

*Copy of [unclear] / 3/1/1910*

Book A.

NOV 18 1909

(1)

BOOK 2181 2181

BOOK 2181

# FIELD NOTES

BOOK 2181

OF THE SURVEY OF THE

2181

2181

~~Private Claim Lines and Resurvey of the Subdivision Lines of~~

~~Tp. 20 N. Rg. 1 W.~~

2181

Of the ~~Gila and Salt River Meridian~~ Meridian,

~~Territory of Arizona.~~

AS SURVEYED BY

~~Alfred N. Oliver~~, United States Deputy Surveyor,

Under his Contract No. ~~153~~, dated ~~November 19, 1909~~, 190

Survey commenced ~~April 25, 1909~~, 190

Survey completed ~~July 16, 1909~~, 190

2181

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(A)

NAMES AND DUTIES OF ASSISTANTS.

Will W. Shawk Chairman

Archie Johnston Chairman

W. R. Johnston Axman.

R. R. Lane Flagman.

## Disposals and Valid Entries in T. 20 N., R. 1 W.

(13)

Description	Area	Kind	Number	Date	Name
NW $\frac{1}{4}$ Sec. 1	136.29	Selected	List 10	Mar.12,1890	A. & P.R.R.Co.
Sec. 3	519.52	Selected (Approved	List 10 List 2	Mar.12,1890 Jul.15,1889	A. & P.R.R.Co. Pat.Jul.20,1899)
Sec. 5	179.56	Selected (Approved	List 10 List 2	Mar.12,1890 Jul.15,1899	A. & P.R.R.Co. as to lots 1, 2, 3, 4, & E $\frac{1}{2}$ SE $\frac{1}{4}$ . Pat. Jul.20,1899.)
Sec. 9	640.00	Selected (Approved	List 10 List 2	Mar.12,1890 Jul.15,1899	A. & P.R.R.Co. Pat.Jul.20,1899)
NW $\frac{1}{4}$ Sec. 11	160.00	Selected	List 10	Mar.12,1890	A. & P.R.R.Co.
Sec. 13	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 15	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Frac. Sec. 17	251.68	Selected (Approved	List 10 List 2	Mar.12,1890 Jul.15,1899	A. & P.R.R.Co. as to lots 1, 2, 3, 4, & E $\frac{1}{2}$ NE $\frac{1}{4}$ & E $\frac{1}{2}$ SE $\frac{1}{4}$ Pat.Jul.20,1899)
NW $\frac{1}{4}$ Sec. 21	160.00	Selected	List 10	Mar.12,1890	A. & P.R.R.Co.
NE $\frac{1}{4}$ & S $\frac{1}{2}$ Sec. 21	480.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 23	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 25	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 27	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Frac. Sec. 29	260.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 33	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.
Sec. 35	640.00	Selected	List 16	Jun.30,1896	A. & P.R.R.Co.

WE HEREBY CERTIFY that the above is a correct, full, and true list of all disposals and valid entries in T. 20 N., R. 1 W., G. & S. R. B. & M., Arizona, as shown by the records of this office.

*Frank H. Walker*  
-----  
Register.

*Chas E Arnold*  
-----  
Receiver.

