. dist. mkd. $\frac{1}{4}$ S 17 B T.

50.10 Spur, 210 ft. above the cor., projects S.15°E. Descend abruptly 715 ft. to

79.45 Enter bottom Sulphur Canyon, brs. N. and S. drains S. Thence in bottom of canyon.

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

Land rough broken mountains, steep slopes into canyons draining S.

Soil sandy loam and rocky on rocky subsoil, 4th rate.

Bed rock close to surface. Timber cedar and pinon.

Undergrowth sage brush and grass.

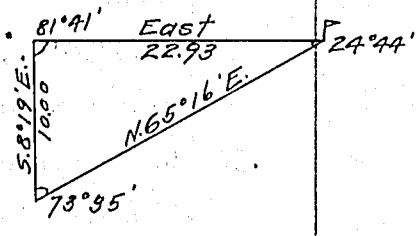
July 22, 1914.

July 23: At 8h 06m a.m., l.m.t., I set off 39°47' on the lat. arc, 20°12'E. 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 bet. secs. 9 and 16.

8.00 Foot of perpendicular ledges up which I cannot chain.

To determine distance up ledges I set a flag on line East and from the cor. of secs. 8, 9, 16 and 17 measure a base line S.8°19'E. 10.00 chs. to a point whence the flag bears N.65°16'E. From flag S. end of base bears S.65°16'W. By separate measurement of each angle I find same to be 81°41', 73°35' and 24°44'.



Log.10.00 chs. = 1.000000
Log sin.73°35' = 9.981924-10
Colog sin.24°44' = 0.378413
Log 22.93 chs. = 11.360337-10

therefore

Chains	
22.93	To top of ledges. Thence continue East.
40.00	No trace of the ¼ sec. cor. can be found. I therefore continue my line East, making careful searches for ¼ sec. and sec. cors.
80.00	July 23: At this station I set off 20°09'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.
120.00	Cease work. July 23, 1914. July 24: At 8h 06m a.m.,l.m.t., I set off 39°47' on the lat. arc, 19°59'N. on the decl. arc, and determine a meridian with the solar at the temp. point of 120 chs. Thence East
200.00	July 24: At this cor. I set off 19°57'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.
241.83	Fall 17.34 chs. N. of the cor. of secs. 11, 12, 13 and 14, which is a sandstone 14x10x7 ins. firmly set in mound of stone, properly marked and witnessed as described by the Surveyor General. The true bearing of this line is S.85°54'E. and the dist. 242.46 chs. I return to the cor. of secs. 8, 9, 16 and 17 and resurvey this line setting cors. for secs. 14, 15, and 16 at proportionate distances. July 24, 1914.
	July 25: At 7h 36m a.m.,l.m.t., I set off 39°47' on the lat. arc, 19°47'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17. Thence S.85°54'E., resurveying on N. bdy. sec. 16. Over bottom canyon through sagebrush and scattering grass.
4.50	Leave canyon, enter rough mountainous land and pinon and cedar timber. Ascend.

RESURVEY OF SUBDIVISION T. 12 S., R. 13 E.

Chains	
8.00	Base of perpendicular ledges, up which I cannot chain, bearing N. and S. Triangulate from the sec. cor. to
22.92	Top of ledges and spur, 700 ft. above the cor. bears S. Descend 80 ft. to
25.75	Ravine draining S. Ascend 75 ft. to
31.00	Spur projecting S. Descend abruptly 340 ft. to
40.38	Proportionate measurement. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. on N. bdy. sec. 16, mkd. on brass cap S $\frac{1}{4}$ 16 1914 from which A pinon, 10 ins. dia., bears S.17°40'E., 39 lks. dist. mkd. $\frac{1}{4}$ S 16 B T. A spruce, 10 ins. dia., bears S.72°10'W., 12 lks. dist. mkd. $\frac{1}{4}$ S 16 B T.
54.90	Canyon 406 ft. below $\frac{1}{4}$ sec. cor., drains S. Ascend abruptly 540 ft. to
69.00	Spur projecting S. Descend 120 ft. to
80.76	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 15 and 16, mkd. on brass cap T 12 S R 13 E S 16 | S 15 1914 from which A piñon, 12 ins. dia., bears S.68¾°E., 41 lks. dist. mkd. T 12 S R 13 E S 15 B T. A cedar, 10 ins. dia., bears S.46°W., 18½ lks. dist. mkd. T 12 S R 13 E S 16 B T.
	Land rough broken mountains with steep slopes into canyons draining S.
	Soil sandy loam, loose shale rock and rocky on sandy and

RESURVEY OF SUBDIVISION T.12 S.R.13 E.

Chains	
	rocky subsoil, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth scattering sagebrush and grass.
	S.85°54'E. resurveying on N. bdy. sec. 15.
	Over rugged mountainous land, through medium dense pinon, cedar and spruce timber and undergrowth of scattering sage and grass.
	Descend abruptly 840 ft. to
20.45	Canyon draining S.15°E. Ascend abruptly 405 ft. to
40.28	Proportionate measurement.
	Set an iron post, 3 ft. long, 2 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone on solid rock for the ¼ sec. cor. on N. bdy. sec. 15, mkd. on brass cap S 15 ¼ 1914 from which A spruce, 16 ins. dia., bears S.64½°E., 67 lks. dist. mkd. ¼ S 15 B T. A spruce, 9 ins. dia., bears S.15½°E., 40 lks. dist. mkd. ¼ S 15 B T.
	July 25: At this cor. I set off 19°44'E. on the declr. arc, and at 12h 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°47'.
68.50	Spur, 340 ft. above the cor., projects S.
	Descend 80 ft. to
73.10	Ravine draining S. Ascend 120 ft. to
77.60	Point of spur falls S. Gradually descend.
80.56	Proportionate measurement.
	Set an iron post, 3 ft. long, 3 in. in dia., 24 ins. in the ground for the cor. of secs. 14 and 15, mkd. on brass cap T 12 S R 13 E S 15 | S 14 1914

RESURVEY OF SUBDIVISION T. 12 S. R. 13 E.

Chains	
	from which
	A pinon, 7 ins. dia., bears S.55¼°E.,
	73 lks. dist. mkd. T 12 S R 13 E S 14 B T.
	A pinon, 11 ins. dia., bears S.12½°W.,
	75 lks. dist. mkd. T 12 S R 13 E S 15 B T.
	Land rough broken mountains with steep slopes into canyons draining S.
	Soil sandy and black loam mixed with loose shale rock and boulders on sandy and rocky subsoil, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth scattering sage and grass.
	S.85°54'E. resurveying on N. bdy. sec. 14.
	Descending over rugged mountainous land through medium dense pinon and cedar timber and scattering undergrowth of sage and grass.
1.50	Gulch, 10 ft. below cor., drains S.
	Ascend 210 ft. to
8.50	Spur projects S.25°W. Descend 320 ft. to
27.25	Canyon draining S. Ascend 285 ft. to
40.57	On top of spur projecting S.
	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground and 18 ins. in mound of stone on solid rock for the ¼ sec. cor. on N. bdy. sec. 14, mkd. on brass cap
	S ¼ 14
	1914
	from which
	A cedar, 7 ins. dia., bears S.85°E.,
	22 lks. dist. mkd. ¼ S 14 B T.
	A pinon 6 ins. dia., bears S.48°W.,
	47 lks. dist. mkd. ¼ S 14 B T.
	Descend.
52.50	Leave timber bearing NE. and SW.

Chains	
54.00	Enter Nine Mile Canyon, 320 ft. below cor., bears NE. and SW. Thence in canyon.
56.90	Wagon road, Price to Vernal, Utah bears N.75°E. and S.50°W.
59.95	Telephone line bears N.75°E. and S.75°W.
60.25	Nine Mile Creek, 20 lks. wide, 6 ins. deep, course N.75°E.
66.10	Same creek course S.80°E.
71.90	Road Price to Vernal, Utah, bears N.75°W. and S.75°E.
81.14	The cor. of secs. 11, 12, 13 and 14. Set an iron post 3 ft. long 2 ins. in dia., 24 ins. in the ground alongside old cor. for the cor. of secs. 11, 12, 13 and 14, mkd. on brass cap T 12 S R 13 E S. 11 | S 12 S 14 | S 13 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
	Land rugged mountains on W. 54 chs. draining S. into canyon. E. 27.14 chs. canyon bottom drains E.
	Soil sandy loam, loose shale rock and rocky on sandy and rocky subsoil, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth, sagebrush and scattering grass.
	July 25, 1914.

July 27: At 7h 36m a.m.,l.m.t., I set off 39°47' on the lat. arc, 19°21'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence

North resurveying bet. secs. 11 and 12.

40.00	No trace of the ¼ sec. cor. can be found.
56.00	July 27: At this station I set off 19°18'N. on the decl. arc, and at 12h 06m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

RESURVEY OF SUBDIVISION T. 12 S. R. 13 E.

Chains	
80.00	No trace of the cor. of secs. 1, 2, 11 and 12 can be found.
	I return to the cor. of secs. 11, 12, 13 and 14.
	Thence
	North resurveying bet. secs. 11 and 12.
	Ascend over mountainous land through medium undergrowth of sagebrush and scattering grass.
1.48	Telephone line bearing E. and W.
1.75	Ascend along W. slope of spur; enter medium dense pinon and cedar timber bearing E. and W.
40.00	645 ft. above canyon. Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone and earth for the $\frac{1}{4}$ sec. cor. of secs. 11 and 12, mkd. on brass cap $S\ \frac{1}{4}\ 11 \mid S\ 12$ 1914 from which A cedar, 12 ins. in dia., bears N.$36\frac{1}{2}°$E., 22 lks. dist. mkd. $\frac{1}{4}$ S 12 B T. A spruce, 10 ins. dia., bears S.$42\frac{1}{4}°$W., 25 lks. dist. mkd. $\frac{1}{4}$ S 11 B T. NOTE: Underlying rock prevents setting post more than 10 ins. in the ground.
56.00	Spur, 240 ft. above the $\frac{1}{4}$ sec. cor. projects NW. and S. Set flag at this point for future reference. Descend.
79.15	Ledge; 75 ft. high, bears NE and SW.
80.00	840 ft. below spur. Set an iron post, 3 ft. long, 2 ins. in dia., 10 ins. in the ground and 14 ins. in a mound of stone on solid rock for the cor. of secs. 1, 2, 11 and 12, mkd. on brass cap T 12 S R 13 E S 2 | S 1 S 12 | S 11 1914

RESURVEY OF SUBDIVISION T.12 S. R. 13 E.

Chains

from which

A spruce, 6 ins. dia.,bears N.35°45'E.,
23 lks. dist. mkd. T 12 S R 13 E S 1 B T.
A spruce, 12 ins. dia.,bears S.11°15'E.,
33 lks. dist. mkd. T 12 S R 13 E S 12 B T.
A spruce, 10 ins. dia.,bears S.10°00'W.,
23 lks. dist. mkd. T 12 S R 13 E S 11 B T.
A spruce, 12 ins. dia.,bears N.40°15'W.,
71 lks. dist. mkd. T 12 S R 13 E S 2 B T.

Land rough broken mountains draining S.

Soil sandy loam and rocky on sandy and rocky subsoil, 4th rate. Timber pinon, cedar and some spruce.

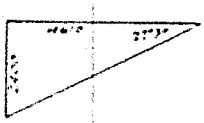
Undergrowth, sage and scattering grass.

July 27, 1914.

July 28: At 8h 36m a.m.,l.m.t., I set off 39°48' on the lat. arc, 19°06'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, retracing bet. secs. 1 and 12.

Being unable to chain this line on account of ledges and exceptional steep slopes I triangulate as follows:



Set a flag on line on top of spur to the E. Having already set a flag at a point 24.00 chs. S. of this point I set my transit over flag on spur E. of sec. cor. and find that an angle to flag at 24.00 chs. S. of sec. cor. is 27°30'.

Cotan. 27°30' x base or 1.92098 x 24.00 chs. gives

46.10 To top of spur.

I now measure N. 6.10 chs. and make careful search for ¼ sec. cor. but find no trace of same.

46.10 July 28: At this station I set off 19°04'N. on the decl. arc, and at 12h 06m p.m.,l.m.t.,observe the sun on the meridian, the resulting lat. is 39°48'.

From this point I continue E. by triangulation.

From a point 11.00 chs. S. of line, I subtend an angle of 72°03' to the flag set at 46.10 chs., therefore

Tan. 72°03' x base or 3.09298 x 11.00 chs. gives 34.02 chs.

RESURVEY OF SUBDIVISION T.12 S. R. 13 E.

Chains	
	which added to 46.10 chs. makes
80.12	Intersect E. bdy. of Tp. 11.11 chs. N. of cor. point of secs. 1, 6, 7 and 12.
	July 28, 1914.

Aug. 24: For solar observation see line bet. secs. 7 and 12 on E. bdy. of Tp.

From the cor. of secs. 1, 6, 7 and 12.

N.82°06'W. resurveying bet. secs. 1 and 12.

Descend over very rugged mountainous land through pinon, cedar and spruce timber and undergrowth of scattering sagebrush and grass.

21.50	Canyon, 385 ft. below the cor., drains SE.
	Ascend 335 ft. to
34.05	Spur projects SE. Descend 210 ft. to
40.45½	Proportionate measurement.

Set a sandstone 30x12x8 ins. 15 ins. in the ground for the ¼ sec. cor. of secs. 1 and 12 mkd. ¼ on N. face, from which

A pinon, 10 ins. dia., bears N.70°E., 15 lks. dist. mkd. ¼ S 1 B T.

A spruce, 14 ins. dia., bears S.10°W., 41 lks. dist. mkd. ¼ S 12 B T.

71.50	Canyon, 470 ft. below the cor., drains SE.
	Ascend 120 ft. to
80.91	The cor. of secs. 1, 2, 11 and 12.

Land rough broken mountains draining S.

Soil loose shale rock, coarse gravel and boulders with some hard, dry blue clay on gravelly and rocky subsoil, 4th rate.

Timber pinon, cedar and some spruce.

Undergrowth scattering sagebrush and grass.

Aug. 24, 1914.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Having retraced the S. bdy. of this Tp. and the 3rd and 4th latitudinal lines of this Tp. and finding same to be defective in alinement and measurement, I subdivide the Tp. as follows:
	From the cor. of secs. 25, 30, 31 and 36 on the E. bdy. of the Tp. run a sectional correction line West; from sec. cors. on sectional correction line subdivide N. and S., setting closing cors. on S. bdy. of Tp. and on third latitudinal line.
	From the cor. of secs. 1, 2, 11 and 12, run sectional correction line W., and from sec. cors. on said line subdivide N. and S., placing CC on the 4th latitudinal line.
	Aug. 8: At 10h 06m a.m., l.m.t., I set off 39°44' on the lat. arc, 16°16'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36 on E. bdy. of Tp.
	Thence I run
	West on a sectional correction line bet. secs. 25 and 36.
	Over rough mountainous land through pinon, cedar and spruce timber and scattering undergrowth of sage, service brush and grass.
	Descend abruptly 175 ft. to
4.75	Enter Sheep Canyon draining N.
	Thence in canyon.
6.20	Sheep Creek, 6 lks. wide, 4 ins. deep, course N.
8.70	Leave canyon draining N. Ascend.
16.00	Enter heavier timber bearing NE. and SW.
40.00	745 ft. above the canyon. Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone on solid rock for the $\frac{1}{4}$ sec. cor. of secs. 25 and 36, mkd. on brass cap

$$\frac{S\ 25\ \frac{1}{4}}{S\ 36}$$
1914

from which

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	A pinon, 6 ins. dia., bears N.37°E., 42 lks. dist. mkd. ¼ S 25 B T.
	A pinon, 12 ins. dia., bears S.52½°E., 66 lks. dist. mkd. ¼ S 36 B T.
	Aug. 8: At this cor. I set off 16°15'N. on the decl. arc, and at 12h. 06m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
57.50	Ridge divide between Sheep and Cow Canyons, 560 ft. above the ¼ sec. cor. bearing N. and S. Descend.
78.00	Enter dense spruce and balsam fir timber bearing NW. and SE.
78.95	Ravine, 860 ft. below divide, course NW.
	Ascend 25 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, mkd. on brass cap

T 12 S R 13 E

S 26	S 25
S 35	S 36

1914

from which

A spruce, 8 ins. dia., bears N.62°E., 23½ lks. dist. mkd. T 12 S R 13 E S 25 B T.

A spruce, 9 ins. dia., bears S.44°E., 08 lks. dist. mkd. T 12 S R 13 E S 36 B T.

A spruce, 11 ins. dia., bears S.61°W., 22 lks. dist. mkd. T 12 S R 13 E S 35 B T.

A spruce, 7 ins. dia., bears N.41°W., 21 lks. dist. mkd. T 12 S R 13 E S 26 B T.

Land rough broken mountains with steep E. and W. slopes into canyons draining N.

Soil sandy loam and loose rocks on gravelly and rocky subsoil, 4th rate.

Timber pinon, cedar, spruce and balsam fir.

Undergrowth scattering sage, service brush and grass.

Aug. 8, 1914.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Aug. 10: At 8h 05m a.m., l.m.t., I set off 39°44' on the lat. arc, 15°43'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
	Thence
	South on a true line bet. secs. 35 and 36.
	Over rough mountainous land through dense spruce and balsam fir timber and undergrowth of scattering service brush and grass.
	Ascend.
15.50	Leave dense timber, enter pinon and cedar timber bearing NW. and SE.
37.30	Divide bet. Sheep and Cow Canyons, 735 ft. above the cor. bears NE. and SW. Descend.
38.00	Enter heavier timber bearing NE. and SW.
40.00	80 ft. below ridge. Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone on solid rock, for the $\frac{1}{4}$ sec. cor. of secs. 35 and 36, mkd. on brass cap $S\ \frac{1}{4}\ 35 \mid S\ 36$ 1914 from which A pinon, 8 ins. dia., bears N. 71$\frac{1}{4}$°E., 18 lks. dist. mkd. $\frac{1}{4}$ S 36 B T. A spruce, 8 ins. dia., bears S. 77$\frac{3}{4}$°W., 10 lks. dist. mkd. $\frac{1}{4}$ S 35 B T.
	Aug. 10: At this cor. I set off 15°40'N. on the decl. arc, and at 12h 05m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
73.15	Ravine, 710 ft. below $\frac{1}{4}$ sec. cor. course NE.
	Ascend 140 ft.
	Enter dense spruce and aspen timber bearing NE. and SW.
78.45	Intersect S. bdy. of Tp. 7. 18 chs. N. 89°17'E. of the cor. of secs. 35 and 36, remarked for W P. At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the C C of secs. 35 and 36, mkd. on brass cap

SUBDIVISION T. 12 S. R. 13 E.

Chains

T 12 S R 13 E
S 35 | S 36
CC
S 2 | S 1
T 13 S
1914

from which

An aspen, 4 ins. dia., bears N.68½°E., 13 lks. dist. mkd. CC T 12 S R 13 E S 36 B T.

An aspen, 4 ins. dia., bears N.71¾°W., 33 lks. dist. mkd. CC T 12 S R 13 E S 35 B T.

Land rough mountains, draining NE. into Cow Canyon and S. into Sheep Canyon, with steep slopes of ridges.

Soil gravelly, sandy loam and loose rocks on sandy and rocky subsoil, 4th rate.

Timber spruce, balsam, pinon, cedar and aspen.

Undergrowth scattering service brush and grass.

Aug. 10, 1914.

Aug. 11: At 8h 35m a.m., l.m.t., I set off 39°44' on the lat. arc, 15°25'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence

North bet. secs. 25 and 26, on Sectional Guide Meridian. Over rough mountainous land, through dense spruce and balsam fir timber and scattering undergrowth of service brush and grass. Descend 70 ft. to

2.35 Ravine draining NW. Timber becomes less dense and enter pinon and cedar. Ascend 700 ft. to

27.50 Spur projecting SW. Descend 75 ft. to

34.10 Gulch draining SW. Ascend 195 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 4 ins. in the ground and 22 ins. in a mound of stone on solid rock for the ¼ sec. cor. of secs. 25 and 26, mkd. on brass cap

S ¼ 26 | S 25

1914

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	from which
	A pinon, 6 ins. dia., bears N.52½°E.,
	44 lks. dist. mkd. ¼ S 25 B T.
	A pinon, 7 ins. dia., bears S.14°W.,
	28 lks. dist. mkd. ¼ S 26 B T.
	Aug. 21: At this cor. I set off 15°23'N. on the decl. arc, and at 12h 05m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
46.25	Divide bet. Cow and Sheep Canyons, 230 ft. above the cor. bears NW. and SE.
	Leave timber and enter dense undergrowth of sage and service brush bearing with ridge.
	Descend along E. slope of ridge.
57.00	Base of descent on E. slope near head of ravine.
	Ascend 70 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 23, 24, 25 and 26, mkd. on brass cap

T 12 S R 13 E

S 23	S 24
S 26	S 25

1914

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

Land rough mountains draining E. and W. from divide bet. Cow and Sheep Canyons.

Soil sandy loam, gravel and rocky on rocky and sandy subsoil, 4th rate.

Timber pinon, cedar, spruce and balsam fir.

Undergrowth service, sagebrush and scattering grass.

Aug. 11, 1914.

Aug. 12: At 8h 35m a.m., l.m.t., I set off 39°45' on the lat. arc, 15°08'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

NOTE: Knowing that the line bet. secs. 24 and 25 will no

Chains

intersect the E. bdy. of the Tp. within limits at the cor. of secs. 19, 24, 25 and 30, I run

East on a true line bet. secs. 24 and 25.

Over rough mountainous land through undergrowth of sage, service brush and scattering grass. Descend.

16.00 Enter pinon, cedar and spruce timber and scattering undergrowth bearing N. and S.

27.15 Canyon, 690 ft. below the cor. drains NE.

Ascend 405 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 24 and 25, mkd. on brass cap

S $\frac{1}{4}$ 24

S 25

1914

from which

A spruce, 4 ins. dia., bears N.5°E., 16 lks. dist. mkd. $\frac{1}{4}$ S 24 B T.

A spruce, 10 ins. dia., bears S.7½°W., 6½ lks. dist. mkd. $\frac{1}{4}$ S 25 B T.

42.00 Spur, 40 ft. above the cor., projects N.

Descend 270 ft. to

50.15 Ravine draining N. Ascend 365 ft. to

62.50 Spur projects N.. Descend abruptly 575 ft. to

79.31 Intersect the E. bdy. of the Tp. 3.10 chs. N.0°02'W. of the cor. of secs. 19, 24, 25 and 30.

At intersection

Set an iron post, 3 ft. long, 2 ins. dia., 10 ins. in the ground and 14 ins. in a mound of stone on solid rock for C C of secs. 24 and 25, mkd. on brass cap

T. 12 S.
R. 13 E.
S. 24 | CC S 19
S 25 | S 30
1914

from which

A pinon, 12 ins. dia., bears S.17°W.,

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	60 lks. dist. mkd. CC T 12 S R 13 E S 25 B T. A pinon, 15 ins. dia., bears N.87°W., 53 lks. dist. mkd. CC T 12 S R 13 E S 24 B T.
	NOTE: I destroy the old bearing trees at sec. cor. referring to secs. 24 and 25.
	Land rough broken mountains with steep slopes into canyons draining N.
	Soil gravelly, loose shale rock and some sandy loam on gravelly and rocky subsoil, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth sage, service brush and scattering grass.
	Aug. 12: At the cor. of secs. 23, 24, 25 and 26 I set off 15°05'N. on the decl. arc, and at 12h 05m p.m., l.m.t observe the sun on the meridian, the resulting lat. is 39°45'.
	NOTE: Knowing that the sub. lines N. from the 2nd latitudinal line will not intersect the 3rd latitudinal line N. within limits and closing cors. will be necessar I run
	North on a sectional guide meridian bet. secs. 23 and 24.
	Ascending gradually over rough mountainous land and undergrowth of sage, service brush and grass.
6.75	Ridge, 45 ft. above the sec. cor., bears NE. and S.10°W.
	Descend abruptly.
10.25	Enter grove of aspen and spruce timber 2.50 chs. wide, bearing E. and W.
19.15.	Canyon, 215 ft. below ridge, heads 10 chs. SW. draining NE. Ascend 165 ft. to
37.50	Spur projects NE. Descend 50 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 23 and 24, mkd. on brass cap $S\frac{1}{4}$ 23 | S 24 1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

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

45.30 Enter pinon, cedar and spruce timber and scattering undergrowth bearing NE. and SW.

52.20 Canyon, 560 ft. below the cor. draining NE.

Ascend 125 ft. to

69.90 Spur projects N.25°E. Descend 180 ft. to

79.48 Intersect E. and W. line 1.03 chs. S.88°26'E. of the cor. of secs. 13 and 14.

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC of secs. 23 and 24, mkd. on brass cap

T 12 S | R 13 E
S 14 | S 13
CC
S 23 | S 24
1914

from which

A pinon, 8 ins. dia., bears S.70¾°E.,
55 lks. dist. mkd. CC T 12 S R 13 E S 24 B T.

A cedar, 14 ins. dia., bears S.56°W.,
112 lks. dist. mkd. CC T 12 S R 13 E S 23 B T.

Land rough broken mountains, draining NE.

Soil sandy loam, loose shale rock and rocky on sandy loam and rocky subsoil, 3rd rate.

Timber pinon, cedar, spruce and aspen.

Undergrowth sage, service brush and scattering grass.

Aug. 12, 1914.

Aug. 28: At 8h 31m a.m., l.m.t., I set off 39°48' on the lat. arc, 9°53'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.

Thence

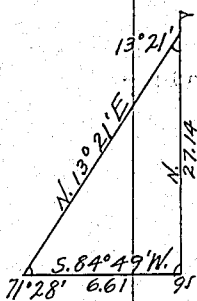
North on a random line bet. secs. 1 and 2.

Being unable to chain this line N. on account of high ledges to the N. I triangulate as follows:

Set a flag on line to the N. on S. side of ridge, then

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	from sec. cor. measure a base S.84°49'W. 6.61 chs. (this is the longest base I am able to obtain) to a point whence the flag bears N.13°21'E.
	From flag W. end base bears S.13°21'W., therefore
	Log 6.61 chs. = 0.820201 Log sin 71°28' = 9.976872 Colog sin 13°21' = 0.636578 Log. 27.14 chs = 1.433651 therefore
27.14	To top of ledges on N. side of canyon.
40.00	Set temp. ¼ sec. cor.
69.37	Intersect N. bdy. of Tp. 2 lks. W. of cor. of secs. 1, 2, 35 and 36, heretofore described.
	Aug. 28: At this cor. I set off 9°50'N. on the decl. arc, and at 12h 01m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°49'.
	Thence
	S.0°01'W. on a true line bet. secs. 1 and 2.
	Ascending gradually over mountainous land through scattering pinon and cedar timber and undergrowth of sagebrush and grass. Some spruce timber.
7.87	Top of divide Nine Mile and Argyle canyons, 150 ft. above the sec. cor. bears E. and W.
	Enter dense timber bearing with divide.
	Descend 215 ft. to
25.02	Ravine draining SE. Leave dense timber bearing NW. and SE.
	Ascend 65 ft. to
29.37	Set a sandstone 20x14x6 ins. 15 ins. in the ground for the ¼ sec. cor. of secs. 1 and 2, mkd. ¼ on W. face,
	from which
	A pinon, 6 ins. dia., bears S.16¼°E., 178 lks. dist. mkd. ¼ S 1 B T.
	A spruce, 13 ins. dia., bears S.1¼°W., 253 lks. dist. mkd. ¼ S 2 B T.
	Ascend 60 ft. to
35.87	Ridge bearing NW. and SE. Descend abruptly.
42.23	To point of triangulation.
	Thence descend over ledges.
64.07	Bottom of canyon, 1120 ft. below ridge, draining SE.



SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Ascend 220 ft. to
69.37	The cor. of secs. 1, 2, 11 and 12.
	Land rough mountains draining N. into Argyle Canyon on N.7.87 chs. and SE. into Nine Mile Canyon on S.61.50 chs.
	Soil rocky, loose shale rock and sandy loam on sandy and rocky subsoil, 4th rate.
	Timber pinon, cedar and spruce.
	Undergrowth sagebrush and grass.
	Aug. 28, 1914.
	Aug. 15: At 8h 04m a.m.,l.m.t., I set off 39°44' on the lat. arc, 14°13'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
	Thence
	West on a sectional correction line bet. secs. 26 and 35.
	Ascending over rough mountainous land through dense spruce and balsam fir timber and undergrowth of scattering service brush and grass.
6.75	Spur, 90 ft. above the cor., projects NW. Descend.
15.50	Leave dense timber and enter medium growth of sagebrush and service bearing N. and S.
22.10	Ravine, 290 ft. below spur, course N.
	Ascend 325 ft. to
36.50	Top of ascent and edge of rolling sagebrush spur bearing N. and S. Timber very scattering. Thence across spur.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 26 and 35, mkd. on brass cap
	S 26 $\frac{1}{4}$ S 35 1914
	from which
	A spruce, 16 ins. dia.,bears S.22°W.,
	359 lks. dist. mkd. $\frac{1}{4}$ S 35 B T.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	A spruce, 14 ins. dia., bears N.26°35'W., 5.78 chs. dist. mkd. $\frac{1}{4}$ S 26 B T.
59.00	Desc. abruptly bears N. and S.
	Enter pinon and cedar timber.
76.50	Leave timber, enter dense sagebrush, bears N. and S.
78.75	Enter Cow Canyon, 920 ft. below top, bears N. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 26, 27, 34 and 35, mkd. on brass cap T 12 S R 13 E S 27 | S 26 S 34 | S 35 1914 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land rough mountains with steep slopes of ridges into canyons draining N.
	Soil sandy loam and loose rocks on sandy and rocky subsoil, 3rd rate.
	Timber spruce, pinon, cedar and balsam.
	Undergrowth, sage, service brush and grass.
	Aug. 15: The sky is overcast at noon, observations for latitude impossible.
	S.0°01'E. on a true line bet. secs. 34 and 35.
	Ascending gradually in bottom of Cow Canyon, through dense undergrowth of sage, rabbit brush and scattering grass.
1.75	Leave canyon, brs. NE. and SW.
5.50	Top of ascent, 70 ft. above the canyon. Descend into canyon.
9.50	Mouth of ravine from SW. draining NW. 50 ft. below top of ascent.
	Enter scattering pinon and cedar timber bearing NW. and SE. Ascend 650 ft. to
39.50	Spur projects N.60°W. Descend 10 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in

SUBDIVISION T. 12 S. R. 13 E.

Chains

the ground for the ¼ sec. cor. of secs. 34 and 35, mkd. on brass cap

S ¼ 34 | S 35

1914

from which

A pinon, 8 ins. dia., bears S.13¼°E., 55 lks. dist. mkd. ¼ S 35 B T.

A cedar, 10 ins. dia., bears S.14¼°W., 57 lks. dist. mkd. ¼ S 34 B T.

Aug. 15, 1914.

Aug. 17: At 8h 04m a.m., l.m.t., I set off 39°44' on the lat. arc, 13°36'N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 34 and 35.

Thence

S.0°01'E. bet. secs. 34 and 35.

Continue descent.

58.25 Gulch, 145 ft. below cor., drains NW.

Ascend 210 ft. to

62.00 Spur projects NW. Descend 215 ft. to

77.53 Intersect S. bdy. of Tp. 6.10 chs. S.89°54'E. of the old cor. of secs. 34 and 35, mkd. for W P

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC of secs. 34 and 35, mkd. on brass cap

T 12 S R 13 E
S 34 | S 35
CC
S 3 | S 2
T 13 S
1914

from which

A pinon, 7 ins. dia., bears N.39°E., 61 lks. dist. mkd. CC T 12 S R 13 E S 35 B T.

A pinon, 6 ins. dia., bears N.18½°W., 111 lks. dist. mkd. CC T 12 S R 13 E S 34 B T.

Land mountains draining NW. into Cow Canyon.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Soil loose shale rock and rocky on hard, dry blue clay ; subsoil, dry clay and rocky, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth, sage, rabbit brush and grass.
	Aug. 17: At the cor. of secs. 26, 27, 34 and 35, I set off 13°32'N. on the decl. arc, and at 12h 04m p.m., l.m. t., observe the sun on the meridian, the resulting lat. is 39°44'.
	Thence
	N.0°01'W. bet. secs. 26 and 27.
	Gradually descending in bottom of Cow Canyon through dense undergrowth of sage and rabbit brush and scattering grass.
6.10	Wash, 40 lks. wide, 10 ft. deep, Cow Creek in same 10 lks. wide 6 ins. deep, course N.10°E.
17.25	Leave canyon bearing NE. and SW.
	Ascend over rocky point.
20.50	Top of point, 40 ft. above canyon, falls E.
	Gradually descend along rocky E. slope into canyon.
37.95	Enter Cow Canyon and Creek, 10 lks. wide, 6 ins. deep in wash 50 lks. wide, 2 5 ft. deep, 210 ft. below point, bears N.10°W. and S.10°E.
	Thence in bottom of canyon.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 26 and 27, mkd. on brass cap S $\frac{1}{4}$ 27 | S 26 1914 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
61.00	Wash, 75 lks. wide, 10 ft. deep from canyon to SW. drains NW.
62.25	Leave canyon bearing N.5°W. and S.5°E.
	Ascend along E. side of canyon.

SUBDIVISION T. 12 S. R. 13 E.

Chains

67.50 Top of ascent and low point, 40 ft. above canyon, falls W. Enter pinon and cedar timber.
Descend along E. side of canyon.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, mkd. on brass cap

T 12 S R 13 E
S 22 | S 23

S 27 | S 26
1914

from which

A spruce, 10 ins. dia., bears N.66°E,
23 lks. dist. mkd. T 12 S R 13 E S 23 B T.

A pinon, 13 ins. dia., bears S.9½°E.,
21 lks. dist. mkd. T 12 S R 13 E S 26 B T.

No other bearing trees available, raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Land mountainous following near bottom of Cow Canyon, drains N.

Soil sandy loam and loose rocks on sandy loam and rocky subsoil, 3rd rate.

Timber, a few pinon, cedar and spruce.

Undergrowth, sage, rabbit brush and scattering grass.

Aug. 17, 1914.

Aug. 18: At 7h 34m a.m., l.m.t., I set off 39°45' on the lat. arc, 13°17'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence

East on random line bet. secs. 23 and 26.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect N. and S. line 5 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence

N.89°58'W. on a true line bet. secs. 23 and 26.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Ascending over mountainous land through sage and service brush.
4.55	Top of ridge and divide Cow Canyon and Sheep Canyon, 90 ft. above the sec. cor., bears N.25°W. and S. Descend abruptly.
7.55	Leave dense undergrowth and enter pinon, cedar and scattering spruce timber bearing N. and S.
40.03	690 ft. below the ridge. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 23 and 26, mkd. on brass cap S 23 $\frac{1}{4}$ S 26 1914 from which A pinon, 4 ins. dia., bears N.26$\frac{3}{4}$°E., 29 lks. dist. mkd. $\frac{1}{4}$ S 23 B T. A spruce, 7 ins. dia., bears S.34$\frac{1}{4}$°W., 23$\frac{1}{2}$ lks. dist. mkd. $\frac{1}{4}$ S 26 B T.
50.70	Ravine, 295 ft. below the $\frac{1}{4}$ sec. cor., course SW. Ascend 185 ft. to
62.95	Spur projecting SW. Descend 670 ft. to
80.06	The cor. of secs. 22, 23, 26 and 27.
	Land rough mountains with steep slopes into canyons draining N. and SW.
	Soil loose rocks and gravel with sandy loam on sandy and rocky subsoil, 3rd rate.
	Timber pinon, cedar and some spruce.
	Undergrowth sage, rabbit brush, scattering service brush and grass.
	Aug. 18: At this cor. I set off 13°13'N. on the decl. arc, and at 12h 04m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°45'.

N.0°01'W. on a true line bet. secs. 22 and 23.

Ascending over very rugged mountainous land through

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	scattering pinon and cedar timber and undergrowth of scattering sage, rabbit brush and grass.
8.80	Rocky point, 185 ft. above the sec. cor. falls W. into Cow Canyon.
	Descend abruptly 145 ft. to
13.50	Mouth of canyon draining W. into Cow Canyon. Ascend.
15.50	Enter heavier timber bearing E. and W.
28.15	Spur, 510 ft. above canyon, projecting SW.
	Descend 40 ft. to
33.30	Gulch draining S.70°W. Ascend 125 ft. to
40.00	Spur projects W.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 22 and 23, mkd. on brass cap
	S 22 ¼ | S 23
	1913
	from which
	A. pinon, 9 ins. dia., bears N.44°E.,
	35½ lks. dist. mkd. ¼ S 23 B T.
	A. pinon, 20 ins. dia., bears N.78½°W.,
	04 lks. dist. mkd. ¼ S 22 B T.
	Descend abruptly 405 ft. to
54.60	Canyon draining W. Ascend abruptly 500 ft. to
73.00	Spur projecting W. Descend 150 ft. to
81.74	Intersect E. and W. line 1.36 chs. S.88°26'E. of the cor. of secs. 14 and 15. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 10 ins. in the ground and 14 ins. in a mound of stone on solid rock for the closing cor. of secs. 22 and 23, mkd. on brass cap
	T. 12 S. R. 13 E. S 15 | S 14 CC S 22 | S 23 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.

SUBDIVISION T. 12 S. R. 13 E.

Chains

Land rough broken mountains draining W. into Cow Canyon with steep slopes into ravines.

Soil gravelly, rocky and some sandy loam on rocky and gravelly subsoil, 4th rate.

Timber scattering pinon, cedar and spruce.

Undergrowth, sage, rabbit brush and grass.

Aug. 18, 1914.

Aug. 29: At 8h 31m a.m., l.m.t., I set off 39°48' on the lat. arc, 9°32'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.

Thence

West on a sectional correction line bet. secs. 2 and 11.

Ascending over rugged mountainous land through pinon, cedar and scattering spruce timber and scattering undergrowth of sage, service brush and grass.

30.00 Top of Argyle Ridge, 1020 ft. above the sec. cor., bearing S.80°W. and E.

Thence along N. edge of rolling top ridge.

40.00 Set a sandstone 20x14x6 ins. 15 ins. in the ground for the ¼ cor. of secs. 2 and 11, mkd. ¼ on N. face, from which

A pinon, 4 ins. dia., bears N.25½°E., 169 lks. dist. mkd. ¼ S 2 B.T.

A pinon, 5 ins. dia., bears S.6½°E., 41 lks. dist. mkd. ¼ S 11 B T.

44.00 Timber becomes very scattering bearing NE. and SW.

75.00 Enter heavier timber bearing NW. and SE.

78.80 Leave ridge bearing NW. and E.

Descend 35 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 10 ins. in the ground and 14 ins. in mound of stone on solid rock for the cor. of secs. 2, 3, 10 and 11, mkd. on brass cap

T 12 S R 13 E

S 3	S 2
S 10	S 11

1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

from which

A pinon, 12 ins. dia.,bears N.58¼°E.,
87 lks. dist. mkd. T 12 S R 13 E S 2 B T.

A pinon, 8 ins. dia.,bears S.67°E.,
26 lks. dist. mkd. T 12 S R 13 E S 11 B T.

A pinon, 8 ins. dia.,bears S.82½°W.,
18 lks. dist. mkd. T 12 S R 13 E S 10 B T.

A pinon, 10 ins. dia.,bears N.45½°W.,
20 lks. dist. mkd. T 12 S R 13 E S 3 B T.

Land rough broken mountains draining SE. into Nine Mile Canyon.

Soil loose shale rock, rocky and some hard, dry blue clay on clay and rocky subsoil, 4th rate.

Timber pinon, cedar and some spruce.

Undergrowth, scattering sage, service brush and grass.

Aug. 29: At this cor. I set off 9°29'N. on the decl. arc, and at 12h 01m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

Aug. 31: At 9h a.m.,l.m.t., I set off 39°48' on the lat. arc, 8°49'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11.

Thence

S.0°01'E. on a true line bet. secs. 10 and 11.

Descending over rugged mountainous land through pinon and cedar timber and undergrowth of scattering sage, service brush and grass.

40.00 1300 ft. below sec. cor.

Set a sandstone 24x10x6 ins. 18 ins. in the ground for the ¼ sec. cor. of secs. 10 and 11, mkd. ¼ on W. face, from which

A pinon, 6 ins. dia.,bears N.89½°E.,
42½ lks. dist. mkd. ¼ S 11 B T.

A pinon, 6 ins. dia.,bears N.86½°W.,
33 lks. dist. mkd. ¼ S 10 B T.

40.50 Bottom of canyon and stream 1 lk. wide, 1 in. deep, 15

Chains	
	ft. below the cor., course SE. Ascend.
63.65	Spur, 310 ft. above the canyon, projects SE. Descend 265 ft. to
74.08	Intersect the E. and W. line 1.03 chs. S.85°54'E. of the cor. of secs. 14 and 15. At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC of secs. 10 and 11, mkd. on brass cap T 12 S R 13 E S 10 | S 11 CC S 15 | S 14 1914 from which A spruce, 14 ins. dia.,bears N.65½°E., 24 lks. dist. mkd. CC T 12 S R 13 E S 11 B T. A pinon, 12 ins. dia.,bears N.7¼°W., 93 lks. dist. mkd. CC T 12 S R 13 E S 10 B T. Land rough broken mountains draining SE. Soil sandy loam and clay with loose rocks on sandy loam and rocky subsoil, 4th rate. Timber pinon, cedar and some spruce. Undergrowth scattering sage, service brush and grass.

Aug. 31: At the cor. of secs. 2, 3, 10 and 11 I set off 8°46'N. on the decl. arc, and at 12h M.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

Thence

N.0°01'W. on random line bet. secs. 2 and 3.

40.00 Set temp. ¼ sec. cor.

69.30 Intersect N. bdy. of Tp. 6 lks. W. of the cor. of secs. 2, 3, 34 and 35, heretofore described.

Thence

S.0°02'W. on a true line bet. secs. 2 and 3.

Over mountainous land through pinon and cedar timber and undergrowth of sagebrush and grass.

Descend abruptly 125 ft. to

SUBDIVISION T. 12 S. R. 13 E.

Chains	
5.30	Leave timber bearing E. and W.
8.25	Ravine draining E. Ascend.
21.15	Top of ridge and divide bet. Argyle and Nine Mile canyons, 245 ft. above ravine bearing E. and W.
	Thence across ridge.
25.20	Enter timber bearing E. and W.
26.90	Main top of ridge bearing E. and W.
	Thence gradually descend over rolling mountain top.
29.30	25 ft. below top of ridge.
	Set a sandstone 24x20x3 ins. 18 ins. in the ground for the ¼ sec. cor. of secs. 2 and 3, mkd. ¼ on W. face, from which
	A cedar, 8 ins. dia., bears N.22½°E., 38 lks. dist. mkd. ¼ S 2 B T.
	A pinon, 6 ins. dia., bears S.34½°W., 56 lks. dist. mkd. ¼ S 3 B T.
42.60	Head of canyon, 105 ft. below ¼ sec. cor., drains SE.
	Gradually ascend.
65.05	Enter heavier timber bearing NW. and SE.
66.30	Edge of Argyle Ridge, bears NW. and SE.
	Descend 25 ft. to
69.30	The cor. of secs. 2; 3, 10 and 11.
	Land mountainous draining NE. into Argyle Canyon on N. 26.90 chs. and SE. into Nine Mile Canyon on S. 42.40 chs.
	Soil sandy loam, fine gravel and some rocky on sandy loam and gravelly subsoil, 3rd rate.
	Timber pinon, cedar and some spruce.
	Undergrowth scattering sagebrush and grass.
	Aug. 31, 1914.

Aug. 19: At 7h 34m a.m., l.m.t., I set off 39°44' on the lat. arc, 12°58'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.

Thence

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	West on a sectional correction line bet. secs. 27 and 34.
	Across bottom of Cow Canyon through dense undergrowth of sage, scattering service brush and grass.
5.80	Wash, 50 lks. wide, 15 ft. deep, Cow Creek in same, 10 lks. wide, 6 ins. deep, course N.5°E.
6.30	Leave canyon, bears NE. and SW.
	Enter pinon and cedar timber and scattering high buck brush and grass.
	Ascend eastern slope 940 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 27 and 34, mkd. on brass cap
	S 27 $\frac{1}{4}$ / S 34 1914
	from which
	A pinon, 14 ins. dia., bears N.41$\frac{3}{4}$°E., 25 lks. dist. mkd. $\frac{1}{4}$ S 27 B T.
	A pinon, 6 ins. dia., bears S.40°W., 20 lks. dist. mkd. $\frac{1}{4}$ S 34 B T.
46.70	Ridge, 220 ft. above the cor., bears NE. and SW.
	Thence across top of ridge.
48.50	Timber becomes very scattering, bears NE. and SW.
55.50	Begin abrupt descent bearing NE. and SW.
64.00	Enter heavy spruce and balsam fir timber bearing NW. and SE.
73.30	Canyon, 430 ft. below ridge, drains NE.
	Leave heavy timber bearing NE. and SW.
	Ascend abruptly 175 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 10 ins. in the ground and 14 ins. in a mound of stone on solid rock for the cor. of secs. 27, 28, 33 and 34, mkd. on brass cap
	T 12 S R 13 E S 28 | S 27 S 33 | S 34 1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

from which

A cedar, 10 ins. dia.;bears N.5°E.,

21 lks. dist. mkd. T 12 S R 13 E S 27 B T.

A pinon, 14 ins. dia.;bears N.52¼°W.,

46 lks. dist. mkd. T 12 S R 13 E S 28 B T.

A cedar, 10 ins. dia.,bears S.34½°E.,

29 lks. dist. mkd. T 12 S R 13 E S 34 B T.

A pinon, 12 ins. dia.;bears S.86¾°W.,

27 lks. dist. mkd. T 12 S R 13 E S 33 B T.

Land rough mountainous draining N. with steep slopes into canyons:

Soil gravelly, loose shale rock, clay and rocky on rocky and hard, dry blue clay subsoil, 4th rate.

Timber pinon, cedar, spruce and balsam fir.

Undergrowth sage, buck brush and grass.

Aug. 19: At this cor. I set off 12°53'N. on the decl. arc, and at 12h 04m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.

S.0°01'E. on a true line bet. secs. 33 and 34.

Over rough mountainous land through scattering cedar, pinon and spruce timber and undergrowth of sage, service brush and grass.

Descend 50 ft. to

8.00 Canyon draining NE.

Enter dense spruce and balsam fir timber bearing NE. and SW. Ascend.

21.10 Ridge, 475 ft. above canyon bearing N.75°E. and S.75°W.

Timber becomes scattering bearing with ridge.

Descend.

28.65 Ledge, 75 ft. high, bears E. and W.

40.00 530 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 33 and 34, mkd. on brass cap

S ¼ 33 | S 34

1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

from which

A pinon, 18 ins. dia., bears S.48¾°E.,

75 lks. dist. mkd. ¼ S 34 B T.

A cedar, 6 ins. dia., bears S.70¾°W.,

62½ lks. dist. mkd. ¼ S 33 B T.

73.00 Leave timber, enter Cow Canyon, 515 ft. below ¼ sec. cor. bears NE. and W. Thence in canyon.

75.10 Wash, 50 ft. wide, 25 ft. deep, Cow Creek in same, 6 lks. wide, 4 ins. deep, course NE.

77.26 Intersect S. bdy. of Tp. 6.31 chs. S.89°35'E. of the old cor. of secs. 33 and 34, mkd. for W P.

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC of secs. 33 and 34, mkd. on brass cap

T 12 S R 13 E
S 33 | S 34
C | C
S 2 | S 1
T 13 S
1914

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

Land rough mountains draining N. into Nine Mile Canyon and S. into Cow Canyon.

Soil coarse gravel, loose rocks and some sandy loam and red clay on rocky and clay subsoil, 4th rate.

Timber pinon, cedar, spruce and balsam fir.

Undergrowth, sage, service and scattering grass.

Aug. 20: At 8h 03m a.m., l.m.t., I set off 39°44' on the lat. arc, 12°37'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Thence

N.0°01'W. bet. secs. 27 and 28.

Gradually ascending over rocky mountainous land through scattering pinon and cedar timber and undergrowth of

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	sage, service brush and grass.
33.00	Ridge spur, 65 ft. above sec. cor., projects N.35°E.
	Descend abruptly.
38.00	Enter medium growth of spruce, bears NE. and SW.
	Some aspen.
40.00	225 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 27 and 28, mkd. on brass cap
	S 28 ¼ | S 27
	1914.
	from which
	An aspen, 4 ins. dia., bears N.53¾°E.,
	11 lks. dist. mkd. ¼ S 27 B T.
	A spruce, 8 ins. dia., bears N.39°W.,
	20 lks. dist. mkd. ¼ S 28 B T.
61.85	Canyon, 705 ft. below the ¼ sec. cor. draining N.35°E.
	Ascend.
74.00	Timber becomes medium dense.
80.00	235 ft. above canyon.
	Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground and 12 ins. in mound of stone for corner of secs. 21, 22, 27 and 28, mkd. on brass cap
	T 12 S R 13 E S 21 | S 22 S 28 | S 27 1914
	from which
	A spruce 7 ins. dia., bears N.68¼°E.,
	41 lks. dist. mkd. T 12 S R 13 E S 22 B T.
	A pinon, 8 ins. dia., bears S.37½°E.,
	28 lks. dist. mkd. T 12 S R 13 E S 27 B T.
	A pinon, 10 ins. dia., bears S.60½°W.,
	42 lks. dist. mkd. T 12 S R 13 E S 28 B T.
	A cedar, 16 ins. dia., bears N.43¼°W.,
	38 lks. dist. mkd. T 12 S R 13 E S 21 B T.
	Land rough mountains draining nearly N.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Soil gravelly, rocky and sandy loam on gravelly and loam subsoil, 3rd rate.
	Timber cedar, pinon and spruce.
	Undergrowth sage, service brush and grass.
	Aug. 20: At this cor. I set off 12°34'N. on the decl. arc, and at 12h 03m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°45'.
	East on a random line bet. secs. 22 and 27.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect the N. and S. line 6 lks. S. of the cor. of secs. 22, 23, 26 and 27.
	Thence
	S.89°57'W. on a true line bet. secs. 22 and 27.
	Descend into Cow Canyon over mountainous land facing W, through undergrowth of sage, service brush and grass.
2.00	Enter canyon, 65 ft. below the cor., bears N. and S.
	Thence in canyon.
6.90	Old road bearing N. and S.
7.35	Wash, 50 ft. wide, 20 ft. deep, Cow Creek in same, 10 lks. wide, 3 ins. deep, course N.
	Leave canyon bearing N. and S.
	Ascend abruptly E. slope.
14.50	Enter scattering pinon timber bearing N. and S.
29.80	Spur, 690 ft. above the canyon, projects N.35°E.
	Descend.
36.00	Leave timber bearing N. and S.
40.02	450 ft. above the spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 22 and 27, mkd. on brass cap
	$\frac{S\ 22}{\frac{1}{4}}$ / $\frac{S\ 27}{1914}$
	and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
40.70	Canyon, 10 ft. below the $\frac{1}{4}$ sec. cor. drains from S. to NE. Ascend.
44.00	Enter aspen thicket bearing N. and S.
48.10	Leave thicket.
62.50	Enter pinon and cedar timber bearing N. and S.
65.00	Top of ascent near N. point of spur, 190 ft. above canyon. Descend 130 ft. to
68.80	Canyon draining N.35°E. 2 chs., thence E. Ascend abruptly 505 ft. to
80.04	The cor. of secs. 21, 22, 27 and 28.
	Land rough broken mountains draining N.
	Soil gravelly, rocky and some sandy loam on gravelly and rocky subsoil, 4th rate.
	Timber pinon, cedar and some aspen.
	Undergrowth sage, service brush and scattering grass.
	Aug. 20, 1914.

Aug. 21: At 8h 33m a.m., l.m.t., I set off 39°45' on the lat. arc, 12°17'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

Thence

N.0°01'W. on a true line bet. secs. 21 and 22.

Over rugged mountainous land through pinon and cedar timber and undergrowth of sage, service brush and scattering grass. Ascend.

1.00	Top of ascent, 5 ft. above the cor. Descend abruptly 250 ft. to
15.55	Ravine course E. Ascend.
30.00	Top of ridge, 420 ft. above ravine bearing E. and W. Timber becomes scattering. Descend 155 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 21 and 22, mkd. on brass cap

S $\frac{1}{4}$ 21 | S 22

1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

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

Aug. 21: At this cor. I set off 12°14'N. on the decl. arc, and at 12h 03m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°46'.

45.60 Ravine, 70 ft. below the ¼ sec. cor., course NE.

Ascend 130 ft. to

74.00 Ridge bearing NE. and SW.

Descend over breaks.

80.25 Descend abruptly 150 ft. to

83.84 Intersect E. and W. line 1.64 chs. S.88°26'E. of the cor. of secs. 15 and 16.

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC of secs. 21 and 22, mkd. on brass cap

T 12 S | R 13 E
S 16 | S 15
CC
S 21 | S 22
1914

from which

A pinon, 3 ins. dia., bears S.49¼°E.,
223 lks. dist. mkd. CC T 12 S R 13 E S 22 B T.

A spruce, 10 ins. dia., bears S.2°20'W.,
162 lks. dist. mkd. CC T 12 S R 13 E S 21 B T.

Land rough broken mountains with general NE. exposure.

Soil gravelly, rocky and some sandy loam on gravel and rocky subsoil, 4th rate.

Timber pinon, cedar and some spruce.

Undergrowth, sage, service brush and scattering grass.

Aug. 21, 1914.

Aug. 29: For solar observation see the line bet. secs. 2 and 11.

From the cor. of secs. 2, 3, 10 and 11

West on a sectional correction line bet. secs. 3 and 10.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Descend over very rugged mountainous land through pinon and cedar timber and scattering undergrowth of sage, service brush and grass.
18.50	Gulch, 605 ft. below sec. cor., drains S.
	Ascend 590 ft. to
37.50	Spur, projects S. 20 chs. Descend 30 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. india., 12 ins. in the ground and 12 ins. in a mound of stone on solid rock for the $\frac{1}{4}$ sec. cor. of secs. 3 and 10, mkd. on brass cap S $\frac{1}{4}$ 3 S 10 1914 from which A pinon, 10 ins. dia., bears N.39½°W., 42 lks. dist. mkd. $\frac{1}{4}$ S 3 B T. A pinon, 10 ins. dia., bears S.65°W., 53 lks. dist. mkd. $\frac{1}{4}$ S 10 B T.
52.10	Gulch, 370 ft. below the cor., drains S.
	Ascend 320 ft. to
62.00	Spur, projects S.10 chs. Descend 120 ft. to
70.60	Canyon draining SE. Ascend abruptly 225 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, mkd. on brass cap T 12 S R 13 E S 4 | S 3 S 9 | S 10 1914 from which A spruce, 5 ins. dia., bears N.45½°E., 80 lks. dist. mkd. T 12 S R 13 E S 3 B T. A cedar, 5 ins. dia., bears S.15½°E., 84 lks. dist. mkd. T 12 S R 13 E S 10 B T. A spruce, 4 ins. dia., bears S.87°30'W., 25 lks. dist. mkd T 12 S R 13 E S 9 B T. A spruce, 7 ins. dia., bears N.62°W., 142 lks. dist. mkd. T 12 S R 13 E S 4 B T.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Land rough broken mountains draining S. with steep E. and W. slopes of spurs.
	Soil loose shale rock, sandy loam and loose rock on sandy loam and rocky subsoil, 4th rate.
	Timber pinon, cedar and some spruce.
	Undergrowth sage, service brush and scattering grass.
	Aug. 29, 1914.
	Sept. 1: At 9h a.m., l.m.t., I set off 39°48' on the lat. arc, 8°27'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
	S.0°01'E. on a true line bet. secs. 9 and 10.
	Over rugged mountainous land through pinon, cedar and scattering spruce timber and undergrowth of sage, scattering service brush and grass.
	Ascend.
6.00	Ridge, 205 ft. above sec. cor. bears N.65°W. and S.65°E.
	Enter heavier spruce timber.
	Descend 950 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 9 and 10, mkd. on brass cap
	S $\frac{1}{4}$ 9 | S 10
	1914
	from which
	A spruce, 12 ins. dia., bears S.60$\frac{1}{4}$°E.,
	47 lks. dist. mkd. $\frac{1}{4}$ S 10 B T.
	A spruce, 16 ins. dia., bears N.88$\frac{3}{4}$°W.,
	57 lks. dist. mkd. $\frac{1}{4}$ S 9 B T.
40.10	Canyon, 5 ft. below $\frac{1}{4}$ sec. cor., drains SE. Ascend.
52.50	Enter heavy timber bearing NW. and SE.
53.50	Spur, 460 ft. above canyon, projects SE.
	Descend 75 ft. to
68.25	Intersect E. and W. line 1.22 chs. S.85°54'E. of the cor. of secs. 15 and 16.

SUBDIVISION T. 12 S. R. 13 E.

Chains

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC of secs. 9 and 10, mkd. on brass cap

T 12 S R 13 E
S 9 | S 10
CC
S 16 | S 15

1914

from which

A cedar, 14 ins. dia., bears N. 32½°E.,

26 lks. dist. mkd. CC T 12 S R 13 E S 10 B T.

A pinon, 12 ins. dia., bears N. 24½°W.,

46 lks. dist. mkd. CC T 12 S R 13 E S 9 B T.

Land mountainous draining S. into Nine Mile Creek.

Soil loose shale rock, sandy loam and rocky on sandy loam and rock subsoil, 4th rate.

Timber spruce, pinon and cedar.

Undergrowth sage, service brush and grass.

Sept. 1: At the cor. of secs. 3, 4, 9 and 10, I set off 8°24'N. on the decl. arc, and at 12h M., l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

Thence

N. 0°01'W. on a random line bet. secs. 3 and 4.

40.00 Set temp. ¼ sec. cor.

69.18 Intersect the N. bdy. of Tp. 12 lks. W. of the cor. of secs. 3, 4, 33 and 34, heretofore described.

Thence

S. 0°05'W. on a true line bet. secs. 3 and 4.

Ascending over mountainous land through very scattering pinon and cedar timber and undergrowth of sage, scattering service brush and grass.

17.78 Top of divide ridge, Argyle and Nine Mile Canyons, 395 ft. above the cor., bears NE. and SW.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Thence gradually descend over rolling mountain top.
29.18	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 3 and 4, mkd. on brass cap S $\frac{1}{4}$ 4 | S 3 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
47.68	Enter heavier timber bearing E. and W.
48.38	Leave ridge bearing NE. and W. Descend abruptly 775 ft. to
66.38	Canyon draining SE. Ascend abruptly 145 ft. to
69.18	The cor. of secs. 3, 4, 9 and 10. Land mountainous draining N. into Argyle and S. into Nine Mile Canyon. Soil gravelly, sandy loam and rocky on gravelly and sandy subsoil, 3rd rate. Timber scattering pinon and cedar. Undergrowth sage, scattering service brush and grass. Sept. 1, 1914.

Aug. 22: At 8h 03m a.m., l.m.t., I set off 39°44' on the lat. arc, 11°58'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Thence

West on a sectional correction line bet. secs. 28 and 33.

Over rocky mountainous land through pinon and cedar timber and undergrowth of sage, service brush and scattering grass.

Ascend.

14.00	Spur, 360 ft. above the sec. cor. projects N.35°E. Thence across top of spur.
16.00	Enter dense aspen and spruce timber bearing N. and S.
25.75	Leave timber bearing N. and S.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
28.50	Descend into canyon bearing N. and S.
36.10	Enter dense aspen and spruce timber bearing N. and SE.
40.00	370 ft. below the spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 28 and 33, mkd. on brass cap
	S 28 $\frac{1}{4}$ S 33 1914
	A spruce, 6 ins. dia.,bears S.51½°E.,
	11 lks. dist. mkd. $\frac{1}{4}$ S 33 B T.
	A spruce, 6 ins. dia.,bears N.17°W.,
	21 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
41.15	Canyon, 20 ft. below the $\frac{1}{4}$ sec. cor., drains N.
	Ascend.
61.00	Leave timber bearing N. and S.
66.20	Ridge, 600 ft. above canyon bearing S.80°E. and W.
	Enter scattering pinon and cedar timber bearing NE. and SW. Thence over rolling top of ridge.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 10 ins. in the ground and 14 ins. in a mound of stone onsolid rock for the cor. of secs. 28, 29, 32 and 33, mkd. on brass cap
	T 12 S R 13 E S 29 | S 28 S 32 | S 33 1914
	from which
	A pinon, 8 ins. dia.,bears N.81½°E.,
	91 lks. dist. mkd. T 12 S R 13 E S 28 B T.
	A pinon, 12 ins. dia.,bears S.49½°E.,
	77 lks. dist. mkd. T 12 S R 13 E S 33 B T.
	A pinon, 12 ins. dia.,bears S.63¼°W.,
	20 lks. dist. mkd. T 12 S R 13 E S 32 B T.
	A pinon, 10 ins. dia.,bears N.41¼°W.,
	15½ lks. dist., mkd. T. 12 S R 13 E S 29 B T.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Land rough mountains with steep slopes of ridges into canyons draining N.
	Soil sandy loam, gravelly and loose rock on rocky and sandy subsoil, 4th rate.
	Timber spruce, pinon, cedar and aspen.
	Undergrowth sage, scattering service brush and grass.
	Aug. 22: At this cor. I set off 11°54'N. on the decl. arc, and at 12h 03m p.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
	S.0°02'E. on a true line bet. secs. 32 and 33.
	Descending over rough mountainous land through pinon and cedar timber and undergrowth sage, scattering service brush and grass.
4.00	Leave timber bearing E. and W.
38.50	Enter Cow Canyon, 770 ft. below the cor. bearing E. and W.
39.50	Point for $\frac{1}{4}$ sec. cor. will fall in center of wash, therefore at this point
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for W C to the $\frac{1}{4}$ sec. cor. of secs. 32 and 33 mkd. on brass cap
	T 12 S | R 13 E S 32 | S 33 WC $\frac{1}{4}$ 1914
	and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
40.00	Wash, 50 lks. wide, 25 ft. deep, Cow Creek in same, 8 lks. wide 3 ins. deep, course E.
	Point for $\frac{1}{4}$ sec. cor. falls in creek.
	No cor. set at this point.
41.40	Enter aspen timber and leave canyon bearing E. and W. Ascend.
61.30	Leave aspen bearing E. and W.
62.00	Spur, 300 ft. above the canyon, projects NE.
	Thence across rolling top of spur.
75.00	Enter aspen timber bearing NE. and SW.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
76.74	Intersect S. bdy. of Tp. 6.44 chs. S.89°30'E. of the old cor. of secs. 32 and 33, marked W P
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C C of secs. 32 and 33, mkd. on brass cap
	T 12 S R 13 E S 32 | S 33 C | C S 2 | S 1 T 13 S 1914
	from which
	An aspen, 3 ins. dia., bears N.69°E.,
	10 lks. dist. mkd. CC T 12 S R 13 E S 33 B T.
	An aspen, 3 ins. dia., bears N.62°W.,
	7½ lks. dist. mkd. CC T 12 S R 13 E S 32 B T.
	Land mountainous with slopes into Cow Canyon, draining SE.
	Soil black loam, red clay and rocky on loam and rock subsoil, 4th rate.
	Timber aspen, pinon, cedar and some spruce.
	Undergrowth sage, scattering service brush and grass.
	Aug. 22, 1914.

Sept. 10: At 7h 57m a.m., l.m.t., I set off 39°44' on the lat. arc, 5°08'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.

Thence

N.0°02'W. bet. secs. 28 and 29.

Ascending over rough mountainous land through pinon and cedar timber and undergrowth of sage, service buck brush and grass.

1.30	Ridge, 45 ft. above cor., bears E. and W. Descend.
1.80	Enter dense spruce and aspen timber bearing E. and W.
20.00	Ravine, 405 ft. below ridge, bears NW.
	Leave timber bearing NW. and SE.
	Ascend along E. side of ravine.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
27.00	Top of ascent, 50 ft. above ravine. Descend.
31.00	Enter dense aspen bearing E. and SW.
40.00	195 ft. below top of ascend.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 28 and 29, mkd. on brass cap
	$\frac{S\ 29}{1914} \mid S\ 28$
	from which
	An aspen, 6 ins. dia., bears N.79½°E.,
	20 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
	An aspen, 6 ins. dia., bears S.27½°W.,
	12 lks. dist. mkd. $\frac{1}{4}$ S.29 B.T.
45.25	Ravine, 75 ft. below the cor., draining N.5°E.
	Ascend along W. side of ravine.
47.00	Top of ascent, 15 ft. above ravine.
	Gradually descend.
75.00	Leave aspen bearing E. and W.
78.10	Enter aspen bearing E. and W.
80.00	1295 ft. below top of ridge, N. of sec. cor.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 20, 21, 28 and 29, mkd. on brass cap
	T 12 S R 13 E S 20 | S 21 S 29 | S 28 1914
	from which
	An aspen, 4 ins. dia., bears N.79°E.,
	10 lks. dist. mkd. T 12 S R 13 E S 21 B T.
	A spruce, 10 ins. dia., bears S.28°E.,
	04 lks. dist. mkd. T 12 S R 13 E S 28 B T.
	An aspen, 5 ins. dia., bears S.26°W.,
	25½ lks. dist. mkd. T 12 S R 13 E S 29 B T.
	An aspen, 4 ins. dia., bears N.40½°W.,
	12½ lks. dist. mkd. T 12 S R 13 E S 20 B T.
	Land rough mountainous, draining N. and S. from high ridge.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Soil, gravelly, sandy loam and loose rock on sandy loam and rock subsoil, 3rd rate.
	Timber aspen, spruce, pinon and cedar.
	Undergrowth sage, service brush and scattering grass.
	Sept. 10: At this cor. I set off 5°04'N. on the decl. arc, and at 11h. 57m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°45'.
	East on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line 5 lks. N. of the cor. of secs. 21, 22, 27 and 28.
	Thence
	N.89°58'W. on a true line bet. secs. 21 and 28.
	Ascending over rough mountainous land through pinon and cedar timber and undergrowth of sage, service brush and grass.
8.65	Leave timber bearing N. and S.
32.40	Ridge, 480 ft. above the sec. cor., bears N. and S.
	Descend.
34.90	Leave timber bearing N. and S.
39.95	90 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 21 and 28, mkd. on brass cap
	$\frac{S\ 21}{\frac{1}{4}}$ / $\frac{S\ 28}{1914}$
	from which
	A spruce, 8 ins. dia., bears N.3°E., 45 lks. dist. mkd. $\frac{1}{4}$ S 21 B T.
	A spruce, 12 ins. dia., bears S.27½°E., 48 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
45.85	Ravine, 20 ft. below the $\frac{1}{4}$ sec. cor., course N.
	Ascend.
46.00	Leave scattering aspen timber bearing N. and S.

Chains

55.90 Spur, 150 ft. above ravine, projects N. Descend.

76.70 Ravine, 750 ft. below spur, course N.

Enter aspen timber bearing N. and S.

Ascend 45 ft. to

79.90 The cor. of secs. 20, 21, 28 and 29.

Land rough mountains draining N.

Soil gravelly, sandy loam and loose rock on sandy loam and rocky subsoil, 3rd rate.

Timber, pinon, cedar, aspen and spruce.

Undergrowth sage, scattering service brush and grass.

Sept. 10, 1914.

Sept. 11: At 7h 42m a.m.,l.m.t., I set off 39°45' on the lat. arc, 4°46'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Thence

N.0°02'W. on a true line bet. secs. 20 and 21.

Descending over mountainous land on W. side of ravine, through aspen timber and undergrowth of sage, scattering service, buck brush and grass.

.75 Leave aspen bearing E. and W.

9.90 Ravine, 120 ft. below the cor., course N.5°W.

Thence along E. edge.

14.90 Ravine draining N.15°E. Thence over rolling hilly land.

22.65 Ravine draining N.15°E.

27.00 Wagon road bearing NE. and SW. Ascend 30 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 20 and 21, mkd. on brass cap

$$\frac{S\ 20}{1914} \Big| S\ 21$$

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

42.50 Spur, 15 ft. above the cor., projects NE.

Descend.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
46.75	Gulch, 90 ft. below spur, drains NE.
	Ascend 80 ft. to
56.00	Spur projects NE.
	Descend 135 ft. to
68.00	Enter open flat bears E. and W.
86.25	Intersect E. and W. line, 2.00 chs. S.88°26'E. of the cor. of secs. 16 and 17.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the C C of secs. 20 and 21, mkd. on brass cap

T 12 S | R 13 E
S 17 | S 16
C C
S 20 | S 21
1914

	and raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.
	Land mountainous draining N. on S. 68.00 chs. with open flat on N. 18.25 chs.
	Soil fine sandy loam and gravel on sandy loam and rocky subsoil, 3rd. rate.
	Timber some aspen.
	Undergrowth sage and scattering service, buck brush and grass.
	Sept. 11, 1914.

	Sept. 4: At 8h 29m a.m.,l.m.t., I set off 39°48' on the lat. arc, 7°22'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10.
	Thence
	West on a sectional correction line bet. secs. 4 and 9.
	Ascending over rough mountainous land through pinon, spruce and cedar timber and undergrowth of sage, service brush and grass.
25.00	Top of Argyle Ridge, 800 ft. above the sec. cor., bears NW. and SE. Descend.

SUBDIVISION T. 12 S. R. 13 E.

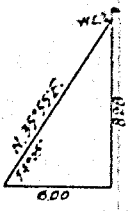
Chains	
25.70	Enter heavier timber bearing NW. and SE.
40.00	700 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground and 8 ins. in a mound of stone on solid rock for the $\frac{1}{4}$ sec. cor. of secs. 4 and 9, mkd. on brass cap
	$\frac{S\ 4}{\frac{1}{4}}$ / S 9 1914
	from which
	A cedar, 12 ins. dia., bears N.49½°E.,
	25 lks. dist. mkd. $\frac{1}{4}$ S 4 B T.
	A pinon, 10 ins. dia., bears S.86°E.,
	38 lks. dist. mkd. $\frac{1}{4}$ S 9 B T.
	Sept. 4: At this cor. I set off 7°18'N. on the decl. arc, and at 11h 59m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.
47.70	Gulch, 145 ft. below the cor., drains SW.
	Ascend 430 ft. to
71.90	Spur projecting SW. Descend 90 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 4, 5, 8 and 9, mkd. on brass cap
	T 12 S R 13 E S 5 | S 4 S 8 | S 9 1914
	from which
	A cedar, 9 ins. dia., bears N.62°E.,
	45 lks. dist. mkd. T 12 S R 13 E S 4 B T.
	A cedar, 8 ins. dia., bears S.13¼°E.,
	44 lks. dist. mkd T 12 S R 13 E S 9 B T.
	A cedar, 7 ins. dia., bears S.55°20'W.,
	66 lks. dist. mkd. T 12 S R 13 E S 8 B T.
	A cedar, 6 ins. dia., bears N.43°W.,
	57 lks. dist. mkd. T 12 S R 13 E S 5 B T.
	Land rough broken mountains draining S. with steep slopes of spurs.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Soil sandy loam, loose shale rock and rocky on sandy loam and rocky subsoil, 4th rate.
	Timber pinon, spruce and cedar.
	Undergrowth sage, service brush and scattering grass.
	Sept. 4, 1914.
	Sept. 8: At 7h 58m a.m., l.m.t., I set off 39°48' on the lat. arc, 5°53'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.
	Thence
	S.0°02'E. on a true line bet. secs. 8 and 9.
	Ascending over mountainous land through pinon, cedar and spruce timber and undergrowth of sage, scattering service brush and grass.
8.00	Spur, 210 ft. above the cor., projects SW.
	Descend abruptly 515 ft. to
26.30	Ravine course W. Ascend abruptly 330 ft. to
35.75	Spur projecting W. Descend abruptly.
38.00	The point for ¼ sec. cor. will fall on ledges where cor. cannot be set, therefore at this point
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the W C to ¼ sec. cor. of secs. 8 and 9, mkd. on brass cap
	T 12 S | R 13 E S 8 | S 9 WC ¼ 1914.
	from which
	A spruce, 12 ins. dia., bears N.74°E.,
	38 lks. dist. mkd. W C ¼ S 9 B T.
	A pinon, 8 ins. dia., bears N.9½°W.,
	57 lks. dist. mkd. W C ¼ S 8 B T.
40.00	True point for ¼ sec. cor. Cor. not set.
	Being unable to chain this line S. for some distance on account of high impassible ledges, I triangulate as follows:

SUBDIVISION T. 12 S. R. 13 E.

Chains



Set a flag on line in bottom of canyon S.0°02'E. and erect a flag at this point. From point in bottom of canyon I measure a base line S.89°58'W. 6.00 chs. to a point where the flag at WC brs. N.35°55'E., therefore tan. 54°03' x base or 1.38 x 6.00 =8.28 chs. which added to 38.00 chs. =

46.28 To bottom of Sulphur Canyon draining S.

N. edge of Sulphur Canyon is 260 ft. below the W C.

44.50 Leave timber, thence in canyon, through dense undergrowth of sagebrush.

62.56 Intersect E. and W. line 1.75 chs. S.85°54'E. of the cor. of secs. 16 and 17.

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC of secs. 8 and 9, mkd. on brass cap

T 12 S R 13 E
S 8 | S 9
CC
S 17 | S 16
1914

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

Land rough mountainous land draining S.

Soil loose shale rock and sandy loam on loam and rocky subsoil, 4th rate.

Timber pinon, cedar and spruce.

Undergrowth sage, scattering service brush and grass.

Sept. 8: At the cor. of secs. 4, 5, 8 and 9, I set off 5° 49'N. on the decl. arc, and at 11h 58m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

Thence

N.0°02'W. on a random line bet. secs. 4 and 5.

40.00 Set temp. ¼ sec. cor.

69.35 Intersect the N. bdy. of Tp. 2 lks. W. of the cor. of secs. 4, 5, 32 and 33, heretofore described.

Thence

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	S.0°01'E. on a true line bet. secs. 4 and 5.
	Gradually descending over mountainous land on W. side of ravine, through pinon and cedar timber and scattering undergrowth of sage, service brush and grass.
29.35	240 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 4 and 5, mkd. on brass cap
	$S\ \frac{1}{4}\ 5 \mid S\ 4$ 1914
	from which
	A pinon, 5 ins. dia., bears N.35½°E.,
	7½ lks. dist. mkd. $\frac{1}{4}$ S 4. B T.
	A cedar, 10. ins. dia., bears S.89°W.,
	2½ lks. dist. mkd. $\frac{1}{4}$. S 5 B T.
	Descend 260 ft. to
44.00	Ravine from N.5°E. drains SW. Ascend 185 ft. to
	Enter heavier timber.
54.60	Spur, projects SW. Descend 110 ft. to.
60.10	Gulch draining SW. Ascend 70 ft. to
69.35	The cor. of secs. 4, 5, 8 and 9.
	Land mountainous draining S.
	Soil sandy loam and loose rocks on sandy and rocky sub-soil, 4th rate.
	Timber scattering pinon, cedar and spruce.
	Undergrowth sage, scattering service brush and grass.
	Sept. 8, 1914.

Sept. 12: At 8h 26m a.m., l.m.t., I set off 39°44' on the lat. arc, 4°22'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.

Thence

West on a sectional correction line bet. secs. 29 and 32.

Ascending gradually along ridge, through pinon and cedar timber and undergrowth of sage, service brush and grass.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
16.00	Ridge, 95 ft. above the cor., bears S.88°W. and E.
	Descend over NE. slope of ridge.
16.25	Enter dense spruce and aspen timber bearing with ridge.
31.50	Ravine, 300 ft. below ridge, course N.15°E.
	Ascend 70 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 29 and 32, mkd. on brass cap

S ¼ 29

S 32
1914

from which

A spruce, 14 ins. dia., bears N.44°E.,
27 lks. dist. mkd. ¼ S 29 B.T.

A spruce, 6 ins. dia., bears S.27°W.,
18 lks. dist. mkd. ¼ S 32 B.T.

50.50	Ridge, 125 ft. above the cor., bears N.25°W. and S.25°E.
	Leave timber bearing with ridge.
	Descend.
64.50	Enter dense aspen and spruce timber bearing NW. and SE.
76.45	Ravine, 450 ft. below the ridge, drains NW.
	Undergrowth becomes scattering.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, mkd. on brass cap

T 12 S R 13 E.

S 30	S 29
S 31	S 32

1914

from which

A spruce, 10 ins. dia., bears N.58¾°E.,
25 lks. dist. mkd. T 12 S R 13 E S 29 B T.

A spruce, 7 ins. dia., bears S.57°E.,
29 lks. dist. mkd. T 12 S R 13 E S 32 B T.

A spruce, 7 ins. dia., bears S.29°W.,
11 lks. dist. mkd. T 12 S R 13 E S 31 B T.

A spruce, 6 ins. dia., bears N.57½°W.,
37 lks. dist. mkd. T 12 S R 13 E S 30 B T.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Sept. 12: At this cor. I set off 4°18'N. on the decl. arc, and at 11h 56m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°44'.
	S.0°03'E. on a true line bet. secs. 31 and 32.
	Ascending over rough mountainous land through dense spruce and aspen timber and undergrowth of scattering buck, service brush and grass..
10.50	Spur, 315 ft. above the cor., projects NW.
	Leave timber bearing NW. and SE. Descend.
28.00	Gulch 210 ft. below spur, drains NW.
	Enter dense aspen timber bearing NW. and SE.
	Ascend 265 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia.,24 ins. in the ground for the ¼ sec. cor. of secs. 31 and 32, mkd. on brass cap
	$S_{\frac{1}{4}}$ 31 | S 32
	1914
	from which
	An aspen, 3 ins. dia.,bears S.81°50'E.,
	11 lks. dist. mkd. ¼ S 32 B.T.
	An aspen, 3 ins. dia.,bears N.83°15'W.,
	9 lks. dist. mkd. ¼ S 31 B T.
43.25	Leave aspen timber bearing E. and W.
50.25	Ridge, 280 ft. above the cor.,bearing NE. and SW.
	Descend.
63.90	Enter dense aspen timber bearing E. and W.
74.00	Leave aspen timber bearing E. and W.
76.92	215 ft. below the ridge.
	Intersect S. bdy. of Tp. 6.24 chs. N.89°18'E. of the old cor. of secs. 31 and 32, mkd. for W.P.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia.,24 ins. in the ground for the CC of secs. 31 and 32, mkd. on brass cap

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	T 12 S R 13 E S 31 | S 32 cc S. 6 | S 5 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Land. rough mountains draining N.
	Soil gravelly, red clay and loose rocks on clay and rocky subsoil, 4th rate.
	Timber aspen and spruce..
	Undergrowth scattering. buck, service brush and grass.
	Sept. 12, 1914.
	Sept. 14: At 8h 26m a.m.,l.m.t., I set off 39°44' on the lat. arc, 3°36'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32. Thence
	West on a true line bet. secs. 30 and 31.
	Over rough mountainous land, through dense spruce and aspe timber and scattering undergrowth of service, buck brush and grass. Ascend 35 ft. to
3.00	Top of steep ascent bearing N. Gradually descend.
19.50	Leave timber bearing. NW. and SE. Enter heavier undergrowth
21.00	Spur, 125 ft. below top of ascent, projects NW. Descend abruptly.
31.70	Bottom of ravine and stream,.2 lks. wide, 1 in. deep, 325 ft. below spur,.course NW. Ascend.
37.70	Enter aspen timber bearing N. and S..
40.00	190 ft. above ravine. Set an iron post,.3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 30 and 31, mkd. on brass cap S ¼ 30 S 31 1914 from which An aspen, 3 ins. dia.,bears N.4°15'E., 18 lks. dist. mkd. ¼ S 30 B T. An aspen, 3 ins. dia.,bears S.55°45'W., 7 lks. dist. mkd. ¼ S 31 B T.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
48.00	Spur, 135 ft. above the cor., projects N.
	Descend 55 ft. to
52.50	Ravine draining N. Ascend 90 ft. to
59.00	Top of ascent bearing N. and S. Thence across flat spur.
65.00	Leave aspen timber bearing N. and S.
66.40	Descend abruptly from spur bearing N. and S.
77.00	Enter dense aspen timber bearing N. and S.
84.75	Leave aspen timber bearing N. and S. 615 ft. below spur.
84.87	Intersect W. bdy. of Tp. 8.35 chs. S.1°18'W. of the cor. of secs. 25 and 36 At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia.,24 ins. in the ground for the CC of secs. 30 and 31 mkd. on brass cap

T 12 S
R 12 E | R 13 E
S 25
S 30
CC
S 36 | S 31
1914

from which

An aspen, 3 ins. dia.,bears N.55°E.,
105 lks. dist. mkd. CC T 12 S R 13 E S 30 B T

An aspen, 6 ins. dia.,bears S.18°E.,
32 lks. dist. mkd. CC T 12 S R 13 E S 31 B T

Land rough mountains draining N. Soil red clay and black loam mixed with loose rocks on loam and rocky subsoil, 3rd rate. Timber aspen and spruce. Undergrowth, service, buck brush, and scattering grass.

Sept. 14: At the cor. of secs. 29, 30, 31 and 32, I set off 3°32'N. on the decl. arc, and at 11h 56m a.m.,l.m.t. observe the sun on the meridian the resulting lat. is 39°44'.

N.0°03'W. bet. secs. 29 and 30.

Over rough mountainous land through dense spruce and aspen timber and undergrowth of service, buck, scattering sagebrush and grass. Descend 50 ft. to

2.25	Ravine draining N.35°W. Leave timber bearing E. and W. Ascend.
21.30	Spur, 610 ft. above ravine, projects W. Descend.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
25.00	Enter aspen spruce and scattering pinon and cedar timber, bearing E. and W.
35.90	Gulch, 335 ft. below spur, drains SW. Thence through scattering timber. Ascend 150 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 29 and 30, mkd. on brass cap.

S 30 | S 29
$\frac{1}{4}$
1914

from which

A pinon, 12 ins. dia., bears S.18°E., 21 lks. dist. mkd. $\frac{1}{4}$ S 29 B T.

A cedar, 12 ins. dia., bears S.21°W., 78 lks. dist. mkd. $\frac{1}{4}$ S 30 B T.

54.35	Ridge, 520 ft. above the cor. bearing N. and S.10°E. Leave timber, thence along top of ridge.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 19, 20, 29 and 30, mkd. on brass cap

T 12 S R 13 E
S 19 | S 20.
S 30 | S 29
1914

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

Land mountainous with general W. drainage.

Soil sandy loam, gravelly and loose rocks on sandy and rocky subsoil, 3rd rate. Timber spruce, aspen and scattering pinon and cedar. Undergrowth service, buck scattering sagebrush and grass.

Sept. 14, 1914.

Sept. 15: At 7h 55m a.m., l.m.t., I set off 39°45' on the lat. arc, 3°14'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30. Thence

East on a random line bet. secs. 20 and 29.

40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.14	Intersect N. and S. line, 18 lks. S. of the cor. of secs. 20, 21, 28 and 29. Thence

S.89°52'W. on a true line bet. secs. 20 and 29.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Over mountainous land draining N. through dense aspen timber and undergrowth of scattering service brush and sage. Some grass. Gradually ascend along bench land.
9.15	Leave timber bearing N. and S.
9.60	Road bearing N. and S.
14.20	Stream 2 lks. wide, 1 in. deep, course N.
16.15	Leave bench bearing N. and S. Descend 40 ft. to
18.20	Gulch draining N. Ascend.
28.14	From this point Cor. No. 1 Lowry's field brs. S.78°04'E. Cor. No. 2 S.77°10'E. Cor. No. 3 S.42°30'E. Cor. No. 4 S.29°30'E. Cor. No. 5 S.25°35'E. Cor. No. 6 S.17°E. Cor. No. 7 S.23°40'E. Cor. No. 8 S.30°45'E. House cannot be seen from this point.
36.15	Enter scattering pinon, cedar and spruce timber, bears N and S.
40.07	440 ft. above gulch. Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in mound of stone on solid rock for the ¼ sec. cor. of secs. 20 and 29, mkd. on brass cap S 20 ¼ S 29 1914 from which A cedar, 10 ins. dia., bears N.5½°E., 91 lks. dist. mkd. ¼ S 20 B T. A cedar, 12 ins. dia., bears S.24½°W., 34 lks. dist. mkd. ¼ S 29 B T. From this cor. Cor. No. 1 Lowry's field brs. S.83°10'E. Cor. No. 2 S.80°40'E. Cor. No. 3 S.56°28'E. Cor. No. 4 S.48°20'E. Cor. No. 5 S.44°30'E. Cor. No. 6 S.38°45'E. Cor. No. 7 S.45°10'E. Cor. No. 8 S.56°10'E. Lowry's house at SW. cor. field bears S.42°20'E. This is the only point from line I am able to locate house.
47.05	Spur, 265 ft. above the cor., projects NE. Descend.
48.15	Enter dense aspen timber bearing N. and S.
54.75	Ravine, 90 ft. below spur, draining N. Ascend.
55.75	Leave aspen timber bearing N. and S.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
66.15	Edge of ridge, 605 ft. above ravine, bears N. and S.
	Thence over top of ridge, through rather dense undergrowth.
80.14	The cor. of secs. 19,20,29 and 30.
	Land mountainous draining N. Soil sandy loam mixed with gravel and rocks on sandy loam and rocky subsoil, 3rd. rate. Timber aspen and scattering pinon, cedar and spruce. Undergrowth sage, service brush and scattering grass.
	Sept. 15: At this cor. I set off 3°09'N. on the decl. arc, and at 11h 55m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°45'.
	West on a true line bet. secs. 19 and 30.
	Descending over mountainous land through undergrowth of sage, service brush and scattering grass.
23.60	Ravine, 515 ft. below the cor., draining N.
	Gradually ascend 80 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone on solid rock for the $\frac{1}{4}$ sec. cor. of secs. 19 and 30, mkd. on brass cap

S 19
$\frac{1}{4}$
S 30
1914

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

44.50	Top of ascent, 40 ft. above the cor., bears NW. and SE.
	Descend abruptly 1020 ft. to
78.75	Canyon and stream, 3 lks. wide, 2 ins. deep, course N.
	Ascend 75 ft. to
82.88	Intersect W. bdy. of the Tp. 9.67 chs. S. 1°18'W. of the cor. of secs. 24 and 25 heretofore described. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground and 12 ins. in mound of stone on solid rock for CC of secs. 19 and 30, mkd. on brass cap

T. 12 S
R 12 E | R 13 E
S 24 | S 19
CC
S 25 | S 30
1914

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

SUBDIVISION T. 12 S. R. 13 E.