PHOENIX LAND OFFICE,

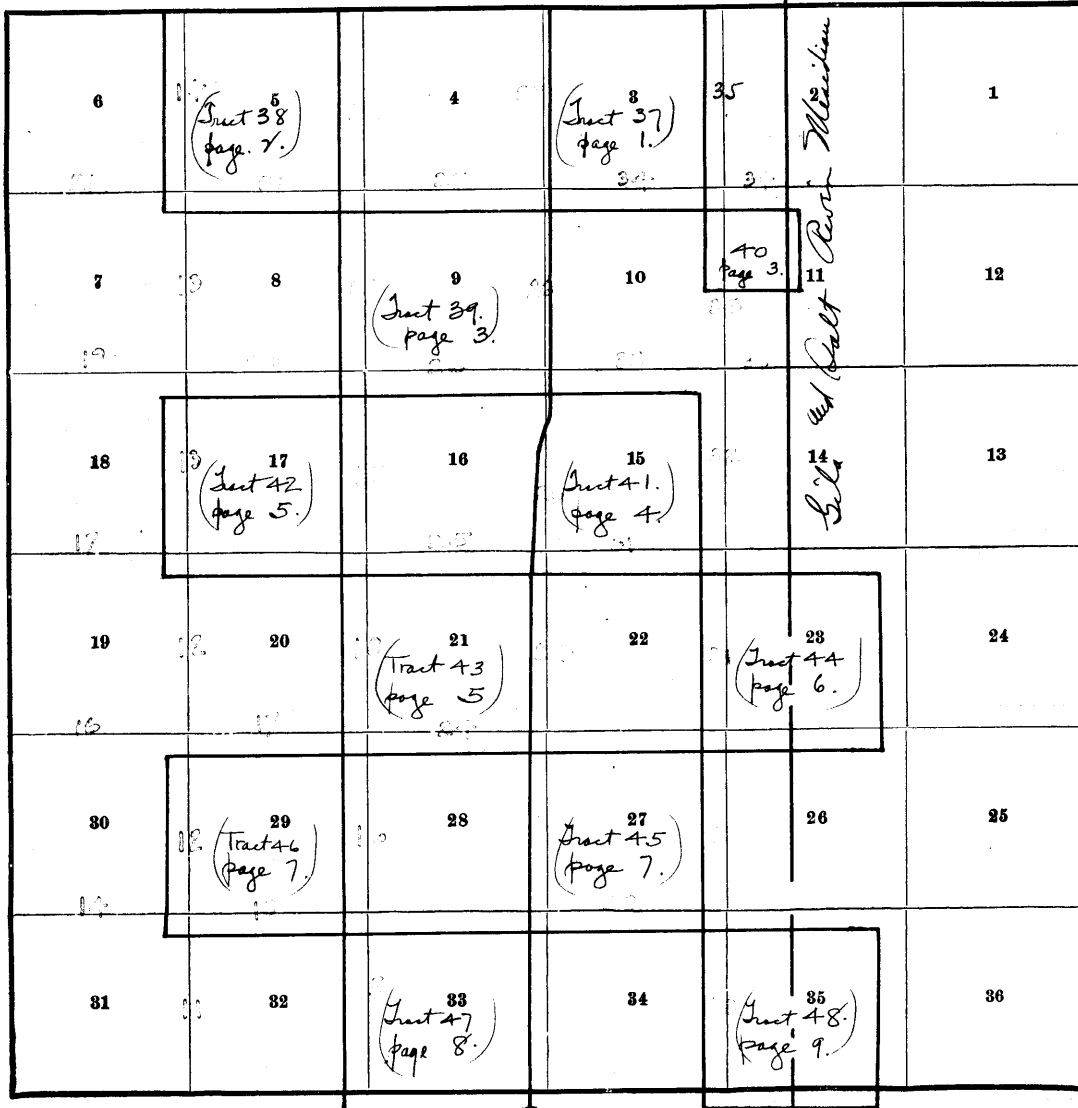
Phoenix, Arizona,

Dec 1, 1908

BOOK 2181

INDEX DIAGRAM.

Township L O N., Range 1 W.



Salt Creek Meander

Meanders Page.....

*In*

PRELIMINARY OATHS OF ASSISTANTS.

*See Book A. Duties of J. 17 & R. 1 W.*

(10)

WE, \_\_\_\_\_ and \_\_\_\_\_

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

*John A. Shaw*, Chainman.  
*Archie Johnston*, Chainman.

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



WE, \_\_\_\_\_ and \_\_\_\_\_

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

\_\_\_\_\_, Moundman.  
\_\_\_\_\_, Moundman.

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



WE, \_\_\_\_\_ and \_\_\_\_\_

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

*W. R. Johnston*, Axman.  
\_\_\_\_\_, Axman.

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



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

*R. R. Lane*, Flagman.

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



## Metes and Bounds Survey in Township 20 North Range 1 West.

chains.

Survey commenced April 25th, 1909, and executed with a Young and sons light mountain transit, No. 7532, 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 Phoenix, found correct and was approved by the Surveyor-General for Arizona.

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 a meridian determined by observations on Polaris, I proceed as follows:

At cor. No. 1 of Tract 37, which is identical with the old closing cor. between secs. 2 and 3; latitude  $35^{\circ}10'N.$ , longitude  $112^{\circ}20'W.$ ; I set off  $35^{\circ}10'N.$  on the lat. arc  $13^{\circ}14, 1/2'N.$  on the decl. arc; and at 4 p.m., l.m.t., determine a meridian with the solar, and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor. April 25, 1909.

April 26th, 1909; At 5h. 15m. a.m. by my watch which has correct 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 driven in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}26, 1/2'$  to the west, and mark the meridian thus determined, by cutting a small groove in the stone set April 25, on which the meridian coincides with the meridian established by the solar.

At 8 a.m., l.m.t., I set off  $35^{\circ}10'N.$  on the lat. arc,  $13^{\circ}27, 1/2'N.$  on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark coincides with the meridian established by Polaris observation. The solar apparatus, by a.m. and p.m. observations, defines positions for meridians identical with 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 8h 15m a.m. is  $N. 14^{\circ}35'W.$ ; the angle thus determined gives the mag. decl.  $14^{\circ}35'E.$

Tract 37-Selected; List 10, Mar. 12, 1902; A. & P.R.R. Co. List 2 approved July 15, 1899; originally described as Sec. 3, T20N. R1W. Patented July 20, 1899. Begin at the cor. No. 1, the NE. cor. a malpais stone, 18X8X6 ins., set 12 ins. in the ground, marked 1-37 on SW. face.

Thence I run

N  $86^{\circ}54'W.$

10.00 Old standard  $1/4$  sec. cor.

Thence I run

N  $87^{\circ}15'W.$  along Standard. Parallel

40.50 Old standard  $1/2$  sec. cor.

Thence I run

S  $89^{\circ}40'W.$

23.70 The NW. cor. which is identical with the old closing cor. bet. secs. 3 and 4. I destroy the old cor. and in the same place I set a malpais stone, 16X10X8 ins., 11 ins. in the ground, for cor. No. 2, marked 2-37 on SE. face;

Thence I run

Metes and Bounds Survey in Township 20 North Range 1 West

- chains.
- 33.71 S 0°22'W.  
Old  $\frac{1}{4}$  sec. cor. bet. 3 and 4; which I destroy, and, in the same place <sup>mark</sup> (X) on a malpais rock in place, 2X3ft. by 18 ins. above ground, for cor. No. 3; marked 3-37 on E. side of cross.  
Thence I run  
S 0°17'W.
- 40.07 Old cor. of secs. 3, 4, 9, and 10; which I destroy, and in the same place set malpais stone, 16X12X8 ins., 11 ins. in the ground, for cor. 4 of Tract No 37 and cor. No. 1 of Tract 39; marked 4-37 on NE. face and 1-39 on SW. face; At this cor. I set off 13°30, 1/2' N. on the decl. arc. and observe the sun on the meridian at noon; the resulting latitude being 35°09, 1/2' N.  
Thence I run  
N 89°48' E.
- 75.21 Old sec. cor. of secs. 2, 3, 10 and 11, which I destroy, and in the same place set sandstone, 16X8X5 ins., 11 ins. in the ground for cor. 5 of Tract No 37 and cor. No. 2 of Tract 40; marked 5-37 on NW. and 2-40 on SE. face.  
Thence I run  
N 0°16' W.
- 39.46 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone, 18X7X6 ins., 12 ins. in the ground, for cor. No 6; marked 6-37 on W. face.  
Thence I run  
N 0°51' W.
- 31.63 Cor. No. 1, point of beginning Area 544.92 Acres.  
April 26, 1909.
- Tract 38-Selected; List 10, March 12, 1890; A. & P. R. R. Co. List 2 approved July 15, 1899 as to lots 1, 2, 3, 4, & E $\frac{1}{2}$ SE $\frac{1}{4}$ , Pat. July 20, 1899; originally described as Sec. 5, T20N. R1W. April, 27; At 7 a.m., l.m.t., I set off 35°10' N on the lat. arc 13°46, 1/2' N. on the decl. arc, and determine a meridian with the solar at the cor. No. 1, which is the NE. cor. and identical with the old closing cor. of secs. 4 and 5 and is a malpais 16X8X8 ins., set 11 ins. in the ground, <sup>ma</sup> <sub>sm</sub>  
Thence I run, N 89°53' W.
- 12.17 Old standard  $\frac{1}{4}$  sec. cor.  
Thence I run  
N 89°07' W.
- 40.35 Old standard sec. cor.  
Thence I run  
N 89°34' W.
- 28.38 Old closing cor. bet. secs. 5 and 6, which I destroy and in the same place I set a malpais 14X10X8 ins., 9 ins. in the ground, for cor. No. 2; marked 2-38 on SE. face.  
Thence I run  
S 0°38' E.
- 27.21 Old  $\frac{1}{4}$  sec. cor. bet. secs. 5 and 6, which I destroy, and in the same place I set a malpais 18X8X5 ins., 12 ins. in the ground, for cor. No. 3; marked 3-38 on E. face.  
Thence I run  
S 0°19' E.
- 40.20 Old sec. cor. which I destroy and in the same place I set a malpais 16X8X6 ins., 11 ins. in the ground, for cor. No. 4 marked 4-38 on NE. face. <sup>Survey at 39</sup>  
At this cor. I set off 13°49, 1/2' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting latitude being 35°09, 1/2' N.  
Thence I run  
N 89°39' E.
- 40.21 Old  $\frac{1}{4}$  sec. cor., which I destroy and set in the same place a malpais 16X14X5 ins., 11 ins. in the ground, for cor. No. 5; marked 5-38 on N. face.  
Thence I run  
S 88°22' E.
- 40.15 Old sec. cor., which I destroy, and in the same place, I set a malpais 18X10X6 ins., 12 ins. in the ground, for cor.

Metes and Bounds Survey in T<sub>20</sub> N. R<sub>2</sub> W

Chains

- No. 6 of Tract 38 and cor. No. 3 of Tract 39, marked 6-38 on N. W. and 3-39 on S. E. face.  
Thence I run  
N. 0° 25' W.
- 40.25 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 18 x 14 x 10 ins., 12 ins. in the ground for cor. No. 7, marked 7-38 on W. face.  
Thence I run  
N. 0° 38' E. Area 538.99 Acres.
- 27.07 Cor. No. 1, place of beginning.
- April 27, 1909
- Tract 39-Selected; List 10, Mar. 12, 1890; A. & P. R. R. Co. approved List 2, July 15, 1899; Pat. July 20, 1899; originally described as Sec. 9, T<sub>20</sub>N. R<sub>1</sub>W.
- April 28: At 7h. 00m. a.m., l.m.t., I set off 35° 09 1/2' N. on the lat. arc; 14° 05' N. on the decl. arc; and determine a meridian with the solar at cor. No. 1 previously described, identical with Cor. 4 of tract 37.
- Thence I run  
N. 87° 36' W.
- 44.42 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 16 x 12 x 6 ins. 11 ins. in the ground for cor. No. 2, marked 2-39 on S. face.  
Thence I run  
N. 83° 13' W.
- 41.10 Cor. No. 3, identical with cor. No. 6 Tract 38, previously described.  
Thence I run  
S. 0° 42' W.
- 39.53 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 16 x 10 x 8 ins. 11 ins. in the ground for cor. No. 4 marked 4-39 on E. face.  
Thence I run  
S. 0° 10' E.
- 40.14 Old sec. cor. which I destroy and in the same place set a malpais 20 x 8 x 4 ins. 15 ins. in the ground for cor. 5 of Tract 39 and cor. No. 1 of tract No. 42, marked 5-39 on N. E. and 1-42 on S. W. face.  
Thence I run  
S. 83° 07' E.
- 39.46 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 36 x 18 x 18 ins. 27 ins. in the ground for cor. No. 6, marked 6-39 on N. face.  
April 28: At this cor. I set off 14° 09' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 35° 08 1/2' N.  
Thence I run  
S. 87° 57' E.
- 46.21 Old sec. cor. which I destroy and in the same place set a malpais 16 x 10 x 8 ins. 11 ins. in the ground for cor. No. 7 of tract 39 and cor. No. 3 of tract 41, marked 7-39 on N. W. and 3-41 on S. E. faces.  
Thence I run  
N. 0° 18' E.
- 39.60 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 16 x 10 x 6 ins. 11 ins. in the ground for cor. No. 8 marked 8-39 on W. face.  
Thence I run  
N. 0° 27' W. Area 680.65 Acres.
- 39.65 Cor. No. 1 place of beginning.
- April 28, 1909.

Tract 40-Selected; List 10, Mar. 12, 1890; A. & P. R. R. Co. originally described as NW $\frac{1}{4}$  Sec. 11, T<sub>20</sub>N. R<sub>1</sub>W.

April 29: At 7h. 00m., a.m., l.m.t., I set off 35° 09 1/2' N on the lat. arc; 14° 24 1/2' N. on the decl. arc; and determine a meridian with the solar at cor. No. 1 the N. E. cor. which is identical with the  $\frac{1}{4}$  sec. cor. bet sec 2 and 11 which I destroy and in the same place set a