Chains

Land rough mountains draining W. Soil hard dry clay mixed with rocks on clay and rocky subsoil, 4th rate. No timber. Undergrowth sage, service brush and grass.

Sept. 15, 1914.

Sept. 16: At 7h 55m a.m., l.m.t., I set off 39°45' on the lat. arc, 2°51'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30. Thence

N.0°03'W. on a true line bet. secs. 19 and 20.

Over rolling mountain top, gradually descending through sage, service brush and scattering grass.

8.50 Descend more gradually.

15.00 Enter dense spruce and aspen timber bearing E. and W. Descend abruptly E. slope.

36.10 Base of steep descent and leave timber, 735 ft. below top bearing E. and W. Thence descend over low broken hills.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 19 and 20, mkd. on brass cap

S 19 | S 20
$\frac{1}{4}$
1914

and raise mound of stone 2 ft. base, 1½ ft. high W. of cor.

88.67 330 ft. below the $\frac{1}{4}$ sec. cor. Intersect the E. and W. line 2.37 chs. S.88°26'E. of the cor. of secs. 17 and 18. At intersection

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the CC of secs. 19 and 20, mkd. on brass cap

T 12 S, R 13 E
S 18 | S 17
CC
S 19 | S 20
1914

and raise mound of stone 2 ft. base, 1½ ft. high S of cor.

Land broken mountains with N. exposure.

Soil sandy and black loam mixed with rocks on sandy and rocky subsoil, 4th rate. Timber some aspen and spruce. Undergrowth sage, service brush and grass. The survey of this Tp. was completed at 11h a.m. this day.

Sept. 16, 1914.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Sept. 5: At 7h 59m a.m., l.m.t., I set off 39°48' on the lat. arc, 7°01'N. on the decl. arc, and determine a meridian with the solar at the cor.of secs.4,5,8 and 9. Thence
	West on a sectional correction line bet. secs. 5 and 8.
	Over rugged mountainous land through pinon, cedar and spruce timber and undergrowth of sage, service brush and scattering grass.. Descend abruptly 190 ft. to
8.70	Canyon draining SW. Ascend abruptly 195.ft. to
15.25	Spur bearing S. 8 chs. Descend.
16.50	Leave timber bearing NW. and SE.
18.00	Enter Sulphur Canyon, 70 ft. below spur, bears N. and S. Thence in canyon.
20.30	Wash 20 ft. wide, 4 ft. deep, course S.
21.40	Old road bearing N. and S.
22.00	Ascend gradually in mouth of ravine from the W.
29.00	Ascend abruptly from canyon land facing NE. brs. NW. and SE.
	Enter scattering pinon, cedar and spruce timber, brs. N. & S.
36.50	Top of ascent or point, 175 ft. above canyon, falls N. Descend 75 ft. to
40.00	Ravine drains N.75°E. Point for $\frac{1}{4}$ sec. cor. falls in small wash in ravine. No cor. set at this point. Ascend.
40.75	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the WC to $\frac{1}{4}$ sec. cor. of secs. 5 and 8, mkd. on brass cap T 12 S R 13 E S 5 $\frac{\quad}{\text{S 8}}$ WC $\frac{1}{4}$ 1914 from which A spruce, 6 ins. dia., bears S. 24½°E., 24 lks. dist. mkd. W C $\frac{1}{4}$ S 8 B T. A cedar, 6 ins. dia., bears N. 57¾°W., 9½ lks. dist. mkd W C $\frac{1}{4}$ S 5 B T.
49.00	Point, 160 ft. above ravine, falls S. Descend 30 ft. to
53.20	Ravine drains S.75°E. Ascend.
54.30	Leave timber bearing NW. and SE.
69.75	Ridge, 395 ft. above ravine, bears NW. and SE. Descend.
72.00	Enter scattering pinon and cedar timber bearing N. and S.
75.75	Head of ravine, 90 ft. below the ridge, drains S.15°W.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Ascend 25 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 5,6,7 and 8, mkd. on brass cap

T 12 S R 13 E
S 6 | S 5
S 7 | S 8
1914

from which

A pinon, 8 ins. dia., bears N.77½°E.,
67 lks. dist. mkd. T 12 S R 13 E S 5 B T.
A cedar, 6 ins. dia., bears S.40¾°E.,
252 lks. dist. mkd. T 12 S R 13 E S 8 B T.
A pinon, 6 ins. dia., bears S.77¼°W.,
72 lks. dist. mkd. T 12 S R 13 E S 7 B T.
A pinon, 16 ins. dia., bears N.13½°W.,
66 lks. dist. mkd. T 12 S R 13 E S 6 B T.

Land rough broken mountains draining S. Soil sandy loam, gravelly and loose rocks on gravelly and rocky subsoil 4th rate. Timber pinon, cedar and spruce. Undergrowth sage, service brush and scattering grass.

Sept. 5: At this cor. I set off 6°56'N. on the decl. arc, and at 11h 55m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.

Sept. 9: At 7h 58m a.m., l.m.t., I set off 39°48' on the lat. arc, 5°31'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8. Thence S.0°03'E. on a true line bet. secs. 7 and 8.

Descending over mountainous land through pinon and cedar timber and undergrowth of sage, service brush and scattering grass.

12.10	Ravine, 130 ft. below the cor., drains S.15°W.
	Ascend along E. side of ravine.
14.75	Point, 35 ft. above ravine, falls W. Gradually descend.
21.00	Enter heavier timber bearing NW. and SE.
32.55	Enter bottom of canyon, 230 ft. below point, drs. S.5°W.
39.25	Canyon draining S.1°E. Descend gradually along W. side.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	ground and 12 ins. in a mound of stone on solid rock for the ¼ sec.cor.of secs.7 and 8,mkd. on brass cap S 7 | S 8 ¼ 1914 from which A spruce, 12 ins. dia.,bears N.34°E., 26 lks. dist. mkd. ¼ S 8 B T. A spruce, 16 ins. dia.,bears S.42°W., 23 lks. dist. mkd. ¼ S 7 B T.
62.83	Intersect E. and W. line 2.54 chs. N.89°52'E. of the cor. of secs. 17 and 18. At intersection Set an iron post, 3 ft. long, 2 ins.dia.,24 ins.in the ground for the CC of secs.7 and 8,mkd.on brass cap T 12 S | R 13 E S 7 | CC | S 8 S 18 | S 17 1914 from which A spruce, 14 ins.dia.,bears N.52½°E., 72 lks. dist. mkd. CC T 12 S R 13 E S 8 B T. A cedar, 8 ins. dia.,bears N.60¼°W., 21 lks. dist. mkd. CC T 12 S R 13 E S 7 B T. Land mountainous draining S. Soil red clay sandy loam and rocky subsoil, 4th rate. Timber pinon, cedar and spruce. Undergrowth sage,service brush and scattering grass.
	Sept. 5: For solar observation see line bet.secs.5 and 8. From the cor.of secs.5, 6, 7 and 8 West on a true line bet. secs. 6 and 7. Over rough mountainous land through scattering pinon and cedar timber and undergrowth of sage,service brush and grass. Ascend 160 ft. to
11.60	Spur projects S.10°W. Descend 365 ft. to
25.85	Ravine draining S. Ascend 250 ft. to
34.50	Spur projecting S. Descend 185 ft. to
40.00	Set an iron post 3 ft.long,1 in.in dia.,24 ins.in the ground for the ¼ sec.cor.of secs.6 and 7,mkd.on brass cap S 6 ¼ S 7 1914

SUBDIVISION T. 12 S. R. 13 E.

Chains

from which

A pinon, 12 ins. dia., bears N.51½°E.,

24 lks. dist. mkd. ¼ S 6 B T.

A pinon, 14 ins. dia., bears S.57¾°W.,

21 lks. dist. mkd. ¼ S 7 B T.

45.60 Bottom of ravine and stream, 2 lks. wide, ½ in. deep, drains S. 170 ft. below the cor.

Ascend 550 ft. to

68.00 Spur projecting S.

Timber becomes very scattering bears N. and S.

Descend 355 ft. to

79.40 Ravine and stream, 1 lk. wide ½ in. deep, drains S.

80.34 Intersect W. bdy. Tp. 16.56 chs. S.0°04'E. of the old cor. of secs. 6 and 7.

At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC of secs. 6 and 7, mkd. on brass cap

T 12 S
R 12 E | R 13 E
S 1
S 6
CC
S 12 | S 7
1914

from which

A cedar; 6 ins. dia., bears N.60°E.,

65 lks. dist. mkd. CC T 12 S R 13 E S 6 B T.

A cedar; 6 ins. dia., bears S.44°E.,

21½ lks. dist. mkd CC T 12 S R 13 E S 7 B T.

NOTE: I destroy all marks on old cor. and mark same for W P.

Land rough mountains draining S.

Soil gravelly, rocky and some sandy loam on gravelly and rocky subsoil, 4th rate.

Timber pinon, cedar and some spruce.

Undergrowth sage, service brush and grass.

Sept. 5, 1914.

SUBDIVISION T. 12 S. R. 13 E.

Chains	
	Sept. 9: At the cor. of secs. 5, 6, 7 and 8, I set off 5°26'N. on the decl. arc, and at 11h 58m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°48'.
	N.0°03'W. on a random line bet. secs. 5 and 6.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
69.27	Intersect N. bdy. of Tp. 7 lks. E. of the cor. of secs. 5, 6, 31 and 32 heretofore described.
	Thence
	S.0°06'E. on a true line bet. secs. 5 and 6.
	Gradually descending over mountainous land along W. side of Sulphur Canyon near bottom of same, through sage, service brush and grass.
9.77	Mouth of canyon draining E. to Sulphur Canyon, thence S. Ascend 330 ft. to
29.27	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 5 and 6, mkd. on brass cap $S\ \frac{1}{4}\ 6 \mid S\ 5$ 1914 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
34.77	Enter grove of spruce timber bearing E. and W.
43.77	Leave timber bearing E. and W.
50.07	Enter pinon and cedar timber bearing E. and W.
50.27	Ridge, 505 ft. above the cor., bears NW. and SE.
	Thence along top of ridge bearing S.
58.77	Ridge turns SE. Descend 240 ft. to
69.27	The cor. of secs. 5, 6, 7 and 8.
	Land broken mountains draining S.
	Soil gravelly and rocky mixed with sandy loam on gravelly and rocky subsoil, 4th rate.
	Timber spruce, pinon and cedar.
	Undergrowth sage, service brush and scattering grass.
	Sept. 9, 1914.

Note:

Knowing that I had not sufficient one-inch iron posts for the entire township; and the northeast portion being almost inaccessible, I set stone $\frac{1}{4}$ sec.corners between secs.1 and 12, 1 and 2, 2 and 11, 10 and 11, and 2 and 3.

GENERAL DESCRIPTION.

This township is generally rough, mountainous land. Nine Mile Creek, flowing through secs.12,13,14,15,16,17, and 18, is the main drainage; the remaining portion of the township drains into this creek.

The soil of the south portion of the township is generally dark, rich loam and loose rock; and is covered with a good growth of grass and considerable underbrush of sage and service berry.

The soil of the north portion of the township is generally a light, sandy loam and loose rock; and is covered with a medium growth of grass.

The township is generally covered with a scattering growth of cedars and pinon pine. On the south two tiers are found numerous groves of dense quaking aspen and spruce.

Along Nine Mile Canyon is found considerable agricultural land, most of which has been settled. W.A.Lowry has settled in the NE.corner of sec.29, with improvements consisting of a frame house, dipping vats and fencing, valued at $1500.00. There are no other settlers on the portion of the township surveyed by me.

The land of this township is too rough and broken to be cultivated, but affords excellent grazing for sheep and cattle.

Water is found in Nine Mile Creek; in Sheep Creek, flowing through secs.25 and 36; in Cow Canyon, flowing

GENERAL DESCRIPTION, T.12 S., R.13 E.

through secs.15, 22, 26, 27, 32, 33, and 34; in a creek flowing through secs.19, 30, and 31; and in a spring in sec.29 in front of Lowry's house, the water flowing into sec.20.

I found no indications of mineral in this township.

Ralph Gurley
U.S.Surveyor.

BOOK A-411

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 see book "B" T. 12 S., R. 13 E. and T. 17 S. R. 16 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.

....
U. S. Surveyor.

6—2761

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 Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of U.S.Surveyor see book "B" T.12 S., R.13 E.and T.17 S.R.16 E.

_____ 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, February 1 , 191 6

The foregoing field notes of the ~~xxxxxx~~ retracement of the east and south boundaries, resurvey of the east and west boundaries; and the re-survey and survey of the subdivisional lines of Township 12 South, Range 13 East of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry

under his special instructions dated April 27, 191 4, having bee critically examined, and the necessary corrections and explanations made, the said field notes, and th 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.

6—2764

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E.R.
M.F.B.

4—679

BOOK A-411
B.

FIELD NOTES

OF THE SURVEY OF THE

NORTH BOUNDARY OF T. 12 S. R. 13 E.

and

NORTH, EAST, SOUTH AND WEST BOUNDARIES OF

T. 17 S. R. 16 E.

Of the Salt Lake Base and _____ *Meridian,*

the State of UTAH

EXECUTED BY

RALPH GENTRY

the capacity of U. S. Surveyor...., under instructions dated April 27 , 1914,

ued by the United States Surveyor General to govern surveys included in

roup No. 28 , *which were approved by the Commissioner of the General Land*

fice, May 16 , 1914

Survey commenced August 25 , 1914

Survey completed October 24 , 1914

6—151

BOOK A-111

INDEX DIAGRAM.

Township 12 South, *Range* 13 East

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

4—679

BOOK A-411

FIELD NOTES

OF THE SURVEY OF THE

Of the ..... *Meridian,*

the State of .....

EXECUTED BY

---

the capacity of U. S. Surveyor...., under instructions dated....., 191....,

sued by the United States Surveyor General to govern surveys included in

roup No. ....., which were approved by the Commissioner of the General Land

fice, ..., 191....

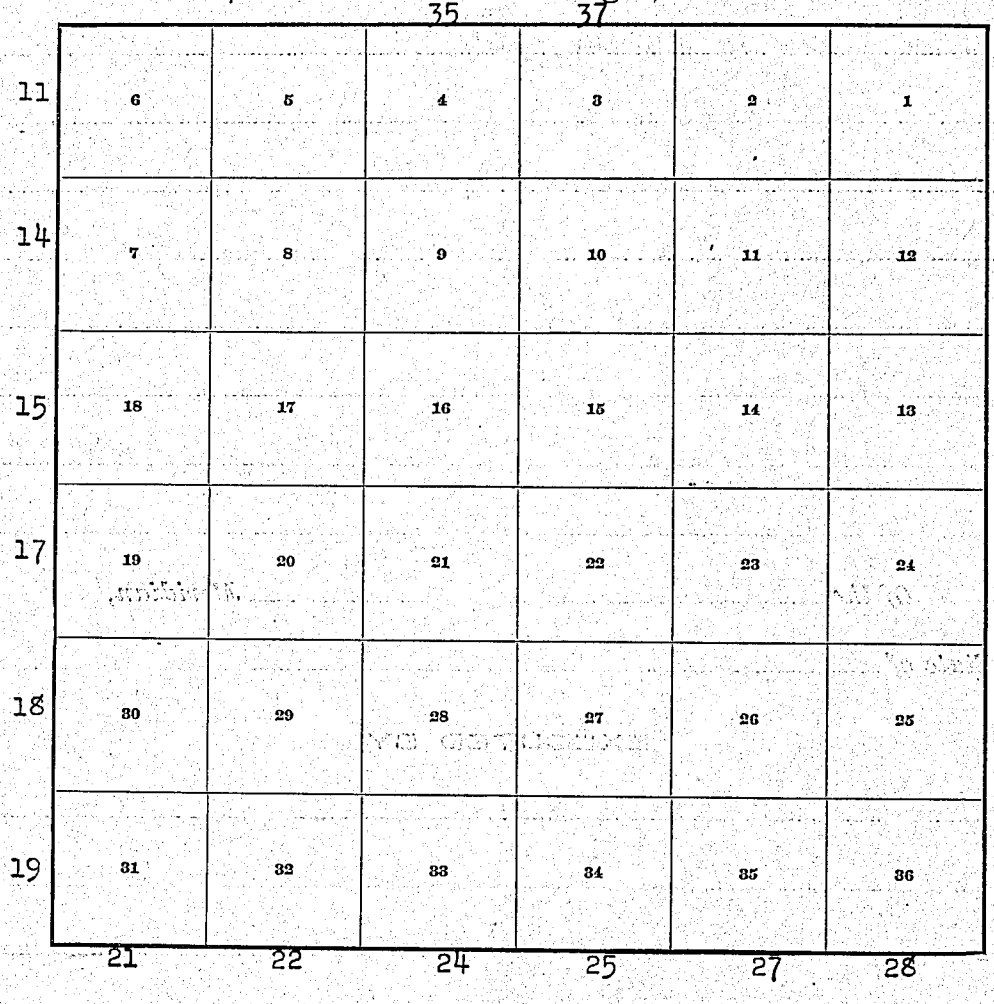
Survey commenced ....., 191....

Survey completed ....., 191....

6—151

INDEX DIAGRAM.

Township 17 South, *Range* 16 East



6-151

NORTH BDY. T. 12 S. R. 13 E.

Chains	
	Survey commenced Aug. 25, 1914, and executed with a Young and Sons light mountain transit No. 8584 with Smith's solar attachment. The horizontal limb is 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 instrument was approved for use in this survey by Mr. G.D.D.Kirkpatrick, Assistant Supervisor of Surveys. I know the instrument to be in good adjustment having tested it during the survey of the subdivision of T. 12 S. R. 13 E.
	Steel tapes 5 chs. long were used in all the field work on this survey, together with a clinometer for determining slope angles and the reduced horizontal distances only appear in the official field notes. The tapes were tested during the survey, comparison being made with a standard tape 1 ch. long kept and used for that purpose.
	I begin at the cor. of Tps. 11 and 12 S. Rs. 13 and 14 E. heretofore described.
	August 25: At 9h 02m a.m.,l.m.t., I set off 39°49' on the lat. arc, 10°55'N. on the decl. arc. and determine a meridian with the solar at the above cor.
	Having resurveyed the E. and W. boundaries of T. 12 S.R. 13 E. I have found that the N. bdy. of T. 12 S. R. 13 E. will not intersect the cor. of Tps. 11 and 12 S. Rs. 12 and 13 E. within limits of 21' of arc; therefore from cor. of Tps. 11 and 12 S. Rs. 13 and 14 E. I run West on a true line bet. secs. 1 and 36.
	Over rolling mountain top through dense pinon and cedar timber and undergrowth of scattering sagebrush and grass.
	Ascend.
4.00	Top of ridge, 30 ft. above cor., thence along top of rolling mountain.
33.50	Descend along N. slope of ridge.

NORTH BDY. T. 12 S.R. 13 E.

Chains	
36.00	Timber becomes very scattering, brs. NE. and SW.
40.00	55 ft. below top of ridge. Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in mound of stone on solid rock for $\frac{1}{4}$ sec. cor. of secs. 1 and 36, marked on brass cap S $\frac{1}{4}$ 36 S 1 1914 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
	No bearing trees available.
44.00	Ravine, 35 ft. below $\frac{1}{4}$ sec. cor., heads 5 chs. S. drains N.
	Ascend 105 ft. to
51.00	Spur projects N. Descend 120 ft. to
65.30	Ravine, heads 6 chs. S., drains N. Ascend 95 ft. to
77.00	Spur, projects N. Descend 10 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., set 12 ins. in the ground and 12 ins. in mound of stone on solid rock for cor. of secs. 1,2,35 and 36, mkd. on brass cap T 11 S R 13 E S 35 | S 36 S 2 | S 1 T 12 S 1914 from which
	A pinon, 16 ins. dia., bears N.51¼°E., 18½ lks. dist. mkd. T. 11 S.R.13 E.S. 36 B T.
	A pinon, 3 ins. dia., bears S.10°E., 69 lks. dist., mkd. T. 12 S.R.13 E.S. 1 B T.
	A pinon 6 ins. dia., bears S.60¼°W., 2¼ lks. dist., mkd. T. 12 S.R.13 E.S. 2 B T.
	A pinon 8 ins. dia., bears N.5¾°W. 56 lks. dist., mkd. T.11 S.R. 13 E.S. 35 B T.
	Land rolling mountains, drains N.
	Soil, gravelly, loose rocks and sandy loam on sandy loam and rocky subsoil; 4th rate.
	Timber, pinon and cedar.
	Undergrowth, sagebrush and grass.

NORTH BDY. T. 12 S. R. 13 E.

Chains	
	Aug. 25: At this cor. I set off 10°53'N. on the decl. arc, and at 12h.02m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°39'.
	West bet. secs. 2 and 35.
	Gradually descend along N. slope of ridge, through scattering pinon and cedar timber, undergrowth of sage and scattering service brush and grass.
18.55	Gulch, 290 ft. below cor., heads 8 chs. S., drains N.
	Ascend 110 ft. to
22.20	Spur projects N. Descend.
31.00	Enter heavier timber, brs. N. and S.
40.00	305 ft. below spur. Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 2 and 35, mkd. on brass cap $\frac{\frac{1}{4} \text{ S } 35}{\text{S } 2}$ 1914 from which A spruce, 4 ins. in dia., bears N.28$\frac{1}{4}$°E., 10$\frac{1}{2}$ lks. dist. marked $\frac{1}{4}$ S 35 B T. A spruce, 4 ins. dia., bears S.57$\frac{1}{2}$°E., 8 lks. dist. marked $\frac{1}{4}$ S 2 B T.
47.60	Canyon, 90 ft. below cor., bears N.65°E.
	Ascend 465 ft. to
80.00	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, mkd. on brass cap T 11 S R 13 E S 34 | S 35 S 3 | S 2 T 12 S 1914 from which A pinon 10 ins. dia., bears N.37°30'E., 47 lks. dist. mkd. T. 11 S. R. 13 E. S. 35 B T. A pinon 12 ins. dia., bears S.52$\frac{1}{4}$°E., 33 lks. dist., mkd. T. 12 S R 13 E S 2 B T.

NORTH BDY. T. 12 S. R. 13 E.

Chains

A pinon 7 ins. dia., bears S. 9¼° W.,
25 lks. dist., mkd. T. 12 S. R. 13 E S 3 B T.
A pinon 7 ins. dia., bears N. 63¾° W.,
19 lks. dist. mkd. T 11 S R 13 E S 34 B T.

Land mountainous, N. exposure.

Soil, gravelly, sandy loam and loose rocks on rocky and sandy subsoil, 4th rate.

Timber, pinon, cedar and some spruce.

Undergrowth, sage, service brush and scattering grass.

Aug. 25, 1914.

Aug. 27: At 9h 02m a.m., l.m.t., I set off 39°49' on the lat. arc, 10°14' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35.

Thence

West bet. secs. 3 and 34.

Ascend over rolling mountainous land through pinon, cedar and spruce timber and scattering undergrowth of sage, service brush and grass.

8.00 Timber becomes very scattering, brs. NE. and SW.

10.50 Spur, 115 ft. above cor., bears N. 75° E. Descend.

26.10 Enter heavy timber, brs. NE. and SW.

35.75 Ravine, 450 ft. below spur, drains NE. Ascend.

36.30 Timber becomes very scattering, bears NE. and SW.

40.00 95 ft. above ravine. Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground and 8 ins. in mound of stone on solid rock for ¼ sec. cor. of secs. 3 and 34, mkd. on brass cap

$$\frac{\frac{1}{4}\ S\ 34}{S\ 3}$$
1914

from which

A pinon 12 ins. dia., bears N. 57½° E.,
59 lks. dist. mkd. ¼ S 34 B T.
A cedar, 6 ins. dia., bears 36¼° W.,
78 lks. dist. mkd. ¼ S 3 B T.

NORTH BDY. T. 12 S. R. 13 E.

Chains	
69.50	Spur, 295 ft. above ravine, projects NE. Desc. 115 ft. to
80.00	Set an iron post 3 ft. long 3 ins. in dia., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34 with brass cap marked

T 11 S R 13 E
S 33 | S 34
S 4 | S 3
T 12 S
1914

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

Land rolling mountains, drains N.

Soil sandy loam and loose rocks on sandy and rocky sub-soil, 4th rate.

Timber pinon, cedar and spruce.

Undergrowth scattering sage, service brush and grass.

Aug. 27: At this cor. I set off 10°11'N. on the decl. arc, and at 12h 02m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°49'.

West bet. secs. 4 and 33.

Over rolling mountainous land, through scattering pinon and cedar timber and undergrowth of sage, service brush and grass. Descend.

5.55	Ravine, 80 ft. below cor., drs. NE. Ascend.
9.00	Top of ascent on N. side of ravine, 95 ft. above bottom; descend.
16.75	Ravine, 45 ft. below top of ascent drains SE.
	Leave scattering timber brs. NW. and SE. Ascend 350 ft. to
32.00	Top of Argyle Ridge, brs. N. and SE.
	Gradually descend along rolling top of ridge.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. mkd. on brass cap

¼ S 33
S 4
1914

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.

NORTH BDY. T. 12 S. R. 11 E.

Chains	
	August 27, 1914.
	Sept. 2: At 9h a.m.,l.m.t., I set off 39°49' on the lat. arc, 8°05'N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. of secs. 4 and 33.
	Thence West
56.00	Desc. through scattering pinon and cedar timber and scattering undergrowth bearing NW. and SE.
62.00	Enter heavier timber bearing N. and S.
77.35	Canyon, 945 ft. below top of ridge, drs. S.
	Ascend 105 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for the cor.of secs. 4, 5, 32 and 33, mkd. on brass cap

T 11 S R 13 E

S 32	S 33
S 5	S 4

T. 12. S
1914

from which

A pinon 12 ins. dia., bears N.74¾°E.,
32 lks. dist. mkd. T 11 S.R. 13 E.S.33 B T.

A pinon 8 ins. dia.,bears S.47¾°E.,
9½ lks. dist. mkd. T 12 S R 13 E S 4 B T.

A spruce 6 ins. dia.,bears S.48½°W.,
58 lks. dist. mkd. T 12 S R 13 E S 5 B T.

A pinon 14 ins. dia.,bears N.7¼°W.,
39 lks. dist. mkd. T 11 S R 13 E S 32 B T.

Land mountainous drains N. into Argyle Canyon on E. 32 chs. and S into Nine Mile Canyon W. 48 chs.

Soil sandy loam and loose rocks on sandy and rocky subsoil, 4th rate.

Timber, pinon, cedar and some spruce.

Undergrowth sage, service brush and grass.

Sept. 2: At this cor. I set off 8°02'N. on the decl. arc, and at 12h am,l.m.t. observe the sun on the meridian, the resulting lat. is 39°49'.

NORTH BDY. T. 12 S. R. 13 E.

Chains	
	West bet. secs. 5 and 32.
	Over rough mountainous land through spruce, pinon and cedar timber and undergrowth of sage, service brush and grass.
	Ascend abruptly 625 ft. to
14.50	Spur projects S. Descend 530 ft. to
33.30	Gulch heads 10 chs. S., drains N. Ascend 105 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in mound of stone, on solid rock, for ¼ sec. cor. of secs. 5 and 32, mkd. on brass cap

¼ S 32

S 5
1914

from which

A spruce, 10 ins. dia., bears N. 31¼°W., 33 lks. dist. mkd. ¼ S 32 B T.

A pinon 10 ins. dia., bears S. 62½°E., 23 lks. dist. mkd. ¼ S 5 B T.

September 2, 1914.

Sept. 3: At 9h a.m., l.m.t., I set off 39°49' on the lat. arc, 7°43'N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. of secs. 5 and 32.

	Thence West.
41.50	Spur projects N. 40 ft. above ¼ sec. cor. Descend.
47.00	Timber becomes scattering, brs. NE. and SW.
62.80	Ravine 545 ft. below spur, drains SW.
	Ascend 165 ft. to
69.50	Spur projects SW. Descend.
71.00	Leave timber bearing N. and S.
74.00	Enter Sulphur Canyon, 90 ft. below spur, bears N. and S.
79.05	Wash 30 lks. wide, 6 ft. deep, drains S. 15°E.
	Ascend 35 ft. to
80.00	Set an iron post 3 ft. long 3 ins. in dia., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, mkd. on brass cap

NORTH BDY. T. 12 S. R. 13 E.

Chains	
	T 11 S. R 13 E S 31 | S 32 S 6 | S 5 T 12 S 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, rough mountains, drains S.
	Soil loose shale rock, rocky, blue clay and loam on rocky and clay subsoil, 4th rate.
	Timber spruce, pinon and cedar.
	Undergrowth, sage, service brush and grass.
	West bet. secs. 6 and 31.
	Ascend over rugged mountainous land through undergrowth of sage, service brush and grass.
19.30	Spur, 495 ft. above cor., projects SE. Descend.
20.00	Enter scattering pinon and cedar timber bearing NW. and SE.
40.00	320 ft. below spur. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. of secs. 6 and 31 with brass cap mkd. ¼ S 31 S 6 1914
	from which
	A pinon 16 ins. dia., bears N. 27½° E., 49 lks. dist. mkd. ¼ S 31 B T.
	A pinon 16 ins. dia., bears S. 62½° W., 33 lks. dist. mkd. ¼ S 6 B T.
	Sept. 3: At this cor. I set off 7°40' N. on the decl. arc, and at 12h a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°39'.
41.35	Gulch draining S. 15° E. Ascend.
46.50	Spur, 260 ft. above gulch, projects S. 15° E. Descend 135 ft. to
54.40	Gulch draining SE. Ascend.
67.00	Leave timber bearing NW. and SE.
79.00	Top of ridge, 440 ft. above gulch, bears N. and S.

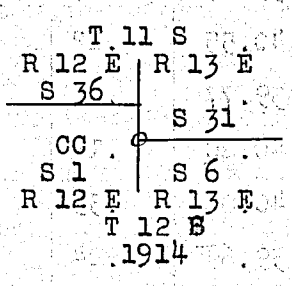
NORTH BDY. T. 12 S. R. 13 E.

Chains

80.18 Intersect W. bdy. of Tp. 27.23 chs. south of the cor. of Tps. 11 and 12 S. R. 12 E. heretofore described.

At intersection.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the C.C. of Tps. 11 and 12 S. R. 13 E. mkd. on brass cap.



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

Land rough mountains draining S.

Soil hard, dry, blue clay mixed with rocks on clay and rocky subsoil, 4th rate.

Timber pinon and cedar.

Undergrowth sage, service brush and grass.

September 3, 1914.

For General Description ~~and final oath of Surveyor and Assistants~~ see notes of Subdivision of T. 12 S. R. 13 E.

BOUNDARIES OF T. 12 S. R. 13 E.

Lines Designated	Course	Distance	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
S.bdy.Tp.	N.87°56'W.	46.72	1.68			46.69
	S.89°17'W.	39.48		.50		39.48
	N.88°56'W.	39.06	.73			39.05
	N.89°54'W.	39.83	.07			39.83
	N.89°50'W.	40.55	.12			40.55
	N.89°35'W.	39.77	.29			39.77
	N.89°50'W.	40.20	.12			40.20
	N.89°30'W.	40.08	.35			40.08
	N.89°39'W.	39.69	.24			39.69
	S.89°18'W.	40.27		.49		40.27
	N.88°31'W.	39.89	1.04			39.89
	S.89°39'W.	15.80		.09		15.80
	N.15°52'E.	3.11	2.99		.85	
	S.89°25'W.	25.60		.25		25.60
W.bdy.Tp.	N.1°18'E.	243.72	243.66		5.52	
	N.0°04'W.	159.36	159.36			.18
	North	52.77	52.77			
N.bdy.Tp.	East	480.18			480.18	
E.bdy.Tp.	S.0°02'E.	306.10		306.10	.18	
	S.0°29'E.	77.06		77.06	.64	
	South	39.93		39.93		
	S.1°16'W.	39.70		39.69		.88
	Convergency				.60	
			463.42	464.21	487.97	487.96
				463.42	487.96	
	Error in lat. and dep.			.79	.01	

WEST BDY. T. 17 S. R. 16 E.

Chains

Survey commenced Sept. 24, 1914 and executed with Young and Sons light mountain transit No. 8584 with Smith solar attachment. The horizontal limb is 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 lat. and dec. arcs.

The instrument was approved for use in this survey by Mr. G.D.D.Kirkpatrick, Assistant Supervisor of Surveys.

I know the instrument to be in good adjustment, having tested it on a meridian determined by observations made on Polaris Sept. 21. For record of this test see subdivision of T. 17 S. R. 16 E.

A steel tape 2 chs. long was used in all the field work, together with a clinometer for determining slope angles and the reduced horizontal distances only appear in the notes. The tape was tested, comparison being made with a standard tape 1 ch. long, kept and used for that purpose.

Sept. 24: For solar observation see line bet. secs. 6 and 31, N. bdy. T. 17 S. R. 16 E. in book of Subdivisions of T. 17 S. R. 16 E.

I begin at the cor. of Tps. 16 and 17 S. Rs. 15 and 16 E. heretofore described.

Thence

South bet. secs. 1 and 6.

Over rough mountainous land through scattering cedar and pinon timber and undergrowth of mahogany, service brush and grass.

Ascend abruptly.

6.60 Enter dense timber, brs. E. and W. Undergrowth becomes scattering.

14.60 Ridge, 650 ft. above Tp. cor., brs. E. and W.

Sept. 24, 1914.

Sept. 25: At 9h 22m a.m., l.m.t., I set off 39°23' on the lat. arc, 0°41'S. on the decl. arc, and determine a meridian with the solar at the 14.60 ch. point.

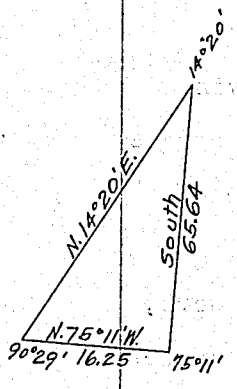
WEST BDY. T. 17 S. R. 16 E.

Chains

Thence South

The line S. of this point cannot be chained on account of high perpendicular ledges, I therefore triangulate as follows:

Being unable to measure a base at this point, I set a point on line to the S. and erect a flag at this point. Then from point on line measure a base line N.75°11'W. 16.25 chs. (This is the longest base I am able to obtain to a point whence the flag to the N. bears N.14°20'E. By several readings I find that the base subtends an angle of 90°29' to the flag.



Log. 16.25 chs.	=	1.210853
Log. sin 90°29'	=	9.999985
Colog sin 14°20'	=	0.606315
Log. 65.64 chs.	=	1.817153

65.64 chs. + 14.60 chs. =

80.24 To point of triangulation. I measure N. 24 lks. to

80.00 Set an iron post 3 ft. long 3 ins. in dia., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, mkd. on brass cap

T 17 S
R 15 E | R 16 E
S 1 | S 6
S 12 | S 7
1914

from which

A pinon 4 ins. dia., bears N.85½°E.,
17 lks. dist. mkd. T 17 S R 16 E S 6 B T

A pinon 4 ins. dia., bears S.53¼°E.,
36 lks. dist. mkd. T 17 S R 16 E S 7 B T

A pinon 5 ins. dia., bears S.9¾°W.,
33 lks. dist. mkd. T 17 S R 15 E S 12 B T.

A pedar 10 ins. dia., bears N.72¼°W.,
130 lks. dist. mkd. T 17 S R 15 E S 1 B T.

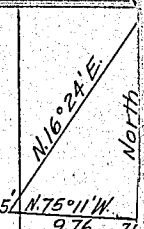
From point of triangulation 80.24 chs. S. of tp. cor. I set a flag on line N. in approximate vicinity of the ¼ sec. cor., then measure a base line N.75°11'W. 9.76 chs. to a point whence flag brs. N.16°24'E. The base subtends an angle of 88°25' to the flag, therefore

WEST BDY. T. 17 S. R. 16 E.

Chains

Log. 9.76 chs. = 0.989450
Log sin 88°25' = 9.999834
Colog sin 16°24' = 0.549225

Log. 34.56 chs. = 1.538509



80.24 chs. - 34.56 chs. = 45.68 chs. or dist. S. of cor. Tps. 16 and 17 S. Rs. 15 and 16 E. I now measure N. 24 lks. to

45.44 Unable to measure N. on account of ledges, therefore at this point

I set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for W.C. to ¼ sec. cor. mkd. on brass cap

T 17 S
R 15 E R 16 E
WC ¼
S 1 | S 6
1914

from which

A cedar 6 ins. dia., bears N.56°E.,
25½ lks. dist. mkd. W C. ¼ S 6 B T.

A pinon 8 ins. dia., bears S.41½°W.,
42 lks. dist. mkd. W.C ¼ S 1 B T.

The topography on this line S. of the 14.60 ch. point reads:

Desc. over series of perpendicular sandstone ledges bearing E. and W.

40.00 Point for ¼ cor. falls on ledges, no cor. set.

45.44 To W.C. to ¼ sec. cor. 700. ft. below ridge.

Sept. 25: At this cor. I set off 0°44'S. on the decl. arc, and at 11h 52m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°22'.

76.55 Bottom of Metches Canyon and stream, 1 lk. wide, 1 in. deep 540 ft. below W C, drs. S.85°E.

Ascend 70 ft. to

80.00 The cor. of secs. 1, 6, 7 and 12.

Land rough broken mountains, chiefly ledges.

Soil, rocky and clay on rocky subsoil, 4th rate.

Considerable bed rock.

Timber, cedar and pinon.

WEST BDY. T. 17 S. R. 16 E.

Chains	
	Undergrowth, mahogany, service brush and grass. Sept. 25, 1914.
	Sept. 26: At 8h 22m a.m.,l.m.t., I set off 39°22' on the lat. arc, 1°03'S. on the decl. arc, and determine a meridian at the cor. of secs. 1, 6, 7 and 12.
	Thence
	South, bet. secs. 7 and 12.
	Ascend abruptly mountainous land through cedar and pinon timber; undergrowth of scattering service, sagebrush and grass.
19.00	Leave dense timber, begin ascent over series of broken sandstone ledges, brs. E. and W.
39.30	Top of ledge 50 ft. high and ridge 1170 ft. above cor. bears E. and W.
	Descend abruptly over ledges 75 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in diam., 24 ins.in md. of stone on solid rock for ¼ sec. cor. of secs. 7 and 12, with brass cap mkd.
	S 12 ¼ | S 7
	1914
	from which
	A pinon 4 ins. dia.,bears S.19¼°E.,
	34 lks. dist. mkd. ¼ S 7 B T .
	A cedar 8 ins. dia.,bears N.61½°W.,
	97 lks. dist. mkd. ¼ S 12 B T
	Sept. 26: At this cor. I set off 1°07'S. on the decl. arc, and at 11h 52m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°21'.
61.00	Bottom of canyon, 880.ft. below ¼ sec. cor. drains S.75°E.
	Enter heavier timber. Ascend abruptly over ledges 610 ft.
80.00	Set an iron post 3 ft. long, 3 in. in dia. 24 ins. in the ground for the cor. of secs. 7, 12, 13 and 18, mkd. on brass cap

T 17 S .
R 15 E R 16 E
S 12 | S 7
S 13 | S 18
1914

WEST BDY. T. 17 S. R. 16 E.

Chains

from which

A pinon 10 ins. dia., bears N. 2½°E.,

40 lks. dist. mkd. T 17 S R 16 E S 7 B T

A pinon 12 ins. dia., bears S. 50°E.,

10°lks. dist. mkd. T 17 S R 16 E S 18 B T

A pinon 12 ins. dia., bears S. 87½°W.,

32 lks. dist. mkd. T 17 S R 15 E S 13 B T

A cedar 10 ins. dia., bears N. 55¼°W.,

37 lks. dist. mkd. T 17 S R 15 E S 12 B T.

Land rough broken mountains, with steep slopes into canyons.

Soil rocky, sandstone formation and clay on rocky and clay subsoil, 4th rate.

Timber, cedar and pinon.

Undergrowth, sage, service brush and grass.

Sept. 26, 1914.

Sept. 28: At 8h 21m a.m., l.m.t., I set off 39°21' on the lat. arc, 1°50'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence

South bet. secs. 13 and 18.

Asc. abruptly over rough mountainous land and sandstone ledges, through scattering pinon and cedar timber and undergrowth of sage, mahogany brush and grass.

1.90 Spur, 110 ft. above cor., projects E.

Descend abruptly over ledges.

17.30 Canyon, 570 ft. below spur, drains E. Ascend abruptly over ledges.

34.65 Spur, 510 ft. above canyon, projects NE.

Descend 50 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 13 and 18, mkd. on brass cap

S 13 ¼ | S 18

1914

WEST BDY. T. 17 S. R. 16 E.

Chains	
	from which
	A pinon 5 ins. dia., bears N. 31¾°E.,
	27½ lks. dist. mkd. ¼ S 18 B T.
	A pinon 6 ins. dia., bears N. 47¾°W.,
	24 lks. dist. mkd. ¼ S 13 B T.
	Sept. 28: At this ¼ cor. I set off 1°54'S. on the decl. arc, and at 11h 51m a.m., l.m.t., I observe the sun on the meridian, the resulting lat. is 39°20'.
50.60	Gulch, 95 ft. below cor., drains NE.
	Ascend abruptly over ledges.
63.70	Ridge, 260 ft. above gulch, bears E. and W.
	Descend abruptly 545 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in diam. in mound of stone on solid rock for cor. of secs. 13, 18, 19 and 24, mkd. on brass cap

T 17 S
R 15 E | R 16 E
S 13 | S 18
S 24 | S 19
1914

from which

A cedar 6 ins. dia., bears N. 80¼°E.,
33½ lks. dist. mkd. T 17 S R 16 E S. 18 B T.
A pinon 6 ins. dia., bears S. 30¾°E.,
45 lks. dist. mkd. T 17 S R 16 E S. 19 B T.
A pinon 6 ins. dia., bears S. 32°W.,
36 lks. dist. mkd. T 17 S R 15 E S 24 B T.
A pinon 6 ins. dia., bears N. 70¾°W.,
72 lks. dist. mkd. T 17 S R 15 E S 13 B T.

Land rough broken mountains, steep slopes with ledges into canyons, drains E.

Soil rocky of sandstone formation and clay on rocky and clay subsoil, 4th rate.

Timber, pinon and cedar.

Undergrowth, scattering sage, mahogany and grass.

Sept. 28, 1914.

WEST BDY. T. 17 S., R. 16 E.

Chains	
	Sept. 29: At 8h 51m a.m., l.m.t., I set off 39°20' on the lat. arc, 2°14'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.
	Thence
	South, bet. secs. 19 and 24.
	Descend over rough rocky mountainous land, through scattering pinon and cedar timber and undergrowth of mahogany, sagebrush and grass.
2.90	Head of ravine, 50 ft. below cor. Thence in bottom of ravine.
19.30	Ravine turns SW. Stream in same 1 lk. wide 1 in. deep.
	Ascend 215 ft. to
31.70	Top of ascent on E. side of ravine.
	Descend along E. side of same.
40.00	185 ft. below top of ascent. Set an iron post, 3 ft. long 1 in. in dia., 18 ins. in the ground and 8 ins. in stone on solid rock for ¼ sec. cor. of secs. 19 and 24, with brass cap mkd. S 24 ¼ | S 19 1914.
	from which
	A cedar, 8 ins. dia., bears N.36½°E.,
	46 lks. dist. mkd. ¼ S 19 B T.
	A pinon 8 ins. dia., bears N.20¾°W.,
	48 lks. dist. mkd. ¼ S 24 B T.
	Sept. 29: At this cor. I set off 2°17'S. on the decl. arc, and at 11h 51m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°19'.
73.50	Bottom of descent, 350 ft. below ¼ sec. cor.
	Gradually ascend 30 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., in mound of stone on solid rock for cor. of secs. 19, 24, 25 and 30, mkd. on brass cap

WEST BDY. T. 17 S. R. 16 E.

Chains	
	T 17 S. R 15 E | R 16 E S. 24 | S 19 S 25 | S 30 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. No bearing trees available.
	Land, rough mountains, drains SW.
	Soil rocky sandstone formation and gray clay on rocky and clay subsoil, 4th rate.
	Timber, pinon and cedar.
	Undergrowth, scattering mahogany, sagebrush and grass.
	Sept. 29, 1914.
	Sept. 30: At 8h 20m a.m., l.m.t., I set off 39°19' on the lat. arc, 2°36'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30.
	Thence
	South bet. secs. 25 and 30.
	Gradually ascend rocky mountainous land, through scattering cedar and pinon timber and undergrowth of mahogany, sagebrush and grass.
15.00	Top of ascent, 105 ft. above cor.
	Gradually descend along E. side of ravine.
40.00	125 ft. below top of ascent. Set an iron post, 3 ft. long 1 in. in dia., 18 ins. in the ground and 8 ins. in mound of stone on solid rock for the ¼ sec. cor. of secs. 25 and 30, mkd. on brass cap S. 25. ¼. | S. 30 1914 from which A cedar, 10 ins. dia., bears N. 23¼°E., 57½ lks. dist. mkd. ¼ S 30 B T. A cedar, 7 ins. dia., bears N. 10½°W., 98 lks. dist. mkd. ¼ S 25 B T.
42.70	Descend abruptly over sandstone ledges, bearing NW. and SE.

WEST BDY. T. 17 S., R. 16 E.

Chains	
57.85	Ravine, 345 ft. below cor., course SE.
	Thence over level point.
	Junction of two canyons 6 chs. E.
60.00	Turtle Canyon drains E. Ascend 285 ft. to
75.00	Rocky spur projects E. Descend abruptly 190 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 17 S
R 15 E | R 16 E
S 25 | S 30
S 36 | S 31
1914

from which

A cedar 7 ins. dia., bears N.80½°E.,
112 lks. dist. mkd. T 17 S R 16 E S 30 B T.

A cedar 7 ins. dia., bears S.23¾°E.,
166 lks. dist. mkd. T 17 S R 16 E S 31 B T.

A pinon 10 ins. dia., bears S.21°W.,
55 lks. dist. mkd. T 17 S R 15 E S 36 B T.

A cedar 6 ins. dia., bears N.69°W.,
78 lks. dist. mkd. T 17 S R 15 E S 25 B T.

Land rough mountains on steep slopes of ravines.

Soil rocky sandstone formation, loose shale rock and clay on rocky and clay subsoil, 4th rate.

Timber pinon and cedar.

Undergrowth scattering mahogany, sagebrush and grass.

Sept. 30: At this cor. I set off 2°41'S. on the decl. arc, and at 11h 50m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°18'.

South bet. secs. 31 and 36.

Descend over rocky mountainous land, through scattering pinon and cedar timber and undergrowth of shadscale, sagebrush and grass.

.50	Trail to Woodside, Utah, brs. NE. and SW.
4.60	Canyon, 70 ft. below cor., drains NE. Ascend abruptly.

WEST BDY. T. 17 S. R. 16 E.

Chains	
12.00	Top of abrupt ascent 240 ft. above canyon bears NE. and SW. Gradually ascend 70 ft. to
24.00	Top of ascent bears W. Descend 65 ft. to
28.85	Gulch drains W. Ascend 165 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. of secs. 31 and 36, mkd. on brass cap S 36 ¼ | S 31 1914 from which A cedar, 8 ins. dia., bears S. 47½° E., 10 lks. dist. mkd. ¼ S 31 B T. A pinon, 8 ins. dia., bears N. 63° W., 35 lks. dist. mkd. ¼ S 36 B T.
	Sept. 30, 1914.
	Oct. 1: At 8h 20m a.m., l.m.t., I set off 39°18' on the lat. arc, 3°00' S. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 31 and 36.
	Thence South.
55.50	Enter heavier timber bearing NE. and SW.
59.00	Top of ascent, 360 ft. above ¼ sec. cor. bears W. Descend.
66.10	Ravine, 90 ft. below top of ascent, course W. Ascend 100 ft. to
73.00	Top of level mountain rim, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of Tps. 17 and 18 S. Rs. 15 and 16 E. mkd. on brass cap T 17 S R 15 E | R 16 E S 36 | S 31 S 1 | S 6 R 15 E | R 16 E T 18 S 1914 from which A cedar, 7 ins. dia., bears N. 38° E., 60½ lks. dist. mkd. T 17 S R 16 E S 31 B T.

WEST BDY. T. 17 S., R. 16 E.

Chains

A cedar, 10 ins. dia., bears S. 41¼° E.,
70 lks. dist. mkd. T 18 S R 16 E S 6 B T.
A cedar, 10 ins. dia., bears S. 15¼° W.,
65 lks. dist. mkd. T 18 S R 15 E S 1 B T.
A cedar, 7 ins. dia., bears N. 35¼° W.,
32 lks. dist. mkd. T 17 S R 15 E S 36 B T.
Land rough broken mountains with steep slopes.
Soil rocky and red clay on rocky and clay subsoil, 4th rate.
Timber, cedar and pinon.
Undergrowth shadscale, sagebrush and grass.

SOUTH BDY. T. 17 S. R. 16 E.

Oct. 1: From the cor. of Tps. 17 and 18 S. Rs. 15 and 16 E. I run
East bet. secs. 6 and 31.
Over level mountain top, through pinon and cedar timber and undergrowth of sage, shadscale and grass.

20.00 Oct. 1: At this station I set off 3°04' S. on the decl. arc, and at 11h 50m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°17'.

29.00 Descend gradually bears NE. and SW.

33.45 Descend abruptly bears NE. and SW.

37.35 Ravine, heads 8 chs. SW. drains NE. 125 ft. below top of mountain. Ascend 30 ft. to

38.23 Allowing for convergency. Set an iron post, 3 ft. long, 1 in. in dia., 20 ins. in the ground and 6 ins. in a mound of stone on solid rock for the ¼ sec. cor. of secs. 6 and 31, mkd. on brass cap

$$\frac{S\ \frac{1}{4}\ 31}{S\ 6}$$
1914

from which

A pinon, 4 ins. dia., bears S. 76¼° E.,
41 lks. dist. mkd. ¼ S 6 B T.

SOUTH BDY. T. 17 S. R. 16 E.

Chains

A pinon, 9 ins. dia., bears N.½°W.,
21 lks. dist. mkd. ¼ S 31 B T.

46.50 Top of ascent, 110 ft. above cor. Descend gradually N. slope.

56.70 Base of descent, 120 ft. below top, drains N.
Ascend 440 ft. to

78.23 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for the cor. of secs. 5, 6, 31 and 32, mkd. on brass cap

T 17 S R 16 E
S 31 | S 32
S 6 | S 5
T 18 S
1914

from which

A pinon, 8 ins. dia., bears N.19½°E.,
27 lks. dist. mkd. T 17 S R 16 E S 32 B T.
A pinon, 10 ins. dia., bears S.80¼°E.,
78 lks. dist. mkd. T 18 S R 16 E S 5 B T.
A pinon, 8 ins. dia., bears S.58¼°W.,
54 lks. dist. mkd. T 18 S R 16 E S 6 B T.
A pinon, 7 ins. dia., bears N.26½°W.,
60 lks. dist. mkd. T 17 S R 16 E S 31 B T.

Land mountainous, drains N.

Soil, gravelly and rocky, of sandstone formation, on rocky and gravelly subsoil, 4th rate.

Timber, pinon and cedar.

Undergrowth, sagebrush, shadscale and grass.

Oct. 1, 1914.

Oct. 2: At 8h 50m a.m., l.m.t., I set off 39°17' on the lat. arc, 3°24'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32.

Thence

East bet. secs. 5 and 32.

Ascend over rough rocky mountainous land, through pinon and cedar timber and undergrowth of scattering sagebrush,

SOUTH BDY. T. 17 S. R. 16 E.

Chains	
10.00	Ridge, 230 ft. above the cor., bears NE. and SW.
	Timber becomes scattering, bears NE. and SW.
	Descend abruptly 720 ft. over a series of sandstone ledges.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 5 and 32, mkd. on brass cap

$$\frac{S\ 32\ \frac{1}{4}}{S\ 5}$$

1914

from which

A pinon, 8 ins. dia., bears S.31°W.,
25 lks. dist. mkd. $\frac{1}{4}$ S 5 B T.

A cedar, 6 ins. dia., bears N.19°W.,
31 lks. dist. mkd. $\frac{1}{4}$ S 32 B T.

Oct. 2: At this cor. I set off 3°27'S. on the decl. arc, and at 11h 50m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°17'.

41.20	Gulch, 40 ft. below cor., drains S. Ascend 35 ft. to
44.00	Top of ascent bears S. Descend.
64.25	Descend abruptly over sandstone ledges bearing NE. and SW. 120 ft. below top of ascent.
80.00	385 ft. below top of ledges. Set an iron post, 3 ft. long 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 4, 5, 32 and 33, mkd. on brass cap

T 17 S R 16 E

S 32	S 33
S 5	S 4

T 18 S

1914

from which

A cedar, 6 ins. dia., bears N.12$\frac{1}{4}$°E.,
74 lks. dist. mkd. T 17 S R 16 E S 33 B T.

A pinon, 10 ins. dia., bears S.31°E.,
68 lks. dist. mkd. T 18 S R 16 E S 4 B T.

A cedar, 8 ins. dia., bears S.1°W.,
70 lks. dist. mkd. T 18 S R 16 E S 5 B T.

A cedar, 10 ins. dia., bears N.84$\frac{3}{4}$°W.,
116 lks. dist. mkd. T 17 S R 16 E S 32 B T.

SOUTH BDY. T. 17 S. R. 16 E.

Chains	
	Land rough rocky mountains.
	Soil clay and rocky sandstone formation on clay and rock subsoil, 4th rate.
	Timber, pinon and cedar.
	Undergrowth, sagebrush, shadscale and grass.
	Oct. 2, 1914.

Rain prevents field work Oct. 3 and 4, 1914.

Oct. 5: At 7h 49m a.m., l.m.t., I set off 39°17' on the lat. arc, 4°32'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33.

Thence

East bet. secs. 4 and 33.

Descend over rough mountainous land through scattering pinon and cedar timber and undergrowth of sagebrush, shadscale and grass.

.25	Bottom of canyon, 5 ft. below cor., drains N.15°E.
	Asc. abruptly 480 ft. to
16.10	Rocky spur projects N. Gradually descend 130 ft. to
26.00	Ravine course N. Ascend 155 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 4 and 33, mkd. on brass cap

$$\frac{S\ \frac{1}{4}\ 33}{S\ 4\ 1914}$$

from which

A cedar, 6 ins. dia., bears N.59½°E.,

63 lks. dist. mkd. ½ S 33 B T.

A pinon 6 ins. dia., bears S.45°W.,

47 lks. dist. mkd. ½ S 4 B T.

Ascend 435 ft. to

54.25	Ridge bears NW. and SW. Descend 265 ft. to

SOUTH BDY. T. 17 S. R. 16 E.

Chains	
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 3, 4, 33 and 34, mkd. on brass cap T 17 S R 16 E S 33 | S 34 S 4 | S 3 T 18 S 1914 from which A cedar, 8 ins. dia., bears N.79¾°E., 214 lks. dist. mkd. T 17 S R 16 E S 34 B T. A cedar, 7 ins. dia., bears S.45¾°E., 173 lks. dist. mkd. T 18 S R 16 E S 3 B T. A cedar, 6 ins. dia., bears S.33°W., 71 lks. dist., mkd. T. 18 S R 16 E S 4 B T. A pinon, 9 ins. dia., bears N.20¾°W., 119 lks. dist. mkd. T 17 S R 16 E S 33 B T. Land rough mountains, drains N. Soil gravelly, rocky and clay on clay and rock subsoil, 4th rate. Timber pinon and cedar. Undergrowth sagebrush, shadscale and grass. Oct. 5: At this cor. I set off 4°37'S. on the decl. arc, and at 11h 49m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°17'.
	East bet. secs. 3 and 34. Descend over rocky mountainous land through scattering pinon and cedar timber and undergrowth of sagebrush, shadscale and grass.
7.00	Ravine, 120 ft. below cor., drains S. Ascend 245 ft. to
20.50	Top of ascent, brs. S. Descend 280 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 3 and 34, mkd. on brass cap S 34 ¼ S 3 1914

SOUTH BDY. T. 17 S. R. 16 E.

Chains

from which

A cedar, 6 ins. dia., bears N.59¼°E.,

63 lks. dist. mkd. ¼ S 3 B T.

A pinon, 8 ins. dia., bears N.31¾°E.,

81 lks. dist. mkd. ¼ S 34 B T.

47.50 Base of descent, 95 ft. below ¼ sec. cor. Ascend.

63.00 Top of ridge, 105 ft. above base of descent, bears N.80°W. and E. Thence on top of ridge.

Gradually descend.

67.00 Thence along level top, 70 ft. below top of ridge.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 2, 3, 34 and 35, mkd. on brass cap

T 17 S R 16 E
S 34 | S 35
S 3 | S 2
T 18 S
1914

from which

A pinon, 10 ins. dia., bears N.17½°E.,

106 lks. dist. mkd. T 17 S R 16 E S 35 B T.

A cedar, 8 ins. dia., bears S.65½°E.,

90 lks. dist. mkd. T 18 S R 16 E S 2 B T.

A pinon, 10 ins. dia., bears S.61°W.,

77 lks. dist. mkd. T 18 S R 16 E S 3 B T.

A pinon, 8 ins. dia., bears N.61°W.,

49 lks. dist. mkd. T 17 S R 16 E S 34 B T.

Land rough mountains and level top of ridge.

Soil coarse gravel, loose rock and some sandy loam on gravelly and rocky subsoil, 3rd rate.

Timber, pinon and cedar.

Undergrowth, sagebrush, shadscale and grass.

Oct. 5, 1914.

Oct. 6: At 8h 18m a.m., l.m.t., I set off 39°17' on the lat. arc, 4°55'S. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35.

SOUTH BDY. T. 17 S. R. 16 E.

Chains	
	Thence
	East bet. secs. 2 and 35.
	Over level top of ridge, through scattering pinon and cedar timber and undergrowth of very scattering sage brush, shadscale and grass.
18.00	Ascend over S. side of knoll.
33.00	Top of ascent 225 ft. above base. Descend.
40.00	63 ft. below top of ascent.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 2 and 35, mkd. on brass cap

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

S 2
1914

from which

A pinon, 8 ins. dia., bears S.45°E., 156 lks. dist. mkd. $\frac{1}{4}$ S 2 B T.

A pinon, 6 ins. dia., bears N.57°W., 85 lks. dist. mkd. $\frac{1}{4}$ S 35 B T.

69.50	Leave ridge and practically all timber bearing NW. and SE. Descend abruptly 385 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 35 and 36, mkd. on brass cap

T 17 S R 16 E

S 35	S 36
S 2	S 1

T 18 S
1914

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

Land level and rolling top ofridge and steep slope; mountainous land.

Soil sandy loam, gravelly and rocky on gravelly and rocky subsoil, 4th rate.

Timber, pinon and cedar.

Undergrowth, sagebrush, shadscale and grass.

Oct. 6: At this cor. I set off 5°00'S. on the decl. arc,

SOUTH BDY. T. 17 S. R. 16 E.

Chains	
	and at 11h 48m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°17'.
	East bet. secs. 1 and 36.
	Descend over very rocky mountainous land through scattering pinon and cedar timber and very scattering undergrowth of shadescale, sage brush and grass.
8.00	Bottom of descent, 65 ft. below cor. Ascend 40 ft. to
11.00	Top of ascent, bears N. Descend 325 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ cor. of secs. 1 and 36, mkd. on brass cap $\frac{S\ 36}{\frac{1}{4}}$ / $\frac{S\ 1}{1914}$ from which A cedar, 6 ins. dia., bears S. $4\frac{1}{4}$°E., 67 lks. dist. mkd. $\frac{1}{4}$ S 1 B. T. A cedar, 8 ins. dia., bears N. $76\frac{1}{4}$°W., 29 lks. dist. mkd. $\frac{1}{4}$ S 36 B T.
43.50	Base of descent and S. edge of Range Creek Canyon, 55 ft. below $\frac{1}{4}$ sec. cor.
	Leave timber bearing NW. and SE. Ascend 165 ft. to
49.50	Top of rolling bench, bears NE. and SW. Thence over bench.
60.00	Leave bench, bears N.85°W. and S.85°E.
	Set flag at this point.
	Abrupt descent over ledges impossible to chain, therefore I
	Offset S. 2 chs. Thence East on offset line.
62.85	Desc. abruptly over series of sandstone ledges bearing N.85°W. and S.85°E.
74.00	Bottom of descent, 145 ft. below top, bears N.85°W. and S.85°E. Ascend.
79.00	Thence offset 2 chs. N. to true line.
	Thence E. on true line to
80.00	160 ft. above base. Set an iron post 3 ft. long, 3 ins.

SOUTH BDY. T. 17 S. R. 16 E.

Chains

in dia., 24 ins. in the ground for the cor. of Tps. 17 and 18 S. Rs. 16 and 17 E. mkd. on brass cap

T 17 S
R 16 E | R 17 E
S 36 | S 31

S 1 | S 6
R 16 E | R 17 E
T 18 S
1914

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

Land rough mountains draining N. to Range Creek.

Soil gravelly, rocky and fine sandy loam on gravelly and rocky subsoil, 4th rate.

Timber pinon and cedar.

Undergrowth scattering sagebrush, shadscale and grass.

Oct. 6, 1914.

Oct. 7: Heavy fog and rain prevents field work this day.

EAST BDY. T. 17 S. R. 16 E.

Oct. 8: At 8h 18m a.m., l.m.t., I set off 39°17' on the lat. arc, 5°41'S. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 17 and 18 S., Rs. 16 and 17 E.

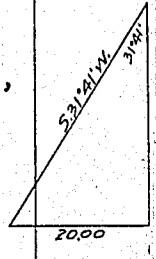
Thence

North bet. secs. 31 and 36.

The line running N. passes over high sandstone ledges and points over which I cannot chain, I therefore triangulate as follows:

Set a point on line N. and erect a flag at this cor.

From point on line N. the flag set at 60.00 chs. bet. secs. 1 and 36 on S. bdy. of the tp. bears S.31°41'W., therefore cotan. 31°41' x base or 1.62 x 20.00 chs. = 32.40 to point of triangulation.



The topography on this line from tp. cor. reads:

Rough mountainous land; descend over sandstone ledges through scattering undergrowth of shadscale, sagebrush and grass.

EAST BDY. T. 17 S. R. 16 E.

Chains	
8.90	Bottom of canyon and Range Creek, 15 lks. wide, 8 ins. deep, 245 ft. below Tp. cor., drains from W. to NW. Ascend abruptly over ledges.
17.40	Top of rocky point, 210 ft. above creek, bears NW. 1.50 chs. Descend.
21.40	Bottom of canyon and Range Creek, 210 ft. below point, drains NE. Ascend over ledges.
32.40	To point of triangulation. Continue ascent over ledges.
40.00	Point for $\frac{1}{4}$ sec. cor. falls on sandstone ledges bearing NE. and W. No cor. set at this point.
42.00	Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone on solid rock for W.C. to $\frac{1}{4}$ sec. cor. for secs. 31 and 36, mkd. on brass cap T 17 S R 16 E | R 17 E S 36 | S 31 WC $\frac{1}{4}$ 1914 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner stands 480 ft. above creek.
42.30	Rocky point, 50 ft. above cor., falls E.
	Descend 175 ft. over ledges to
48.00	Gulch drains E. Ascend 150 ft. to
53.30	Top of rolling mesa, enter scattering pinon and cedar timber bearing NE. and SW.
75.00	Begin descent, brs. E. and W.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in the ground and 16 ins. in a mound of stone on solid rock for cor. of secs. 25, 30, 31 and 36, with brass cap mkd. T 17 S R 16 E | R 17 E S 25 | S 30 S 36 | S 31 R 16 E | R 17 E T 18 S 1914

EAST BDY. T. 17 S. R. 16 E.

Chains

from which

A pinon, 12 ins. dia., bears N.51¼°E.,
74 lks. dist. mkd. T 17 S R 17 E S 30 B T.

A cedar, 8 ins. dia., bears S.11½°E.,
42 lks. dist. mkd. T 17 S R 17 E S 31 B T.

A cedar, 8 ins. dia., bears S.16½°W.,
66 lks. dist. mkd T 17 S R 16 E S 36 B T.

A pinon, 6 ins. dia., bears N.59¾°W.,
36 lks. dist. mkd. T 17 S R 16 E S 25 B T.

Land rough, mountainous and rolling mesa drains E.

Soil rocky of sandstone formation and sandy loam on rocky and sandy subsoil, 4th rate.

Timber scattering pinon and cedar.

Undergrowth scattering shadscale, sagebrush and grass.

Oct. 8: At this cor. I set off 5°46'S. on the decl. arc, and at 11h 48m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°18'.

North bet. secs. 25 and 30.

Over rough mountainous land, descending over sandstone ledges, scattering pinon and cedar timber and undergrowth of sagebrush, shadscale and grass.

1.35 Ravine 45 ft. below cor., drains E.

Ascend abruptly over ledges.

6.00 Top of rolling mesa, 215 ft. above ravine, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 14 ins. in the ground and 12 ins. in a mound of stone on solid rock for the ¼ sec. cor. of secs. 25 and 30, mkd. on brass cap

S 25. ¼ | S 30.

1914

from which

A cedar, 10 ins. dia., bears S.18¾°E.,
19 lks. dist. mkd. ¼ S 30 B T.

A cedar, 10 ins. dia., bears S.79½°W.,
78 lks. dist. mkd. ¼ S 25 B T.

EAST BDY. T. 17 S. R. 16 E.

Chains	
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 18 ins. in a mound of stone on solid rock and 6ins. in the ground mkd. on brass cap T 17 S. R 16 E | R 17 E S 24 | S 19 S 25 | S 30 R 16 E | R 17 E 1914 from which A cedar, 12 ins. in dia., bears N.68¾°E., 191 lks. dist. mkd. T 17 S R 17 E S 19 B T. A cedar, 8 ins. dia., bears S.78¾°E., 204 lks. dist. mkd. T 17 S R 17 E S 30 B T. A cedar, 6 ins. dia., bears S.68¾°W., 123 lks. dist. mkd. T 17 S R 16 E S 25 B T. A cedar, 8 ins. dia., bears N.87°W., 75 lks. dist. mkd. T 17 S R 16 E S 24 B T. Land rough mountains on S. 6 chs., rolling mesa on N. 74 chs. Soil sandy loam and gravel very shallow, on sandstone bedrock, 4th rate. Timber pinon and cedar. Undergrowth scattering sagebrush, shadscale and grass. Oct. 8, 1914.
	Oct. 9: At 8h 17m a.m., l.m.t., I set off 39°19' on the lat. arc, 6°04'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30. Thence North bet. secs. 19 and 24. Gradually descend over rocky land through scattering pinon and cedar timber and scattering sagebrush, shadscale and grass.
21.00	Ravine, 400 ft. below cor., course SE. Gradually ascend along E. side of ravine.

EAST BDY. T. 17 S. R. 16 E.

Chains	
40.00	150 above ravine. Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground and 8 ins. in a mound of stone on solid rock for the $\frac{1}{16}$ sec. cor. of secs. 19 and 24, mkd. on brass cap S 24 $\frac{1}{16}$ | S 19 1914 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
49.00	Top of ascent, 30 ft. above the cor. Descend.
60.00	Ravine, 35 ft. below top of ascent, course S.5°W. Thence in ravine.
66.75	Ravine turns and heads NE. Ascend abruptly 260 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 18 ins. in the ground and 6 ins. in mound of stone on solid rock for the cor. of secs. 13, 18, 19 and 24, mkd. on brass cap T 17 S R 16 E | R 17 E S 13 | S 18 S 24 | S 19 R 16 E | R 17 E 1914 from which A cedar, 8 ins. dia., bears N.64¾°E., 73 lks. dist. mkd. T 17 S R 17 E S 18 B T. A cedar, 7 ins. dia., bears S.27¾°E., $107\frac{1}{2}$ lks. dist., mkd. T 17 S R 17 E S 19 B T. A cedar, 6 ins. dia., bears S.84¾°W., 31 lks. dist. mkd. T 17 S R 16 E S 24 B T. A cedar, 6 ins. dia., bears N.$51\frac{1}{2}$°W., 79 lks. dist. mkd. T 17 S R 16 E S 13 B T.
	Land mountainous, drains E.
	Soil rocky limestone formation and clay on rock and clay subsoil, 4th rate.
	Timber, pinon and cedar.
	Undergrowth scattering sage, shadscale and grass.
	Oct. 9: At this cor. I set off 6°09'S. on the decl. arc, and at 11h 47m a.m., l.m.t., observe the sun on the

Chains	
	meridian, the resulting lat. is 39°20'.
	North bet. secs. 13 and 18.
	Ascend gradually over rocky land, through scattering pinon and cedar timber and undergrowth of scattering sage, shadscale and grass.
15.25	Top of gently rolling mesa, 75 ft. above the cor. bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone on solid rock for the ¼ sec. cor. of secs. 13 and 18, mkd. on brass cap S 13 ¼ | S 18 1914 from which A cedar, 8 ins. dia., bears S.31¼°E., 95 lks. dist. mkd. ¼ S 18 B T. A cedar, 10 ins. dia., bears N.83¼°W., 9½ lks. dist. mkd. ¼ S 13 B T.
42.00	Ascend rocky slope bearing NE. and SW.
67.10	Rocky point, 450 ft. above base, bears E.
	Descend 245 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 16 ins. in the ground and 8 ins. in a mound of stone on solid rock for the cor. of secs. 7, 12, 13 and 18, mkd. on brass cap T 17 S R 16 E | R 17 E S 12 | S 7 S 13 | S 18 R 16 E | R 17 E 1914 from which A pinon, 10 ins. dia., bears N.2°30'E., 40 lks. dist. mkd. T 17 S R 17 E S 7 B T. A cedar, 10 ins. dia., bears N.55°15'W., 37 lks. dist. mkd. T 17 S R 16 E S 12 B T. A pinon, 12 ins. dia., bears S.87°10'W.,

EAST BDY. T. 17 S. R. 16 E.

Chains

32 lks. dist. mkd. T 17 S R 16 E S 13 B T.
A pinon, 12 ins. dia., bears S.50°00'E.,
10 lks. dist. mkd. T 17 S R 17 E S 18 B T.

Land gently rolling mesa and mountains, drains E.

Soil rocky sandy loam and clay on rocky and clay subsoil, 4th rate.

Timber pinon and cedar.

Undergrowth scattering sage, shadscale and grass.

Oct. 9, 1914.

NOTE: The lines bet. secs. 7 and 12 and 1 and 6 pass over a series of impassible sandstone ledges and cannot be surveyed.

NORTH BDY. T. 17 S. R. 16 E.

NOTE: The line bet. secs. 1 and 36 and 2 and 35 on the N. bdy. of this tp. passes over impassable ledges and cannot be surveyed.

Oct. 24: At 8h 14m a.m., l.m.t., I set off 39°23' on the lat. arc, 11°34'S. on the decl. arc, and determine a meridian with the solar at the W.C. to secs. 2, 3, 34 and 35 heretofore described.

Thence

West on an offset and random line along the N. bdy. of the tp., setting ¼ sec. and sec. cors. at intervals of 40 chs.

9.40 Offset N. 1.20 chs. to true random line.

Thence West.

120.00 Oct. 24: At this station I set off 11°39'S. on the decl. arc, and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°23'.

158.94 Fall 5 lks. S. of the cor. of secs. 4, 5, 32 and 33, heretofore described.

Abandon random line and begin at the cor. of secs. 4, 5, 32 and 33. Thence

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

Descend over rocky land through sagebrush, grease wood

NORTH BDY. T. 17 S. R. 16 E.

Chains	
	and grass.
.60	Enter Range Creek Canyon draining SE. . . . Thence in canyon.
1.40	Trail bears NW. and SE.
6.00	Range Creek, 12 lks. wide, 6 ins. deep, course SE.
11.20	Leave canyon, enter cedar and pinon timber bearing NW. and SE. Ascend.
17.30	Top of ascent, 80 ft. above bottom. Thence over rolling hills.
28.50	Descend over rim of canyon bearing N. and S.
32.00	Bottom of canyon, 45 ft. below top, drains S. Ascend.
38.00	Top of ascent, thence over rolling hills.
38.94	Set an iron post, 3 ft. long, 1 in. in dia., 3 ins. in the ground and 23 ins. in a mound of stone on solid rock for the $\frac{1}{4}$ sec. cor. of secs. 4 and 33, mkd. on brass cap $\frac{S\ 33}{\frac{1}{4}}$ S 4 1914 from which A pinon, 14 ins. dia., bears N.30°E., 14 lks. dist. mkd. $\frac{1}{4}$ S 33 B T. A cedar, 12 ins. dia., bears S.67°E., 75 lks. dist. mkd. $\frac{1}{4}$ S 4 B T.
78.94	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 3, 4, 33 and 34, mkd. on brass cap T 16 S R 16 E S 33 | S 34 S 4 | S 3 T 17 S R 16 E 1914 from which A pinon, 12 ins. dia., bears N.42°E., 30 lks. dist. mkd. T 16 S R 16 E S 34 B T. A pinon, 7 ins. dia., bears S.23½°E., 3 lks. dist. mkd. T 17 S R 16 E S 3 B T. A cedar, 6 ins. dia., bears S.40½°W.,

NORTH BDY. T. 17 S. R. 16 E.

Chains	
	22 lks. dist. mkd. T 17 S R 16 E S 4 B T.
	A cedar, 8 ins. dia., bears N.38½°W.,
	40 lks. dist. mkd. T 16 S R 16 E S 33 B T.
	Land broken mountains draining S.
	Soil rocky and clay on rocky subsoil, 4th rate.
	Timber cedar and pinon.
	Undergrowth sage, greasewood and scattering grass.
	East bet. secs. 3 and 34.
	Over rolling hills through pinon and cedar timber and undergrowth of shadscale, sagebrush and grass.
15.00	Descend over rim bearing NE. and SW.
19.50	Ravine, 135 ft. below rim, course SW.
	Ascend 430 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 3 and 34, mkd. on brass cap
	S ¼ 34 / S 3 1914
	from which
	A pinon, 10 ins. dia., bears S.38°E.,
	15 lks. dist. mkd. ¼ S 3 B T.
	A cedar, 10 ins. dia., bears N.34°W.,
	14 lks. dist. mkd. ¼ S 34 B T.
70.60	Top of ledge spur and leave dense timber, bears SW.
	The line E. passes along side of ledge and cannot be chained. To pass same I offset as follows:
	South 1.25 chs.
	Thence E. on offset line to
80.00	Intersect witness cor. of secs. 2, 3, 34 and 35.
	Land rough broken mountains and rolling hills, general S. exposure.
	Soil rocky of sandstone formation and clay on rocky and clay subsoil, 4th rate.

NORTH BDY. T. 17 S. R. 16 E.

Timber pinon and cedar.

Undergrowth; shadscale, sage brush and grass.

October 24, 1914.

BOUNDARIES OF T. 17 S. R. 16 E.

Latitudes, departures and closing errors.

Lines Designated	True. Bearing	Distance	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
S.bdy.	West	478.23				478.23
W.Bdy.	North	480.00	480.00			
N.Bdy.	S.89°57'E.	37.84		.03	37.84	
"	N.89°48'E.	40.00	.14		40.00	
"	S.89°59'E.	40.52		.01	40.52	
"	S.89°10'E.	39.98		.58	39.98	
"	East	158.94			158.94	
E.bdrs. 3 & 10	S.0°01'E.	160.05		160.05	.05	
N.bdy. 14	N.89°55'E.	80.12	.12		80.12	
N.bdy. 13	S.89°52'E.	80.12		.19	80.12	
E.bdy.	South	320.00		320.00		
	Convergency				.52	
			480.26	480.86	478.09	478.23
				480.26		478.09
	Error in lat. and dep.			.60		.14

For General Description see Subdivision of T. 17 S. R. 16 E.

For final oaths of assistants and surveyor see Subdivision of T. 17 S., R. 16 E.

Ralph Linley
U.S. Surveyor.

BOOK A-411

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 .....

cr certificate of assistants for boundaries of T.17 S., R.16 E., see book "C" T.17 S., R.16 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.

.....

U. S. Surveyor.

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 .....

For final oath of U.S.Surveyor for boundaries of T.17 S., R.16 E.
see book "C" T.17 S., R.17 E.

..... 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.

4—680

BOOK A-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry, U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of retracement of the E. and S. bdrs.; resurvey of the E. and W. bdrs. and subdivision; and the survey of the N. bdy. and subdivision of T.12 S.,R.13 E.

he Salt Lake Base and ____ Meridian, in the State of Utah ich 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 ithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Sterling Wright	July 8, 1914	Sept. 16, 1914	Chainman
Sidney Reed	July 8, 1914	Sept. 16, 1914	Chainman
Ernest E. Wilson	July 8, 1914	Sept. 16, 1914	Cornerman
Nelson A. Miller	July 8, 1914	Sept. 16, 1914	Flagman

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

Ralph Gentry
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pursua
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 27 day of April, 1914, 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 retracemen
of the E. and S. bdrs.; resurvey of the E. and W. bdrs. and subdiv
and survey of the N. bdy. and subdivision of T.12 S.,R.13 E.

of the Salt Lake Base
and Meridian, in the State of Utah, which are represented
the foregoing field notes in books "A" and "B" 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 Utah and in the specific manner described in the field notes, and t
the foregoing are the original field notes of such survey.

Ralph Gentry
U. S. Surveyor

Subscribed by said Ralph Gentry, and sworn to before me
this 29 day of January, 1916

M. O. Thorsen
U. S. Surveyor General

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 1, 1916

The foregoing field notes of the survey of the north boundary of Township 12
South, Range 13 East; and the north, east, south and west boundarie
of Township 17 South, Range 16 East, of the Salt Lake Base and Meri
ian, Utah

executed by Ralph Gentry
under his special instructions dated April 27, 1914, having be
critically examined, and the necessary corrections and explanations made, the said field notes, and t
surveys they describe, are hereby approved.

M. O. 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—2761

U. S. Surveyor General.

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BOOK A-411

— C. —

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT OF NORTH BOUNDARY AND

SURVEY OF THE SUBDIVISION OF T. 17 S., R. 16 E.

Of the Salt Lake Base and ——— *Meridian,*

the State of Utah

EXECUTED BY

Ralph Gentry,

the capacity of U. S. Surveyor, under instructions dated April 27, 1914,

ued by the United States Surveyor General to govern surveys included in

oup No. 28, *which were approved by the Commissioner of the General Land*

ice, May 16, 1914, *pursuant to authority contained in the Act of*

ngress dated ———, 191—

Survey commenced September 21, 1914

Survey completed November 18, 1914

BOOK A-411

INDEX DIAGRAM.

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Retracement of N. Bdy. of T.17 S.,R.16 E.

Chains

Survey commenced September 21, 1914 and executed with Young and Sons light mountain transit No. 8584 with Smith's solar attachment.

For description and approval of instrument see subdivision of T. 12 S., R. 13 E.

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

At the cor. of secs. 4, 5, 32 and 33 on the N. bdy. of the Tp. which is a sandstone 18x16x6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general, in approximate latitude 39°23'N., longitude 110°11'W.; I set off 39°23' on the lat. arc; 0°47'N. on the decl. arc; and at 3h 53m p.m.,l.m.t., determine with the solar a meridian and mark a point thereof on a peg set firmly in the ground about 5 chs. N.of the cor.

At 7h 33m 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 peg set firmly in the ground about 5 chs. N.

September 21, 1914.

September 22: At 7h 45m a.m.,l.m.t., I lay off the azimuth of Polaris 1°30' to the west and mark the meridian thus determined by making a small groove in the peg set September 21 on which the meridian falls 3 ins. to the W. of the mark determined by the solar.

At 7h 53m a.m.,l.m.t., I set off 39°23' on the lat. arc; 0°31'N. on the decl. arc; and mark a point in the meridian determined with the solar by a mark on the peg

Chains	
	already set about 5 chs. N.; this mark falls .2 ins. W. of the meridian established by the Polaris observation.
	The solar apparatus by p.m. and a.m. observations defines positions for meridians respectively about 16" east and 0'11" west of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 8h 15m a.m., l.m.t., is N.15°45'W., the angle thus determined gives the mag. decl. 15°45'E.
	A steel tape 2 chains long was used in all the field work in this survey, together with a clinometer for determining slope angles and the reduced horizontal distance only appear in the official field notes. The tape was tested, comparison being made with a standard tape 1 chain long, kept and used for that purpose only.
	From the cor. of secs. 4, 5, 32 and 33 already described, I retrace,
	West, bet. secs. 5 and 32.
	Ascend over rocky mountainous land, through medium undergrowth of sagebrush and scattering grass.
1.90	Enter dense pinon and cedar timber, brs. NW. and SE.
7.50	Top of steep ascent, 85 ft. above cor. Gradually ascend.
35.50	Spur, bears N., 260 ft. above cor. Gradually descend 15 ft. to
39.98	Fall 58 lks. S. of ¼ sec. cor., which is a sandstone 12 x 10 x 10 ins. above ground, firmly set, properly marked and witnessed.
	The true bearing of this half mile is N.89°10'W., 39.98 chains.
	From point 58 lks. S. of ¼ sec. cor., I continue

Chains	
	West.
55.75	Ravine, 130 ft. below ¼ sec. cor., course NE.
	Sept. 22: At this station, I set off 0°26'N. on the decl. arc; and at 11h 53m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°23'.
	Begin ascent over broken sandstone ledges.
80.50	870 ft. above ravine.
	Fall 59 lks. S. of the cor. of secs. 5, 6, 31 and 32, which is a sandstone 6x14x8 ins. above ground, firmly set, properly mkd. and witnessed.
	True bearing of this half mile is N.89°59'W., 40.52 chs.
	Land, rough and mountainous.
	Soil, rocky, sandstone formation; 4th rate.
	Timber, pinon and cedar.
	Undergrowth, shadscale and sagebrush.
	Sept. 22, 1914.

	Sept. 23: At 8h 53m a.m., l.m.t., I set off 39°23' on the lat. arc; 0°06'N. on the decl. arc; and determine a meridian at the cor. of secs. 5, 6, 31 and 32.
	Thence I run
	West, retracing bet. secs. 6 and 31.
	Abrupt ascent over sandstone ledges, through pinon and cedar timber, undergrowth scattering sagebrush.
7.70	Spur, 270 ft. above cor., bears NE.
	Sept. 23: At this station I set off 0°03'N. on the decl. arc; and at 11h 53m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°23'.
	Thence descend along broken N. slope.
13.85	Base of descent, 85 ft. below top. Ascend.
21.85	Top of ascent, 100 ft. above base.
	Descend.
36.00	Base of descent, 180 ft. below top.
	Ascend.

Retracement of N. Bdy. of T. 17 S., R. 16 E.

Chains	
40.00	Fall 14 lks. N. of the ¼ sec. cor., which is a sandstone 5x10x8 ins. above ground, firmly set, properly mkd. and witnessed.
	The true bearing of this half mile is S.89°48'W., 40.00 chs.
	Sept. 23, 1914.
	Sept. 24: At 8h 52m a.m.,l.m.t., I set off 39°23' on the lat. arc; 0°17'S. on the decl. arc; and determine a meridian at the ¼ sec. cor. bet. secs. 6 and 31.
	Thence I run West, retracing W. half mile bet. secs. 6 and 31.
49.10	Top of ascent, 155 ft. above cor.
	Descend.
60.50	Base of descent, 420 ft. below top.
	Ascend.
69.00	Top of ascent, 355 ft. above base.
	Descend.
77.84	270 ft. below top.
	Fall 3 lks. S. of cor. of Tps. 16 and 17 S., Rgs. 15 and 16 E., which is a sandstone, 6 x 18 x 12 ins. above ground, firmly set, properly mkd. and witnessed.
	The true bearing of this half mile is N.89°57'W., 37.84 chs.
	Land, rough, broken mountains.
	Soil, rocky sandstone formation; 4th rate.
	Timber, pinon and cedar.
	Undergrowth, scattering sagebrush.
	Sept. 24: At this Tp. cor. I set off 0°20'S. on the decl. arc; and at 11h 52m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°23'.
	Sept. 24, 1914.

SUBDIVISION OF T. 17 S., R. 16 E.

Oct. 10: At 7h 47m a.m.,l.m.t., I set off 39°17' on the

Chains	
	lat. arc, 6°26'S. 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.
	Thence I run
	N.0°01'W. bet. secs. 35 and 36.
	Descend over rocky mountainous land, through scattering cedar and pinon timber, undergrowth sage, shadscale and grass.
11.25	Coal vein, brs. N.69°16'E.
12.50	Leave timber, brs. E. and W.
21.96	Coal vein, brs. N.88°07'E.
	Descend abruptly.
30.15	Bottom of canyon and Range Creek, 15 lks. wide, 6 ins. deep, 620 ft. below cor.,drains from NW. to E.
	Ascend abruptly.
36.00	Rocky point, 50 ft. high, brs. SW.
	Descend.
39.10	Enter canyon bottom, bears NE. and SW.
40.00	Set an iron post 3 ft. long, 1 in. in dia.,26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $S\frac{1}{4}35 \mid S\,36$ 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
43.60	Range Creek, 15 lks. wide, 6 ins. deep, course SW.
	Ascend abruptly.
45.10	Rocky point, 75 ft. high, brs. NE.
	Descend abruptly.
51.00	Bottom of canyon and Range Creek, 15 lks. wide, 6 ins. deep, drs. from W. to NE.
56.25	Leave canyon, course E.
	Abrupt ascent over ledges.
75.05	Top of rolling mesa, enter scattering pinon and cedar timber brs. E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 8 ins. in

Chains

the ground and 16 ins. in mound of stone, on solid rock for cor. of secs. 25, 26, 35 and 36, marked on brass cap

T 17 S R 16 E
S 26 | S 25
S 35 | S 36
1914

from which

A pinon pine, 10 ins. dia.,brs. N.41°E.,
59 lks. dist. marked T 17 S R 16 E S 25 B T.
A pinon pine, 7 ins. dia.,brs. S.61°E.,
63½ lks. dist. marked T 17 S R 16 E S 36 B T.
A cedar 8 ins. dia.,brs. S.63°W.,
32 lks. dist. marked T 17 S R 16 E S 35 B T.
A pinon pine, 8 ins. dia.,brs. N.56°W.,
29 lks. dist. marked T 17 S R 16 E S 26 B T.

Land rough, broken mountains, draining into Range Creek.

Soil rocky and sandy loam, very shallow surface on rock subsoil, 4th rate.

Timber pinon and cedar.

Undergrowth scattering sagebrush, shadscale and grass.

Oct. 10: At this cor. I set off 6°31'S. on the decl. arc, and at 11h 47m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°18'.

East on random line bet. secs. 25 and 36.

40.00 Set temp. ¼ sec. cor.

79.96 Intersect E. bdy. of the Tp. 18 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described.

Thence I run

N.89°52'W. on a true line bet. secs. 25 and 36.

Gradually ascend rolling mesa land, through scattering cedar and pinon timber; undergrowth sagebrush, scattering shadscale and grass.

39.98 Set an iron post, 3 ft. long, 1 in.in.dia.,6 ins.in ground, 20 ins.md.of stone on solid rock for ¼ sec. cor., mkd.

Subdivision of T. 17 S., R. 16 E.

Chains

on brass cap

S 25
¼

S 36
1914

from which

A pinon pine, 8 ins.dia.,brs. N.8°45'E., 87 lks. dist., marked ¼ S 25 B T

A pinon pine,10 ins.dia.,brs. S.23°45'W.,34 lks. dist., marked ¼ S 36 B T

51.00 Top of low rim, brs. NW. and SE.

79.96 The cor. of secs. 25, 26, 35 and 36.

Land, rolling mesa, E. exposure.

Soil, sandy surface, very shallow on rock subsoil; 4th rate.

Timber, pinon and cedar.

Undergrowth, scattering sagebrush, shadscale and grass.

October 10, 1914.

Oct. 12: At 7h 48m a.m.,l.m.t., I set off 39°18' on the lat. arc; 7°12'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

N.0°01'W. bet. secs. 25 and 26.

Over rolling mesa, through scattering cedar and pinon timber, undergrowth, scattering sage, shadscale and grass.

20.00 Ascend rocky slope.

27.90 Top of ascent, 160 ft. above corner, brs. NW.

Descend 155 ft. to

33.00 Foot of descent, brs. E. and W. Thence over rolling land.

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

Subdivision of T. 17 S., R. 16 E.

Chains

S 26	S 25
¼	

1914

from which

A cedar, 8 ins.dia.,brs. S.41¼°E., 103 lks. dist., marked ¼ S 25 B T

A cedar, 6 ins.dia.,brs. N.60½°W., 31 lks. dist., marked ¼ S 26 B T

56.00 Rocky knoll, 50 ft. high.

Descend.

67.75 Ravine, 145 ft. below knoll, drs. E.

Ascend.

73.00 Rocky point, 65 ft. high, brs. E. 2 chs.

79.00 Ravine, 80 ft. below point, drs. E.

Ascend.

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 14 ins. in ground, and 10 ins. in a mound of stone, on solid rock for cor. of secs. 23, 24, 25 and 26, marked on brass cap

T 17 S	R 16 E
S 23	S 24
S 26	S 25

1914

from which

A cedar, 7 ins.dia.,brs. N.5½°E., 80 lks. dist., marked T 17 S R 16 E S 24 B T

A cedar, 6 ins.dia.,brs. S.33°E., 42 lks. dist., marked T 17 S R 16 E S 25 B T

A cedar,12 ins.dia.,brs. S.48½°W., 97½ lks. dist., marked T 17 S R 16 E S 26 B T

A cedar, 6 ins.dia.,brs. N.59½°W., 74 lks. dist., marked T 17 S R 16 E S 23 B T

Land, rolling and broken mesa top.

Soil, sandy, clay and loose rock on rock subsoil; 4th rate.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	Timber, cedar and pinon.
	Undergrowth scattering sagebrush, shadscale and grass.
	S.89°52'E. on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.08	Intersect E. bdy. of the Tp. 5 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence I run
	N.89°50'W. on a true line bet. secs. 24 and 25.
	Ascend over mountainous land, through cedar and pinon timber and scattering undergrowth of sagebrush, shadscale and grass.
30.00	Spur 570 ft. above cor., brs. SE..
	Descend 40 ft. to
36.00	Base of descent,
	Ascend 35 ft. to
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone on solid rock for ¼ sec. cor. mkd. on brass cap S 24 ¼ S 25 1914
	from which
	A cedar, 6 ins. dia., brs. N.62°E.,
	40 lks. dist. marked ¼ S 24 B T.
	A cedar, 6 ins. dia., brs. S.82°E.,
	78½ lks. dist. marked ¼ S 25 B T.
	Oct. 12: At this ¼ sec. cor. I set off 7°16'S. on the decl. arc, and at 11h 47m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°19'.
45.05	Top of ascent, 60 ft. above cor.
	Descend 445 ft. to
74.60	Ravine drains SE.
	Ascend 45 ft. to
80.08	The cor. of secs. 23, 24, 25 and 26.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	Land broken mountains general SE. exposure.
	Soil shallow clay and rock on rock subsoil, 4th rate.
	Timber cedar and pinon.
	Undergrowth scattering sagebrush, shadscale and grass.
	N.0°01'W. bet. secs. 23 and 24.
	Over rolling broken land, through scattering cedar and pinon timber and scattering undergrowth of sagebrush shadscale and grass.
3.00	Rocky point, 35 ft. above cor.,brs. E. 2 chs.
	Descend.
10.00	Ravine, 50 ft. below point, drains SE.
	Gradual ascent.
33.10	Ascend more gradually, brs. NW. and SE.
40.00	Set an iron post 3 ft. long, 1 in. in dia.,26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap
	$S\ \frac{1}{4}\ 23 \mid S\ 24$
	1914
	from which
	A cedar, 6 ins. dia.,bears S.30°E.,
	61 lks. dist. marked $\frac{1}{4}$ S 24 B T.
	A cedar, 8 ins. dia.,bears S.64°W.,
	66 lks. dist. marked $\frac{1}{4}$ S 23 B T.
	October 12, 1914.
	October 13: At 8h 16m a.m.,l.m.t., I set off 7°35'S. on the decl. arc, 39°20' on the lat. arc; and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs 23 and 24.
	Thence I continue
	N.0°01'W. bet. secs. 23 and 24.
44.20	Top of mesa, 95 ft. above $\frac{1}{4}$ sec. cor.,brs. NW. and SE.
	Thence over nearly level land.
62.10	Descend rim, brs. E. and W.
72.50	Ravine, 130 ft. below top, heads SW. 5 chs., drains N.60°E.

SUBDIVISION OF T.17 S.R.16 E.

Chains

Ascend 70 ft. to

78.00 Top of mesa, brs. N.5°E. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 8 ins. in the ground and 16 ins. mound of stone on solid rock for cor. of secs. 13, 14, 23 and 24, marked on brass cap

T 17 S R 16 E
S 14 | S 13
S 23 | S 24

1914

from which

A cedar, 6 ins. dia., brs. N.6°E.,
31 lks. dist. marked T 17 S R 16 E S 13 B T.

A cedar, 7 ins. dia., brs. S.62¼°E.,
38 lks. dist. marked T 17 S R 16 E S 24 B T.

A cedar, 6 ins. dia., brs. S.85¾°W.,
59½ lks. dist. marked T 17 S R 16 E S 23 B T.

A cedar, 8 ins. dia., brs. N.35¼°W.,
84 lks. dist. marked T 17 S R 16 E S 14 B T.

Land broken mountains and rolling mesa top.

Soil clay and loose rocks, very shallow on rock subsoil, 4th rate.

Timber cedar and pinon.

Undergrowth scattering sagebrush, shadscale and grass.

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

40.00 Set temp. ¼ sec. cor.

80.04 Intersect E. bdy. of the Tp. 3 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence I run

N.89°49'W. on a true line bet. secs. 13 and 24.

Descend over mountainous land, through scattering pinon and cedar timber and undergrowth of scattering shadscale, sagebrush and grass.

5.55 Ravine, 145 ft. below cor., drains S.

Ascend 220 ft. to

Chains	
15.55	Top of rim and mesa, brs. N. and S.
20.45	Leave mesa, brs. N.10°W/ and S.10°E.
	Descend abruptly 470 ft. to
40.02	Set an iron post 3 ft. long, 1 in. in dia.,26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap S 13 $\frac{1}{4}$ S 24 1914 from which A cedar, 10 ins. dia.,brs. S.42°E., 38 lks. dist. marked $\frac{1}{4}$ S 24 B T. A cedar, 8 ins. dia.,brs. N.67½°W., 106 lks. dist. marked $\frac{1}{4}$ S 13 B T. Oct. 13: At this cor. I set off 7°39'S. on the decl.arc and at 11h 46m a.m.l.m.t., observe the sun on the meridian, the resulting latitude is 39°20'.
40.35	Ravine, drains S.
	Ascend 20 ft. to
47.35	Top of point falls S. of junction of ravine and canyon about 6 chs. brs. SE.
	Descend 10 ft.
50.65	Canyon drains SE.
	Ascend abruptly 755 ft. to
79.40	Top of mesa and rim, brs. N.5°W. and S.5°W.
80.04	The cor. of secs. 13, 14, 23 and 24.
	Land mountainous, general S. exposure.
	Soil blue clay and loose rock surface on rock subsoil, 4th rate.
	Timber pinon and cedar.
	Undergrowth scattering shadscale, sagebrush and grass.

N.0°01'W. bet. secs. 13 and 14.

Over level mesa, through pinon and cedar timber and undergrowth of scattering sagebrush, shadscale and

Subdivision of T. 17 S., R. 16 E.

Chains	
	grass.
1.75	Rim, brs. W. and S.10°E.
	Descend abruptly.
25.60	Canyon, 455 ft. below rim, drains SE.
	Ascend 245 ft. to
34.80	Top of rolling mesa, brs. E. and W.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in mound of stone, on solid rock, for $\frac{1}{4}$ sec. cor. with brass cap marked

$$\begin{array}{c|c} S\ 14 & S\ 13 \\ \frac{1}{4} & \\ \hline 1914 & \end{array}$$

from which

A cedar, 12 ins. dia., brs. S.70¾°E., 31 lks. dist., marked $\frac{1}{4}$ S 13 B T

A cedar, 10 ins. dia., brs. N.85¼°W., 110 lks. dist., marked $\frac{1}{4}$ S 14 B T

53.60	Leave timber. Ascend abruptly, brs. NE. and SW.
72.10	Rocky spur, brs. SW. 440 ft. above bottom.
	Descend 190 ft. to
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 8 ins. in the ground and 16 ins. in a mound of stone, on solid rock, for cor. of secs. 11, 12, 13 and 14, marked on brass cap

$$\begin{array}{c|c} T\ 17\ S & R\ 16\ E \\ S\ 11 & S\ 12 \\ \hline S\ 14 & S\ 13 \\ \hline 1914 & \end{array}$$

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

Land, rolling mesa and broken mountains.

Soil, clay and loose rocks on rock subsoil; 4th rate.

Timber, pinon and cedar.

Undergrowth, scattering sagebrush, shadscale and grass.

October 13, 1914.

Subdivision of T. 17 S., R. 16 E.

Chains	
	October 14: At 8h 16m a.m.,l.m.t., I set off 39°21' on the lat. arc; 7°57'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.
	Thence I run
	S.89°49'E. on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect E. bdy. of the Tp. 7 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	N.89°52'W. on a true line bet. secs. 12 and 13.
	Ascend over rocky mountainous land, through undergrowth of sagebrush, shadscale and grass. A few scattering cedar and pinon.
28.50	Rocky spur, 675 ft. above cor., brs. S.
	Descend 560 ft. to
35.10	Base of descent.
	Ascend 170 ft. to
40.06	Set an iron post 3 ft. long, 1 in. in dia., 6 ins. in the ground and 20 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap S 12 ¼ S 13 1914 raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
65.10	Rocky spur, 650 ft. above cor., brs. SW.
	Descend broken sandstone ledges, 480 ft. to
80.12	The cor. of secs. 11, 12, 13 and 14.
	Land, rough broken rocky mountains.
	Soil, red clay and loose rocks on solid rock subsoil; 4th rate.
	Timber, a few cedar and pinon.
	Undergrowth, sagebrush, shadscale and grass.
	October 14: At this cor. I set off 8°02'S. on the decl. arc; and at 11h 46m a.m.,l.m.t., observe the sun on the

Subdivision of T.17 S., R.16 E.

Chains

meridian; the resulting lat. is 39°21'.

N.0°01'W. bet. secs. 11 and 12.

Descend over rough mountainous land, through sagebrush, shadscale and scattering grass.

4.00 Enter scattering pinon and cedar timber, brs. E. and W.

40.00 420 ft. below sec. cor.

Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone, on solid rock for ¼ sec. cor., marked on brass cap

S 11 | S 12
¼
1914

from which

A pinon pine, 12 ins. dia., brs. S.67°E., 33 lks. dist., marked ¼ S 12 B T

A cedar, 10 ins. dia., brs. S.69½°W., 26 lks. dist., marked ¼ S 11 B T

The N. half of this mile, the line bet. secs. 1 and 12 and 1 and 2 pass over series of impassable ledges and cannot be surveyed.

Land, rough mountains.

Soil, red clay and loose rocks on solid rock subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, scattering sagebrush, shadscale and grass.

October 14, 1914.

October 15: At 7h 46m a.m., l.m.t., I set off 39°17' on the lat. arc; 8°19'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35 on S. bdy. of the Tp., heretofore described.

Thence I run

N.0°01'W. bet. secs. 34 and 35.

Chains	
	Over level top of ridge, through scattering pinon and ced timber and undergrowth of scattering sagebrush, shad- scale and grass.
4.80	Descend over rim, brs. E. and W.
12.50	120 ft. below cor. Descend abruptly sandstone ledges.
33.75	Canyon, 420 ft. below top of steep ascent, brs. NE. Abrupt ascent over sandstone ledges 260 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in mound of stone and earth, on solid rock, for ¼ sec. cor., marked on brass cap S 34 | S 35 ¼ 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
57.60	Spur, 375 ft. above ¼ sec. cor., brs. NE. Leave timber. Abrupt descent 770 ft. to
79.30	Range Creek and bottom of canyon, 15 lks. wide, 6 ins. deep, drs. E. Enter grove of cottonwood trees, br. E. and W. Thence in canyon.
80.00	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, marked on brass cap T 17 S | R 16 E S 27 | S 26 S 34 | S 35 1914 from which
	A cottonwood, 7 ins.dia.,brs. N.36¾°E., 163 lks. dist., marked T 17 S R 16 E S 26 B T A cottonwood,10 ins.dia.,brs. S.65½°E., 37 lks. dist., marked T 17 S R 16 E S 35 B T A cottonwood, 7 ins.dia.,brs. S.73½°W., 67 lks. dist., marked T 17 S R 16 E S 34 B T A cottonwood, 9 ins.dia.,brs. N.45¼°W., 144 lks.

Subdivision of T. 17 S., R. 16 E.

Chains	
	dist., marked T 17 S R 16 E S 27 B T
	Land, rough broken mountains, drs. NE.
	Soil, shallow sandy and loose rock surface on rock subsoil; 4th rate.
	Timber, scattering pinon, cedar and scattering cottonwood in canyon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	October 15: At this cor. I set off 8°24'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.
	East, on random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. and S. line 9 lks. S. of the cor. of secs. 25, 26, 35 and 36.
	Thence I run
	S.89°56'W. on a true line bet. secs. 26 and 35.
	Over rolling mesa, cedar and pinon timber and undergrowth of sagebrush, shadscale and grass.
4.60	Leave mesa and timber, brs. NW. and SE.
	Descend abruptly SW. slope.
22.10	Base of steep descent and enter Range Creek Canyon and scattering cottonwood timber and greasewood undergrowth, 575 ft. below mesa, brs. NW. and SE.
	Thence across canyon.
37.85	Range Creek, 15 lks. wide, 6 ins. deep, course SE.
40.06	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 / 1914
	from which
	A cottonwood, 8 ins. in dia., brs. N.29½°E., 198 lks. dist., marked ¼ S 26 B T
	A cottonwood, 20 ins. dia., brs. S.58¼°E., 233

Chains	
	lks. dist., marked ¼ S 35 B T
	Leave canyon, brs. NW. and SE.
	Ascend 25 ft. to
44.10	Spur, brs. N. Descend 25 ft. to
50.60	Bottom of canyon and Range Creek, 15 lks. wide, 6 ins. deep, drs. from S.85°W. to NE.
	Thence in canyon.
68.50	Same creek, drs. S.3°E. from NW.
73.60	Same creek, drs. NE.
80.12	The cor. of secs. 26, 27, 34 and 35.
	Land, mountainous and canyon bottom.
	Soil, sandy loam and loose rocks on sandy and rocky sub soil; 3rd rate.
	Timber, scattering cottonwood, cedar and pinon.
	Undergrowth, sagebrush, greasewood, shadscale and grass
	October 15, 1914.

October 16: At 7h 46m a.m., l.m.t., I set off 39°18' on the lat. arc; 8°41'S. 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. be t. secs. 26 and 27.

Over bottom Range Creek Canyon, undergrowth, sagebrush, greasewood and grass.

5.70	Leave canyon and dense undergrowth, brs. E. and W.
	Abrupt ascent over broken sandstone ledges.
25.39	Top of rim and edge of rolling mesa, 700 ft. above canyo brs. E. and W.
	Enter cedar and pinon timber, thence on mesa.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

S 27 | S 26
¼

Subdivision of T. 17 S., R. 16 E.

Chains	
	from which
	A cedar, 6 ins.dia.,brs. S.60¾°E., 69 lks. dist:, marked ¼ S 26 B T
	A cedar, 6 ins.dia.,brs. N.82°W., 38 lks. dist., marked ¼ S 27 BT
58.00	Ascend along very rocky E. slope of spur.
63.00	Timber becomes very scattering.
80.00	200 ft. above rim of mesa.
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in mound of stone, on solid rock, for cor. of secs. 22, 23, 26 and 27, marked on brass cap

T 17 S	R 16 E
S 22	S 23
S 27	S 26

1914

raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. No trees available.

Land, rough mountains, S. exposure and rolling mesa.

Soil, sandy and loose rock surface on bed rock subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, sagebrush, greasewood and grass.

October 16: At this cor. I set off 8°46'S. on the decl. arc; and at 11h 46m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.

N.89°56'E. on a random line bet. secs. 23 and 26.

40.00	Set temp. ¼ sec. cor.
80.16	Intersect N. and S. line 2 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence I run

S.89°57'W. on a true line bet. secs. 23 and 26.

Ascend over rough mountainous land, through scattering pinon and cedar timber and scattering shadscale,sage-brush and grass.

Chains	
28.05	Spur, 560 ft. above cor., brs. S.10°E.
	Descend 390 ft. to
40.08	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
	S 23 / ¼ / S 26 / 1914
	from which
	A cedar, 6 ins.dia., brs. S.8°W., 40 lks. dist., marked ¼ S 26 BT
	A cedar, 7 ins.dia., brs. N.72°W., 52 lks. dist., marked ¼ S 23 B T
54.45	Ravine, drs. S.
	Ascend rocky land, 485 ft. to
80.16	The cor. of secs. 22, 23, 26 and 27.
	Land, rough broken mountains draining S.
	Soil, clay and rocks, shallow surface on rock subsoil; 4th rate.
	Timber, pinon and cedar.
	Undergrowth, scattering sagebrush, shadscale and grass.
	October 16, 1914.

October 20: At 7h 45m a.m., l.m.t., I set off 39°19' on the lat. arc; 10°09'S. 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.

Gradually ascend along rocky E. slope of ridge, through scattering pinon and cedar timber and scattering unde growth of shadscale, sagebrush and grass.

18.00	Top of rim and gently rolling mesa, 55 ft. above cor., brs. NE. and S.5°W.
36.70	Leave mesa and rocky rim, brs. E. and S.60°W.

Subdivision of T. 17 S., R. 16 E.

Chains

Descend rocky slope.

40.00 95 ft. below top.

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

S 22 | S 23
¼ |
1914

from which

A pinon, 4 ins.dia.,brs. S.77½°E., 41 lks. dist., marked ¼ S 23 B T

A cedar, 8 ins. dia., brs. S.85¼°W., 7½ lks. dist., marked ¼ S 22 B T

66.40 Ravine, 580 ft. below ¼ sec. cor., drs. W. Timber, scattering.

Ascend 175 ft. to

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 14, 15, 22 and 23, marked on brass cap

T 17 S | R 16 E
S 15 | S 14
S 22 | S 23
1914

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

Land, mountainous and rolling mesa top.

Soil, clay with loose boulders on surface on clay and rock subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, scattering shadscale, sagebrush and grass.

October 20: At this cor. I set off 10°14'S. on the decl. arc; and at 11h 45m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°20'.

N.89°57'E. on random line bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect N. and S. line 2 lks. N. of the cor. of secs.

Subdivision of T. 17 S., R. 16 E.

Chains	
	13, 14, 23 and 24.
	Thence I run
	S.89° 58'W. on a true line bet. secs. 14 and 23.
	Over rolling mesa top, through scattering cedar and pinon timber and scattering undergrowth of shadscale, sagebrush and grass.
7.25	Leave mesa, brs. NE. and SW.
	Descend 75 ft. to
11.00	Ravine, drs. NE. heads 4 chs. SW.
	Ascend 85 ft. to
15.55	Top of rim and mesa, brs. N. and S. Thence over mesa.
32.55	Head of ravine, drs. S.80°W.
40.05	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S 14 ¼ S 23 1914 from which A cedar, 8 ins.dia.,brs. N.56¾°E., 25 lks. dist., marked ¼ S 14 B T A cedar, 6 ins.dia.,brs. S.43°E., 38 lks. dist., marked ¼ S 23 B T
42.90	Leave mesa, brs. N.80°W. and S.85°E.
	Descend rocky S. slope, 445 ft. to
80.10	The cor. of secs. 14, 15, 22 and 23.
	Land, rolling mesa and mountainous, general S. exposure.
	Soil, clay and loose rocks on rocky and clay subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering shadscale, sagebrush and grass.

October 20, 1914.

October 21: At 8h 15m a.m., l.m.t., I set off 39°20' on

Subdivision of T. 17 S., R. 16 E.

Chains

the lat. arc; 10°31'S. 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°01'W. bet. secs. 14 and 15.

Ascend over rocky mountainous land, through scattering pinon and cedar timber and scattering undergrowth of sagebrush, shadscale and grass.

9.20 Top of rim and edge rolling mesa, 290 ft. above sec. cor., brs. SE. and N.10°W.

33.50 Top of rim and leave mesa, brs. E. and W.

Descend rocky slope 120 ft.

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

S 15	S 14
¼	

1914

from which

A cedar, 6 ins.dia., brs. S.79½°E., 7 lks. dist., marked ¼ S 14 B T

A cedar, 8 ins.dia., brs. N.59¼°W., 12 lks. dist., marked ¼ S 15 B T

58.00 Canyon, 360 ft. below ¼ sec. cor., course SW.

Ascend 285 ft. to

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked on brass cap

T 17 S S 10	R 16E S 11
S 15	S 14

1914

from which

A cedar, 6 ins.dia., brs. N.29¼°E., 33 lks. dist., marked T 17 S R 16 E S 11 B T

No tree within limits in sec. 14.

A cedar, 8 ins.dia., brs. S.41½°W., 85 lks.

Chains	
	dist., marked T 17 S R 16 E S 15 B T
	A cedar, 8 ins.dia.,brs. N.2¾°W., 65 lks. dist., marked T 17 S R 16 E S 10 B T
	raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, rolling mesa and rough mountains, general W. exposure.
	Soil, clay and loose limestone rock on rocky and clay subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	October 21: At this cor. I set off 10°35'S. on the decl. arc; and at 11h 45m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°21'.
	N.89°58'E. on random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. and S. line 7 lks. S. of the cor. of secs. 11, 12, 13 and 14.
	Thence I run
	S.89°55'W. on true line bet. secs. 11 and 14.
	Abrupt descent over mountainous land, through scattering cedar and pinon timber, and scattering undergrowth of sagebrush, shadscale and grass.
20.50	Foot of abrupt descent, 480 ft. below cor., brs. NE. and SW.
	Gradually descend.
31.60	Small ravine, drs. S.75°E.
	Thence over rolling hills, S. exposure.
40.06	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 11 ¼ / S 14 1914

Chains	
	from which
	A cedar, 6 ins. dia., brs. S.50°E., 23 lks. dist., marked ¼ S 14 BT.
	A cedar, 10 ins. dia., brs. N.3°W., 9 lks. dist., marked ¼ S 11 B. T.
46.25	Wash, 30 lks. wide, 8 ft. deep, drains S.
56.30	Wash, 50 lks. wide, 10 ft. deep, drains S.
60.20	Top ascent and leave hills.
	Descend 90 ft. to
71.05	Base of descent, drs. S.
	Ascend rocky S. slope 270 ft. to
80.12	The cor. of secs. 10, 11, 14 and 15.
	Land, mountainous and low broken hills, S. exposure.
	Soil, clay and some rocks on clay and rocky subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	October 21, 1914.

October 22: At 8h 15m a.m., l.m.t., I set off 39°21' on the lat. arc; 10°52'S. 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.

Ascend over rocky mountainous land, through scattering cedar and pinon timber and very scattering sagebrush, shadscale and grass.

6.80	Top of rim and edge of rolling mesa, 65 ft. above cor., brs. NE. and SW.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

Chains

from which

A cedar, 6 ins.dia., brs. N.53½°E., 20 lks. dist., marked ¼ S 11 B T

A cedar, 6 ins.dia., brs. S.75½°W., 55 lks. dist., marked ¼ S 10 B T

49.00 Small ravine, 60 ft. deep, drains W.

75.75 Ravine, 5 chs. wide, 50 ft. deep, drains W.

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 2, 3, 10 and 11, marked on brass cap

T 17 S S 3	R 16 E S 2
S 10	S 11

1914

from which

A pinon, 12 ins.dia., brs. N.32°E., 84 lks. dist., marked T 17 S R 16 E S 2 B T

A cedar, 8 ins.dia., brs. S.61¾°E., 82 lks. dist., marked T 17 S R 16 E S 11 B T

A cedar, 12 ins.dia., brs. S.44¾°W., 40 lks. dist., marked T 17 S R 16 E S 10 B T

A pinon, 12 ins.dia., brs. N.32°W., 68 lks. dist., marked T 17 S R 16 E S 3 B T

Land, rolling broken mesa and mountains.

Soil, clay and fine gravel mixed with rocks on clay and rocky subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

Knowing that I will not be able to survey the entire line bet. secs. 2 and 11, I run

N.89°55'E. on true line bet. secs. 2 and 11.

Over rolling hills, through scattering cedar and pinon timber and very scattering undergrowth of sagebrush,

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	shadscale and grass.
	Gradually descend.
13.00	Ravine, 30 ft. deep, drs. S.75°W.
	Ascend abruptly.
36.65	Top of abrupt ascent, 565 ft. above ravine.
	Thence along broken N. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap
	$\frac{S\ 2}{\frac{1}{4}}$ / S 11 1914
	from which
	A cedar, 12 ins. dia., brs. N.66½°E.,
	15 lks. dist. marked $\frac{1}{4}$ S 2 B T.
	A cedar, 10 ins. dia., brs. S.54½°E.,
	36 lks. dist. marked $\frac{1}{4}$ S 11 B T.
46.00	Foot of impassable sandstone ledges, br. NE. and SW.
	Am unable to continue line east on account of same.
	Land mountainous.
	Soil clay and loose rocks on rocky subsoil, 4th rate.
	Timber scattering pinon and cedar.
	Undergrowth very scattering sagebrush, shadscale and grass.
	October 22: At this station I set off 10°56'S. on the decl. arc, and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°22'.

Being unable to survey the entire E. bdy. of this Tp. and in order to establish the cor. of secs. 2, 3, 34 and 35 on N. bdy. of this Tp. I run

N.0°01'W. on true line bet. secs. 2 and 3.

Over rolling hills, through scattering pinon and cedar timber and very scattering sagebrush, shadscale and grass.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
19.00	Ascend very gradually over rocky land, brs. 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. marked on brass cap S $\frac{1}{4}$ 3 | S 2 1914 from which A pinon, 7 ins. dia., brs. S.50½°E., 19 lks. dist. marked $\frac{1}{4}$ S 2 B T. A pinon, 7 ins. dia., brs. N.64°W., 38 lks. dist. marked $\frac{1}{4}$ S 3 B T.
	October 22, 1914.
	October 23: At 8h 44m a.m., l.m.t., I set off 39°22' on the lat. arc, 11°15'S. on the decl. arc; and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 2 and 3.
	Thence I. run
	N.0°01'W.
45.40	Top of ascent, brs. W. 25 ft. above $\frac{1}{4}$ sec. cor. Gradually descend.
65.20	Ravine, 20 ft. below top, drs. S.30°W. Ascend very rocky land.
78.80	Point for cor. of secs. 2, 3, 34 and 35 will fall on ledges and cor. point cannot be reached; therefore at this point Set an iron post 3 ft. long, 3 ins. in dia., 8 ins. in the ground and 16 ins. in mound of stone on solid rock for W C to cor. of secs. 2, 3, 34 and 35, marked on brass cap T 16 S | R 16 E S 34 | S 35 W.C S 3 | S 2 T 17 S 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land low broken mountains.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Soil, clay and loose rocks on rock subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	Storm of rain at 11 a.m. prevents further field work this day.
	October 23, 1914.

October 17: At 7h 45m a.m., l.m.t., I set off 39°17' on the lat. arc; 9°03'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34 on S. bdy. of the Tp. heretofore described.

Thence I run N.0°02'W. bet. secs. 33 and 34.

Ascend over rocky mountainous land, through scattering pinon and cedar timber and very scattering undergrowth of sagebrush, shadscale and grass.

11.30 Ridge, 220 ft. above cor., brs. E. and W.

Abrupt descent 95 ft. to

15.05 Ravine, drains E. Heads 7 chs. W.

Ascend 35 ft. to

20.00 Point falls E.

Descend.

27.25 Ravine, 50 ft. below point, drs. E.

Ascend 45 ft. to

32.50 Top of level mountain, brs. N.5°E. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap

S 33 | S 34
¼
1914

from which

A cedar, 6 ins. dia., brs. S.58°E., 90 lks. dist., marked ¼ S 34 B T

Subdivision of T. 17 S., R. 16 E.

Chains

A cedar, 6 ins.dia.,brs. N.24¼°W., 47 lks. dist., marked ¼ S 33 B T

41.75 Leave level mountain, brs. NW. and S.5°E.

Abrupt descent over E. slope, 435 ft. to.

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap

T 17 S	R 16 E
S 28	S 27
S.33	S 34

1914

from which

A pinon, 8 ins.dia.,brs. N.23¾°E., 110½ lks. dist., marked T 17 S R 16 E S 27 B T

A cedar, 7 ins.dia.,brs. S.19¾°E., 79 lks. dist., marked T 17 S R 16 E S 34 B T

A cedar, 6 ins.dia.,brs. S.33½°W., 115 lks. dist., marked T 17 S R 16 E S 33 B T

A cedar, 7 ins.dia.,brs. N.87¼°W., 60 lks. dist., marked T 17 S R 16 E S 28 B T

Land, broken mountains.

Soil, clay and loose rocks on rocky subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, very scattering sagebrush, shadscale and grass.

October 17: At this cor. I set off 9°08'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.

East on a random line bet. secs. 27 and 34.

40.00 Set temp. ¼ sec. cor.

79.90 Intersect N. and S. line 11 lks. N. of the cor. of secs. 26, 27, 34 and 35.

Thence I. run

N.89°55'W. on a true line bet. secs. 27 and 34.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Over bottom of Range Creek Canyon, through undergrowth of sagebrush, shadscale and grass. A few scattering cottonwood trees.
2.30	Range Creek, 15 lks. wide, 6 ins. deep, course SE.
11.90	Leave canyon, brs. NW. and SE. Abrupt ascent.
16.90	Enter scattering pinon and cedar timber, brs. NW. and SE.
35.40	Spur, 170 ft. above canyon, brs. N.
	Abrupt descent 105 ft. to
39.95	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S. 27 ¼ S 34 1914 from which A cedar, 6 ins. dia., brs. N.22°E., 11½ lks. dist., marked ¼ S 27 B T A pinon, 10 ins. dia., brs. S.46¾°W., 63 lks. dist., marked ¼ S 34 B T
47.40	Canyon, 75 ft. below cor., course NE.
	Abrupt ascent of 910 ft. over broken sandstone ledges to
79.90	The cor. of secs. 27, 28, 33 and 34.
	Land, mountainous and canyon bottom.
	Soil, clay and rocks on rocky subsoil; 4th rate.
	Timber, scattering pinon and cedar. Some cottonwood in canyon bottom.
	Undergrowth, scattering sagebrush, shadscale and grass.
	October 17, 1914.

October 19: At 7h 45m a.m., l.m.t., I set off 39°18' on the lat. arc; 9°47'S. 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°02'W. bet. secs. 27 and 28.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Descend over rocky mountainous land, through scattering pinon and cedar timber and very scattering undergrowth of shadscale, sagebrush and grass.
14.00	Head of ravine, 180 ft. below cor., drains E. Ascend 20 ft. to
15.30	Top of rolling mesa, brs. NE. and SW.
32.00	Leave mesa and timber becomes very scattering, brs. N.25°E. and S.25°W. Abrupt descent 295 ft. over broken sandstone ledges.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone, on solid rock for ¼ sec. cor., marked on brass cap S 28 | S 27 ¼ 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. October 19: At this cor. I set off 9°52'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.
49.50	Turtle Canyon, 180 ft. below ¼ sec. cor., course NE. Abrupt ascent over broken sandstone ledges.
79.02	Point for cor. of secs. 21, 22, 27 and 28 will fall on ledge where cor. cannot be set, therefore at this point I set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for W. C. to cor. of secs. 21, 22, 27 and 28, marked on brass cap T 17 S | R 16 E S 21 | S 22 WC S 28 | S 27 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Cor. stands at foot of perpendicular ledge.
80.00	Point for cor. of secs. 21, 22, 27 and 28 on ledge. No cor. set.

Chains

Land, rough and mountainous, drs. NE.

Soil, clay and rocks on rocky subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, very scattering shadscale, sagebrush and grass.

October 19, 1914.

October 26: At 7h 44m a.m., l.m.t., I set off 39°19' on the lat. arc; 12°15'S. on the decl. arc; and determine a meridian with the solar at the W. C. to secs. 21, 22, 27 and 28.

Thence I run

S.89°55'E. on offset and random line bet. secs. 22 and 27.

.50 Offset N. 98 lks. to true random line bet. secs. 22 and 27.

Thence

S.89°55'E. on true random line.

40.00 Set temp. ¼ sec. cor.

79.82 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 22, 23, 26 and 27.

Thence I run

N.89°58'W. on true line bet. secs. 22 and 27.

Ascend over mountainous land, through scattering cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.

4.07 Spur, 80 ft. above cor., brs. S.5°E.

Descend 470 ft. to

39.91 Set an iron post 3 ft. long; 1 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap

S 22
¼
S 27
1914

from which

A cedar, 7 ins. dia., brs. N.20°E., 22½ lks.

Chains	
	dist., marked ¼ S 22 B T
	A cedar, 8 ins. dia., brs. S.60½°E., 71 lks.
	dist., marked ¼ S 27 B T
	Descend gradually.
45.80	Top of sandstone ledges, br. N. and S.
	Abrupt descent 505 ft. to
64.05	Base of ledges and Range Creek Canyon, bears N. and S.
	Thence in canyon.
65.05	Range Creek, 15 lks. wide, 6 ins. deep, course S.5°E.
67.32	Trail, brs. N. and S.
70.32	Leave canyon, brs. N. and S.
	Abrupt ascent over rocky ground.
79.32	Offset S. 98 lks. to pass ledge.
	Thence N.89°58'W. on S. side of ledge to
79.82	The W. C. to secs. 21, 22, 27 and 28.
	Land, mountainous.
	Soil, sandy, gravelly, clay and loose rock on rock subsoil; 4th rate.
	Timber, scattering pinon and cedar.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	October 26: At the W. C. to secs. 21, 22, 27 and 28, I set off 12°20'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.
	From the W. C. to cor. of secs. 21, 22, 27 and 28,
	I offset E. .50 chs. to pass ledge.
	Thence N.0°02'W. on offset line bet. secs. 21 and 22.
	Over rough mountainous land, ascending over ledges through scattering pinon and cedar timber and very scattering undergrowth of sagebrush, shadscale and grass.
4.00	Thence offset W. 50 lks. to true line.
	Thence, N.0°02'W. on true line bet. secs. 21 and 22.
	Along rough broken E. slope near top rim of mesa.

Chains	
26.10	Top of rim and edge of mesa, brs. N.5°E. and S.5°W.
	Thence over mesa.
40.98	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

S 21 | S 22
¼
1914

from which

A pinon, 10 ins. dia., brs. N.41¼°E., 86 lks. dist., marked ¼ S 22 B T

A cedar, 12 ins. dia., brs. S.83¾°W., 61 lks. dist., marked ¼ S 21 B T

40.75	Wash, 25 lks. wide, 4 ft. deep, drains E.
47.10	Rim of mesa, brs. E. and W. Abrupt descent.
55.10	Ravine, 175 ft. deep, drains E.
	Abrupt ascent over broken ledges.
63.15	Top of rolling mesa, brs. E. and W.
80.98	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap

T 17 S | R 16 E
S 16 | S 15
S 21 | S 22
1914

from which

A cedar, 6 ins. dia., brs. N.10¼°E., 21⅝ lks. dist., marked T 17 S R 16 E S 15 B T

A cedar, 7 ins. dia., brs. S.53⅜°E., 55 lks. dist., marked T 17 S R 16 E S 22 B T

A cedar, 12 ins. dia., brs. S.12°W., 24 lks. dist., marked T 17 S R 16 E S 21 B T

A cedar, 7 ins. dia., brs. N.64¼°W., 65 lks. dist., marked T 17 S R 16 E S 16 B T

Land, rough broken mountains and rolling mesas.

Soil, gravelly, sandy and rocky, sandstone formation on rocky subsoil; 4th rate.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	October 26, 1914.
	October 27: At 7h 44m a.m., l.m.t., I set off 39°20' on the lat. arc; 12°36'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence I run
	S.89°58'E. on random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect N. and S. line, 12 lks. S. of cor. of secs. 14, 15, 22 and 23.
	Thence
	S.89°57'W. on true line bet, secs. 15 and 22.
	Descend over rocky mountainous land, through scattering pinon and cedar timber and very scattering undergrowth of shadscale, sagebrush and grass.
13.50	Foot of descent, 145 ft. below cor., brs. NW. and SE.
	Thence over rolling bench.
39.93	Set an iron post 3 ft. long, 1 in. in dia., 6 ins. in the ground and 20 ins. in mound of stone, on solid rock for ¼ sec. cor., marked on brass cap S 15 ¼ S. 22 1914 from which A cedar, 6 ins.dia.,brs. N.4½°E., 50½ lks. dist., marked ¼ S 15 B T A cedar, 7 ins.dia.,brs. S.8½°W., 32½ lks. dist., marked ¼ S 22 B T
45.10	Descend over rim, brs. N. and S.
53.00	Leave timber, brs. N. and S.

Subdivision of T. 17 S., R. 16 E.

Chains	
63.10	Range Creek and canyon, 15 lks. wide, 6 ins. deep, drs. S.
	250 ft. below top of rim.
67.00	Leave canyon, bearing N. and S.
	Ascend abruptly 150 ft. to
70.15	Enter mesa and scattering pinon and cedar timber, brs. N. and S.
	Thence over rolling mesa.
79.86	The cor. of secs. 15, 16, 21 and 22.
	Land, rolling mesas and rough broken mountains.
	Soil, light, fine sandy and gravelly surface, very shallow on rock subsoil; 4th rate.
	Timber, scattering scrub cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	October 27: At this cor. I set off 12°41'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°20'.
	N.0°02'W. bet. secs. 15 and 16.
	Over rolling mesa, through scattering cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.
14.00	Descend gradually.
39.75	Ravine, 210 ft. below top, drains E.
	Ascend over boulders.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 14 ins. in the ground and 12 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap

$$\frac{S\ 16}{\frac{1}{4}} \Big| \frac{S\ 15}{1914}$$

from which

A cedar, 14 ins. dia., brs. S. 12¾°E., 118 lks. dist., marked ¼ S 15 B T

Chains	
	A cedar, 16 ins.dia.,brs. S.27°W., 72 lks. dist., marked ¼ S 16 B T
50.50	Top of rim, 195 ft. above cor., brs. E. and W.
	Thence over rolling hills.
57.75	Descend gradually.
74.90	Enter Metches Canyon, 205 ft. below top, brs. E. and W.; drains E.
75.10	Wash in canyon, 50 lks.wide, 6 ft. deep, drains E.
78.25	Leave canyon; brs. E. and W.
	Abrupt ascent 35 ft. to
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked on brass cap

T 17 S	R 16 E
S 9	S 10
S 16	S 15

1915

from which

A cedar, 8 ins.dia.,brs. N.39°E., 54 lks. dist., marked T 17 S R 16 E S 10 B T

A cedar, 6 ins.dia.,brs. S.65°E.,127 lks. dist., marked T 17 S R 16 E S 15 B T

A cedar, 6 ins.dia.,brs. S.4¾°W., 34 lks. dist., marked T 17 S R 16 E S 16 B T

A cedar, 6 ins.dia.,brs. N.12°W., 66 lks. dist., marked T 17 S R 16 E S 9 B T

Land, rough mountains and rolling mesas, draining E.

Soil, gravelly, sandy and loose rocks on rocky subsoil; 4th rate.

Timber, scattering pinon and cedar.

Undergrowth, very scattering sagebrush, shadscale and grass.

October 27, 1914.

October 28: At 8h 14m a.m.,l.m.t., I set off 39°21' on

SUBDIVISION OF T.17 S.R.16 E.

Chains

the lat. arc; 12°56'S. 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.89°57'E. on a random line bet. secs. 10 and 15.

40.00 Set temp. ¼ sec. cor.

79.84 Intersect N. and S. line 12 lks. N. of the cor. of secs. 10, 11, 14 and 15. Thence

N.89°58'W. on true line bet. secs. 10 and 15.

Over rolling land, through scattering cedar and pinon timber and undergrowth of sagebrush, shadscale and grass.

19.85 Point falls S.

Descend abruptly 360 ft. to

37.75 Gulch drains SW.

Ascend 25 ft. to

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

$$\frac{S\ \frac{1}{4}\ 10}{S\ 15}$$
1914

from which

A cedar, 10 ins. dia., brs. N.52¼°E., 10 lks. dist. marked ¼ S 10 B T.

A cedar, 6 ins. dia., brs. S.35¾°E., 4 lks. dist. marked ¼ S 15 B T.

Ascend 28 ft. to

41.80 Spur brs. SW.

From this point house bears S.19°57'W., approximately 39 chs. dist.

Cor. No. 1 of field cannot be seen.

Cor. No. 2 of field brs. S.17°35'W.

Cor. No. 3 of field brs. S.12°15'W.

Cor. No. 4 of field brs. S.51°40'W.

Barn brs. S.27°W., approximately 34.00 chs. dist.

Descend.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
54.38	House cannot be seen from here.
	A point at fence E. of house brs. S.5°E.
	Cor. No. 1 of field brs. S.37°49'W. abt.20 chs.dist.
	Cor. No. 2 of field brs. S.2°44'W.
	Cor. No. 3 of field brs. S.2°37'E.
	Cor. No. 4 of field brs. S.18°10'W.
55.85	Bottom of canyon, 195 ft. below spur, brs. N. and S.
	Leave timber. Thence in bottom of Range Creek Canyon.
62.24	Range Creek, 12 lks. wide, 6 ins. deep, course S.
65.04	Trail brs. N. and S.
66.10	Leave canyon brs. N. and S.
	Ascend gradually along S. slope of N. side of Metches Canyon.
67.85	Enter scattering pinon and cedar timber, brs. N. and S.
79.84	70 ft. above canyon.
	The cor. of secs. 9, 10, 15 and 16.
	Land mountainous.
	Soil clay and loose rocks on solid rock subsoil, 4th rate.
	Timber scattering scrub cedar and pinon.
	Undergrowth scattering sagebrush, shadscale and grass.
	October 28: At this cor. I set off 13°01'S. on the decl. arc, and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°21'.
	N.0°02'W. bet. secs. 9 and 10.
	Ascend abruptly through scattering cedar and pinon timber and undergrowth of shadscale, sagebrush and grass.
2.00	Top of abrupt ascent; 55 ft. above cor.
	Ascend gradually.
15.00	Top of ascent, 65 ft. above top of abrupt ascent, brs. SE.
	Descend gradually.
16.00	From this point cor. No. 1 of field brs. N.75°04'E.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Cor. No 2 of field brs. N.77°E.
34.05	From this point, cor. No. 1 of field brs. S.36°07'E.
	Cor. No. 2 of field brs. S.59°18'E.
40.00	75 ft. below top.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
	S 9 | S 10 ¼ 1914
	from which
	A cedar, 6 ins.dia.,brs. N.43¾°E., 77 lks. dist., marked ¼ S 10 B T
	A cedar, 6 ins.dia.,brs. N.22½°W., 7 lks. dist., marked ¼ S 9 B T
42.25	Enter Range Creek Canyon and leave timber, brs. NW. and SE.
47.65	Pole fence and row of cottonwood trees along same, brs. N.16°07'W. and S.16°07'E.
	Enter alfalfa field.
64.10	Range Creek, 12 lks. wide, 6 ins. deep, course SE.
64.38	Cor. No. 3 of fence, brs. N.87°37'E.
70.66	Pole fence brs. S.60°10'E. to cor. No. 3 and S.39°50'W. to cor. No. 4. Leave alfalfa field.
75.00	Enter scattering cedar and pinon timber, brs. E. and W.
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked on brass cap
	T 17 S | R 16 E S 4 | S 3 S 9 | S 10 1914
	from which
	A cedar, 6 ins.dia.,brs. N.65°E., 36 lks. dist.,marked T 17 S R 16 E S 3 B T
	A cedar, 6 ins.dia.,brs. S.40¾°E., 40 lks. dist.,marked T 17 S R 16 E S 10 B T

Chains	
	A cedar, 10 ins. dia., brs. S.39½°W., 38 lks. dist., marked T 17 S R 16 E S 9 B T
	A cedar, 12 ins. dia., brs. N.64°W., 16 lks. dist., marked T 17 S R 16 E S 4 B T
	Land, mountainous and level canyon bottom.
	Soil, mountainous part, gravelly, clay and rocky on rocky subsoil; 4th rate. Soil in canyon bottom, sandy loam and gravel on sandy subsoil; 1st rate.
	Timber, scattering cedar and pinon, some cottonwood in canyon.
	Undergrowth, shadscale, sagebrush and grass.
	October 28, 1914.
	October 29: At 8h 14m a.m., l.m.t., I set off 39°22' on the lat. arc; 13°17'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10.
	Thence I run
	S.89°58'E. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.76	Intersect N. and S. line 2 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	Thence I run
	N.89°57'W. on a true line bet. secs. 3 and 10;
	Descend over mountainous land, through scattering cedar and pinon timber and undergrowth of scattering sage-brush, shadscale and grass.
8.00	Descend into ravine bearing N. and S.
12.95	Ravine, 6 chs. wide, 50 ft. deep, drains S. Ascend.
15.00	Top of ascent, brs. N. and S.
	Thence over rolling bench land;
39.88	Set an iron post 3 ft. long, 1 in. in dia., 8 ins. in the ground and 18 ins. in a mound of stone an solid rock for ¼ sec.cor., marked on brass cap

Subdivision of T. 17 S., R. 16 E.

Chains	
	S. 3 ¼ / S 10 1914
	from which
	A cedar, 6 ins.dia., brs. N.36½°E., 71 lks. dist., marked ¼ S 3 B T
	A cedar, 8 ins.dia., brs. S.80½°W., 120 lks. dist., marked ¼ S 10 B T
60.75	Top of rim, brs. NW. and S. Leave bench land. Descend abruptly 260 ft. to
79.45	Bottom of descent, brs. N. and S. Enter Range Creek Canyon.
79.76	The cor. of secs. 3, 4, 9 and 10.
	Land, rolling bench land and mountainous, S. exposure.
	Soil, sandy clay and loose rocks on rocky subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, sagebrush, shadscale and grass.
	October 29: At this cor. I set off 13°21'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°22'.
	N.0°02'W. on a random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. bdy. of the Tp. 23 lks. W. of the cor. of secs. 3, 4, 33 and 34, heretofore described.
	Thence
	S.0°08'W. on a true line bet. secs. 3 and 4.
	Gradually descend over rolling hills, through scattering cedar and pinon timber and scattering undergrowth, of sagebrush, shadscale and grass.
14.00	Enter ravine, brs. NE. and S.10°W. Ravine drs. SW.
16.00	Wash, 20 lks. wide, 4 ft. deep, heads NE., drs. S.5°W.
17.80	Same wash, drs. S.10°E. Alkali seep in wash.
30.40	Leave ravine, brs. NW. and SE. Ascend.

Subdivision of T. 17 S., R. 16 E.

Chains	
33.90	Point, falls E.
	Descend 60 ft. to
36.50	Enter same ravine, brs. N.15°E. and S.15°W.
39.98	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
	S 4 | S 3 ¼ | 1914
	from which
	A cedar, 6 ins.dia.,brs. N.36½°E., 61 lks. dist., marked ¼ S 3 B T
	A cedar, 6 ins.dia.,brs. S.41¼°W., 91 lks. dist., marked ¼ S 4 BT
41.00	Wash, 20 lks. wide, 4 ft. deep, drains S.15°W.
43.00	Leave ravine, brs. N.15°E. and S.15°W.
	Ascend 105 ft. to
58.00	Top of ascent, brs. SW.
	Descend 145 ft. along W. slope to
76.00	Enter Range Creek Canyon, brs. E. and NW. Canyon drains SE.
79.98	The cor. of secs. 3, 4, 9 and 10.
	Land, rolling and broken hill draining S.
	Soil, clay and loose rocks on rocky subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	October 29, 1914.

October 30: At 7h 44m a.m.,l.m.t., I set off 39°17' on the lat. arc; 13°36'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33 on S. bdy. of the Tp. heretofore described.

Thence I run

N.0°03'W. bet. secs. 32 and 33.

Ascend abruptly over mountainous land and sandstone ledges, through scattering cedar and pinon timber and

Subdivision of T. 17 S., R. 16 E.

Chains	
	very scattering undergrowth of sagebrush, shadscale and grass.
23.00	Top of ledge point, 390 ft. above cor., falls E.
	Descend abruptly over ledges.
40.00	375 ft. below point.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

S 32 ¼ | S 33

1914

from which

A pinon, 12 ins.dia.,brs. N.10°E., 19 lks. dist., marked ¼ S 33 B T

A pinon, 8 ins.dia., brs. N.38°W.,119 lks. dist., marked ¼ S 32 B T

October 30: At this cor. I set off 13°41'S. on the decl. arc; and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.

61.20	Turtle Canyon, 315 ft. below ¼ sec. cor., drains E.
	Ascend abruptly 380 ft. over broken sandstone ledges to
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 8 ins. in the ground and 16 ins. in a mound of stone, on solid rock, for cor. of secs. 28, 29, 32 and 33, marked on brass cap

T 17 S | R 16 E
S 29 | S 28

S 32 | S 33

1914

from which

A pinon,10 ins.dia.,brs. N.18°E., 40 lks. dist., marked T 17 S R 16 E S 28 B T

A cedar, 6 ins.dia.,brs. S.2½°E., 95 lks. dist., marked T 17 S R 16 E S 33 B T

A cedar, 7 ins.dia.,brs. S.71¼°W.,28 lks. dist., marked T 17 S R 16 E S 32 B T

A cedar, 6 ins.dia.,brs. N.37¾°W.,52 lks.

Chains

dist., marked T 17 S R 16 E S 29 B T

Land, rough broken mountains.

Soil, shallow sandy and clay surface on rock subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

October 30, 1914.

October 31: At 7h 44m a.m., l.m.t., I set off 39°18' on the lat. arc; 13°55'S. 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.

79.80 Intersect N. and S. line, 16 lks. S. of the cor. of secs. 27, 28, 33 and 34.

Thence

S.89°53'W. on a true line bet. secs. 28 and 33.

Ascend over rocky mountainous land, through scattering cedar and pinon timber and undergrowth of sagebrush, shadscale and grass.

10.20 Ridge, 120 ft. above cor., brs. N. and S.

Descend 375 ft. to

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

S 28
¼
S 33
1914

from which

A cedar, 6 ins. dia., brs. N.67¼°E., 34 lks. dist., marked ¼ S 28 B T

A cedar, 10 ins. dia., brs. S.30°E., 37 lks. dist., marked ¼ S 33 B T

Chains	
	October 31: At this cor. I set off 14°00'S. on the decl. arc; and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.
63.30	Turtle Canyon, 550 ft. below ¼ sec. cor., drs. NE.
	Ascend abruptly 295 ft. to
74.45	Top of ascent, brs. S.
	Descend 45 ft. to
77.80	Gulch, drains S.
	Ascend 35 ft. to
79.80	The cor. of secs. 28, 29, 32 and 33.
	Land, rough broken mountains.
	Soil, clay, coarse gravel and loose rocks on rocky subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	October 31, 1914.

	November 2: At 7h 44m a.m.,l.m.t., I set off 39°18' on the lat. arc; 14°34' S. 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°03'W. bet. secs.28 and 29.
	Ascend abruptly over mountainous land and broken sandstone ledges, through scattering cedar and pinon timber and very scattering undergrowth of shadscale, sagebrush and grass.
16.10	Rim, 250 ft. above cor., brs. E. and W.
	Ascend gradually.
36.50	Top of ascent, 140 ft. above rim, brs. E.
	Descend 65 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

Chains

S 29 ¼ | S 28

1914

from which

A cedar, 9 ins.dia.,brs. N.32¾°E., 70 lks. dist., marked ¼ S 28 B T

A cedar, 6 ins.dia.,brs. N.13°W., 65 lks. dist., marked ¼ S 29 B T

57.50 Rim, 245 ft. below ¼ sec. cor., brs. E. and W.

Descend abruptly.

63.95 Canyon, 190 ft. below rim, drains E.

Ascend abruptly 190 ft. to

69.65 Top of rim and rolling mesa, brs. E. and W.

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 10 ins. in the ground and 14 ins. in a mound of stone, on solid rock, for cor. of secs. 20, 21, 28 and 29, marked on brass cap

T 17 S | R 16 E
S 20	S 21
S 29	S 28

1914

from which

A cedar,10 ins.dia.,brs. N.21½°E., 76 lks. dist., marked T 17 S R 16 E S 21 B T

A cedar, 8 ins.dia.,brs. S.72°E., 35 lks. dist., marked T 17 S R 16 E S 28 B T

A pinon, 4 ins.dia.,brs. S.22½°W., 8 lks. dist., marked T 17 S R 16 E S 29 B T

A pinon,10 ins.dia.,brs. N.55½°W., 52 lks. dist., marked T 17 S R 16 E S 20 B T

Land, rough broken mountains.

Soil, shallow, sandy, clay and loose rocks on rocky subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

Subdivision of T. 17 S., R. 16 E.

Chains	
	November 2: At this cor. I set off 14°39'S. on the decl. arc; and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.
	N.89°53'E. on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect N. and S. line 102 lks. N. of W.C. to secs. 21, 22, 27 and 28.
	Thence
	S.89°55'W. on a true line bet. secs. 21 and 28.
	Over rough mountainous land, through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.
	Ascend abruptly over sandstone ledges to
1.00	Edge of mesa, brs. N.5°E. and S.5°W.
	Thence over rolling bench land.
39.93	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap S 21 ¼ S 28 1914 from which A pinon,6 ins.dia.,brs. N.36°15'E., 51 lks. dist., marked ¼ S 21 B T A cedar,7 ins.dia.,brs. S.1°W., 15 lks. dist., marked ¼ S 28 B T
75.60	Rocky gulch, 40 ft. deep, drs. SE.
	Ascend.
79.86	The cor. of secs. 20, 21, 28 and 29.
	Land, mountainous and rolling mesa or bench land.
	Soil, clay, sandy and loose rocks, shallow surface on rock subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and

Subdivision of T. 17 S., R. 16 E.

Chains	
	grass.
	November 2, 1914.
	November 3, 1914: At 7h 44m a.m., l.m.t., I set off 39°19' on the lat. arc; 14°53'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.
	Thence I run
	N.0°03'W. bet. secs. 20 and 21.
	Over rolling mesa top, through scattering cedar and pino timber and very scattering undergrowth of shadscale, sagebrush and grass.
13.60	Rocky wash, 50 lks. wide, 15 ft. deep, drs. SE.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap S 20 | S 21 $\frac{1}{4}$ 1914 from which A cedar, 6 ins.dia., brs. N.32°15'E., 51 lks. dist., marked $\frac{1}{4}$ S 21 B T A pinon, 7 ins.dia., brs. S.25°W., 13 lks. dist., marked $\frac{1}{4}$ S 20 B T
41.75	Ridge, 50 ft. above cor. brs. N.75°E. and S.75°W. Descend.
73.60	Canyon, 735 ft. below ridge, drs. E.
	Ascend 155 ft. to
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 8 ins. in the ground and 16 ins. in a mound of stone, on solid rock, for cor. of secs. 16, 17, 20 and 21, marked on brass cap T 17 S | R 16 E S 17 | S 16 S 20 | S 21 1914 from which

SUBDIVISION OF T.17 S.R.16 E.

Chains

A cedar, 8 ins. dia.,brs. N.58¼°E.,
124 lks. dist. marked T 17 S R 16 E S 16 B T.
A cedar, 4 ins. dia.,brs. S.67¾°E.,
19 lks. dist. marked T 17 S R 16 E S 21 B T.
A cedar, 6 ins. dia.,brs. S.56¾°W.,
82 lks. dist. marked T 17 S R 16 E S 20 B T.
A cedar, 9 ins. dia.,brs. N.75¼°W.,
76 lks. dist. marked T 17 S R 16 E S 17 B T.

Land rolling mesa and rough mountains.

Soil shallow blue clay and loose rocks on rock subsoil, 4th rate.

Timber scattering cedar and pinon.

Undergrowth very scattering sagebrush, shadscale and grass.

November 3: At this cor. I set off 14°58'S. on the decl. arc, and at 11h 44m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°20'.

N.89°55'E. on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

79.92 Intersect N. and S. line at the cor. of secs. 15, 16, 21 and 22.

Thence

S.89°55'W. on a true line bet. secs. 16 and 21.

Ascend gradually over rolling mesa, through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.

14.90 Top of ascent, brs. S.

Descend gradually.

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

S 16
¼
S 21
1914

Chains	
	from which
	A cedar, 6 ins. dia.,brs. N.69¾°W.,
	20½ lks. dist. marked ¼ S 16 B T.
	A cedar, 6 ins. dia.,brs. S.11½°E.,
	42 lks. dist. marked ¼ S 21 B T.
46.10	Small ravine, 150 ft. below point, drs. SE.
	Ascend gradually along S. slope at base of ridge.
71.90	Thence along level line, S. slope.
79.92	440 ft. above ravine.
	The cor. of secs. 16, 17, 20 and 21.
	Land rolling and broken mesa.
	Soil clay and sand with loose rocks, shallow surface on rock subsoil, 4th rate.
	Timber scattering cedar and pinon.
	Undergrowth very scattering sagebrush, shadscale and grass.
	November 3, 1914.

November 4: At 8h 14m a.m.,l.m.t., I set off 39°20' on the lat. arc, 15°12'S. on the decl. arc; and determin a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.

Thence I run

N.0°03'W. bet. secs. 16 and 17.

Ascend over rocky mountainous land through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.

4.70	Ridge, 170 ft. above cor.,brs. E. and W.
	Descend 530 ft. to
32.50	Canyon drains E.
	Ascend 180 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia.,16 ins. in the ground and 10 ins. in a mound of stone on solid rock for ¼ sec. cor., marked on brass cap

Subdivision of T. 17 S., R. 16 E.

Chains

S 17	S 16
¼	

1914

from which

A cedar, 8 ins.dia.,brs. S.18½°E., 20½ lks. dist., marked ¼ S 16 B T

A cedar, 6 ins.dia.,brs. S.21½°W., 16 lks. dist., marked ¼ S.17 B. T.

49.75 Ridge, 280 ft. above cor., brs. E. and W.

Descend 30 ft. to

51.80 Ravine, drs. E., heads 8 chs. W.

Ascend 80 ft. to

58.00 Top of ascent and rolling mesa, brs. E. and W.

74.25 Rim, brs. E. and W. Leave mesa.

Descend abruptly 160 ft. to

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap

T 17 S S 8	R 16 E S 9
S 17	S 16

1914

from which

A cedar, 7 ins.dia.,brs. N.45¾°E., 33 lks. dist., marked T 17 S R 16 E S 9 B T

A pine, 5 ins.dia.,brs. S.51½°E., 27 lks. dist., marked T 17 S R 16 E S 16 B T

A cedar,10 ins.dia.,brs. S.58¾°W., 85 lks. dist., marked T 17 S R 16 E S 17 B T

A cedar,10 ins.dia.,brs. N.19¾°W., 83 lks. dist., marked T 17 S R 16 E S 8 B T

Land, rough mountains and rolling mesa.

Soil, shallow clay mixed with rocks on rock subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and

Subdivision of T. 17 S., R. 16 E.

Chains	
	grass.
	November 4: At this cor. I set off 15°17'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°21'.
	N.89°55'E. on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line, 7 lks. N. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	S.89°58'W. on a true line bet. secs. 9 and 16.
	Over rolling hills, through scattering pinon and cedar timber and very scattering undergrowth of sagebrush, shadscale and grass.
28.00	Leave hills, brs. N., and S.
	Descend.
30.25	Ravine, 60 ft. deep, drs. S. 6 chs. to main canyon.
	Ascend.
35.50	Top of ascent. Descend.
38.50	Enter Metches Canyon, 50 ft. below top of ascent, brs. N.80°W. and S.80°E. Canyon drains SE.
39.99	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S 9 ¼ S 16 1914 from which A cedar, 6 ins. dia., brs. N.26¼°E., 81 lks. dist., marked ¼ S 9 B T A cedar, 6 ins. dia., brs. S.35½°W., 25 lks. dist., marked ¼ S 16 B T
45.50	Wash in canyon, 30 lks. wide, 8 ft. deep, drains S.80°E.
53.00	Leave canyon, brs. N.75°W. and S.75°E.
	Ascend along N. slope 405 ft. to

Chains

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

Land, rolling hills and mountains.

Soil, fine gravel and clay, shallow surface on rocky subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

November 4, 1914.

November 5: At 7h 44m a.m., l.m.t., I set off 39°21' on the lat. arc; 15°30'S. 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°03'W. bet. secs. 8 and 9.

Descend N. slope, over mountainous land, through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.

9.50 Enter Metches Canyon, 265 ft. below cor., brs. E. and W. Canyon drains SE.

17.00 Wash in canyon, 20 lks. wide, 6 ft. deep, stream of alkali water in same, 1 lk. wide, 1 in. deep, drs. E.

Ascend 250 ft. to

40.00 Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in a mound of stone, on solid rock for ¼ sec. cor., marked on brass cap

S 8 | S 9
¼ |
1914

from which

A cedar, 7 ins. dia., brs. S.85¾°E., 54 lks. dist., marked ¼ S 9 B T

A pinon, 9 ins. dia., brs. S.23¼°W., 47 lks. dist., marked ¼ S 8 B T

43.39 Ascend over ledges; impossible to chain, therefore

Subdivision of T. 17 S., R. 16 E.

Chains

I offset as follows:

East 21.00 chs.

N.0°03'W. 36.61 chs.

West 21.00 chs. to

80.00 480 ft. above ¼ sec. cor.

Set an iron post 3 ft. long, 2 ins. in dia., 14 ins. in the ground and 10 ins. in a mound of stone, on solid rock, for cor. of secs. 4, 5, 8 and 9, marked on brass cap

T 17 S	R 16 E
S 5	S 4
S 8	S 9

1914

from which

A pinon, 6 ins.dia.,brs. N.72°45'E., 53 lks. dist., marked T 17 S R 16 E S 4 B T

A cedar, 6 ins.dia.,brs. S.18°E., 21½ lks. dist., marked T 17 S R 16 E S 9 B T

A cedar, 4 ins.dia.,brs. S.52°15'W., 11 lks. dist., marked T 17 S R 16 E S 8 B T

A cedar, 6 ins.dia.,brs. N.44°30'W., 52 lks. dist., marked T 17 S R 16 E S 5 B T

Land, rough and mountainous.

Soil, shallow clay and loose rocks on rocky subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

November 5: At this cor. I set off 15°35'S. on the decl arc; and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°22'.

N.89°58'E. on a random line bet. secs. 4 and 9.

40.00 Set temp. ¼ sec. cor.

SUbdivision of T. 17 S., R. 16 E.

Chains	
79.88	Intersect N. and S. line 16 lks. S. of the cor. of secs. 3, 4, 9 and 10.
	Thence I run
	S.89°51'W. on a true line bet. secs. 4 and 9.
	Over bottom of Range Creek Canyon, through scattering cedar and pinon timber and undergrowth of sagebrush, shadscale and grass.
14.10	Range Creek, 12 lks. wide, 6 ins. deep, course S.10°E.
16.78	Trail, brs. N. and S.
18.90	Leave canyon, brs. N.10°W. and S.10°E.
	Ascend abruptly over rough land, 375 ft. to
31.50	Top of rim and rolling mesa, brs. N. and S.
39.94	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
	S 4 / ¼ / S 9 / 1914
	from which
	A pinon, 7 ins.dia.,brs. N.56°E., 57 lks. dist., marked ¼ S 4 B T
	A cedar, 8 ins.dia.,brs. S.48°15'W., 17 lks. dist., marked ¼ S 9 B T
49.90	Leave mesa, brs. N. and S.
	Descend 90 ft. to
56.40	Gulch, drs. NE.
	Ascend abruptly 540 ft. to
79.88	The cor. of secs. 4, 5, 8 and 9.
	Land, rough mountains, rolling mesa and level canyon bottom.
	Soil, gravelly, blue clay and rock on rocky subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 5, 1914.

Subdivision of T. 17 S., R. 16 E.

Chains	
	November 6: At 8h 14m a.m., l.m.t., I set off 39°22' on the lat. arc; 15°49'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.
	Note: Knowing that the line bet. secs. 4 and 5 will not intersect N. bdy. of the Tp. within limits at the cor. of secs. 4, 5, 32 and 33, I run true line bet. secs. 4 and 5 as follows:
	From this cor. line running N. passes over ledges and high rocky point, impossible to chain; therefore I offset as follows:
	East 20.00 chs.
	N.0°03'W. 40.00 chs.
	West 20.00 chs. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S 5 | S 4 ¼ 1914
	ffom which
	A cedar, 8 ins. dia., brs. S.87°45'E., 102 lks. dist., marked ¼ S 4 B T
	A pinon, 6 ins. dia., brs. S.62°W., 28 lks. dist., marked ¼ S 5 B T.
42.00	Descend gradually over rocky surface, through scattering cedar and pinon timber and undergrowth of sagebrush, shadscale and grass.
80.17	Intersect N. bdy. of Tp. 88 lks. N.89°10'W. of the cor. of secs. 4, 5, 32 and 33, heretofore described. At intersection
	I set an iron post 3 ft. long, 2 ins. in dia., 24 ins. i the ground for closing cor. of secs. 4 and 5, marked on brass cap

Subdivision of T. 17 S., R. 16 E.

Chains

T 16 S. | R 16 E.
S 32 | S 33
C C
S 5 | S 4
T 17 S.
1914

from which

A pinon, 4 ins. dia., brs. S. 22° 15' E., 177 lks. dist., marked T 17 S R 16 E S 4 B T

A pinon, 8 ins. dia., brs. S. 14° 15' E., 93 lks. dist., marked T 17 S R 16 E S 5 B T

Land, rough and mountainous.

Soil, clay and loose rock on rocky and clay subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, scattering sagebrush, shadscale and grass.

November 6, 1915.

November 7: At 8h 14m a.m., l.m.t., I set off 39° 17' on the lat. arc, 16° 07' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on S. bdy. of the Tp. heretofore described.

Thence I run

N. 0° 03' W. bet. secs. 31 and 32.

Descend abruptly over rocky mountainous land, through cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.

28.00 Ravine, 615 ft. below cor., drains N. 30° E.

Ascend 155 ft. to

35.00 Top of rim and edge of rolling mesa, 155 ft. above ravine, brs. N. 30° E. and S. 30° W.

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

S 31 | S 32
¼
1914

from which

Subdivision of T. 17 S., R. 16 E.

Chains

A cedar,10 ins.dia.,brs. S.41°30'E., 43 lks. dist., marked ¼ S 32 B T

A cedar,10 ins.dia.,brs. S.77°30'W., 15 lks. dist., marked ¼ S 31 B T

November 7: At this cor. I set off 16°11'S. on the decl. arc; and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.

64.50 Rim, brs. E. and W. Leave mesa.

Descend abruptly 340 ft. to

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked on brass cap

T 17 S S 30	R 16 E S 29
S 31	S 32

1914

from which

A cedar, 7 ins.dia.,brs. N.44°15'E., 80 lks. dist., marked T 17 S R 16 E S 29 B T

A cedar,10 ins.dia.,brs. S.9°45'E., 62 lks. dist., marked T 17 S R 16 E S 32 B T

A pinon, 4 ins.dia.,brs. S.17°30'W., 91 lks. dist., marked T 17 S R 16 E S 31 B T

A pinon, 4 ins.dia.,brs. N.46°45'W., 76 lks. dist., marked T 17 S R 16 E S 30 B T

Land, rough broken mountains, drains NE.

Soil, blue clay and loose rocks on clay and rocky subsoil; 4th rate.

Timber, cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

November 7, 1914.

November 9: At 7h 44m a.m.,l.m.t., I set off 39°18' on the lat. arc; 16°41'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30,

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	31 and 32.
	Thence I run
	East on random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect N. and S. line, 12 lks. S. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	S.89°55'W. on a true line bet. secs. 29 and 32.
	Over rough mountainous land through very scattering cedar and pinon timber and undergrowth of sagebrush, shad-scale and grass.
	Descend abruptly 220 ft. to
10.00	Base of descent, Ascend gradually over broken sandstone ledges.
39.96	Point for ¼ sec. cor. falls on ledge. No cor. set.
41.23	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for WC to ¼ sec. cor., marked on brass cap

T 17 S R 16 E
S 29

WC ¼

S 32
1914

from which

A pinon, 10 ins. dia., brs. S.33°15'W.,
43 lks. dist. mkd. W C ¼ S 32 B T.

A cedar, 4 ins. dia., brs. N.50°30'W.,
24 lks. dist. mkd. W C ¼ S 29 B T.

43.65	Top of ascent, 195 ft. above base.
	Descend.
51.00	Turtle Canyon, 160 ft. below top of ascent, drains S.80°E.
	Ascend through scattering timber and boulders.
79.92	375 ft. above canyon.
	The cor. of secs. 29, 30, 31 and 32.
	Land rough broken mountains.
	Soil clay and sandstone rock on rocky and clay subsoil, 4th rate.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	Timber scattering cedar and pinon.
	Undergrowth very scattering sagebrush, shadscale and grass.
	November 9: At this cor. I set off 16°46'S. on the decl arc, and at 11h 44m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 39°18'.
	West on a random line bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
78.15	Intersect W. bdy. of the Tp. 6 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence I run
	S.89°57'E. on a true line bet. secs. 30 and 31.
	Over rough mountainous land through scattering cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.
	Descend towards Turtle Canyon.
6.65	Trail brs. N.70°E. and S.70°W.
10.15	Turtle Canyon, 110 ft. below cor., drs. SE.
	Ascend 290 ft. to
34.15	Spur, brs. S. 5 chs.
	Descend 150 ft. to
38.15	Set an iron post 3 ft. long, 1 in. in dia.,18 ins. in the ground and 8 ins. in a mound of stone on solid rock for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{S\ 30}{\frac{1}{4}}$ S 31 1914
	from which
	A cedar, 12 ins. dia.,bears N.20°15'E., 25 lks. dist. marked $\frac{1}{4}$ S 30 B T.
	A cedar, 6 ins. dia.,brs. S.72°W., 57 lks. dist. marked $\frac{1}{4}$ S 31 B T.
	Descend 55 ft. to
46.65	Turtle Canyon, small alkali seep in same, drs. N.80°E.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Ascend.
52.15	Top of ascent.
	Descend 50 ft. to
55.64	Gulch, drs. NE. 8 chs. to Turtle Canyon.
	Ascend 215 ft. to
70.15	Top of ascent.
	Descend 65 ft. to
78.15	The cor. of secs. 29, 30, 31 and 32.
	Land, rough broken mountains, draining NE.
	Soil, clay and loose rocks on rocky and clay subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, very scattering sagebrush, shadscale and grass.
	November 9, 1914.

November 10: At 7h 44m a.m.,l.m.t., I set off 39°18' on the lat. arc; 16°58'S. on the decl. arc; and determine a 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.

Descend abruptly over rugged mountainous land, through scattering cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.

16.80 Turtle Canyon, small alkali stream 1 lk. wide, 1 in. deep in same, drains E.

375 ft. below cor.

Abrupt ascent over sandstone ledges.

25.90 Top of ledges, 380 ft. above canyon, brs. E. and W.

Ascend gradually.

40.00 155 ft. above top of ledges,

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

Subdivision of T. 17 S., R. 16 E.

Chains

S 30 | S 29
1/4 |

1914

from which

A pinon, 10 ins. dia., brs. N.55°30'E., 21 lks. dist., marked 1/4 S 29 B T

A pinon, 10 ins. dia., brs. S.80°45'W., 73 lks. dist., marked 1/4 S 30 B T

53.60 Ridge, 270 ft. above cor., brs. E. and W.

Timber becomes very scattering, brs. E. and W.

Descend 270 ft. to

80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked on brass cap

T 17 S | R 16 E
S 19 | S 20
S 30 | S 29

1914

from which

A cedar, 7 ins. dia., brs. N.51°30'E., 138 lks. dist., marked T 17 S R 16 E S 20 B T

A cedar, 8 ins. dia., brs. S.58°45'E., 131 lks. dist., marked T 17 S R 16 E S 29 B T

A cedar, 6 ins. dia., brs. S.84°W., 335 lks. dist., marked T 17 S R 16 E S 30 B T

A cedar, 6 ins. dia., brs. N.73°45'W., 139 lks. dist., marked T 17 S R 16 E S 19 B T

Land, rough broken mountains, N. and S. exposures.

Soil, clay and rocky sandstone formation on rocky and clay subsoil; 4th rate.

Timber, scattering cedar and pinon.

Undergrowth, very scattering sagebrush, shadscale and grass.

November 10: At this cor. I set off 17°03'S. on the decl arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.

Subdivision of T. 17 S., R. 16 E.

Chains	
	N.89°55'E. on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line at the cor. of secs. 20, 21, 28 and 29. Thence I run
	S.89°55'W. on a true line bet. secs. 20 and 29.
	Descend gradually over rolling bench land, through scattering cedar and pinon timber and undergrowth of scattering sagebrush, shadscale and grass.
34.04	Leave bench, descend 70 ft. to
40.02	Set an iron post 3 ft. long, 1 in. in dia., 6 ins. in the ground, and 20 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap
	S 20 ¼ S 29 1914
	from which
	A pinon, 10 ins. dia., brs. S.56°W., 59 lks. dist., marked ¼ S 29 B T
	A pinon, 4 ins. dia., brs. N.27°45'W., 45 lks. dist., marked ¼ S 20 B T
	Descend 80 ft. to
44.05	Bottom of canyon, drs. S.75°E. Ascend gradually along S. side of canyon on N. slope, 160 ft. to
80.04	The cor. of secs. 19, 20, 29 and 30.
	Land, broken mountains and rolling bench land.
	Soil, sandy, mixed with loose rocks, shallow surface on solid rock subsoil; 4th rate.
	Timber, scattering cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 10, 1914.

November 11: At 7h 44m a.m., l.m.t., I set off 39°19' on the lat. arc; 17°15'S. 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°57'W. on a random line bet. secs. 19 and 30.

Subdivision of T. 17 S., R. 16 E.

Chains	
40.00	Set temp. ¼ sec. cor.
78.18	Intersect W. bdy. of Tp. 7 lks. S. of the cor. of secs. 24, 25 and 30, heretofore described.
	Thence I run
	S.89°54'E. on a true line bet. secs. 19 and 30.
	Ascend abruptly over rough mountainous land, through cedar and pinon timber and undergrowth of scattering sagebrush, shadscale and grass.
18.20	Top of rim and edge of mesa, 350 ft. above cor., brs. N. and S.
33.80	Top of rim, brs. N. and S. Leave mesa.
	Descend abruptly 180 ft. to
38.18	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground, and 14 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap
	S 19 ¼ S 30 1914
	from which
	A pinon, 6 ins.dia., brs. S.19°E., 25 lks. dist., marked ¼ S 30 B T
	A pinon, 8 ins.dia., brs. N.21°30'W., 22 lks. dist., marked ¼ S 19 B T
	Continue steep descent.
40.20	Descend more gradually along S. side of canyon.
68.20	Timber becomes scattering, brs. N. and S.
78.18	320 ft. below ¼ sec. cor.
	The cor. of secs. 19, 20, 29 and 30.
	Land, rough and mountainous, draining E. and W. from high mesa.
	Soil, clay and loose rocks, shallow surface on rock sub-soil; 4th rate.
	Timber, cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 11: At this cor. I set off 17°20'S. on the

Subdivision of T.17 S., R. 16 E.

Chains	
	decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°19'.
	N.0°03'W. bet. secs. 19 and 20.
	Descend gradually over mountainous land, through scattering cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.
9.50	Canyon, 105 ft. below cor., drs. E.
	Enter heavier timber, brs. E. and W.
	Ascend 475 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S 19 ¼ | S 20 1914 from which A cedar, 6 ins.dia.,brs. S.37°45'E., 18 lks. dist., marked ¼ S 20 B T A pinon,10 ins.dia.,brs. S.73°30'W., 33 lks. dist., marked ¼ S 19 B T
44.75	Top of rolling mesa, 40 ft. above ¼ sec. cor., brs. NE. and SW.
60.00	Ascend very rocky slope.
76.00	Top of steep ascent, 200 ft. above base, brs. E. and W.
	Descend 180 ft. to
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked on brass cap T 17 S | R 16 E S 18 | S 17 S 19 | S 20 1914 from which A pinon, 4 ins.dia.,brs. N.10°30'E., 75 lks. dist., marked T 17 S R 16 E S 17 B T

Subdivision of T. 17 S., R. 16 E.

Chains	
	A pinon, 4 ins.dia.,brs. S.58°15'E., 16 lks. dist., marked T 17 S R 16 E S 20 B T
	A pinon, 3 ins.dia.,brs. S.57°45'W., 26 lks. dist., marked T 17 S R 16 E S 19 B T
	A pinon, 5 ins.dia.,brs. N.36°15'W.,125 lks. dist., marked T 17 S R 16 E S 18 B T
	Land, mountainous.
	Soil, clay and loose rocks on rocky and clay subsoil; 4th rate.
	Timber, cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 11, 1914.
	November 12: At 8h 14m a.m.,l.m.t., I set off 39°20' on the lat. arc; 17°33'S.on the decl. arc; and determine meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	N.89°55'E. on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
79.84	Intersect N. and S. line 7 lks. N. of the cor. of secs. 16, 17, 20 and 21.
	Thence I run
	S.89°58'W. on a true line bet. secs. 17 and 20.
	Over mountainous land, through cedar and pinon timber and undergrowth of scattering sagebrush, shadscale and grass.
	Ascend gradually along S. slope of ridge and rim.
18.34	Ascend more gradually along top of ridge, 270 ft. above cor.
31.34	Foot of ascent.
	Ascend 45 ft. to
33.85	Thence along N. slope of bluff, 60 ft. high.
39.92	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in

Subdivision of T. 17 S., R. 16 E.

Chains	
	the ground for ¼ sec. cor., marked on brass cap
	S 17 / ¼ / S 20 / 1914
	from which
	A pinon, 4 ins. dia., brs. N.51°E., 15½ lks. dist., marked ¼ S 17 B T
	A pinon, 6 ins. dia., brs. S.19°30'W., 25 lks. dist., marked ¼ S 20 B T
48.85	Descend.
53.35	Foot of descent, thence over rolling ground.
57.85	Rim, brs. N. and S.
	Descend abruptly.
59.85	Ravine, 50 ft. deep, heads 6 chs. S., drs. N.
	Ascend abruptly.
61.85	Top of rim, brs. N. and S.
	Ascend gradually over nearly level land.
66.85	Foot of ascent.
	Ascend 100 ft. to
71.85	Thence along N. slope of bluff.
79.84	The cor. of secs. 17, 18, 19 and 20.
	Land, rolling benches and mountainous.
	Soil, clay and loose boulders on rock and clay subsoil; 4th rate.
	Timber, cedar and pinon.
	Undergrowth, sagebrush, shadscale and grass.
	November 12: At this cor. I set off 17°36'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°20'.
	N.89°54'W. on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
78.09	Intersect W. bdy. of Tp. 7 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run

Chains	
	S.89°51'E. on a true line bet. secs. 18 and 19.
	Over broken mountainous land, through cedar and pinon timber and very scattering undergrowth of sagebrush, shadscale and grass.
10.40	Foot of ascent.
	Ascend abruptly 70 ft. to
14.00	Top of ascent and rocky point, brs. S. 4 chs.
	Descend gradually 110 ft. to
25.90	Top of rim and abrupt descent, brs. N. and S.
	Descend abruptly 310 ft. to
36.35	Ravine, heads 10 chs. N., drs. S.
	Ascend 60 ft. to
38.09	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S 18 ¼ S 19 1914 from which A cedar, 6 ins.dia., brs. N.76°E., 9 lks. dist., marked ¼ S 18 B T A cedar, 4 ins.dia., brs. S.34°15'E., 18½ lks. dist., marked ¼ S 19 B T
43.30	Rim, 155 ft. above ¼ sec. cor., brs. N. and S.
	Thence across broken mesa.
53.90	Rocky point, 60 ft. high; brs. S. 8 chs.
	Descend.
58.10	Foot of descent, brs. N. and S.
	Thence on mesa.
70.10	Base of ascent.
	Ascend abruptly.
73.10	Top of ascent, 95 ft. above base.
	Thence over N. slope along base of bluff.
78.09	The cor. of secs. 17, 18, 19 and 20.
	Land, rough broken mountains.
	Soil, clay and loose boulders on rocky and clay subsoil;

Chains	
	4th rate.
	Timber, cedar and pinon.
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 12, 1914.
	November 13: At 8h 14m a.m., l.m.t., I set off 39°20' on the lat. arc; 17°49'S. 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°03'W. bet. secs. 17 and 18.
	Descend abruptly over rocky mountainous land, through cedar and pinon timber and undergrowth of scattering shadscale, sagebrush and grass.
4.75	Foot of descent, 135 ft. below cor., brs. E. and W.
	Thence over rolling bench.
18.50	Begin descent, brs. E. and W.
22.00	Ravine, 135 ft. below top, heads 12 chs. W., drs. E.
	Ascend abruptly 135 ft. to
25.50	Top of flat ridge, brs. E. and W.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. in a mound of stone, on solid rock, for ¼ sec. cor., marked on brass cap

S 18 | S 17
¼
1914

from which

A cedar, 7 ins.dia., brs. S.59°E., 22 lks. dist., marked ¼ S 17 B T

A pinon, 10 ins.dia., brs. N.70°45'W., 36 lks. dist., marked ¼ S 18 B T

	November 13: At this ¼ sec. cor., I set off 17°53'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°20'.
41.50	Top of rim, brs. NE. and W.

Subdivision of T. 17 S., R. 16 E.

Chains	
	Descend abruptly 385 ft. to
52.90	Canyon, drs. NE.
	Ascend abruptly.
68.00	Timber becomes scattering, brs. E. and W.
80.00	600 ft. above canyon.

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked o brass cap

T 17 S	R 16 E
S 7	S 8
S 18	S 17

1914

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

Land, rough and mountainous draining E.

Soil, clay, fine gravel and loose rocks, shallow surface on rocky and clay subsoil; 4th rate.

Timber, cedar and pinon.

Undergrowth, scattering shadscale, sagebrush and grass.

November 13, 1914.

November 14: At 7h 44m a.m., l.m.t., I set off 39°21' on the lat. arc; 18°03'S. 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.89°58'E. on a random line bet. secs. 8 and 17.

40.00 Set temp. ¼ sec. cor.

79.88 Intersect N. and S. line, 15 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence

N.89°56'W. on a true line bet. secs. 8 and 17.

Ascend over rough mountainous land, through cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.

Chains	
	Along N. slope of ridge.
.01	Alkali spring, brs. N.25°20'W.
4.68	Alkali spring, brs. N.15°14'W.
5.88	Top of ascent, 160 ft. above cor.
	Descend abruptly 325 ft. to
31.15	Canyon, drs. NE. from the W.
	Thence in canyon.
38.38	Canyon turns NW.
	Ascend 60 ft. to
39.94	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., marked on brass cap

S 8
¼
S 17
1914

from which

A cedar, 14 ins. dia., brs. S.25°15'E., 36 lks. dist., marked ¼ S 17 B T

A cedar, 12 ins. dia., brs. N.3°45'W., 22 lks. dist., marked ¼ S 8 B T

From this ¼ cor. an alkali seep brs. S.64°50'E. 1.75 chs.

43.00	Spur, 120 ft. above cor. brs. N. 10 chs.
	Abrupt descent, 120 ft. to
47.00	Canyon drs. from SW. to N.
	Ascend abruptly.
62.85	Timber becomes scattering, brs. N. and S;
79.88	560 ft. above canyon.

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

Land, rough broken mountains.

Soil, clay and loose boulders on clay and rocky subsoil; 4th rate.

Timber, pinon and cedar.

Undergrowth, scattering sagebrush, shadscale and grass.

November 14: At this cor. I set off 18°09'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°21'.