## Metes and Bounds Survey in Tp. 20 N. Rg. 1 W.

- Chains, malpais 20 x 6 x 5 ins. 15 ins. in the ground for cor. No. 1, marked 1-40 on S. W. face.  
Thence I run  
N. 88° 43' W.
- 39.65 Cor. No. 2, which is identical with cor. No. 5 of tract 37, previously described.  
Thence I run  
S. 0° 17' E..
- 40.13 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 16 x 7 x 6 ins. 11 ins. in the ground for cor. No. 3 marked 3-40 on N. E. face.  
Thence I run S. 89° 45' E.
- 39.30 Cor. No. 4 set a malpais stone 18 x 6 x 5 ins. 12 ins. in the ground for cor. No. 4 marked 4-40 on N. W. face.  
Thence I run  
N. 0° 12' E.
- 39.53 Cor. No. 1 place of beginning.  
Stormy weather prevented observation for latitude.  
Area, T20N.R1W. 117.60 Ac.  
" T20N.R1E. 39.61 " April 29, 1909.  
" Total 157.21 "
- 
- Tract 41-Selected; List 16, June 30, 1896; A. & P. R. R. Co. originally described as Sec. 15, T20N.R1W.  
April 30: At 7h. 00m., a. m., l. m. t., I set off 35° 08' 1/2' N. on the lat. arc; 14° 43' N on the decl. arc; and determine a meridian with the solar at cor No. 1 the N. E. cor. identical with the cor. of secs. 10, 11, 14 and 15, which I destroy and in the same place set a malpais stone 15 x 12 x 10 ins. 10 ins. in the ground marked 1-41 on S. W. face.  
Thence I run  
N. 78° 02' W..
- 36.51 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 16 x 10 x 10<sup>ins.</sup> 11 ins. in the ground for cor. No. 2 marked 2-41 on S. face.  
Thence I run S. 80° 34' W.
- 40.01 ~~Old sec. cor. which I destroy and in the same place set~~ a malpais stone 16 x 10 x 8 ins. 11 ins. in the ground for cor. No. 3 also cor. No. 7 of tract No. 39 which has been previously described  
Thence I run  
S. 7° 50' W.
- 39.04 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 16 x 12 x 10 ins. 11 ins. in the ground for cor. No. 4, marked 4-41 on E. face.  
Thence I run  
S. 0° 22' E.
- 40.86 Old sec. cor. which I destroy and in the same place set a malpais 24 x 16 x 10 ins. 18 ins. in the ground for cor. No. 5 of tract 41 and cor. No. 1 of tract 43, marked 5-41 on N. E. and 1-43 on S. W. faces.  
Thence I run  
N. 88° 44' E.
- 36.97 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais 16 x 8 x 6 ins. 11 ins. in the ground for cor. No. 6 marked 6-41 on N. face.  
April 30; At this cor. I set off 14° 45' 1/2' N. on the decl. arc; and observe the sun on the meridian at noon the resulting lat. is 35° 07' 1/2' N. ✓  
Thence I run  
S. 89° 26' E.
- 40.21 Old sec. cor. which I destroy and in the same place set a malpais stone 16 x 10 x 8 ins. 11 ins. in the ground for cor. No. 7 of tract 41 and cor. No. 3 of tract 44 marked 7-41 on N. W. and 3-44 on S. E. faces.  
Thence I run  
N. 3° 05' E.
- 37.09 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 16 x 8 x 6 ins. 11 ins. in the ground for cor. No. 8, marked 8-41 on W. face.  
Thence I run  
N. 0° 55' E.

Water and Boundary Survey in Twp. 20 N. Rg. 1 W.

Chains 41.04	Cor. No. 1 place of beginning.	Area 638.89 Acres. April 30, 1909.
	<p>Tract 42-Selected; List 10, Mar. 12, 1890; A. &amp; P. R. R. Co. App'd. List 2, July 15, 1899 as to lots 1, 2, 3, 4 &amp; E<math>\frac{1}{2}</math>NE<math>\frac{1}{4}</math> &amp; E<math>\frac{1}{2}</math>SE<math>\frac{1}{4}</math>; Pat. July 20, 1899; originally described as Sec. 17, T20N, R1W.            May 1: At 7h. 00m., a.m., l.m.t., I set off 35° 08, 1/2' N. on the lat. arc: 15° 01' N. on the decl. arc; and determine a meridian with the solar at cor. No. 1 the N.E. cor. identical with cor. No. 5 of tract No. 39 previously described.            Thence I run                S 89° 56' W.</p>	
39.74	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place mark a cross on a malpais rock in place 5ft X 2, 1/2 X 2, 1/2 ft. above ground for cor. No. 2., marked 2-42 S. of cross. Thence I run S 89° 57' W.	
40.61	Old sec. cor. which I destroy and in the same place set a malpais 18X12X8 ins., 12 ins. in the ground, for cor. No. 3, marked 3-42 on SE. face. Thence I run S 0° 56' E.	
39.84	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais 16X14X14 ins., 11 ins. in the ground, for cor. No. 4, marked 4-42 on E. face. Thence I run S 3° 11' W.	
39.95	Old sec. cor. which I destroy and in the same place set a malpais 14X8X8 ins., 9 ins. in the ground, for cor. No. 5, marked 5-42 on NE. face. May 1: At this cor. I set off 15° 04' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 35° 07, 1/2' N. Thence I run N 89° 45' E.	
39.48	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais 18X7X7 ins., 12 ins. in the ground for cor. No. 6, marked 6-42 on N. face. Thence I run N 89° 48' E.	
40.27	Old sec. cor. which I destroy and in the same place set a malpais 16X8X8 ins., 11 ins. in the ground, for cor. No. 7 of tract No. 42 and cor. No. 3 of tract No. 43, marked 3-43 on SE., and 7-42 on NW. faces. Thence I run N 0° 34' E.	
39.66	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais 14X8X6 ins., 9 ins., in the ground, for cor. No. 8, marked 8-42 on W. face Thence I run N 2° 39' E.	Area 627.11 Acres.
39.21	Cor. No. 1 place of beginning.	May 1st, 1909.
	<p>Tract 43-Selected; List 10, Mar. 12, 1890; A. &amp; P. R. R. Co. originally described as NW<math>\frac{1}{4}</math> Sec. 21; List 16, June 30, 1896; A. &amp; P. R. R. Co. originally described as NE<math>\frac{1}{4}</math> &amp; S<math>\frac{1}{2}</math> Sec. 21, T20N, R1W.            May 2: At 7h. 00m., a.m., l.m.t., I set off 35° 07, 1/2' N. on the lat. arc: 15° 19, 1/2' N. on the decl. arc; and determine a meridian with the solar at cor. No. 1 Tract 43 identical with cor. No. 5 of tract 41 previously described.            Thence I run                S 89° 55' W.</p>	
42.23	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais stone 18X10X8 ins., 12 ins. in the ground, for cor. No. 2, marked 2-43 on the S. face. Thence I run. N 90° 05' W.	
41.16	Cor. No. 3 also cor. No 7 of tract No 42 previously described.	

Metes and Bounds Survey in Tp. 20 N. Rg. 1 W.

Chains.	
39.64	<p>Thence I run S 0° 30' W. Old <math>\frac{1}{4}</math> sec.cor. which I destroy and in the same place set a malpais stone 16X8X8ins., 11ins. in the ground, for cor.No.4 marked 4-43 on E.face.</p>
39.55	<p>Thence I run S 0° 18' W. Old sec.cor which I destroy and in the same place set a malpais stone, 18X8X6ins., 12ins. in the ground, for cor. No.5 of tract 43 and cro.No.1 of tract 46 marked 5-43 on NE., and 1-46 on SW.faces. May 2: At this cor.I set 15°22'N.on the decl.arc; and observe the sun on the meridian at noon, the resulting latitude is 35° 07'N.</p>
42.27	<p>Thence I run S 79° 05' E. Old <math>\frac{1}{4}</math> sec.cor.which I destroy and in the same place set a malpais stone, 16X10X5ins., 11ins. in the ground, for cor. No.6, marked 6-43 on N.face.</p>
41.25	<p>Thence I run S 89° 47' E. Old sec.cor which I destroy and in the same place set a malpais 16X12X10ins., 11ins. in the ground, for cor.No.7 of tract No 43 and cor.No.3 of tract No.45, marked 3-45 on SE., and 7-43 on NW.faces</p>
36.81	<p>Thence I run N 0° 04' E. Old <math>\frac{1}{4}</math> sec.cor.which I destroy and in the same place set a malpais stone 16X10X10ins., 11ins. in the ground, for cor.No.8, marked 8-43 on W.face.</p>
43.51	<p>Thence I run N 0° 30' E. Cor.No1, place of beginning. <span style="float: right;">Area 661.25 Acres</span> <span style="float: right;">May 2nd, 1909.</span></p>
<p><u>Tract 44-Selected; List 16, June 30, 1896; A. &amp; P.R.R.Co. originally described as Sec.23, T20N.R1W.</u></p>	
<p>May 3rd: At 7h., 00m., a.m., 1.m.t., I set off 15°37'N.on the decl.arc: 35°07', 1/2'N.on the lat.arc; and determine a meridian with the solar at the old cor. of secs. 13, 14, 23, and 24, which I destroy and in the same place set a malpais stone 18X8X6ins., 12ins. in the ground, for cor.No1 marked 1-44 on SW.face.</p>	
39.90	<p>Thence I run S 89° 44' W. Old <math>\frac{1}{4}</math> sec.cor.which I destroy and in the same place set a malpais stone, 16X10X8ins., 11ins. in the ground, for cor. No.2, marked 2-44 on S.face.</p>
39.85	<p>Thence I run S 89° 29' W. Cor.No 3 also cor.No.7 of tract 41 previously described.</p>
40.55	<p>Thence I run S 1° 11' E. Old <math>\frac{1}{4}</math> sec.cor.which I destroy and in the same place set a malpais stone, 18X8X6ins., 12ins. in the ground, for cor. No.4, marked 4-44 on E.face.</p>
40.25	<p>Thence I run S 0° 09' E. Old sec.cor.which I destroy and in the same place set a malpais stone, 16X14X6ins., 9ins. in the ground, for cor. No 1 of tract 45 and cor.No.5 of tract 44, marked 1-45 on SW., and 5-44 on NE.faces. May 3rd: At this cor.I set off 15° 40'N.on the decl.arc and observe the sun on the meridian at noon, the resulting latitude is 35° 07'N.</p>
40.21	<p>Thence I run N 89° 34' E. Old <math>\frac{1}{4}</math> sec.cor.which I destroy and in the same place set a malpais stone, 18X8X6ins., 12ins. in the ground, for No. 6, marked 6-44 on</p>

## Metes and Bounds Survey in Tp. 20 N., Rg. 1 W.

Chains.

on N. face.

Thence I run

N. 89° 16' E.

38.16

Old sec. cor. which I destroy and in the same place set a malpais stone 18 x 7 x 5 ins. 12 ins. in the ground for cor. No. 7, marked 7-44 on N. W. face.

Thence I run

N. 0° 37' E.

80.50

Cor. No. 1, place of beginning. I was unable to find the old  $\frac{1}{4}$  sec. cor. on this line. Area 636.74 Acres.

May 3, 1909.

Tract 45-Selected; List 16, June 30, 1896; A. & P.R.R. Co. originally described as Sec. 27, T20N. R1W.

May 4: At 7h. 00m. a.m., l.m.t., I set off 35° 07' N. on the lat arc; 15° 54 1/2' N. on the decl. arc; and determine a meridian with the solar at Cor. No. 1 of tract No. 45 which is also cor. No. 5 of tract No. 44 and which has been previously described.

Thence I run

S. 89° 50' W.

38.80

Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 14 x 12 x 5 ins. 9 ins. in the ground for cor. No. 2, marked 2-45 on S. face.

Thence I run

N. 89° 44' W.

39.42

Cor. No. 3, also cor. No. 7 of tract No. 43, which has been previously described.

Thence I run

S. 0° 40' W.

39.61

Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. No. 4, marked 4-45 on E. face.

Thence I run

S. 1° 09' W.

40.37

Old sec. cor. which I destroy and in the same place set a malpais stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. No. 5 of tract 45 and cor. No. 1 of tract 47, marked 5-45 on N. E. face and 1-47 on S. W. face. May 4: At this cor. I set off 15° 57 1/2' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 35° 06' N.

Thence I run

N. 87° 50' E.

39.82

Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 14 x 8 x 4 ins. 9 ins. in the ground for cor. No. 6, marked 6-45 on N. face.

Thence I run

S. 89° 13' E.

40.04

Old sec. cor. which I destroy and in the same place set a malpais stone 18 x 8 x 4 ins. 12 ins. in the ground for cor. No. 7 of tract 45 and cor. No. 3 of tract No. 48, marked 7-45 on N. W. and 3-48 on S. E. faces.

Thence I run

N. 0° 18' W.

39.64

Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place mark a cross (x) on a malpais stone in place 6 x 2 1/2 x 2 ft. above ground, for cor. No. 8, marked 8-45 on W. of cross.