Chains	
	N.89°51'W. on a random line bet. secs. 7 and 18.
40.00	Set temp. ¼ sec. cor.
77.96	Intersect W. bdy. of the Tp. 9 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	S.89°47'E. on a true line bet. secs. 7 and 18.
	Descend abruptly over rough broken mountainous land, through scattering cedar and pinon timber and under-growth of sagebrush, shadscale and grass.
20.95	Junction of two canyons from SW. and NW., 735 ft. below cor., drs. E.
	Thence in bottom of canyon.
29.20	Canyon turns S.75°E.
	Ascend broken S. slope 80 ft. to
37.96	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap

S ¼ 7

S 18
1914

from which

A pinon, 9 ins. dia., brs. N.30°30'E., 64 lks. dist., marked ¼ S 7 B T

A pinon, 10 ins. dia., brs. S.59°30'W., 15½ lks. dist., marked ¼ S 18 B. T

Cor. stands on top of ascent.

Descend 70 ft. to

48.95 Gulch, drs. SE.

Ascend abruptly 320 ft. to

70.40 Top of ascent and S. side of bluff.

Descend rocky S. slope 145 ft.

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

Land, rough and mountainous.

Soil, clay and coarse gravel mixed with loose rocks, shallow surface on clay and rocky subsoil; 4th rate.

Timber, cedar and pinon.

Chains	
	Undergrowth, scattering sagebrush, shadscale and grass.
	November 14, 1914.
	November 16: At 7h 45m a.m., l.m.t., I set off 39°21' on the lat. arc; 18°34'S. 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°03'W. bet. secs. 7 and 8.
	Over rough broken mountainous land, through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.
	Ascend along E. slope of bluff.
20.00	Top of ascent and E. side of bluff, 520 ft. above cor., brs. E.
	Enter heavier timber, brs. E. and W.
	Descend abruptly 620 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap S. 7 | S. 8 ¼ 1914 from which A pinon, 6 ins. dia., brs. S.46°45'E., 20 lks. dist., marked ¼ S 8 B T A cedar, 6 ins. dia., brs. N.34°W., 38 lks. dist., marked ¼ S 7 B T
	November 16: At this cor. I set off 18°39'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°21'.
53.60	Metches Canyon and small alkali stream 1 lk. wide, 1 in. deep, 270 ft. below ¼ sec. cor., brs. S.75°E.
	Ascend abruptly 295 ft. to
61.90	Top of abrupt ascent, brs. E. and W.
	Ascend very gradually.
73.00	Ascend abruptly over series of sandstone ledges, brs.

Subdivision of T. 17 S., R. 16 E.

Chains

E. and W.

80.00 115 ft. above base of ledges.

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked on brass cap

T 17 S	R 16 E
S 6	S 5
S 7	S 8

1914

from which

A cedar, 8 ins. dia., brs. N.60°15'E., 17½ lks. dist., marked T 17 S R 16 E S 5 B T

A pinon, 7 ins. dia., brs. S.24°30'E., 50 lks. dist., marked T 17 S R 16 E S 8 B T

A cedar, 6 ins. dia., brs. S.34°45'W., 71 lks. dist., marked T 17 S R 16 E S 7 B T

A pinon, 6 ins. dia., brs. N.65°45'W., 70 lks. dist., marked T 17 S R 16 E S 6 B T

Land, rough broken mountains.

Soil, clay, coarse gravel and loose rocks, shallow surface on rocky and clay subsoil; 4th rate.

Timber, cedar and pinon.

Undergrowth, scattering sagebrush, shadscale and grass.

November 16, 1914.

November 17: At 7h 45m a.m., l.m.t., I set off 39°22' on the lat. arc; 18°49'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8.

Thence I run

S.89°56'E. on a random line bet. secs. 5 and 8.

40.00 Set temp. ¼ sec. cor.

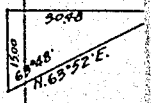
To determine the distance over ledges, I triangulate as follows:

Set flag on spur on line, thence measure a base S.0°04'W.

SUBDIVISION OF T.17 S.R.16 E.

Chains

15.00 chs. to a point whence the flag brs. N.63°52'E.
From the flag the S. end of base brs. S.63°52'W.;
therefore the dist. is tan. 63°48' x base or 2.032 x
15.00=30.48 chs., which added to 40.00 makes 70.48



70.48 Top of spur.

79.84 Intersect N. and S. line 2 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Thence

N.89°57'W. on a true line bet. secs. 5 and 8.

Ascend abruptly over rough broken mountainous land, through scattering cedar and pinon timber and undergrowth of very scattering sagebrush, shadscale and grass.

9.35 Top of ledge spur, 380 ft. above cor.,brs. SE.

Descend abruptly 1050 ft. over very rocky land to

39.92 Base of descent.

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

$$\frac{S\ \frac{1}{4}\ 5}{S\ 8}$$
1914

from which

A cedar, 10 ins. dia.,brs. S.76°15'W.,
17 lks. dist. marked $\frac{1}{4}$ S 8 B T.

A cedar, 12 ins. dia.,brs. N.5°45'W.,
64 lks. dist. marked $\frac{1}{4}$ S 5 B T.

November 17: At this cor. I set off 18°54'S. on the decl. arc, and at 11h 45m a.m.,l.m.t., observe the sun on the meridian, the resulting lat. is 39°22'.

Ascend abruptly 375 ft. to

56.85 Top of ascent and ledge point, brs. S.

Desc. abruptly 300 ft. to

71.85 Gulch draining S. Ascend 145 ft. to

79.84 The cor. of secs. 5, 6, 7 and 8.

Land rough, broken rocky mountains.

Soil coarse gravel and loose rocks on rocky subsoil, 4th rate.

SUBDIVISION OF T.17 S.R.16 E.

Chains	
	Timber scattering cedar and pinon.
	Undergrowth very scattering sagebrush, shadscale and grass.
	November 17, 1914.
	November 18: At 7h 45m a.m.,l.m.t., I set off 39°22' on the lat. arc, 19°04'S. 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°47'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
77.93	Intersect W. bdy. of the Tp. 5 lks. N. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence
	S.89°49'E. on true line bet. secs. 6 and 7.
	Over rough mountainous land, through cedar and pinon timber and undergrowth of very scattering shadscale and grass.
	Descend 110 ft. to
5.95	Ravine, drains NE.
	Ascend 30 ft. to
9.95	Top of ascent.
	Descend 30 ft. to
14.45	Enter Metches Canyon brs. N.75°W. and S.75°E.
	Canyon drs. SE.
	Thence in canyon.
23.45	Alkali stream in canyon, 1 lk. wide, 1 in. deep, drs. S.75°E.
	Leave canyon, ascend 90 ft. to
37.93	Set an iron post 3 ft. long, 1 in. in dia.,26 ins. in a mound of stone on solid rock for $\frac{1}{4}$ sec. cor. marked on brass cap
	$\frac{S\ 6}{\frac{1}{4}}$
	S 7
	1914

Subdivision of T.17 S., R. 16 W.

Chains	
	from which
	A pinon, 4 ins.dia.,brs. S.63°E., 35 lks.
	dist., marked ¼ S 7 B T
	A cedar,10 ins.dia.,brs. N.49°W., 27 lks.
	dist., marked ¼ S 6 B T
	November 18: At this cor. I set off 19°09'S. on the decl.
	arc; and at 11h 45m a.m., l.m.t., observe the sun on the
	meridian; the resulting lat. is 39°22'.
	Ascend gradually along rocky N. slope of ridge.
73.95	Top of ascent, 215 ft. above ¼ sec. cor.
	Descend abruptly 95 ft. to
77.93	The cor. of secs. 5, 6, 7 and 8.
	Land, rough broken mountains.
	Soil, rocky, on rocky subsoil; 4th rate.
	Timber, cedar and pinon.
	Undergrowth, scattering shadscale and grass.

The line bet. secs. 5 and 6 passes over series of sandstone ledges and cannot be surveyed.

Nov. 18, 1914.

GENERAL DESCRIPTION.

This township is generally rough and broken mountainous land with numerous outcroppings of ledges on the slopes; high sandstone ridges and spurs passing through secs. 1, 2, 11, 12, 5 and 6 making it impracticable to survey all of these sections.

The soil is generally a light sandy loam and loose rock, and is covered with a medium growth of rich grasses, and a scattering growth of scrub cedars and pinon pine.

This township affords excellent grazing for cattle and sheep during the winter months.

The only land found in this township that can be cultivated is along Range Creek which flows through

GENERAL DESCRIPTION.

secs. 4, 9, 10, 15, 22, 27, 35 and 36, the bottom of the canyon varying in width from 4 to 10 chs. The soil is rich sandy loam and will produce abundant crops with irrigation.

There are a few scattering groves of cottonwood and box-elder trees found along Range Creek.

Along Range Creek in secs. 35 and 36 are found indications of coal. There are no other indications of mineral found on this township.

Range Creek, which is a stream of fresh clear water, about 15 lks. wide, 6 ins. deep, flows through this township.

Water is also found in seeps along Metches Wash, which passes through secs. 6, 7, 8, 9 and 16, and there is also a small seep in Turtle Wash in sec. 32. The water in most of these seeps contains considerable alkali.

There is a field of alfalfa containing about 75 acres in secs. 9 and 10, and one containing about 25 acres in sec. 15. Claimants unknown. There are no other settlers in this township.

Ralph Gentry
U.S. Surveyor.

4—080

BOOK A-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry, U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of Retracement of the N. bdy. and survey of the N., E., S. and W. bdrs. and subdivision of T.17 S.,R.16 E.

the Salt Lake Base Meridian, in the State of Utah hich are represented in the foregoing field notes as having been executed by him, and under his direc-n; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
Virgil Wright	Sept. 21.1914	Nov. 18, 1914	Chainman
Sidney Reed	Sept. 21. 1914	Nov. 18, 1914	Chainman
Ernest E. Davison	Sept. 21, 1914	Nov. 18, 1914	Cornerman
Nelson A. Miller	Sept. 21. 1914	Nov. 18, 1914	Flagman

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

Ralph Gentry
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in purs
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 27 th. day of April, 1914, 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
Retracement of the N. bdy. and survey of the N.,E.,S. and W.
bdrs. and subdivision of T.17 S.,R.16 E.
of the Salt Lake Ba
and Meridian, in the State of Utah, 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 a
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Sur
General for Utah and in the specific manner described in the field notes, an
the foregoing are the original field notes of such survey.

Ralph Gentry
U. S. Survey

Subscribed by said Ralph Gentry and sworn to before me
this 29 day of January, 1916

SEAL

U. S. Surveyor Ge

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 1, 19

The foregoing field notes of the ~~survey of~~ retracement of north boundary ar
survey of the subdivisional lines of Township 17 South, Range 16 E
of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry
under his special instructions dated April 27, 1914, ~~XXX~~, having
critically examined, and the necessary corrections and explanations made, the said field notes, and
retracements and
surveys they describe, are hereby approved.

U. S. Surveyor Gener

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 offic

6—2761

U. S. Surveyor Genera

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BOOK A-411

FIELD NOTES

OF THE SURVEY OF THE

WEST, SOUTH AND EAST

BOUNDARIES

OF

T. 25 S., R. 26 E.

Of the Salt Lake Base and _____ *Meridian,*

the State of UTAH

EXECUTED BY

RALPH DENTY

the capacity of U. S. Surveyor , under instructions dated April 27 1914

ued by the United States Surveyor General to govern surveys included in

oup No. 28 *, which were approved by the Commissioner of the General Land*

ce, May 16 1914

Survey commenced May 16 1915

Survey completed July 6 1915

BOOK A-411

INDEX DIAGRAM.

Township 18 South , *Range* 16 East

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6—151

WEST BOUNDARY T. 18 S. R. 16 E.

Chains

Survey commenced May 16, 1915, and executed with a Buff and Buff transit No. 8028, with a Smith 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 approved by the Assistant Supervisor of Surveys in assignment instructions dated May 10, 1915.

A steel tape 4 chains long was used in all field work, together with clinometers for determining slope angles. The tape was tested frequently during the season, comparisons being made with a standard tape 1 chain long, kept for this purpose.

I re-examine the adjustments of the transit and solar attachment and correct the levels and line of collimation of the transit and the verniers of the latitude arc of the solar attachment; 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 center of Sec. 10, T. 18 S. R. 16 E., approximate lat. 39°16'N., long. 110°08'30"W., I set off 39°16'N. on the lat. arc, 19°03'N. on the decl. arc, and at 4h 56m p.m.,l.m.t. determine with the solar a meridian and mark a point thereof on a stake set firmly in the ground 5 chs. N. of my station.

Sky becomes overcast at 7h p.m.l.m.t., preventing observations on Polaris.

May 16, 1915.

Sky overcast and rain most of the day on May 17, 1915.

May 18: At 3h 52m a.m.,l.m.t., I observe Polaris at eastern elongation in accordance with 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.

WEST BOUNDARY T. 18 S. R. 16 E.

Chains	
	At 6h 45m a.m.,l.m.t., I lay off the azimuth of Polaris 1°28'30" to the west and mark the meridian thus determined on the stake set May 16, on which the meridian falls 0.5 ins. west of the mark determined by the sol
	At 6h 56m a.m.,l.m.t., I set off 39°16' on the lat. arc 19°25'N. on the decl. arc, and mark a point in the meridian determined with the solar on the stake already set 5 chs. N. of my station; this marks falls 0.4 ins west of the meridian established by the Polaris observation.
	The solar apparatus by p.m. and a.m. observations defin positions for meridians respectively about 0'26" east and 0'21" west of the meridian established by the Polaris observations; therefore I conclude that the a justments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 7h 05m a.m is N.15°30'W., the angle thus determined gives the magnetic decl. 15°30'E.
	May 18: At 8h 46m a.m.,l.m.t., I set off 39°17' on the lat. arc, 19°25'N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 17 and 18 S. Rs. 15 and 16 E. heretofore described.
	Thence
	South bet. secs. 1 and 6.
	Over rolling mesa land, through cedars and pinon pine and scattering undergrowth of grass and shadscale.
12.00	Top of ravine bearing NW. and SE.
	Descend.
22.50	Bottom of ravine, 95 ft. deep, drains NW. Ascend.
38.00	Top of mesa bearing E. and NW.
	Thence over rolling mesa.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground, raise a mound of stone 3 ft. base, 6 ins. high around post for the $\frac{1}{4}$ sec. cor. mkd. on brass cap

$S\ 1\ \frac{1}{4}\ |\ S\ 6$

WEST BOUNDARY T. 18 S. R. 16 E.

Chains	
	from which
	A cedar, 8 ins. dia., bears S.39°E.,
	49 lks. dist. mkd. ¼ S 6 B T.
	A cedar, 7 ins. dia., bears N.85°45'W.,
	67 lks. dist. mkd. ¼ S 1 B T.
54.00	Rim of mesa bearing NW. and SE.
	Enter scattering timber bearing NW. and SE.
	NOTE: Sky overcast at noon, observations for latitude impossible.
	Abrupt descent.
78.50	Ravine, 630 ft. below rim of mesa, drains S.60°W.
	Ascend.
80.00	50 ft. above ravine, on sandstone.
	Set an iron post, 3 ft. long, 3 ins. in dia., in mound of stone 4 ft. base, 2 ft. high, mkd. on brass cap

T 18 S.

R 15 E | R 16 E

S 1 | S. 6

S 12 | S 7

1915

from which

A cedar, 6 ins. dia., bears N.34°E.,
51 lks. dist. mkd. T 18 S R 16 E S 6 B T.

A cedar, 7 ins. dia., bears S.18°45'E.,
61 lks. dist. mkd. T 18 S R 16 E S 7 B T.

A cedar, 6 ins. dia., bears S.63°15'W.,
18 lks. dist. mkd. T 18 S R 15 E S 12 B T.

A pinon pine, 12 ins. dia., bears N.31°45'W.,
56 lks. dist. mkd. T 18 S R 15 E S 1 B T.

Land rolling mesa and mountains.

Soil, of mesa land N. 54 chs. light, sandy loam and loose rock; of S. 26 chs. light, sandy loam, loose rock and sandstone ledges, 4th rate.

Timber cedars and pinon pine on N. 54 chs. and scattering cedars and pinon pine on S. 26 chs.

Undergrowth grass and scattering shadscale.

Storm of rain at 2h 30m p.m. prevents work.

May 18, 1915.

WEST BOUNDARY T. 18 S. R. 16 E.

Chains	
	May 21: At 8h 26m a.m., l.m.t., I set off 39°16'30" on the lat. arc, 20°04'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 6, 7 and 12 on W. bdy. of Tp.
	Thence
	South bet. secs. 7 and 12.
	Over rough mountainous land, through scattering cedar and pinon pine timber and undergrowth of grass and shadscale.
	Ascend.
7.00	Point of spur, 35 ft. above cor., slopes W.
	Descend.
17.50	Gulch, 120 ft. below point of spur, drains W.
	Ascend.
28.20	Spur, 170 ft. above gulch, projects W.
	Descend over ledges.
37.50	Foot of ledges, 160 ft. below spur, bears W. and SE.
	Thence over rolling bench.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., mkd. on brass cap S ¼ 12 | S. 7 1915 from which A cedar, 6 ins. dia., bears S.88°35'E., 142 lks. dist. mkd. ¼ S 7 B T. A pinon pine, 8 ins. dia., bears S.32°15'W., 2.23 lks. dist. mkd. ¼ S 12 B T.
53.00	Wash, 1 ch. wide, 75 ft. deep, course S.60°W.
	Ascend.
69.20	West point of spur, 100 ft. above ¼ sec. cor., slopes W.
	At 11h 56m a.m., l.m.t., I set off 20°06'N. on the decl. arc, and observe the sun on the meridian, the resulting latitude is 39°16'.
	Descend.
74.10	Ravine, 80 ft. below spur, drains W.
	Ascend.

WEST BOUNDARY T. 18 S. R. 16 E.

Chains	
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for the cor. of secs. 7, 12, 13 and 18, mkd. on brass cap T 18 S R 15 E | R 16 E S 12 | S 7 S 13 | S 18 1915 and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor. Land rough and mountainous draining W. Soil light, coarse, sandy loam and loose rock with numerous ledge outcroppings. Timber scattering cedar and pinon pine. Undergrowth shadscale and grass.
	South bet. secs. 13 and 18. Ascend over rugged mountainous land with sandstone ledge outcroppings, through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Ascend.
22.20	Spur, 360 ft. above cor., projects SW. Descend over broken ledges.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap S ¼ 13 | S 18 1915 and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor. Corner falls on slope 370 ft. below spur. Cease work.
	May 21, 1915.
	May 22: At 8h 56m a.m., l.m.t., I set off 39°15' on the lat. arc, 20°16'N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 13 and 18 on W. bdy. of Tp.

WEST. BOUNDARY T. 18 S. R. 16 E.

Chains	
80.00	645 ft. below the ¼ sec. cor. Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 18, 19 and 24 mkd. on brass cap T 18 S R 15 E R 16 E S 13 | S 18 S 24 | S 19 1915 from which A cedar, 7 ins. dia., bears N.74°00'E., 64 lks. dist. mkd. T 18 S R 16 E S 18 B T. A cedar, 14 ins. dia., bears S.57°30'E., 45 lks. dist. mkd. T 18 S R 16 E S 19 B T. A cedar, 12 ins. in dia., bears S.65°45'W., 91 lks. dist. mkd. T 18 S R 15 E S 24 B T. A cedar, 8 ins. dia., bears N.55°15'W., 45 lks. dist. mkd. T 18 S R 15 E S 13 B T. Land rough and mountainous. Soil gray sandy loam and loose rock outcroppings of ledges, 4th rate. Timber scattering cedars and pinon pine. Undergrowth scattering shadscale and grass.
	South bet. secs. 19 and 24. Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Descend.
0.50	Canyon bottom, 10 ft. below the cor., draining SW. Ascend.
18.00	Spur, 120 ft. above canyon, bears W. Descend.
30.10	Ravine, 140 ft. below top of spur, draining W. Ascend abruptly.
40.00	At 11h 56m a.m., l.m.t., I set off 20°18'N. on the decl. arc, and observe the sun on the meridian, the resultin

WEST BOUNDARY T. 18 S. R. 16 E.

Chains	
	lat. is 39°14'.
	150 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap S $\frac{1}{4}$ 24 | S 19 1915 and raise a mound of stone, 3½ ft. base, 2 ft. high N. of cor.
59.00	Ridge, 305 ft. above the $\frac{1}{4}$ sec. cor., bears NE. and SW. Descend.
73.00	360 ft. below ridge.
	Foot of descent bears NE. and SW.
	Thence over rolling mesa.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., on solid rock in mound of stone, 6 ft. base, 2 ft. high, for the cor. of secs. 19, 24, 25 and 30, mkd. on brass cap T 18 S R 15 E R 16 E S 24 | S 19 S 25 | S 30 1915 from which A cedar, 6 ins. dia., bears N.33°55'E., 81 lks. dist. mkd. T 18 S R 16 E S 19 B T. A cedar, 8 ins. dia., bears S.8°50'E., 92 lks. dist. mkd. T 18 S R 16 E S 30 B T. A cedar, 7 ins. dia., bears S.56°W., 91 lks. dist. mkd. T 18 S R 15 E S 25 B T. A cedar, 7 ins. dia., bears N.55°40'W., 1.16 chs. dist. mkd. T 18 S R 15 E S 24 B T.
	Land rough mountainous and rolling mesa.
	Soil N. 73 chs. rugged and mountainous with outcropping ledges and boulders; S. 7 chs. rolling mesa, light, sandy loam outcroppings of sandstone ledges, 4th rate.
	Timber scattering pinon pine and cedar.
	Undergrowth scattering shadscale and grass.
	Cease work. May 22, 1915.

WEST. BOUNDARY T. 18 S. R. 16 E.

Chains	
	May 24: At 8h 57m a.m., l.m.t., I set off 39°14' on the lat. arc
	20°40'N. on the decl. arc, and determine a meridian
	with the solar at the cor. of secs. 19, 24, 25 and 3
	Thence
	South bet. secs. 25 and 30.
	Over rolling mesa land, through scattering cedar and pi
	pine timber and undergrowth of very scattering shad-
	scale and medium growth of grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in
	the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$S\frac{1}{4}$ 25 | S 30
	1915
	from which
	A cedar, 5 ins. dia., bears S. 79°15'E.,
	1.22 chs. dist. mkd. $\frac{1}{4}$ S 30 B T.
	A cedar, 5 ins. dia., bears N. 69°00'W.,
	36 lks. dist. mkd. $\frac{1}{4}$ S 25 B T.
	May 24:
43.20	At 11h 57m a.m., l.m.t., I set off 20°41'N. on the decl.
	arc, and observe the sun on the meridian, the resulti
	lat. is 39°13'.
	Descend over ledges bearing NE. and SW.
52.77	Ledge 200 ft. high bears NE. and W.
	Leave timber bearing E. and W.
63.30	Canyon, 300 ft. deep, draining S. 25°W. Ascend.
74.60	Top of ascent, 215 ft. above canyon bottom.
	Descend.
80.00	70 ft. below top of ascent.
	Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in
	the ground and 16 ins. in mound of stone 4 ft. base,
	with brass cap mkd.
	T. 18 S. R 15 E | R 16 E S 25 | S 30 S 36 | S 31
	1915
	and raise a mound of stone 2½ ft. base, 1½ ft. high
	W. of cor.

WEST BOUNDARY T. 18 S. R. 16 E.

Chains

Land rough and mountainous with numerous ledge outcroppings.

Soil light, sandy loam and loose rock, 4th rate.

North 53 chs. scattering cedar and pinon pine timber.

Undergrowth scattering shadscale and grass with S. 27 chs. very scattering. Cease work.

May 24, 1915.

May 25: At 8h 27m a.m., l.m.t., I set off 39°13' on the lat. arc, 20°51'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36 on W. bdy. of the Tp.

Thence

South bet. secs. 31 and 36.

Over rough mountainous land through very scattering undergrowth of shadscale and grass.

1.00 Head of gulch, 75 ft. below cor., course SW.

7.00 Low divide, 145 ft. above gulch, spur bearing SW.

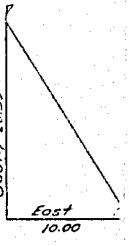
Ascend along E. slope of spur.

24.20 Top of ascent, 100 ft. above low divide.

Abrupt descent over high ledge bearing NE. and S.75°W. Impossible to chain, therefore

To determine distance I proceed as follows:

Set a flag on line in bottom of Price River canyon. It being impossible to lay off a base from this point, I leave a flag and proceed to flag in bottom. Thence I measure a base E. 10.00 chs. to a point from which the flag on brink of ledge bears N.25°55'W; therefore the distance is tan. 64°05' X base or 2.059 X 10.00 = 20.59 chs. + 24.20 = 44.79. Thence N.9.79 chs. to



35.00 Left bank of Price River 595 ft. below brink, draining N.60°E. 1 to 3 ft. deep.

36.80 Right bank of river bearing N.60°E. and S.60°W.

Thence over bottom land, through boulders and medium undergrowth of greasewood, sagebrush and scattering grass.

WEST. BOUNDARY T. 18 S. R. 16 E.

Chains	
	May 25:
40.00	At 11h 57m a.m.,l.m.t., I set off 20°52'N. on the decl. arc, and observe the sun on the meridian., the result lat. is 39°13'.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap
	S ¼ 36 | S 31
	1915
	and raise a mound of stone., 3 ft. base, 1½ ft. high W. of cor.
54.00	Leave bottom. land bearing NE. and W.
	Ascend gradually.
72.40	Top of ascent, 200 ft. high, W. side of ridge.
	Descend to
77.50	Low divide, 50 ft. below ascent in ridge bearing NE. and SW. Descend.
80.00	15 ft. below ridge.
	Set an iron post, 3 ft. long, 3 ins. in dia., in mound of stone 6 ft. base, 2 ft. high, for the cor. of Ts. 18 and 19 S., Rs. 15 and 16 E., mkd. on brass cap
	T 18 S R 15 E | R 16 E S 36 | S 31 S 1 | S 6 R 15 E | R 16 E T 19 S
	1915
	and raise a mound of stone, 3½ ft. base, 2 ft. high S. of cor.
	Land rough and mountainous.
	Soil light, sandy loam and loose rock and boulders
	No timber.
	Undergrowth N. 36 chs. scattering shadscale and grass, next 18 chs. medium undergrowth of greasewood and sagebrush, S. 26 chs. scattering shadscale and grass.

SOUTH BOUNDARY T.18 S. R. 16 E.

Chains	
	May 25:
	At 1h 57m p.m.,l.m.t., I set off 39°12' on the lat. arc, 20°53'N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 18 and 19 S., Rs. 15 and 16 E.
	Thence
	East bet. secs. 6 and 31.
	Over rough mountainous land and boulders and undergrowth of scattering shadscale, greasewood and grass.
0.40	Ravine, 15 ft. below cor., drains NE. Ascend.
5.00	Spur, 50 ft. above ravine, bears N. Descend.
8.30	Ravine, 55 ft. below spur, drains N. Ascend.
14.35	Spur, 150 ft. above ravine, bears N. Descend.
29.50	Ravine, 260 ft. below spur, drains N.
	Ascend gradually.
38.82	35 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$\frac{S\ 31}{\frac{1}{4}}$ / $\frac{S\ 6}{1915}$
	and raise a mound of stone, 3 ft. base, 1½ ft. high N. of cor.
	May 25, 1915.
	May 26:
	At 8h 27m a.m.,l.m.t., I set off 39°12' on the lat. arc, 21°02'N. on the decl. arc, and determine a meridian with the solar, at this $\frac{1}{4}$ sec. cor.
46.20	Spur, 26 ft. above cor., projects N. Descend.
52.45	60 ft. below spur. Leave hills bearing N. and SE.
	Thence over level land.
68.70	Right bank of Price River draining SE, 1 to 2 ft. deep. Scattering cottonwoods along bank.
70.30	Left bank of river bearing NW. and SE.
	Thence over level land.
78.82	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains	
	the ground for the cor. of secs. 5, 6, 31 and 32, mkd. on brass cap
	T 18 S R 16 E S 31 | S 32 S 6 | S 5 T 19 S 1915
	from which
	A cottonwood 20 ins. in dia., bears N.56°45'E., 161 lks. dist., mkd. T 18 S R 16 E S 32 B T.
	A cottonwood, 19 ins. dia., bears S.82°30'E., 224 lks. dist., mkd. T 19 S. R 16 E S 5 B T.
	A cottonwood, 20 ins. dia., bears S.88°30'W., 4.64 chs. dist. mkd. T 19 S R 16 E S 6 B T.
	A cottonwood, 20 ins. dia., bears N.41°45'W., 95 lks. dist. mkd. T. 18 S R 16 E S. 31 B T.
	Land, W. 52 chs. rough mountains.
	Soil on W. 52 chs. light, sandy loam and boulders, 4th rate; on E. 28 chs. level bottom land, soil sandy loam and loose rock, 2nd rate.
	Timber scattering cottonwoods along river banks.
	Undergrowth scattering greasewood, shadscale and grass.
	From the cor. of secs. 5, 6, 31 and 32
	East bet. secs. 5 and 32.
	Over bottom land, through medium undergrowth of greasewood, shadscale and grass.
10.00	Ascent bearing NW. and SE.
20.00	Top of ascent, 55 ft. above bottom sloping S. Descend.
35.00	Foot of descent, 70 ft. below top, bears SW. and NE. Thence over level land in bottom of canyon.
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., mkd. on brass cap S 32 $\frac{1}{4}$ S 5 1915 and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains	
	May 26:
	At 11h 57m a.m.,l.m.t., I set off 21°03' on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°12'.
49.00	Wash, 2 ft. deep, 15 lks. wide, drains S.
52.00	Leave bottom land bearing NW. and SE. Ascend.
71.66	Foot of ledge, 100 ft. high, bearing N. and S.
71.81	Top of ledge, point of spur, 540 ft. above bottom, bears S. Descend over ledges.
80.00	465 ft. below top of spur.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 4, 5, 32 and 33, mkd. on brass cap.

T 18 S R 16 E
S 32 | S 33
S 5 | S 4
T 19 S
1915

and raise a mound of stone, 3 ft. base, 1½ ft. high W. of cor.

Land , W. 52 chs. bottom rolling land; E. 28 chs. rough mountains with numerous outcroppings of ledges.

Soil on W. 52 chs. light, sandy loam and loose rock, 2nd rate; on E. 28 chs. light, sandy loam and loose rocks with numerous outcroppings of ledges, 4th rate.

Timber scattering cottonwoods.along Price River.

Undergrowth scattering shadscale, greasewood and grass.

May 26, 1915.

May 27: At 8h 27m a.m.,l.m.t., I set off 39°12' on the lat. arc, 21°12'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33.

Thence

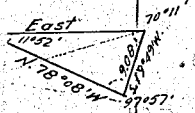
East bet. secs. 4 and 33.

Over very rugged mountainous land through undergrowth of scattering shadscale and grass.

2.00 Bottom of canyon, 40 ft. below the cor. draining S.

SOUTH BOUNDARY T. 18 S., R. 16 E.

Chains	
	Abrupt ascent over ledges impossible to chain, therefore
	To determine distance I proceed as follows:
	It being impossible to see top of ledges from cor. I return to point 71.81 chs. between secs. 5 and 32 on point of spur, from whence I set a flag on line on top of ledges. It being impossible to lay off a base from this point I leave a flag and proceed to flag on top of ledges, whence I measure a base line S.19°49'W. 9.08 chs. to a point from which flag bears N.78°08'W.; therefore distance



is $\frac{\text{Sin } 97°57'}{\text{Sin } 11°52'} \times 9.08 = \frac{.99039}{.20563} \times 9.08 =$

43.73 - 8.19 to

35.54	Top of ledges, 845 ft. above bottom of canyon, rim bears N. and S. Enter scattering cedars and pinon pine. Ascend gradually.
40.00	55 ft. above rim. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., mkd. on brass cap S ¼ 33 / S 4 1915 from which A cedar, 6 ins. dia., bears N.78°30'W., 256 lks. dist. mkd. ¼ S 33 B T. A cedar, 10 ins. dia., bears S.52°30'W., 91 lks. dist. mkd. ¼ S 4 B T.
43.20	Spur, 25 ft. above the ¼ sec. cor.; bears S. Descend.
60.00	215 ft. below spur; foot of descent bearing N.60°E. and SW. Thence over rolling bench land.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 15 ins. in the ground on solid rock and mound of stone 2½ ft. base 9 ins. high around post for the cor. of secs. 3, 4, 33 and 34, mkd. on brass cap

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains

T 18 S R 16 E
S 33 | S 34
S 4 | S 3
T 19 S
1915

from which

A cedar, 6 ins. dia.,bears N.31°15'E.,
57 lks. dist., mkd. T 18 S R 16 E S 34 B T.
A cedar, 8 ins. dia.,bears S.23°45'E.,
155 lks. dist. mkd. T 19 S R 16 E S 3 B T.
A cedar, 10 ins. dia.,bears S.8°W.,
128 lks. dist. mkd. T 19 S R 16 E S 4 B T.
A cedar, 8 ins. dia.,bears N.33°30'W.,
76 lks. dist. mkd. T 18 S R 16 E S 33 B T.

Land, W. 35½ chs. very rough mountains; E. 44½ chs. rolling mountains. with outcroppings of ledges.

Soil on W. 35½ chs. light, sandy loam and loose rock, 4th rate; on E. 44½ chs. sandy loam and clay, 3rd rate.

Timber scattering cedars and pinon pine.

Undergrowth scattering shadscale and grass.

Note: Not on line at noon, observation for lat.impossible.

May 27, 1915.

May 28: At 7h.57m a.m.,l.m.t., I set off 39°12' on the lat. arc, 21°22'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34.

Thence

East bet. secs. 3 and 34.

Over rolling bench land through scattering cedars and pinon pine and undergrowth of scattering shadscale and grass.

6.25 Abrupt descent into canyon, rim bearing N. and S.

14.50 Bottom of canyon, 275 ft. deep, drains S. Ascend.

22.00 Top of rim of canyon bearing N.15°W. and S.15°E. Ascend mountain.

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

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains	
	S 34 $\frac{1}{4}$ S 3 1915
	from which
	A pinon pine, 4 ins. dia., bears N.6°30'W., 26 lks. dist. mkd. $\frac{1}{4}$ S 34 B T.
	A cedar, 6 ins. dia., bears S.89°W., 58 lks. dist. mkd. $\frac{1}{4}$ S 3 B T.
	Corner falls on slope of mountain 300 ft. above rim of canyon at foot of ledge.
	Ascend over series of sandstone ledges.
52.00	Top of mountain, 375 ft. above $\frac{1}{4}$ sec. cor. bears N.15°E. and S.
	Thence over rolling mountain top. Ascend slightly.
56.00	Top of ascent, 25 ft. above rim bearing N. and S.
	Descend.
58.00	Ravine 50 ft. deep draining N. Ascend.
62.80	Top of ascent bearing N. and S.
	Thence over nearly level land.
76.50	Wash, 15 lks. wide, 4 ft. deep, drains N.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 2, 3, 34 and 35, mkd on brass cap
	T 18 S R 16 E S 34 | S 35 S 3 | S 2 T 19 S 1915
	from which
	A cedar, 8 ins. dia., bears N.34°45'E., 192 lks. dist. mkd. T 18 S R 16 E S 35 B T.
	A cedar, 6 ins. dia., bears S.21°45'E., 178 lks. dist. mkd. T 19 S R 16 E S 2 B T.
	A cedar, 8 ins. dia., bears S.22°W., 106 lks. dist. mkd. T 19 S R 16 E S 3 B T.
	A cedar, 10 ins. dia., bears N.57°15'W., 236 lks. dist. mkd. T 18 S R 16 E S 34 B T.
	Land rough mountains and rolling mountain top.

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains

Soil light, sandy loam, loose rock and numerous outcroppings of sandstone ledges.

Timber scattering cedars and pinon pine.

Undergrowth grass and scattering shadscale.

May 28: At 11h 57m a.m., l.m.t., I set off 21°23'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°12'.

East bet. secs. 2 and 35.

Over rolling mountain top, through scattering cedar and pinon pine timber and undergrowth of grass and shadscale.

Ascend slightly.

10.00 Top of ascent, 50 ft. above the cor., bears N. and S.

Descend.

15.00 Foot of descent, 80 ft. below top, bears N. and S.

Ascend slightly.

40.00 On S. side of small knoll, 85 ft. above foot.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap

$$\frac{S\ \frac{1}{4}\ 35}{S\ 2}$$
1915

from which

A cedar, 8 ins. dia., bears N.52°30'W., 84 lks. dist. mkd. $\frac{1}{4}$ S 35 B T.

A cedar, 6 ins. dia., bears S.22°30'E., 65 lks. dist. mkd. $\frac{1}{4}$ S 2 B T.

Descend.

45.00 Foot of knoll, 80 ft. below $\frac{1}{4}$ sec. cor., bears NW. and SE.

Thence over rolling mountain top with numerous sandstone outcroppings.

55.00 Descend into ravine bearing N. and S.

61.25 Ravine, 55 ft. deep, drains N. Ascend.

67.00 Top of ravine bearing N. and S.

Thence over rolling mountain top.

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains	
73.60	Abrupt descent over rim of mountain, over series of sandstone ledges bearing NW. and S.
80.00	On slope of mountain, 275 ft. below top. Set an iron post, 3 ft. long, 3 ins. in dia., 4 ins. i ground to solid rock, raise a mound of stone 4 ft. base, 20 ins. high around post, for the cor. of secs. 1, 2, 35 and 36, mkd. on brass cap

T 18 S R 16 E
S 35 | S 36
S 2 | S 1
T 19 S
1915

from which

A pinon pine, 8 ins. dia., bears N.59°15'E., 24 lks. dist. mkd. T 18 S R 16 E S 36 B T.

and raise a mound of stone 2½ ft. base, 1½ ft. high. W. of cor. No other trees within limits.

Land rolling mountain top with rough mountain slope, draining N.

Soil, light, sandy loam with loose rocks and numerous sandstone outcroppings, 3rd rate.

Timber scattering scrub cedars and pinon pine.

Undergrowth grass and shadscale.

May 28, 1915.

May 29: At 8h 12m a.m., l.m.t., I set off 39°12' on the lat. arc, 21°32'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36.

Thence

East bet. secs. 1 and 36.

Over rough mountainous land, through scattering cedars and pinon pine and undergrowth of shadscale and grass.

Descend over series of sandstone ledges very rough.

29.00	Rim of ravine, 575 ft. below sec. cor., bearing NW. and SE Leave timber bearing NW. and SE. Abrupt descent.
39.65	Bottom of ravine, 250 ft. deep, drains SE. Ascend along slope of spur.

SOUTH BOUNDARY T. 18 S. R. 16 E.

Chains

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. mkd. on brass cap

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

S 1
1915

and raise a mound of stone, 2½ ft. base, 1½ ft. high N. of cor.

May 29:

67.00 At 11h 57m a.m., l.m.t., I set off 21°33'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°12'.

67.00 Top of ascent, 175 ft. above ravine, slopes S.

Descend.

80.00 280 ft. below top. Ascend over slope of spur.

Set an iron post, 3 ft. long, 3 ins. in dia., 12 ins. in the ground to rock, raise a mound of stone 4 ft. base, 12 ins. high around post, for the cor. of Tps. 18 and 19 S. Rs. 16 and 17 E., mkd. on brass cap

T 18 S
R 16 E | R 17 E
S 36 | S 31
S 1 | S 6
R 16 E | R 17 E
T 19 S
1915

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

Land very rough and mountainous.

Soil light sandy loam and loose rock with numerous sandstone outcroppings, 3rd rate.

Timber scattering cedar and pinon pine on N. 39 chs.

Undergrowth shadscale and grass.

EAST BOUNDARY T. 18 S. R. 16 E.

May 29: At 2h 27m p.m., l.m.t., I set off 39°12' on the lat. arc, 21°34'N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 18 and 19 S. Rs. 16 and 17 E.

Thence

EAST BOUNDARY T. 18 S. R. 16 E.

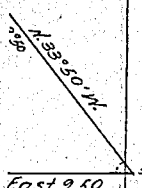
Chains	
	North on a random line along E. bdy. of Tp. 18 S. R. 16 E. setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.
32.15	Right bank of Green River; set temp. MC for fracl. secs. 31 and 36.
	June 1: At this point at 8h 58m a.m., l.m.t., I set off 39°12' on the lat. arc, 21°59'N. on the decl. arc, and determined a meridian with the solar at The course of river being from the N. and being unable at any point to secure a base line for triangulation, I offset as follows: West 11.00 chs. Thence N. on offset line 47.85 chs. or counting from Tp. cors. to 80.00 chs. Thence offset E. 1.10 chs. to right bank of Green River. To determine distance across I set a flag E. on left bank then measure a base line S.4.00 chs. to a point from which the flag on left bank of river bears N.64°51'E. From flag on left bank, the S. end of base line bears S. 64°51'W; the distance is therefore tan. 64°51' x base or 2.13 x 4.00 chs. = 8.52 chs. + 1.10 chs. = 9.62 chs. Thence I continue E. on offset line 1.38 chs. + 9.62 chs. - 11.00 chs. to
80.00	From the Tp. cor to true random line Set temp. sec. cor. Thence S.3.45 chs. to bank of river setting temp. MC. Thence I continue on random line along E. bdy.
93.68	Left bank of Green River. Set temp. MC. To determine distance across river I set a flag on line on right bank. There being no suitable place to lay off base line from this point, I proceed to flag on right bank from where I measure a base line S.38°W. 16.5 chs. to a point from which temp. MC on left bank bears S.78°13'E; the distance is therefore $\frac{\sin 63°47'}{\sin 78°13'}$ x base or $\frac{.89713}{.97893}$ x 16.50 = 15.12 chs. + 93.68 chs. makes
108.80	Right bank of Green River. Set temp. MC.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains	
	Thence on random line.
120.00	June 1: At temp. ¼ sec. cor. bet. secs. 25 and 30, at 11h 57m a.m.,l.m.t., I set off 22°00'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°13'.
160.00	June 2: At temp. cor. of secs. 19, 24, 25,and 30, at 8h 58m a.m.,l.m.t., I set off 39°14' on the lat. arc, 22°07'N. on the decl. arc, and determine a meridian with the solar.
240.00	June 2: At temp. cor. of secs. 13, 18, 19 and 24, at 11h 58m a.m.,l.m.t., I set off 22°08'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°15'.
280.00	June 3: At the temp. ¼ sec. cor. bet. secs. 13 and 18, at 8h 28m a.m.,l.m.t., I set off 39°15' on the lat. arc, 22°15'N. on the decl. arc, and determine a meridian with the solar.
359.36	Right bank of Green River. Set temp. MC. At temp. MC. for fractional secs. 7 and 12 I set off 22°16'N. on the decl. arc, and at 11h 58m a.m.,l.m.t. observe the sun on the meridian, the resulting lat. is 39°16'. The course of the river being from the N. and there being no suitable place for base for triangulation, I offset as follows: West 8.00 chs. Thence North on offset line to
400.00	Offset East 8.00 chs. to random line on right bank of river. Set temp. sec. cor. June 3: June 4: At temp. cor. of secs. 1, 6, 7 and 12, at 8h 28m a.m., l.m.t., I set off 39°16' on the lat. arc, 22°22'N. on the decl. arc, and determine a meridian with the solar. Thence on random line.
421.00	Abrupt ascent over ledges, impossible to chain. To determine the distance I return to 418.84 chs.point from where I set a flag on line on top of ledges.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains



Then I measure a base line E. 9.50 chs. to a point from which the flag bears N.33°50'W. From the flag the E. end of the base line bears S.33°50'E. The distance is therefore tan. 56°10' x base or 1.492 x 9.50 = 14.17 chs. which added to 418.84 chs. makes

433.01 Top of ledges.

480.36 Intersect E. and W. line 27 lks. W. of the cor. of Tps. 17 and 18 S. Rs. 16 and 17 E. heretofore described.

June 4:

At this point at 11h 58m a.m.,l.m.t., I set off 22°23'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°17'.

The falling answers to a correction of 0°02' or 4½ lks. E. per mile, counting from the SE. cor. of the Tp.

Therefore I establish E. bdy. as follows:

S.0°02'W. on true line bet. secs. 1 and 6.

Over rough mountainous land, through undergrowth of shadscale and grass. Ascend.

12.60 West end of saddle, 410 ft. above cor., ridge bearing NE. and W. Ascend over ledge.

18.27 E. point of mountain, 75 ft. above saddle.

Descend over ledges.

40.36 280 ft. below mountain.

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

S 1 ¼ | S 6

1915

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

Thence on nearly level line.

47.35 Top of ledges bearing W. and NE.

Abrupt descent over ledges.

57.52 Bottom of canyon, 600 ft. below ledges, drains E.

Ascend.

65.00 Top of ascent, 60 ft. above canyon, slopes E.

Thence along side of canyon on nearly level line.

70.00 Descend.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains

80.36 165 ft. below top of ascent on right bank of Green River. Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in loose rock for the cor. of secs. 1, 6, 7 and 12, mkd. on brass cap

T 18 S
R 16 E | R 17 E
S 1 | S 6
S 12 | S 7
1915

and raise a mound of stone 3½ ft. base, 2 ft. high W. of cor.

Land rugged mountains draining East.

Soil clay and loose rock with numerous outcropping of ledges, 4th rate.

Timber scattering cottonwoods along river bank.

Undergrowth scattering shadscale and grass with willows along river bank.

The course of the river being S. from this cor. and there being no suitable place for base line for triangulation, I offset as follows:

West 8.00 chs.

Thence on offset line to

40.00 Point for ¼ sec. cor. falls in river; cor. not set. S.0°02'W. through sec. 12. 40.64 chs.

Thence I offset

East 8.00 chs. to

40.64 To true line bet. secs. 7 and 12 on right bank of Green River.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for meander corner of secs. 7 and 12, mkd. on brass cap

T 18 S
R 16 E | R 17 E
MC
S 12 | S 7
1915

from which

EAST BOUNDARY T. 18 S. R. 16 E.

Chains	
	A cottonwood, 14 ins. dia., bears S.51°45'W., 101 lks. dist. mkd. T 18 S R 16 E S 12 MC BT. and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor. No other trees within limits.
	Thence
	S.0°02'W. on true line bet. secs. 7 and 12.
	Along bottom of canyon, through dense undergrowth of willows, greasewood and scattering grass.
44.00	Foot of ledges bearing NW. and SE. Leave willows. Ascend abruptly.
45.00	Top of ledges 35 ft. high, bearing NW. and SE. Ascend gradually through undergrowth of shadscale and grass.
63.00	Top of ascent, 170 ft. above bottom of canyon, slopes E. Descend gradually.
75.45	Ravine, 30 ft. below top of ascent, drains NE. Ascend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 6 ins. in the ground and 18 ins. in mound of stone 3½ ft. base, for the cor. of secs. 7, 12, 13 and 18, mkd. on brass cap

T 18 S
R 16 E | R 17 E
S 12 | S 7
S 13 | S 18
1915

from which

A cedar, 3 ins. dia., bears N.16°E., 3½ lks. dist. mkd. T 18 S R 17 E S 7 B T.

A cedar, 7 ins. dia., bears S.30°E., 13 lks. dist. mkd. T 18 S R 17 E S 18 B T.

A cedar, 10 ins. dia., bears S.17°30'W., 72 lks. dist. mkd. T 18 S R 16 E S 13 B T.

A cedar, 6 ins. dia., bears N.45°30'W., 38½ lks. dist. mkd. T 18 S R 16 E S 12 B T.

Corner falls on slope 60 ft. above ravine.

Land rough mountains draining SE.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains	
	Soil clay and loose rock with numerous outcroppings of ledges, 4th rate. Timber cedar.
	Undergrowth scattering shadscale and grass, with dense willows and greasewood along river bank.
	June 4, 1915.
	June 5: At 8h. 28m a.m., l.m.t., I set off 39°16' on the lat. arc, 22°29'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.
	Thence
	S.0°02'W. bet. secs. 13 and 18.
	Oscending over rough mountainous land, through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
39.25	Top of Buckhorn Mountain, 1195 ft. above the cor., bearing E. and W. Thence over rolling mountain top.
40.00	Set an iron post, 3 ft. long, 2 ins. in dia., on solid rock in mound of stone 5 ft. base, 26 ins. high for $\frac{1}{4}$ sec. cor. mkd. on brass cap $S\ \frac{1}{4}\ 13 \mid S\ 18$ 1915 from which A pinon pine, 8 ins. dia., bears S.27°E., 5 lks. dist. mkd. $\frac{1}{4}$ S 18 B T. A pinon pine, 10 ins. dia., bears S.48°15'W., 27 lks. dist. mkd. $\frac{1}{4}$ S 13 B T.
46.00	Top of ledges, bears E. and W.
	Abrupt descent.
57.50	Bottom of ravine, 175 ft. below top, drains E.
	Ascend gradually.
62.00	Saddle in spur, 30 ft. above ravine, bears E.
	Leave timber bearing E. and W. Descend.
80.00	500 ft. below saddle.
	Set an iron post, 3 ft. long, 3 ins. in dia., 6 ins. in

EAST. BOUNDARY T. 18 S. R. 16 E.

Chains	
	the ground and 18 ins. in mound of stone 4 ft. base, for the cor. of secs. 13, 18, 19 and 24, mkd. on brass cap T 18 S R 16 E. R 17 E S 13 | S 18 S 24 | S 19 1915 and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Land rough mountainous.
	Soil clay, loose rock and boulders, with numerous outcroppings of ledges, 4th rate.
	Timber N. 62.00 chs. scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	S.0°02'W. bet. secs. 19 and 24.
	Over mountainous land, descending through scattering undergrowth of shadscale and grass.
3.50	Bottom of descent, 75 ft. below cor. drains E.
	Ascend.
38.00	Point of spur, 450 ft. above bottom, slopes S.60°E.
	Descend.
40.00	100 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., mkd. on brass cap S $\frac{1}{4}$ 24 | S 19 1915 and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.
	Descend.
58.25	Ravine, 750 ft. below $\frac{1}{4}$ sec. cor., course S.75°E.
	Ascend.
80.00	700 ft. above ravine.
	Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in the ground and 16 ins. in mound of stone 3 ft. base, on solid rock, for the cor. of secs. 19, 24, 25 and 30, mkd.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains	
	on brass cap T 18 S R 16 E | R 17 E S 24 | S 19 S 25 | S 30 1915 and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.
	Land rough mountains draining East.
	Soil clay and loose rock and boulders with numerous outcroppings of ledges, 4th rate.
	No timber.
	Undergrowth scattering shadscale and grass.
	S.0°02'W. bet. secs. 25 and 30.
	Over rugged mountainous land through undergrowth of scattering shadscale and grass.
	Ascend.
2.50	Top of spur, 30 ft. above cor., bears SE.
	Descend.
35.75	Ravine, 740 ft. below spur, drains E.
	Ascend.
40.00	50 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground and 8 ins. in mound of stone 2 ft. base for $\frac{1}{4}$ sec. cor., mkd. on brass cap $S\frac{1}{4}$ 25 | S 30 1915
	and raise a mound of stone, $2\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	Corner falls on solid rock.
42.00	Top of ascent, 25 ft. above the cor., slopes E.
	Descend.
45.40	Top of ledge bearing NE. and SW. 75 ft. below top.
	Abrupt descent.
49.50	Foot of abrupt descent bearing NE. and SW. 80 ft. below top.

EAST BOUNDARY T. 18 S. R. 16 E.

Chains	
	Thence over bottom land through medium undergrowth of greasewood.
51.20	Right bank of Green River. Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for MC bet. secs. 25 and 30, mkd. on brass cap T 18 S R 16 E | R 17 E S 25 | S 30 MC 1915 and raise a mound of stone 3 ft. base, 2 ft. high N. of cor.
	Thence across river.
66.32	Left bank of Green River. Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for MC bet. secs. 25 and 30, mkd. on brass cap T 18 S MC R 16 E | R 17 E S 25 | S 30 1915 and raise a mound of stone 3 ft. base, 2 ft. high S. of cor.
	Thence ascend gradually.
75.00	Top of ascent, 50 ft. above bank of river, slopes W. Descend gradually.
80.00	25 ft. below top. Point falls between two large boulders. Set an iron post, 3 ft. long, 3 ins. in dia., 18 ins. in the ground and 6 ins. in mound of stone 2 ft. base, on solid rock, for the cor. of secs. 25, 30, 31 and 36, mkd. on brass cap T 18 S R 16 E R 17 E S 25 | S 30 S 36 | S 31 1915

EAST BOUNDARY T. 18 S. R. 16 E.

Chains

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

Land rough mountains draining E. and S.

Soil clay, loose rocks and boulders, 4th rate.

Timber scattering cottonwoods along river banks.

Undergrowth scattering shadscale and grass with greasewood and dense willows along river bank.

Not on meridian at noon for latitude observation.

S.0°02'W. bet. secs. 31 and 36.

Descending over mountainous land through undergrowth of scattering greasewood and grass.

3.45 Left bank of Green River.

Set an iron post, 3 ft. long, 3 ins. in dia., 18 ins. in the ground and 6 ins. in mound of stone 2 ft. base for MC bet. secs. 31 and 36, mkd. on brass cap

T 18 S
R 16 E | R 17 E
S 36 | S 31
MC

1915

and raise a mound of stone 3½ ft. base, 2 ft. high N. of cor.

The course of the river from this point being S. and there being no suitable place for a base for triangulation, I proceed as follows:

I return to the cor. of secs. 25, 30, 31 and 36, from which I offset West 11.00 chs.

Thence

S.0°02'W. on offset line 47.85 chs.

Thence offset East 11.00 chs. to

47.85 To true line on right bank of Green River.

Set an iron post, 3 ft. long, 3 ins. in dia., 6 ins. in the ground and 20 ins. in mound of stone 4 ft. base for MC for fractional secs. 31 and 36, mkd. on brass cap

EAST. BOUNDARY T. 18 S. R. 16 E.

Chains	
	T 18 S R 16 E R 17 E MC S 36 S 31 1915
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
0	June 5: At this point at 1h 58m p.m., l.m.t., I set off 39°13' on the lat. arc, 22°31'N. on the decl. arc, and determine a meridian with the solar.
	1.00 ch. West of cor. is coal vein 3 ft. thick.
	Ascend.
60.50	Top of ledges, 210 ft. above the cor., bears N.15°W. and S.15°E.
	Thence ascend gradually.
73.00	Top of ascent, 70 ft. above ledges, slopes E.
	Descend.
80.00	40 ft. below top of ascent.
	The cor. of Tps. 18 and 19 S. Rs. 16 and 17 E.
	Land rough mountains, draining E.
	Soil light sandy loam and loose rock and boulders, 4th rate.
	Timber scattering cottonwoods along river bank.
	Undergrowth scattering shadscale and grass with medium undergrowth of greasewood and willows along river.
	June 5, 1915.

For general description see subdivision of this township.

Ralph Ginley
U. S. Surveyor.

Boundaries of T. 18 S. R. 16 E.

Latitudes, departures and closing errors

ne designated	True bearing	Distance chs.	Latitudes N. chs.	Latitudes S. chs.	Departures E. chs.	Departures W. chs.
est Bdy.	North	480.00	480.00			
rth Bdy.	East	478.23			478.23	
st Bdy.	S.0°02'W.	480.36		480.36		.27
uth Bdy.	West	478.82				478.82
onvergency					.59	
			480.00	480.36	478.82	479.09
				480.00		478.82
		Error in lat.		.36		
		Error in dep.				.27

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Page

BOOK A-411

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 ated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "E" T. 18 S.R. 16 E. Subdivisions.

the ..... Meridian, in the State of ..... hich are represented in the foregoing field notes as having been executed by him, and under his direc-on; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully 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 pursua
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 oath U. S. Surveyor see book "E" Subdivisions
Tp. 16 S. R. 16 E.

..... 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

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 16 , 191 6

The foregoing field notes of the survey of the West, South and East Boundaries
Tp. 16 S. R. 16 E. Salt Lake Base and Meridian, Utah

executed by Ralph Gentry
under his special instructions dated April 27 , 1914 , having be
critically examined, and the necessary corrections and explanations made, the said field notes, and th
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 is .....
..... has been correctly copied from the original notes on file in this office.

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

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4—679

"E"
BOOK A-411

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

OF

T. 18 S. R. 16 E.

Of the Salt Lake Base and _____ *Meridian,*

he State of UTAH

EXECUTED BY

RALPH GENTRY

he capacity of U. S. Surveyor, under instructions dated April 27 *, 1914,*

ed by the United States Surveyor General to govern surveys included in

up No. 28 *, which were approved by the Commissioner of the General Land*

e, May 16 *, 1914*

Survey commenced June 7 *, 1915*

Survey completed July 6 *, 1915*

6—151

BOOK A-411

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SUBDIVISION OF T. 18 S. R. 16 E.

mains	
	Survey commenced June 7, 1915, and executed with a Buff and Buff transit No. 8028, with a Smith solar attachment. For description and test of instruments see boundaries of this township.
	June 7: At 8h 28m a.m., l.m.t., I set off 39°12' on the lat. arc, 22°42'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36.
	Thence N.0°01'E. bet. secs. 35 and 36.
	Over mountainous land, through very scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Descend.
5.00	Bottom of descent, 115 ft. below the cor, drains E. Ascend.
3.00	Top of ascent, 110 ft. above bottom, slopes N.60°E. Descend.
2.00	Leave scattering timber bearing E. and W.
0.00	660 ft. below top. Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in mound of stone 2½ ft. base for the ¼ sec. cor. mkd. on brass cap S ¼ 35 | S 36 1915 and raise mound of stone 2½ ft. base, 2 ft. high W. of cor. Corner falls on rim of ledge 40 ft. high, bearing S.15°W. and N.15°E.
	June 7: At 11h 58m a.m., l.m.t., I set off 22°43'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°13'. Descend.
2.50	Bottom of ravine, 480 ft. below ¼ sec. cor. drains N.30°E. Ascend.
5.00	Top of ascent, 25 ft. above ravine, slopes NE. Descend.
0.25	Ravine, 25 ft. below top, drains NE. Ascend.
3.50	Top of ascent, 260 ft. above ravine, slopes E. Descend.
0.00	110 ft. below top. Set an iron post 3 ft. long, 3 ins. in dia., 8 ins. in the ground and 16 ins. in mound of stone 4 ft. base, for the cor. of secs. 25, 26, 35 and 36, mkd. on brass cap

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	T 18 S R 16 E S 26 | S 25 S 35 | S 36 1915 and raise a mound of stone 3 ft. base, 2½ ft. high W. of cor. Corner sets on solid rock. Land rough mountains with easterly drainage. Soil light sandy loam, loose rock and boulders, with numerous outcroppings of ledges, 4th rate. Timber S. 32 chs. very scattering cedar and pinon pine. Undergrowth scattering shadscale and grass.
	East on random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
70.00	Right bank of Green River. Set temp. MC.
	NOTE: To determine distance across river see East Boundary of this Township.
78.52	Left bank of Green River. Set temp. MC.
79.94	Intersect E. bdy. of Tp. 8 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described. Thence
	S. 89°57' W. on true line bet. secs. 25 and 36.
	Over mountainous land through undergrowth of scattering shadscale and grass.
	Descend.
1.42	Left bank of Green River, 30 ft. below cor. Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. in mound of stone 2½ ft. base for MC bet. secs. 25 and 36, mkd. on brass cap,
	T 18 S R 16 E S 25 MC S 36 1915
	and raise a mound of stone 2½ ft. base, 2 ft. high E. of cor.
	Thence across river.
9.94	Right bank of river. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for MC on right bank bet. secs. 25 and 36, mkd. on brass cap

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	T 18 S R 16 E S 25 \ MC S 36 1915
	and raise a mound of stone 2½ ft. base, 2 ft. high W. of cor. Thence ascend.
13.00	Foot of ledge, 40 ft. above cor., bears N. and S. Ascend.
14.00	Top of ledge, 40 ft. high. Ascend gradually.
39.50	Top of ascent, 125 ft. above top of ledge, slopes S. Descend.
39.97	15 ft. below top. Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground and 20 ins. in mound of stone, 4 ft. base, for ¼ sec. cor. mkd. on brass cap S 25 ¼ S 36 1915 and raise a mound of stone 2½ ft. base, 2 ft. high N. of cor. on ledge 3 ft. high projecting NE. of cor. 5 ft. dist. Descend.
	At this point at 11h. 58m. a.m., l.m.t., I set off 22°43'N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 39°13'.
46.60	Bottom of canyon, 145 ft. below cor., course SE. Thence along S. side of canyon.
56.60	Bottom of canyon draining NE. Thence along bottom.
67.80	Leave bottom draining from NW. Ascend.
79.94	The cor. of secs. 25, 26, 35 and 36. 190 ft. above canyon.
	Land rough mountains with SE. drainage.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.
	No timber.
	Undergrowth scattering shadscale and grass.

N. 0°01'E. bet. secs. 25 and 26.
Over rough mountainous land through undergrowth of scatter-

SUBDIVISION OF T. 18 S., R. 16 E.

Chains	
	ing shadscale and grass. Descend.
7.75	Bottom of canyon, 140 ft. below cor., drains SE. Ascend.
25.00	Continue ascent over series of ledges bearing NE. and SW.
35.00	Top of ledges, 620 ft. above canyon, bears NE. and SW. Enter scattering cedar and pinon pine timber bearing NE. and SW. Ascend gradually.
40.00	40 ft. above ledges. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. mkd. on brass cap S 26 | S 25 $\frac{1}{4}$ 1915 from which A cedar, 8 ins. dia., bears N.53°45'E., 63 lks. dist. mkd. $\frac{1}{4}$ S 25 B T. A cedar, 8 ins. dia., bears S.3°30'W., 176 lks. dist. mkd. $\frac{1}{4}$ S 26 B T.
	June 7, 1915.
	June 8: At 8h. 29m. a.m., l.m.t., I set off 39°13' on the lat. arc, 22°48'N. on the decl. arc, and determine a meridian with the solar.
51.00	Spur 185 ft. above $\frac{1}{16}$ sec. cor. slopes SW. Descend.
57.00	Bottom of descent, 50 ft. below spur, drains SW. Ascend.
80.00	190 ft. above bottom. Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 23, 24, 25 and 26, mkd. on brass cap T. 18 S. R. 16 E. S 23 | S 24 S 26 | S 25 1915 and raise a mound of stone 2½ ft. base, 2 ft. high W. of cor.

Land rough mountains with S. and E. drainage.
Soil light sandy loam, loose rock and boulders, with

SUBDIVISION OF T. 18 S., R. 16 E.

Chains	
	numerous outcroppings of ledges, 4th rate.
	Timber, N.45 chs. scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.89°57'E. on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of Tp. 7 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence
	S.89°54'W. on a true line bet. secs. 24 and 25.
	Over mountainous land through scattering shadscale and grass. Ascend.
1.73	Top of spur, 100 ft. above cor., projects SE.
	Thence along top of spur.
10.00	Ascend mountain.
23.50	Top of mountain, 500 ft. above spur, bears N. and SW.
	Thence over rolling mountain top and sandstone outcroppings.
	Enter medium growth of cedar and pinon pine timber.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., in mound of stone 6 ft. base, 26 ins. high for ¼ sec. cor., mkd. on brass cap
	S 24 ¼ S 25 1915
	from which
	A pinon pine, 7 ins. dia., bears N.40°W., 92 lks. dist. mkd. ¼ S 24 B T.
	A pinon pine, 8 ins. dia., bears S.29°W., 55 lks. dist. mkd. ¼ S 25 B T.
71.50	Rim of mountain bearing NW. and S.15°E.
	Descend abruptly over ledges.
80.06	The cor. of secs. 23, 24, 25 and 26. 285 ft. below rim.
	Land rolling mountain top and rough mountainous lands.

Chains	
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.
	Timber, W. 56½ chs. scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 8: At this cor. at 11h 59m a.m., l.m.t., I set off 22°49' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 39°14'.
	N.0°01'E. bet. secs. 23 and 24.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Ascend over ledges.
7.40	Top of mountain, 335 ft. above cor., bears SE. and W. Ascend gradually.
15.00	Top of ascent, 70 ft. above rim, bears E. and W.
	Thence over rolling mountain top.
22.20	Ledge, 50 ft. high, bears SE. and NW. Descend.
30.00	Ravine, 110 ft. deep, drains E. Ascend gradually.
40.00	25 ft. above bottom of ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. in a mound of stone 2½ ft. base for ¼ sec. cor., mkd. on brass cap S 23 | S 24 ¼ 1915
	from which A pinon pine, 10 ins. dia., bears N.2°15'E., 108 lks. dist. mkd. ¼ S 24 B T. A cedar, 8 ins. dia., bears N.33°15'W., 139 lks. dist. mkd. ¼ S 23 B T.
	Ascend gradually.
52.50	Top of ledges, 35 ft. high, 115 ft. above ¼ sec. cor., bears E. and W.
	Thence over rolling mountain top.
67.60	Descend over ledges bearing N.60°E. and W.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

80.00 130 ft. below mountain top.

Set an iron post, 3 ft. long, 2 ins. in dia., in mound of stone 6 ft. base, 2 ft. high for the cor. of secs. 13, 14, 23 and 24, set on solid rock, with brass cap marked

T 18 S R 16 E
S 14 | S 13
S 23 | S 24
1915

from which

A pinon pine, 12 ins. dia., bears N.50°45'E., 66 lks. dist. mkd. T 18 S R 16 E S 13 B T.

A pinon pine, 6 ins. dia.,bears S.31°E., 34 lks. dist. mkd. T 18 S R 16 E S 24 B T.

A pinon pine, 10 ins. dia.,bears S.52°15'W., 167 lks. dist. mkd. T 18 S R 16 E S 23 B T.

A cedar, 8 ins. dia.,bears N.23°30'W., 61 lks. dist. mkd. T 18 S R 16 E S 14 B T.

Land rough mountains with S. 67 chs. draining SE. and N. 13 chs. draining north.

Soil light sandy loam and loose rock with numerous outcroppings of ledges.

Timber scattering cedars and pinon pine.

Undergrowth scattering shadscale and grass.

June 8, 1915.

June 22: At 8h 32m a.m.,l;m.t., I set off 39°15' on the lat. arc, 23°28'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence

N.89°54'E. on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect E. bdy. of Tp. 10 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence

S.89°58'W. bet. secs. 13 and 24.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Over rough mountainous land through undergrowth of scattering shadscale and grass.
	Ascend abruptly over series of ledges.
15.80	Rim of mountain, 700 ft. above the cor., bears N. and S.
	Ascend gradually. Enter scattering timber bearing N. and S.
26.00	Ascend abruptly. 80 ft. above rim bearing N. and S.
37.50	Top of peak, 380 ft. above rim of mountain. Descend.
40.04	10 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. mkd. on brass cap S 13 $\frac{1}{4}$. S 24 1915 and raise a mound of stone, 2½ ft. base, 2 ft. high N. of cor.
	Descend.
80.08	The cor. of secs. 13, 14, 23 and 24.
	Land rough mountains.
	Soil light sandy loam, loose rock and boulders with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine on W. 64 chs.
	Undergrowth scattering shadscale and grass.
	N.0°01'E. bet. secs. 13 and 14.
	Over rough mountainous land, through scattering pinon pine and undergrowth of scattering shadscale and grass.
	Descend.
8.75	Ravine, 50 ft. deep, drains NW.
	Ascend.
26.50	Point of mesa bearing SE. and NE. slopes W.
	Descend.
40.00	440 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. mkd. on brass cap S 14 | S 13 $\frac{1}{4}$ 1915

SUBDIVISIONS OF T. 18 S. R. 16 E.

Chains

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

June 22:

At this point at 12h 02m p.m.,l.m.t., I set off 23°27'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°15'.

Descend.

60.00 Bottom of canyon, 350 ft. below ¼ sec. cor., course NE.

Ascend over series of ledges.

80.00 210 ft. above bottom of canyon.

Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground on solid rock and 18 ins. in mound of stone 4 ft. base, for the cor. of secs. 11, 12, 13 and 14, mkd. on brass cap

T 18 S R 16 E
S 11 | S 12
S 14 | S 13
1915

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

Land very rough mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

June 22, 1915.

June 23: At 8h 17m a.m.,l.m.t., I set off 39°16' on the lat. arc, 23°28'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14. Thence

N.89°58'E. on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

80.12 Intersect E. bdy. of Tp. 17 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence

N.89°55'W. on a true line bet. secs. 12 and 13.

Over rough mountainous land through scattering cedar and

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	pinon pine timber and undergrowth of scattering shadscale and grass.
	Descend.
2.00	Bottom of canyon, 25 ft. below cor., course NE.
	Ascend abruptly.
15.50	Spur, 525 ft. above canyon, projects N.15°E. Descend.
29.50	Ravine, 260 ft. below spur, drains N.15°E.
	Ascend.
40.06	400 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$\frac{S\ 12}{\frac{1}{4}}$ / S 13 / 1915
	and raise a mound of stone, $2\frac{1}{2}$ ft. base, 2 ft. high N. of cor.
	Ascend.
40.50	Spur, 10 ft. above the $\frac{1}{4}$ sec. cor., slopes N.
	Descend.
57.75	Canyon, 400 ft. below top, course NE.
	Ascend.
80.12	350 ft. above bottom of canyon.
	The cor. of secs. 11, 12, 13 and 14.
	Land rough mountains.
	Soil light sandy loam and loose rock and boulders, with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.

June 23:
At 12h 02m p.m., l.m.t., I set off 23°27'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16'.

N.0°01'E. bet. secs. 11 and 12.

Over rough mountainous land, through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Ascend.
13.00	Top of ascent, 165 ft. above the cor., slopes N.60°E.
	Descend gradually over broken land.
40.00	312 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground on solid rock and 18 ins. in mound of stone 4 ft. base for $\frac{1}{4}$ sec. cor. mkd. on brass cap
	S 11 | S 12 $\frac{1}{4}$ 1915
	from which
	A cedar, 12 ins. dia.,bears S.89°30'E., 80 lks. dist. mkd. $\frac{1}{4}$ S 12 B T.
	A cedar, 7 ins. dia.,bears N.8°W., 49 lks. dist. mkd. $\frac{1}{4}$ S 11 B T.
40.50	Brink of canyon bearing E. and W.
	Descend abruptly over ledges.
48.25	Bottom of canyon, 335 ft. deep, course E.
	Ascend over ledges.
52.75	Top of canyon bearing E. and W.
	Ascend mountain.
77.50	Top of mountain, 800 ft. above top of canyon, bears E. and W.
	Thence over rolling mountain top.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 8 ins. in the ground on solid rock and 16 ins. in mound of stone 4 ft. base, for cor. of secs. 1, 2, 11 and 12, mkd. on brass cap
	T 18 S R 16 E S 2 | S 1 S 11 | S 12 1915
	from which
	A cedar, 8 ins. dia.,bears N.75°45'E., 33 lks. dist. mkd. T 18 S R 16 E S 1 B T.
	A cedar, 7 ins. dia.,bears S.13°30'E., 59 lks. dist. mkd. T 18 S R 16 E S 12 B T.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	A cedar, 6 ins. dia., bears S.75°30'W., 43 lks. dist. mkd. T 18 S R 16 E S 11 B T.
	A cedar, 4 ins. dia., bears N.49°30'W., 110 lks. dist. mkd. T 18 S R 16 E S 1 B T.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcropping ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 23, 1915.
	June 24: At 8h 17m a.m., l.m.t., I set off 39°16' on the lat. arc, 23°27'N. on the decl. arc, and determine a meridian with the solar.
	Thence
	S.89°55'E. on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect E. bdy. of Tp. 4 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence
	N.89°57'W. on a true line bet. secs. 1 and 12.
	Over rough mountainous land through undergrowth of scattering shadscale and grass.
	Ascend abruptly over ledges.
11.50	Spur, 425 ft. above cor., bears N.
	Descend abruptly over ledges.
19.00	Bottom of canyon, 400 ft. deep, course N.
	Ascend abruptly over ledges.
37.00	Brink of canyon bearing N.30°E. and S.30°W.
	Ascend gradually through scattering timber bearing along brink.
40.02	10 ft. above brink.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground on solid rock and 20 ins. in mound of stone 5 ft. base, for ¼ sec. cor. mkd. on brass cap

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

S 1 1/4
S 12
1915

from which

A cedar, 5 ins. dia., bears N.42°W.,
172 lks. dist. mkd. 1/4 S 1 B T.

A cedar, 6 ins. dia., bears S.60°30'W.,
83 lks. dist. mkd. 1/4 S 12 B T.

Ascend gradually.

50.00 Ascend mountain bearing N. and S.

70.00 Top of mountain, 800 ft. above the 1/4 sec. cor. bearing N. and SW. Thence over rolling mountain top.

80.04 The cor. of secs. 1, 2, 11 and 12.

Land very rough mountains.

Soil light sandy loam and loose rock with numerous outcropping of ledges, 4th rate.

Timber scattering cedar and pinon pine on W. 43 chs.

Undergrowth scattering shadscale and grass.

June 24:
At 12h 02m p.m., l.m.t., I set off 23°26'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16', at cor. of secs. 1, 2, 11 and 12.

Thence

N.0°01'E. on a random line bet. secs. 1 and 2.

40.00 Set temp. 1/4 sec. cor.

80.15 Intersect N. bdy. of Tp. 9 lks. W. of the cor. of secs. 1, 2, 35 and 36 heretofore described.

Thence

S.0°05'W. on a true line bet. secs. 1 and 2.

Over rough mountainous land through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.

Ascend abruptly over series of ledges.

11.30 Top of mountain, 350 ft. above the cor., bears E. and W.

Thence over rolling mountain top with sandstone out-

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	cropping.
22.00	Brink of mountain. Descend bearing E. and W.
40.15	750 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground on solid rock and 20 ins. in mound of stone 5 ft. base for $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$S\ \frac{1}{4}\ 2 \mid S\ 1$
	1915
	from which
	A cedar, 5 ins. dia., bears N.82°E., 169 lks. dist. mkd. $\frac{1}{4}$ S 1 B T.
	A cedar, 4 ins. dia., bears S.28°15'W., 120 lks. dist. mkd. $\frac{1}{4}$ S 2 B T.
	Descend.
44.50	Bottom of canyon, 50 ft. below $\frac{1}{4}$ sec. cor., course E.
	Ascend.
72.40	Top of mountain, 880 ft. above bottom, bears E. and W.
	Thence over rolling mountain top.
80.15	The cor. of secs. 1, 2, 11 and 12.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcropping of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 24, 1915.

June 9: At 7h 59m a.m., l.m.t., I set off 39°12' on the lat. arc, 22°54'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35. on S. bdy. of Tp. heretofore described.

Thence

N.0°01'E. bet. secs. 34 and 35.

Over rolling mountain top, through scattering cedar and pinon pine timber and undergrowth of grass.

Descend gradually.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

20.50 Wash, 50 lks. wide, 10 ft. deep, drains W.

40.00 95 ft. below sec. cor.

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

S ¼ 34 | S 35

1915

from which

A cedar, 6 ins. dia., bears N.28°45'E., 235 lks. dist. mkd. ¼ S 35 B T.

A cedar, 4 ins. dia., bears N.18°W., 79 lks. dist. mkd. ¼ S 34 B T.

53.50 Rim of mountain bearing E. and W.

Descend.

60.00 Abrupt descent over series of ledges bearing E. and W. 150 ft. below ¼ sec. cor.

80.00 625 ft. below ledges.

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

T 18 S. R 16 E
S 27 | S 26
S 34 | S 35
1915

from which

A cedar, 10 ins. dia., bears N.53°15'E., 59 lks. dist. mkd. T 18 S R 16 E S 26 B T.

A cedar, 12 ins. dia., bears S.51°E., 32 lks. dist. mkd. T 18 S R 16 E S 35 B T.

A pinon pine, 10 ins. dia., bears S.48°W., 42 lks. dist. mkd. T 18 S R 16 E S 34 B T.

A pinon pine, 8 ins. dia., bears N.53°30'W., 37 lks. dist. mkd. T 18 S R 16 E S 27 B T.

Land S. 53½ chs. rolling mountain top; N. 26½ chs. rugged and mountainous.

Soil light sandy loam and loose rock with numerous outcropping of ledges, 3rd and 4th rate.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	East on a random line bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.12	Intersect N. and S. line 2 lks. N. of the cor. of secs. 25, 26, 35 and 36.
	Thence
	N.89°59'W. on true line bet. secs. 26 and 35.
	Over mountainous land, through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass
	Ascend.
10.50	Top of ascent, 250 ft. above the cor., slopes N.
	Enter scattering cedar and pinon pine timber bearing N. and S.
	Thence on nearly level line on N. side of mountain.
	Descend gradually along N. side of mountain.
32.00	Gulch, 80 ft. below top, drains N.25°E. Ascend.
40.06	270 ft. above gulch.
	Set an iron post, 3 ft. long, 1 in. in dia., on solid rock in mound of stone 6 ft. base, 26 ins. high for $\frac{1}{4}$ cor. to secs. 26 and 35, mkd. on brass cap
	$\frac{S\ 26}{\frac{1}{4}}$ / $\frac{S\ 35}{1915}$
	from which
	A cedar, 6 ins. dia., bears N.23°15'W.,
	51 lks. dist. mkd. $\frac{1}{4}$ S 26 B T.
	A cedar, 5 ins. dia., bears S.49°W.,
	38 lks. dist. mkd $\frac{1}{4}$ S 35 B T.
	June 9:
	At this point at 11h 59m a.m., l.m.t., I set off 22°54'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°13'.
	Ascend.
51.00	Point of spur, 180 ft. above $\frac{1}{4}$ sec. cor., slopes N.
	Descend.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
80.12	340 ft. below spur. The cor. of secs. 26, 27, 34 and 35. Land rough mountains draining North. Soil light sandy loam, loose rock and boulders, 4th rate. Timber W. 69½ chs. scattering cedar and pinon pine. Undergrowth scattering shadscale and grass.
	N.0°01'E. bet. secs. 26 and 27. Over rugged mountainous land through scattering cedar and pinon timber. Descend gradually.
22.30	Descend abruptly over ledge, 100 ft. below cor., bearing NW. and S.75°E.
30.50	Bottom of canyon 160 ft. below top, course N.60°E. Ascend.
35.00	Small spur, 80 ft. above bottom, slopes E. Descend.
40.00	Falls in bottom of canyon, 40 ft. below spur, course SE. Impracticable to set cor. Ascend abruptly over ledge.
41.40	Top of ledges, 80 ft. above bottom, bearing N.60°W. and S.60°E. Ascend.
41.60	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 14 ins. mound of stone 2 ft. base, for WC ¼ cor. to secs. 26 and 27, mkd. on brass cap T 18 S R 16 E S 27 | S 26 WC ¼ 1915 and raise a mound of stone, 2½ ft. base, 2 ft. high W. of cor.
	June 9, 1915.
	June 10: At 7h 59m a.m., l.m.t., I set off 39°13' on the lat. arc, 22°59'N. on the decl. arc, and determine a meridian with the solar. Thence
79.60	Rim of mountain, 870 ft. above WC, bears NW. and SE.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Thence over rolling mountain top.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., on solid sandstone in mound of stone 6 ft. base, 2 ft. high, for cor. of secs. 22, 23, 26 and 27, mkd. on brass cap T 18 S R 16 E S 22 | S 23 S 27 | S 26 1915
	from which A pinon pine, 6 ins. dia., bears N.83°30'E., 54 lks. dist. mkd. T 18 S R 16 E S 23 B T. A cedar, 6 ins. dia., bears S.8°15'E., 43 lks. dist. mkd. T 18 S R 16 E S 26 B T. A pinon pine, 4 ins. dia., bears N.44°W., 57 lks. dist. mkd. T 18 S R 16 E S 27 B T. and raise a mound of stone 2½ ft. base, 2 ft. high W. of cor. No other trees within limits. Land rough and mountainous. Soil light sandy loam, loose rocks and boulders with numerous outcroppings of ledges, 4th rate. Timber scattering cedar and pinon pine. Undergrowth scattering shadscale and grass.
	S.89°59'E. on a random line bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
80.16	Intersect N. and S. line 12 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. Over mountainous land through scattering pinon pine and cedar timber and undergrowth of scattering shadscale and grass.
14.25	Gulch, 260 ft. below the cor., drains S.
	Ascend.
28.50	Point of spur, 590 ft. above bottom gulch, slopes S.
	Descend.
40.08	220 ft. below point of spur.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in mound of stone 4 ft. base, for ¼ sec. cor. mkd. on brass cap S ¼ 23 S 26 1915 and raise a mound of stone 2½ ft. base, 2 ft. high W. of cor.
	Descend.
49.45	Bottom of deep gulch, 140 ft. below ¼ sec. cor., drains S.35°E.
	Ascend over boulders and ledges.
58.30	Rim of mountain, 345 ft. above bottom, bears NE. and S.15°W. Thence over rolling mountain top.
80.16	The cor. of secs. 22, 23, 26 and 27.
	Land E. 58 chs. very rough and mountainous; W. 22 chs. rolling mountain top.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.0°01'E. bet. secs. 22 and 23.
	Over rolling mountain top, through medium growth of cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
14.60	Ledge 20 ft. high bears E. and W.
	Ascend gradually.
40.00	145 ft. above ledge top.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground on solid rock and 20 ins. in mound of stone 4 ft. base for ¼ sec. cor. mkd. on brass cap S ¼ 22 | S 23 1915 from which

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	A cedar, 6 ins. dia., bears N.32°15'E., 13 lks. dist. mkd. $\frac{1}{4}$ S 23 B T.
	A pinon pine, 7 ins. dia., bears S.56°W., 36 lks. dist. mkd. $\frac{1}{4}$ S 22 B T.
	June 10: At this point at 11h 59m a.m., l.m.t., I set off 22°59'N. on the lat. arc, and observe the sun on the meridian, the resulting lat. is 39°14'.
43.25	Ridge, 70 ft. above $\frac{1}{4}$ sec. cor., bears N.70°W. and S.70°E. Knoll in ridge, approximately S.70°E. 15 chs. Descend.
72.00	Foot of descent, 300 ft. below top of ridge, bears SE. and SW. Thence on nearly level line.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground on solid rock and 12 ins. in mound of stone 2½ ft. base for the cor. of secs. 14, 15, 22 and 23, mkd on brass cap T 18 S R 16 E S 15 + S 14 S 22 + S 23 1915 from which
	A cedar, 10 ins. dia., bears N.84°25'E., 90 lks. dist. mkd. T 18 S R 16 E S 14 B T.
	A cedar, 8 ins. dia., bears S.57°30'E., 52 lks. dist. mkd. T 18 S R 16 E S 23 B T.
	A pinon pine, 10 ins. dia., bears S.49°W., 129 lks. dist. mkd. T 18 S R 16 E S 22 B T.
	A cedar, 7 ins. dia., bears N.77°25'W., 103 lks. dist. mkd. T 18 S R 16 E S 15 B T.
	Land rolling mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd rate.
	Timber medium growth of cedar and pinon pine.
	Undergrowth scattering shadscale and grass.

SUBDIVISION OF T. 18 S., R. 16 E.

Chains	
	S.89°54'E. on random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect N. and S. line 4 lks. S. of the cor. of secs. 13, 14, 23 and 24.
	Thence
	N.89°56'W. on true line bet. secs. 14 and 23.
	Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
16.25	Rim of canyon bearing N. and SW.
	Descend.
29.00	Bottom of canyon, 425 ft. below rim, course N.
	Ascend.
37.00	Top of mountain, 325 ft. above bottom, bears N. and S.
	Thence over rolling mountain top.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone 3 ft. base, for the ¼ sec. cor. mkd. on brass cap S ¼ 14 S 23 1915 from which A pinon pine, 7 ins. dia., bears N.20°45'E., 20 lks. dist. mkd. ¼ S 14 B T. A cedar, 6 ins. dia., bears S.26°15'W., 27 lks. dist. mkd. ¼ S 23 B T.
43.00	Rim of mountain bearing NE. and S.
	Descend.
47.00	Ravine, 160 ft. deep, drains NE.
	Ascend.
62.00	Top of mountain bears NE. and S. Thence on rolling mtn. top.
80.06	The cor. of secs. 14, 15, 22 and 23.
	Land rough and rolling mountains.
	Soil light sandy loam with numerous outcroppings of ledges, 3rd rate.
	Timber scattering pinon pine and cedar.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Undergrowth scattering shadscale and grass.
	June 10, 1915.
	June 25: At 8h 32m a.m., l.m.t., I set off 39°15' on the lat. arc, 23°26'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.
	Thence
	N.0°01'E. bet. secs. 14 and 15.
	Over rolling mountain top, through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.
31.50	Abrupt descent over ledges bearing E. and W.
40.00	335 ft. below top.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	S 15 | S 14 $\frac{1}{4}$ 1915
	from which
	A pinon pine, 8 ins. dia., bears S.55°E., 39 lks. dist. mkd. $\frac{1}{4}$ S 14 B T.
	A cedar, 6 ins. dia., bears N.76°15'W., 88 lks. dist. mkd. $\frac{1}{4}$ S 15 B T.
	Descend.
59.25	Bottom of canyon, 300 ft. below $\frac{1}{4}$ sec. cor., course NE.
	Ascend.
70.00	Top of ascent, 235 ft. above bottom, slopes NE.
	Descend.
80.00	200 ft. below top.
	Set an iron post, 3 ft. long, 2 ins. in dia., 6 ins. in the ground on solid rock and 18 ins. in mound of stone 4 ft. base, for the cor. of secs. 10, 11, 14 and 15, mkd. on brass cap
	T 18 S R 16 E S 10 | S 11 S 15 | S 14 1915

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

from which

A cedar, 8 ins. dia., bears N.64°30'E.,
127 lks. dist. mkd. T 18 S R 16 E S 11 B T.

A cedar, 3 ins. dia., bears S.51°45'E.,
145 lks. dist. mkd. T 18 S R 16 E S 14 B T.

A cedar, 12 ins. dia., bears S.37°30'W.,
35 lks. dist. mkd. T 18 S R 16 E S 15 B T.

A cedar, 8 ins. dia., bears N.59°30'W.,
69 lks. dist. mkd. T 18 S R 16 E S 10 B T.

Land rough mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

June 25:

At 12h 02m p.m., l.m.t., I set off 23°25'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°15', at cor. secs. 10, 11, 14 and 15.

S.89°56'E. on a random line bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect N. and S. line 5 lks. S. of the cor. of secs. 11, 12, 13 and 14.

Thence

N.89°58'W. on a true line bet. secs. 11 and 14.

Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

Ascend over ledges.

20.00 Top of mountain, 600 ft. above cor., bears N. and S.

Thence over rolling mountain top.

23.75 Descend abruptly, bears N. and S.

39.97 510 ft. below top.

Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground on solid rock and 10 ins. in mound of stone 2 ft. base, for ¼ sec. cor. mkd. on brass cap

Chains	
	S 11 ¼ / S 14 1915
	from which
	A cedar, 8 ins. dia., bears N.74°W.,
	49 lks. dist. mkd. ½ S 11 B T.
	A cedar, 8 ins. dia., bears S.45°W.,
	12 lks. dist. mkd. ½ S 14 B T.
	Descend.
56.25	Bottom of canyon, 250 ft. below ¼ sec. cor., course N.30°E.
	Ascend.
73.00	Top of ascent, 130 ft. above canyon, slopes NE.
	Descend.
79.94	The cor. of secs. 10, 11, 14 and 15.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 25, 1915.

June 26: At 8h 02m a.m., l.m.t., I set off 39°16' on the lat. arc, 23°24'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Thence

N.0°01'E. bet. secs. 10 and 11.

Over rough mountainous land, through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.

Descend gradually.

25.00 Bottom of canyon, 150 ft. below cor., course E.

Ascend.

40.00 50 ft. above bottom.

SUBDIVISION OF T. 18 S. R. 16 E.

hains

Set an iron post 3 ft. long, 1 in. in dia., 6 ins. in the ground and 20 ins. in mound of stone 5 ft. base, for the $\frac{1}{4}$ sec. cor. mkd. on brass cap

S $\frac{1}{4}$ 10 | S 11

1915

from which

A cedar, 8 ins. dia., bears S.29°E., 70 lks. dist. mkd. $\frac{1}{4}$ S 11 B T.

A cedar, 10 ins. dia., bears S.53°W., 19 lks. dist. mkd. $\frac{1}{4}$ S 10 B T.

Ascend mountain over series of broken ledges.

73.32 Top of mountain, 964 ft. above the $\frac{1}{4}$ sec. cor., bears E. and W. Thence over rolling mountain top.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 2, 3, 10 and 11, mkd. on brass cap

T 18 S R 16 E

S 3 | S 2

S 10 | S 11

1915

from which

A pinon pine, 12 ins. in dia., bears N.58°30'E., 64 lks. dist. mkd. T 18 S R 16 E S 2 B T.

A pinon pine, 10 ins. dia., bears S.63°30'E., 34 lks. dist. mkd. T 18 S R 16 E S 11 B T.

A pinon pine, 10 ins. dia., bears S.12°35'W., 121 lks. dist. mkd. T 18 S R 16 E S 10 B T.

A pinon pine, 10 ins. dia., bears N.46°30'W., 81 lks. dist. mkd. T 18 S R 16 E S 3 B T.

Land rough mountains.

Soil light sandy loam and loose rock with numerous outcropping ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

S.89°58'E. on a random line bet. secs. 2 and 11.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line 6 lks. N. of the cor. of secs. 2, 3, 10 and 11.
	June 26: At this point at 12h 02m p.m., l.m.t., I set off 23°24'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16'.
	Thence
	N.89°55'W. on true line bet. secs. 2 and 11.
	Over rolling mountains through scattering pinon pine and cedar timber and scattering undergrowth of shadscale and grass.
	Ascend gradually.
29.00	Top of ascent, 130 ft. above the cor., bears N. and S.
	Thence on nearly level land.
37.75	Descend gradually bearing N. and S.
39.95	50 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$\frac{S\ 2}{\frac{1}{4}}$ / S 11 / 1915
	from which
	A pinon pine, 8 ins. dia., bears North, 21 lks. dist. mkd. $\frac{1}{4}$ S 2 B.T.
	A pinon pine, 6 ins. dia., bears S.86°45'W., 200 lks. dist. mkd. $\frac{1}{4}$ S 11 B.T.
	Descend gradually.
48.00	Rim of mountain, 15 ft. below $\frac{1}{4}$ sec. cor., bears S.80°E. and N.80°W.
	Descend abruptly over rim.
53.00	Bottom of descent, 75 ft. below rim, drains S.
	Ascend.
60.00	Rim of mountain, 75 ft. above bottom, bears N.80°E. and S.80°W. Ascend gradually.
77.00	Continue ascent over white ledges, 50 ft. high, bearing N. and S.

Chains	
79.90	75 ft. above rim.
	The cor. of secs. 2, 3, 10 and 11.
	Land rolling and mountainous.
	Soil light sandy loam and loose rock with outcropping of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.0°01'E. on random line bet. secs. 2 and 3.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.05	Intersect N. Bdy. of Tp. 11 lks. E. of the cor. of secs. 2, 3, 34 and 35, heretofore described.
	Thence
	S.0°04'E. on true line bet. secs. 2 and 3.
	Over rolling mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
5.00	Descend over ledges bearing E. and S.10°W.
9.00	Foot of ledges, 50 ft. below top.
	Descend gradually.
24.00	Rim of canyon, 85 ft. below ledge, bears E. and W.
	Descend abruptly over series of ledges.
33.00	Bottom of canyon, 180 ft. below top, course E.
	Ascend over ledges.
40.05	250 ft. above bottom.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 2 and 3, mkd. on brass cap
	$S\frac{1}{4}3 \mid S\ 2$
	1915
	from which
	A pinon pine, 8 ins. dia., bears N.77°45'E., 42 lks. dist. mkd. $\frac{1}{4}$ S 2 B T.
	A pinon pine, 6 ins. dia., bears N.79°45'W., 36 lks. dist. mkd. $\frac{1}{4}$ S 3 B T.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Thence ascend over ledges.
41.00	Top of ledges, 25 ft. above ¼ sec. cor., bears E. and W. Ascend gradually.
68.00	Foot of ledges, bears S.30°E. and N.30°W.
78.00	Top of ledge, 50 ft. high, 180 ft. above the ¼ sec. cor. Thence on level line.
80.05	The cor. of secs. 2, 3, 10 and 11.
	Land rough mountains and rolling.
	Soil light sandy loam and loose rock with numerous outcropping of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 26, 1915.

June 11: At 7h 59m a.m., l.m.t., I set off 39°12' on the lat. arc, 23°03'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34.

Thence N. bet. secs. 33 and 34.

Over rough mountainous land through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.

Ascend.

40.00 180 ft. above sec. cor.

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

$S\ \frac{1}{4}\ 33 \mid S\ 34$

1915

from which

A pinon pine, 8 ins. dia., bears S.36°45'E., 78 lks. dist. mkd. ¼ S 34 B T.

A cedar, 7 ins. dia., bears N.31°15'W., 33 lks. dist. mkd. ¼ S 33 B T.

41.50 Top of mountain, 35 ft. above ¼ sec. cor., bears N.60°E. and SW. Thence over rolling mountain top.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Ascend gradually.
64.00	Top of ascent, on top of sandstone ledge, 30 ft. high, 140 ft. above rim, bears E. and W.
	Thence over level mountain top.
68.00	Descend into ravine bearing NE. and SW.
80.00	110 ft. below top.
	Set an **iron** post, 3 ft. long, 1 in. in dia., 6 ins. in the ground 18 ins. in mound of stone 4 ft. base, for the cor. of secs. 27, 28, 33 and 34, mkd. on brass cap

T 18 S R 16 E
S 28 | S 27
S 33 | S 34
1915

from which

A pinon pine, 10 ins. dia., bears N.21°15'E., 20 lks. dist. mkd. T 18 S R 16 E S 27 B T.

A pinon, 9 ins. dia., bears S.13°30'E., 37 lks. dist. mkd. T 18 S R 16 E S 34 B T.

A pinon, 8 ins. dia., bears S.64°30'W., 12 lks. dist. mkd. T 18 S R 16 E S 33 B T.

A pinon pine, 8 ins. dia., bears N.29°W., 72 lks. dist. mkd. T 18 S R 16 E S 28 B T.

Land rough and rolling mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

	East on random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line, 18 lks. N. of the cor. of secs. 26, 27, 34 and 35.
	Thence
	N.89°52'W. on true line bet. secs. 27 and 34.
	Over mountainous land through scattering cedar and pinon

Chains	
	pine timber and undergrowth of scattering shadscale and grass. Ascend.
30.00	Top of mountain, 800 ft. above the cor., bears NE. and S
	Thence over rolling mountain top.
	Ascend slightly.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap
	$\frac{S\ 27}{\frac{1}{4}}$ / S 34 1915
	from which
	A pinon pine, 12 ins. in dia., bears N.58°W., 90 lks. dist. mkd. $\frac{1}{4}$ S 27 B T.
	A pinon pine, 6 ins. dia., bears S.72°45'E., 32 lks. dist. mkd. $\frac{1}{4}$ S 34 B T.
	June 11: At this point at 11h 59m a.m., l.m.t., I set off 23°04'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°13'.
	Thence
52.00	South foot of red butt, bears NE. and N.60°W.
64.00	Descend abruptly from mountain rim bearing NE. and SW.
80.04	110 ft. below mountain rim.
	The cor. of secs. 27, 28, 33 and 34.
	Land rough and rolling mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	North bet. secs. 27 and 28.
	Over rough mountainous land through scattering pinon and cedar timber and undergrowth of scattering shadscale and grass.
	Descend.
7.00	Ravine, 100 ft. deep, drains W.
	Ascend.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
9.00	Top of spur, projects W.
	Thence over rolling top of spur.
24.00	Descent, bears E. and W.
31.40	Ravine, 100 ft. below spur, drains S.75°W.
	Ascend.
40.00	205 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 27 and 28, mkd. on brass cap
	S $\frac{1}{4}$ 28 | S 27
	1915
	from which
	A cedar, 8 ins. dia., bears S.22°45'E., 125 lks. dist. mkd. $\frac{1}{4}$ S 27 B T.
	A cedar, 6 ins. dia., bears S.43°45'W., 78 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
44.00	Top of mountain, 30 ft. above $\frac{1}{4}$ sec.cor., bears E. and NW.
	Thence over rolling mountain top.
63.00	Foot of ridge bearing E. and W.
	Ascend.
78.00	Point of spur, 250 ft. above mountain, slopes E.
	Descend.
80.00	30 ft. below spur.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 21, 22, 27 and 28, mkd. on brass cap
	T 18 S R 16 E S 21 | S 22 S 28 | S 27 1915
	from which
	A pinon pine, 7 ins. dia., bears N.86°E., 59 lks. dist. mkd. T 18 S R 16 E S 22 B T.
	A pinon pine, 8 ins. dia., bears S.12°15'E., 38 lks. dist. mkd. T 18 S R 16 E S 27 B T.
	A cedar, 6 ins. dia., bears S.36°45'W., 63 lks. dist. mkd. T 18 S R 16 E S 28 B T.

Chains

A cedar, 14 ins. dia.,bears N.57°45'W.,
36 lks. dist. mkd. T 18 S R 16 E S 21 B T.

Land rough mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

June 11, 1915.

June 12: At 7h 29m a.m.,l.m.t., I set off 39°14' on the lat. arc, 23°08'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

Thence

S.89°52'E. on a random line bet. secs. 22 and 27.

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

79.96 Intersect N. and S. line 5 lks. N. of the cor. of secs. 22, 23, 26 and 27.

Thence

N.89°50'W. on a true line bet. secs. 22 and 27.

Over rough mountainous land through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.

Descend abruptly over rim bearing NW. and SE.

18.00 Canyon, 800 ft. deep, course S.10°E.

Ascend.

39.98 On rim of canyon bearing NW. and SE.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. mkd. on brass cap

$$\frac{S\ \frac{1}{4}\ 22}{S\ 27}$$
1915

from which

A pinon pine, 7 ins. dia.,bears N.9°45'E.,
32 lks. dist. mkd. $\frac{1}{4}$ S 22 B T.

A pinon pine, 9 ins. dia.,bears S.11°45'E.,

Chains	
	62 lks. dist. mkd. ¼ S 27 B T.
	Thence over rolling top of spur.
52.75	Descend into ravine bears NW. and SE.
56.25	Ravine, 40 ft. deep, drains SE.
	Ascend.
63.50	Rim of ravine bears NW. and SE.
	Ascend.
79.96	215 ft. above rim of ravine.
	The cor. of secs. 21, 22, 27 and 28.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	North bet. secs. 21 and 22.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Descend.
8.00	Bottom of descent, 65 ft. below the cor., drains E.
	Ascend.
16.00	Top of ascent, 90 ft. above bottom, slopes E.
	Descend.
19.50	Ravine, 95 ft. below top, drains E.
	Ascend.
26.00	Point of ridge, 140 ft. above ravine, slopes E.
	Descend.
30.00	Bottom of descent, 80 ft. below top.
	Ascend.
40.00	80 ft. above bottom.
	Set an iron post, 3 ft. long, 1 in. in dia., on solid sandstone ledge in mound of stone 6 ft. base, 26 ins. high for ¼ sec. cor. mkd. on brass cap

S 21 | S 22
¼

1915

from which

SUBDIVISION OF T. 18 S., R. 16 E.

Chains

A cedar, 16 ins. dia., bears N.85°E.,
23 lks. dist. mkd. ¼ S 22 B T.
A cedar, 10 ins. dia., bears S.66°30'W.,
38 lks. dist. mkd. ¼ S 21 B T.

40.50 Top of ascent, 15 ft. above ¼ sec. cor., bears NE. and SW. Thence over flat top of ridge.

73.75 Rim of ridge bearing E. and W. Descend.

80.00 175 ft. below rim.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 15, 16, 21 and 22, mkd. on brass cap

T 18 S R 16 E
S 16 | S 15
S 21 | S 22
1915

from which

The S. end of sandstone boulder, 20x18x8 ft. brs. N. 7 lks. dist. mkd. with X on line and BO.

A cedar, 16 ins. dia., bears N.19°E.,
8 lks. dist. mkd. T 18 S R 16 E S 15 B T.
A cedar, 6 ins. dia., bears S.53°15'E.,
70 lks. dist. mkd. T 18 S R 16 E S 22 B T.
A cedar, 6 ins. dia., bears S.40°15'W.,
82 lks. dist. mkd. T 18 S R 16 E S 21 B T.

Land rough mountains.

Soil light sandy loam and loose rock and boulders with a few outcroppings of ledges, 3rd and 4th rate.

Timber scattering cedars and pinon pine.

Undergrowth scattering shadscale and grass.

June 12: At 11h 59m a.m., l.m.t., I set off 23°08'N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 39°15'. (At cor. of secs. 15,16, 21 and 22.)

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	S.89°50'E. on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
79.90	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 14, 15, 22 and 23.
	Thence
	N.89°48'W. on true line bet. secs. 15 and 22.
	Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Ascend gradually.
22.00	Top of ascent, 50 ft. above cor., bears N.
	Descend gradually.
26.00	Descent bears N. and S. 50 ft. below top.
38.00	Ravine, 330 ft. below top, draining N.15°W.
	Ascend.
39.95	70 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. mkd. on brass cap
	$\frac{S\ 15}{\frac{1}{4}}$
	S 22 1915
	from which
	A pinon pine, 6 ins. dia., bears N.71°45'W., 21 lks. dist. mkd. ¼ S 15 B T.
	A pinon pine, 8 ins. dia., bears S.30°W., 70 lks. dist. mkd. ¼ S 22 B T.
	Ascend.
58.00	Top of ascent, 300 ft. high, slopes N.
	Descend.
62.00	Ravine, 50 ft. below top, drains NE.
	Ascend.
71.50	Top of ascent, 280 ft. above ravine, slopes N.
	Descend.
79.90	120 ft. below top of ascent.
	The cor. of secs. 15, 16, 21 and 22.
	Land rough mountains.
	Soil light sandy loam; loose rock and boulders; few out-

Chains	
	croppings of ledges, 3rd and 4th rate.
	Timber scattering pinon pine and cedar.
	Undergrowth scattering shadscale and grass.
	June 12, 1915.
	June 28:
	At 8h 33m a.m., l.m.t., I set off 39°15' on the lat. arc, 23°20'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence
	North bet. secs. 15 and 16.
	Over rough mountainous land through cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Descend.
19.75	Ravine, 385 ft. below sec. cor., drains W.
	Ascend.
25.00	Spur, 90 ft. above ravine, slopes W.
	Descend.
39.85	335 ft. below spur, at foot of sandstone boulder. Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground and mound of stone 4 ft. base, 16 ins. high around post, for WC to ¼ sec. cor., mkd. on brass cap

T 18 S R 16 E

W C

S ¼ 16 | S 15

1915

	from which
	A cedar, 12 ins. dia., bears S.40°30'E., 29 lks. dist. mkd. ¼ S 15 B T.
	A cedar, 6 ins. dia., bears S.36°15'W., 83 lks. dist. mkd. ¼ S 16 B T.
40.00	Point for ¼ sec. cor. falls on sandstone boulder 20x20x8 ft., impossible to set cor. I mark X at exact cor. point and ¼ W. of cross.
54.75	Bottom of canyon, 175 ft. below ¼ sec. cor., course N.70°E. Timber becomes scattering bearing E. and W.
	Ascend over series of sandstone ledges.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

80.00 535 ft. above canyon.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 9, 10, 15 and 16, mkd. on brass cap

T 18 S R 16 E
S 9 | S 10
S 16 | S 15
1915

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

Land rough mountains with general drainage East.

Soil light, sandy loam, loose rock with outcroppings of sandstone ledges, 4th rate.

Timber medium growth of cedar and pinon pine.

Undergrowth scattering shadscale and grass.

June 28;

At 12h 03m p.m., l.m.t., I set off 23°19'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16', at cor. secs. 9, 10, 15 and 16.

Thence

S.89°48'E. on a random line bet. secs. 10 and 15.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect N. and S. line 7 lks. N. of the cor. of secs. 10, 11, 14 and 15.

Thence

N.89°45'W. bet. secs. 10 and 15, on true line.

Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

Ascend.

11.00 Top of ascent, 65 ft. above the cor., slopes N.

Descend.

38.75 Bottom of canyon, 160 ft. below top of ascent, course N.15°E. Ascend.

39.97 25 ft. above bottom.

Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in

Chains

the ground and mound of stone 3 ft. base, 6 ins. high around post, for the $\frac{1}{4}$ sec. cor., mkd. on brass cap

$$\frac{S\ 10}{\frac{1}{4}}$$

$$\frac{S\ 15}{1915}$$

from which

A cedar, 6 ins. dia., bears N.14°15'E., 89 lks. dist. mkd. $\frac{1}{4}$ S 10 B T.

A cedar, 10 ins. dia., bears S.12°30'W., 58 lks. dist. mkd. $\frac{1}{4}$ S 15 B T.

Ascend over series of ledges.

79.94 660 ft. above $\frac{1}{4}$ sec. cor.

The cor. of secs. 9, 10, 15 and 16.

Land rough mountains with general drainage North.

Soil light sandy loam and loose rock, with numerous outcroppings of sandstone ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

North bet. secs. 9 and 10.

Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

Ascend.

5.00 Spur, 100 ft. above cor., bears N.60°E.

Descend.

39.25 Bottom of canyon, 250 ft. below spur, course East.

Ascend.

40.00 10 ft. above bottom of canyon.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap

$$\frac{S\ 9 \mid S\ 10}{\frac{1}{4}}$$

1915

from which

A cedar, 7 ins. dia., bears S.47°E.,

SUBDIVISION OF T. 18 S., R. 16 E.

Chains

12 lks. dist. mkd. ¼ S 10 B T.

A cedar, 12 ins. dia., bears N.23°W.,

26 lks. dist. mkd. ¼ S 9 B T.

Ascend.

From this ¼ sec. cor. Rabbit Spring, which is a small alkali seep, bears S.83°07'E. 33.33 chs. dist.

June 28, 1915.

June 29: At 8h 03m a.m., l.m.t., I set off 39°16'N. on the lat. arc, 23°17'N. on the decl. arc, and determine a meridian with the solar at this ¼ sec. cor.

Thence

Ascend over series of ledges.

74.00 Top of rim, 300 ft. above the ¼ sec. cor. bears E. and W.

Ascend gradually.

80.00 25 ft. above rim.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, mkd. on brass cap

T 18 S R 16 E
S 4 | S 3
S 9 | S 10
1915

from which

A cedar, 7 ins. dia., bears N.55°20'E.,
84 lks. dist. mkd. T 18 S R 16 E S 3 B T.

A cedar, 5 ins. dia., bears S.50°45'E.,
93 lks. dist. mkd. T 18 S R 16 E S 10 B T.

A cedar, 12 ins. dia., bears S.81°15'W.,
122 lks. dist. mkd. T 18 S R 16 E S 9 B T.

A pinon pine, 10 ins. dia., bears N.5°45'W.,
122 lks. dist. mkd. T 18 S R 16 E S 4 B T.

Land, rough mountainous with general E. drainage.

Soil, light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering pinon pine and cedar.

Undergrowth scattering shadscale and grass.

Chains

S.89°45'E. on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

80.02 Intersect N. and S. line, 3 lks. N. of the cor. of secs 2, 3, 10 and 11.

Thence

N.89°44'W. on a true line bet. secs. 3 and 10.

Over mountainous land, through cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Ascend.

23.00 Top of ascent, 240 ft. above the cor., on S. slope of butte, slopes S.

Descend.

40.01 130 ft. below top.

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

S 3
¼
S 10
1915

from which

A pinon pine, 6 ins. dia., bears N.65°45'W., 21 lks. dist. mkd. ¼ S 3 B T.

A pinon pine, 6 ins. dia., bears S.1°30'W., 77 lks. dist., mkd. ¼ S 10 B T.

Descend.

44.00 Bottom of descent, 10 ft. below ¼ sec. cor., drains S.

Ascend gradually.

69.00 Top of ascent, 50 ft. above bottom, slopes S.

Descend gradually.

80.02 115 ft. below top of ascent.

The cor. of secs. 3, 4, 9 and 10.

Land mountainous with general S. drainage.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

June 29: At this cor. at 12h 03m p.m., l.m.t., I set

SUBDIVISION OF T. 18 S., R. 16 E.

Chains	
	off 23°16'N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 39°16'.
	North on random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
79.90	Intersect N. Bdy. of Tp. 18 lks. E. of the cor. of secs. 3, 4, 33 and 34, heretofore described.
	Thence
	S.0°08'E. on true line bet. secs. 3 and 4.
	Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass. Descend.
20.00	Foot of ridge, 135 ft. below cor., bears E. and W.
	Thence over rolling land, sloping E.
39.90	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap S 4. | S 3 ¼ 1915
	from which
	A cedar, 6 ins. dia., bears S.24°45'E., 94 lks. dist. mkd. ¼ S 3 B T.
	A cedar, 5 ins. dia., bears S.39°W., 73 lks. dist. mkd. ¼ S 4 B T.
44.00	Foot of ridge bearing NE. and SW.
	Ascend.
70.00	Saddle bet. buttes, 255 ft. above foot, bears E. and W.
	Descend.
79.90	130 ft. below saddle.
	The cor. of secs. 3, 4, 9 and 10.
	Land mountainous with general E. drainage.
	Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.

Chains	June 29, 1915.
	June 14: At 8h 30m a.m., l.m.t., I set off 39°12' on the lat. arc, 23°15'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
	From this corner running North, line passes over series of ledges, impracticable to chain, therefore
	I offset East 1 chain.
	Thence
	N.0°01'W. on offset line over rough mountainous land through undergrowth of scattering shadscale and grass. Ascend.
32.00	Top of ledges, 650 ft. above point, bears E. and S.5°W. Thence offset W. 1 ch. to true line; thence N.0°01'W. Ascend.
40.00	115 ft. above ledge. Set an iron post, 3 ft. long, 1 in. in dia., on solid sandstone in mound of stone 6 ft. base, 26 ins. high for $\frac{1}{4}$ sec. cor. of secs. 32 and 33, mkd. on brass cap S $\frac{1}{4}$ 32 | S 33 1915 and raise a mound of stone 2½ ft. base, 2 ft. high W. of cor.
	Ascend over ledges.
48.40	Top of ledges, 250 ft. above $\frac{1}{4}$ sec. cor. bears N.15°W. and S.15°E.
	Ascend gradually along W. side of spur.
51.70	Spur, 30 ft. above top of ledges, bears S.20°E. Enter scattering cedar and pinon pine timber bearing E. and W. Descend.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
60.75	Ravine, 75 ft. below spur, drains S.60°E.
	Ascend.
76.00	Top of ascent, 260 ft. above ravine, bears NW. and SE.
	Thence on nearly level line to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 28, 29, 32 and 33, mkd. on brass cap

T 18 S R 16 E
S 29 | S 28
S 32 | S 33
1915

from which

A cedar, 4 ins. dia., bears N.84°30'E., 71 lks. dist. mkd. T 18 S R 16 E S 28 B T.

A cedar, 8 ins. dia., bears S.9°30'E., 228 lks. dist. mkd. T 18 S R 16 E S 33 B T.

A cedar, 8 ins. dia., bears S.46°30'W., 53 lks. dist. mkd. T 18 S. R 16 E S 32 B T.

A cedar, 7 ins. dia., bears N.71°W., 53 lks. dist. mkd. T 18 S R 16 E S 29 B T.

Land very rough mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering cedar and pinon pine on N. 28 chs.

Undergrowth scattering shadscale and grass.

June 14:

At 12h M, l.m.t., I set off 23°15'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°13', at cor. secs. 28, 29, 32 and 33.

East on a random line bet. secs. 28 and 33.

40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line 7 lks. S. of the cor. of secs. 27, 28, 33 and 34.
	Thence
	S.89°57'W. on a true line bet. secs. 28 and 33.
	Over mountainous land through scattering cedars and pinon pine and undergrowth of scattering shadscale and grass.

SUBDIVISION OF T. 18 S. R.16 E.

Chains	
	Descend.
4.00	Ravine, 35 ft. below cor., drains NW.
	Ascend.
11.00	Point of spur, 40 ft. above ravine, slopes N.
	Descend.
39.97	560 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. i the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$\frac{S\ 28}{\frac{1}{4}}$ / $\frac{S\ 33}{1915}$
	from which
	A cedar, 6 ins. dia., bears N.35°30'E.,
	92 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
	A cedar, 10 ins. dia., bears S.18°15'E.,
	39 lks. dist. mkd. $\frac{1}{4}$ S 33 B T.
53.25.	Canyon, 165 ft. below $\frac{1}{4}$ sec. cor., course S.
	Ascend.
76.00.	Point of spur, 370 ft. above canyon, slopes S.
	Descend.
79.94	50 ft. below spur.
	The cor. of secs. 28, 29, 32 and 33.
	Land rough mountainous.
	Soil light sandy loam and loose rock with numerous out- croppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.

June 14, 1915.

June 15: At 8h a.m., l.m.t., I set off 39°13' on the lat arc, 23°18'N. on the decl. arc, and determine a meridia with the solar at the cor. of secs. 28, 29, 32 and 33.

Thence

N.0°01'W. bet. secs. 28 and 29.

Over rough mountainous land through scattering pinon pine and cedar timber and undergrowth of scattering shadscal and grass.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Ascend over series of ledges.
11.00	Top of ascent, 200 ft. above cor., projects E.
	Descend.
17.00	Head of ravine, low saddle, 50 ft. below top, course E.
	Ascend.
25.50	Top of mesa, 125 ft. above saddle, bears NW. and SE.
	Thence over rolling mesa.
34.00	Abrupt descend over ledges, bearing N.75°E. and S.75°W.
40.00	190 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap

S 29 | S 28

$\frac{1}{4}$

1915

from which

A pinon pine, 8 ins. dia., bears S.75°E., 23 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.

A cedar, 7 ins. dia., bears N.37°W., 5 lks. dist. mkd. $\frac{1}{4}$ S 29 B T.

Descend.

44.25	A ravine, 60 ft. below $\frac{1}{4}$ sec. cor., draining W.
	Ascend.
56.00	Top of spur, 350 ft. above ravine, bears E. and W.
	Thence over rolling top.
63.00	Descend over ledges, bearing N.30°E. and S.30°W.
80.00	Bottom of canyon, 300 ft. below top, course S.30°W.
	Impracticable to set cor.
80.50	10 ft. above bottom on N. slope of water course
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for WC. of secs. 20, 21, 28 and 29, mkd. on brass cap

T 18 S R 16 E

S 20 | S 21

W C

S 29 | S 28

1915

from which

A cedar, 14 ins. in dia., bears S.44°30'E.,

SUBDIVISION OF T.18 S. R. 16 E.

Chains	
	35 lks. dist. mkd. T 18 S R 16 E S 28 WC BT. A cedar, 12 ins. dia., bears N.71°W., 27 lks. dist. mkd. T 18 S R 16 E S 20 WC BT. and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. No other bearing trees within limits.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.
	Timber scattering pinon pine and cedar.
	Undergrowth scattering shadscale and grass.
	From true point for cor. secs. 20,21,28 and 29 N.89°57'E. on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line 7 lks. N. of the cor. of secs. 21, 22, 27 and 28.
	Thence
	West on a true line bet. secs. 21 and 28.
	Over mountainous land through scattering pinon pine and cedar timber and undergrowth of scattering shadscale and grass.
	Ascend.
3.00	Top of mesa, 60 ft. above cor., bears N. and S.75°W.
	Thence over rolling top.
9.25	Descent bearing S.80°E. and N.15°W.
32.85	Ravine, 500 ft. below top, drains S.5°W.
	Ascend.
38.50	Rim of ledge, 100 ft. above ravine, bears N. and S.
	Ascend gradually.
40.02	15 ft. above rim.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground on solid rock and raise a mound of stone 4 ft. base, 20 ins. high around cor. for the ¼ sec. cor mkd. on brass cap
	$\frac{S\ 21}{\frac{1}{4}}$ / S 28 1915

Chains	
	from which
	A cedar, 8 ins. in dia., bears N.50°45'E.,
	50 lks. dist. mkd. $\frac{1}{4}$ S 21 B T.
	A cedar, 8 ins. dia., bears S.41°30'E.,
	123 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
	June 15:
	At this point at 12h M l.m.t., I set off 23°18'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°14'.
	Thence ascend gradually.
50.00	Top of ridge, 90 ft. above the $\frac{1}{4}$ sec. cor., bears N.20°E. and S.20°W.
	Descend gradually.
68.00	Rim of ravine, 125 ft. below top, bears N.30°E. and S.30°W.
	Descend abruptly.
80.04	300 ft. below rim.
	Point for cor. secs. 20, 21, 28 and 29.
	Land rough mountains.
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.0°01'W. bet. secs. 20 and 21.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Ascend.
19.40	Rim of ravine, 300 ft. above the cor., bears NE. and SW.
	Ascend gradually.
40.00	116 ft. above rim.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap
	$S\ \frac{1}{4}\ 20 \mid S\ 21$
	1915

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	from which
	A cedar, 6 ins. dia., bears S.50°E.,
	75 lks. dist. mkd. ¼ S 21 B T.
	A cedar, 6 ins. dia., bears S.36°30'W.,
	53 lks. dist. mkd. ¼ S 20 B T.
	Ascend.
50.50	Ridge, 275 ft. above the ¼ sec. cor., bears E. and W.
	Descend.
57.00	Foot of descent, 100 ft. below top, drains NE.
	Ascend.
78.00	Top of mesa, 120 ft. above bottom, bears S.15°W. and NE
	Thence over rolling top.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 8 ins. in the ground and 16 ins. in mound of stone 4 ft. base, on solid rock, for the cor. of secs. 16, 17, 20 and 21
	mkd. on brass cap

T 18 S R 16 E

S 17 | S 16

S 20 | S 21

1915

from which

A cedar, 6 ins. dia., bears N.80°E.,

84 lks. dist. mkd. T 18 S R 16 E S 16 B T.

A cedar, 7 ins. dia., bears S.17°45'E.,

154 lks. dist. mkd. T 18 S R 16 E S 21 B T.

A cedar, 5 ins. dia., bears S.18°W.,

124 lks. dist. mkd. T 18 S R 16 E S 20 B T.

A cedar, 6 ins. dia., bears N.45°W.,

137 lks. dist. mkd. T 18 S R 16 E S 17 B T.

Land rough mountains.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 3rd and 4th rate.

Timber scattering pinon pine and cedar.

Undergrowth scattering shadscale and grass.

June 15, 1915.

June 30: At 8h 33m a.m., l.m.t., I set off 39°15' on the

Chains	
	lat. arc, 23°14'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.
	Thence
	East on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect N. and S. line 11 lks. S. of the cor. of secs. 15, 16, 21 and 22.
	Thence
	S.89°55'W. on a true line bet. secs. 16 and 21.
	Over rough mountainous land through cedar and pinon pine timber and scattering undergrowth of shadscale and grass.
	Ascend.
7.00	Top of ascent, 30 ft. above cor., slopes N.
	Descend.
38.50	Canyon, 350 ft. below top of ascent, course N.
	Ascend.
39.96	20 ft. above canyon bottom.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap S 16 ¼ S 21 1915
	from which
	A cedar, 10 ins. dia., bears N.28°E.,
	7 lks. dist. mkd. ¼ S 16 B T.
	A cedar, 6 ins. dia., bears S.8°45'E.,
	104 lks. dist. mkd. ¼ S 21 B T.
	Ascend over sandstone ledges.
78.80	Top of mountain, 555 ft. above the ¼ sec. cor., bears N. and S.
	Thence over level mountain top.
79.92	The cor. of secs. 16, 17, 20 and 21.
	Land rough mountains with general drainage North.
	Soil light sandy loam and loose rock with numerous out-

Chains	
	croppings of sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.0°01'W. bet. secs. 16 and 17.
	Over level mountain top, through medium growth of cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
4.00	Rim of mountain bearing NE. and W.
	Descend abruptly over N. slope of mountain.
31.50	Ravine, 315 ft. below top, drains NE.
	Thence on level line along side of ridge sloping E.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap S ¼ 17 | S 16 1915 from which A pinon pine, 10 ins. dia., bears S.8°E., 26 lks. dist. mkd. ¼ S 16 B T. A pinon pine, 10 ins. dia., bears S.35°W., 119 lks. dist. mkd. ¼ S 17 B T.
	June 30: At this point at 12h 03m p.m., l.m.t., I set off 23°13'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°15'.
59.50	Foot of spur bearing SE. and NW.
	Ascend.
76.00	Top of ascent, 225 ft. above foot of spur, slopes E.
	Descend.
79.00	Bottom of descent, 30 ft. below top, drains E.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground and mound of stone 3 ft. base, 12 ins. high around post, for the cor. of secs. 8, 9, 16 and 17, mkd on brass cap

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	T 18 S R 16 E S 8 | S 9 S 17 | S 16 1915
	from which
	A pinon pine, 7 ins. dia., bears N.6°30'E.,
	119 lks. dist. mkd. T 18 S R 16 E S 9 B T.
	A pinon pine, 10 ins. dia., bears S.77°E.,
	92 lks. dist. mkd. T 18 S R 16 E S 16 B T.
	A pinon pine, 10 ins. dia., bears S.56°W.,
	96 lks. dist. mkd. T 18 S R 16 E S 17 B T.
	A cedar, 6 ins. dia., bears N.29°30'W.,
	69 lks. dist. mkd. T 18 S R 16 E S 8 B T.
	Land rough mountains with general drainage East.
	Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate.
	Timber medium growth of cedar and pinon pine.
	Undergrowth scattering sagebrush and grass.
	N.89°55'E. on random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.94	Intersect N. and S. line 9 lks. N. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	S.89°59'W. on a true line bet. secs. 9 and 16.
	Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Ascend.
7.50	Top of spur, 200 ft. above sec. cor., bears NE. and SW.
	Thence over rolling top of spur.
36.00	Descend into ravine bearing S.15°E. and N.15°W.
39.75	Ravine, 55 ft. below top draining S.
	Ascend.
39.97	10 ft. above bottom of ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for the ¼ sec. cor., mkd. on brass cap S 9 ¼ S 16 1915 from which A cedar, 5 ins. dia., bears N.39°15'E., 31 lks. dist. mkd. ¼ S 9 B T. A cedar, 7 ins. dia., bears S.43°45'E., 26 lks. dist. mkd. ¼ S 16 B T.
	Ascend.
46.00	Top of spur, 50 ft. above ¼ sec. cor., bears NE. and SW.
	Thence on level line along spur.
54.00	Descent bearing NW. and SE.
58.00	Ravine, 45 ft. deep, heads 3 chs. N. drains S.
	Ascend.
60.00	Sandstone ledges, 20 ft. high, bearing N. and S.
	Ascend ridge.
79.94	160 ft. above ravine.
	The cor. of secs. 8, 9, 16 and 17.
	Land mountainous with general S. drainage.
	Soil light sandy loam and loose rock with numerous outcropping sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 30, 1915.

July 1: At 8h 18m a.m., l.m.t., I set off 39°16' on the lat. arc, 23°11'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

Thence

N.0°01'W. bet. secs. 8 and 9.

Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadsca and grass.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Ascend.
6.50	Ridge, 155 ft. above sec. cor., bears NE. and SW.
	Descend.
40.00	510 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground to solid rock and raise a mound of stone, 4 ft. base, 20 ins. high around post, for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$S\ \frac{1}{4}\ 8 \mid S\ 9$
	1915
	from which
	A pinon pine, 12 ins. dia., bears N.46°E., 83 lks. dist. mkd. $\frac{1}{4}$ S 9 B T.
	A cedar, 8 ins. dia., bears S.82°W., 32 lks. dist. mkd. $\frac{1}{4}$ S 8 B T.
	Descend.
41.00	Abrupt descent over sandstone ledges bearing NE. and SW.
49.40	Bottom of canyon, 100 ft. below $\frac{1}{4}$ sec. cor., drains N.30°E.
	Ascend over ledges.
53.00	Top of ledges, 100 ft. above canyon, bearing N.30°E. and S.30°W. Ascend gradually.
63.00	Top of ascent, 45 ft. above ledges, slopes NE.
	Descend gradually.
78.25	Ravine, 75 ft. below top of ascent, drains SE.
	Ascend.
80.00	10 ft. above bottom of ravine.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 4, 5, 8 and 9, mkd. on brass cap
	T 18 S R 16 E S 5 | S 4 S 8 | S 9 1915
	from which
	A pinon pine, 10 ins. dia., bears N.76°E.,

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	39 lks. dist. mkd. T 18 S R 16 E S 4 B T.
	A pinon pine, 10 ins. dia., bears S.10°45'E.,
	77 lks. dist. mkd. T 18 S R 16 E S 9 B T.
	A pinon pine, 8 ins. dia., bears S.39°45'W.,
	68 lks. dist. mkd. T 18 S R 16 E S 8 B T.
	A cedar, 10 ins. dia., bears N.27°15'W.,
	45 lks. dist. mkd. T 18 S R 16 E S 5 B T.
	Land rough mountains with general drainage NE.
	Soil light sandy loam and loose rock with numerous out-
	croppings of sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.89°59'E. on a random line bet. secs. 4 and 9.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect N. and S. line 5 lks. N. of the cor. of secs
	3, 4, 9 and 10.
	Thence.
	N.89°59'W. on a true line bet. secs. 4 and 9.
	Over mountainous land, through scattering cedar and pi
	pine timber and undergrowth of scattering shadscale
	and grass.
	Ascend gradually.
18.00	Top of ascent, 50 ft. above sec. cor., slopes S.
	Descend gradually.
21.70	Abrupt descent bearing N. and S.75°E.
34.25	Ravine, 335 ft. below top, draining S.30°E.
	Ascend.
40.06	85 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins.
	in the ground for the ¼ sec. cor., mkd. on brass cap
	$\frac{S\ 4 \quad \frac{1}{4}}{S\ 9 \quad 1915}$
	and raise a mound of stone 2 ft. base, 1½ ft. high N.
	of cor.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	July 1:
	At 12h 03m p.m.,l.m.t., I set off 23°10'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16', at ¼ sec. cor.
	Thence ascend over series of sandstone ledges.
46.00	Top of ledges, 250 ft. above ¼ sec. cor., bearing NE. and SW.
	Ascend gradually.
58.00	Top of ascent, 75 ft. above ledges, slopes SE.
	Descend gradually.
80.12	75 ft. below top of ascent.
	The cor. of secs. 4, 5, 8 and 9.
	Land rough mountains with general drainage south.
	Soil light sandy loam and loose rock with numerous outcropping sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	N.0°01'W. on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. bdy. of Tp. 19 lks. E. of the cor. of secs. 4, 5, 32 and 33, heretofore described.
	Thence
	S.0°09'E. on a true line bet. secs. 4 and 5.
	Over rough mountainous land, through scattering cedar and pinon pine and undergrowth of scattering shadscale and grass.
	Descend.
.25	Bottom of Xmas Canyon, 10 ft. below sec. cor., course N.60°E.
	Ascend abruptly over series of sandstone ledges.
11.00	Top of ledges and spur, 420 ft. above bottom, bears E. and W.
	Thence over rolling top of spur.
20.00	Descent bearing NW. and SE.
23.50	Ravine, 100 ft. below top, drains NW.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Ascend.
40.04	255 ft. above bottom of ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$S\frac{5}{4} \mid S\ 4$
	1915
	from which
	A pinon pine, 4 ins. dia., bears S.44°E., 72 lks. dist. mkd. $\frac{1}{4}$ S 4 B T.
	A pinon pine, 5 ins. dia., bears S.58°15'W., 183 lks. dist. mkd. $\frac{1}{4}$ S 5 B T.
	Ascend.
54.60	Ridge, 245 ft. above the $\frac{1}{4}$ sec. cor. bears E. and W.
	Descend.
80.04	360 ft. below ridge.
	The cor. of secs. 4, 5, 8 and 9.
	Land rough mountains with general drainage North on N. $54\frac{1}{2}$ chs. and S. on S.$25\frac{1}{2}$ chs.
	Soil light sandy loam and loose rock, with numerous outcropping of sandstone ledges, 4th rate.
	Timber scattering pinon pine and cedar.
	Undergrowth scattering shadscale and grass.
	July 1, 1915.

June 16: At 9h 00m a.m., l.m.t., I set off 39°12' on the lat. arc, 23°21'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on S. bdy. of Tp. heretofore described.

Thence

N.0°01'W. bet. secs. 31 and 32.

Over bottom of Price River Canyon, through scattering cottonwood and scattering undergrowth of greasewood and grass.

5.00	Foot of mountain bearing S.75°E. and N.75°W.
	Abrupt ascent over series of ledges impossible to chain.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	To determine distance, I proceed as follows:
	I return to the cor. and set a flag on line on top of ledges. Thence I measure a base S.89°59'W., 20 chs. dist. to a point from which the flag on ledges bears N.35°43'E.
	From the flag the west end of base line bears S.35°45'W.
	Therefore the dist. is equal to tan. 54°16' x base or 1.3899 x 20 chs. = 27.80 chs. to
27.80	Top of ledges, 820 ft. above sec. cor., bears S.75°E. and N.75°W.
29.00	Top of ascent, 15 ft. above top of ledges, slopes W. Descend gradually.
40.00	65 ft. below top of ascent.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground to solid rock and 20 ins. in mound of stone 5 ft. base, for the $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$S\ \frac{1}{4}\ 31 \mid S\ 32$
	1915
	and raise a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high West of the cor. At this $\frac{1}{4}$ sec. cor.
	June 16:
	At 12h M I set off 23°21'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°12'.
	Thence descend gradually.
43.25	Bottom of canyon, 30 ft. below $\frac{1}{4}$ sec. cor., course S.30°W.
	Ascend.
63.00	Rim of canyon, 400 ft. above bottom, bears NE. and SW.
	Enter scattering cedar and pinon pine timber bearing NE. and SW.
	Ascend gradually.
76.50	Top of ascent, 20 ft. above rim, slopes E.
	Descend.
80.00	25 ft. below top of ascent.
	Set an iron post, 3 ft. long, 2 ins. in dia., on solid rock in mound of stone 6 ft. base, 2 ft. high for the

N.35°43'E.
54°16'
S.89°59'W.
20.00

Chains

cor. of secs. 29, 30, 31 and 32, mkd. on brass cap

T 18 S R 16 E
S 30 | S 29
S 31 | S 32
1915

from which

A cedar, 5 ins. dia., bears N.22°E.,
6 lks. dist. mkd. T 18 S R 16 E S 29 B T.

A cedar, 8 ins. dia., bears S.70°15'E.,
45 lks. dist. mkd. T 18 S R 16 E S 32 B T.

A cedar, 8 ins. dia., bears S.16°W.,
22 lks. dist. mkd. T 18 S R 16 E S 31 B T.

A cedar, 7 ins. dia., bears N.87°45'W.,
34 lks. dist. mkd. T 18 S R 16 E S 30 B T.

Land very rough and mountainous.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering cottonwoods on S. 5 chs., scattering cedar and pinon pine on N. 17 chs.

Undergrowth scattering shadscale and grass on N. 75 chs. and scattering greasewood on S. 5 chs.

East on a random line bet. secs. 29 and 32.

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

80.10 Intersect the N. and S. line 4 lks. N. of the cor. of secs. 28, 29, 32 and 33.

Thence

N.89°58'W. on a true line bet. secs. 29 and 32.

Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

Descend slightly.

2.75 Ravine, 15 ft. below cor., drains S.

Ascend.

32.00 Top of knoll, 385 ft. above ravine. Descend.

40.05 325 ft. below top.

Set an iron post, 3 ft. long, 1 in. in dia., bet. two

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

large boulders, 12 ins. in ground, 14 ins. in mound of stone, 3 ft. base, on solid rock for $\frac{1}{4}$ sec. cor., mkd. on brass cap

$$\frac{S\ \frac{1}{4}\ 29}{S\ 32\ 1915}$$

from which

A pinon pine, 12 ins. dia., bears N.22°05'E., 25 lks. dist. mkd. $\frac{1}{4}$ S 29 B T.

A cedar, 10 ins. dia., bears S.31°E., 36 lks. dist. mkd. $\frac{1}{4}$ S 32 B T.

Descend.

66.80 Bottom of canyon, 220 ft. below $\frac{1}{4}$ sec. cor., course S.15°W.

Ascend.

80.10 The cor. of secs. 29, 30, 31 and 32.

Land rough mountains.

Soil light sandy loam and loose rock with boulders and numerous outcroppings of ledges, 3rd and 4th rate.

Timber scattering pinon pine and cedar.

Undergrowth scattering shadscale and grass.

June 16, 1915.

June 17:

At 8h 30m a.m., l.m.t., I set off 39°13' on the lat. arc, 23°23'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.

Thence West on random line bet. secs. 30 and 31.

21.80 Brink of mountain. Abrupt descent over ledges alongside of mountain impossible to chain.

Therefore to obtain distance I proceed as follows:

I set a flag on line, 5 lks. N. of the cor. of secs. 25, 30, 31 and 36 on W. bdy. of Tp. It being impossible to lay off a base from this point, I proceed to flag, from which

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	I measure a base line South 24.25 chs. to a point from which the flag on top of ledges bears N.66°59'E. From flag on top the S. end of base line bears S.66°59'W. The dist. is therefore tan. 23°01' x base or 2.354 x 24.25 = 57.08 chs. + 21.80 chs. =
78.88	Fall 5 lks. N. of the cor. of secs. 25, 30, 31 and 36 on W. Bdy. of Tp. heretofore described.
	Thence N.89°58'E. on a true line bet. secs. 30 and 31. Over very rough mountainous land through undergrowth of scattering shadscale and grass.
	Ascend over series of broken ledges.
20.00	Top of ascent
	Descend abruptly over ledges.
29.00	Bottom of descent, 280 ft. below top, drains S.
	Ascend abruptly over ledges.
38.88	Point for ¼ sec. cor. falls on ledges.
	Corner not set.
57.08	Top of ledges, 400 ft. above bottom, bears N. and S.
	Enter scattering timber bears N. and S.
	Ascend.
57.18	Set an iron post, 3 ft. long, 1 in. in dia., on solid rock in mound of stone 6 ft. base, 26 ins. high for WC ¼ to secs. 30 and 31, mkd. on brass cap

T 18 S R 16 E
WC ° S 30
S 31
1915

from which

A cedar, 8 ins. dia., bears N.25°45'E.,
38 lks. dist. mkd. ¼ S 30 B T.

A cedar, 6 ins. dia., bears S.15°20'E.,
26 lks. dist. mkd. ¼ S 31 B T.

67.00	Top of mountain, 135 ft. above ¼ sec. cor., bears S.15°W. and N.15°E.
	Descend.
78.88	70 ft. below top.
	The cor. of secs. 29, 30, 31 and 32.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Land very rough mountains,
	Soil light sandy loam, loose rock and boulders with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine on E. 21 chs.
	Undergrowth scattering shadscale and grass.
	June 17:
	At 12h M 1.m.t., I set off 23°23'N. on the decl. arc., and observe the sun on the meridian, the resulting lat. is 39°13'.
	Thence
	N.0°01'W. bet. secs. 29 and 30.
	Over rolling mountainous land through scattering cedar and pinon pine timber and scattering undergrowth of shadscale and grass.
	Ascend.
31.00	Spur, 175 ft. above cor., slopes E.
	Descend.
35.00	Ravine, 30 ft. below spur, course E.
	Ascend over rough broken land.
40.00	125 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in ground on solid rock, 18 ins. in mound of stone 4 ft. base, for $\frac{1}{4}$ sec. cor., mkd. on brass cap
	$\frac{1}{4}$ S 30 | S 29
	1915
	and raise a mound of stone, 2½ ft. base, 2 ft. high W. of cor.
44.00	Top of ledges, 200 ft. above $\frac{1}{4}$ sec. cor. bears NE. and SW.
	Ascend gradually.
56.00	Top of mountain, 112 ft. above ledges, bears NE. and SW.
	Descend.
60.00	Ravine, 85 ft. deep, drains W. Ascend.
64.00	Top of ascent, bears E. and W.
	Descend gradually.

Chains	
78.00	Bottom of descent, 65 ft. below top, drains W.
	Ascend.
80.00	15 ft. above bottom.
	Set an iron post, 3 ft. long, 2 ins. in dia., 6 ins. in the ground on solid rock and 18 ins. in mound of stone 4 ft. base, for the cor. of secs. 19, 20, 29 and 30, mkd. on brass cap

T 18 S R 16 E
S 19 | S 20
S 30 | S 29
1915

from which

A cedar, 6 ins. dia.,bears N.42°30'E.,
31 lks. dist. mkd. T 18 S R 16 E S 20 B T.
A pinon pine, 8 ins. dia.,bears S.6°15'E.,
103 lks. dist. mkd. T 18 S R 16 E S 29 B T.
A pinon pine, 7 ins. dia.,bears S.60°15'W.,
41 lks. dist. mkd. T 18 S R 16 E S 30 B T.
A pinon pine, 8 ins. dia.,bears N.72°15'W.,
41 lks. dist. mkd. T 18 S R 16 E S 19 B T.

Land mountainous.

Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber scattering pinon pine and cedar.

Undergrowth scattering shadscale and grass.

June 17, 1915.

	June 18: At 8h 31m a.m.,l.m.t., I set off 39°14' on the lat. arc, 23°25'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence
	S.89°58'E. on random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
79.90	Intersect N. and S. line 48 lks. S. of the WC of secs. 20, 21, 28 and 29.
	Thence

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	N.89°57'W. on a true line bet. secs. 20 and 29.
	Over rough mountainous land through scattering cedar and pinon timber and undergrowth of scattering shadscale and grass.
	Ascend.
22.35	Rim of canyon, 325 ft. above cor., bears N. and S.
	Ascend gradually.
36.50	Top of ascent, 80 ft. above rim, bears N. and S.
	Thence over rolling mountain top.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground on solid rock and 14 ins. in mound of stone 3 ft. base, for $\frac{1}{4}$ sec. cor., mkd. on brass cap S 20 $\frac{1}{4}$ S 29 1915
	from which
	A cedar, 6 ins. dia., bears N.58°15'E.,
	47 lks. dist. mkd. $\frac{1}{4}$ S 20 B T.
	A pinon pine, 7 ins. dia., bears S.74°15'W.,
	62 lks. dist. mkd. $\frac{1}{4}$ S 29 B T.
	Thence over rolling mountain top.
68.00	Descend.
79.90	70 ft. below top.
	The cor. of secs. 19, 20, 29 and 30.
	Land mountainous.
	Soil light sandy loam and loose rock, with numerous outcroppings of ledges, 3rd and 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	Note: Sky overcast at noon, observation for latitude impossible.
	S.89°58'W. on a random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
78.86	Intersect W. bdy. of Tp. 2 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Thence
	N.89°57'E. on a true line bet. secs. 19 and 30.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Descend.
13.00	Bottom of canyon, 225 ft. below cor, course S.10°W.
	Ascend.
25.25	Point of spur, 125 ft. above bottom, slopes SW.
	Descend.
38.86	75 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground on solid rock and 14 ins. in mound of stone 3 ft. base, for $\frac{1}{4}$ sec. cor., mkd. on brass cap
	S 19 S 19 / $\frac{1}{4}$ / S 30 / 1915
	from which
	A cedar, 6 ins. dia., bears N.5°W., 18 lks. dist. mkd. $\frac{1}{4}$ S 19 B T.
	A cedar, 3 ins. dia., bears S.88°W., 72 lks. dist. mkd. $\frac{1}{4}$ S 30 B T.
43.61	Bottom of ravine, 25 ft. below $\frac{1}{4}$ sec. cor., drains S.80°W
	Ascend.
53.00	Top of ascent, 75 ft. above ravine, slopes N.
	Descend.
62.00	Recross ravine, 20 ft. below top, drains N.75°W.
	Ascend over series of very rough ledges.
77.25	Top of ledges, 530 ft. above ravine, bearing N. and S.
	Thence on nearly level line.
78.86	The cor. of secs. 19, 20, 29 and 30.
	Land rough mountains.
	Soil light sandy loam, and loose rock with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	June 18, 1915.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	July 2:
	At 8h 34m a.m.,l.m.t., I set off 39°14' on the lat. arc, 23°07'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence
	N.0°01'W. bet. secs. 19 and 20.
	Over rolling mountainous land, through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Descend gradually.
5.50	Ravine, 35 ft. below sec. cor., drains W.
	Ascend gradually.
12.00	Top of ascent, 35 ft. above ravine, bears E. and W.
	Thence over nearly level spur.
30.00	Descend gradually bearing E. and W.
34.50	Abrupt descent, 100 ft. below top, bears E. and W.
40.00	190 ft. below abrupt descent.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap
	S $\frac{1}{4}$ 19 | S 20
	1915
	from which
	A pinon pine, 6 ins. dia.,bears S.85°E., 46 lks. dist. mkd. $\frac{1}{4}$ S 20 B T.
	A pinon pine, 10 ins. dia.,bears S.75°W., 2 lks. dist. mkd. $\frac{1}{4}$ S 19 B T.
	Descend.
41.50	Ravine, 35 ft. below $\frac{1}{4}$ sec. cor., drains W.
	Ascend.
58.00	Point of spur, 225 ft. above ravine, slopes W.
	Descend.
62.00	Ravine, 250 ft. below point, drains SW.
	Ascend over ledges.
70.50	Rim of ravine, 250 ft. above ravine, bears NE. and SW.
	Ascend gradually.
80.00	35 ft. above rim.
	Set an iron post, 3 ft. long, 2 ins. in dia., 6 ins. in

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	the ground to solid rock, raise a mound of stone 4 ft. base, 18 ins. high around post for the cor. of secs. 17, 18, 19 and 20, mkd. on brass cap T 18 S R 16 E S 18 | S 17 S 19 | S 20 1915 from which A pinon pine, 6 ins. dia., bears N.46°10'E., 122 lks. dist. mkd. T 18 S R 16 E S 17 B T. A pinon pine, 4 ins. dia., bears S.27°30'E., 27 lks. dist. mkd. T 18 S R 16 E S 20 B T. A pinon pine, 4 ins. dia., bears S.82°W., 255 lks. dist. mkd. T 18 S R 16 E S 19 B T. A pinon pine, 7 ins. dia., bears N.60°30'W., 119 lks. dist. mkd. T 18 S R 16 E S 18 B T. Land rough mountains with general drainage West. Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate. Timber scattering cedar and pinon pine. Undergrowth scattering shadscale and grass.
	S.89°57'E. on random line bet. secs. 17 and 20.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect N. and S. line 14 lks. N. of the cor. of secs. 16, 17, 20 and 21.
	Thence N.89°51'W. on true line bet. secs. 17 and 20. Over level mountain top, through scattering cedar and pinon pine timber and undergrowth of scattering shadsca and grass.
3.25	Descend over mountain bearing N. and S.
30.00	Foot of mountain, 460 ft. below top, bears N.60°W. and S.60°E.
	Thence over rolling land sloping SW.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	the ground for the ¼ sec. cor., mkd. on brass cap
	S ¼ 17 / S 20 1915
	from which
	A cedar, 10 ins. dia., bears N.8°30'E.,
	108 lks. dist. mkd. ¼ S 17 B T.
	A cedar, 10 ins. dia., bears S.32°E.,
	77 lks. dist. mkd. ¼ S 20 B T.
	July 2:
	At this point at 12h04m p.m., l.m.t., I set off 23°06'N.
	on the decl. arc, and observe the sun on the meridian,
	the resulting lat. is 39°15'.
	Thence continue over rolling land.
68.00	Ascend gradually bearing SW. and NE.
79.98	45 ft. above bottom.
	The cor. of secs. 17, 18, 19 and 20.
	Land mountainous with general drainage South.
	Soil light sandy loam and loose rock with numerous out-
	croppings of sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	S.89°57'W. on random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
78.80	Intersect W. Bdy. of Tp. 16 lks. N. of the cor. of secs.
	13, 18, 19 and 24, heretofore described.
	Thence
	N.89°50'E. on a true line bet. secs. 18 and 19.
	Over rough mountainous land, through scattering cedar and
	pinon pine timber and undergrowth of scattering shad-
	scale and grass.
	Descend.
3.80	Bottom of canyon, 10 ft. below sec. cor., course S.80°W.
	Ascend over series of ledges.
37.75	Spur, 750 ft. above canyon, projects S.30°W.
	Descend abruptly over ledges.

Chains	
38.80	50 ft. below top. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap S $\frac{1}{4}$ 18 S 19 1915 and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Descend.
55.50	Canyon, 300 ft. below $\frac{1}{4}$ sec. cor., course S.30°W. Ascend.
68.00	Top of bench, 350 ft. above bottom, bears N. and S. Thence over nearly level land.
78.80	The cor. of secs. 17, 18, 19 and 20. Land rough mountains on W. 68 chs., nearly level bench on E. 12 chs, with general drainage South. Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate. Timber scattering cedar and pinon pine. Undergrowth scattering shadscale and grass. July 2, 1915.

July 3: At 8h 19m a.m., l.m.t., I set off 39°16' on the lat. arc, 23°02'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

Thence

N.0°01'W. bet. secs. 17 and 18.

Over rolling mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

Descend gradually.

19.25	Abrupt descend over ledges bearing N.20°E. and S.20°W.
27.50	Canyon, 110 ft. below top, course SW. Ascend abruptly over ledges.

Chains

34.00 Top of ledges, 110 ft. above canyon, bears SW. and NE.
Ascend gradually.

40.00 50 ft. above ledges.
Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap

S 18 ¼ | S 17
1915

from which
A cedar, 16 ins. dia., bears N.19°E., 67 lks. dist. mkd. ¼ S 17 B T.
A pinon pine, 6 ins. dia., bears N.2°W., 98 lks. dist. mkd. ¼ S 18 B T.
Ascend over sandstone ledges.

68.00 Point of spur, 230 ft. above ¼ sec. cor., slopes S.20°W.
Descend gradually.

80.00 75 ft. below spur.
Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 8, 17 and 18, mkd. on brass cap

T 18 S R 16 E
S 7 | S 8
S 18 | S 17
1915

from which
A cedar, 8 ins. dia., bears N.17°E., 11 lks. dist. mkd. T 18 S R 16 E S 8 B T.
A cedar, 5 ins. dia., bears S.26°45'E., 52 lks. dist. mkd. T 18 S R 16 E S 17 B T.
A pinon pine, 6 ins. dia., bears S.6°W., 64 lks. dist. mkd. T 18 S R 16 E S 18 B T.
A pinon pine, 8 ins. dia., bears N.23°W., 93 lks. dist. mkd. T 18 S R 16 E S 7 B T.

Land rough mountains with general drainage SW.
Soil light sandy loam and loose rock with numerous outcroppings of sadnstone ledges, 4th rate.
Timber scattering cedar and pinon pine.
Undergrowth scattering shadscale and grass.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	S.89°51'E. on a random line bet. secs. 8 and 17.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line 2 lks. N. of the cor. of secs. 8, 9, 16 and 17.
	Thence
	N.89°50'W. on a true line bet. secs. 8 and 17.
	Over mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Ascend.
5.00	Ridge, 155 ft. above sec. cor., bears N.30°E. and S.30°W.
	Descend.
11.00	Bottom of descent, 120 ft. below ridge, drains NW.
	Ascend.
19.00	Top of ridge, 120 ft. above bottom, bears W. and SE.
	Thence along brink of ridge on nearly level line.
36.00	Descend ridge bearing SW. and E.
39.95	20 ft. below top.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., mkd. on brass cap
	$\frac{S\ 8}{\frac{1}{4}}$ / S 17 / 1915
	from which
	A pinon pine, 4 ins. dia., bears N.30°W., 43 lks. dist. mkd. $\frac{1}{4}$ S 8 B.T.
	A pinon pine, 10 ins. dia., bears S.22°30'W., 38 lks. dist. mkd. $\frac{1}{4}$ S 17 B.T.
	July 3: At this point at 12h 04m p.m., l.m.t., I set off 23°01'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16'.
	Descend.
44.50	Ravine, 70 ft. below $\frac{1}{4}$ sec. cor., drains N.15°W.
	Ascend.
48.25	Top of ascent, 30 ft. above bottom, slopes N.
	Descend.

Chains	
54.50	Ravine, 30 ft. below top, draine N.
	Ascend.
58.00	Top of mountain, 85 ft. above ravine, bears N. and S.
	Thence over level mountain top.
71.00	Descend mountain bearing S.15°W. and N.
79.90	300 ft. below top.
	The cor. of secs. 7, 8, 17 and 18.
	Land rough mountains with general drainage North.
	Soil light sandy loam and loose rock, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	S.89°50'W. on a random line bet. secs. 7 and 18.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
78.67	Intersect W. Bdy. of Tp. 2 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence
	N.89°49'E. on a true line bet. secs. 7 and 18.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
	Ascend.
22.60	Ridge, 250 ft. above the cor., bears NE. and SW.
	Descend.
38.67	90 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground to solid rock and raise a mound of stone 4 ft. base, 20 ins. high around post, for the $\frac{1}{4}$ sec. cor., mkd. on brass cap
	$\frac{S\ 7}{\frac{1}{4}}$ / $\frac{S\ 18}{1915}$
	from which
	A pinon pine, 10 ins. dia., bears N.2°W., 64 lks. dist. mkd. $\frac{1}{4}$ S 7 B T.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	A cedar, 8 ins. dia., bears S.66°45'E., 104 lks. dist. mkd. ½ S 18 B T.
	Descend gradually along brink of ledge.
46.00	Abrupt descent over ledges, bears NE. and W.
61.25	Ravine, 125 ft. below ¼ sec. cor., drains S.
	Ascend.
78.67	200 ft. above ravine.
	The cor. of secs. 7, 8, 17 and 18.
	Land rough mountains with general drainage South.
	Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	July 3, 1915.

July 5: At 8h 04m a.m., l.m.t., I set off 39°16' on the lat. arc, 22°53'E. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

Thence

N.0°01'W. bet. secs. 7 and 8.

Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.

	Ascend.
22.00	Top of mountain, 300 ft. above sec. cor., bears E. and W.
	Descend.
29.00	Ravine, 125 ft. below top, drains N.80°E.
	Ascend.
35.00	Top of mountain, 130 ft. above ravine, bears N.75°E. and S.75°W.
	Thence over level mountain top.
39.85	Head of ravine, drains E.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground to solid rock and raise a mound of stone 4 ft

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

base, 18 ins. high around post, for the ¼ sec. cor., mkd. on brass cap

S 7 ¼ | S 8

1915

from which

A pinon pine, 8 ins. dia., bears N.66°30'E., 14 lks. dist. mkd. ¼ S 8 B T.

A cedar, 5 ins. dia., bears S.49°35'W., 43 lks. dist. mkd. ¼ S 7 B T.

46.00 Ascend over ledges bearing NE. and SW.

47.00 Top of red ledge, 20 ft. high, bears NE. and SW.

Thence over level mountain top.

60.00 Descend gradually bearing NE. and SW.

76.00 Abrupt descent bearing NE. and SW.

80.00 100 ft. below top of mountain.

Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground to solid rock and raise a mound of stone 3 ft. base, 12 ins. high around post, for the cor. of secs. 5, 6, 7 and 8, mkd. on brass cap

T 18 S R 16 E

S 6 | S 5

S 7 | S 8

1915

from which

A pinon pine, 8 ins. dia., bears N.72°E., 69 lks. dist. mkd. T 18 S R 16 E S 5 B T.

A pinon pine, 5 ins. dia., bears S.11°E., 75 lks. dist. mkd. T 18 S R 16 E S 8 B T.

A pinon pine 6 ins. dia., bears S.64°30'W., 50 lks. dist. mkd. T 18 S R 16 E S 7 B T.

A cedar, 5 ins. dia., bears N.18°30'W., 61 lks. dist. mkd. T 18 S R 16 E S 6 B T.

Land mountainous with general drainage East.

Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate.

Timber scattering cedar and pinon pine.

Undergrowth scattering shadscale and grass.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains

S.89°50'E. on random line bet. secs. 5 and 8.

40.00 Set temp. ¼ sec. cor.

79.84 Intersect N. and S. line 12 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Thence

N.89°55'W. on true line bet. secs. 5 and 8.

Over rough mountainous land through scattering cedar and pinon timber and undergrowth of scattering shadescale and grass,

Descend.

.25 Ravine, 10 ft. below sec. cor., drains SE.

Ascend mountain.

36.75 Top of ridge, 500 ft, above ravine, bears NE. and SW.

Descend.

39.92 60 ft. below top ridge.

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

$$\frac{S\ 5}{\frac{1}{4}}$$

$$\frac{}{S\ 8}$$

1915

from which

A pinon pine, 6 ins. dia., bears N.77°45'E., 64 lks. dist. mkd. ¼ S 5 B T.

A pinon pine, 4 ins. dia., bears S.0°30'E., 24 lks. dist. mkd. ¼ S 8 B T.

July 5:

At this point at 12h 04m p.m., l.m.t., I set off 22°51'N. on the decl. arc, and observe the sun on the meridian, the resulting lat. is 39°16'.

Thence descend.

60.00 Ravine, 350 ft. below ¼ sec. cor., drains N.15°E.

Ascend.

74.25 Point of spur, 370 ft. above ravine, slopes NE.

Descend.

79.84 100 ft. below point of spur.

The cor. of secs. 5, 6, 7 and 8.

Land rough mountains with general drainage East.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	Soil light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.
	Timber scattering cedar and pinon pine.
	Undergrowth scattering shadscale and grass.
	S.89°49'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
78.56	Intersect W. bdy. of Tp. 13 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence
	N.89°55'E. on a true line bet. secs. 6 and 7.
	Over rough mountainous land through scattering cedar and pinon pine timber and undergrowth of scattering shadscale and grass.
23.50	Ridge, 600 ft. above cor., bears N. and S.
	Descend.
26.75	Ravine, 75 ft. below ridge, drains N.
	Ascend.
29.25	Top of ascent, 60 ft. above ravine, slopes N.
	Descend.
38.56	200 ft. below top of ascent.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., mkd. on brass cap S ¼ 6 S 7 1915
	from which
	A pinon pine, 8 ins. dia., bears N.2°45'W., 34 lks. dist. mkd. ¼ S 6 B T.
	A cedar, 10 ins. dia., bears S.29°30'E., 10 lks. dist. mkd. ¼ S 7 B T.
	Descend.
48.00	Foot of ridge, 175 ft. below ¼ sec. cor., bears N. and S.
	Thence on nearly level line over rolling land sloping N.
56.50	Ascend ridge bearing N.30°E. and S.30°W.
78.56	300 ft. above foot of ridge.

SUBDIVISION OF T. 18 S. R. 16 E.

Chains	
	The cor. of secs. 5, 6, 7 and 8.
	Land rough mountains with W. 23.50 chs. draining SW. and E. 55 chs. draining NE.
	Soil light sandy loam and loose rock with numerous outcroppings of sandstone ledges, 4th rate.
	Undergrowth scattering shadscale and grass.
	July 5, 1915.
	July 6: At 9h 04m a.m., l.m.t., I set off 39°16' on the lat. arc, 22°47'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8.
	Thence
	N.0°01'W. on random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
79.91	Intersect N. Bdy. of Tp. 35 lks. E. of the cor. of secs. 5, 6, 31 and 32, heretofore described.
	Thence
	S.0°16'E. on true line bet. secs. 5 and 6.
	Over mountainous land through scattering pinon pine and cedar timber and undergrowth of scattering shadscale and grass.
	Ascend.
2.25	Ridge, 60 ft. above cor., bears E. and W.
	Descend.
34.25	Ravine, 500 ft. below top, drains E.
	Ascend.
39.91	40 ft. above ravine, on top of ascent sloping E.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap
	S 6. ¼ | S.5
	1915
	from which
	A cedar, 5 ins. dia., bears S.43°E.,
	16 lks. dist. mkd. ¼ S 5 B T.
	A cedar, 5 ins. dia., bears N.87°50'W.,

SUBDIVISION OF T. 18 S., R. 16 E.

Chains

63 lks. dist. mkd. ¼ S 6 B T.

Descend.

49.25 Bottom of canyon, 75 ft. below ¼ sec. cor., course N.75°E.

Ascend.

79.91 430 ft. above canyon.

The cor. of secs. 5, 6, 7 and 8.

Land, rough mountainous with general drainage East.

Soil, light sandy loam and loose rock with numerous outcroppings of ledges, 4th rate.

Timber, scattering cedar and pinon pine.

Undergrowth, scattering shadscale and grass.

July 6, 1915.

Meanders of the left bank of Green River, up stream.

June 5: At 1h 58m p.m., l.m.t., I set off 39°13' on the lat. arc, 22°31'N. on the decl. arc, and determine a meridian at the MC for frac'l secs. 31 and 36 on E. Bdy. of Tp.

I commence at the meander cor. of fractional secs. 31 and 36, on E. Bdy. of Tp., heretofore described.

Thence I run with meanders in sec. 36.

Over nearly level land.

N.22°25'W. 3.74 chs. To meander cor. of fracl. sec. 36.

Land level.

Soil light sandy loam and loose rock, 4th rate.

Undergrowth willows, shadscale and grass.

Thence in sec. 25.

N.5°15'E. 5.00 chs.

N.6°13'E. 8.72 chs. To meander cor. of fracl. secs. 25 and 30, on E. Bdy. of Tp.

Land nearly level.

Soil light sandy loam and loose rock and boulders, 4th rate.

Meanders of the left bank of Green River, up stream.

Undergrowth scattering willows and shadscale and grass.

Meanders of the right bank of Green River, up stream.

June 19: At 9h 31m a.m., l.m.t., I set off 39°12' on the lat. arc; 23°26'N. on the decl. arc, and determine a meridian with the solar at the meander cor. of fracl secs. 31 and 36, on E.Bdy.of Tp.,heretofore described.

Thence I run with meanders in sec. 36.

N.17°30'W., 5.60 chs.	At 4.20 ledge, 30 ft. high, bears N. and S.
N.21°15'W., 4.30 chs.	
N.28°15'W., 5.50 chs.	
N.13°00'W., 6.30 chs.	At 0.30 chs. mouth of gulch, 30 ft. deep.
	At 2.00 chs. foot of ledges bearing NW. and S.
N.12°15'E., 9.40 chs.	
N.9°45'E., 7.60 chs.	
N.40°30'W., 2.80 chs.	
N.14°45'W., 5.00 chs.	At 4.50 chs. wash 30 lks. wide. 7 ft. deep.
N.35°30'W., 4.80 chs.	To meander cor. of fracl. secs. 25 and 36.

Land rough and rugged, 17 chs. nearly level 33.90 chs.

Soil light sandy loam and loose rock, 2nd rate.

Undergrowth, scattering willows, shadscale and grass.

June 19: At 12h 01m p.m., l.m.t., I set off 23°26'N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 39°13'. (At N.C.fracl.secs.25 and 30.)

Thence in sec. 25.

N.35°30'W., 3.70 chs.	
N.9°45'E., 12.60 chs.	
N.39°05'E., 16.50 chs.	To meander cor. of fracl. secs. 25 and 30.

Land level.

Meanders of the right bank of Green River, up stream.

Soil sandy loam, 1st rate.
Undergrowth dense willows and greasewood.

June 21: At 8h 45m a.m., l.m.t., I set off 39°16' on the lat. arc, 23°27'N. on the decl. arc, and determine a meridian with the solar at the meander corner of fracl. secs. 7 and 12.

I commence at the meander cor. of fracl. secs. 7 and 12, on E. Bdy. of Tp. heretofore described.

Thence I run with meanders in sec. 12.

Over level bottom land, through dense willows.

N.34°45'W.	4.70 chs.	
N.44°15'W.	4.80 chs.	
N.20°15'W.	3.10 chs.	
N. 0°30'W.	5.00 chs.	
N.10°E.	7.00 chs.	Leave dense willows.
N.14°15'E.	16.00 chs.	
N.33°E.	3.57 chs.	To the cor. of secs. 1, 6, 7 and 12 on E.Bdy.of Tp.

Land nearly level.

Soil light sandy loam and loose rock, 3rd rate.

Timber very scattering cottonwoods along bank.

Undergrowth dense willows and scattering shadscale and grass.

GENERAL DESCRIPTION.

This township is very rough and broken, being cut by deep canyons, the general drainage of which is to the south and east.

The soil is generally a light sandy loam with loose rocks and is covered with nutritious grasses, affording excellent grazing for cattle or sheep. There is no part of this township suitable for agricultural purposes.

The township is covered with a medium growth of scrub

cedar and pinon pine timber having no commercial valu
Green River passes through the east side of secs. 12,
25 and 36 and the Price River through the south porti
of sec. 31. These rivers flow through deep, rugged
canyons, affording numerous places for reservoirs for
storing water. The general drainage of the Green Riv
is south and that of the Price River east. It is
impracticable to get the water of these rivers onto
any of the land in this township for irrigation.. The
only other water found in this township is a small al
li seep in sec. 10, known as Rabbit Spring.

There are no indications of mineral found in this townsh
One chain west of meander corner of fracl. secs. 25 and
36, on E. Bdy. of Tp. on right bank of Green River, i
a coal vein outcropping, about 3 ft. thick and 20 ft.
long, facing East.

There are no settlers on this township.

Ralph Linley

U.S. Surveyor.

4—080

BOOK A-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry, U. S. Surveyor, during the periods and in the capacities ed opposite our several signatures, in surveying all those parts or portions of West, East and South Boundaries and Subdivisions of Tp. 18 S. R. 16 E.

he Salt Lake Base and Meridian, in the State of Utah ch are represented in the foregoing field notes as having been executed by him, and under his direc-; and that said survey has been, in all respects, to the best of our knowledge and belief, well and hfully 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—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pur
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 27th day of April, 1914, 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 the
West, East and South and Subdivisions of T. 18 S. R. 16 E.

of the Salt Lake Ba
and Meridian, in the State of Utah, which are represen
in books "D" and "E"
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 a
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.

Ralph Gentry
U. S. Survey

Subscribed by said Ralph Gentry, and sworn to before me
this 16th day of June, 191 6

SEAL

U. S. Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Ut., June 16, 191

The foregoing field notes of the survey of the Subdivisions of T. 18 S. R. 16
Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry
under his special instructions dated April 27, 1914, having
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

U. S. Surveyor Genera

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 offic

U. S. Surveyor Genera

6—2764

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Page

4—679

A.

BOOK A-411

FIELD NOTES

OF THE SURVEY OF THE

SOUTH AND EAST BOUNDARIES

O F

TOWNSHIP 36 SOUTH, RANGE 3 EAST,

AND

TOWNSHIPS 36 and 37 SOUTH, RANGE 4 EAST,

Of the SALT LAKE BASE AND *Meridian,*

he State of U T A H

EXECUTED BY

JOSEPH C. THOMA AND EDWARD R. BUBBURY

and U.S. Transitman

he capacity of U. S. Surveyor, under instructions dated June 11, *1913,*

ed by the United States Surveyor General to govern surveys included in

up No. 24, *which were approved by the Commissioner of the General Land*

e, June 26, *191*3, *pursuant to authority contained in the Act of*

gress dated ....., *191*....

Survey commenced October 10, *191*3

Survey completed November 18, *191*3.

6—151

BOOK A-411

INDEX DIAGRAM.

Township ..... *Range* .....

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

6—151

hains.

Survey commenced October 10, 1913, and executed with Young & Sons light mountain transit No. 8477, 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 14, 1913. I examine the adjustments of the transit and find them correct; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a. m. and p. m. hours, with the meridian determined by observations on Polaris, I proceed as follows:

At my camp in the SE. quarter of sec. 34, T. 35 S., R. 3 E.; latitude, 37° 44' N., longitude 111° 37' W.; I set off 37° 44' N. on the lat. arc; 6° 34' S. on the decl. arc, and at 9h a. 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 3h p. m., l. m. t., I set off 37° 44' N. on the lat. arc, 6° 40' S. on the decl. arc, and determine the meridian with the solar, which checks the meridian as determined with the a. m. solar.

At 6h 17m 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.

October 10, 1913.

October 11, 1913: At 7h 30m a. m., l. m. t., I lay off the azimuth of Polaris 1° 28' to the West, and the meridian thus determined coincides with the meridian determined by a. m. and p. m. solar observations.

A five chain Lallie steel tape with clinometer was used in

East boundary of T. 36 S., R. 3 E.

Chains.	
	making all measurements.
	October 11, 1913.

	October 11, 1913: I set off 37° 43' N. on the lat. arc, 7° 01' S. on the decl. arc, and at $1^h\ 47^m$ p. m., l. m t., determine the meridian with the solar, at the std cor. of T. 35 S., Rgs. 3 and 4 E.
	Thence I run
	S. 89° 32' W., on the Seventh Standard Parallel South.
8.33	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. the ground for the C. C. on the range line bet. Rgs. 3 and 4 E., with brass cap mkd.
	T 35 S R 3 E | R 4 E S36 | S31 C C S 1 | S 6 1913
	from which
	A cedar, 12 ins. in diam., bears S. 80° E., 273 lks. dist., mkd. T36S R4E S6 CC BT.
	A cedar 12 ins. in diam., bears S. 13° W., 183 lks. dist., mkd. T36S R3E S1 CC BT.

	Thence I run
	South, on range line, bet. secs. 1 and 6.
	Asc. through scattering scrub cedar timber, over broken land draining NW.
7.50	Top of asc., bears E. and W., leave scattering scrub cedar timber, enter open land covered with sage brush tellow top and grass. Desc. gradually.
37.00	Dry draw, 30 lks. wide, 20 ft. deep, drains SW.
39.75	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the W. C. to the ¼ sec. cor., with brass cap mkd.
	W C S 1¼ | S 6 1913

Chains.	
	Dig pits, 18x18x12 ins. N. and S. of cor., 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
40.00	True point for ¼ sec. cor. falls in draw.
41.25	Dry draw, 10 lks. wide, 10 ft. deep, drains SW.
60.00	Desc. over rough broken land, draining SW..
66.00	Dry draw, 20 lks. wide, drains SW., continue desc.
74.75	Dry draw, 20 lks. wide, drains SW.; continue desc.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 36 S
R 3 E | R 4 E
S 1 | S 6

S 12 | S 7
1913

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 broken.

Soil, sandy loam, with dark clay subsoil.

Timber, scattering scrub cedar and pinon. Fair grazing.

Thence I run

South, on range line, bet. secs. 7 and 12.

Desc. over rough broken land covered with sage brush and greasewood.

4.00	Leave rough broken land, bears NE. and SW., desc. gradually over level land, draining SE.
19.02	Cattle trail, bears NW. and SE.
28.55	Wire fence, bears NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 12 | S 7
¼
1913

Dig pits, 18x18x12 ins. N. and S. of cor., 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

East boundary of T. 36 S., R. 3 E.

Chains.	
42.00	Centre of creek 4 chs. wide, with a stream of alkali water in bed 20 lks. wide, 2 ins. deep, drains SE.; as gradually.
48.68	Dim wagon road, bears S. 40° E. and N. 40° W.
58.00	Dry draw, 2 chs. wide, 10 lks. deep, drains SE., contin asc.
74.50	Foot of sandy bench, 15 ft. high, bears NW. and SE.; as
79.96	Wire fence, bears S. 80° W. and N. 80° E.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. the ground for the cor. of secs. 7, 12, 13 and 18, wit brass cap mkd.

T 36 S
R 3 E | R 4 E
S 12 | S 7
S 13 | S 18

1913

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.

Soil, sandy loam with dark clay subsoil.

No timber.

October 10, 1913.

Thence I run

South, on range line bet. secs. 13 and 18.

Over rolling land, draining NE., through scattering sage brush undergrowth.

14.00	Head of draw, draining NE.; asc. over N. slope of E. and W. ridge.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 13 ¼ | S 18

1913

Dig pits, 18x18x12 ins. N. and S. of cor., 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

Chains.	
47.00	Top of ridge, bears E. and W., desc. over rough broken land, draining SE.
55.00	Dry draw, 30 lks. wide, 15 ft. deep, drains SE.
60.40	Dry draw, 30 lks. wide, 15 ft. deep, drains SE.; asc.
64.00	Top of spur of ridge, bears E. and W., 20 ft. above draw.; desc.
67.32	Dry draw, 10 lks. wide, 2 ft. deep, drains E.
78.26	N. bank of wash, 30 ft., deep bears E. and W. Strong alkali water seeps through bottom of wash which drains E.
79.00	South bank of wash, bears E. and W.; asc.
80.00	True point for cor. in edge of wash, where, if cor. was set, would soon be destroyed. There is no available place N. and S. of true point on line, I therefore

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, 2.78 chs. due East of the true point, for the w.c. to the cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 36 S
R 3 E | R 4 E
S13 | S18
W.C.
S24 | S19
1913

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, broken.

Soil, sandy, with sand stone bed rock close to surface.

Timber, scattering scrub cedar and pinon. Sage brush undergrowth. Scant grazing. October 11, 1913.

October 12: At true cor. point I set off 37° 40' N. on the lat. arc, 7° 19' S. on the decl. arc, and at 8h 47m a. m., l. m. t., determine the meridian with the solar.

Thence I run

South, on range line bet. secs. 19 and 24.

Chains.	
	Asc. over rough broken land, covered withscattering scrub cedar and pinon timber.
7.20	Dry draw, 30 lks. wide, 20 ft. deep , drains NW. continue asc.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 24 | S 19 / ¼ / 1913
	Dig pits, 18x18x12 ins. N. and S. of cor., 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
46.00	Top of barren sand stone dome, 50 ft. above ¼ sec. cor. desc. over outcrop of barren sandstone.
60.00	Leave outcrop of solid sandstone, bears NE. and SW.; continue desc. over broken land covered with scattering scrub cedar and pinon timber.
62.00	Dry draw, 25 ft.wide, 8 ft.deep, drains E
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 19, 24, 25 and 30, with brass cap mkd. T 36 S / R 3 E | R 4 E / S24 | S19 / S25 | S 30 / 1913
	from which
	A pinon, 12 ins. in diam., bears N. 11° 30' E. 81 lks. dist., mkd. T36S R4E S19 BT.
	A pinon, 8 ins. in diam., bears S. 34° E., 88 lks. dist., mkd. T36S R4E S30 BT.
	A cedar, 6 ins. in diam,, bears S. 15° 30' W. 31 lks. dist., mkd. T36S R3E S25 BT.
	A pinon, 14 ins. in diam., bears N. 6° 30' W. 27 lks. dist., mkd. T36S R3E S24 BT.
	Land, rough and broken.
	Soil, sandy with sandstone outcroppings.
	Timber, scattering scrub cedar and pinon. Scant grazing.

Chains.	
	October 12, 1913: At this cor. I set off 7° 23' S. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 40' N.
	Thence I run
	South, on range line, bet. secs. 25 and 30.
	Desc. over broken land covered with dense scrub cedar and pinon timber.
5.50	Edge of box canon, with prependicular white sand stone walls, 40 ft. high, bears E. and W.
9.50	S. edge of box canon, bears E. and W.; asc. over N. slope.
20.80	Top of ridge, bears E. and W., desc.
29.00	Dry draw, 50 lks. wide, 20 ft. deep, drains N. 60° E., asc. over broken N. slope.
36.00	Edge of rough broken country, bears E. and W., asc. grad. over sage brush bench.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	S 25 ¼ | S 30
	1913
	Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
50.00	Top of sand stone ledge, 20 ft. high, bears E. and W., continue asc.
55.00	Top of ridge, bears E. and W.; desc. gradually.
69.35	Desc. abruptly over sand stone ledge, bears E. and W.
70.00	Dry draw, 40 lks. wide, 10 lks. deep, drains SE.; asc.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 25, 30, 31 and 36., with brass cap mkd.
	T 36 S R 3 E | R 4 E S25 | S 30 S36 | S 31
	1913
	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.

Chains.	
	Land, rough and broken,
	Soil sandy with clay subsoil. 4th rate.
	Timber, scattering scrub cedar and pinon. Scant grazing

	Thence I run
	South, on range line bet. secs. 31 and 36.
	Desc. over rough broken land, covered with scattering scrub cedar and pinon timber.
5.00	Dry draw, 20 lks. wide, 5 lks. deep, drains E.; asc. ov broken N. slope of ridge.
9.50	Top of ridge, bears E. and W.; desc. gradually.
15.00	Start abrupt desc., over broken rocky slope, bears NW. and SE.
17.00	Dry draw, 10 lks. wide, 5 ft. deep, drains SE. continue desc.
18.50	Dry draw, 20 lks. wide, 10 lks. deep, drains E.; asc. over broken NE. slope.
24.00	Top of ridge, bears NW. and SE.; desc. gradually.
30.00	Start abrupt desc. over broken S. slope, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., with brass cap mkd. S 36 $\frac{1}{4}$ | S 31 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. No bearing trees available.
42.50	Dry draw 50 lks. wide, 10 lks. deep, drains E.; asc.
54.00	Top of asc., bears E. and W. desc. over broken SW. slope
68.00	Dry draw, 30 lks. wide, 4 lks. deep, drains SE.; asc.
70.00	Top of spur of ridge, projects E.; desc.
76.00	Dry draw, 50 lks. wide, 10 lks. deep, drains E.; asc.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. i the ground for the cor. of Tps. 36 and 37 S., Rgs. 3 and 4 E., with brass cap mkd.