Thence I run

N. 0° 05' E.

39.30

Cor. No. 1 place of beginning. Area 621.92 Acres.

May 4, 1909.

Tract 46-Selected; List 16, June 30, 1896; A. & P.R.R. Co. originally described as Sec. 29, T20N. R1W.

May 5: At 7h. 00m. a.m., l.m.t., I set off 35° 07' N. on the lat arc; 16° 12' N. on the decl. arc; and determine

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Chains.	
	a meridian with the solar at Cor. No. 1 of tract 46, also cor. No. 5 of tract 43, which has been previously described.
	Thence I run
	S. 88° 38' W.
39.73	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais stone 18 x 7 x 5 ins. 12 ins. in the ground for cor. No. 2, marked 2-46 on S. face
	Thence I run
	S. 87° 50' W.
39.83	Old sec. cor. which I destroy and in the same place set a malpais stone 18 x 12 x 8 ins. 12 ins. in the ground for cor. No. 3, marked 3-46 on S. E. face.
	Thence I run
	S. 0° 34' E.
39.78	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais stone 20 x 14 x 6 ins. 15 ins. in the ground for cor. No. 4, marked 4-46 on E. face.
	Thence I run
	S. 0° 23' E.
39.57	Old sec. cor. which I destroy and in the same place set a malpais stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. No. 5, marked 5-46 on N. E. face.
	May 5; At this cor. I set off 16° 14 $\frac{1}{2}$ ' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 35° 06' N.
	Thence I run
	N. 89° 27' E.
38.83	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. No. 6, marked 6-46 on N. face.
	Thence I run
	N. 87° 46' E.
38.36	Old sec. cor. which I destroy and in the same place set a malpais stone 16 x 8 x 5 ins. 11 ins. in the ground for cor. No. 7 of tract 46 and cor. No. 3 of tract 47, marked 7-46 on N. W. face and 3-47 on S. E. face.
	Thence I run
	N. 2° 59' E.
40.11	Old $\frac{1}{4}$ sec. cor. which I destroy and in the same place set a malpais stone 14 x 8 x 6 ins. 9 ins. in the ground for cor. No. 8, marked 8-46 on W. face.
	Thence I run
	N. 0° 14' W.
39.91	Cor. No. 1, place of beginning.

Area 631.45 Acres  
May 5, 1909.

Tract 47-Selected; List 16, June 30, 1896; A. & P. R. R. Co. originally described as Sec. 33, T20N. R1W.

May 6: At 7h. 00m. a.m., l.m.t., I set off 35° 06' N. on the lat. arc; 16° 29' N. on the decl. arc; and determine a meridian with the solar at cor. No. 1 of tract 47, also cor. No. 5 of tract 45, which has been previously described.

Thence I run

N. 88° 14' W.

40.87 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 14 x 8 x 6 ins. 11 ins. in the ground for cor. No. 2, marked 2-47 on S. face.

Thence I run

N. 90° 47' W.

43.03 Cor. No. 3, also cor. No. 7 of tract No. 46, previously described.

Thence I run

S. 3° 05' E.

47.11 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place

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Chains.

set a malpais stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. No. 4, marked 4-47 on E. face.

Thence I run S. 0° 09' W.

40.47 Old sec. cor. which I destroy and in the same place set a malpais stone 14 x 8 x 6 ins. 11 ins. in the ground for cor. No. 5 of tract 47 and cor. No. 1 of tract No. 38 Tp. 19 N. Rg. 1 W., marked 5-47 on N. E. and 1-38 on S. W. faces.

May 6; At this cor. I set off 16° 31 1/2' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 35° 05' N.

Thence I run N. 88° 42' E.

40.69 Old 1/4 sec. cor. which I destroy and in the same place set a malpais stone 16 x 8 x 6 ins. 11 ins. in the ground for cor. No. 6 marked 6-47 on N. face.

Thence I run S. 88° 57' E.

40.50 Old cor. which I destroy and in the same place set a malpais stone 18 x 12 x 8 ins. 12 ins. in the ground for cor. No. 7 of tract 47 and cor. No. 3 of tract 37 Tp. 19 N. Rg. 1 W., marked 7-47 on N. W. and 3-37 on S. E. faces.

Thence I run N. 0° 09' W.

39.31 Old 1/4 sec. cor. which I destroy and in the same place set a malpais stone 16 x 12 x 8 ins. 11 ins. in the ground for cor. No. 8, marked 8-47 on W. face.

Thence I run N. 0° 20' W. Area, T20N.R1W.559.30 Ac.

39.82 Cor. No. 1 place of beginning. " T19N.R1W.105.59 "

May 6, 1909

Tract 48-Selected; List 16, June 30, 1896; A. & P.R.R. Co. originally described as Sec. 35, T20N.R1W.

May 7: At 7h. 00m., a.m., l.m.t., I set off 35° 06' N. on the lat. arc; 16° 46' N. on the decl. arc; and determine a meridian with the solar at the old cor. of secs. 25, 26, 35, and 36, which I destroy and in the same place mark a cross (x) on a malpais stone in place 2 x 1 x 1 ft. above ground for cor. No. 1 of tract 48, marked 1-48 S. W. of cross.

Thence I run N. 89° 47' W.

40.26 Old 1/4 sec. cor. which I destroy and in the same place set a malpais stone 20 x 10 x 6 ins. 15 ins. in the ground for cor. No. 2, marked 2-48 on S. face.

Thence I run S. 85° 56' W.

39.51 Cor. No. 3, also cor. No. 7 of tract No. 45, which has been previously described.

Thence I run S. 0° 21' E.

39.20 Old 1/4 sec cor. which I destroy and in the same place set a malpais stone 14 x 10 x 5 ins. 9 ins. in the ground for cor. No. 4, marked 4-48 on E. face.

Thence I run South

38.98 Old sec. cor. which I destroy and in the same place set a malpais stone 16 x 10 x 6 ins. 11 ins. in the ground for cor. No. 5 of tract 48 and cor. No. 1 of tract No. 37 Tp. 19 N. Rg. 1 W., marked 5-48 on N. E. and 1-37 on S. W. faces.