East broundry of T. 36 S., R. 3 E.

Chains.

T 36 S.
R3E | R4E
S36 | S31
S 1 | S 6
T 37 S.
1913

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

Land, rough and broken.

Soil, sandy and stony, with clay subsoil. 4th rate.

Timber, scattering scrub cedar and pinon. Scant Grazing.

October 12, 1913.

Jas. C. Thorne

U. S. Surveyor.

South boundary of T. 36 S., R. 3 E.

October 13, 1913: At 9h 17m a. m., l. m. t., I set off 37° 38' N. on the lat. arc, 7° 42' S. on the decl. arc, and at the cor. of Tps. 36 and 37 S., Rgs. 3 and 4 E., determine the meridian with the solar.

Thence I run

West, on the S. bdy. of the twp., bet. secs. 1 and 36.

Desc. over rough mountainous land covered with scattering scrub cedar and pinon timber.

0.30 Ravine, drains NE., 10 ft. below cor.

9.75 Top of broken mesa, 165 ft. above ravine, bears NW. and SE.

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

S 36
¼
S 1
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. No bearing trees available.

74.75 Start abrupt desc. into ravine,

76,75 Ravine, drains N. 15º E., 55 ft. below top.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

Chains.

T36S | R3E
S35 | S36

S 2 | S 1
1913

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. No bearing trees available.

Cor. is established 70 ft. above bottom of ravine.

Land, mountainous.

Soul, sandy and stony with subsoil of dark clay.

Timber, scrub cedar and pinon. Scant grazing.

October 13, 1913: At this cor. I set off 7° 45' S., on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 38' N.

Thence I run

West, on the S. bdy. of twp., bet. secs. 2 and 35.

Asc. over rough mountainous land, covered with scatterin scrub cedar and pinon timber.

1.25 Top of broken mesa, 50 ft. above cor., bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in a mound of earth and stone on solid rock, for the ¼ sec. cor., with brass cap mkd.

S 35
¼

S 2
1913

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

63.27 Foot of series of perpendicular ledges rising to an altitude of 1000 ft.

Set an iron post, 3 ft. long, 3 ins. in diam., on solid rock, in a mound of stone, for the W. C. to the cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T36N | R3E
R3E | S34 | S35
W C

S 3 | S 2
1913

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

South Boundary of T.36 S , R.3 E.

Cor.is established 130 ft.above ¼ sec.cor.

Land, mountainous.

Soil, dark clay and rocky; 4th rate.

Timber, scattering scrub cedar and pinon.

October 13, 1913.

Edward R Bumbury

U.S.Transitman.

Boundaries of T.36 S., R.3 E.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, Departures. N. chs.	S. chs.	E. chs.	W. chs.
Bet.secs.35-36	N. 0°01'W.	80.00	80.00	.....	.....	.02
Bet.secs.26-35 27-34	West	160.00	.....	.....	.....	160.00
Bet.secs.27-28 21-22	N. 0°02'W.	160.00	160.00	.....	.....	.09
Bet.secs.16-21	West	80.00	.....	.....	.....	80.00
Bet.secs.16-17, 8-9 & 4-5	N. 0°03'W.	237.89	237.89	.....	.....	.21
7th Std.Par.S.	N.89°57'E.	17.33	.....	.02	17.33	.....
	N.89°45'E.	40.00	.18	.....	40.00	.....
	N.89°32'E.	39.96	.33	.....	39.96	.....
	N.89°41'E.	38.54	.22	.....	38.54	.....
	N.89°38'E.	32.45	.21	.....	32.45	.....
	N.89°14'E.	39.99	.54	.....	39.99	.....
	N.89°46'E.	40.04	.16	.....	40.04	.....
	N.89°32'E.	71.30	.58	.....	71.30	.....
E.Bdy.	South	480.00	.....	480.00	.....	.....
S.Bdy.	West	80.00	.....	.....	.....	80.00
Convergency					.30	
T o t a l s			480.11	480.02	319.91	320.32
			480.02			319.91
Error in lat.and dep.			.09			.41

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Page

South boundary of T. 36 S., R. 3 E.

Cor. is established 130 ft. above ½ sec. cor.

Land, mountainous.

Soil, dark clay and rocky; 4th rate.

Timber, scattering scrub cedar and pinon.

October 13, 1913.

Edward R Bumbum

U. S. Transitman.

LATITUDES, DEPARTURES, AND CLOSING ERRORS IN

T. 36 S., R. 3 E.

	Course.	Dist.	N.	S.	E.	W.
Bet.secs.35-36	N. 0° 01' W.	80.00	80.00	.....	.....	.02
Bet.secs.26-35	West	160.00	.....	.....	.....	160.00
27-34						
Bet.secs.27-28						
21-22	N. 0° 02' W.	160.00	160.00	.....	.....	.04
Bet.secs.16-21	West	80.00	.....	.....	.....	80.00
Bet secs.16-17						
8-9 & 4-5	N. 0° 03' W.	237.89	237.89	.....	.....	.21
7th Std.Par.S.	S. 89° 57' E.	17.33	.....	.02	17.33	.....
	N. 89° 45' E.	40.00	.18	.....	40.00	.....
	N. 89° 32' E.	39.96	.33	.....	39.96	.....
	N. 89° 41' E.	38.54	.22	.....	38.54	.....
	N. 89° 38' E.	32.45	.21	.....	32.45	.....
	N. 89° 14' E.	39.99	.54	.....	39.99	.....
	N. 89° 46' E.	40.04	.16	.....	40.04	.....
	N. 89° 32' E.	71.30	.58	.....	71.30	.....
	S. 89° 32' W.	8.33	.....	.07	.....	8.33
E. bdy.	South	480.00	.....	480.00	.....	.....
S. bdy.	West	80.00	.....	.....	.....	80.00
Convergency		.30.55	.....	.....	.30.55	.....
Totals			480.11	480.02 479.95	328.49	328.61 328.49
Error in lat. and dep.				.14		.12

Jos. C. Brown

U. S. Surveyor.

Edward R Bumbum

U. S. Transitman.

Blank

Page

Filed Apr. 16, 1914.

South Boundary of T 36 S R 4 E.

Plans

Survey commenced October 22, 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 it's 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 S.W. quarter of sec 14, T. 36 S R 3 E.; latitude 37° 41' N., longitude 111° 36' W.; I set off 37° 41' N., on the lat. arc; 11° 02' S., on the decl. arc; and at 4h 15m 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 5h 25m p.m. l.m.t., I observe Polaris at western 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 was used on all measurements of this work. October 22, 1913.

October 23: At 6h 30m a.m. l.m.t., I lay off the azimuth of Polaris, 1° 28' to the East and mark the meridi-

South boundary of T 36 S R 4 E.

Chains

thus determined by a cross on the stake set October 22, on which the meridian falls 0.3 ins. East of the mark determined by the solar.

At 6h 44m a.m. l.m.t., I set off 37° 41' N., on the lat. arc; 11° 12' 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.

At 9h 44m a.m. l.m.t., I set off 37° 38' on the lat. arc; 11° 21' S., on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 36 and 37 S., Rs. 3 and 4 E., heretofore described.

Thence I run East, on a true line, along the south bdy. of sec. 31.

Over very rugged mesa land, through scattering growth of pinon pine and cedars and scattering undergrowth of sage brush and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground for 1/4 sec. cor., with brass cap marked

S 31
1/4
S 6
1913

from which

South boundary of T36S R4E.

Chains

A cedar, 12 ins., dia., bears N. 38° 40' E., 9 lks. dist., marked 1/4 S.31 B.T.
A cedar, 10 ins., dia., bears S. 70° 50' W., 14 lks. dist., marked 1/4 S.6 B.T.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for Cor. of secs. 5, 6, 31 and 32, with brass cap marked

T36S | R4E	
S31	S32
S6	S5

T37S.

1913

No bearing trees available, therefore raise a mound of stone, 3 ft. base, 2 1/2 ft. high W. of Cor. Land, mountainous; soil, stony on surface with subsoil composed of gravel and sandy loam of medium texture; timber, scattering pinion pine and cedars; scattering undergrowth of sage brush and grass. October 23: At this Cor., I set off 11° 23' S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 38'.

East, on a true line, bet. secs. 5 and 32.

Over rugged mesa land, through scattering pinion pine and cedars and scattering undergrowth of sage brush and grass.

36.55 Descend from Woken mesa over sandstone ledges, brs. N. and S.W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground to solid rock, and erect a mound of stone, 3 ft. base, 1 1/2 ft. high around post for 1/4 sec. Cor., with brass cap marked.

South boundary of T36S R4E.

Chains

S 32
1/4
S 5
1913

No bearing trees available, therefore raise a mound of stone, 3 ft. base, 1½ ft. high N. of cor.
Cor. stands on E. slope of mesa, 100 ft. below the top.

October 23, 1913

October 25: At 9h 14m a.m. l.m.t. I set off 37° 38' on the lat. arc; 12° 02' S. on the decl. arc; and determine a meridian with the solar at the 1/4 cor. of secs. 5 and 32.
Thence, continue East on a true line bet. secs. 5 and 32.

48.50 Foot of descent, 26.5 ft. below 1/4 sec. cor., brs N. and S.W.
Enter rolling foot hills; brs. N. and S.W.

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

T36S | R4E	
S32	S33
S5	S4

T37S
1913

from which
A cedar, 10 ins. dia., brs N. 22° 55' E., 94 lks. dist., marked T36S R4E S33 B.T.
A cedar, 6 ins. dia., brs S. 37° 50' E., 63 lks. dist., marked T37S R4E S4 B.T.
A cedar, 12 ins. dia., brs S 51° 20' W., 42 lks. dist., marked T37S R4E S5 B.T.
A pine, 7 ins. dia., brs N 65° 40' W., 88 lks. dist., marked T36S R4E S32 B.T.

South boundary of T36S R4E.

Plains

Land, rolling hills; soil, stony on surface with subsoil composed of decomposed sandstone and sandy loam of medium texture; timber, scattering growth of pinion pine and cedars; scattering undergrowth of sage brush and grass.

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

Over rolling hills, through scattering growth of pinion pine and cedars and scattering undergrowth of sage brush and grass.

17.90 Dry wash, 40 lks. wide, 6 ft. deep, drs. NE.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground, for 1/4 sec. Cor., with brass cap marked

S 33
1/4
S 4

1913

from which

A cedar, 6 ins. dia., brs N. 77° 10' E., 89 lks. dist., marked 1/4 S 33 B T.

A cedar, 12 ins. dia., brs S. 11° 50' W., 68 lks. dist., marked 1/4 S 4 B T.

52.00 Leave rolling hills; Enter rolling prairie land, brs. N. W. and S.

79.00 Leave scattering timber, brs. N.E. and S.W.

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

T36S | R4E	
S33	S34
S4	S3

T37S

1913

and dig pits 24 x 24 x 12 ins., in Each

South Boundary of T36S R4E

Chains

of Earth, 4 ft. base, 2 ft. high, W. of Cor.

Land, rolling; soil, sandy loam of medium texture on a subsoil of dry stiff clay; no timber, scattering scattering undergrowth of sage brush, yellow top and grass.

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

Over rolling land, through scattering undergrowth of sage brush, yellow-top and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. Cor., with brass cap marked

S 34
1/4
S 3
1913

and dig pits 18 x 18 x 12 ins., E. and W. of post 3 ft. dist.; and raise a mound of Earth, 3½ ft. base, 1½ ft. high, N. of cor.

October 25: At this cor., I set off 12° 05' S., on the decl. arc; and at 11h 44m l. m. t., observe the sun on the meridian; the resulting latitude is 37° 38'.

61.50 Wagon road, Escalante to Fifty-mile, bears NW and SE.

63.00 Enter very scattering growth of pinion pine and cedars, brs. N and S.

70.00 Dry wash, 30 lks. wide, 5 ft. deep, brs. N.

80.00 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. 36 S. | R 4 E.
S 34 | S 35
S 3 | S 2
T 37 S.
1913

South Boundary of T36SR4E

Plains

No bearing trees available, therefore raise a mound of stone, 3 ft. base, 2 ft. high, W. of Cor.

Land, rolling; soil, sandy loam of medium texture, on a subsoil of coarse gravel and dry stiff clay; timber, very scattering growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.

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

Over rolling land, though very scattering growth of pinion pine and cedars and scattering undergrowth of sage brush, yellow top and grass.

36.50 Leave scattering timber, bearing N.E. and S.W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. Cor., with brass cap marked

S35
1/4
S2
1913

and dig pits 18 x 18 x 12 ins., E. and W. of post 3 ft. dist., and raise a mound of Earth, 3 1/2 ft. base, 1 1/2 ft. high. N. of Cor.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for Cor. of secs. 1, 2, 35 and 36, with brass cap marked

T36S | R4E
S35 | S36
S2 | S1
T37S
1913

and dig pits, 18 x 18 x 12 ins, in Each sec., 5 1/2 ft. dist.; and raise a mound of Earth, 4 ft. base, 2 ft.

Chains South boundary of T. 36 S. R. 4 E.

high, W. of cor.
Land, rolling; soil, sandy loam of medium texture on subsoil of gravel and dry stiff clay; no timber; scattering undergrowth of sage brush, yellow-top and grass.
October 25, 1913.

October 27, 1913; At 8h 14m a. m. l. m. t., I set off 37° 38' on the lat. arc; 12° 42' S., on the decl. arc; and determine a meridian with the solar at the Cor. of secs. 1, 2, 35 and 36.
Thence I run
East, on a true line, bet. secs. 1 and 36.
Over rolling land, though scattering undergrowth of sage brush, yellow-top and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. Cor., with brass cap marked

S. 36
1/4
S 1
1913

and dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of Cor.

67.00 Enter growth of scattering cedars and pinon pine, bns. N.W. and S.E.

71.00 Enter small rolling hills, bns. N.W. and S.E.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of Tps. 36 and 37 S., Rs. 4 and 5 E., with brass cap marked

T 36 S.

R 4 E	R 5 E
S 36	S 31
S 1	S 6
R 4 E	R 5 E

T 37 S.

1913

from whic

Plains

South boundary of T36S R4E

A cedar, 12 ins. dia., bears N. 70° 45' E., 61 lks. dist., marked T36S R5E S31 B.T.
A cedar, 10 ins. dia., bears S. 24° 25' E., 48 lks. dist., marked T37S R5E S6 B.T.
A cedar, 14 ins. dia., bears S. 50° 20' W., 58 lks. dist., marked T37S R4E S1 B.T.
A cedar, 7 ins. dia., bears N. 76° 35' W., 28 lks. dist., marked T36S R4E S36 B.T.
Land, rolling hills; soil, gravel on surface with subsoil composed of red sandy loam of medium texture; timber, scattering growth of cedars and pinion pine; scattering undergrowth of sage brush, yellow tops and grass.

East boundary of T36S R4E.

From the Cor. of Tps. 36 and 37 S., Rs. 4 and 5 E., just established,
Run
North on a true line, bet. secs. 31 and 36.
Over small rolling hills, through scattering growth of cedars and pinion pine and scattering undergrowth of sage brush, yellow-tops and grass
40,00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. Cor., with brass cap marked

S36 1/4 | S31

1913

from which
A pine, 8 ins. dia., bears N. 54° 30' E., 11½ lks. dist., marked 1/4 S31 B.T.
A pine, 6 ins. dia., bears N 80° W., 68 lks. dist. marked 1/4 S36 B.T.

East boundary of T. 36 S. R 4 E.

Chains

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 6 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. 25, 30, 31 and 36, with brass cap marked

T 36 S.

R 4 E	R 5 E
S 25	S 30 ✓
S 36	S 31

1913

from which

A pine, 6 ins. dia., bears N. 42° E., 83 lks. dist., marked T 36 S R 5 E S 30 B T.

A pine, 8 ins. dia., bears S. 18° 05' E., 68 lks. dist., marked T 36 S R 5 E S 31 B T.

A pine, 7 ins. dia., bears S. 68° W., 90 lks. dist., marked T 36 S R 4 E S 36 B T.

A pine, 8 ins. dia., bears N. 43° 30' W., 38 lks. dist., marked T. 36 S R 4 E S 25 B T.

Land, rolling hills; soil, stony on surface, 3 ins. deep with subsoil composed of gravel and red sandy loam of medium texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of sage brush and grass.

October 27; at this cor., I set off 12° 46' S, on the decl. arc; and at 11h 44m l. m. t. observe the sun on the meridian; the resulting latitude is 37° 39'.

North, on a true line, bet. secs. 25 and 30.

Over mountainous land, through scattering growth of pinon pine and cedars and scattering under-growth of sage brush and grass.

East Boundary of T. 36 S. R. 4 E.

Chains

Descend gently

2.50 Timber becomes very scattering, brs. E. and W.

3.25 Series of sandstone ledges, 150 ft. high, brs. NW. and E.

4.25 Foot of ledges, 150 ft. below the top, brs. NW and E.

Continue N. over rolling sandstone and patches of sand.

70.00 Point falls on solid sandstone. Cor. not set.

44.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W. C. to the 1/4 sec. cor., with brass cap marked

T. 36 S.
R. 4 E. R. 5 E.
W. 1/4 C.
S. 25 | S. 30 ✓
1913

and dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist., and raise a mound of Earth, 3 1/2 ft. base, 1 1/2 ft. high W. of Cor.

69.75 Dry wash, 2 chs. wide, 5 ft. deep, brs. E.

80.00 Point falls on solid sandstone. Mark Cross in stone and leave an iron post, 3 ft. long, 3 ins. in dia., for Cor. of secs. 19, 24, 25 and 30, with brass Cap marked

T. 36 S.

R. 4 E.	R. 5 E.
S. 24	S. 19 ✓
S. 25	S. 30

1913

No bearing trees or loose rock available here; therefore unable to properly witness Cor.

Land, rolling sandstone ledges; soil stony; 4th rate; timber, very scattering growth of pinion pine and cedars; very scant undergrowth of sage & brush and grass.

Chains East boundary of T36S R4E.

North on a true line. Brd. secs. 19 and 24.
Over rolling sandstone ledges, through a very scant growth of pinion pine & cedars and scant undergrowth of sage brush and grass.

40.00 Point falls on solid sandstone. Mark cross in stone and leave an iron post, 3 ft. long, 1 in. in dia., for 1/4 sec. cor., with brass cap marked

S24 1/4 | S19 ✓

1913

No bearing trees or loose rock available here; therefore unable to properly witness Cor.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., on solid sandstone, and erect a mound of stone 3 1/2 ft. base, 2' ft. high, around post for cor. of secs. 13, 18, 19 and 24, with brass cap marked

T36S

R4E	R5E
S13	S18 ✓
S24	S19

1913

and erect a mound of stone, 3 ft. base, 2 1/2 ft. high. W. of Cor. Land, rolling sandstone ledges; soil, stony; 4th rate; timber, very scattering growth of pinion pine and cedars; very scant undergrowth of sage brush and grass.

October 27, 1913.

October 28, 1913: At 8h 44m a.m. l. m.t., I set off 37° 41' on the lat. arc, 13° 03' S. on the decl. arc, and

East boundary of T36S R4E.

Chains

determine a meridian with the solar at the Cor. of secs. 13, 18, 19 and 24. Thence, I run
North, on a true line bet. secs. 13 and 18.
Over rolling sandstone ledges, through very scant growth of pinon pine and cedars and very scattering undergrowth of sage brush and grass.
40.00 Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground to solid rock, and erect a mound of stone, 3 ft. base, 1 ft. high, around post for 1/4 sec. cor., with brass cap marked

S 13 1/4 | S 18

1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of Earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of Cor.
53.00 Leave solid sandstone ledges; Enter small rolling sand hills, br. E. and W.
80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for Cor. of secs. 7, 12, 13 and 18, with brass Cap marked

T36S

R4E	R5E
S12	S7
S13	S18

1913

and dig pits, 18x18x12 ins., in Each sec, 5 1/2 ft. dist., and raise a mound of Earth, 4 ft. base, 2 ft. high, W. of Cor.
Land, small rolling sand hills; soil, red sand of very light texture, 12 ins. deep to solid sandstone; timber very scant growth

East Boundary of T36S R4E.

Chains

of pinion pine and cedars; very scattering undergrowth of sage brush and grass.

North, on a true line, 6rt. secs. 7 and 12.
Over small rolling sand hills, through very scant growth of pinion pine and cedars and very scattering undergrowth of sage brush and grass.

28.50 Leave rolling sand hills; enter rolling sandstone.

36.70 Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground, for W.C. to the 1/4 sec. Cor., with brass cap marked

T36S
R4E | R5E
S12 | S7
W.C.
1/4
1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of Earth, 3 1/2 ft. base, 1 1/2 ft. high W. of Cor.

40.00 Mark Cross on line in solid sandstone, 1/4 sec. cor. not set,

80.00 Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for Cor. of secs. 1, 6, 7 and 12, with brass cap marked

T36S
R4E | R5E
S1 | S6
S12 | S7
1913

and dig pits, 18x18x12 ins., in Each sec., 5 1/2 ft. dist., and raise a mound of Earth, 4 ft. base, 2 ft. high, W. of Cor.
Land rolling sand hills and sandstone ledges; soil red sand of very

East boundary of T 36 S R 4 E.

Chains

light texture with subsoil composed of loose and solid sandstone; timber very scant growth of pinion pine and cedars; very scattering undergrowth of sage brush and grass.

October 28: At this cor., I set off 13° 06' S., on the decl. arc, and at 1h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 43'.

North, on a true line, bet. secs. 1 and 6.

Over small rolling sand hills and rolling sandstone ledges, through very scant growth of pinion pine and cedars and very scattering undergrowth of sage brush and grass.

40.00 Set an iron post, 3 ft. long, 1 in. 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 1/4 sec. cor., with brass cap marked

S 1/4 | S 6

1913

No bearing trees available therefore erect a mound of stone, 3 ft. base, 2½ ft. high, W. of cor.

62.00 Ascend over series of ledges, trs. E. and W.

68.20 Top of ledges, 200 ft. high, trs. E. and W.

Descend.

80.18 Intersect Seventh Standard Parallel South, 13.90 chs. W. of the standard cor. for Tps. 35 S., Rs. 4 and 5 E., which is a sandstone, finely set, marked and witnessed as described by the surveyor-general. Set an iron post, 3 ft. long, 3 ins. in dia., 6 ins. in the ground to solid

East boundary of T 36 S R 4 E.

Claims

rock, and erect a mound of stone, 3 ft. base, 2 ft. high, around post for closing cor. of Tps. 36 S., Rs. 4 and 5 E., with brass cap marked

T35S
R4E | R5E
S36 | S31
C C
S1 | S6
R4E | R5E
T36S
1913

No bearing trees available, therefore erect a mound of stone 3 ft. base, 2½ ft. high S. of cor.
Cor. stands on N. slope of sandstone ledge, 35 ft. below the top.
Land, rolling sand hills and sandstone ledges; soil, red sand 6 ins. deep, of very light texture with subsoil composed of loose and solid sandstone; timber scattering pinion pine and cedar; scant undergrowth of sage brush and grass.

October 28, 1913.

Boundaries of T. 36 S., R. 4 E.

Latitudes, Departures and closing errors

Lines designated	True Bearing	Dist.	Latitudes North	Latitudes South	Departures East	Departures West
West Bdy.	North	480.00	480.00			
N. Bdy	N. 89°32'E	8.33	.07		8.33	
N. "	East	89.48			89.48	
N. "	N. 89°44'E	39.92	.19		39.92	
N. "	S. 89°44'E	39.97		.19	39.97	
N. "	East	301.92			301.92	
E. Bdy.	South	480.18		480.18		
S. Bdy.	West	480.00			.55	480.00
Convergency						
Totals			480.26	480.37	480.17	480.00
				480.26	480.00	
Errors				.11	.17	

East Boundary of T. 37 S., R. 4 E.

Chains.

Survey commenced November 6, 1913, and executed with Young & Sons light mountain transit No. 8477, with solar attachment. The horizontal limb is provided with two double verniers placed opposie 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 14, 1913. I examine the adjustments of the transit and find them correct; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a. m. and p. m. hours, with the meridian determined by observations on Polaris, I proceed as follows:

Knowing from previous test that my instrument was in adjustmats, I did not establish a meridian until Nov. 7, 1913.

November 7, 1913. At my camp near the centre of Sec. 14, T. 37 S., R. 4 E., latitude, 37° 36' N., longitude 111° 29' W.; I set off 37° 36' N. on the lat. arc, 16° 17' S. on the decl. arc, and at 2^h 44^m p. m., l. m. t., determine with the solar a meridian and mark a point thereof, on a stake firmly driven in the ground 10 chs. N. of my station.

November 7, 1913? At 4^h 23^m a. m., l. m.t,, I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a stake set 10 chs. N. of my station.

November 7, 1913.

November 8, 1913: At 7:30 a. m., l. m. t., I lay off the azimuth of Polaris, 1° 27' to the east, and the meridian thus determined coincides with the meridian as determined by the p. m. solar of November 7.

November 8, 1913: At 7^h 44^m a. m., l. m. t., I set off

East boundary of T. 37 S., R. 4 E.

Chains.	
	37° 36' N. on the lat. arc, 16° 28' S. on the decl. arc, and determine the meridian with the solar. The meridian thus determined coincides with the meridian as determined by the observation on Polaris.
	A 5 chain Lallie steel tape and clinometer were used in making all measurements.
	November 6, 1913: At 8^h44^m a. m., l. m. t., I set off 37° 38' N. on the lat. arc, 15° 55' S. on the decl. a and determine the meridian with the solar, at the cor of Tps. 36 and 37 S., Rgs. 4 and 5 E., previously described.
	Thence I run
	South, on the range line, bet. secs. 1 and 6.
	Over gently rolling land covered with scattering scrub cedar and pinon timber.
26.00	Leave scattering scrub cedar and pinon timber, bears E. and W., enter open rolling land covered with yellow t and grass.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd.
	S. $\frac{1}{\frac{1}{4}}$ | S 6 1913
	Dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
70.00	Top of gradual asc., bears E. and W., desc. gradually.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. the ground for the cor. of secs. 1, 6, 7 and 12, with brass cap mkd.
	T 37 S R4E | R5E S 1 | S 6 S12 | S 7 1913

East boundary of T. 37 S., R. 4 E.

Chains.

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, gently-rolling.

Soil, sandy with dark clay subsoil.

Timber, scattering scrub cedar and pinon.

Thence I run

South, on range line bet. secs. 7 and 12.

Over gently rolling land, covered with yellow top and grass.

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

S 12 ¼ | S 7

1913

Dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

72.00 Sand ridge, bears E. and W.

78.00 Sand ridge, bears E. and W.; desc. gradually.

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

T 37 S
R4E | R5E
S12 | S 7

S13 | S18

1913

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, gently rolling.

Soil, sandy, with sub-soil of dark clay.

No timber. Undergrowth of yellow top and grass. Good grazing.

November 6, 1913: At this cor. I set off 15° 58' S. on

Chains.	
	the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 36' S.
	Thence I run
	South, on range line bet. secs. 13 and 18.
	Desc. gradually over rolling land, covered with yellow top and grass.
14.50	Dry draw, 5 lks. wide, 3 lks. deep, drains SE.; asc.
29.50	Main desert wagon road from Escalante, bears Nw. and SE.
30.50	Dry draw, 30 lks. wide, 15 ft. deep, drains SE.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 13 ¼ | S 18 1913 from which
	A cedar, 10 ins. in diam., bears S. 40° E., 9 lks. dist., mkd. ¼ S18 BT.
	A cedar 6 ins. in diam., bears N. 14° W., 9 lks. dist., mkd. ¼ S13 BT.
	Enter scattering scrub cedar timber, bears E. and W.; as
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 13, 18, 19 and 24, with brass cap mkd. T37S R4E | R5E S13 | S18 S24 | S19 1913
	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 trees within limits suitable for bearing trees
	Land, rolling.
	Soil, sandy, with dark clay subsoil.
	Timber, scattering scrub cedar and pinon. Fair grazing.
	Thence I run
	South, on range line bet. secs. 19 and 24.

East boundary of T. 37 S., R. 4 E.

Chains.

Over rolling land covered with scattering scrub cedar and pinon timber, with undergrowth of yellow top and grass.

26.10 Dry draw, 75 lks. wide, 15 ft. deep, drains SE.; asc.

34.06 Top of raise, bears E. and W.; desc.

37.50 Dry draw, 1 ch. wide, 20 lks. deep, drains SE.;

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

S 24 | S 19.
¼ |
1913

Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3 ½ ft. base, 1½ ft. high, W. of cor.

43.00 Dry draw, 25 lks. wide, 13 ft. deep, drains SE.

45.00 Dry draw, 29 lks. wide, 30 ft. deep, drains SE.; asc.

60.00 Top of sand ridge, bears E. and W.; desc.

73.50 Dry draw, 12 lks. wide, 11 ft. deep, drains SE.; asc.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T37S
R4E | R5E
S24	S19
S25	S30
1913

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 bearing trees available.

Land, rolling.

Soil, sandy with dark clay subsoil.

Timber, scattering scrub cedar and pinon. Fair grazing.

November 6, 1913.

Jos. C. Shaw

U. S. Surveyor.

East boundary of T. 37 S., R. 3 E.

Chains.	
	November, 8, 1913: At 8^h44^m a. m., l. m. t., I set off 37° 35' N. on the lat. arc, 16° 31' S. on the decl. arc, and at the cor. of secs. 19, 24, 25 and 30, determine the meridian with the solar.
	Thence I run
	South, on range line, bet. secs. 25 and 30.
	Over rolling land covered with scattering scrub cedar and pinon timber, with a medium growth of sage brush, yellow top andgrass.
3.80	Dry draw, 40 lks. wide, 20 lks. deep, drains E.
35.00	Leave scattering scrub cedar and pinon timber, bears E. and SW.; enter open sage brush flat.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., with brass cap mkd. S 25 $\frac{1}{4}$ | S 30 1913
	Dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
72.90	Twenty Mile wash, 60 lks. wide, 6 ft. deep, drains N. 80° E.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins., in the ground for the cor. ofsecs. 25, 30, 31 and 36, with brass cap mkd. T37S R4E | R5E S25 | S30 S36 | S31 1913
	Raise a mound of stone 3 ft.base, $1\frac{1}{2}$ ft.high W.of cor.
	Land rolling. Soil sandy; 4th rate.
	Timber, very scattering scrube cedar and pinon, with medium undergrowth of sage brush, yellow top and grass. Scant grazing.

	Thence I run
	South, on range line bet. secs. 31 and 36.

East boundary of T. 37 S., R. 4 E.

Chains.	
	Over nearly level flat, covered with a medium growth of sage brush, yellow top and grass.
11.50	Leave level flat, bears NE. and SW.; enter rolling land, covered with scattering scrub cedar and pinon timber.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 36 | S 31 ¼ 1913
	Dig pits, 18x18x12 ins., N. and S. of post., 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
63.60	Dry draw, 20 lks. wide, 8 ft. deep, drains N. 25° W.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of twps. 37 and 38 S., Rgs., 4 and 5 E., with brass cap mkd. T37S R4E R5E S36 | S31 S 1 | S 6 T38S 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, rolling.
	Soil, sandy; 4th rate.
	Timber, scattering scrub cedar and pinon, with a medium undergrowth of sage brush, yellowtop and grass.
	Fair grazing.
	November 8, 1913: At this twp. cor., I set off 16° 33' S., on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 33' N.

	Thence I run
	West, on the S. bdy. of the twp., bet. secs. 1 and 36.
	Over broken rolling land, covered with scattering scrub cedar and pinon timber, with a medium growth of

South boundary of T. 37 S., R. 4 E.

Chains.

sage brush and yellow top.

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

S 36
¼

S 1
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of
cor. No bearing trees available.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins.
the ground for the cor. of secs. 1, 2, 35 and 36, wit
brass cap mkd.

T37S | R4E
S35 | S36
S 2 | S 1
T38 S
1913

from which

A pinon, 10 ins. in diam., bears N. 54° 10'
98 lks. dist., mkd. T37S R4E S36 BT.

A pinon, 8 ins. in diam., bears N. 8° 00' W.
47 lks. dist., mkd. T37S R4E S35 BT.

A pinon, 7 ins. in diam., bears S. 77° 20' W
69 lks. dist., mkd. T38 S., R4E S2 BT.

A pinon, 10 ins. in diam., bears S. 56° 05'
39 lks. dist., mkd. T38S R4E S1 BT.

Land, rolling and broken.

Soil, sandy and stony, with sandstone bed rock close to
surface; 4th rate.

Timber, scattering scrub cedar and pinon, with a medium
undergrowth of sage brush and yellow top. Scant grazin

November 8, 1913.

Edward R. Bunbury

U. S. Transitman.

South boundary of T. 37 S., R. 4 E.

Chains.	
	November 18, 1913: I set off 37° 33' N. on the lat. arc, 16° 32' S. on the decl. arc, and at 1^h 44^m p. m., l. m. t., determine the meridian with the solar, at cor. of secs. 1, 2, 35 and 36.
	Thence I run
	west, on the S. bdy. of the twp., bet. secs. 2 and 35.
	Over rough, broken land, covered with dense scrub cedar and pinon timber.
2.00	Dry draw, 10 lks. wide, 5 lks. deep, 30 ft. below cor., drains N.; asc.
3.00	Top of spur of ridge, projects N., 30 ft. above draw, desc.
12.00	Twenty Mile Creek, S. Fork) dry, 1 ch. wide, 4 ft. deep, drains N. 50° E.; asc.
20.00	Top of spur, projects NE., desc. over rim 70 ft. high, and continue desc. through dense scrub cedar and pinon timber.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor., with brass cap mkd.

S 35
$\frac{1}{4}$
S 2
1913

from which

A cedar, 12 ins. in diam., bears N. 20° E., 76 lks. dist., mkd. $\frac{1}{4}$ S35 BT.

A cedar, 24 ins. in diam., bears S. 36° W., 89 lks. dist., mkd. $\frac{1}{4}$ S2 BT.

45.00	Ravine, 2 chs. wide, 60 ft. deep, drains N.
47.00	Ravine, 60 lks. wide, 20 ft. deep, drains N.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for the cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T37S | R4E
S34 | S35
S 3 | S 2
T38S
1913

from which

Chains,

A cedar, 12 ins. in diam., bears N. 13° E.,
43 lks. dist., mkd. T37S R4E S35 BT.
A cedar, 12 ins. in diam., bears S. 16° E.,
33 lks. dist., mkd. T38S R4E S2 BT.
A cedar, 16 ins. in diam., bears S. 55° W.,
67 lks. dist., mkd. T38S R4E S3 BT.
A cedar, 10 ins. in diam., bears N. 72° W.,
45 lks. dist., mkd. T37S R4E S34 BT.

Soil, sandy and rocky; 4 th rate.

Land, rough and broken.

Timber, scrub cedar and pinon. Scant grazing.

Note: this cor. is established at the foot of a series of perpendicular ledges rising to an altitude of 1000 ft. above the cor.

November 8, 1913.

Jos. C. Shaw

U. S. Surveyor.

LATITUDES, DEPARTURES and CLOSING ERRORS OF T. 37 S., R. 4 E.

Lines Designated	Course.	Dist.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
Bet. secs. 34-35	N. 0° 01' W.	80.00	80.00	.....	.....	.02
Bet. secs. 27-34 28-33	West	160.00	.....	.....	.....	160.00
Bet. secs. 28-29 20-21, 16-17 8-9	N. 0° 03' W.	320.00	320.00	.....	.....	.28
Bet. secs. 4-5	S. 0° 07' E.	80.20	80.20	.....	.16	.....
North bdy.	East	320.00	.....	.....	320.00	.....
East bdy.	South	480.00	.....	480.00	.....	.....
South bdy.	West	160.00	.....	.....	.....	160.00
Convergency		.38	.....	.....	.38	.....
Totals			480.20	480.00	320.54	320.30
			480.00		320.30	
Error in lat. and dep.			.20		.24	

Jos. C. Shaw

U. S. Surveyor.

Edward R. Bumbus

U. S. Transitman.

BOOK A-411

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 .....

.....

.....

.....

.....

or certificate of assistants see book "G" T.37 S., R.4 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.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in purs
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 oaths of U.S.Surveyor and U.S.Transitman see book "G" T.
37 S., R.4 E.

_____ of the _____
_____ Meridian, in the State of _____, which are represent
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. Survey

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 30, 19

The foregoing field notes of the survey of the south and east boundaries of
Township 36 South, Range 3 East and Townships 36 and 37 South, Rang
4 East of the Salt Lake Base and Meridian, Utah,

_____

_____

_____

_____

executed by Joseph C. Thoma and Edward P. Bunbury
their
under his special instructions dated June 11, 191 3, having
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

_____
U. S. Surveyor Gener

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 offic

_____
U. S. Surveyor Gener

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Page

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Page

Filed Apr.16, 1914.

4—679

E.

BOOK A-411

FIELD NOTES

OF THE SURVEY OF THE

PLACEMENT OF THE SEVENTH STANDARD PARALLEL SOUTH, THROUGH RANGE 3 EAST,

AND

SURVEY OF THE SUBDIVISION

O F

TOWNSHIP 36 SOUTH, RANGE 3 EAST

Of the SALT LAKE BASE AND *Meridian,*

the State of U T A H

EXECUTED BY

JOS.C.THOMA AND ED.E.BURBURY

and Transitman

the capacity of U. S. Surveyor, under instructions dated June 11, *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, June 26, *1913, pursuant to authority contained in the Act of*

gress dated ....., *191*....

Survey commenced October 10, *1913*

Survey completed October 23, *1913.*

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BOOK A-411

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30	29	28	27	26	25
31	32	33	34	35	36

6—151

Retracement of the Seventh Standard Parallel South through

R. 3 E.

Chains.

Survey commenced October 10, 1913 and executed with a Young & 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 Assistand Supervisor of Surveys for Utah, June 25, 1913.

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

At my camp in the SE. quarter of Sec.34,T.35 S.,R.3 E.; latitude 37°44'N.,longitude 111°37'W.;I set off 37°44'N. on the lat.arc;6°34'S.on the decl.arc,and at 9^ha.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 3^hp.m.,l.m.t.,Iset off 37°44'N.on the lat.arc,6°40'S. on the decl.arc and determine the meridian with the solar, which checks the meridian as determined by the a.m.solar.

At 6^h17^m 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 5 chs. N. of my station. October 10, 1913.

Oct.11,1913:At 7:30 a.m.,l.m.t.,I lay off the azimuth of Polaris 1°28' to the West,and the meridian thus determined coincides with the meridian determined by a.m. and p.m. solar Observations. Oc

I proceed to the quarter cor.on the S.bdy.of sec.34,T.35 S.,R.3 E.on the Seventh Standard Parallel S.,which is A sand stone 22x10x5 ins.above ground,firmly set; mkd. and witnessed as described by the Surveyor General.

Chains.	
	October 11, 1913: At 7h 47m a. m., l. m. t., I set off 37° 43' N. on the lat. arc, 6° 55' S. on the decl. arc and determine the meridian with the solar at the quart cor. on the S. bdy. of sec. 34.
	Thence I run
	West, retracing the Seventh Standard Parallel South.
	Over gently rolling land covered with a medium under-growth of yellow top and scattering greasewood and gra
38.54	Fall 22 lks. N. of the standard cor. of secs. 33 and 34, which is
	A sandstone 12x8x5 ins. above ground, firmly set; mkd. and witnessed as described by the Surveyor General.
	Therefore the true course between the quarter cor. and sec corner is S.89º 41' W. and the distance 38.54 chs
	---
	Thence I run
	West, from the standard cor. for secs. 33 and 34, retrac ing the Seventh Standard Parallel South.
	Over gently rolling land covered with a medium growth of yellow top and scattering greasewood and grass.
39.96	Fall 33 lks. N. of the Standard quarter sec. cor. on the S. bdy. of sec. 33, which is
	A sand stone 12x6x6 ins. above the ground, firmly set; m and witnessed as described by the Surveyor General.
	Therefore the true course of this half mile is S. 89° 32' W. and the distance is 39.96 chs.

	Thence I run
	West, from the standard quarter cor., above described, retracing the Seventh Standard Parallel South.
	Over gently rolling land, covered with a medium growth of yellow top and scattering greasewood and grass.
40.00	Fall 18 lks. N. of the standard cor. bet. secs. 32 and 3 which is
	A sand stone, 10x4x6 ins. above ground, firmly set; mkd. and witnessed as described by the Surveyor General.
	Therefore the true course of this half mile is S.89°45'
40.00 chs.	

Retracement of the Seventh Standard Parallel South through R. 3 E.

Chains.

From the Standard cor. bet. secs. 32 and 33 I run West on the retracement of the Seventh Standard Parallel South.

Over rolling land covered with a medium growth of yellow top, scattering greasewood and grass.

40.31 Fall 3 lks. S. of the standard quarter sec. cor. on the S. bdy. of sec. 32; which is

A sand stone, 10x4x6 ins. above ground, firmly set; mkd. and witnessed as described by the surveyor general.

Therefore the true course for this half mile is N. 89° 57' W. 40.31 chs.

October 11, 1913.

Edward P. Bumbury

U. S. Transitman.

The remainder of the retracement of the Seventh Standard Parallel South was executed with a Young and Sons light mountain transit No.8477 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 14, 1913.

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

October 10, 1913: At my camp in the SE. quarter of Sec. 34, T. 35 S., R. 3 E.; latitude 37° 44' S., longitude 111° 37' W.; I set off 37° 44' N. on the lat. arc, 6° 34' S. on the decl. arc, and at 9^h a. m., l. m. t.,

Chains.

determine the meridian with the solar, which meridian coincides with the meridian as obtained by observation on Polaris which is fully set forth on Page 1 of this book.

October 10: At 3^h p. m., l. m. t., I set off 37° 44' N. on the lat. arc, 6° 40' S. on the decl. arc and determine the meridian with the solar, which agrees with the meridian as determined with the a. m. solar, also the Polaris meridian above referred to.

October 10, 1913.

October 11: I proceed to the standard quarter sec. cor. on the S. bdy. of sec. 34, T. 35 S., R. 3 E., previously described, and retrace the Seventh Standard Parallel South, as follows:

October 11, 1913. At this cor. I set off 37° 43' N. on the lat. arc, 6° 55' S. on the decl. arc, and at 7^h 47^m, a. m., l. m. t., determine the meridian with the solar.

Thence I run

East, retracing the Seventh Parallel South.

Over nearly level cultivated field; along wire fence.

32.45 Fall 21 lks. S. of the cor. of secs. 34 and 35, which is

A sand stone, 10x5x6 ins. above ground, firmly set; mkd. and witnessed as described by the Surveyor General.

Therefore the true course of this half mile is N. 89° 38' E. 32.45 chs.

Thence I run

East, from the standard cor. for secs. 34 and 35.

Over gently rolling land, through cultivated field.

39.99 Fall 54 lks. S. of the standard quarter cor. for sec. 35, T. 35 S., R. 3 E., which is

A sand stone 14x4x5 ins. above ground, firmly set; mkd. and witnessed as described by the Surveyor General.

Therefore the true course of this half mile is N. 89° 14' E. 39.99 chs.

Retracement of the Seventh Standard Parallel South, through R. 3 E.

Chains.

Thence I run

East from the standard quarter cor., on the S.bdy.of sec.35,

Over broken adobe lands, covered with scattering scrub cedar timber.

40.04 Fall 16 lks.S.of the standard cor.bet.secs.35 and 36, T.35 S., R 3 E. which is

A limestone 14 x 4 x 5 ins.above ground, firmly set, mkd.and witnessed as described by the surveyor general.

Therefore the true course of this line is N.89°46'E. 40.04 chs.

Thence I run

East on retracement from the standard cor.bet.secs. 35 and 36, on the Seventh Standard Parallel South.

Over broken adobe lands, covered with scattering scrub cedar timber.

40.00 Find no evidence of standard quarter sec.cor.

79.63 Fall 65 lks.south of the cor.of Tps.35 and 36 S., Rgs. 3 and 4 E., which is

A limestone 12 x 2 x 26 ins.above ground, firmly set and mkd.as described by the surveyor general.

Therefore the true course of this mile is N.89°32'E. 79.63 chs.

October 11: At this cor.I set off 7° 00'S.on the decl. arc; and at apparent noon, observed the sun on the meridian; the resulting lat.is 37° 44'N.

October 11, 1913.

Jas. E. Thoma

U.S.Surveyor.

Chains.

October 15, 1913: At 8h 46m a.m.l.m.t., I set off 37° 38'N.on the lat.arc; 8° 27'S.on the decl.arc; and de termine a meridian with the solar at the cor.of secs 1,2,35, and 36, on S.bdy.of Tp., heretofore describ

Thence I run

N.0° 01'W.bet.secs.35 and 36,

Over rough, mountainous land, covered with scattering pinon and cedar timber with scattering sagebrush un dergrowth.

2.00 Top of broken mesa, 25 ft.above cor., bears NE. and S

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

S $\frac{1}{4}$ 35 | S36
1913

No bearing trees available; raise a mound of stone, 2 ft.base, 1½ ft.high W.of cor .

80.00 Set an iron post 3 ft.long, 2 ins.in dian., 24 ins.in the ground, for the cor.of secs.25,26,35, and 36,wit brass cap marked

T36S | R3E
S26 | S25
S35 | S36
1913

Dig pits 18 x 18 x 12 ins.in each sec.5½ ft.dist.;ar raise a mound of earth 4 ft.base, 2 ft.high W.of cor

Land, mountainous.

Soil, stony and sandy with subsoil of clay.

Timber, scrub cedar and pinon. Scant grazing.

East on a random line bet.secs.25 and 36,

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

79.64 Intersect the E.bdy.of the Tp.10 lks.S.of the cor.of secs.25, 30, 31 and 36, heretofore described.

Thence I run

S.89°56'W.on true line bet.secs.25 and 36,

Over rough, broken mesa; through a scattering growth o scrub cedar and pinon timber, with a scattering grow of sagebrush,yellow top and grass.

Chains.

October15: At the cor. of secs. 25, 30, 31 and 36, T. 36 S., Rgs. 3 and 4 E., I set off 8° 30' S. on the decl. arc, and at a.p. noon, observe the sun on the meridian, the resulting lat. is 37° 39' N.

39.92 Set an iron post, 3 ft. long, 1 in. in diam.; 26 ins. in a mound of stone on solid rock, on the surface of which I mark thus X, for the ¼ sec. cor., with brass cap mkd.

S 25
¼
S 36
1913

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

No bearing trees available.

79.84 The cor. of secs. 25, 26, 35 and 36.

Land, mountainous.

Soil, stony and sandy with a subsoil of clay.

Timber, scrub cedar and pinon. Scant grazing.

Thence I run

N. 0° 01' W., bet. secs. 25 and 26.

Over rough broken mesa, covered with dense scrub cedar and pinon timber.

19.00 Leave broken mesa, bears E. and W., continue over broken rolling hills.

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

S 26¼ | S 25
1913

from which

A pinon, 12 ins. in diam., bears N. 40° E., 26 lks. dist.; mkd. ¼ S 25 BT.

A pinon, 10 ins. in diam., bears S. 80° W., 19 lks. dist.; mkd. ¼ S 26 BT.

80.00 Falls on a solid sandstone ledge, impossible to set cor.

80.55 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for W. C. to the cor. of secs. 23, 24, 25 and 26, with brass cap mkd.

T 36 S R 3 E
S 23 | S 24
0
S 26 | S 25
1913

Raise a mound of stone 3 ft. base, 2 ft. high, W. of co

No bearing trees available.

Land mountainous.

Soil, stony and sandy, with sandstone bed rock close to surface,

Timber, scattering scrub cedar and pinon, with undergro of sage brush. Grazing scant.

October 15, 1913.

October 16: At 7h 46m a. m., l. m. t., I set off 37° 40 N. on the lat. arc, 8° 47' S. on the decl. arc, and determine the meridian with the solar at point for co secs. 23, 24, 25 and 26.

Thence I run

N. 89° 56' E. on a random line bet. secs. 24 and 25.

49.00 Set temp. ¼ cor.

79.80 Intersect the east bdy. of the Twp. 12 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described

Thence I run

S. 89° 51' W., on true line bet. secs. 24 and 25.

Over rolling land, covered with scattering scrub cedar and pinion timber with an undergrowth of sage brush and yellow top grass.

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

S 24
¼
S 25
1913

from which

A pinon, 14 ins. diam., bears N. 80° E., 56 lks. dist.; mkd. ½ S 24 BT.

A pinon, 10 ins. in diam., bears S. 5° E. 15½ lks. dist.; mkd. ½ S 25 BT.

Chains.	
79.80	Point for cor. secs. 23, 24, 25 and 26.
	Land; rolling.
	Soil, sandy, with subsoil of clay.
	Timber, scattering scrub cedar and pinon with sage brush and yellow top grass. Scant grazing.

	Thence I run
	N. 0° 01' W., bet. secs. 23 and 24.
	Over rollong land and sand stone ledges; through scattering scrub cedar and pinon timber with an undergrowth of sage brush and yellow top grass.
.55	Witness cor. for cor. secs. 23, 24, 25, and 26.
5.75	Dry draw, drains NE.; 70 ft. below cor.; asc.
16.00	Spur of ridge, bears N. 70° E., 70 ft. above ravine.
17.50	Series of sandstone ledges bears N. 70° E. and S. 70° W.,
18.50	Foot of sandstone ledges, 50 ft. high.
20.50	Dry draw, 30 ft. wide, 10 ft. deep, drains E.
31.00	Series of perpendicular ledges 75 ft. high, bears E. & W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	S 23¼ | S 24
	1913
	from which
	A pinon, 6 ins. in diam., bears S. 54° E., 56 lks. dist.; mkd. ¼ S 24 BT.
	A pinon, 8 ins. in diam., bears S. 28° W., 75 lks. dist.; mkd. ¼ S 23 BT.
42.50	Rolling sandstone ledges, 30 ft. high, bears E. and W.
56.50	Leave scattering cedar and pinon timber bears E. and W., enter open rolling cpuntry.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 13, 14 23 and 24, with brass cap mkd.
	T36S, R 3 E S14 | S13 --- S23 | S24
	1913

Chains.	
	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 broken.
	Soil, sandy loam, with sand stone bed rock close to sur
	Timber, scattering scrub cedar and pinon, with undergro of sage brush and yellow top grass. Scant grazing.

	October 16, 1913: At the cor. of secs. 13, 14, 23 and 2 I set off 8° 52' S. on the decl. arc, and at app. noo observe the sun on the meridian, the resulting lat. i 37° 41' N.
	N. 89° 54' E. on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
79.84	Intersect the E. bdy. of the twp. 7 lks. N. of point for of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	S. 89° 54' W., on a true line bet. secs. 13 and 24.
4.05	Wash, 2 chs. wide, 15 ft. deep, drains S. 60° E., small quanity of alkali water seeping through the bottom.
18.84	Leave open country, enter scattering scrub cedar and pinon timber, bears E. and W.
39.92	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd.
	S 13 ¼ S 24 1913
	Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor. No bearing trees available.
79.84	The cor. of secs. 13, 14, 23 and 24.
	Land rolling.
	Soil, sandy loam with clay subsoil.
	Timber, scattering scrub cedar and pinon, with undergrow of scattering sage brush. Scant grazing.
	oooo---

Subdivision of T. 36 S., R. 3 E.

Chains.

N. 0° 01' W., bet. secs. 13 and 14.

Over rolling land through a medium undergrowth of sage brush yellow top and scattering grass.

18.10 Bottom of hollow, drains NE.

39.00 Enter scattering scrub cedar and pinon timber, bears E. & W.

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

S14 | S13
¼
1913

from which

A pinon, 6 ins. in diam., bears S. 64° 15' E., 37 lks. dist.; mkd. ¼ S13 BT.

A pinon, 8 ins. in diam., bears S. 71° 30' W., 138 lks. dist., mkd. ¼ S14 BT.

54.50 Dry draw, 60 lks. wide, 12 ft. deep, drains E.; asc.

73.00 Leave scattering cedar and pinon timber, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 11, 12, 13 and 14, with brass cap mkd.

T36S | R3E
S11 | S12

S14 | S13
1913

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.

Soil, sandy loam of medium texture with clay subsoil.

Timber, scattering scrub cedar and pinon. Scant grazing.

October 16, 1913.

In order to prevent delay in the work and to take advantage of the few camping sites in the township, it was necessary to project the following lines on Oct. 11; temp.cors. were set thereon at computed distances: South bet. secs. 3 & 4, 9 & 10, and East bet. secs. 10 & 15, 11 & 14 and 12 & 13. From the data furnished by subsequently connecting with these temp. cors. the true lines were fixed.

October 11, 1913: I run East from the temp. cor. (which subsequently was found to be 34 lks. N. and 42 lks. W. of the true cor. set Oct. 16) on a random line bet. secs. 12 and 13.

Chains.	
40.00	Set temp. ¼ sec. cor.
80.31	Intersect the E. bdy. of the twp. 25 lks. N. of the cor of secs. 7, 12, 13 and 18, previously described.
	October 17, 1913, I run
	S. 89° 56' W., on true line bet. secs. 12 and 13.
	Over rolling land covered with scattering cedar timber.
30.55	Cor. of wire fence, bears N. 7° 25' W.
37.14	Dry draw, 2 chs. wide, 20 ft. deep, drains N. 60° E.
39.94½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 12 ¼ / S 13 1913
	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 bearing trees available.
41.55	Same fence cor. bears N. 25° 20' E.
79.89	The cor. of secs. 11, 12, 13 and 14, previously describe
	Land, rolling.
	Soil, sandy loam of medium texture with dark clay subs
	Timber, very scattering scrub cedar, with undergrowth sage brush and yellow top. Scant grazing.
	October 17, 1913: At the above described cor. I set of 9° 14' S., on the decl. arc, and at app. noon, obser the sun on the meridian, the resulting lat. is 37° 4
	Thence I run
	N. 0° 01' W., bet. secs. 11 and 12.
	Over gently rolling land, through sage brush, yellow t and grass.
36.55	Dry draw, 8 lks. wide, 3 ft. deep, drains N. 60° E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd.

Chains	
	S11 | S12 ¼ 1913
	Dig pits, 18x18x12 ins.; N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
	From the ¼ sec. cor., the SW. cor. of a wire fence, bears S.83° 55'E.
40.70	Dim wagon road bears NW. and SE.
52.00	SW. cor. of same wire fence bears S.27° 20'E.
79.27	Wire fence bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 1,2,11 and 12, with brass cap marked
	T36S | R3E S2 | S1 S11 | S12 1913
	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.
	From the above described sec. cor., the SW. cor. of a wire fence bears S.84° 35'W.; Scott Barney's house bears N.38° 40'E.; Scott Barney's granary bears N.43° 00'E.; and the NW. cor. of fence of corral bears N.24° 15'E.
	Land, gently rolling.
	Soil, rich red sandy loam with a subsoil of clay.
	No timber.
	Sage brush, yellow top and grass undergrowth. Fair grazing.
	N.89° 56'E., on random line bet. secs. 1 and 12.
40.00	Set temp. ¼ cor.
80.03	Intersect the E. bdy. of the Twp., 4 lks. N. of the cor. of secs. 1,6,7 and 12, previously described.
	Thence I run
	S.89° 58'W. on a true line bet. secs. 1 and 12.
	Over rolling land, through sage brush, yellow top and grass.
22.45	Wire fence, bears N. and S.

Chains	
26.75	Left bank of wash, 6 ft. deep, bears S.35°E. and N.35°W
	running water in channel, which is 23 lks. wide and abou
	2 ins. deep. water strongly alkalied, drains SE.
37.00	Leave sandy bottom of wash; bank 6 ft. high, bears S.35
	and N.35°W.; enter cultivated field.
40.01½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i
	the ground for the ¼ cor.; with brass cap marked
	S1 / ¼ / S12 / 1913
	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.
58.30	Leave cultivated field, bears NW. and SE.; continue ove
	gently rolling land.
70.95	Wire fence, bears S.
80.03	The cor. of secs. 1,2,11 and 12.
	Note: From the ¼ cor. bet. secs. 1 and 12, the NE. cor.
	of a wire fence bears N.3° 15'W.; this same cor. bears
	N.64° 35'E. from the cor. of secs. 1,2,11 and 12.
	Land, gently rolling.
	Soil, red sandy loam, with subsoil of clay.
	No timber; sage brush, yellow top and grass undergrowth
	Grazing fair.

	October 17, 1913: At 2^h 46^m, p.m., l.m.t., I set off
	37° 43'N., on the lat. arc, 9° 16' S. on the decl. arc,
	and determine the meridian with the solar, at the cor.
	of secs. 1,2,11 and 12.
	Thence I run
	N.0° 01'W., on true line bet. secs. 1 and 2.
	Over gently rolling land, covered with scattering sage
	brush, yellow top and grass.
18.00	SW. cor. of wire fence bears S.30° 35'W.; Scott Barney'
	house bears S.62° 58'E.; Scott Barney's granary bears
	S.63° 00'E.; and NW. cor. of fence of corral brs. N.77°1

Chains.

30.60 Right bank of wash, 10 ft. deep, bears S. 35° E. and N. 35° W. running water in channel, which is 23 lks. wide and about 2 ins. deep. Water strongly alkalied, drains SE.

40.00 Falls in bottom of wash.

44.20 Left bank of wash, 10 ft. high, bears S. 35° E. and N. 35° W., continue over gently rolling land.

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

T36S
R3E
WC
¼
S 2 | S 1
1913

Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

60.68 Wire fence, bears N. 55° W. and S. 55° E.

60.75 Wagon road; bears N. 55° W. and S. 55° E.

65.00 Leave gently rolling land, enter rolling hilly land, bears NW. and SE.

79.43 Intersect the Seventh Standard Parallel South, 8.82 chs., S. 89° 46' W. of the standard cor. to secs. 35 and 36, T. 35 S., R. 3 E., previously described. At point of intersection

Set an iron post, 3ft. long, 2 ins. dia. 24 ins. in the ground for the C. C. to sec. 1 and 2, with brass cap mkd.

T35S | R3E
S35 | S36
C C
S 2 | S 1
1913

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

Land, rolling.

Soil, sandy loam.

No timber. Scant grazing.

October 17, 1913.

Chains.

Edward R Bamburg

U. S. Transitman.

Survey commenced October 10, 1913 and executed with Young & Sons light mountain transit No. 8477, with solar attachment. The horizontal limb is provided wi two double verniers placed opposite to each other, rea ing 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 meridia at Salt Lake City, Utah; found correct and was approv by the Assistand Supervisor of Surveys for Utah, June 14, 1913. I examine the adjustments of the transit a 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 the meridian determined by observations on Polaris, I proceed as follows:

At my camp in the SE. quarter of sec. 34, T. 35 S., R. E.; latitude 37° 44' N., longitude 111° 37' W., I set off 37° 44' N. on the lat. arc; 6° 34' S. on the decl arc, and at 9^h a. m., l. m. t., determine with the so a meridian and mark a point thereof, on a stake firml driven in the ground 5 chs. N. of my station.

At 3^h p. m., l. m. t., I set off 37° 44' N. on the lat. arc, 6° 40' S. on the decl. arc and determine the mer with the solar, which checks the meridian as determin with the a. m. solar.

At 6^h 17^m p. m., l. m. t., I observe Polaris at eastern elongation, in accordance with the Manual of Instruct and mark a point in the line thus determined on a sta driven in the ground 5 chs. N. of my station.

October 10, 1913.

Chains.

October 11, 1913: At 7^h30^m a. m., l. m. t., I lay off the azimuth of Polaris 1° 28' to the West, and the meridian thus determined coincides with the meridian determined by a. m. and p. m. solar observations.

October 11, 1913.

I proceed to the cor. of secs. 25, 26, 35 and 36, T. 36 S., R. 3 E., previously described.

October 15: At 9^h a. m., l. m. t., I set off 37° 39' N. on the lat. arc, 8° 27' S. on the decl. arc, and at the cor. of secs. 25, 26, 35 and 36, determine the meridian with the solar.

Thence I run

West, on true line bet. secs. 26 and 35.

Over broken rolling land, covered with cedar and pinon timber, with undergrowth of sage brush, yellow top and grass.

11.75 Start abrupt desc. over a series of rim rock. First rim 25 ft. high., bears N. and S.

18.25 Second rim, 30 ft. high, bears N. and S.

22.30 Lower rim , 30 ft. high, bears N. and S.

23.00 Centre of bottom of canon, 90 ft. below cor., drains N., asc.

23.80 West side of canon, bears N. and S., asc. over rim rock.

30.00 Top of rim, asc. gradually over rolling land covered with dead cedar and pinon timber.

40.00 Set an iron post, 3 ft. long, 1 ins. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. with brass cap mkd.

S 26
$\frac{1}{4}$
S 35
1913

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. No bearing trees available.

October 15; 1913: At this cor. I set off 8° 30' S. on the decl. arc, and at app. noon observe the sun on the meridian, the resulting lat. is 37° 39' N.

Chains.

42.60 Rim rock on edge of mesa, bears N. and S. 20 ft. high.,

45.10 Rim rock on edge of mesa, bears N. and S., 25 ft. high; continue over gently rolling mesa.

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

T 36 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. No bearing trees available.

Land rolling and broken.

Soil, sandy loam and stony with blue clay subsoil.

Timber, scrub cedar and pinon. Scant grazing.

Thence I run

S. 0° 01' E., on true line bet. secs. 34 and 35.

Desc. over rough broken land, covered with dense cedar and pinon timber.

1.73 Dry draw, drains N. 10° W., asc. over a series of ridges and ravines.

26.77 Impossible to extend this line further on account of perdicular ledges.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground on spur of ridge projecting E., for the W. to the ¼ cor., with brass cap mkd.

T36SR3E
S34 | S35
W | C
1913

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

Land broken.

Soil, sandy and rocky; 4th rate.

Timber, scrub cedar and pinon.; Scant grazing.

October 15, 1913.

Chains.	
	October 16, 1913: At 8^h 30^m a. m., l. m. t., I set off 8° 48' S. on the decl. arc, 37° 39' N. on the lat. arc and at the cor. of secs. 26, 27, 34 and 35, determine the meridian with the solar.
	Thence I run
	N. 0° 01' W., bet. secs. 26 and 27.
	Desc. over broken rolling land, covered with cedar and pinon timber.
8.00	Rim rock, 30 ft. high, bears NE. and SW.
19.00	Dry draw, 30 lks. wide, 200 ft. below cor., drains NE.; asc.
27.90	Foot of sandstone ledge, 20 ft. high, bears NE. and SW.
28.00	Top of sandstone ledge, continue over nearly level mesa covered with dense cedar and pinon timber.
34.55	Edge of mesa, sandstone ledge, 20 ft. high, bears NW. and SE.; desc. over sandstone ledges on NW. slope of mesa.
40.00	Set an iron post, on solid sandstone rock, on which I mk. a X , (post set in mound of stone) 3 ft. long, 1 in. in diam., for the ¼ sec. cor., with brass cap mkd. S 27 ½ | S 26 1913 from which A pinon, 10 ins. in diam., bears S. 45° E., 17 lks. dist., mkd. ¼ S 26 BT. A pinon, 12 ins. in diam., bears S. 35° W., 53 lks. dist., mkd. ¼ S 27 BT.
57.00	Dry draw, 20 lks. wide, 20 lks. deep drains NE.
71.40	South edge of a white sandstone canon 180 ft. deep, drains E.
74.40	North edge of canon, white sandstone ledge, 200 ft. high, bears E. and W., asc. gradually over rolling sandy land covered with dense cedar and pinon timber.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam. 24 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, with brass cap mkd. T 36 S | R 3 E S 22 | S 23 S 27 | S 26 1913

Chains.

from which

A pinon, 12 ins. in diam. bears N. 64° E., 92 lks. dist., mkd. T36S R3E S 23 BT.

A pinon, 10 ins. in diam. bears S. 8° 30' E. 140 lks. dist., mkd. T36S R3E S26 BT.

A pinon, 14 ins. in diam., bears S. 24° W., 134 lks. dist., mkd. T36S R3E S27 BT.

A cedar, 10 ins. in diam., bears N. 75° W., 103 lks. dist., mkd. T36S R3E S22 BT.

Land, broken and rolling.

Soil sandy and stony; 4th rate.

Timber, scrub cedar and pinon. Scant grazing.

October 16, 1913. At 1^h 46^m p. m., l. m. t., I set off 37° 40' N. on the lat. arc, 8° 54' S. on the decl. ar and at the cor. of secs. 22, 23, 26 and 27, determine the meridian with the solar.

East, on random line bet. secs. 23 and 26.

40.00 Set temp. ¼ sec. cor.

79.90 Intersect the N. and S. line 8 lks. S. of point for cor. s 23, 24, 25 and 26, [illegible]

Thence I run

S. 89° 57' W., on true line bet. secs. 23 and 26.

Over rolling land broken with rim rock and canons, thro dense cedar and pinon timber.

9.90 Dry draw, 40 lks. wide, 10 lks. deep, 50 ft. below cor. drains N. 10° E.; asc.

12.90 Top of asc. and east edge of canon with perpendicular w 60 ft. deep, drains N.

15.90 West wall of canon 60 ft. deep., continue over broken rolling land covered with dense cedar and pinon timbe

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

S 23
¼
S 26
1913

Dig pits, 18x18x12 ins. E. and W. of post. 3 ft. dist; raise

Chains.	
	mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
42.15	Perpendicular sand stone wall on E. side of canon 100 ft. deep, bears N. and S., canon drains N.
43.55	Perpendicular sandstone wall on W. side of canon, 100 ft. high, bears N. and S.
58.58	Perpendicular sandstone wall 100 ft. high bears NE. and SW., continue over sandy bottom of canon draining N. 70° E.
67.15	West edge of canon, a perpendicular white sandstone ledge 100 ft. high, bears N. 70° E. and S. 70° W., continue over rolling sandy land covered with dense cedar and pinon timber.
79.90	The cor. of secs. 22, 23, 26 and 27, previously described.
	Land, rolling and broken with canons.
	Soil, white fine sand; 4 th rate.
	Timber scrub cedar and pinon. No grazing.
	October 16, 1913.

October 17; 1913: At 8^h 16^m a. m., l. m. t., I set off 37° 40' N. on the lat. arc, 9° 10' S. on the decl. arc, and at the cor. of secs. 22, 23, 26 and 27, determine the meridian with the solar.

Thence I run

N. 0° 01' W., bet. secs. 22 and 23.

Over rolling sandy and stony land covered with dense cedar and pinon timber.

4.00	Leave dense cedar and pinon timber, bears E. and W., enter open sage brush flat.
20.00	Leave open sage brush flat, bears E. and W., enter scattering scrub cedar and pinon timber.
26.00	Head of dry draw, drains NE., continue asc.
33.00	Point of sandstone ledge projects E. from point of mesa 250 ft. above cor., desc. abruptly over a series of white sandstone ledges.
40.00	Point for cor. falls on steep slope of sandstone ledge.
38.20	Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground for the W. C. to the $\frac{1}{4}$ sec. cor., with brass

Chains

cap mkd.

S 22 | S 23
1/4
WC
1913

from which

A pinon, 10 ins. in diam., bears S. 62° E.,
23 lks. dist., mkd. 1/4 S 23 WC BT.

A pinon, 8 ins. in diam., bears S. 42° 30'
33 lks. dist., mkd. 1/4 S 22 WC BT.

41.00 A cave bears E. 1 ch. 50 ft. high, 100 ft. across the opening at the front and 60 ft. deep, cave faces NE.

70.00 Dry sandy draw, 1 ch. wide, 75 ft. below 1/4 cor., drains N. 20° E., asc. over broken land.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. the ground for the cor. of secs. 14, 15 22 and 23, with brass cap mkd.

T36S | R3E
S15 | S14
S22 | S23
1913

from which

A pinon, 8 ins. in diam., bears N. 59° E.,
57 lks. dist., mkd. T36S R3E S14 BT.

A pinon, 8 ins. in diam., bears S. 42° 30'
79 lks. dist., mkd. T36S R3E S23 BT.

A pinon, 12 ins. in diam., bears S. 13° W.,
97 lks. dist., mkd. T36S R3E S22 BT.

A cedar, 8 ins. in diam., bears N. 54° W.,
83 lks. dist., mkd. T36S R3E S15 BT.

Land rolling and broken with sandstone ledges.
Soil sandy with large areas of outcropping sandstone.
Timber, scrub cedar and pinon. Scant grazing.

N. 89° 57' E., on a random line bet. secs. 14 and 23.

40.00 Set temp. 1/2 sec. cor.

79.80 Intersect the N. and S. line 10 lks. N. of the cor. of secs. 13, 14, 23 and 24, previously described.

Thence I run

N. 89° 59' W. on true line bet. secs. 14 and 23.

Subdivision of T. 36 S., R. 3 E.

Chains.	
	Desc. gradually over gently rolling sage brush mesa.
39.90	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd..
	S 14 / ¼ / S 23 / 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.
	October 17; 1913: At this cor. I set off 9° 14' S. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 41' N.
67.80	Dry draw, 50 lks. wide, drains N. 15° E., thence E.; asc. gradually over broken S. slope of wash, covered with scattering scrub cedar and pinon timber.
79.80	The cor. of secs. 14, 15, 22 and 23, previously described.
	Land, gently rolling.
	Soil, sandy loam of medium texture with dark clay subsoil.
	Timber, scattering scrub cedar and pinon on the W. quarter; the remainder is open sage brush land with yellow top and grass affording good grazing.

	October 17, 1913: At 2^h 16^m p. m., l. m. t., I set off 37° 41' N. on the lat. arc, 9° 16' S. on the decl. arc, and determine the meridian with ths 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 broken S. slope of wash covered with scattering scrub cedar and pinon timber.
4.00	Leave scattering scrub cedar and pinon timber, bears N. 15° E. and S. 15° W., enter open mesa, covered with sage brush.
18.93	Line of fence posts (no wire) bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.
	S 15 ¼ | S 14 / 1913
	Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.,

Subdivision of T. 36 S., R. 3 E.

Chains.	
	and raise a mound of earth 3½ ft. base, 1½ ft. high, of cor.
65.00	Leave open sage brush mesa, enter grove of scattering pinon and cedar timber, 2 chs. wide, bears E. and W., start desc. into draw.
72.00	Dry draw, 30 lks. wide, 10 lks. deep, 40 ft. below top of mesa, drains N. 60° E.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. the ground for the cor. of secs. 10, 11, 14 and 15, wi brass cap mkd.

T36S R3E
S10 | S11
S15 | S14
1913

from which

A pinon, 12 ins. in diam., bears N. 24° E., 176 lks. dist., mkd. T36S R3E S11 BT.

A pinon, 14 ins. in diam., bears S. 68° E., 16 lks. dist., mkd. T36S R3E S14 BT.

A pinon, 12 ins. in diam., bears S. 31° W., 116 lks. dist., mkd. T36S R3E S15 BT.

A pinon, 14 ins. in diam., bears N. 56° W., 29 lks. dist., mkd. T36S R3E S10 BT.

Land gently rolling.

Soil, light sandy loam with clay subsoil.

Timber, an occasional scrub cedar and pinon. Sage brush yellow top and grass undergrowth. Good grazing.

October 17, 1913.

Jos. C. Thomas
U. S. Surveyor.

October 11, 1913: I run east from the temp. cor. (which subsequently was found to be 32 lks. N. and 64 lks. W. of the true cor. sec. Oct. 16) on a random line bet. secs. 12 and 13.

Chains.	
40.00	Set temp. ¼ sec. cor.
80.42	Intersect the N. and S. sec. line 34 lks. N. 6 f the cor. of secs. 11, 12, 13 and 14, previously described.

October 11, 1913.

October 18, 1913.

Thence I run

N. 89° 59' W., on true line bet. secs. 11 and 14.

Over gently rolling land, covered with scrub cedar and pinon timber, with undergrowth of sage brush, yellow top and grass.

38.30 Leave scattering timber, bears N. and S., enter dense timber.

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

S 11
¼
S 14
1913

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 bearing trees available.

Temp. ¼ sec. cor. set on Oct. 11 is 33 lks. N. and 53 lks. W. of true cor.

68.80 Dry draw, 15 lks. wide, 2 ft. deep, drains N. 60° E.

79.78 The cor. of secs. 10, 11, 14 and 15, previously described.

Land, gently rolling.

Soil, sandy loam of medium texture with subsoil of clay.

Timber, scattering scrub cedar and pinon with undergrowth of sage brush, yellow top and grass.

Edward R Bunbury

U. S. Transitman.

October 18, 1913: At 8^h 45^m a. m., l. m. t., I set off 37° 41' N. on the lat. arc, 9° 32' S. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Chains.	
	Thence I run
	N. 0° 01' W., bet. secs. 10 and 11.
	Asc. over gently rolling land covered with sage brush, yellow top andgrass.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd. S 10 ¼ | S 11 1913
	Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. the ground for the cor. of secs. 2, 3, 10 and 11, wit brass cap mkd. T36S R3E / S 3 | S 2 / S10 | S11 1913
	Dig pits, 18x18x12 ins., in each sec., 5½ ft. dist.; an raise a mound of earth, 4 ft. base, 2 ft. high, W. of
	Land, gently rolling.
	Soil, sandy loam of medium texture with dark clay subso
	No timber. Sage brush, yellow top and grass undergrowth
	Good grazing.

	S. 89° 59' E. on random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
79.74	Intersect the N. and S. sec. line, 2 lks. S. of the cor of secs. 1, 2, 11 and 12, previously described.
	Thence I run
	West, on true line bet. secs. 2 and 11.
	Over gently rolling land covered with sage brush, yellow and grass.
11.00	Wire fence, bears N. and S.
29.24	Old road bears N. and S., general direction NW. and SE.
33.25	Fence posts with no wire bear N. and S.

Chains.	
39.87	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 2 ¼ / S 11 1913
	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.
79.74	The cor. of secs. 2, 3, 10 and 11, previously described.
	Land gently rolling.
	Soil, sandy loam of medium texture with subsoil of dark clay.
	No. timber. Undergrowth of sage brush, yellow top and grass.
	Good grazing.

	October 18, 1913: At 2h 15m p. m., l. m. t., I set off lat. arc 37° 42' N. on a 9° 37' S. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 2, 3, 10 and 11.
	Thence I run
	N. 0° 01' W. on true line bet. secs. 2 and 3.
	Desc. over gently rolling land, covered with sage brush yellow top andgrass.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 3 ¼ | S 2 / 1913
	Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
53.25	Dry draw, 25 lks. wide, 10 lks. deep, drains N. 40° E., asc.
57.74	Fence posts with no wire, bear E. and W.
58.58	Dim road, bears E. and W.
58.64	Wire fence, bears E. and W., leave rolling land covered with sage brush, enter cultivated field.
60.60	Leave cultivated land, bears E. and W., continue in uncultivated field.

Chains.	
62.80	Corral on line; Chas. Haycock's house bears east 2 chs dist.
64.50	Wagon road, bears NW. and SE.
65.10	Irrigation ditch, course E., 3 lks. wide, 2 lks. deep.
69.00	Enter cultivated land, bears NW. and SE.
78.61	Intersect the Seventh Standard Parallel South, 8.78 ch S. 89° 38' W. of the std. cor. to secs. 34 and 35, previously described. At point of intersection I

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the C. C. for secs. 2 and 3, with brass cap mkd.

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          T36S | R3E
           S34 | S35
      C°C
    S3 | S2
        1913
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Dig pits, 24x18x12 ins., crosswise on each line, E. and 3 ft., and S. of post 7 ft. dist., and raise a mound earth, 4 ft. base, 2 ft. high, S. of cor.

Land, gently rolling.

Soil, sandy loam of medium texture, with subsoil of dar clay.

No timber. Sage brush, yellow top and grass undergrowth alfalfa and corn was grown on the cultivated land of Chas. Haycock.

October 17, 1913.

Jos. P. Thomas

U. S. Surveyor.

October 18, 1913. At 8^h45^m a. m., l. m. t., I set off 37° 39' N. on the lat. arc, 9° 32' S. on the decl. ar and determine the meridian with the solar, at the cor secs. 26, 27, 34 and 35, previously described.

Thence I run

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

Desc. over broken mesa covered with scattering scrub ce

pinon timber, with sage brush undergrowth.

2.30 Ravine drains N., 55 ft. below cor.; asc.

4.50 Top of broken mesa, bears N. and S., 45 ft. above ravine.

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

S 27
¼
S 34
1913

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

No bearing trees available.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor., of secs. 27, 28, 33 and 34, with brass cap mkd.

T36S R3E	
S28	S27
S33	S34

1913

from which

A pinon, 16 ins. in diam., bears N. 30° E., 51 lks. dist., mkd. T36S R3E S27 BT.

A cedar, 8 ins. in diam., bears N. 60° W., 55 lks. dist., mkd. T36S R3E S28 BT.

A cedar, 8 ins. in diam., bears S. 45° W., 27 lks. dist., mkd. T36S R3E S33 BT.

A pinon, 6 ins. in diam., bears S. 50° E., 37 lks. dist., mkd. T36S R3E S34 BT.

Land, rolling and broken.

Soil, sandy and stony; 4th rate.

Timber, scrub cedar and pinon. Scant grazing.

Note: South, 10 chs. from the above cor. is the foot of a series of perpendicular ledges 1000 ft. high.

October 18: I set off 9° 36' S. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 39' N., at th cor. of secs. 27, 28, 33 and 24.

Thence I run

N. 0° 02' W., bet. secs. 27 and 28.

Chains.	
	Over rough broken mesa land, covered with dense scrub c and pinon timber, with [illegible] growth.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. i the ground on solid sandstone bed rock, with mound of stone around post, for the ¼ sec. cor., with brass cap mkd.
	S 28 ¼ | S 27
	1913
	from which
	A pinon, 16 ins. in diam., bears S. 60° E., 23 lks. dist., mkd. ¼ S 27 BT.
	A cedar, 8 ins. in diam., bears N. 25° W., 41½ lks. dist., mkd. ¼ S28 BT.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. the ground for the cor. of secs. 21, 22, 27 and 28, wi brass cap mkd.
	T36S | R3E S21 | S22 S28 | S27 1913
	from which
	A cedar, 16 ins. in diam., bears N. 35° E., 18 lks. dist., mkd. T36S R3E S22 BT.
	A cedar, 8 ins. in diam., bears N. 25° 40' 36 lks. dist., mkd. T36S R3E S21 BT.
	A pinon, 8 ins. in diam., bears S. 25° 20' 10 lks. dist., mkd. T36S R3E S28 BT.
	A pinon, 9 ins. in diam., bears S. 73° 10' 44 lks. dist., mkd. T36S R3E S27 BT.
	Land, rolling and broken.
	Soil, sandy loam, medium twxture, with sandstone bed roc near surface.
	Timber, scrub cedar and pinon, with no undergrowth. No grazing.
	October 18, 1913.

October 20, 1913: At $7^h\ 45^m$ a. m., l. m. t., I set off 37° 40' N. on the lat. arc, 10° 14' S. on the decl. arc, and determine the meridian with the solar, at the cor. of secs. 21, 22, 27 and 28.

East, on random line bet. secs. 22 and 27.

40.00 Set temp. ¼ sec. cor.

79.85 Intersect the N. and S. sec. line 14 lks. N. of the cor. of secs. 22, 23, 26 and 27, previously described.

Thence I run

N. 89° 54' W. on true line bet. secs. 22 and 27.

Over broken rolling land covered with scattering scrub cedar and pinon timber.

39.92½ Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground on solid sandstone bed rock, in mound of stone, for the ¼ sec. cor., with brass cap mkd.

$$\frac{S22\ \frac{1}{4}}{S27\ 1913}$$

from which

A pinon, 12ins. in diam., bears N. 59° 30' E., 13 lks. dist., mkd. ¼ S22 BT.

A pinon, 27 ins. in diam., bears S. 19° W., 12 lks. dist., mkd. ¼ S27 BT.

79.85 The cor. of secs. 21, 22, 27 and 28, previously described.

Land, rolling and broken.

Soil, sandy loam, medium texture, with sandstone bed rock close to surface.

Timber, scrub cedar and pinon. Scant grazing.

Thence I run

N. 0° 02' W., bet. secs. 21 and 22.

Over rough broken land, covered with dense cedar and pinon timber, with scattering sage brush undegrowth.

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

Chains.

S 21 | S 22
1/4
1913

from which

A cedar, 14 ins. in diam., bears N. 42° 35'
41 lks. dist., mkd. 1/4 S22 BT.

A pinon, 21 ins. in diam., bears N. 67° 50'
35 lks. dist., mkd. 1/4 S21 BT.

43.00 Leave rough broken country, bears E. and W., enter gent
rolling open land, covered with sage brush, yellow to
and grass.

80.00 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. i
the ground for the cor. of secs. 15, 16, 21 and 22,
with brass cap mkd.

T36S R3E
S16 | S15
S21 | S22
1913

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, rough, broken and rolling.

Soil, sandy loam with sand stone bed rock close to surfa
in the S. and dark clay sub soil in the N.

Timber scrub cedar and pinon. Good grazing in N. half.

October 20, 1913: At 2h 15m p. m., l. m. t., I set off
37° 41' N. on the lat. arc, 10° 21' S. on the decl.
arc, and determine the meridian with the solar at the
cor of secs. 15, 16, 21 and 22.

S. 89° 54' E. on random line bet. secs. 15 and 22.

40.00 Set temp. 1/4 sec. cor.

79.82 Intersect the N. and S. sec. line 5 lks. N. of the cor.
of secs. 14, 15, 22 and 23, previously described.

Thence I run

N. 89° 52' W., on true line bet. secs. 15 and 22.

Over open rolling land, covered with sage brush, yellow
top and grass.

Chains.	
39.91	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 15 / ¼ / S 22 / 1913.
	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.
79.82	The cor. of secs. 15, 16, 21 and 22, previously described.
	Land, gently rolling.
	Soil, red sandy loam with dark clay subsoil.
	No timber, sage brush, yellow top and grass undergrowth.
	Good grazing. October 20, 1913.
	October 22, 1913: At 7h 45m a. m., l. m. t., I set off 37° 41' N. on the lat. arc, 10° 57' S. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	N. 0° 02' W., bet. secs. 15 and 16.
	Over gently rolling land covered with sage brush, yellow top and grass.
28.50	Leave open rolling land, enter very scattering scrub cedar and pinon timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd. S 16 / ¼ / 1913 | S 15.
	Dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
61.75	Dry wash, 10 lks. wide, 6 ft. deep, drains E.; asc. gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 9, 10, 15 and 16, with brass cap mkd. T36S R3E / S 9 | S10 / S16 | S15 / 1913.
	from which
	A cedar, 8 ins. in diam., bears N. 71° 40' E., 154 lks. dist., mkd. T36S R3E S10 BT.
	A cedar, 6 ins. in diam., bears N. 76° 30' W.,

Chains	
	243 lks. dist., mkd. T36S R3E S9 BT.
	A pinon, 10 ins. in diam., bears N. 60° 55' W
	228 lks. dist., mkd. T36S R3E S16 BT.
	A pinon, 10 ins. in diam., bears S. 48° 10' E
	93 lks. dist., mkd. T36S R3E S15 BT.
	Land, rolling.
	Soil, red sandy loam of medium texture with subsoil of c
	Timber, very scattering scrub cedar and pinon, with sage brush, yellow top and grass undergrowth. Fair grazing.
	October 11, 1913: I run East from the temp. cor. (which subsequently was found to be 9 lks. N. and 69 lks. W. of true cor. set Oct. 22) on a random line bet. secs. 10 &
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.64	Intersect the N. and S. sec. line, 32 lks. N. of the cor of secs. 10, 11, 14 and 15, previously described.
	October 11, 1913.
	October 22, 1913, I run
	N. 89° 50' W. on true line bet. secs. 10 and 15.
	Over rolling land covered with very scattering scrub ced and pinon timber, with sage brush, yellow top and gras undergrowth.
39.97½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. with brass cap mkd.
	S 10 / $\frac{1}{4}$ / S 15 / 1913
	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 bearing trees available.
	Temp. cor. is 20½ lks. N. and 66½ lks. W. of the true cor.

Chains.	
79.95	The cor. of secs. 9, 10, 15 and 16, previously described.
	Land, gently rolling.
	Soil, red sandy loam, with dark clay subsoil.
	Timber, very scattering scrub cedar and pinon, with undergrowth of sage brush, yellow top and grass. Fair grazing.

	October 22, 1913: At the above described cor. I set off 11° 02' S. on the decl. arc, and at app. noon, observe the sun on the meridian; the resulting lat. is 37° 41' N.
	Thence I run
	N. 0° 02' W., bet. secs. 9 and 10.
	Over gently rolling land covered with scattering scrub cedar and pinon timber, with sage brush, yellow top and grass.
3.00	Leave scattering scrub cedar and pinon timber, bears E. and W., continue over rolling open sage brush land.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. with brass cap mkd.
	S 9 ¼ | S 10 1913
	Dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
74.00	Leave open sage brush flat, bears E. and W., enter scattering scrub cedar and pinon timber. Dry draw, 6 ft. wide, 2½ ft. deep, drains NE.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, with brass cap mkd.
	T 36 S | R 3 E S 4 | S 3 --- S 9 | S 10 1913
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling.
	Soil, red sandy loam with dark clay subsoil.

Chains	
	Timber, scattering scrub cedar and pinon. Fair grazing.

	October 22, 1913: At 2^h 15^m, p. m., l. m. t., I set on 37° 42' N. on the lat. arc, 11° 04' S. on the decl. a and determine the meridian with the solar, at the cor of secs. 3, 4, 9 and 10.
	S. 89° 50' E., on random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.84	Fall 16 lks. S. of the cor. of secs. 2, 3, 10 and 11, previously described.
	Thence I run
	N. 89° 57' W., on true line bet. secs. 3 and 10.
	Over rolling land covered with sage brush, yellow top and grass.
39.92	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd, S 3 / ¼ / S10 / 1913
	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.
61.85	Leave open sage brush land, bears NE. and SW., enter scattering scrub cedar and pinon timber.
71.35	Dry draw, 6 ft. wide, 2½ ft. deep, drains NE.; asc.
79.84	The cor. of secs. 3, 4, 9, and 10, previously described.
	Land, gently rolling.
	Soil, red sandy loam, with dark clay subsoil.
	Timber, scattering scrub cedar and pinon, with under-growth of sage brush, yellow top and grass. Fair grazing.

	Thence I run
	N. 0° 02' W., on true line bet. secs, 3 and 4.
	Over rolling land covered with scattering scrub cedar and pinon timber, with undergrowth of yellow top, greasewood and grass.

Chains.	
28.40	Dry draw, 6 ft. wide, 2½ ft. deep, drains N. 60° E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 4 | ¼ | S 3

1913

from which

A pinon, 12 ins. in diam., bears S. 68° 50' E., 178 lks. dist., mkd. ¼ S 3 BT.

A cedar, 6 ins. in diam., bears N. 67° 25' W., 65 lks. dist., mkd. ¼ S 4 BT.

45.50	Leave scattering scrub cedar timber, bears NW. and E., enter open sage brush land.
78.02	Intersect the Seventh Standard Parallel South, S. 89° 32' W., 17.39 chs. of the std. cor. of secs. 33 and 34, previously described. At point of intersection I

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the C. C. for secs. 3 and 4, with brass cap mkd.

T35S | R3E
S33 | S34

C.C.
S 4 | S 3

1913

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

Land, rolling.

Soil, red sandy loam, medium texture, with dark clay subsoil.

Timber, scattering scrub cedar and pinon, with sage brush, yellow top and grass undergrowth.

October 22, 1913.

Edward R. Bumbury

U. S. Transitman.

Chains.

October 22, 1913. At 7^h 45^m a. m., l. m. t., I set off 37° 39' N. on the lat. arc, 10° 57' S. on the decl. a and determine the meridian with the solar, at the cor of secs. 27, 28, 33 and 34, previously described.

Thence I run

West, on true line bet. secs. 28 and 33.

Asc. over rough mountainous land, covered with dense scrub cedar and pinon timber.

2.00 Top of ridge, 50 ft. above cor., bears N. and S. contin over level top.

4.00 W. edge of level top ridge, bears N. and S.; desc.

8.00 Dry draw, 1 ch. wide, 2 ft. deep, 50 ft. below top of ridge, drains N.; asc.

11.25 Start abrupt broken asc. along NE. slope.

28.00 Sand stone rim rock, 20 ft. high, bears NW. and SE.

30.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground and mound of stone, for the W. C. to the ¼ sec. cor., with brass cap mkd.

S 28
¼
W C
S 33
1913

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

Impossible to project this line further west onaccount o a series of perpendicular sand stone ledges 1000 ft. high.

Land, mountainous and broken.

Soil, adobe and stony. 4th rate.

Timber, scrub cedar and pinon. No grazing.

October 22, 1913: At 9^h 15^m a. m., l. m. t., I set off 37° 40' N. on the lat. arc, 10° 59' S. on the decl. arc and determine the meridian with the solar, at the cor. of secs. 21, 22, 27 and 28, previously described.

Thence I run

West, on true line bet. secs. 21 and 28.

Asc. over rough, broken mountainous land covered with

Chains.	
	dense scrub cedar and pinon timber.
6.70	Ridge, 60 ft. above cor.; bears N. and S.; desc.
14.00	Dry draw; drains NE.; asc.
19.85	White sand stone ledge, 11 ft. high, bears NW. and SE., continue asc. over rough broken land.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 21
¼
S 28
1913

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

No bearing trees available.

Impossible to project this line farther west on account of a series of perpendicular ledges, 1000 ft. high.

Land, mountainous and broken.

Soil, adobe and stony; 4th rate.

Timber, scrub cedar and pinon. No grazing.

October 22, 1913: At 1h 45m p. m., l. m. t., I set off 37° 41' N. on the lat. arc, 11° 04' S. on the decl. arc, and at the cor. of secs. 15, 16, 21 and 22, determine the meridian with the solar.

Thence I run

West, on true line bet. secs. 16 and 21.

Over rolling land broken with sand stone ledges, and through sagebrush undergrowth.

21.50	Enter dense cedar and pinon timber, bears N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 16
¼
S 21
1913

from which

A pinon, 11 ins. in diam., bears N. 58° W., 36 lks. dist., mkd. ¼ S16 BT.

A pinon, 10 ins. in diam., bears S. 54° W., 79 lks. dist., mkd. ¼ S 21 BT.

Chains.	
40.25	Perpendicular sandstone ledges, 40 ft. high, bears N. a S.; desc. gradually over rolling broken land.
56.17	Perpendicular lime stone ledges, bear N. and S.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. the ground for the cor. of secs. 16, 17, 20 and 21, with brass cap mkd.

T36S R3E
S17 | S16
S20 | S21
1913

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. No bearing trees available.

Land, rolling and broken.

Soil, sandy loam and stony, with dark clay subsoil; 3rd and 4th rates.

Timber, scrub cedar and pinon, with sage brush undergrow Scant grazing.

Thence I run

N. 0° 03' W., bet. secs. 16 and 17.

Desc. over rolling broken land, covered with dense scrub cedar and pinon timber.

6.00	Dry draw, 5 lks. wide, 4 lks. deep, drains E.; asc.
8.00	Spur of ridge, 40 ft. high, projects E.; desc.
10.50	Dry draw, 30 lks. wide, 20 ft. deep, drains E.; asc. ove a series of small ridges and ravines.
17.50	Dry draw, 30 lks. wide, 20 ft. deep, drains E.; asc.
21.00	Top of spur of ridge, 50 ft. high, projects E.; desc.
34.00	Dry draw, 50 lks. wide, 25 ft. deep, drains NE.; asc.
35.00	Low ridge, bears E. and W.; desc.
37.50	Dry draw, 50 lks. wide, 25 ft. deep, drains E.; asc.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap mkd.

S 17 | S 16
¼
1913

from which

A pinon, 8 ins. in diam., bears S 64° E.,

Chains.

44 lks. dist., mkd. ¼ S16 BT.

A pinon, 10 ins. in diam., bears N. 64° W.,

35 lks. dist., mkd. ¼ S17 BT.

57.00 Dry draw, 20 lks. wide, 4 ft. deep, drains E.; asc.

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

68.00 Top of abrupt asc., 40 ft. high, bears E. and W., continue over gently rolling land.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

T36S R3E	
S 8	S 9
S17	S16

1913

from which

A cedar, 12 ins. in diam., bears N. 47° E.,

45 lks. dist., mkd. T36S R3E S9 BT.

A cedar, 12 ins. in diam., bears S. 80° E.,

67 lks. dist., mkd. T36S R3E S16 BT.

A cedar, 8 ins. in diam., bears S. 39° W.,

107 lks. dist., mkd. T36S R3E S17 BT.

A pinon, 8 ins. in diam., bears N. 16° W.,

44 lks. dist., mkd. T36S R3E S 8 BT.

Land, rolling and broken.

Soil, sandy loam and stony; 4th rate.

Timber, scrub cedar and p inon. Scant grazing.

October 22, 1913.

October 23, 1913: At $8^h\ 45^m$ a. m., l. m. t. I set off 37° 41' N. on the lat. arc, 11° 20' S. on the decl. arc, and determine the meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

East, on random line bet. secs. 9 and 16.

40.00 Set temp. ¼ sec. cor.

79.87 Intersect the N. and S. sec. line 5 lks. N. of the cor. of secs. 9, 10, 15 and 16, previously described.

Thence I run

Chains.	
	N. 89° 58' W., on true line bet. secs. 9 and 16.
	Asc. over rolling land covered with scattering scrub ce and pinon timber.
10.80	Leave scattering scrub cedar timber, bears N. and S., o open, rolling sage brush flat.
35.26	Dim wagon road, bears N. and S.
39.93½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. i the ground for the ¼ sec. cor., with brass cap mkd. S 9 / ¼ / S16 / 1913
	Dig pits, 18x18x12 ins. E. and W. of cor., 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
50.80	Leave open sage brush flat, bears N and S., enter scru cedar and pinon timber.
57.80	Dry draw, 5 lks. wide, 15 ft. deep, drains SE. asc.
62.70	Asc. over sandstone rim rock, 30 ft. high, bears N. and
69.30	Desc. over sandstone rim rock, 20 ft. high, bears N. an
79.87	The cor. of secs. 8, 9, 16 and 17, previously described
	Land rolling and broken.
	Soil, red sandy loam, with dark clay subsoil in E. ½; rocky in the W. ½; 2nd and 4th rates.
	Timber, scattering scrub cedar and pinon. Scant grazing.

	Thence I run
	N. 0° 03' W., bet. secs. 8 and 9.
	Asc. gradually over rolling sandy land, covered with sca tering scrub cedar and pinon timber.
7.75	Dry draw, 30 lks. wide, 25 ft. deep, drains NE.
15.00	Dry draw, 20 lks. wide, 40 ft. deep, drains N. 40° E.
20.60	Dry draw, 20 lks. wide, 15 ft. deep, drains E.; asc.
24.75	Top of ridge, 50 ft. above draw, bears E. and W.; contin over broken rolling land draining E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in

Chains.

the ground for the ¼ sec. cor., with brass cap, mkd.

S 8 | S 9
¼ |
1913

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

October 23, 1913: At this cor. I set off 11° 23' S. on the decl. arc, and at app. noon, observe the sun on the meridian, the resulting lat. is 37° 42' N.

64.50 Dry draw, 20 lks. wide, 5 ft. deep, drains SE.

72.00 Head of gulch, 50 ft. deep, drains SE.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the cor. of secs. 4, 5, 8 and 9, with brass cap mkd.

T36S R3E
S 5 | S 4
S 8 | S 9
1913

from which

A cedar, 12 ins. in diam., bears N. 19° E., 52 lks. dist., mkd. T36S R3E S4 BT.

A cedar, 12 ins. in diam., bears S. 37° E., 72 lks. dist., mkd. T36S R3E S9 BT.

A pinon, 10 ins. in diam., bears S. 28° W., 91 lks. dist., mkd. T36S R3E S8 BT.

A cedar, 12 ins. in diam., bears N. 32° W., 74 lks. dist., mkd. T36S R3E S5 BT.

Land, rolling and broken.

Soil, sandy and stony; 4th rate.

Timber, scrub cedar and pinon. Scant grazing.

S. 89° 58' E., on random line bet. secs. 4 and 9.

40.00 Set temp. ¼ sec. cor.

79.98 Intersect the N. and S. sec. line 21 lks. S. of the cor. of secs. 3, 4, 9 and 10, previously described.

Thence I run

S. 89° 53' W., on true line bet. secs. 4 and 9.

Chains.

Asc. gradually over gently rolling open sage brush land

37.15 Dim wagon road, bears NW. and SE.

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

S 4
¼
S 9
1913

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.

58.00 Leave open sage brush land, bears N. and S.; enter dense scrub cedar and pinon timber.

64.50 Abrupt asc., 40 ft. high, bears N. and S.

79.98 The cor. of secs. 4, 5, 8 and 9, previously described.

Land gently rolling in the eastern portion and rough and broken in the western.

Soil, sandy loam, with dark clay subsoil.

Timber scrub cedar and pinon, with undergrowth of sage brush, yellow top and grass. Fair grazing.

Thence I run

N. 0° 03' W., bet. secs. 4 and 5, on true line

Asc. over rolling land covered with dense scrub cedar and pinon timber.

20.10 Start abrupt asc. on N. and S. slope.

28.00 Dry draw, 10 lks. wide, 6 ft. deep, drains NE.

30.00 Spur of ridge, projects E.; continue asc.

34.50 Top of asc., bears NW. and SE.; desc. over broken NE. s

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

S 5 | S 4
½ |
1913

from which

A pinon, 10 ins. in diam., bears S. 67° W., 7 lks. dist., mkd. ¼ S5 BT.

Subdivision of T. 36 S., R. 3 E.

Chains.

A pinon. 8 ins. in diam., bears N. 53° E., 15 lks. dist., mkd. ½ S4 BT.

49.60 Dry draw, 10 lks. wide, 5 ft. deep, drains E.; asc.

58.20 Top of asc., bears E. and W., continue over gently rolling land.

77.89 Intersect the Seventh Standard Parallel South, 17.33 chs., N. 89° 57' W., of the std. cor. of secs. 32 and 33, previously described. At point of intersection I set An iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the closing cor. of secs. 4 and 5; with brass cap mkd.

T35S | R3E
S32 | S33
S 5 | S 4

1913

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

Land, rolling.

Soil, sandy loam of medium texture, with dark clay subsoil; 2nd and 3rd rates.

Timber, scrub cedar and pinon, with undergrowth of sage brush, yellow top and grass. Fair grazing.

October 23, 1913.

Jos. C. Thomas

U. S. Surveyor.

GENERAL DESCRIPTION.

The soil in the southern and south western surveyed portion of this township is mostly sandy with a subsoil of clay and adobe. On the steep ridges the sand has washed off, exposing nothing but clay and rock. This portion of the township is very broken with ridges and sandstone ledges, while most of the drainage is through canons with perpendicular sandstone walls ranging from 10 to 100 ft. deep, draining to the east or north east.

Scrub cedar and pinon timber abound, which is of no commercial value other than for fence posts or fire wood

The northern and north eastern portion is gently rolling land with a sandy loam soil which has a dark cl subsoil, well adapted to farming. There is little or n water for irrigating. The large wash running SE. throug Secs. 1, 2 and 12, supplies a limited amount of strong alkali water which seeps through the soil from ranches above, when irrigating. This water only runs during th irrigating season, or during the spring floods, and is only fit for irrigation purposes or watering the stock. Water for culinary purposes is hauled from Escalante, a town of about 500 inhabitants, situated in Sec. 2, T. 35 S., R. 3 E.

Two settlers are located in this township, viz: Scot Barney, in Sec. 1 and Chas. Haycock, who is located in Secs. 2 and 3. Mr. Barney has a log cabin, granary and corrals with considerable wire fence, which value is approximately $1000. Mr. Haycock has a frame house and corral with about 1½ miles of wire fence, which value is approximately $1000. Both men irrigate a small area of land with the water taken from the large wash above referred to.

Grazing as a whole is scarce, however, a large number of sheep graze over the land during the autumn months, while enroute to their winter range farther south.

Skirting the western border of the surveyed portion of this township, is a series of perpendicular ledges reaching a height of 1000 feet above the surveyed portio Those ledges are impassable, and cannot be ascended within a distance of twenty miles. The land embraced therein is rough and mountainous and covered with a dens growth of scrub cedar and pinon timber. The land is of little or no value for grazing or any other purpose.

There appears to be no known valuable mineral or oil

Subdivision of T. 36 S., R. 3 E.

in the township.

Jos. C. Sloan

U. S. Surveyor.

Edward R. Bunbury

U. S. Transitman.

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Page

4—GSO

BOOK A-411

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 see book "G" T.37 S., R.4 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.

.....

U. S. Surveyor.

6—2764

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 U.S.Surveyor and U.S.Transitman see book "G" T.
37 S., R. 4 E.

..... of the .....
..... Meridian, in the State of ....., which are represent
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. Surv
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, June 30, 191

The foregoing field notes of the~~xxxxxxx~~ retracement of the Seventh Standard
Parallel South, through Range 3 East; and the survey of the subdi
visional lines of Township No. 36 South, Range No. 3 East of the
Salt Lake Base and Meridian, Utah,
.....
.....
.....

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

.....
U. S. Surveyor Genera

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 offic

.....
U. S. Surveyor Genera

6—2701

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Page

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Page

FY.

Filed April 16, 1914.

4—679

BOOK A-411

F.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

AND

RETRACEMENT OF THE SEVENTH STANDARD PARALLEL SOUTH,

TOWNSHIP 36 SOUTH, RANGE 4 EAST,

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

JOS. C. THOMA AND ED. R. BUNBURY

the capacities of U. S. Surveyor and Transitman, *under instructions dated* June 11, *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*

ice, June 26, *1913, pursuant to authority contained in the Act of*

ngress dated , *191*

Survey commenced October 24, *1913.*

Survey completed November 18, *1913.*

6—151

BOOK A-411

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Township ..... Range .....

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

6—151

Chains

Survey commenced October 24, 1913 and executed with a Young and Sons light mountain transit No.8477,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 14, 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. 16, T.36 S.,R.4 E.; latitude 37° 41'N., longitude 111° 31'W.; I set off 37° 41'N., on the lat. arc; 11° 46'S., on the decl. arc; and at 3^h 44^m 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 5^h 17^m p.m. l.m.t., I observe Polaris at western 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.

October 24, 1913.

October 25, 1913: At 6^h 35^m a.m.l.m.t., I lay off the azimuth of Polaris 1 28' to the east and mark the meridian thus determined by a cross on the stake set October 24, on which the meridian falls 0.4 ins. east of the mark determined by the solar. At 6^h 44^m a.m.l.m.t., I set off 37° 41'N., on the lat. arc; 11° 55'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 0.4 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, de-

Chains

fines positions for meridians, respectively about 0 21' west and o 21' east of the meridian established by the Polaris obsevation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7^h 00^m a.m. is N.16° 05'W.; the angle thus determined gives the magnetic decl. 16° 05'E. A five ch. tape and clinometer were used on all measurements of this work.

October 25, 1913.

October 28, 1913: At 8^h 44^m a.m. l.m.t., I set off 37 38'N., on the lat. arc; 13° 03'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1,2,35 and 36, heretofore described.

Thence I run N.0° 01'W., bet. secs. 35 and 36.

Over rolling land, through scattering growth of cedars and pinion pine and scattering undergrowth of sage brush, yellow-top and grass.

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

S35¼ | S36

1913

from which

A cedar, 12 ins. dia., bears S.58°E., 1.31 chs. dist., marked ¼ S 36 B T.

A cedar, 10 ins. dia., bears S.17°W., 1.38 chs. dist., marked ¼ S 35 B T.

52.00 Dry wash, 25 lks. wide, 5 ft. deep, drs.NW.

67.00 Same dry wash, drs. NE.

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

T36S | R4E

S26 | S25

S35 | S36

1913

from which

A cedar, 12 ins. dia., bears N.39°E., 89 lks. dist., marked T 36 S R 4 E S 25 B T.

Chains	
	A cedar, 12 ins. dia., bears S.77°E., 64 lks. dist., marked T 36 S R 4 E S 36 B T.
	A cedar, 12 ins. dia., bears S.39°W., 1.11 chs. dist., marked T 36 S R 4 E S 35 B T.
	A cedar, 24 ins. dia., bears N.37°W., 9 lks. dist., marked T 36 S R 4 E S 26 B T.
	Land, rolling; soil, sandy loam of medium texture on a subsoil composed of gravel and dry stiff clay; timber, scattering growth of cedars and pinion pine; scattering undergrowth of sage brush, yellow-top and grass.
	East on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ cor.
80.08	Intersect E. bdy. of the Tp., 14 lks. S. of the cor. of secs. 25,30,31 and 36, heretofore described.
	Thence I run
	S.89° 54'W., on a true line bet. secs. 25 and 36.
	Over rolling hills, through scattering growth of cedars and pinion pine and scattering undergrowth of sage brush, yellow top and grass.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins in the ground for ¼ sec. cor., with brass cap marked S25 ¼ S36 1913 ffom which
	A pinion pine, 12 ins. dia., bears S.12° E., 53 lks. dist.; marked ¼ S 36 B T.
	A pinion pine, 8 ins. dia., bears N.27°W., 97 lks. dist., marked ¼ S 25 B T.
59.50	Descend gently, brs. N. and S.
60.10	Bottom of small ravine, drs. N.
	Ascend gently.
69.60	Top of ascent, brs. N. and S.
	Descend gently.
72.60	Dry wash, 20 lks. wide, 1 ft. deep, drs. N.
	Ascend.
74.10	Top of ascent, brs. N. and S.

Chains	
	Leave rolling hills and continue W. over rolling land, brs. N. and S.
80.08	The cor. of secs. 25,26,35 and 36. Land, rolling; soil, sandy loam of medium texture on a subsoil composed of gravel and dry stiff clay; timber, scattering growth of cedars and pinion pine; scattering undergrowth of sage brush, yellow top and grass. October 28: At this cor., I set off 13° 06'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 39'.
	N.0° 01'W., bet. secs. 25 and 26. Over rolling hills, through scattering timber and under growth.
12.00	Top of round knoll. Descend over breaks, bearing E. and W.
23.65	Bottom of ravine, 30 ft. deep, drs. W. Ascend.
26.65	Top of ascent, brs. E. and W. Descend.
28.50	Bottom of canyon, 50 ft. deep, drs. W. Ascend.
32.50	Top of ascent, brs. E. and W. Descend.
36.50	Bottom of canyon, 75 ft. deep, drs. W. Ascend.
38.00	Top of ascent, brs. E. and W. Descend.
38.70	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W.C. to the ¼ sec. cor., with brass cap marked T36S R4E ¼WC S26 | S25 1913 No bearing trees available, therefore erect a mound of stone, 3 ft. base, 2 ft. high, W. of cor. The true ¼ cor. point falls on a rocky inaccessible slope

Chains	
38.80	Botton of ravine, 75 ft. deep, drs. W. Ascend.
40.00	Point for ¼ sec.cor.; cor.not set.
40.50	Top of ascent, brs. E. and W.
	Descend gently.
44.60	S. edge of canyon; descend into same, brs. E. and W.
50.00	Dry wash in bottom of canyon, 30 lks. wide, 2 ft. deep, 100 ft. below S. edge of canyon, drs. NE.
	Ascend.
60.00	N. edge of canyon, 150 ft. above dry wash, brs, E. and W.
	Continue, across rolling mesa, on a near level line.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 23,24,25 and 26, with brass cap marked

T36S R4E
S23 | S24
S26 | S25
1913

from which

A pinion pine, 12 ins. dia., bears N.54°E., 77 lks. dist., marked T 36 S R 4 E S 24 B T.

A pinion pine, 18 ins. dia., bears S.83°E., 81 lks. dist., marked T 36 S R 4 E S 25 B T.

A cedar, 12 ins. dia., bears S.19°W., 38 lks. dist., marked T 36 S R 4 E S 26 B T.

A pinion pine, 12 ins. dia., bears N.38°W., 42 lks. dist., marked T 36 S R 4 E S 23 B T.

Land, rolling hills; soil, stony on surface with subsoil composed of loose sandstone and sandy loam of medium texture; timber, scattering pinion pine and cedars; scant undergrowth of sage brush and grass.

N.89° 54'E., on a random line bet. secs. 24 and 25.

40.00 Set temp. ¼ cor.

80.10 Intersect E. bdy. of the Tp. 14 lks. N. of the cor. of secs. 19,24,25 and 30, heretofore described.

Thence I run

West, on a true line bet. secs. 24 and 25.

Over rolling sandstone ledges, through scattering timber and scant undergrowth.

Chains	
40.05	True point for $\frac{1}{4}$ cor. falls on solid sandstone; cor. not set
42.10	Point of descent, brs. N. and S.10°E.
43.10	Dry wash, 20 lks. wide, 1 ft. deep, drs. NW.
	Continue W. over rolling sand hills. Leave timber, brs NW.
44.10	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W. C. to the $\frac{1}{4}$ sec. cor., with brass cap marked
	T36S R4E S24 $\frac{1}{4}$ W C S25 1913
	No bearing trees available therefore erect a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
50.10	Enter rolling sandstone ledges, brs. N. and S.
65.10	Ascend abruptly, over red sandstone ledges, brs. N. and S.
70.10	Top of steep ascent, 210 ft. above point of abrupt ascent, brs. N. and S.
	Continue W. over rolling mesa.
	Enter scattering growth of pinion pine and cedars, brs. N. and S.
80.10	The cor. of secs. 23,24,25 and 26.
	Land, rolling hills; soil, stony on surface with subsoil composed of loose sandstone and sandy loam of medium texture; timber, scattering growth of pinion pine and cedars; scattering undergrowth of sage brush and grass.
	October 28, 1913.

October 29, 1913: At 8^h 14^m a.m. l.m.t., I set off 37° 40'N., on the lat. arc; 13° 22'S., 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° 01'W., bet. secs. 23 and 24.

Over broken rolling hills, through scattering timber and undergrowth.

Along the top of rolling mesa on a near level line.

11.50	Descend abruptly over red sandstone ledges, brs. E. and

Chains	
	W.
14.00	Foot of abrupt descent, brs. E. and W.
15.00	Center Ten-Mile Creek, , 300 ft. below point of abrupt descent, 2 chs. wide, 3 ft. deep with running alkali water 10 lks. wide, 3 ins. deep, drs. E.
16.00	Leave creek and ascend gently over rolling sandy land on a near level line, brs. E. and W.
34.00	Leave sand and ascend abruptly over sandstone knoll.
36.00	Top of round sandstone knoll, 60 ft. high. Descend.
40.00	Bottom of descent and foot of round sandstone knoll. 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 S23 $\frac{1}{4}$ | S24 / 1913 from which A pinion pine, 12 ins. dia., bears N.75°E., 18 lks. dist., marked $\frac{1}{4}$ S 24 B T. A cedar, 10 ins. dia., bears N.68°W., 1.32 chs. dist., marked $\frac{1}{4}$ S 23 B T.
41.00	Dry wash, 30 lks. wide, 10 ft. deep, drs. S.80°E.. Continue . on a near level line, over rolling red sandstone through very scant growth of timber and scattering undergrowth.
78.00	Foot of round knoll.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., over a cross mark cut in the solid sandstone and erect a mound of stone 3 ft. base, 2 ft. high, around post for the cor. of secs. 13,14,23 and 24 with brass cap marked T36S R4E / S14 | S13 / S23 | S24 / 1913 and erect a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Cor. stands on top of round knoll, 50 ft. high. Land, rolling hills and broken sandstone ledges; soil, stony; 4th rate; timber, very scant growth of pinion pine and cedars; undergrowth, scattering sage brush and grass.

Chains	
	East, on a random line bet. secs. 13 and 24.
40.00	Set temp. $\frac{1}{4}$ cor.
80.08	Intersect E. bdy. of the Tp., 9 lks. N. of the cor. of secs. 13,18,19 and 24 heretofore described.
	Thence I run
	N.89° 56'W., on a true line bet. secs. 13 and 24.
	Over rolling hills and broken sandstone ledges, through scant growth of pinion pine and cedars and scattering undergrowth of sage brush and grass.
	Ascend.
9.00	Top of ridge, 200 ft. high, brs. NE. and SW.
	Descend.
13.60	Dry wash, 50 lks. wide, 5 ft. deep, drs. SW.
	200 ft. below top of ridge.
	Ascend.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground to solid rock and erect a mound of stone, 3 ft. base, 16 ins. high, around post for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{S13}{\frac{1}{4}}$
	S24
	1913
	No bearing trees available, therefore erect a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
	October 29: At this cor. I set off 13° 26'S., on the decl. arc; and at 11^h 44^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 41'.
55.00	Top of ridge, 170 ft. high, brs. N. and S.
	Descend.
65.10	Dry wash, 175 ft. below top of ridge, 10 lks. wide, 1 ft. deep, drs. SW.
	Continue over rolling sandstone on a near level line.
76.00	Foot of round knoll.
80.08	The cor. of secs. 13,14,23 and 24.
	Land, rolling hills and broken sandstone ledges; soil,

Chains	
	stony on surface; 4th rate; timber, very scant growth of pinion pine and cedars; undergrowth, scattering sage brush and grass.
	N.0° 01'W., bet. secs. 13 and 14.
	Over rolling hills and broken sandstone ledges through scant growth of pinion pine and cedars and scattering undergrowth of sage brush and grass.
	Descend from the top of round knoll.
2.50	Foot of round knoll, 50 ft. below sec. cor.
7.50	Gulch, 30 ft. deep, drs. SE.
	Ascend,
35.00	Top of ridge, 250 ft. above gulch, brs. NE. and SW.
	Descend.
34.00	Dry wash, 150 ft. below top of ridge, 10 lks. wide, 3 ft. deep, drs. W.
	Ascend, gently.
38.65	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W.C. to the $\frac{1}{4}$ sec. cor., with brass cap marked
	T36S R4E S14 | S13 W C $\frac{1}{4}$ 1913
	from which
	A pinion pine, 12 ins. dia., bears S.65°E., 1.20 chs. dist., marked W C $\frac{1}{4}$ S 13 B T.
	A pinion pine, 8 ins. dia., bears S.87°W., 19 lks. dist., marked W C $\frac{1}{4}$ S 14 B T.
40.00	True point for $\frac{1}{4}$ cor. falls on solid sandstone;cor.not set.
43.50	Ascend abruptly over ledge, 35 ft. high, brs. E. and W.
47.00	Top of ridge, 65 ft. high, brs. E. and W.
	Descend.
56.00	Dry wash, 150 ft. below top of ridge, 10 lks. wide, 1 ft. deep, drs. W.
	Ascend.
70.00	Top of ridge, 530 ft. above wash, brs. E. and W.
	Descend N. slope of ridge.

Chains	
76.00	Bottom of swale, 60 ft. below top of ridge, drs. W.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 11,12,13 and 14, with brass cap marked

T36S | R4E
S11 | S12
S14 | S13
1913

No bearing trees available therefore erect a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

40 ft. above swale.

Land, rolling hills and broken sandstone ledges; soil, stony on surface; 4th rate; timber, scant growth of pinion pine and cedars; undergrowth, scattering sage brush and grass.

October 29, 1913.

October 30, 1913: At $8^h\ 14^m$ a.m.l.m.t., I set off 37° 42' N., on the lat. arc; 13° 42'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11,12,13 and 14.

Thence I run

S.89° 56'E., on a random line bet. secs. 12 and 13.

40.00	Set temp. ¼ cor.
80.10	Intersect E. bdy. of the Tp., 21 lkd., S. of the cor. of secs. 7,12,13 and 18, heretofore described.

Thence I run

S.89° 55'W., on a true line bet. secs. 12 and 13.

Over small rolling sand hills, through scant growth of pinion pine and cedars and scattering undergrowth of sage brush and grass.

7.10	Point of descent, brs. N. and S.
	Enter rolling hills and broken sandstone ledges, brs. N. and S.
37.10	Dry wash, 300 ft. below point of descent, 1 ch. wide, 2 ft. deep, drs. S.
	Ascend.

Chains	
40.05	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 S12 $\frac{1}{4}$ S13 1913
	No bearing trees available therefore dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth. 3 ft. base, 2 ft. high, N. of cor.
	15 ft. above dry wash.
58.10	Top of ascent or E. rim of mesa, 200 ft. above $\frac{1}{4}$ cor., brs. N. and S. Continue , along top of mesa,on a near level line.
68.10	W. rim of mesa, brs. N. and S.
	Descend.
80.10	The cor. of secs. 11,12,13 and 14.
	250 ft. below W. rim of mesa.
	Land, rolling hills and broken sandstone ledges; soil, stony; 4th rate; timber, scant growth of pinion pine and cedars; undergrowth , scattering sage brush and grass.

	N.0° 01'W., bet. secs. 11 and 12.
	Over rolling hills and broken sandstone ledges, through scattering timber and undergrowth.
	Ascend gently.
23.00	Top of ascent, 60 ft. above sec. cor., brs. N80°W. and S.80°E.
	Continue , over sandy flat on a near level line.
40.00	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 S11 $\frac{1}{4}$ | S12 1913 from which
	A pinion pine, 12 ins. dia., bears N.35°E., 8 lks. dist., marked $\frac{1}{4}$ S 12 B T.
	A cedar, 12 ins. dia., bears S.77°W., 1.68 chs. dist., marked $\frac{1}{4}$ S 11 B T.
44.00	Dry wash, 30 lks. wide, 1 ft. deep, drs. W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 1,2,11 and 12, with brass

Chains

cap marked

T36S | R4E
S2	S1
S11	S12
1913

from which

A pinion pine, 8 ins. dia., bears N.53°E., 68 lks. dist., marked T 36 S R 4 E S 1 B T.

A pinion pine, 12 ins. dia., bears S.37°E., 28 lks. dist., marked T 36 S R 4 E S 12 B T.

A pinion pine, 10 ins. dia., bears S.53°W., 86 lks. dist., marked T 36 S R 4 E S 11 B T.

A pinion pine, 10 ins. dia., bears N.60°W., 78 lks. dist., marked T 36 S R 4 E S 2 B T.

Land, rolling hills and broken sandstone ledges; timber, scattering pinion pineand cedars; scattering undergrowt of sage brush and grass; soil, stony; 4th rate.

October 30: At this cor. I set off 13° 46'S., on the dec arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 43'.

N.89° 55'E., on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ cor.

80.08 Intersect E. bdy. of the Tp., 12 lks. S. of the cor. of secs. 1,6,7 and 12 heretofore described.

Thence I run

S.89° 50'W., on a true line bet. secs. 1 and 12.

Over rolling sand hills and sandstone ledges and scatter ing growth of timber and undergrowth.

12.55 Dry wash, 30 lks. wide, 1 ft. deep, drs. N.

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

S1
¼
S12
1913

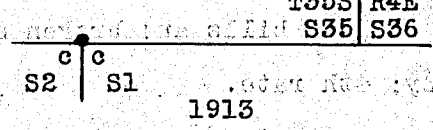
No bearing trees available; dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist. and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

59.05 Top of low ridge, brs. N. and S.

Chains	
	Descend gently.
80.08	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling hills and broken sandstone ledges; soil, stony; 4th rate.
	Timber, scattering growth of pinon pine and cedars; Scattering undergrowth of sagebrush and grass.
	N.0°01'W. bet. secs. 1 and 2.
	Over rolling hills, through medium growth of timber and scattering undergrowth.
8.00	Dry wash, 20 lks. wide, 1 ft. deep, drs. W.
16.75	Dry wash, 30 lks. wide, 2 ft. deep, drs. W. Ascend.
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 S2¼ | S1 1913 from which A pinon pine, 12 ins. dia., bears S.80°E., 53 lks. dist., marked ¼ S 1 B T A cedar, 12 ins. dia., bears S.45°W., 33 lks. dist., marked ¼ S 2 B T
47.00	Top of ascent, 60 ft. above wash, brs. E. and W.
	Continue W. on a near level line.
64.50	Descend into ravine, brs. NE. and SW.
65.50	Ravine, 30 ft. deep, drs. SW.
	Continue W., across bottom of canyon.
70.00	Dry wash, 50 lks. wide, 2 ft. deep, drs. SW.
	Ascend steep N. slope of canyon.
71.75	Top of steep ascent, 35 ft. above wash, brs. NE. and SW.
	Continue W., along top, on a near level line.
	Growth of timber becomes very scattering, brs. NE. and SW.
80.22	Intersect Seventh Standard Parallel South, 14.00 chs. W. of the standard cor. of secs. 35 and 36, which is a sandstone 10 x 10 x 6 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

Chains

the ground for C.C. of secs. 1 and 2, with brass cap marked



No bearing trees available; erect a mound of stone 3 ft. base, 2 ft. high S. of cor.

Land, rolling hills and broken sandstone ledges; soil, stony; 4th rate; timber, scant growth of pinon pine and cedars; scattering undergrowth of sagebrush and grass.

October 30, 1913.

Jos. C. Young

U. S. Surveyor.

Survey commenced October 22, 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 approve 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 observation made during a.m. and p.m. hours, with a meridian determin by observations on Polaris, I proceed as follows:

At camp in the SW. quarter of sec. 14, T. 36 S., R. 3 E.; latitude 37°41'N., longitude 111°36'W.; I set off 37°41'N. on the lat. arc; 11°04'S. on the decl. arc; and at 3h 45m 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 5h 25m p.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual of Instructions and mark a point in the line thus determined on a stake dri

Chains	
	en in the ground 5 chs. N. of my station.
	October 22, 1913.

	October 23: At 6^h 30^m a.m.l.m.t., I lay off the azimuth of Polaris 1° 28' to the east, and mark the meridian thus determined by a cross on the stake set October 22, on which the meridian falls 0.3 ins. east of the mark determined by the solar.
	At 6^h 44^m a.m.l.m.t., I set off 37° 41'N., on the lat. arc; 11° 12'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' 13" 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 7^h 00^m a.m. is N.16° 05'W.; the angle thus determined gives the mag. decl. 16° 05'E. A 2 ch. tape and clinometerwere used on all measurements of this work. October 23. 1913.

	October 29, 1913: At 8^h 14^m a.m.l.m.t., I set off 37° 38' N., on the lat. arc; 13° 22'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs.2, 3,34 and 35, heretofore described.
	Thence I run
	N.0° 01'W., bet. secs. 34 and 35.
	Over rolling hills, through scattering growth of cedars and pinion pine and medium undergrowth of sage brush, yellow top and scattering grass.
53.00	Leave scattering timber, brs. E. and W.
54.90	Wash, 40 lks. wide, 8 ft. deep; small alkali seeps in same, drs. NE.
80.00	Set an iron post, 3 ft. long, 1 in. in dia., 33 ins. in

Chains	
	the ground for $\frac{1}{4}$ sec. cor.; with brass cap marked S34$\frac{1}{4}$ | S35 1913 and erect a mound of stone, 3 ft. base; 2$\frac{1}{2}$ ft. high, W. of cor.
47.75	Dry wash, 25 lks. wide, 6 ft. deep, drs. E.
59.00	Leave rolling hills; enter rolling land, brs. NE. and S. 65°W.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 26,27,34 and 35, with brass cap marked T36S | R4E S27 | S26 S34 | S35 1913 and dig pits, 18x18x12 ins., in each sec., 5$\frac{1}{2}$ ft. dist. and raise a mound of earth, 4 ft. base,2 ft. high, W. of cor.
	Land, rolling; soil, red sand of very light texture; scattering timber; medium undergrowth of yellow top and scattering grease wood and grass.
	East, on a random line, bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ cor.
80.09	Intersect N. and S. line, 7 lks. N. of cor. of secs. 25, 26,35 and 36.
	Thence I run N.89° 57'W., on a true line, bet. secs. 26 and 35.
	Over rolling hills, through scattering growth of pinion pine and cedars and scattering undergrowth.
39.90	The half way and proper point for $\frac{1}{4}$ sec, cor., falls in small wash therefore at this point, set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for W. C. to the $\frac{1}{4}$ sec. cor., with brass cap marked T36S R4E $\frac{1}{4}$ W. C. | S26 S35 1913
	No bearing trees available, therefore erect a mound of

Chains	
	stone, 3 ft. base, 2ft. high, N. of cor.
40.04½	Point for ¼ sec.cor.; cor.not set.
50.30	Dry wash, 65 lks. wide, 4 ft. deep, drs. N.30°E.
70.10	Leave rolling hills and scattering growth of timber; enter rolling land, brs. N. and SW.
80.09	The cor. of secs. 26,27,34 and 35.
	Land, rolling; soil, red sand of very light texture ; no timber; undergrowth, yellow top and scattering grease wood and grass.
	October 29: At this cor., I set off 13° 26'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 39'.
	N.0° 01'W., bet. secs. 26 and 27.
	Over gently rolling land, through medium undergrowth of yellow top and scattering grease wood and grass.
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,

S27¼ | S26

1913

	and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth , 3½ ft. base, 1½ ft. high, W. of cor.
43.50	Enter rolling hills and scant growth of pinion pine and cedars, brs. SE. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 22,23,26 and 27, with brass cap marked

T36S R4E

S22 | S23

S27 | S26

1913

	No bearing trees available; 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 hills; soil, red sand of very light texture timber, scant growth of pinion pine and cedars; medium undergrowth of yellow top and scattering grease wood and grass.

Chains

S.89° 57'E., on a random line bet. secs. 23 and 26.

40.00 Set temp. ¼ cor.

80.12 Intersect N. and S. line, 9 lks. N. of the cor. of secs. 23,24,25 and 26.

Thence I run

N.89° 53'W., on a true line bet. secs. 23 and 26.

Over rolling hills, through scant growth of pinion pine and cedars and scattering undergrowth of yellow top, sage brush and grass.

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

S23
¼
S26
1913

from which

A cedar, 10 ins. dia., bears N.19° 05'E., 39½ lks. dist., marked ¼ S 23 B T.

A cedar, 16 ins. dia., bears S.29° 50'W., 10 lks. dist., marked ¼ S 26 B T.

80.12 The cor. of secs. 22,23,26 and 27.

Land, rolling hills; soil, red sand of very light textur timber, scant growth of pinion pine and cedars; medium u dergrowth of yellow top and scattering grease wood and g grass.

October 29, 1913.

October 30, 1913: At 8^h 14^m a.m.l.m.t., I set off 37° 40 on the lat. arc; 13° 41'S., on the decl. arc; and determ ine 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.

Over rolling hills, through scant growth of pinion pine and cedars and scattering undergrowth of yellow top, sag brush and grass.

1.25 Dry wash, 65 lks. wide, 6 ft. deep, drs. NE.

30.10 Dry wash, 27 lks. wide, 10 ft. deep, drs. SE.

Chains

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{16}$ sec. cor., with brass cap marked

S22$\frac{1}{16}$ | S23

1913

No bearing trees available; erect a mound of stone, 3 ft. base, 2$\frac{1}{2}$ ft. high, W. of cor.

46.30 Series of sandstone ledges, brs. E. and W. 135 ft. high.

48.50 Foot of ledges, brs. E. and W.

48.75 Wash, running alkali water, 10 lks. wide, 1 in. deep, drs. E.

52.30 Ascend over series of ledges, brs. N.70°W. and E.

55.30 Top of ledges, 150 ft. high, brs. E. and W.

Continue over broken mesa.

80.00 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

T36S R4E

S15 | S14

S22 | S23

1913

No bearing trees available; dig pits, 18x18x12 ins., in each sec., 5$\frac{1}{2}$ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, broken mesa; soil,stony on surface with subsoil composed of coarse gravel and red sand of light texture; timber, scant growth of pinion pine and cedars; scattering undergrowth of yellow top, sage brush and grass.

S.89° 53'E., on a random line bet. secs. 14 and 23.

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

80.09 Intersect N. and S. line, 5 lks. N. of cor. of secs. 13, 14,23 and 24.

Thence I run

N.89° 51'W., on a true line bet. secs. 14 and 23.

Over rugged mesa land through scant growth of pinion pine and cedars and scattering undergrowth of yellow top, sage brush, brush and grass.

2.00 Foot of knoll, bearing N.and S.

8.60 Ascend over sandstone ledges, 200 ft. high, brs. NE. and

Chains	
	SW.
33.10	Top of sandstone ledges, 200 ft. high, brs. N. and S.
	Descend.
37.60	Ravine, 200 ft. deep, drs. S.
	Ascend over sandstone ledges.
40.04½	Point for ¼ sec. cor. falls on sandstone ledges on W. sid
	of ravine; cor. not set.
52.60	Top of ascent and ledges, 125 ft. high, brs. N. and S.
	Continue W. over broken mesa.
52.75	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in
	the ground for W.C. to the ¼ sec. cor., with brass cap
	marked
	T36S R4E S14 W¼ S23 1913
	No bearing trees available therefore dig pits 18x18x12 in
	E. and W. of post, 3 ft. dist., and raise a mound of eart
	3½ ft. base, 1½ ft. high, N. of cor.
80.09	The cor. of secs. 14,15,23 and 23.
	Land, broken mesa; soil, stony on surface with subsoil
	composed of coarse gravel and red sand of light texture;
	timber, scant growth of pinion pine and cedars; scatterin
	undergrowth of yellow top, sage brush and grass.
	October 30: At this cor. I set off 13° 46'S., on the decl
	arc; and at 11h 44m l.m.t., observe the sun on the meri-
	dian; the resulting latitude is 37° 41'.

	N.0° 01'W., bet. secs. 14 and 15.
	Over broken mesa land, through scattering growth of ce-
	dars and pinion pine and scattering undergrowth of yellow
	top and grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in
	the ground to solid rock and erect a mound of stone, 3 ft
	base, 1½ ft. high, around post for ¼ sec. cor., with bras
	cap marked
	S15¼ | S14 1913

from which

Chains

A pinion pine, 6 ins. dia., bears N.41° 55'E., 28 lks. dist., marked $\frac{1}{4}$ S 14 B T.

A cedar, 6 ins. dia., bears S.84° 20'W., 18 lks. dist., marked $\frac{1}{4}$ S 15 B T.

70.80 Leave broken mesa land; descend into canyon over sandstone ledges, brs. N.25°E. and S.25°W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground to solid rock and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, around post for cor. of secs. 10, 11, 14 and 15, with brass cap marked

T36S, R4E
S10 | S11
S15 | S14
1913

No bearing trees available; erect a mound of stone, $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, W. of cor.

Cor. stands on S. slope of canyon, 275 ft. below top of broken mesa.

Land, rolling sandstone ledges; soil, stony; 4th rate; timber, scattering growth of cedars and pinion pine; Scattering undergrowth of yellow top and grass.

S.89° 51'E., on a random line bet. secs. 11 and 14.

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

80.10 Intersect N. and S. line, 12 lks. S. of the cor. of secs. 11, 12, 13 and 14.

Thence I run

N.89° 56'W., on a true line bet. secs. 11 and 14.

Over mountainous land, through scattering growth of cedars and pinion pine and scattering undergrowth of yellow top and grass.

Ascend.

19.10 Top of spur, 125 ft. above sec. cor., projects S.

Descend.

33.60 Ravine, 225 ft. below top of spur, drs. S.

Ascend.

40.05 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

Chains	
	S11 / ¼ / S14 / 1913.
	No bearing trees available; 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.
	Cor. stands on W. slope of ravine, 95 ft. above the bottom.
50.10	Top of ascent, 100 ft. above ¼ cor., brs. N. and S.
	Continue W. over mesa and rolling sandstone ledges.
70.20	Top of ledges and mesa, brs. N.25°E. and S.25°W.
	Descend.
80.10	The cor. of secs. 10,11,14 and 15.
	Land, rolling sandstone ledges; soil, stony; 4th - rate; timber, scattering growth of cedars and pinion pine; scattering undergrowth of yellow top and grass.
	October 30, 1913.

October 31, 1913: At 8^h 44^m a.m.l.m.t., I set off 37°42' on the lat. arc; 14° 02½'S., 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.

Over rolling sandstone ledges through scattering growth of pinion pine and cedars and scattering undergrowth of yellow top and grass.

Descend.

3.50	Ravine, 20 ft. below sec. cor., drs. S.25°W.
	Ascend.
15.00	Top of ledges, 200 ft. above ravine, brs. NE. and SW.
	Continue N., over broken mesa.
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
	S10¼ | S11
	1913

Chains	
	No bearing trees available; erect a mound of stone 3½ ft. base, 1½ ft. high W. of cor.
80.00	Set an iron post 3 ft.long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 2,3,10 and 11 with brass cap marked T36S | R4E S3 | S2 S10 | S11 1913
	No bearing trees available; 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, broken mesa; soil, stony on surface with subsoil composed of broken sandstone and red sand of light texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of yellow top,sagebrush and grass.
	S.89°56'E. on a random line bet. secs. 2 and 11.
40.00	Set temp. ¼ cor.
80.12	Intersect N. and S. line, 16 lks. N. of the cor.of secs. 1, 2, 11 and 12.
	Thence I run
	N.89°49'W. on a true line bet. secs. 2 and 11.
	Over broken mountainous land, through scattering growth of pinon pine and cedars and scattering undergrowth of yellow top, sagebrush and grass. Descend.
16.60	Ravine, 325 ft. deep, drs. S.25°W.
	Ascend over ledges.
32.60	Top of ascent,300 ft.above ravine,brs.N.25°E. andS.25°W.
	Continue W. over rolling sandstone ledges.
40.06	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. with brass cap marked S2 ¼ S11 1913
	No bearing trees available; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist. and raise a mound of earth

Chains	
	3½ ft. base, 1½ ft. high N. of cor.
	October 31: At this cor. I set off 14°05'S. on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37°42½'.
47.10	Top of sandstone ledges, 225 ft. high, brs. N. and S.
	Descend.
52.10	Ravine, 250 ft. deep, drs. S.20°W.
	Ascend.
76.80	Top of ascent, 300 ft. above ravine, brs. N. and S.
	Continue ", over broken mesa.
80.12	The cor. of secs. 2, 3, 10 and 11.
	Land, broken mesa; soil, stony on surface with subsoil composed of broken sandstone and red sand of light texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of yellow top, sagebrush and grass.
	N.0°01'W. bet. secs. 2 and 3.
	Over broken mesa land, through scattering growth of pinon pine and cedars and scattering undergrowth of yellow top, sagebrush and grass.
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 S3½ | S2 1913 No bearing trees available; erect a mound of stone 3 ft. base, 2 ft. high W. of cor.
80.22	Finding no trace of the standard cor. of secs. 34 and 35, I set temp. cor. for future reference. This corner was made permanent at 80.15 chs. at a point 20.46 chs. W. of the corner, marked as witness cor. found in retracement of the Seventh Standard Parallel South. (See page 63 these notes). Hence this cor. is 14.85 chs. W. of position for St. cor. of secs. 34 and 35. Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 2 and 3, with brass cap marked

Chains

T35S | R4E
S34 | S35
cc
S3 | S2
1913

No bearing trees available; erect a mound of stone, 3½ ft. base, 2½ ft. high, S. of cor.

Land, broken mesa; soil, stony on surface with subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinion pine and cedars; scattering undergrowth of yellow top, sage brush and grass.

October 31, 1913.

Edward R. Bunbury

U. S. Transitman.

October 31, 1913: At 8h 14m a.m. l.m.t., I set off 37° 38'N., on the lat. arc; 14° 01 'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3,4,33 and 34, on S.bdy.of Tp., heretofore described.

Thence I run

N.0° 02'W., bet. secs.33 and 34.

Over rolling land through scattering undergrowth of sage brush, yellow top and grass.

17.00 Dry wash, 10 lks. wide, 1 ft. deep, drs. NE.

27.00 Dry wash, 1.20 chs. wide, 1 ft. deep, drs. E.

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

S33¼ S34
1913

and dig pits 18x18x12 ins. N. and S. of post 3 ft. dist.; and raise a mound of earth , 3½ ft. base, 1½ ft. high, W. of cor.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 27,28,33 and 34, with brass cap marked

T36S | R4E
S28 | S27
S33 | S34
1913

Chains	
	and dig pits 18x18x12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. o cor.
	Land, rolling; soil, fine gravel on surface, 2 ins. deep with subsoil composed of sandy loam of medium texture; no timber; undergrowth, scattering sage brush, yellow to and grass.
	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ cor.
80.00	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 26,27,34 and 35.
	Thence I run
	S.89° 58'W., on a true line bet. secs.27 and 34.
	Over rolling land through medium undergrowth of sage brush, yellow top and scattering grass.
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
	S27 ¼ S34 1913
	and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dis and raise a mound of earth, 3½ ft. base, 1½ ft. high, N of cor.
48.10	Wagon road, Escalante to Fifty-Mile bre. NW and SE.
80.00	The cor. of secs.27,28,33 and 34.
	Land, rolling; soil, fine gravel on surface, 2 ins, dee with subsoil composed of sandy loam of medium texture; no timber; undergrowth, scattering sage brush, yellow top and grass.
	October 31, 1913: At this cor., I set off 14° 05'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun o the meridian; the resulting latitude is 37° 39'.
	N.0° 02'W., bet. secs. 27 and 28.
	Over rolling land through scattering undergrowth of sag brush, yellow top and grass.

Subdivision of T. 36 S., R. 4 E.

Chains	
13.75	Dry wash, 3½ chs. wide, 3 ft. deep, drs. SE.
40.00	Dry wash, 35 lks. wide, 1 ft. deep, drs. SE.
	Enter scattering growth of cedars and pinon pine, brs. NW. and SE. Point for ¼ sec. cor.; cor. not set.
40.91	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W.C. to the ¼ sec. cor. with brass cap marked

T 36 S R 4 E

¼

W.C.

S 28 | S 27

1913

from which

A cedar, 10 ins. dia., bears N.77°30'E., 48 lks. dist., marked W C ¼ S 27 B T.

A cedar, 5 ins. dia., bears N.30°30'W., 1 ch. dist., marked W C ¼ S 28 B T.

80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, with brass cap marked

T 36 S R 4 E

S 21 | S 22

S 28 | S 27

1913

No bearing trees available; 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; soil, fine gravel and sandy loam of medium texture; timber scant growth of scattering cedars and pinon pine; undergrowth scattering yellow top, greasewood sagebrush and grass.

N.89°58'E. on a random line bet. secs. 22 and 27.

40.00	Set temp. ¼ cor.
79.90	Intersect N. and S. line, 15 lks. N. of the cor. of secs. 22, 23, 26 and 27.

Thence I run

N.89°56'W. on a true line bet. secs. 22 and 27.

Over rolling hills, through scattering timber and undergrowth.

Subdivision of T. 36 S. R. 4 E.

Chains	
0.15	Dry wash, 1 ch. wide; 1 ft. deep; drs. SW.
16.40	Dry wash, 20 lks. wide, 1 ft. deep, drs. S.
31.90	Leave rolling hills; enter rolling land, brs. N. and SE.
39.95	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 S 22 $\frac{1}{4}$ S 27 1913 No bearing trees available; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
79.10	Wagon road, Escalante to Fifty-Mile, brs. NW. and SE.
79.90	The cor. of secs. 21, 22, 27 and 28.

Land rolling; soil fine gravel and sandy loam of medium texture; timber scant growth of scattering cedars and pinon pine; undergrowth, scattering yellow top, greasewood, sagebrush and grass.

October 31, 1913.

Nobember 1, 1913: At 8h 14m a.m., l.m.t., I set off 37° 40' on the lat. arc, 14°21'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

Thence I run

N.0°02'W. bet. secs. 21 and 22.

Over rolling land through scattering undergrowth.

Chains	
3.00	Wagon road, Escalante to Fifty-Mile, brs. NW. and SE.
40.00	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 S 21 $\frac{1}{4}$ | S 22 1913 and dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22 with brass cap marked

Chains	
	T36S R4E S18 | S15 S21 | S22 1913
	and 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; soil, sandy loam of medium texture; no timber; undergrowth, scattering yellow top, sage brush and grass.

	S.89° 56'E., on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ cor.
80.10	Intersect N. and S. line at the cor. of secs. 14,15,22 and 23.
	Thence I run
	N.89° 56'W., on a true line bet. secs. 15 and 22.
	Over rolling hills across top of broken mesa, through scant growth of timber and scattering undergrowth.
12.10	Leave top of broken mesa; descend into draw, brs. NW. and SE.
14.10	Bottom of draw, drs. SE.
	Ascend.
15.50	Top of ascent, brs. NW. and SE.
	Continue ", on a near level line.
20.00	Descend into canyon, brs. NW. and SE.
26.10	Bottom of canyon, 50 ft. deep, running water, 15 lks. wide, 2 ins. deep, drs. SE.
	Ascend.
30.00	Top of ascent, brs. NW. and SE.
	Continue ", on a near level line.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S15 ¼ S22 1913
	No bearing trees available; erect a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
	Leave scant growth of timber, brs. NW. and SE.

Chains	
	November 1: At this cor. I set off 14° 25'S., on the decl arc; and at 11^h 44^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 41'.
66.10	Dry wash, 10 lks. wide, 1 ft. deep, drs. NE.
74.10	Leave rolling hills; enter rolling land, brs. NW. and SE.
80.10	The cor. of secs. 15,16,21 and 22. Land, rolling; soil, sandy loam of medium texture; scant t ber; undergrowth, scattering yellow top, sage brush and grass.

N.0° 02'W., bet. secs. 15 and 16.
Over rolling land through scattering undergrowth.

2.00	Leave rolling land; enter rolling hills and broken sandstone ledges, br . E. and W.
21.50	S. rim of canyon; descend into wash, brs. NW. and SE.
24.00	Wash, with running alkali water, 10 lks. wide and 1 in. deep, drs. SE.
	Ascend.
30.50	Top of sandstone ledge, 50 ft. high, brs. NW. and SE.
	Continue ascent of N. slope of canyon.
32.50	N. rim of canyon or top of ascent, brs. NW. and SE.
	Continue , on a near level line.
37.00	Descend over sandstone ledges, br . N.70°W. and S.70°E.
38.50	Draw, 40 ft. deep, drs. S.70°E.
	Ascend.
39.50	Top of ascent, brs. N.70°W. and S.70°E.
	Continue , on a near level line, over broken sandstone ledges.
40.00	Point for $\frac{1}{4}$ cor. falls on solid sandstone; cor. not set.
41.50	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W.C. to the $\frac{1}{4}$ sec. cor. with brass cap marked

T36S R4E

$\frac{1}{4}$

W C

S16 | S15

1913

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

Chains	
54.90	Point of descent, brs. NW. and SE.
	Enter scattering growth of cedars and pinion pine, brs. NW. and SE.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 9,10,15 and 16, with brass cap marked

T36S R4E
S9 | S10
S16 | S15
1913

from which

A cedar, 8 ins. dia., bears N.22° 30'E., 1.66 chs. dist., marked T 36 S R 4 E S 10 B T.

A pinion pine, 12 ins. dia., bears S.49°E., 2.26 chs. dist., marked T 36 S R 4 E S 15 B T.

A pinion pine, 10 ins. dia., bears S.62°W., 1.29 chs. dist., marked T 36 S R 4 E S 16 B T.

A pinion pine, 12 ins. dia., bears N.40°W., 77 lks. dist., marked T 36 S R 4 E S 9 B T.

200 ft. below point of descent.

Land, rolling hills and broken sandstone ledges; soil, stony on surface 2 to 3 ins. deep with subsoil composed of loose sandstone and sand of very light texture; timber, scattering growth of pinion pine and cedars; undergrowth, scattering yellow top and grass.

November 1, 1913.

November 3, 1913; heavy rain all day preventing field work.

November 4, 1913: At $8^h\ 14^m$ a.m.l.m.t., I set off 37°42' on the lat. arc; 15° 18'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9,10,15 and 16.

Thence I run

S.89° 56'E., on a random line bet. secs. 10 and 15.

40.00	Set temp. ¼ cor.
80.02	Intersect N. and S. line, 9 lks. S. of the cor. of secs. 10,11,14 and 15.

Chains	
	Thence I run
	West on a true line bet. secs. 10 and 15.
	Over rolling hills and broken sandstone ledges through scattering timber and undergrowth.
	Descend.
3.00	Draw, 20 ft. below sec. cor., drs. SW.
	Ascend.
18.00	Top of ridge, 110 ft. above draw, brs. N. and S.
	Descend over sandstone ledges.
35.50	Dry wash, 200 ft. below top of ridge, 30 lks. wide, 1 ft. deep, drs. S.
	Continue , on a near level line, over low rolling sand-hills.
40.01	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
	S10 / $\frac{1}{4}$ / S15 / 1913
	No bearing trees available; erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
46.00	Dry wash, 30 lks. wide, 5 ft. deep, drs. S.
	Ascend gently.
59.60	Top of ascent, 100 ft. above wash, brs. N. and S.
	Continue , on a near level line, across bed rock and small patches of sand.
65.80	Point of descent, brs. N. and S.
80.02	The cor. of secs. 9,10,15 and 16.
	100 ft. below point of descent.
	Land, rolling hills and broken sandstone ledges; soil, stony on surface 2 to 3 ins. deep with subsoil composed of loose sandstone and sand of very light texture; timber, scattering pinion pine and cedars; undergrowth, scattering yellow top and grass.

	N.0° 02'W., bet. secs. 9 and 10.
	Over rolling hills and broken sandstone ledges through scattering timber and undergrowth.

Chains

10.00 Ascend over rocky ridge, brs. E. and W.

12.50 Top of rocky ridge, 55 ft. high, brs. E. and W.

Descend.

15.00 Bottom of descent, brs. E. and W.

Continue , on a near level line, over low rolling hills and broken sandstone ledges.

40.00 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

S9$\frac{1}{4}$ | S10

1913

from which

A cedar, 2$\frac{1}{2}$ ft. dia., bears S.70°E., 55 lks. dist., marked $\frac{1}{4}$ S 10 B T.

A cedar, 2 ft. dia., bears N.50°W., 25 lks. dist., marked $\frac{1}{4}$ S 9 B T.

44.00 Dry wash, 30 lks. wide, 1 ft. deep, drs. S.10°E.

Ascend gently.

60.00 Top of ascent, brs. E. and W.

Descend gently.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 3,4,9 and 10, with brass cap marked

T36S | R4E
S4 | S3

S9 | S10
1913

from which

A cedar, 10 ins. dia., bears N.36°E., 79 lks. dist., marked T 36 S R 4 E S 3 B T.

A cedar, 14 ins. dia., bears S.56°E., 30 lks. dist., marked T 36 S R 4 E S 10 B T.

A cedar, 9 ins. dia., bears S.72°W., 21 lks. dist., marked T 36 S R 4 E S 9 B T.

A cedar, 8 ins. dia., bears N.70°W., 90 lks. dist., marked T 36 S R 4 E S 4 B T.

380 ft. below point of descent.

Land, rolling hills and broken sandstone ledges; soil, stony on surface with subsoil composed of loose sandstone and sand of very light texture; timber, scattering growth of pinion pine and cedars; undergrowth, scattering yel-

Chains	
	low top, sage brush and grass.
	November 4: At this cor. I set 15° 22'S., on the decl arc; and at $11^h 44^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 43'.
	East on a random line bet. secs. 3 and 10.
40.00	Set temp. $\frac{1}{4}$ cor.
79.90	Intersect N. and S. line, 14 lks. N. of the cor. of secs. 2,3,10 and 11.
	Thence I run
	N.89° 54'W., on a true line bet. secs. 3 and 10.
	Over top of rolling mesa through scattering timber and undergrowth.
39.95	Set an iron post, 3 ft. long, 1 in. inddia,, 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{S3}{\frac{1}{4}}$ S10 1913 from which
	A cedar, 8 ins. dia., bears S.36°W., 64 lks. dist., marked $\frac{1}{4}$ S 10 B T.
	A cedar, 12 ins. dia., bears N.48°W., 81 lks. dist., marked $\frac{1}{4}$ S 3 B T.
47.90	Ascend ridge, brs. N. and S.
51.00	Top of ridge, 50 ft. high, brs. N. and S.
	Descend.
53.90	Bottom of descent, brs. N. and S.
	Continue , on a near level line.
60.00	Dry wash, 30 lks. wide, 1 ft. deep, drs. S.
70.00	Point of ascent, brs. N. and S.
79.90	The cor. of secs. 3,4,9 and 10.
	Land, rolling hills and broken sandstone ledges; soil, stony on surface with subsoil composed of loose sandstone and sand of very light texture; timber, scattering pinion pine and cedars; undergrowth, scattering yellow top, sage brush and grass.

hains

N.0°02'W. bet. secs. 3 and 4, on true line,

Over rolling hills and broken sandstone ledges, through scattering timber and undergrowth.

Descend gently along top of broken mesa.

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

S4¼ | S3

1913

No bearing trees available; erect a mound of stone 3 ft. base, 2 ft. high, W. of cor.

51.90 Dry wash, 20 lks. wide, 1 ft. deep, drs. SW.

80.17 Intersect Seventh Standard Parallel South, 15.21 chs. W. of the standard cor. of secs. 33 and 34, which is a sandstone 9x3x6 ins. above ground, firmly set and mkd. and witnessed as described by the surveyor general.

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 3 and 4, with brass cap marked

T35S | R4E
S33 | S34
C | C
S4 | S3
1913

from which

A cedar, 16 ins. dia., bears S.32°E., 1.39 chs. dist., marked T 36 S R 4 E S 3 B T

A cedar, 16 ins. dia., bears S.59°W., 1.25 chs. dist., marked T 36 S R 4 E S 4 B T

Land, rolling hills and broken sandstone ledges; soil stony on surface with subsoil composed of loose sandstone and red sand of very light texture; timber, scattering growth of pinon pine and cedars; undergrowth, scattering yellow top, sagebrush and grass.

November 4, 1913.

Jos. C. Haun

U. S. Surveyor.

November 4, 1913: At 8h 14m a.m., l.m.t., I set off 37°

Chains

38' on the lat. arc; 15°17'S. 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°03'W. bet. secs. 32 and 33.

Over rolling hills, through scattering growth of pinon pine and cedars and scattering undergrowth of sagebrus yellow top and grass.

23.10 Dry wash, 10 lks. wide, 1 ft. deep, drs. E.

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

S32¼ | S33

1913

from which

A cedar, 7 ins.dia., bears N.86°30'E., 43 lks.dist., marked ¼ S 33 B T

A pinon pine, 6 ins.dia., bears S.55°15'W., 26 lks.dist., marked ¼ S 32 B T

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

T36S | R4E
S29 | S28

S32 | S33
1913

from which

A pinon pine, 12 ins.dia., bears N.8°15'E., 85 lks.dist., marked T 36 S R 4 E S 28 B T

A pinon pine, 12 ins.dia., bears S.15°20'E., 73 lks.dist., marked T 36 S R 4 E S 33 B T

A cedar, 10 ins.dia., bears S.54°20'W., 81 lks.dist., marked T 36 S R 4 E S 32 B T

A pinon pine, 8 ins.dia., bears N.24°30'W., 1.78 chs.dist., marked T 36 S R 4 E S 29 B T

Land, rolling hills; soil, gravel on surface with subsoil composed of white sand of medium texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of sagebrush, yellow top and grass.

Chains	
	East on a random line bet. secs. 28 and 33.
40.00	Set temp. $\frac{1}{4}$ cor.
80.06	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 27,28,33 and34.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 28 and 33.
	Over rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.
40.03	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
	S28 $\frac{1}{4}$ S33 1913
	and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
42.80	Leave rolling land and medium undergrowth; enter rolling hills, scattering timber and undergrowth, brs. N.70°E. and SW.
80.06	The cor. of secs. 28,29,32 and 33.
	Land, rolling hills; soil, gravel on surface 3 ins. deep with subsoil composed of white sand of medium texture; timber, scattering growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.
	November 4: At this cor., I set off 15° 22'S., on the decl. arc; and at 11^h 44^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 39'.
	N.0° 03'W., bet. secs. 28 and 29.
	Over rolling hills, through scattering growth of pinion pine and cedars and scattering undergrowth of sage brush, yellow top and grass.
12.75	Dry wash, 40 lks. wide, 7 ft. deep, drs. E.
35.00	Leave rolling hills and growth of scattering timber; enter rolling land and medium undergrowth, brs. E. and W.

Chains	
40.00	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 S29$\frac{1}{4}$ | S28 1913 and dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 20,21,28 and 29 with brass cap marked T36S R4E S20 | S21 S29 | S28 1913 and dig pits 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor. Land, rolling; soil, red sand of medium texture; no timber; medium undergrowth of sage brush, yellow top and scattering grass.

N.89° 57'E., on a random line bet. secs. 21 and 28.

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

80.20 Intersect N. and S. line, 7 lks. N. of the cor. Of secs. 21,22,27 and 28.

Thence I run

West on a true line bet. secs. 21 and 28.

Over rolling land through medium undergrowth of sage brush yellow top and grass.

40.10 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

S21
$\frac{1}{4}$
S28
1913

and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

80.20 The cor. of secs. 20,21,28 and 29.

Chains

Land, rolling; soil, red sand of medium texture; no timber; medium undergrowth of sage brush, yellow top and scattering grass.

November 4, 1913.

November 5, 1913: At $\frac{8^h}{3b}\ 14^m$ a.m.l.m.t., I set off 37°40' on the lat. arc; 15° ~~17~~'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Thence I run

N.0° 03'W., bet. secs. 20 and 21.

Over rolling land through medium undergrowth of sage brush, yellow top and scattering grass.

40.00 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

S20 $\frac{1}{4}$ | S21

1913

and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth, 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

71.50 Enter rolling hills and scant growth of scattering pinion pine and cedars; undergrowth, more scattering, brs. NE. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 16,17,20 and 21 with brass cap marked

T36S R4 E
S17 | S16

S20 | S21
1913

from which

A cedar, 10 ins. dia., bears N.32° 50'E., 50 lks. dist., marked T 36 S R 4 E S 16 B T.

A pinion pine, 16 ins. dia., bears S.29° 05'E., 1.80 chs. dist., marked T 36 S R 4 E S 21 B T.

A cedar, 12 ins. dia., bears S.16° 30'W., 1.06 chs. dist., marked T 36 S R 4 E S 20 B T.

A cedar, 10 ins. dia., bears N.9° 25'W., 58 lks. dist., marked T 36 S R 4 E S 17 B T.

Chains	
	Land, rolling hills; soil, stony on surface with subsoil composed of gravel and sand of medium texture; timber, scant growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.
	East on a random line bet. secs. 16 and 21.
40.00	Set temp $\frac{1}{4}$ cor.
80.20	Intersect N. and S. line, 21 lks. N. of the cor. of secs. 15,16,21 and 22.
	Thence I run
	N.89° 52'W., on a true line bet. secs. 16 and 21.
	Over rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.
35.10	Wagon road, Escalante to Fifty-Mile bra. N.25°W. and S.25°E.
40.10	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 S16 $\frac{1}{4}$ S21 1913 and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1$\frac{1}{2}$ ft. high, N. of cor.
63.70	Enter rolling hills and scant growth of pinion pine and cedars; undergrowth, scattering, brs. N.70°E. and SW.
80.20	The cor. of secs. 16,17,20 and 21.
	Land, rolling; soil, stony on surface with subsoil composed of gravel and sand of medium texture; timber, scant growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.
	November 5, 1913: At this cor. I set off 15° 40'S., on the decl. arc; and at 11^h 44^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 41'.
	N.0° 03'W., bet. secs. 16 and 17.
	Over rolling hills through scant growth of scattering pinion pine and cedars and scattering undergrowth of sage brush, yellow top and grass.

Chains

39.70 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W. C. to the $\frac{1}{4}$ sec. cor., with brass cap marked

T36S R4E
$\frac{1}{4}$
W C
S17 | S16
1913

No bearing trees available; dig pits, 18x18x18 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 5½ ft. base, 1½ ft. high, W. of cor.

40.00 Enter alkali wash, 10 ft. deep, drs. S.80°E.

49.75 Wagon road, Escalante to Fifty-Mile bears N.70°W. & S.80° E.

54.50 Leave alkali wash, 10 ft. deep, drs. S.80°E.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 8,9,16 and 17 with brass cap marked

T36S R4E
S8 | S9
S17 | S16
1913

from which

A cedar, 10 ins. dia., bears N.31° 30'E., 49 lks. dist., marked T 36 S R 4 E S 9 B T.

A cedar, 16 ins. dia., bears S.23° 50'E., 58 lks. dist., marked T 36 S R 4 E S 16 B T.

A pinion pine, 7 ins. dia., bears S.32° 15'W., 31 lks. dist., marked T 36 S R 4 E S 17 B T.

A pinion pine, 12 ins. dia., bears N.31°W., 62 lks. dist., marked T 36 S R 4 E S 8 B T.

Land, rolling hills; soil, red sand of light texture; timber, scant growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.

S.89° 52'E., on a random line bet. secs. 9 and 16.

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

80.10 Intersect N. and S. line, 9 lks. S. of the cor. of secs. 9,10,15 and 16.

Thence I run

N.89° 56'W., on a true line bet. secs. 9 and 16.

Chains

Over rolling hills, through scattering growth of pinion pine and cedars and scattering undergrowth of sage brush, yellow top and grass.

40.05 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

S9
$\frac{1}{4}$
S16
1913

from which

A pinion pine, 6 ins. dia., bears N.4° 30'E., 47 lks. dist., marked $\frac{1}{4}$ S 9 B T.

A pinion pine, 10 ins. dia., bears S.46° 30'E., 41 lks. dist., marked $\frac{1}{4}$ S 16 B T.

54.60 Dry wash, 65 lks. wide, 10 ft. deep, drs. S.

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

Land, rolling hills; soil, red sand of light texture; timber, scant growth of pinion pine and cedars; scattering undergrowth of sage brush, yellow top and grass.

November 5, 1913.

November 6, 1913: At 7^h 44^m a.m.l.m.t., I set off 37°42' on the lat. arc; 15° 53'S., 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° 03'W., bet. secs. 8 and 9.

Over rolling hills through scattering growth of pinion pine and cedars and scattering undergrowth of sage brush, yellow top and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 10 ins. in the ground to solid rock and erect a mound of stone, 3 ft. base, 1½ ft. high, around post for $\frac{1}{4}$ sec. cor., with brass cap marked

S8$\frac{1}{4}$ | S9
1913

from which

A cedar, 8 ins. dia., bears N.86° 05'E., 49 lks. dist., marked $\frac{1}{4}$ S 9 B T.

A pinion pine, 10 ins. dia., bears N.38° 30'W., 39

hains

lks. dist., marked ¼ S 8 B T

30.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 4,5,8 and 9, with brass cap marked

T36S | R4E
S5 | S4
S8 | S9
1913

from which

A pinon pine, 10 ins. dia., bears N.43°15'E., 58 lks. dist., marked T 36 S R 4 E S 4 B T

A cedar, 6 ins. dia., bears S.59°50'E., 93 lks. dist., marked T 36 S R 4 E S 9 B T

A cedar, 6 ins. in dia., bears S.44°25'W., 90 lks. dist., marked T 36 S R 4 E S 8 B T

A cedar, 16 ins. dia., bears N.46°30'W., 38 lks. dist., marked T 36 S R 4 E S 5 B T

Land, rolling hills; soil, stony on surface, 4 ins. deep with subsoil composed of decomposed sandstone and sand of light texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of sagebrush, yellow top and grass.

S.89°56'E. on a random line bet. secs. 4 and 9.

0.00 Set temp. ¼ cor.

0.10 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 3,4,9 and 10.

Thence I run

N.89°54'W. on a true line bet. secs. 4 and 9.

Over broken mesa land, through scattering growth of pinon pine and cedars and scattering undergrowth of sagebrush, yellow top and grass.

0.05 Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground, to solid rock, and erect a mound of stone, 3 ft. base, 14 ins. high, around post for ¼ sec. cor. with brass cap marked

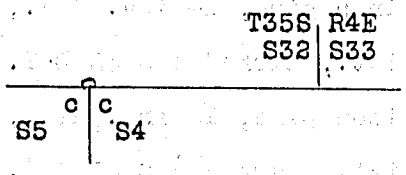
S4
¼
S9
1913

from which

Chains	
	A pinon pine, 6 ins. dia., bears N.38°E., 31 lks. dist., marked ¼ S 4 B T
	A pinon pine, 6 ins. dia., bear S.49°E., 4 lks. dist., marked ¼ S 9 B T
50.10	Leave broken mesa, brs. N. and S.
	Descend over sandstone ledges.
56.60	Foot of ledges, 150 ft. below top of mesa, brs. N. and S.
	Continue on a near level line, over rolling hills.
58.10	Dry wash, 40 lks. wide, 6 ft. deep, drs. S.
80.10	The cor. of secs. 4, 5, 8 and 9.
	Land, rolling hills; soil, stony on surface 4 ins. deep with subsoil composed of decomposed sandstone and sand of light texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of sage-brush, yellow top and grass.
	November 6: At this cor. I set off 15°58'S. on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian, the resulting latitude is 37°43'.
	N.0°03'W. bet. secs. 4 and 5.
	Over rolling hills, through scattering growth of pinon pine and cedars and scattering undergrowth of sage-brush, yellow top and grass.
6.00	Dry wash, 40 lks. wide, 3 ft. deep, drs. SE.
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 S5¼ | S4 1913 from which
	A pinon pine, 10 ins. dia., bears S.87°E., 74 lks. dist., marked ¼ S 4 B T
	A pinon pine, 10 ins. dia., bears S.14°10'W., 38 lks. dist., marked ¼ S 5 B T
58.75	Dry wash, 15 lks. wide, 1 ft. deep, drs. S.25°E.
79.92	Intersect Seventh Standard Parallel South, 18.37 chs. N.39 deg. W. of standard cor. of secs. 32 and 33, described in retracement of the Seventh Standard Parallel South, this book.

hains

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 4 and 5, with brass cap marked



1913

from which

A pinon pine, 10 ins. dia., bears S.21° 45'E., 8 lks. dist., marked T 36 S R 4 E S 4 B T.

A cedar, 6 ins, dia., bears S.14° 30'W., 24 lks. dist., marked T 36 S R 4 E S 5 B T.

Land, rolling hills; soil, stony on surface, 3 to 4 ins. deep with subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of sage brush, yellow top and grass.

November 6, 1913.

Edward R Bunbury

U. S. Transitman.

October 25, 1913: At 8^h 14^m a.m.ml.m.t., I set off 37° 38' E., on the lat. arc; 12° 01'S., 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° 03'W., bet. secs. 31 and 32.

Over mountainous land through scattering growth of pinon pine and cedars and scattering undergrowth of sage brush and grass.

Descend.

4.00 Foot of descent, 100 ft. below sec. cor., brs. E. and W.

Continue ', across flat, on a near level line.

1.00 Dry wash, 20 lks. wide, 6 ft. deep, drs. NE.

7.00 Dry wash, 20 lks. wide, 5 ft. deep, drs. NE.

0.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for ¼ sec. cor., with brass cap marked S31¼ | S32 1913 from which
	A pinon pine, 14 ins. dia., bears S.70°E., 44 lks. dist., marked ¼ S 32 B T.
	A pinon pine, 13 ins. dia., bears S.81° 30'W., 72 lks dist., marked ¼ S 31 B T.
42.50	Dry wash, 10 lks. wide, 8 ft. deep, drs. E.
47.80	Same wash, 10 lks. wide, 8 ft. deep, drs. N.
51.50	Leave wash, drs. NW.
59.60	Dry wash, 1 ch. wide, 8 ft. deep, drs. NE.
72.40	Dry wash, 15 lks. wide, 4 ft. deep, drs. E.
76.00	Ascend over sandstone ledges, br: E. and W.
80.00	True point for sec. cor. falls on solid sandstone.Cor.not
80.70	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for W.C. to the cor. of secs. 29,30,31 and 32 with brass cap marked

T36S R4E
S30 \| S29
W.C.
S31 \| S32
1913

No bearing trees available; erect a mound of stone 3 ft. base, 2 ft. high, W. of cor.

160 ft. above point of ascent.

Land, mountainous; soil, stony on surface; 4th rate; timber, scattering growth of pinon pine and cedars; undergrowth, scattering sage brush and grass.

October 25, 1913.

U. S. Surveyor.

November 4, 1913: For observations on this date see pages 36 and 37 of this book:; miles bet. secs. 32 and 33 and 28 and 33.

From the true point for cor. of secs. 29.30,31 and 32.

Chains	
	I run East on a random line bet. secs. 29 and 32.
40.00	Set temp. $\frac{1}{4}$ cor.
79.77	Intersect N. and S. line, 12 lks. N. of the cor. of secs. 28,29,32 and 33.
	Thence I run
	N.89° 55'W., on a true line bet. secs. 29 and 32.
	Over rolling hills through scattering growth of pinon pine and cedars and scattering undergrowth of sage brush, yellow top and grass.
39.88½	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
	S29 $\frac{1}{4}$ S32 1913
	No bearing trees available; erect a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
53.75	Dry wash, 30 lks. wide, 5 ft. deep, drs. N.70°E.
60.00	Enter broken mountainous land, brs. NE. and SW.
79.77	The true point for secs. 29,30,31 and 32.
	Land, mountainous; soil, stony on surface; 4th rate; timber, scattering growth of pinon pine and cedars; undergrowth, scattering sage brush and grass.

November 4, 1913.

Edward R Bamburg

U. S. Transitman.

	October 25, 1913:
	West on a random line bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ cor.
79.95	Intersect W. bdy. of the Tp., 9 lks. S. of the cor. of secs. 25,30,31 and 36 heretofore described.
	Thence I run
	S.89° 56'E., on a true line bet. secs. 30 and 31.
	Over broken mountainous land through scattering growth

Chains	
	of pinon pine and cedars and scattering undergrowth of sage brush and grass.
	Along top of mesa on a near level line.
3.00	Dry wash, 15 lks. wide, 1 ft. deep, drs. SE.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S30 ¼ S31 1913 from which
	A cedar, 10 ins. dia., bears S.72°E., 68 lks. dist., marked ¼ S 31 B T.
	A cedar, 12 ins. dia., bears N.26° 30'W., 81 lks. dist., marked ¼ S 30 B T.
50.00	Begin rocky descent, brs. NW. and SE.
65.00	Bottom of rocky descent, 285 ft. below point of descent, brs. NW. and SE.
	Continue ", over series of low broken hills.
67.70	Dry wash, 30 lks. wide, 4 ft. deep, drs. SE.
	Ascend.
79.95	The true point for the cor. of secs. 29,30,31 and 32. 40 ft. above dry wash.
	Land, mountainous; soil, stony on surface; 4th rate; timber, scattering growth of pinon pine and cedars; undergrowth, scattering sage brush and grass.
	October 25: At this cor., I set off 12° 05'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian the resulting latitude is 37° 39'.
	N.0° 03'W., bet. secs. 29 and 30.
	Over mountainous broken land through scattering growth of pinon pine and cedars and scattering undergrowth of sage brush and grass.
	Ascend.
11.50	Top of ascent, 195 ft. above sec. cor., brs. E. and W.
	Descend abruptly.
12.00	Bottom of abrupt descent, 100 ft. below the top, brs. E. and W.

Chains	
	Continue , along rolling bench land,on a near level line.
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 S30¼ | S29 / 1913 from which
	A pinon pine, 12 ins. dia., bears S.6°E., 85 lks. dist., marked ¼ S 29 B T.
	A pinon pine, 12 ins. dia., bears N.65°W., 66 lks. dist., marked ¼ S 30 B T.
58.00	Ascend rocky slope of mesa, brs. N.80°W. and S.80°E.
72.00	Top of mesa, 300 ft. above point of ascent, brs. N.80°W. and S.80°E.
	Continue , on a near level line,along top of mesa.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 19,20,29 and 30 with brass cap marked T36S R4E / S19 | S20 / S30 | S29 / 1913 from which
	A pinon pine, 12 ins. dia., bears N.44°E., 77 lks. dist., marked T 36 S R 4 E S 20 B T.
	A pinon pine, 12 ins. dia., bears S.11° E., 34 lks. dist., marked T 36 S R 4 E S 29 B T.
	A pinon pine, 16 ins. dia., bears S.65°W., 70 lks. dist., marked T 36 S R 4 E S 30 B T.
	A pinon pine, 12 ins. dia., bears N.46°W., 49 lks. dist., marked T 36 S R 4 E S 19 B T.

Land, mountainous and broken; soil, stony on surface; 4th rate; timber, scattering pinon pine and cedars; undergrowth, scattering sage brush and grass.

October 25, 1913.

Jos. C. Shaw

U. S. Surveyor.

Chains	
	November 5, 1913: For observations on this date see pages 39 and 40 of this book bet. secs. 20 and 21 and secs. 16 and 21.
	From the cor. of secs. 19,20,29 and 30.
	I run S.89° 55'E., on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ cor.
79.76	Intersect N. and S. line, 19 lks. S. of the cor. of secs. 20,21,28 and 29.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 20 and 29.
	Over rolling land through medium undergrowth of yellow top, sage brush and scattering grass.
24.00	Enter scattering growth of pinon pine and cedars; undergrowth, scattering, brs. N. and S.
39.88	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	$\frac{\frac{1}{4}\ S20}{S29\ 1913}$ from which
	A cedar, 7 ins. dia., bears S.23° 45'W., 58 lks. dist., marked ¼ S 29 B T.
	A cedar, 6 ins. dia., bears N.62° 40'W., 42 lks. dist., marked ¼ S 20 B T.
58.00	Leave rolling land; ascend ledges, brs. NW. and S.
72.00	Top of mesa, 300 ft. above point of ascent, brs. NW. and S.
	Continue on a near level line, along top of mesa.
79.76	The cor. of secs. 19,20,29 and 30.
	Land, mountainous and broken; soil, stony on surface; 4th rate; timber, scattering pinon pine and cedars; undergrowth, scattering sage brush and grass.

November 5, 1913.

Edward R Bumbury

U. S. Transitman.

Subdivision of T. 36 S. R. 4 E.

Chains	
	October 27, 1913: At 8h 14m a.m., l.m.t., I set off 37° 40'N. on the lat. arc, 12°42'S. 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°56'W. on a random line bet. secs. 19 and 30.
40.00	Set temp. ¼ cor.
79.91	Intersect W. bdy. of the Tp. 5 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence I run
	S.89°54'E. on a true line bet. secs. 19 and 30.
	Over mountainous land through scattering growth of pinon pine and cedars and scattering undergrowth of sagebrush and grass.
	Descend.
17.90	Bottom of ravine, 75 ft. deep, drs. NE.
	Continue on a near level line over low broken hills and ledges.
39.91	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 19 / ¼ / S 30 / 1913
	No bearing trees available, erect a mound of stone, 3 ft. base, 2 ft. high N. of cor.
45.90	Dry wash, 20 lks. wide, 30 ft. deep, drs. NE.
	Ascend.
75.40	Top of mesa, 165 ft. above wash, brs. N. and S.
	Continue along top of mesa, on a near level line.
79.91	The cor. of secs. 19, 20, 29 and 30.
	Land mountainous and broken. Soil, stony on surface, 4th rate; timber scattering pinon pine and cedars; undergrowth scattering sagebrush and grass.
	N.0°03'W. bet. secs. 19 and 20.
	On a near level line across top of mesa through scattering

Subdivision of T. 36 S., R. 4 E.

Chains	
	growth of pinon pine and cedars and scattering under-growth of sagebrush and grass.
6.70	Leave top of mesa and descend over slide rock and ledges, brs. E. and W.
20.00	Bottom of descent, 80 ft. below top of mesa, brs. W. and SE.
	Continue on a near level line over low broken hills.
	Leave timber, brs. NW. and SE.
32.60	Dry wash, 20 lks. wide, 15 ft. deep, drs. NE. Ascend.
38.50	Top of spur, 50 ft. high, projects E. Descend.
40.00	Point for $\frac{1}{4}$ sec. cor., cor. not set.
	Dry wash, 20 lks. wide, 15 ft. deep, drs. NW.
41.20	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for W.C. to the $\frac{1}{4}$ sec. cor. with brass cap marked T. 36 S. R. 4 E. $\frac{1}{4}$ W. C. S 19 | S 20 1913 and dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, 2 ft. high W. of cor.
51.05	Dry wash, 30 lks. wide, 5 ft. deep, drs. W.
65.25	Leave rolling hills; enter flat, brs. E. and W.
75.50	Dry wash, 1 ch. wide, 15 ft. deep, drs. NE.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 17, 18, 19 and 20, with brass cap marked T. 36 S. R. 4 E. S 18 | S 17 S 19 | S 20 1913 and dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth, 3 ft. base, 2 ft. high W. of cor.
	Land rolling; soil red sand of medium texture; no timber; undergrowth scattering yellow top, sagebrush and grass.