May 7: At this cor. I set off 16° 48' N. on the decl. arc and observe the sun on the meridian at noon, the resulting lat. is 35° 05' N.

Thence I run N. 86° 10' E.

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Chains.  
40.00 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a sandstone 18 x 7 x 6 ins. 12ins. in the ground for cor. No. 6 marked 6-48 on N. face.  
Thence I run  
N. 89° 55' E.

39.80 Old sec. cor. which I destroy and in the same place set a malpais stone 16 x 14 x 8 ins. 11 ins. in the ground for cor. No. 7, marked 7-48 on N. W. face.  
Thence I run  
N. 0° 50' W.

38.00 Old  $\frac{1}{4}$  sec. cor. which I destroy and in the same place set a malpais stone 16 x 12 x 10 ins. 11 ins. in the ground for cor. No. 8, marked 8-48 on W. face.  
Thence I run  
N. 0° 18' E.

39.95 Cor. No.1, place of beginning.

May 7, 1909

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Area, T20N.R1W.	231.93	Acres.
" T20.NR1E.	354.64	"
" T19N.R1W.	34.24	"
" Total	620.81	"

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## Subdivision of Tp. 20 N., Rg. 1 W.

chains.

Survey commenced June 30, 1909, and executed with a Young and Sons light mountain transit No. 7532, with solar attachment. The horizontal limb is provided with two double veriners placed opposite to each other, reading to single minutes of arc, which is also the least count of the veriners of the latitude and declination arcs.

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

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

At the cor. of secs. 31 and 32 on the S. bdy. of Tpc 20 N., Rg. 1 W., previously established by me; latitude  $35^{\circ}05'N.$ , longitude  $112^{\circ}23'40''W.$ , I set off  $35^{\circ}05'$  N. on the lat. arc;  $23^{\circ}16, 1/2'N.$  on the decl. arc and at 6h.00m., p.m., l.m.t., determine a meridian with the solar, and mark a point thereof on a stone firmly set in the ground, 5 chs. N. of my station.

June 30, 1909.

July 1st: At 12h56m., 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 driven in the ground, 5 chs. N. of my station.

At 5h45m., a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}26'$  to the W., and mark the meridian thus established by a cross on the stone set June 30, on which the meridian coincides with the meridian determined by the solar.

At 6h.00m., a.m., l.m.t., I set off  $35^{\circ}05'N.$  on the lat. arc;  $23^{\circ}10, 1/2'N.$  on the decl. arc; and mark a point in the meridian thus determined by the solar, by a groove on the stone already set 5 chs. N. of my station. This mark coincides with the meridian established by Polaris observations.

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

The magnetic bearing of the true meridian at 6h.10m., a.m., is  $N 14^{\circ}50'W.$ ; the angle thus determined gives the mag. decl. as  $14^{\circ}50'E.$

I commence at the cor. of secs. 31 and 32 on the S. bdy. of Tp. 20 N. R. 1 W.

Thence I run

North on Sectional Guide meridian bet. secs. 31 and 32. Descending over loose volcanic rocks thru old timber cutting covered with dead limbs and brush and a growth of young cedars.

39.80

Road, bears NW. and SE. over nearly level land over loose rocks.

40.00

Set a malpais stone, 16x10x5 ins., 11 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked 09  $\frac{1}{4}$  on W. face; from which:-

A cedar 6 ins. in diam., bears S  $39^{\circ}E.$  88 lks., dist., marked; 09  $\frac{1}{4}$  S 32 RT.

A cedar 4 ins. in diam., bears N  $71^{\circ}30'W.$  108 lks., dist., marked; 09  $\frac{1}{4}$  S 31 RT.

43.05

Old wood road, bears E. and W.

72.10

Intersect the S. bdy. of tract No. 46, 6.80 chs.  $N89^{\circ}27'E$  of cor. No. 5.; Set a malpais 20x10x10 ins., 15 ins. in the ground, for closing cor.; marked 09 CC on S., and PC on N. face, with 5 notches on E. edge.



## Subdivision of Tp. 20 N., Rg. 1 W.

chains.	From which:- A cedar 4 ins. in diam., bears S 40° E. 81 lks., dist., marked; 09 CC T 20 N R 1 W S 32 BT. A cedar 4 ins. in diam., bears S 62° W. 45 lks., dist., marked; 09 CC T 20 N R 1 W S 31 BT.
80.00	Thence on blank line across private claim. Point for cor. of secs. 29, 30, 31 and 32 falls in private claim. Land, nearly level. Soil, rocky: 4th rate. Timber, cedar. Underbrush, young cedars. Land covered with dense brush and loose rocks exceptionally difficult to survey, 80.00 chs.
40.00 71.72	North on Sectional Guide meridian bet. secs. 29 and 30. on blank line across private claim. Over level land covered with loose volcanic rocks thru old timber cutting covered with dead brush and a growth of young cedars. Point for $\frac{1}{4}$ sec. cor. falls in private claim. Intersect the N. bdy. of Tract No. 46, 7.46 chs. N 87° 50' E of cor. No. 3; Set a malpais stone, 25x12x8 ins., 19 ins. in the ground, for closing cor., marked PC on S., and 09 CC on N., with 5 grooves on E. face; from which:- A cedar 4 ins. in diam., bears N 30° E. 28 lks., dist., marked; 09 CC T 20 N R 1 W S 29 BT. A cedar 8 ins. in diam., bears N 32° 30' W. 129 lks., dist., marked; 09 CC T 20 N R 1 W S 30 BT.
80.00	Over level land covered with loose rocks thru dense timber and underbrush. Set a malpais 16x8x6 ins., 11 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked 09 on NE., with 2 notches on S. and 5 notches on E. edge; from which:- A cedar 6 ins. in diam., bears N 44° 30' E. 11 lks., dist., marked; 09 T 20 N R 1 W S 20 BT. A cedar 8 ins. in diam., bears S 67° 30' E. 33 lks., dist., marked; 09 T 20 N R 1 W S 29 BT. A cedar 8 ins. in diam., bears S 84° W. 13 lks., dist., marked; 09 T 20 N R 1 W S 30 BT. A cedar 6 ins. in diam., bears N 17° W. 15 lks., dist., marked; 09 T 20 N R 1 W S 19 BT. Land, level and mountainous. Soil, rocky: 4th rate. Timber, cedar. Underbrush, cedars. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs. July 1st: At <u>this cor.</u> I set off 23° 08' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35° 07', 1/2' N.
40.00	North on Sectional Guide meridian bet. secs 19 and 20. Over nearly level land thru dense timber and underbrush over loose volcanic rocks. Set a malpais stone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on W. face; from which:- A cedar 5 ins. in diam., bears S 56° E. 42 lks., dist., marked; 09 $\frac{1}{4}$ S 20 BT. A cedar 8 ins. in diam., bears N 73° W. 30 lks., dist., marked; 09 $\frac{1}{4}$ S 19 BT.
58.00 68.50 72.13	Desc. steep slope over loose rocks into canyon. Wash, 90 lks. wide; course SW. Asc. over loose rocks. Intersect the S. bdy. of Tract No. 42, 7.09 chs. N 89° 45' E of Cor. No. 5, Set a malpais stone, 16x9x6 ins., 11 ins. in the ground, for closing cor., marked 09 CC on S., and PC on N., with 5 grooves on E. face; from which:-