Chains

October 27, 1913.

U. S. Surveyor.

November 5, 1913:For observations on this date see pages 39 and 40 of this book bet. secs. 20 and 21 and 16 and 21.

From the cor. of secs. 17,18,19 and 20.

I run N.89° 57'E., on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ cor.

79.74 Intersect N. and S. line, 14 lks. S. of the cor. of secs. 16,17,20 and 21.

Thence I run

S.89° 51'W., on a true line bet. secs. 17 and 20.

Over rolling hills through scant growth of pinon pine and cedars and scattering undergrowth of yellow top, sage brush and grass.

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

S17
¼
S20
1913

No bearing trees available; dig pits , 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, N. of cor.

44.00 Leave hills and timber; enter rolling land, brs. N. and SW.

76.10 Dry wash, 60 ft. wide, 20 ft. deep, drs. N.25°E.

79.74 The cor. of secs. 17,18,19 and 20.

Land, rolling; soil, red sand of medium texture; no timber; undergrowth, scattering yellow top, sage brush and grass.

November 5, 1913.

Chains	
	Edward R. Bamburg U. S. Transitman.
	October 27, 1913:From the cor. of secs. 17,18,19 and 20.
	I run N.89° 54'W., on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ cor.
79.82	Intersect W. bdy. of the Tp., 5 lks. N.of point for cor. secs. 13,18,19 and 24 heretofore described.
	Thence I run
	S.89° 56'E., on a true line bet. secs. 18 and 19.
	Over rolling broken hills through scattering undergrowth.
	Ascend.
24.40	Top of ascent, brs. N. and S.
	Continue . over top of mesa.
39.82	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S18 ¼ S19 1913 and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, N. of cor.
	October 27: At this cor., I set off 12° 46'S., on the decl arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 41'.
61.80	Leave top of mesa; descend E. slope of same, brs. N. and S
71.80	Bottom of descent, 80 ft. below top of mesa, brs. NE. and S.
	Continue , on a near level line across flat.
79.82	The cor. of secs. 17,18,19 and 20.
	Land, rolling; soil, red sand of medium texture; no timber; undergrowth, scattering yellow top, sage brush and grass.
	N.0° 03'W., bet. secs. 17 and 18.
	Over flat land through scattering undergrowth.

Subdivision of T. 36 S. R. 4 E.

Chains	
4.00	Ascend SE. slope of mesa, brs. NE. and SW.
18.00	Top of mesa, 70 ft. above point of ascent, brs. NE. and SW.
	Continue on a near level line across top of mesa.
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 S 18 ¼ | S 17 1913 and dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high W. of cor.
64.00	Descend into valley over red sandstone ledges, br. NE. and SW.
72.00	Bottom of descent; 65 ft. below point of descent, brs. NE. and SW.
	Continue over rolling land.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7,8,17 and 18 with brass cap marked T 36 S R 4 E S 7 | S 8 S 18 | S 17 1913 and dig pits 18x18x12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 3½ ft. base, 2½ ft. high W. of cor.
	From this cor. the partly completed cabin of Riley Woolsey, brs. S.36°W. 5 chs. dist.
	Land rolling; soil red sand of very light texture; no timber; undergrowth, medium yellow top, sagebrush and grass.
	N.89°56'W. on a random line bet. secs. 7 and 18.
40.00	Set temp. ¼ cor.
79.69	Intersect W. bdy. of the Tp. 7 lks. S. of the cor. of secs. 7, 12, 13 and 18 heretofore described.
	Thence I run

Subdivision of T. 36 S. R. 4 E.

Chains	
	S.89°53'E. on a true line bet. secs. 7 and 18.
	Over rolling land, through scattering timber and undergrowt
15.70	Leave scattering growth of cedars and pinon pine, brs. NE. and SW.
23.00	Dry wash, 20 lks. wide, 15 ft. deep, drs. NE.
39.69	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 S 7 $\frac{1}{4}$ S 18 1913 and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth 3½ ft. base, 2 ft. high N. of cor.
40.00	Top of small mesa, brs. N. and S.
51.70	Dry wash, 25 lks. wide, 15 ft. deep, drs. NE.
79.69	The cor. of secs. 7, 8, 17 and 18.
	Land rolling; soil red sand of very light texture, scattering timber; medium undergrowth of yellow top, sagebrush and grass.

October 27, 1913,

Jos. C. Thom
U.S.Surveyor.

November 6, 1913: For observations on this date see pages 42 and 44 of this book bet. secs. 8 and 9 and 4 and 9.

From the cor. of secs. 7,8,17 and 18 I run

N.89°51'E. on a random line bet. secs. 8 and 17.

40.00	Set temp. $\frac{1}{4}$ cor.
79.81	Intersect N. and S. line, 9 lks. S. of the cor. of secs. 8,9,16 and 17.

Thence I run

S.89°47'W. on a true line bet. secs. 8 and 17.

Over rolling hills through scattering growth of pinon pine and cedars and scattering undergrowth of yellow top,

Subdivision of T. 36 S., R. 4 E.

Chains	
	sagebrush and grass.
35.00	Leave rolling hills and timber; enter rolling land and medium undergrowth, brs. NW. and S.70°E.
39.90½	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 8 ¼ S 17 1913 and dig pits, 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 2 ft. high, N. of cor.
61.50	Wagon road, Escalante to Fifty-Mile, brs. NW. and S.70°E.
64.50	Wash, 4 chs. wide, 6 ft. deep with running alkali water water 12 lks. wide, 2 ins. deep, drs. S.70°E.
79.81	The cor. of secs. 7, 8, 17 and 18. Land, rolling; soil, red sand of very light texture, no timber, medium undergrowth of yellow top, sagebrush and grass. November 6, 1913.
	November 1, 1913: At 9h 44m a.m., l.m.t., I set off 37°42'N. on the lat. arc; 14°23'S., 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°03'W., bet. secs. 7 and 8. Over rolling land through medium undergrowth of yellow top, sagebrush and scattering grass.
5.65	Wash, 3 chs. wide, 6 ft. deep, drs. S.60°E.
29.00	Enter rolling hills, brs. W. and S.60°E.
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 S 7 ¼ S 8 1913 and dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

Chains	
43.00	Enter scattering growth of pinon pine and cedars; undergrowth, scattering, brs. NW. and SE.
46.10	Wagon road, Escalante to Fifty-Mile, brs. NW. and SE.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 5, 6, 7 and 8, with brass cap marked T 36 S | R 4 E S 6 | S 5 S 7 | S 8 1913 No bearing trees available; dig pits, 18 x 18 x 12 ins., in each sec., 5½ ft. dist., and raise a mound of earth, 3 ft. base, 2 ft. high, W. of cor.
	Land, rolling hills; soil, coarse gravel on surface with subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinon pine and cedars; undergrowth, scattering yellow top, sagebrush and grass.
	November 1: At this cor., I set off 14°25'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting latitude is 37°43'.
	November 1, 1913.
	November 6, 1913: For observations on this date see pages 42 and 44 of this book; bet. secs. 8 and 9 and 4 and 9.
	From the cor. of secs. 5, 6, 7 and 8, I run N.89°47'E., on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ cor.
79.85	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 4, 5, 8 and 9. Thence I run S.89°49'W., on a true line bet. secs. 5 and 8.
	Over rolling hills through scattering growth of pinon pine and cedars and scattering undergrowth of yellow top, greasewood and grass.
39.92½	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

S5
¼
S8
1913

No bearing trees available; erect a mound of stone, 3 ft. base, 2 ft. high N. of cor.

79.85 The cor. of secs. 5, 6,7 and 8.

Land, rolling hills; soil, coarse gravel on surface with subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinon pine and cedars; undergrowth, scattering yellow top, sagebrush and grass.

November 6, 1913.

November 1, 1913:

N.89°53'W. on a random line bet. secs. 6 and 7.

40.00 Set temp. ¼ cor.

79.59 Intersect W. bdy. of the Tp. 7 lks. S. of the cor. of secs. 1,6,7 and 12, heretofore described.

Thence I run

S.89°50'E. on a true line bet. secs. 6 and 7.

Over rolling hills, through medium undergrowth of yellow top, sagebrush and scattering grass.

17.60 Enter scattering growth of pinon pine and cedars;undergrowth, scattering, brs. N. and S.

39.59 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 6
¼
S 7
1913

from which

A cedar,6 ins.dia.,bears N.19°55'E., 64 lks. dist., marked ¼ S 6 B T

A pinon pine,8 ins.dia.,bears S.74°20'E.,23 lks. dist., marked ¼ S 7 B T

56.10 Dry wash, 40 lks. wide, 2 ft. deep, drs. SE.

56.80 Wagon road, Escalante to Fifty-Mile, brs.N. and S.35°E.

79.59 The cor. of secs. 5, 6, 7 and 8.

Land, rolling hills; soil, coarse gravel on surface with

Chains	
	subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinon pine and cedars;undergrowth, scattering yellow top, sagebrus and grass.
	N.0°03'W. bet. secs. 5 and 6, on true line
	Over rolling hills, through scattering growth of pinon pine and cedars and scattering undergrowth of yellow top, sagebrush and grass.
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 S6¼ | S5 1913
	No bearing trees available; erect a mound of stone 3½ ft. base, 2 ft. high W. of cor.
80.19	Intersect Seventh Standard Parallel South, 18.31 chs. W. of the standard cor. for secs. 31 and 32, which is a sandstone 4 x 9 x 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	Set an iron post 3 ft. long, 2 ins. in dia., 10 ins. in the ground to solid rock, and erect a mound of stone 3 ft. base, 2 ft. high around post for C.C. of secs. 5 and 6, with brass cap marked T35S | R4E S31 | S32 C C S6 | S5 1913 from which
	A pinon pine,6 ins.dia.,bears S.6°E., 28 lks, dist., marked T 36 S R 4 E S 5 B T
	A pinon pine,6 ins.dia.,bears S.38°15'W., 42 lks. dist., marked T 36 S R 4 E S 6 B T
	Land, rolling hills; soil, stony on surface 3 to 4 ins. deep with subsoil composed of coarse gravel and sandy loam of medium texture; timber, scattering growth of pinon pine and cedars; scattering undergrowth of yellow top, sagebrush and grass.

November 1, 1913.

Edward R. Bunbury

U.S. Transitman.

Chains	
	November 5, 1913: At 8h 44m a.m., l.m.t., I set off 37° 44'N. on the lat. arc; 15°37'S. on the decl. arc; and determine a meridian with the solar at the standard cor. of Tp. 35 S., Rs. 3 and 4 E., previously described.
	Thence I run
	East, retracing the seventh standard parallel south,
	Over gently rolling land, covered with a medium growth of yellow top and grass.
9.11	Intersect a sandstone 12 x 2 x 12 ins. above ground, firmly set, mkd. with 6 notches on E. and W. edges, with no accessories.
49.16	Fall 1 lk. S. of the standard quarter cor. on the S.bdy. of sec. 31, which is
	A sandstone 24 x 3 x 9 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
89.48	Fall 1 lk. S. of the standard cor. of secs. 31 and 32, heretofore described.
	Therefore the true course of this mile is east, and the distance is 89.48 chs.
	Thence I run East, from the cor. of secs. 31 and 32,
	Over land broken with numerous washes, covered with scattering scrub cedar and pinon timber.
39.92	Fall 19 lks. S. of the standard quarter sec. cor. on the S. bdy. of sec. 32, which is a limestone 10 x 5 x 5 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
79.89	Intersect the standard cor. of secs. 32 and 33, which is a sandstone 5 x 7 x 4 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	Therefore the bearing for the W. half of this mile is N.

Chains

89°44'E. and the distance is 39.92 chs.; the bearing for the E. half is S.89°44'E., and the dist. is 39.97 chs.; the bearing of the whole mile is East, and the distance is 79.89 chs.

November 5, 1913: At the above described cor. I set off 15°40'S. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting lat. is 37°43'N.

Thence I run

East, on the S. bdy. of sec. 33, retracing the seventh standard parallel south; over rough, broken land, covered with dense cedar and pinon timber.

37.50 Fall 1 lk. N. of the standard quarter sec. cor. on the S. bdy. of sec. 33, which is

A sandstone 24 x 14 x 4 ins. lying loose on the ground, mkd. and witnessed as described by the surveyor general.

I set this stone on the spot, where found, which agrees with the courses and distances to the bearing trees as given in the original notes.

77.36 Fall 1 lk. S. of the standard cor. of secs. 33 and 34, heretofore described.

Therefore the course of this mile is East, and the distance is 77.36 chs.

November 5, 1913.

November 18: After retracing the west three miles of the seventh standard parallel south across R. 4 E. finding compartively no error in alinement; and inasmuch as the subdivisional meridional lines in T.36 S., R.4 E. disclose no error in alinement of the parallel, I therefore retrace the remainder of the seventh standard parallel south through R.4 E. for measurement only.

Retracement of the Seventh Standard Parallel South, through R.4 E.

Chains.	
	I proceed to the standard cor. of secs. 33 and 34, previously described and chain east along the S.bdy. of sec. 34.
40.00	After diligent search I find no evidence of the standard quarter sec. cor.
84.96	A sandstone 8 x 10 x 8 ins. above ground, firmly set, mkd. SC WC on the N. with 4 grooves on the W. and 2 grooves on the E. faces.
	Thence I chain,
	East, along the S.bdy. of sec. 35,
	Over rim rock and canyons; through dense cedar and pinon timber.
40.00	After diligent search find no evidence of the standard quarter sec. cor.
73.75	The standard cor. of secs. 35 and 36, heretofore described.
	Note: As there is no record of this W.C. in the field notes of prior surveys to show its distance from the position for the standard cor. of secs. 34 and 35, the true position for this standard corner is determined, by proportionate measurement, half-way between the SW. cor. of sec. 34, and the SE. cor. of sec. 35 to be 79.35 chs. from each corner.
	East along the S.bdy. of sec. 36,
	Over rim rock and canyons; through scattering scrub cedar and pinon timber.
39.83	The standard quarter cor. for sec. 36, which is a sandstone 16 x 4 x 8 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
79.75	The standard township cor. for T. 35 S., Rs. 4 and 5 E. which is
	A sandstone 12 x 6 x 8 ins. above ground, firmly set, mkd. and witnessed as described by the surveyor general.
	November 18, 1913.

Jos. C. Thom
U.S. Surveyor.

GENERAL DESCRIPTION.

The lands embraced in the N. half and the southwest quarter of this township are generally rough and broken, with little or no vegetation, other than scrub cedar and pinon timber, affording scant grazing. The canons, particularly in the NE. quarter, are from 25 to 100 ft. deep, and in many cases have almost perpendicular walls. Large areas of the sandstone bed rock are exposed in the northeast quarter.

The land bordering on either side of the main wagon road within the township is generally an open mesa, with reddish sandy loam soil, of medium texture, with a light, white sand in the bottom of and adjacent to the draws, yielding a medium growth of nutritious grass for grazing purposes.

A stream of strongly alkalied water runs through secs. 7, 8, 17, 16, 15, 22, and sinks in sec. 23. This water can only be used for watering stock. In the southwest quarter of sec. 16 are found two seep springs of fairly good water at the base of the sandstone ledge forming the north wall of the canon. To the south of these springs dipping corrals for sheep are located.

The township has an eastern exposure, with the general drainage to the east.

A partly built, deserted log cabin was found in the NE¼ of sec. 18, near the cor. of secs. 7, 8, 17, and 18. This cabin is supposed to belong to Riley Woolsey.

No indications of oil or mineral were found in the township.

Jos. C. Thom
U.S. Surveyor.

Edward R. Brumbury
U.S. Transitman.

4—080

BOOK A-411

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 see book "G" T.37 S., R.4 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—2761

U. S. Surveyor.

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 ....., 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

For final oaths of U.S.Surveyor and U.S.Transitman see book "S" T.37 S., R.4 E.

..... 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 ....., 1913.

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City, Utah, June 23 1913.

The foregoing field notes of the survey of the subdivisional lines of Township No.36 South, Range No.4 East, and the retracement of the Seventh Standard Parallel South, through Range No.4 East, of the Salt Lake Base and Meridian, Utah,

executed by Joseph C.Thoma and Edward R.Bunbury under 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 and retracements 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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Field Notes

BOOK A-411

INDEX DIAGRAM.

Township ..... , *Range* .....

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WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Survey commenced August 30, 1912, and executed with a Young and Sons light mountain transit, No. 8517, 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 meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on June 7, 1912.

I examine the adjustments of the instrument and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a meridian established by Polaris observation, I proceed as follows:

At the cor. of Tps. 2 and 3 S., Rs. 6 and 7 W., heretofore described; lat. 40° 35' 38" N.; long. 112° 34' 42" W., I set off 40° 36' N. on the lat. arc; 8° 54' N. on the decl. arc; and at 4h 1m p.m. l.m.t., I determine a meridian with the solar, and mark a point thereof on a stone firmly set in the ground 5.00 chs. N. of the cor.

At 8h 57.6m p.m. l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs. N. of the cor.

August 30, 1912.

Aug. 31: At 6h 30m a.m. l.m.t., I lay off the azimuth of Polaris 1° 31' to the west, and mark a point in the meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of cor.; this mark falls 0.4 ins. east of the meridian established by

the solar.

At 7h 0m a.m.l.m.t., I set off 40° 36'N.on the lat.arc; 8° 41'N.on the decl.arc; and mark the meridian determined with the solar by a cross on the stone already set 5.00 chs.N.of the corner; this mark falls 0.38 ins. east of the meridian established by Polaris observations

The solar apparatus by p.m.and a.m.observations defines positions for meridians respectively about 0' 21"west and 0' 20" east of the meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 7h 30m a.m.is N.16° 55'W.; the angle thus determined gives the mag. decl.16°55'E.

From the cor.of Tps.2 and 3 S., Rs.6 and 7 W., I run North on a random line along W.bdy.Tp., setting temp.$\frac{1}{4}$ sec.and sec.cors.at intervals of 40.00 chs.; and at 487.21 chs.intersect N.bdy.of Tp.28.19 chs.west of the cor.of Tps.1 and 2 S., Rs.6 and 7 W., which is a sandstone 12 x 10 x 6 ins.above ground, firmly set, and mkd.and witnessed as described by the surveyor general.

I destroy the old cor., and re-establish it in the same place as follows:

Set an iron post, 3 ft.long, 3 ins.in dia., 24 ins.in the ground, for cor.of Tps.1 and 2 S., Rs.6 and 7 W., with brass cap mkd.

T 1 S
R 7 W | R 6 W
S 36	S 31
S 1	S 6
R 7 W	R 6 W
T 2 S
1912

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

September 3,1912.

WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains	
	Sept.4, 1912: At 6h 59m a.m.l.m.t., I set off 40° 41'N. on the lat.arc; 7° 14'N.on the decl.arc; and determine a meridian with the solar at the cor.of Tps.1 and 2 S., Rs.6 and 7 W.
	Thence I run
	South on a true line bet.secs.1 and 6,
	Over mountainous land; through dense undergrowth and scattering timber.
	Ascend.
1.21	Top of rocky spur, bears E.and W.
	Descend.
20.01	Old road in hollow, 300 ft.below spur, course E.
	Ascend.
35.21	Top of ridge, 300 ft.above hollow, bears NW. and SE.
47.21	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap mkd.
	S ¼ 1 | S 6 1912
	raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Descend.
59.11	Bottom of hollow, 300 ft.below ridge, course E.
	Ascend.
75.21	Top of ridge, 300 ft.above hollow, bears NE. and SW.
	Descend.
87.21	Set an iron post, 3 ft.long, 3 ins.in dia., 12 ins.in the ground, on rock, and surrounded with mound of stone, for cor.of secs.1,6,7, and 12, with brass cap mkd.
	T 2 S R 7 W | R 6 W S 1 — S 6 S 12 | S 7 1912
	and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Land, mountainous.
	Soil, clay loam and rock; 3rd rate.
	Timber, scattering cedar. Undergrowth sagebrush.

Chains.	
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth
	67.21 chs.

South on a true line bet. secs. 7 and 12,

Over mountainous land; through scattering timber and dense undergrowth.

Descend.

26.80	Bottom of hollow, course NE.
	Ascend.
31.20	Top of spur, 300 ft. above hollow, bears E. and W. Desc.
35.45	Road, bears NE. and SE.
35.60	Bottom of hollow, 150 ft. below spur, course E.
40.00	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 mkd.

$\frac{1}{4}$
S 12 | S 7

1912

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

Ascend.

58.30	Top of ridge, 200 ft. above hollow, bears E. and W.
	Descend.
75.50	Bottom of hollow, 100 ft. below ridge, course S. 70° E.
	Ascend 100 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, with brass cap mkd.

T 2 S

R 7 W | R 6 W

S 12 — S 7

S 13 | S 18

1912

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

Land, mountainous.

Soil, clay loam and loose rock; 3rd rate.

Timber, cedar.

WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains	
	Undergrowth, sagebrush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth 80.00 chs.
	Sept. 4, 1912: At this cor. I set off 7° 08'N. on the decl. arc; and at 11h 59m a.m.l.m.t., I observe the sun on the meridian; the resulting lat. is 40° 39'N., which is the proper lat. nearly.
	South on a true line bet. secs. 13 and 18,
	Over mountainous land; through dense undergrowth and scattering timber.
14.25	Top of spur, bears E. and W.
	Descend.
22.70	Bottom of hollow, 300 ft. below spur, course NE.
	Ascend.
30.30	Top of spur, 350 ft. above hollow, bears NE. and SW.
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 mkd.
	S 13 ¼ | S 18 1912
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Descend.
43.50	Bottom of hollow, 200 ft. below spur, course NE.
	Ascend.
68.30	Top of ridge, 450 ft. above hollow, bears NE. and SW.
	Descend through heavy timber, bearing E. and W.
80.00	Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, with brass cap mkd.
	T 2 S R 7 W | R 6 W S 13 | S 18 S 24 | S 19 1912

Chains.

From which

A cedar 5 ins. dia. bears N.80° E. 58 lks. dist. mkd. T 2 S R 6 W S 18 B T

A cedar, 5 ins. dia., bears S.85° E. 53 lks. dist., mkd. T 2 S R 6 W S 19 B T

A cedar, 6 ins. dia., bears S.19° W. 75 lks. dist., mkd. T 2 S R 7 W S 24 B T

A cedar 7 ins. dia., bears N.42° 30'W. 82 lks. dist., mkd. T 2 S R 7 W S 13 B T

Land, mountainous.

Soil, clay loam and loose rock; 3rd rate.

Timber, cedar. Undergrowth sagebrush.

Good grass.

Mountainous, or heavily timbered land, or land covered with dense undergrowth 80.00 chs.

September 4, 1912.

Sept. 5, 1912: At 6h 59m a.m. l.m.t., I set off 40° 38' N. on the lat. arc; 6° 52'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18, 19, and 24. Thence I run

South on a true line bet. secs. 19 and 24,

Over mountainous land; through heavy timber. Ascend.

5.00 Top of spur, projects S.70° E.

7.00 Leave timber, bearing E. and W.; enter dense undergrowth bearing E. and W.

Descend.

11.00 Bottom of hollow, 200 ft. deep, course E.

Ascend.

17.60 Top of spur, projects E.

Descend.

23.40 Bottom of hollow, 200 ft. deep, course NE.

Ascend.

34.50 Top of spur, projects SE.

WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains.	
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 24 | S 19 1912 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Descend.
43.00	Bottom of hollow, 200 ft. deep, course S. 80° E.
	Ascend.
47.80	Top of spur, projects SE.
	Descend.
70.70	Bottom of hollow, 250 ft. deep, course N. 70° E.
	Ascend abruptly.
77.00	Top of abrupt ascent; thence ascend gradually to
80.00	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, with brass cap marked T 2 S R 7 W | R 6 W S 24 | S 19 S 25 | S 30 1912 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, clay loam and loose rock; 3d rate.
	Timber, cedar.
	Undergrowth, sagebrush. Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth 80.00 chs.

South on a true line bet. secs. 25 and 30,

	Over mountainous land; through dense undergrowth. Ascend.
34.00	Top of spur, projects SE.
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 25 | S 30 1915

WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains.	
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Descend.
50.00	Bottom of hollow, 115 ft. deep, course SE. Ascend.
57.80	Top of ridge, or spur, projects S. 80° E. Descend.
68.00	Bottom of hollow, 150 ft. deep, course SE.
80.00	Bottom of hollow, 75 ft. deep, course SE.
	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, with brass cap marked

T 2 S
R 7 W | R 6 W
S 25 — S 30
S 36 | S 31
1912

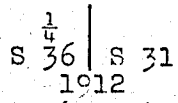
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, clay loam; 3d rate.
	No timber. Undergrowth, sagebrush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth 80.00 chs.
	Sept. 5, 1912: At this cor. I set off 6° 46' N. on the decl. arc; and at 11h 59m a.m.l.m.t., I observe the sun on the meridian; the resulting lat. is 40° 37' N., which is the proper lat. nearly.

South, bet. secs. 31 and 36,

	Over mountainous land; through dense undergrowth. Ascend.
.60	Old road, bears E. and W. Descend.
10.00	Wash, 20 lks. wide, 10 ft. deep, course N. 65° E.
	Ascend.
16.30	Top of spur, projects E. Descend.
27.70	Head of hollow, course NE. Ascend.
35.60	Top of spur, projects NE.

WEST BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains.	
	Descend.
39.40	Bottom of hollow, 100 ft. deep, course NE.
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 mkd.

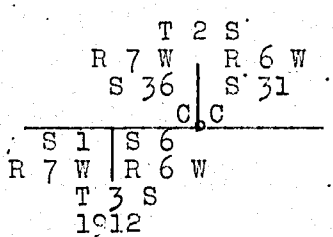


and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Ascend.

45.00	Top of spur, projects NE.
	Descend.
62.20	Hollow, 95 ft. deep, course NE.
68.30	Old road, bears NE. and SW.
73.00	Top of spur, projects N.75° E.
80.00	Intersect N. bdy. of T. 3 S., R. 6 W. 28.19 chs. east of the cor. of Tps. 2 and 3 S., Rs. 6 and 7 W.

Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for closing cor. of Tp. 2 S., Rs. 6 and 7 W. with brass cap mkd.



And raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. I destroy all marks on the cor. of Tps. 2 and 3 S. Rs. 6 and 7 W. which pertain to Tp. 2 S., Rs. 6 and 7 W.

Land, mountainous.

Soil, clay loam and loose rock; 3d rate.

No timber.

Undergrowth, sagebrush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth 80.00 chs.

September 5, 1912.

Chains.

Sept. 6, 1912: At 7h 58m a.m.l.m.t., I set off 40° 41'N. on the lat. arc; 6° 28'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32, and 33 on N. bdy. of Tp.; heretofore described.

Thence I run

West on a retracement line bet. secs. 5 and 32,

Over level valley; through dense undergrowth.

36.00 County road, bears N. 35° W. and S. 35° E.

39.26 Telephone line bears N. 35° W. and S. 35° E.

40.00 Intersect old ¼ sec. cor. bet. secs. 5 and 32, which is an old mound of earth and stone, with remains of an old stake. I destroy the old cor., and re-establish it in the same place 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 mkd.

¼
S 32
S 5
1912

Dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

49.55 Road, bears N. 5° W. and S. 5° E.

80.00 Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, with brass cap mkd.

T 1 S	R 6 W
S 31	S 32
S 6	S 5
T 2 S	R 6 W

1912

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

Land, level.

Soil, clay loam; 2d rate.

No timber. Undergrowth, sage, shadscale and greasewood.

No grass.

Land covered with dense undergrowth 80.00 chs.

Sept. 6, 1912: At this cor. I set off 6° 22'N. on the decl. arc; and at 11h 58m a.m.l.m.t., I observe the sun on

NORTH BOUNDARY OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Chains.

the meridian; the resulting lat. is 40° 41'N., which is the proper lat. nearly.

West, on a true line, bet. secs. 6 and 31,

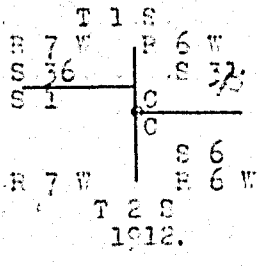
Over level land; through dense undergrowth.

10.25 Wash, 15 lks. wide, 2ft. deep, course N.15° E.

11.20 Begin ascent of mountain, bears N.10° E. and S.10° W.

32.76 Intersect W. bdy. of Tp. 6.29 chs. south of the cor. of Tps. 1 and 2 S., Rs. 6 and 7 W.

Set an iron post, 3 ft. long, 3 ins. in dia., 2½ ins. in the ground, for closing cor. of Tps. 1 and 2 S., R. 6 W. with brass cap mkd.



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

I destroy all marks on the cor. set for Tps. 1 and 2 S., Rs. 6 and 7 W., that pertain to R. 6 W.

Land, mountainous and level.

Soil, clay loam, mixed with gravel; 3d rate.

Good grass for grazing.

No timber. Undergrowth, shadscales and sagebrush.

Mountainous land, or land covered with dense undergrowth 32.76 chs.

September 6, 1912.

Claude L. Heat

U.S. Transitman.

BOUNDARIES OF TOWNSHIP 2 SOUTH, RANGE 6 WEST.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
West Boundary	North	480.92	480.92	.....	.....	.....
North Boundary	East	112.76	.....	.....	112.76	.....
East Boundary sec. 5	S. 1°04'E.	80.16	.....	80.15	1.49	.....
East Boundary sec. 8	S. 1°04'E.	80.16	.....	80.15	1.49	.....
North Bdy. sec. 16	N. 88°57'E.	80.12	1.47	.....	80.11	.....
East Bdy. sec. 16	S. 1°05'E.	80.20	.....	80.19	1.52	.....
East Bdy. sec. 21	S. 1°06'E.	80.16	.....	80.15	1.54	.....
North Bdy. sec. 28	S. 88°52'W.	79.90	.....	1.59	.....	79.89
East Bdy. sec. 29	S. 1°05'E.	80.22	.....	80.21	1.52	.....
East Bdy. sec. 32	S. 1°05'E.	80.20	.....	80.19	1.52	.....
South Boundary	West	122.31	.....	.....	.....	122.31
Convergency					.23	
	Totals		482.39	482.63 482.39	202.18	202.20 202.18
Errors in lat. and dep.				.24		.02

For general description see notes of the subdivision of this township.

4—680

BOOK A-411

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 see book "L" T.2 S., R.6 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 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

For final oath of transitman see book "L" T.2 S., R.6 E.

..... 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 .

APPROVAL.

Office of the United States Surveyor General,

Salt Lake City, Utah, March 27 1916.

The foregoing field notes of the survey of the West and North Boundaries of Township No. 2 South, Range No. 6 West, of the Salt Lake Base and Meridian, Utah

executed by ..... Claude L. Heist under his special instructions dated May 28, 1912, and supplemental special instructions dated Aug. 28 191 , 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.

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Page

Blank

Page

BOOK A-411
L.

U. S. Surveyor General's Office
MAR 12 1913
SALT LAKE CITY, UTAH

U. S. Surveyor General's Office
FEB 22 1913
SALT LAKE CITY, UTAH

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT, RESURVEY, AND SURVEY

OF

SUBDIVISION

OF

TOWNSHIP NO. 2 SOUTH, RANGE NO. 6 WEST,

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

JOHN F. STEWART AND RALPH [illegible]

the capacity of U. S. Surveyor S., under instructions dated May 28 *1912, and*
pp'l special instructions dated Aug. 28, 1912, Nov. 25, 1914 and July 29, 1915
spectively
ued by the United States Surveyor General to govern surveys included in

oup No. 17 *, which were approved by the Commissioner of the General Land*
Dec. 2, 1914, and Aug. 16, 1915, respectively
fice, June 7, 1912, Sept. 7 *, 1912, pursuant to authority contained in the Act of*

ngress dated *, 191*

Survey commenced August 25 *, 191* 2

Survey completed December 18 *, 191* 5.

BOOK A-411

INDEX DIAGRAM.

Township 2 South, *Range* 6 West

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

6—151

Survey commenced August 29, 1912, and executed with a W.and L.E.Gurley solar compass, No. 101111. 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 meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah on June 5, 1912.

I examine the adjustments of the instrument and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from solar observations, made during p.m. and a.m. hours, with a meridian established by Polaris observation, I proceed as follows:

At the cor. of secs. 4, 5, 32, and 33 on S.bdy. of Tp., latitude 40° 35' 38" N.; longitude 112° 32' 30" W., I set off 9° 14'N.on the decl. arc; and at 5h 1m p.m. l.m.t. I determine a meridian with the solar, and mark a point thereof on a stone firmly set in the ground 5.00 chs. N. of the cor.

At 9h 1.5m p.m. l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual; and mark a point in the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs. N. of the cor.

August 29, 1912.

August 30, 1912: At 7h 0 m.a.m. l.m.t., I lay off the azimuth of Polaris 1° 31' to the west, and mark a point in the meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of the cor.; this mark falls 0.34 ins. east of the meridian determined by the solar.

At 7h 1 m a.m. l.m.t., I set off 40° 36'N.on the lat. arc;

9° 03'E. on the decl.arc; and mark the meridian determined by the solar, by a cross on the stone already set 5.00 chs.E.of the cor.; this mark falls 0.29 ins. east of the meridian established by Polaris observation.

The solar apparatus by p.m.and a.m.observations defines positions for meridians respectively about 0' 17" west and 0' 15" east of the meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 7h 30m a.m.l.m.t. is N.17° 00'E.; the angle thus determined gives the mag.decl.17° 00'E.

Note: Before commencing the subdivision of this township I deem it necessary to retrace the old lines adjacent to the new work; therefore I run, from cor.of secs.4, 5, 32, and 33, on S.bdy.of Tp., as heretofore described North, on a retracement line bet.secs.32 and 33,

80.00 Find no trace of old cor.

80.19 Fall 15± lks.E.of the cor.of secs.28,29,32, and 33,which is an old mound of earth with traces of pits, and a mound of stone, which has apparently been built only a few years.

Note: The notes of the resurvey of this mile are on page 12 of this book.

From the above described old cor., I run

North on retracement line bet.secs.29 and 32,

79.50 Find no trace of the old ¼ sec.cor.

Set temp.¼ sec.cor.

80.41 Fall 1½ lks.east of the old cor.of secs.20,21,28, and 29, which is a greatly decayed post, in an old mound of

Chains.

earth and stone, but which is very plainly the old cor.

Note: For resurvey of this line see notes on page 11 of this book.

August 30, 1912: At this cor. I set off 8° 57'N. on the decl. arc; and at 0 h 1 m p.m. l.m.t., I observe the sun on the meridian; the resulting lat. is 40° 57'N., which is the proper lat. nearly.

From the above described old cor. I run

East on a retracement line bet. secs. 21 and 28,

40.00 Find no trace of old cor.

79.89 Fall 158 lks. S. of the cor. of secs. 21, 22, 27, and 28, which is an old mound of earth and stone, showing a trace of the old pits.

Note: For resurvey of this line see page 11 this book.

From the above described old cor. I run

North on a retracement line bet. secs. 21 and 22,

40.00 No trace of the old cor. Set temp. $\frac{1}{4}$ sec. cor.

80.15 Fall 154 lks. E. of the cor. of secs. 15, 16, 21, and 22, which is a cobble stone 12 x 10 x 9 ins. above ground, firmly set, and mkd. with 3 notches on S. and E. edges; in an old mound of earth and stone. This stone is probably not the original cor., but was probably set in the old mound at least ten or fifteen years ago, judging from the vegetation around it. A further evidence that these are the original corners is, that I turn my instrument and look east. The fences in the valley are on the same course that these lines are, and directly in line with this cor.

Note: For notes of resurvey of this line see page 10 this book.

August 30, 1912.

Chains	
	August 31, 1912: At 7h 0m a.m.l.m.t., I set off 40° 38' N.on the lat.arc; 8° 41'N.on the decl.arc; and determine a meridian with the solar at the old cor.of secs. 15,16,21, and 22, described above.
	Thence I run
	North on a retracement line bet.secs.15 and 16,
40.09	Fall 76 lks.east of the old ¼ sec.cor., which is a marked stone, in an old mound of earth, and is in line with the east and west fences in the valley.
80.19	Fall 152 lks.east of the old cor.of secs.9,10,15,and 16, which is an old mound of earth with traces of old pits.
	Note: For resurvey of this mile see notes page 9 this book.
	West on a retracement line between secs.9 and 16,
40.06	Fall 73 lks.north of old ¼ sec.cor. which is an old mound of earth and stone, with traces of pits.
80.11	Fall 147 lks.north of the cor.of secs.8,9,16, and 17, which is a marked stone in an old mound of stone and earth. The marked stone had probably been set in late years, but the mound has every appearance of being the original cor.
	Note: For resurvey of this mile see this book page 7
	August 31, 1912: At this cor.I set off 8° 35'N.on the decl.arc; and at 0 h 0.2 m.p.m.l.m.t., I observe the sun on the meridian; the resulting lat.is 40° 39'N., which is the proper lat.nearly.
	North on a retracement line bet.secs.3 and 9, and 4 and 5.
40.00	No trace of old cor.
80.00	No trace of old cor. Set temp.cor.
120.00	No trace of old cor. Set temp.¼ sec.cor.
160.30	Fall 298 lks.east of the old cor.of secs.4,5,32, and 33,

RETRACEMENT SUBDIVISION OF T.2 S., R.6 W.

Chains.

on N.bdy.of Tp., which is a sandstone 9 x 10 x 5 ins. above ground, set in an old mound of earth and stone.

Note: For notes of resurvey of these lines see pages 5 and 6 of this book. August 31, 1912.

September 3, 1912: At 7h 0 m a.m.l.m.t., I set off 40° 41'N. on the lat.arc; 7° 36'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs. 4,5,32, and 33, on N.bdy.of Tp.

Note: I destroy the old cor., and re-establish it in the same place as follows:

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

T 1 S	R 6 W
S 32	S 33
S 5	S 4
T 2 S	R 6 W

1912

Dig pits 18 x 18 x 12 ins.in each sec.5½ ft.dist.; and raise a mound of earth 4 ft.base, 2ft.high W.of cor.

Note: From the retracement of the lines between secs.8 and 9, and 4 and 5, on page 4 this book, I determine the course of the resurvey line bet.secs.4 and 5 to be S.1° 04'E.80.16 chs. Therefore I run

S.1° 04'E.on a resurvey line bet.secs.4 and 5,

Over level land; through dense sagebrush and shadscales.

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

¼ S 5	S 4

1912

Corrective notes, page 3!

Dig pits 18 x 18 x 12 ins.N.and S.of post, 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high W. of cor.

48.50 Old road, bears N.70° W. and S.70° E.

50.00 County road, bears N.30° W. and S.30° E.

51.50 Road, bears N.30° W. and S.30° E.

Chains.

72.35 Telephone line bears N.30° W. and S.30° E.

75.50 Road, bears N.68° W. and S.68° E.

80.16 Set an iron post, 3 ft. long, 2ins. in dia., 24 ins. in the ground, for re-established cor. of secs. 4, 5, 8, and 9, with brass cap mkd.

T 2 S | R 6 W
S. 5. | S 4
S 8 | S 9
1912

Dig pits 18 x 18 x 12ins. in each sec. 5½ ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Note: I search diligently but fail to find any trace of the old cor.

Land, level.

Soil, clay; 3d rate.

No timber. Undergrowth, sagebrush and shadscale.

No grass.

Land covered with dense undergrowth 80.16 chs.

Note: From retracement of line bet. secs. 8 and 9 (page 4 this book) I determine the course of the resurvey line bet. secs. 8 and 9 to be S 1° 04' E. 80.16 chs.

Therefore I run

S. 1° 04' E. on a resurvey line bet. secs. 8 and 9,

Over level land; through dense undergrowth.

10.00 Road, bears N.25° W. and S.25° E.

27.75 Road, bears N.80° W. and S.80° E.

40.08 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for re-established ¼ sec. cor., with brass cap mkd.

¼ |
S 8 | S 9
1912

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

46.00 Wash, 30 lks. wide, 3 ft. deep, course NE.

69.60 Road, bears N.85° E. and S.85° W.

75.30 Wash, 40 lks. wide, 5 ft. deep, courss N.70° E.

RESURVEY SUBDIVISION OF T.2 S., R.6 W.

Chains.

80.16 The old cor. of secs. 8, 9, 16, and 17.

I destroy the old cor., and re-establish it in the same place as follows:

Set an iron post, 3 ft. long, 2iins. in dia., 12 ins. in the ground, on rock, and surrounded by mound of stone for cor. of secs. 8, 9, 16, and 17.

I destroy the old cor., and re-establish it in the same place as follows:

Set an iron post, 3 ft. long, 2ins. in dia., 12 ins. in the ground, on rock, and surrounded by mound of stone, for cor. of secs. 8, 9, 16, and 17, with brass cap mkd.

T 2 S	R 6 W
S 8	S 9
S 17	S 16

1912

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

Land, rolling.

Soil, gravelly and clay; 2d rate.

No timber.

Undergrowth, sagebrush. No grass.

Land, covered with dense undergrowth 80.16 chs.

September 3, 1912: At this cor. I set off 7° 31' N. on the decl. arc; and at 11h 59m a.m.l.m.t., I observe the sun on the meridian; the resulting lat. is 40° 39' N., which is the proper lat. nearly.

Note: From the retracement of line bet. secs. 9 and 16 (page 4 this book) I determine the course of the re-survey line bet. secs. 9 and 16 to be N. 88° 57' E. 80.12 chs. Therefore I run

N. 88° 57' E. on a resurvey line bet. secs. 9 and 16,

Over rolling land; through dense undergrowth.

2.30 Wash, 30 lks. wide, 6 ft. deep, course N. 50° E.

12.00 Wash, 30 lks. wide, 8 ft. deep, course N. 45° E.

40.06 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the

Chains.

ground, for re-established $\frac{1}{4}$ sec. cor., with brass cap mkd.

$\frac{1}{4}$
S 9
S 16
1912

Dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

48.15 Telephone line, bears N.30° W. and S.30° E.

50.00 County road, bears N.30° W. and S.30° E.

52.00 Enter barren alkali flat, bears N.30° W. and S.30° E.

80.12 The old cor. of secs. 9, 10, 15, and 16.

I destroy the old cor., and re-establish it in the same place as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for re-established cor. of secs. 9, 10, 15, and 16, with brass cap mkd.

T 2 S | R 6 W
S 9 | S 10
S 16 | S 15
1912

Dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling.

Soil, on west 52.00 chs. gravelly and clay loam, about 2 ft. deep; on east 28.12 chs. heavy clay loam, very salty and barren; 4th rate.

No timber.

Undergrowth on W. 52.00 chs. shadscale and sagebrush.

No grass.

Land covered with dense undergrowth 52.00 chs.

Note: From the retracement of the line bet. secs. 15 and 16, (page 4 this book) I determine the course of the resurvey line to be S. 1° 05' E. 80.20 chs.

Therefore I run

RESURVEY SUBDIVISION OF T.2 S., R.6 W.

Chains.	
	S.1° 05'E.on a resurvey line bet.secs.15 and 16,
	Over level alkali flat.
40.10	Intersect the old ¼ sec. cor. I destroy the old cor., and re-establish it in the same place 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 mkd.
	¼ S 16 | S 15
	1912
	Dig pits 18 x 18 x 12 ins.N.and S.of post, 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high W.of cor.
52.00	Leave flat and barren land; ascend over sloping bench country; through dense undergrowth.
53.08	County road, bears N.40° W. and S.40° E.
56.00	Telephone line bet.secs.bears N.40° W. and S.40° E.
57.50	Road, bears N.85° W. and S.85° E.
60.00	Road, bears NE. and SW.
80.20	The cor.of secs.15,16,21, and 22.
	I destroy the old cor., and re-establish it in the same place as follows:
	Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for re-established cor.of secs.15,16,21, and 22; with brass cap mkd.
	T 2 S | R 6 W S 16 | S 15 S 21 | S 22 1912
	and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Land, level.
	Soil, heavy clay on N.52 chs.; 4th rate.; gravelly on S. 28.20 chs., 3d rate.
	No timber.
	Undergrowth, sage and shadscales on S. 28.20 chs.
	No grass.
	Land, covered with dense undergrowth 28.20 chs.
	September 3, 1912.

RESURVEY SUBDIVISION OF T. 2 S., R. 6 W.

Chains.	
	September 4, 1912: At 6h 59m a.m. l.m.t., I set off 40° 38'N.on the lat.arc; 7° 14'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs. 15, 16, 21, and 22.
	Note: From the retracement of the line bet.secs.21 and and 22 (page 3 this book), I determine the course of the resurvey line bet.secs.21 and 22 to be S.1° 06'E. 80.16 chs. Therefore I run
	S.1° 06'E.on a resurvey line bet.secs.21 and 22,
	Over rolling land; through dense undergrowth Asc.
21.70	Wash, 25 lks.wide, 4 ft.deep, course N.30° E.
40.08	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for re-established ¼ sec.cor., with brass cap mkd.
	S ¼ 21 | S 22 1912
	and raise a mound of stone 2 ft.base, 1½ ft.high W. of cor.
42.50	Wash, 30 lks.wide, 4 ft.deep, course N.60° E.
59.00	Wash, 30 lks.wide, 4 ft.deep, course N.80° E.
69.30	Wash, 4 lks.wide, 6 ft.deep, course E.
73.00	Wash, 16 lks.wide, 8 ft.deep, course N.75° E.
76.20	Wash, 100 lkw.wide, 5 ft.deep, course N.85° E.
80.16	The cor.of secs.21,22,27, and 28.
	I destroy the old cor., and re-establish it in the same place as follows:
	Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.21,22,27, and 28, with brass cap mkd.
	T 2 S | R 6 W S 21 | S22 S 28 | S27 1912
	Dig pits 18 x 18 x 12 ins.in each sec.5½ ft.dist.; and raise a mound of earth 4 ft.base, 2 ft.high W.of cor.
	Land, rolling.
	Soil, gravelly; 3d rate.

Chains.	
	No timber.
	Undergrowth, shadscales and sage brush. No grass.
	Land, covered with dense undergrowth for 16 chs.

	Note: From the retracement bet.secs.21 and 28 (page 3 this book) I determine the course of the resurvey line bet.secs.21 and 28 to be S.88° 52'W.79.90 chs.
	Therefore I run
	S.88° 52'W.on a resurvey line bet.secs.21 and 28,
	Over gently rolling bench land; through dense undergrowth.
	Ascend gradually.
16.30	Wash, 30 lks.wide, 4 ft.deep, course N.12° E.
39.95	Set an iron post, 3 ft.long, 1 in.in dia., 20 ins.in the ground, on gravel, and surrounded by mound of stone, for re-established ¼ sec. cor., with brass cap mkd.
	¼ S 21 S 28 1912
	and raise a mound of stone, 2 ft.base, 1½ ft.high N. of cor.
48.50	Wash, 40 lks.wide, 4 ft.deep, course N.35° E.
58.90	Wash, 50 lks.wide, 5 ft.deep, course N.30° E.
79.90	The cor.of secs.20,21,28, and 29.
	I destroy the old cor., and re-establish it in the same place as follows:
	Set an iron post, 3 ft.long, 2 ins.in dia., 20 ins.in ground, on rock, and surrounded by mound of stone, for re-established cor.of secs.20,21,28, and 29, with brass cap mkd.
	T 4 S | R 6 W S 20 | S 21 S 29 | S 28 1912
	raise a mound of stone, 2 ft.base, 2 ft.high W.of cor.
	Land, rolling bench.
	Soil, gravelly loam about 1 ft.deep; 2d rate.

Chains.	
	No timber.
	Undergrowth, shadscales and sagebrush.
	Good grass.
	Land covered with dense undergrowth 79.90 chs.
	September 4, 1912: At this cor. I set off 7° 08'N. on the decl. arc; and at 11h 59m a.m. l.m.t., I observe the sun on the meridian; the resulting lat. is 40° 37'N., which is the proper lat. nearly.
	Note: From the retracement of the line bet. secs. 28 and 29 (page 2 this book) I determine the course of the resurvey line bet. secs. 28 and 29 to be S.1° 05'E. 80.22 chs. Therefore I run
	S.1° 05'E. on a resurvey line bet. secs. 28 and 29,
	Over rolling bench land; through dense undergrowth.
.30	Wash 20 lks. wide, 4 ft. deep, course N.65° E.
6.40	Wash, 50 lks. wide, 10 ft. deep, course E.
7.50	Wash, 50 lks. wide, 8 ft. deep, course N.65° E.
16.30	Wash, 20 lks. wide, 3 ft. deep, course N.70° E.
16.70	Road, bears N.35° W. and S.35° E.
40.11	Set an iron post 3 ft. long, 1 in. in dia., 18 ins. in the ground, on cemented gravel, and surrounded by mound of stone, for re-established $\frac{1}{4}$ sec. cor., with brass cap mkd.
	$S\ 29 \mid \frac{1}{4} \mid S\ 28$ 1912
	and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. No trace of the old cor. could be found.
45.10	Head of wash, course N.70° E.
46.00	Road, bears N.50° W. and S.80° E.
54.90	Wash, 25 lks. wide, 5 ft. deep, course N.85° E.
63.50	Wash, 25 lks. wide, 5 ft. deep, course N.85° E.
72.35	Road, bears N.85° E. and W.
78.10	Wash, 35 lks. wide, 7 ft. deep, course N.75° E.
80.22	The cor. of secs. 28, 29, 32, and 33.

RESURVEY SUBDIVISION OF T.2 S., R.6 W.

Chains

I destroy the old cor., and re-establish it in the same place as follows:

Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for re-established cor.of secs.28,29,32, and 33, with brass cap mkd.

T 2 S	R 6 W
S 29	S 28
S 32	S 33

1912

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

Land, rolling.

Soil, gravelly and rocky; 2d and 3d rate. Subsoil, gravel.

No timber. Undergrowth sage and shadscale.

No grass.

Land, covered with dense undergrowth 80.22 chs.

Note: From the retracement of the line bet.secs.32 and 33, (page 2 this book), I determine the course of the line bet.secs.32 and 33 to be S.1° 05'E.80.20 chs.

Therefore I run

S.1° 05'E.on a true resurvey line bet.secs.32 and 33.

Over rolling land; through dense undergrowth.

Desc.gradually.

40.10 Set an iron post, 3 ft. long, 1 in.in dia., 26 ins.in the ground, for re-established ¼ sec.cor., with brass cap mkd.

¼ S 32	S 33

1912

and raise a mound of stone 2 ft. base, 1½ ft.high W. of cor. No trace of the old cor.

73.50 Wash, 3 lks.wide, 3 ft.deep, course N.60° E.

80.20 The cor.of secs.4,5,32, and 33.

Land, rolling bench.

Soil, gravelly loam; 2d rate.

Chains.	
	No timber. Undergrowth, sagebrush and shadscale. Good grass.
	Land covered with dense undergrowth 80.20 chs.
	September 4, 1912.

Survey commenced Dec. 2, 1914, and executed with a Young & Sons light mountain transit No. 8538, 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.

Note: No complete test of instrument was made at this time, but it was known to be in good adjustment upon completion of survey of T. 5 S., R. 2 E., Group No. 29, Utah, Nov. 27, 1914.

Dec. 2, 1914: At 8h 59m a.m. l.m.t., I set off 40° 37'N. on the lat. arc; 21° 52'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28, and 29.

Thence I run

North on a random line bet. secs. 20 and 21,

35.00	No trace of the old corner found.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Set temp. cor. of secs. 16, 17, 20, and 21.

Thence I run

East on a random line bet. secs. 16 and 21,

40.00	Set temp. $\frac{1}{4}$ sec. cor.
78.46	Intersect N. and S. line 186 lks. S. of the cor. of secs. 15, 16, 21, and 22.

From said corner I run

West on a true line bet. secs. 16 and 21,

Over rolling land; through dense brush. Ascend.

11.00	Begin ascent of ridge, bearing N. and S.

SUBDIVISION OF T. 2 S., R.6 W.

Chains.	
22.90	Wash, 60 lks.wide, 10 ft.deep, course N.15° E.
24.55	Wash, 50 lks.wide, 12 ft.deep, course N.10° E.
27.00	Top of spur, 100 ft.above cor., bears N.and S.
	Descend.
39.23	Set an iron post 3 ft., long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor.sec.21, with brass cap mkd. $\frac{\frac{1}{4}}{S\ 21}$ 1914 raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
40.79	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor.sec.16, with brass cap mkd. $\frac{\frac{1}{4}}{S\ 16}$ 1914 and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
73.10	Wire fence bears N.10° W. and S.65° E.
74.00	Foot of descent bearing N.10° E. and S.10° W.
	Thence over rolling land.
76.30	Road, bears N.65° E. and SW.
78.46	Intersect N.and S.line 186 lks.N.of temp.cor.of secs.16, 17,20, and 21. At intersection I
	Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.20 and 21, with brass cap mkd. T 2 S | R 6 W / S 17 | S 16 / S 20 | S 21 / 1914
	Dig pits 24 x 24 x 12 ins.in each sec.6 ft.dist.; and raise a mound of earth 4 ft.base, 2 ft.high N.of cor.
	Land, mountainous and rolling.
	Soil, clay loam mixed with rock and gravel.
	No timber. Undergrowth, sagebrush. Good grass.
	Land covered with dense undergrowth 78.46 chs.

From cor.of secs.20 and 21, just established, I run

Chains.	
	South on true line bet. secs. 20 and 21,
	Over rolling land; through dense sagebrush. Ascend.
4.60	Road bears NE. and SW.
11.60	Wire fence bears N.80° W. and S.80° E.
13.80	Begin ascent of mountain, bears E. and W.
32.10	Top of ridge, 200 ft. above cor., bears N.80° W. and S. 80° E. Descend.
41.86	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 mks.
	$S\ \frac{1}{4}\ 20 \mid S\ 21$
	1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
43.20	Swale, 60 ft. below ridge, course W.
	Ascend.
50.40	Ridge, 60 ft. above swale, bears N.70° E. and S.70° W.
	Descend.
65.30	Foot of descent, 200 ft. below ridge, bears N.60° E. and S.60° W. Thence over rolling land.
70.90	Wash, 20 lks. wide, 10 ft. deep, course S.70° E.
75.90	Wash, 30 lks. wide, 6 ft. deep, course E.
81.86	The cor. of secs. 20, 21, 28, and 29.
	Land, mountainous and rolling bench.
	Soil, gravelly and rocky, about 2 ft. deep, 2d and 3d rate. Subsoil, gravel and rock.
	No timber.
	Undergrowth, sagebrush.
	Good grass for grazing.
	Mountainous land, or land covered with dense under- growth 81.86 chs.

	From the cor. of secs. 20 and 21, I run
	North on a random line bet. secs. 16 and 17,
40.00	Set temp. $\frac{1}{4}$ sec. cor.
78.66	Intersect E. and W. line 3.12 chs. N.88° 57' E. of the cor. of secs. 8, 9, 16, and 17. I therefore begin at said

SUBDIVISION OF T.2 S., R.6 W.

Chains.	
	cor. of secs. 8, 9, 16, and 17, and run
	South on true line bet. secs. 16 and 17
	Over rolling bench land; through dense sagebrush. Ascend.
1.50	Wash, 100 lks. wide, 8 ft. deep, course S.50° E.
5.30	Wash, 25 lks. wide, 4 ft. deep, course N.60° E.
39.33	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor. sec. 16, marked on brass cap ¼ | S 16 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
40.00	No trace of old ¼ sec. cor.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor. sec. 17, with brass cap mkd. ¼ | S 17 1914 raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
51.30	Road bears N.70° E. and S.70° W.
63.00	No trace of the old cor. found.
67.00	Wash, 80 lks. wide, 8 ft. deep, course N.40° E.
70.60	Wire fence bears N.30° E. and S.30° W.
78.66	Intersect E. and W. line 3.12 chs. W. of the cor. of secs. 20 and 21.
	Set an iron post, 3 ft. long, 2 in. in dia., 24 ins. in the ground, for closing cor. of secs. 16 and 17, with brass cap mkd. T. 2 S. R. 6 W. S 17 | B 16 C C S 20 | S 21 1914
	Dig pits 24 x 18 x 12 ins. crosswise on each line E. and W. 3 ft., and N. of post 7 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.
	From this corner, the SE. cor. of wheat field, containing about 20 acres bears N.82° 02'E. 4.55 chs.
	Land, rolling bench; east slope.
	Soil, clay, mixed with boulders, about 2 ft. deep; 3d rate.

Correcti notes pa 35.

Chains. Too rocky for cultivation, except in patches.
Subsoil, gravel.
No timber. Undergrowth sagebrush.
Good grass for grazing.
Land covered with dense undergrowth 78.66 chs.

Dec.2, 1914.

Dec.3, 1914: At 9h 0m a.m.l.m.t., I set off 40° 36'N. on the lat.arc; 22° 01'E.on the decl.arc; and determine a meridian with the solar at the cor.of secs.31 and 32 on S.bdy.of Tp., heretofore described.

Thence I run

North on random line bet.secs.31 and 32,

40.00 Set temp.¼ sec.cor.

79.00 Set temp.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.

77.30 Intersect N.and S.line 1¼ lks.S.of cor.of secs.25,29,32 and 33.

Thence I run

West on true line bet.secs.29 and 32.

Over rolling bench land; through dense sage and rabbit brush. Ascending gradually.

2.10 Wash, 30 lks.wide, 5 ft.deep, course N.60° E.

Begin ascent of mountain bearing N.60° E. and S.60° W.

9.45 Road, bears N.20° E. and S.20° W.

19.30 Wash, 50 lks.wide, 5 ft.deep, course N.20° E.

21.50 Wash, 80 lks.wide, 10 ft.deep, course N.60° E.

40.00 No trace of the old ¼ sec.cor.

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

1 S 29
1914

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

Chains.	
50.30	Spur, 100 ft. above sec. cor., bears N.60° E. and S.60° W.
54.40	Swale, 25 ft. below ridge, course N.70° E.
68.70	No trace of old cor. found.
73.10	Road, bears N.60° E. and S.60° W.
78.30	Fall 14 lks. N. of temporary corner.

At intersection I set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, with brass cap mkd.

T 2 S | R 6 W
S 30 | S 29
S 31 | S 32
1914

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

Land, rolling and mountainous.

Soil, gravelly loam, about 10 ins. deep; patches of rock and boulders; too much rock and gravel to be good for farming. Subsoil, gravel.

No timber. Undergrowth, sagebrush. Good grass for grazing.

Mountainous land, or land covered with dense undergrowth 78.30 chs.

Dec. 3, 1914: At this cor. I set off 22°03' S. on decl. arc; and at 11h 50m a.m. l.m.t., observe the sun on the meridian; the resulting lat. is 40° 37' N.

South on true line bet. secs. 31 and 32,

Over rolling mountainous labd; ascending gradually through dense sagebrush.

3.15	Road, bears N.40° E. and S.40° W.
17.00	Spur, 50 ft. above corner, bears N.80° E. and S.80° W.
	Descend.
19.65	Swale, 30 ft. below spur, drains N.55° E. Ascend.
40.07	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 31 | S 32
1914

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

42.15	Ridge, 25 ft. above swale, bears N.60° E. and S.60° W.

Chains.	
	Descend.
45.25	Swale, 60 ft. below ridge, drains N.60° E. Ascend.
52.95	Wash, 5 lks. wide, 6 ft. deep, course N.40° E.
54.75	Ridge, 40 ft. above wash, bears N.50° E. and S.50° W.
	Descend.
62.60	Road, bears NE. and SW.
69.65	Swale, 250 ft. below ridge, drains N.80° E.
80.14	The cor. of secs. 31 and 32.
	Land, rolling, mountainous; east slope.
	Soil, mountain loam, about 8 ins. deep; patches of rock and gravel. Subsoil, loose gravel and rock.
	No timber. Undergrowth, sagebrush. Good grass.
	Mountainous land, or land covered with dense undergrowth 80.14 chs. Dec. 3, 1914.

Dec. 4, 1914: At 8h 50m a.m. l.m.t., I set off 22° 10'S. on the decl. arc; 40° 37'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31, and 32. Thence I run

West on a random line bet. secs. 30 and 31,

40.00	Set temp. $\frac{1}{4}$ sec. cor.
42.25	Intersect W. bdy. of Tp. 12 lks. N. of the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence I run
	N.89° 50'E. on a true line bet. secs. 30 and 31,
	Over mountainous land; through dense undergrowth. Asc.
2.25	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 mkd.

$$\frac{S \quad 30}{S \quad 31}$$

1914

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

3.80	Bottom of swale, 20 ft. deep, course N.25° E. Asc.
6.00	Ledge, 25 ft. high, bears N.25° E. and S.25° W.
7.70	Wash, 40 lks. wide, 7 ft. deep, course N.30° E.
8.00	Top of spur, 15 ft. high, bears N.25° E. and S.25° W.
	Descend.

Chains	
12.30	Bottom of hollow, 19 ft. below spur, course N.10° E. Ascend.
23.25	Top of ridge, 50 ft. above hollow, bears NE. and SW. Descend.
41.25	Bottom of swale, 50 ft. below ridge, course N.70° E. Ascend.
42.25	The cor. of secs. 29, 30, 31, and 32.
	Land, mountainous.
	Soil, gravelly; 3d rate. Subsoil, gravel.
	No timber. Undergrowth, sagebrush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth 42.25 chs.

North on a random line bet. secs. 29 and 30,

40.00	Set temp. ¼ sec. cor.
80.00	Set temp. cor. of secs. 19, 20, 29, and 30. Thence I run
	East on a random line bet. secs. 20 and 29,
40.00	Set temp. ¼ sec. cor.
76.81	Intersect N. and S. line 28 lks. S. of cor. of secs. 20, 21, 28, and 29. I therefore begin at said corner and run
	West on true line bet. secs. 20 and 29,
	Over mountainous land; through dense sage and rabbit brush. Ascend.
3.00	Road, bears N. and S.
9.00	Spur, 50 ft. above cor., bears N.80° W. and S.80° E. Descend.
34.30	Hollow, 50 ft. below spur, course S.75°E. Ascend.
37.50	Road, bears N.70° W. and S.70° E.
40.00	No trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼ S 20 / S 29 / 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Chains.

64.60 Knoll, 60 ft. high. Descend.

76.81 Intersect N. and S. line 28 lks. N. of temporary cor. of secs. 19, 20, 29, and 30. At intersection I

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 19, 20, 29, and 30, with brass cap mkd.

T 2 S | R 6 W
S 19 | S 20
S 30 | S 29
1914

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

Land, mountainous, with gradual E. slopes.

Soil, gravelly; 3d rate; hard and poor.

No timber. Undergrowth, sage and rabbit brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth 76.81 chs.

Dec. 4, 1914: At this cor. I set off 22° 11' S. on the decl. arc; and at 11h 50m a. m. l. m. t., observe the sun on the meridian; the resulting lat. is 40° 37' N.

South, on true line bet. secs. 29 and 30,

Over rolling mountainous land; descending through dense sagebrush.

10.53 Hollow, 30 ft. deep, drains N. 75° E. Ascend.

18.00 Spur, 60 ft. above hollow, bears N. 70° W. and S. 70° E. Descend.

23.15 Swale, 80 ft. below spur, course E. Ascend.

35.80 Spur, 50 ft. above swale, projects E. Descend.

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

¼
S 30 | S 29
1914

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

43.50 Hollow, 50 ft. below spur, course N. 75° E. Ascend.

57.80 Spur, 50 ft. above hollow, bears N. 70° E. and S. 70° W. Descend.

60.25 Hollow, 50 ft. below spur, course N. 40° E. Ascend.

Chains.	
74.80	Ridge, 40 ft. above hollow, bears N.60° E. and S.60° W.
	Descend.
79.80	Swale, 30 ft. below ridge, drains N.70° E. Ascend.
80.28	The cor. of secs. 29, 30, 31, and 32.
	Land, mountainous.
	Soil, gravelly; 3d rate.
	No timber. Undergrowth, sagebrush.

From cor. of secs. 19, 20, 29, and 30, I run

S.89° 50'W. on random line bet. secs. 19 and 30,

40.00	Set temp. $\frac{1}{4}$ sec. cor.
42.19	Intersect W. bdy. of Tp. 33 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 19 and 30, with brass cap mkd.

T 2 S
S 24 | S 19
CC | S 30
S 25 | R 2 W
R 3 W (6)
(7) 1914

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

I destroy all marks on the cor. of secs. 19, 24, 25, and 30 that pertain to secs. 19 and 30. Thence I run

N.89° 50'E. on a true line bet. secs. 19 and 30

Over mountainous land; through dense undergrowth. Desc.

2.19	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 mkd.

$\frac{1}{4}$
S 19
S 30
1914

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

Head of hollow. Ascend.

7.40	Top of spur, 30 ft. above hollow, bears NW. and SE. Descend.
13.80	Head of hollow, course NE. Ascend.
21.85	Top of spur, 100 ft. high, bears NE. and SW. Descend.
37.50	Foot of steep ledge, bears N. and S.

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Chains.	
	Descend more gradually.
42.19	The cor. of secs. 19, 20, 29, and 30.
	Land, mountainous.
	Soil, clay loam and loose rock; 3d rate.
	No timber. Undergrowth sagebrush. Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth 42.19 chs.

North bet. secs. 19 and 20,

	Over mountainous land; through dense sage and rabbit brush. Ascend.
3.00	Wash, 20 lks. wide, 4 ft. deep, course N.35° E.
11.10	Top of spur, 40 ft. above cor., bears N.80° W. and S.80° E. Descend.
14.60	A small reservoir belonging to Raymond Hammond, bears E. 5.00 chs. dist.
16.00	Mouth of canon, 50 ft. below spur, course E.
	There is a one-inch pipe line carrying water to above-mentioned reservoir, in bottom of canon. Ascend.
17.10	One-inch pipe line, carrying water from the spring in the canon to above-mentioned reservoir, bears N.40° W. and S.40° E. Joins other pipe line one chain below.
21.20	Top of spur, 40 ft. above canon, projects 2.00 chs. east. Descend.
22.70	One-inch pipe line, carrying water to reservoir mentioned above, bears N.55° W. and S.55° E.
26.77	Hollow, 60 ft. below ridge, course S.65° E.
	Small creek 2 lks. wide, 2 ins. deep, in bottom. Ascend.
31.05	Ledge, 25 ft. high, bears N.80° W. and S.80° E.
32.00	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground, on rock, and surrounded by mound of stone, for ¼ sec. cor., with brass cap mkd.

$$\begin{array}{c|c} \frac{1}{4} & \\ S\ 19 & S\ 20 \\ 1914 & \end{array}$$

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

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Chains.	
	From this corner U.S.L.M.No.4, bears S.86°15'W.25.01 chs.
45.50	Ridge, 200 ft. above hollow, bears N.74°E. and S.74°W. Desc.
62.65	Road, bears N.85° E. and S.85° W.
64.70	Old fence, bears N.75° W. and S.75° E.
80.00	Set an iron post, 3 ft. long, 2ins. in dia., 12 ins. in the ground, to solid rock, and surrounded by mound of stone for cor. of secs. 17, 18, 19, and 20, with brass cap mkd.

T 2 S | R 6 W
S 18 | S 17
S 19 | S 20
1914

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

Land, mountainous.

Soil, mountain loam, mixed with gravel; patches of rock.

No timber. Undergrowth, sage and rabbit brush. Good grass.

Knowing that the line bet. secs. 17 and 20 will not close within limits, I run from the closing cor. of secs. 16 and 17

West on true line bet. secs. 17 and 20,

Over mountainous land; through dense sage and rabbit brush.

6.88	Wire fence bears N.10° E. and S.10° W.
8.65	Wash, 60 lks. wide, 40 ft. deep, drains N.40° E.
17.24	Road, bears N.20° E. and S.20° W.
33.00	NW. cor. of grain field of about 10 acres, claimant unknown, bears S. about 2.25 chs. dist.
36.88	A distance of 40.00 chs. from the cor. of secs. 20 and 21, Set an iron post 3 ft. long, 1 in. in dia., 20 ins. in the ground, and surrounded by a mound of stone, for ¼ sec. cor. for sec. 20 only, with brass cap mkd.

S 20
¼
1914

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

40.00	Set an iron post 3 ft. long, 1 in. in dia., 20 ins. in the ground, and surrounded by a mound of stone, for ¼ sec. cor. for sec. 17 only, with brass cap mkd.

Chains.	
	$\frac{\frac{1}{4}}{\frac{S\ 17}{1914}}$
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
50.29	Rocky limestone ridge, 100 ft. above wash, bears N. & S. Desc.
60.00	Road, bears N.12° E. and S.12° W.
62.65	Wash, 15 lks. wide, 5 ft. deep, course N.10° E.
66.10	Wash, 50 lks. wide, 10 ft. deep, course N.10° E.
73.64	Intersect N. and S. line 180 lks. N. of cor. of secs. 17, 18, 19, and 20,
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 17 and 20, with brass cap mkd. T 2 S | R 6 W S 18 | S 17 CC S 20 S 19 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
	I destroy the marks on the cor. of secs. 17, 18, 19, and 20 that pertain to secs. 17 and 20.
	Land, mountainous.
	Soil, loam and rocky; 2d and 4th rates.
	No timber. Undergrowth, sagebrush. Good grass.
	From the cor. of secs. 19 and 20, I run
	S.89° 50' W. on true line bet. secs. 18 and 19,
	Over mountainous land; descending through dense tall sagebrush.
9.95	Wash, 10 lks. wide, 15 ft. deep, drains NE. Ascend abruptly.
14.63	Leave undergrowth; enter heavy timber, bears NW. and SE.
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 mkd. $\frac{\frac{1}{4}}{\frac{S\ 18}{S\ 19}}$ 1914
	from which
	A cedar 6 ins. in dia., bears N.5° W. 22 lks. dist. marked ¼ S 18 B T

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Chains.

A cedar 18 ins. in dia., bears S.14° 30'E.80 lks. dist., marked $\frac{1}{4}$ S 19 B T

42.13 Intersect W.bdy. of Tp. 31 lks. N. of cor. of secs. 13, 18, 19 and 24, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 18 and 19, with brass cap marked

T 2 S
R 7 W | R 6 W
S 13 | S 18
CC
S 19
S 24
1914

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

I destroy all marks on the cor. of secs. 13, 18, 19 and 24, that pertain to secs. 18 and 19.

Land, mountainous; east slope.

Soil, loam and rocky; 2d and 4th rate.

No timber. Undergrowth, sagebrush.

From cor. of secs. 18 and 19, I run

North bet. secs. 17 and 18,

Over mountainous land; descending through dense undergrowth.

13.20 Wash, 100 lks. wide, 12 ft. deep, drains N.30° E.

19.10 Wash, 50 lks. wide, 5 ft. deep, drains N.20° E.

34.60 Wash, 30 lks. wide, 5 ft. deep, drains N. Ascend.

40.00 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 mkd. for sec. 18 only

$\frac{1}{4}$ |
S 18 |
1914 |

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

40.51 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. for sec. 17 only, with brass cap mkd.

$\frac{1}{4}$ | S 17
1914

Chains.	
	Raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
61.10	Wash, 50 lks. wide, 2 ft. deep, drains N. 75° E.
63.60	Begin steep ascent, bearing N. 65° E. and S. 65° W.
69.60	Spur, 40 ft. above wash, bears N. 80° E. and S. 80° W. Descend.
79.00	Wash, 70 lks. wide, 7 ft. deep, course E.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 7 and 18, with brass cap mkd.

T 2 S | R 6 W
S 7 | S 8
S 18 | S 17

1914

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

Land, mountainous.

Soil, gravelly loam, mixed with cobblestone; 2d rate.

No timber. Undergrowth, sagebrush. Good grass.

For reasons already explained I run from cor. of secs. 8, 9, 16, and 17

West on true line bet. secs. 8 and 17,

Over rolling foot hills; ascending gradually through dense sagebrush.

40.00	No trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

¼
S 8
S 17

1914

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

41.80	Wash, 50 lks. wide, 10 ft. deep, course NE.
61.00	No trace of old cor. found. Ascend.
73.84	Intersect N. and S. line 51 lks. N. of cor. of secs. 7 and 18
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 8 and 17, with brass cap marked

T 2 S | R 6 W
S 7 | S 8
CC | S 17
S 18

1914

Chains.

Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
Land, rolling; gradual east slope.
No timber. Undergrowth, sagebrush.
Good grass for grazing, in patches.

For reasons already given, I run from cor. of secs. 7 and 18

S. 39° 50' W. on true line bet. secs. 7 and 18,
Over mountainous land; ascending through dense undergrowth.

10.57 Enter scattering cedars, bearing N. and S.

34.50 Spur, 600 ft. above cor., bears NE. and SW.
Descend.

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 mkd.

¼ S 7
S 18
1914

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

42.07 Intersect W. bdy. of Tp. 29 lks. N. of cor. of secs. 7, 12, 13, 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. 7 and 18, with brass cap marked

T 2 S
R 7 W | R 6 W
S 12 | S 7
CC | S 18
S 13
1914

Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
I destroy all marks on cor. of secs. 7, 12, 13, and 18, pertaining to secs. 7 and 18.

Land, mountainous.
Soil, clay, containing loose rock; subsoil clay.
Timber, scattering cedar. Undergrowth dense sagebrush.
Good grass in patches.

SUBDIVISION OF T.2 S., R.6 W.

Chains.	
	From corner of secs. 7 and 18, I run North bet. secs. 7 and 8
	Over mountainous land; through dense sagebrush; ascend.
4.60	Spur, 50 ft. above cor., bears N.80° E. and S.80° W. Descend.
13.40	Road, bears N.75° W. and S.75° E.
17.50	Hollow, drains E.
39.50	Spur, 200 ft. above hollow, bears N.80° W. and S.80° E. Descend.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 16 ins. in the ground, on rock, and surrounded by mound of stone, for $\frac{1}{4}$ sec. cor. for sec. 7 only, with brass cap marked $\frac{1}{4}$ | S 7 | 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
40.58½	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. for sec. 8 only, with brass cap marked |$\frac{1}{4}$ |S 8 |1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
44.30	Head of swale, 100 ft. below spur, drains S.80° E. Ascend.
53.00	Top of ridge, 150 ft. above swale, bears N.60° E. and S. 60° W. Descend.
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 6 and 7, with brass cap mkd. T 2 S | R 6 W S 5 S 6 | S 8 S 7 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. This corner is 400 ft. below ridge.
	From this corner U.S.M.M.No.1 bears N.76° 39'E. 31.70 chs. dist.

SUBDIVISION OF T. 2 S., R. 6 W.

Chains.	
	Land, mountainous.
	Soil, rocky, 4th rate. Subsoil, gravel.
	No timber.
	Undergrowth, sagebrush. Good grass.
	For reasons already given, I run, from cor. of secs. 4, 5, 8, and 9,
	West on true line bet. secs. 5 and 8
	Over rolling land; through dense sage and rabbit brush.
	Ascending gradually.
3.90	Road, bears NW. and SE.
33.30	Road bears NW. and SE.
40.00	No trace of old $\frac{1}{4}$ sec. cor.
	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 mkd.
	$\frac{1}{4}$ / S 5 / S 8 / 1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
54.30	Begin ascent of mountain, bearing NE. and SW.
72.30	Intersect N. and S. line 66 lks. N. of the cor. of secs. 6 and 7,
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 5 and 8, with brass cap marked
	T 2 S | R 6 W / S 6 CC | S 5 / S 8 / S 7 / 1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high E. of cor.
	Land, mountainous and nearly level.
	Soil, clay, 2 ft. deep; some gravel and rocks. Subsoil gravel and clay.
	No timber. Undergrowth sagebrush.
	Good grass.

Chains.	
	For reaons already explained, I run
	S. 89° 50' W. on true line bet. secs. 6 and 7,
	Over mountainous land; through dense undergrowth.
	Descend.
5.00	Kimball Canon, 50 ft. deep, drains NE.
	Ascend.
22.60	Spur, 200 ft. above canon, bears N. and S.
	Descend.
28.00	Hollow, 50 ft. below spur, course NE.
	Ascend.
33.50	Spur, 180 ft. above hollow, bears N. and S.
	Descend.
38.40	Hollow, 50 ft. below spur, course NE.
	Ascend.
40.00	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

$$\frac{\frac{1}{4}}{\frac{S\ 6}{S\ 7}}$$
1914

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

42.04 Intersect W. bdy. of Tp. 28 lks. N. 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. 6 and 7, with brass cap marked

T 2 S
R 7 W | R 6 W
S 1 | S 6
CC
S 7
S 12
1914

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

I destroy the marks on the cor. of secs. 1, 6, 7, and 12 that pertain to secs. 6 and 7.

Land, mountainous.

Soil, rocky and mountain loam, 1 ft. deep. Subsoil, clay and gravel.

Undergrowth, sagebrush.

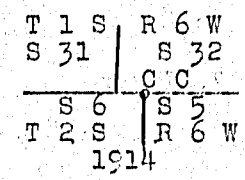
Good grass.

SUBDIVISION OF T.2 S., R.6 W.

Chains.	
	From cor. of secs. 6 and 7, I run
	North on true line bet. secs. 5 and 6.
	Over mountainous land; through dense sagebrush. Descend.
3.90	Kimball Canyon, 40 ft. deep, course N.50° E.
	Ascend.
5.20	Road, bears E. and W.
17.40	Wash, 15 lks. wide, 4 ft. deep, course S.70° E.
	Ascend.
24.60	Rocky ridge, 500 ft. above wash, bears N.70° W. and S.70° E.
	Descend rocky side hill.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground, on rock, and surrounded by a mound of stone, for ¼ sec. cor. for sec. 6 only, with brass cap mkd.
	¼ | S 6 | 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
40.59	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 5 | 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
52.30	Head of hollow, 200 ft. below ridge, course E.
	Ascend.
59.60	Rocky ridge, 200 ft. above hollow, bears N.60° E. and S. 60° W. Descend.
69.60	Foot of descent, 400 ft. below ridge, bears N.60° E. and S.60° W.
	Thence over level land.
80.72	Fall 9.35 chs. E. of the cor. of secs. 5, 6, 31, and 32, on N. bdy. of Tp., heretofore described.
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of secs. 5 and 6, with brass cap marked

SUBDIVISION OF T.2 S., R.6 W.

Chains.



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

Land, mountainous and level.

Soil, rocky; 3d rate.

No timber. Undergrowth, sagebrush. Good grass.

GENERAL DESCRIPTION.

This fractional township lies in the foot hills west of Grantsville, Utah; and drains and slopes easterly.

The soil is generally mountain loam, mixed with considerable gravel and rock in patches.

The township is covered with a dense growth of sagebrush and shadscale undergrowth; and has a few patches of cedar timber near the western boundary.

There are a number of small springs of good water in sec. 19, used for irrigation purposes by Raymond Hammond, who has a house and other improvements worth about $300.00 in sec. 20.

James E. Ratcliffe has improvements in sec. 20, worth about $200.00.

James Williams has improvements in sec. 20 worth about $100.00.

David E. Parmer has improvements in sec. 16, valued at about $300.00.

None of the claimants were living on their claims while I was there.

John R. Stewart

U.S. Surveyor.

RESURVEY
OF
SUBDIVISION OF T.2 S.,R.6 W.

U. S. JAN 14 1916 SALT LAKE CITY, UTAH

Chains

Survey commenced Dec. 18, 1915, and executed with a Buff & Buff transit No. 8028, with a Smith 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 approved by the Assistant Supervisor of Surveys.

A standard steel tape, 1 chain long, was used for measurements.

Note:- There being only one ¼ sec. cor., to be corrected on this township, and the sec. cor. S. being visible, so that it is not neccessary to establish any lines, I omit test of instrument.

I destroy the ¼ sec.cor. bet. secs. 16 and 17, set by J. R. Stewart, U. S. Surveyor, for ¼ sec. cor. to sec. 16, which is an iron post, 1 in. in dia., 12 ins. above the ground, marked and witnessed as described by J. R. Stewart, U. S. Surveyor. Then I proceed to ¼ sec. cor. set for ¼ sec. cor. of sec. 17, 40.00 chns. S. of cor. of secs. 8, 9, 16 and 17, which I mark as follows:-

S17 | S16
¼ |
1915

From the ¼ sec. cor. bet. secs. 4 and 5, which is an iron post, 1 in. in dia., 12 ins. above the ground, marked and witnessed as described by J. R. Stewart, U. S. Surveyor.

I destroy this ¼ sec. cor.,

Thence I run

S.1° 04'E., bet. secs. 4 and 5, on line with cor. of secs. 4, 5, 8 and 9, which is visible from this point.

.10 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

RESURVEY
OF
SUBDIVISION OF T.2 S.,R.6 W.

Chains	
	the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	S5 | S4
	$\frac{1}{4}$ 1915
	Dig pits, 18 x 18 x 12 ins. N. and S. of post, 6 ft. dist.;
	and raise a mound of earth 3½ ft. base, 1½ ft. high
	W. of cor.
	Dec. 18, 1915.

Ralph Gudy
U. S. Surveyor.

4—680

BOOK A-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, John R. Stewart and Claude L. Heist, and 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. 1, 2, & 3 N., R. 8 W., Tp. 3 N. R. 9 W., Tps. 1 & 2 S. Rs. 10 W., Salt Lake Base Line through Rs. 9 & 10 W., Tps. 2 & 3 S., R. 6 W.,

of the Salt Lake Base & Meridian, in the State of Utah which are represented in the foregoing field notes as having been executed by ~~him~~ them, and under ~~his~~ their 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.	
Edgar S. Hurst	June 5, 1912	June 30, 1912	Chainman
Alton Mayers	June 7, 1912	Aug. 3, 1912	Flagman
William B. Maughan	June 7, 1912	Aug. 31, 1912	Cornerman
John T. Breeken Jr.	June 7, 1912	Sept. 10, 1912	Chainman
J. Clarence Clark	June 5, 1912	Sept 10, 1912	Chainman
Richard O. Riley	June 7 1912	Sept 10, 1912	Chainman
Kimball Young	June 5, 1912	Sept 10, 1912	Chainman
Harrison Hurst	June 5, 1912	Sept 10, 1912	Cornerman
Joe Harris	June 5 1912	Sept. 10 1912	Cornerman
Victor Grant	June 7 1912	Sept. 10 1912	Axman

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

John R. Stewart
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, John R. Stewart, U. S. Surveyor, do solemnly swear that, in pursuanc
of special instructions received from the U. S. Surveyor General for Utah
and supplemental special instructions dated Aug. 28, 1912
bearing date of the 28th day of May, 191 2 I have well, faithfully, and truly
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 Tps. 1, 2,
and 3 N., R. 8 W.; Tp. 3 N., R. 9 W., Tps. 1 and 2 S.,
Range 10 W., Salt Lake Base line thru Range 9
Tps. 2 & 3 S., R. 6 W.

of the Salt Lak
Base and Meridian, in the State of Utah, which are represented i
in books "A" to "E" and "G" to "L" inclusive
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 Utah and in the specific manner described in the field notes, and tha
the foregoing are the original field notes of such survey.

John R. Stewart
U. S. Surveyor.

Subscribed by said John R. Stewart, and sworn to before me
this 10 day of February, 1913

SEAL

James Hall
U.S. Surveyor-General
for 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

BOOK A-411

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.

FINAL OATH OF UNITED STATES ~~SURVEYOR~~ Transitman

I, Claude L. Heist, U. S. ~~Surveyor~~ Transitman, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah and supplemental special instructions dated Aug. 28, 1912 bearing date of the 28 day of May~~ch~~, 1912, 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 Townships 1, 2, and 3 North, Range 8 West; Township 3 North, Range 9 West; Townships 1 and 2 South, Range 10 West; and Townships 2 and 3 South, Range 6 West

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in books "B" to "K" inclusive 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.

Claude L. Heist
~~U.S. Surveyor.~~ U.S. Transitman.

Subscribed by said Claude L. Heist, and sworn to before me this 10th day of July, 1913

SEAL

Thomas Bell
U.S. Surveyor-General for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

~~Salt Lake City, Utah,~~ , 191~~1~~

The foregoing field notes of the survey of ~~the Subdivisional lines of Township No. 3 South, Range No. 6 West of the Salt Lake Base and Meridian, Utah~~

executed by ~~John R. Stewart and Claude L. Heist~~ their under ~~his~~ special instructions dated ~~May 28, 1912, and supplemental~~ Aug. 28 1912, 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-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, John R. Stewart, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of Township No. 2 South, Range No. 6 West

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.	
Lynne Phelps	Nov. 28, 1914	Dec. 14, 1914	Chainman.
Ulric Lecander	Nov. 28, 1914	Dec. 14, 1914	Chainman.
Dallin Southworth	Nov. 28, 1914	Dec. 14, 1914	Axman.

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

John R. Stewart
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, John R. Stewart, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah dated and supp'l special instructions dated Aug. 28, 1912 and Nov. 25, 1914, respe bearing date of the 28 day of May, 1912, 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 Township No. 2 South, Range No. 6 West

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.

John R. Stewart
U. S. Surveyor.

Subscribed by said John R. Stewart, and sworn to before me this 26 day of March, 1916

SEAL

U. S. Surveyor General for 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-411

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gurley, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the subdivisions of T 2 S., R 6 W.

of the Salt Lake Base Mer. 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.	
Sterling Wright	Dec. 17, 1915	Dec. 18, 1915	Head Chainman

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

Ralph Gurley.
U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pursuance of ~~special~~ supplemental instructions received from the U. S. Surveyor General for Utah, bearing date of the 29th day of July, 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 the subdivision of T 2 S., R. 6 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.

Ralph Gentry
U. S. Surveyor.

Subscribed by said Ralph Gentry, and sworn to before me this 14th day of January, 1916

SEAL

M. O. Thoresen
U. S. Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 27 1916

The foregoing field notes of the ~~survey of~~ retracement, resurvey, and survey of the subdivisional lines of Township No. 2 South, Range No. 6 West of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart and Ralph Gentry respectively under ~~his~~ special instructions dated Aug. 28, 1912, Nov. 25, 1914 and July 29, 1915, under ~~his~~ special instructions dated May 28, 1912 and supplemental, ~~191~~, 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. O. 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.

_____
U. S. Surveyor General.

6—2761