## Subdivision of Tp. 20 N., Rg. 1 W.

chains.

A cedar 10 ins. in diam., bears S 37° E. 108 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 20 FT.  
A cedar 7 ins. in diam., bears S 20° W. 36 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 19 FT.  
Thence on blank line across private claim  
80.00 Point for cor. of secs. 17, 18, 19 and 20 falls in private  
claim.  
Land, level and mountainous.  
Soil, rocky; 4th rate.  
Timber, cedar.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and un  
underbrush, exceptionally difficult to survey, 80.00 chs.

North on Sectional Guide meridian bet. secs. 17 and 18.  
Descending over loose volcanic rocks thru dense timber  
and underbrush.

On blank line across private claim.  
40.00 Point for  $\frac{1}{4}$  sec. cor falls in private claim.  
71.88 Intersect the N. bdy. of Tract No. 42, 5.52 chs. N 89° 57' E. of  
cor. No. 3; Set a malpais, 16X10X10 ins., 11 ins. in the  
ground, for closing cor., marked 09 CC on N., PC on S., with  
5 grooves on E. face; from which:-

A cedar 5 ins. in diam., bears N 63° 45' E. 38 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 17 FT.

A cedar 8 ins. in diam., bears N 38° 15' W. 30 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 18 FT.

Over level land covered with loose rocks and dense  
timber and underbrush.

80.00 Set a malpais stone, 16X10X6 ins., 11 ins. in the ground, for  
cor. of secs. 7, 8, 17 and 18; marked 09 on NE., with  
4 notches on S. and 5 notches on E. edge; from which:-

A cedar 4 ins. in diam., bears N 25° 15' E. 117 lks.,  
dist., marked; 09 T 20 N R 1 W S 8 FT.

A cedar 10 ins. in diam., bears S 20° 15' E. 26 lks.,  
dist., marked; 09 T 20 N R 1 W S 17 FT.

A cedar 5 ins. in diam., bears S 55° 30' W. 86 lks.,  
dist., marked; 09 T 20 N R 1 W S 18 FT.

A cedar 8 ins. in diam., bears N 38° 30' W. 112 lks.,  
dist., marked; 09 T 20 N R 1 W S 7 FT.

Land, level.

Soil, rocky; 4th rate.

Timber, cedar.

Underbrush, cedar.

Land covered with loose rocks and dense timber and  
underbrush, exceptionally difficult to survey, 80.00 chs.

July 1st, 1909.

July 2; At 6h.00m., a.m., l.m.t., I Set off 35° 09' N.  
on the lat. arc; 23° 06',  $1/2$ ' N. on the decl. arc; and deter  
mine a meridian with the solar at the cor. of secs. 7, 8,  
17 and 18.

Thence I run

North on Sectional Guide meridian bet. secs. 7 and 8.  
Over level land covered with loose volcanic rocks thru  
dense timber and underbrush.

25.00 Desc. slowly over loose rocks.

40.00 Set a malpais, 18X12X10 ins., 12 ins. in the ground, for  
 $\frac{1}{4}$  sec. cor., marked: 09  $\frac{1}{4}$  on W. face; from which:-

A cedar 12 ins. in diam., bears S 50° E. 38 lks.,  
dist., marked; 09  $\frac{1}{4}$  S 8 FT.

A cedar 6 ins. in diam., bears S 81° 30' W. 35 lks.,  
dist., marked 09  $\frac{1}{4}$  S 7 FT.

52.00 Drain, cours SW. Asc. over loose rocks.

62.00 Top of ridge, bears NE. and SW. Desc. over loose rocks.

72.38 Intersect the S. bdy. of Tract No. 38, 5.16 chs N 89° 39' E. of  
cor. No. 4; Set a malpais 18X12X8 ins., 12 ins. in the  
ground, for closing cor., marked 09 CC on S., PC on N., and  
5 grooves on E. face; from which:-

Subdivision of Tp. 20 N., Rg. 1 W.

chains

80.00 A cedar 12ins. in diam., bears S 40°45'E. 34 lks.,  
 dist., marked; 09 CC T 20 N R 1 W S 8 RT.  
 A cedar 7ins. in diam., bears S 16°15'W. 44 lks.,  
 dist., marked; 09 CC T 20 N R 1 W S 7 RT.  
 Thence on blank line across private claim.  
 Point for cor. of secs. 5, 6, 7 and 8 falls in private  
 claim.  
 Land, level and mountainous.  
 Soil, rocky; 4th rate.  
 Timber, cedar.  
 Underbrush, cedar.  
 Land covered with loose rocks and dense timber and an  
 underbrush, exceptionally difficult to survey, 80.00 chs.

40.00 North on Sectional Guide meridian bet. secs. 5 and 6.  
 59.82 Ascending over loose rocks thru dense timber and under-  
 brush

On blank line across private claim.  
 Point for 1/4 sec. cor., falls in private claim. S. 89°34'E.  
 Intersect the 5th, Standard Parallel North, 17.48 chs.  
 of standard 1/4 sec. cor. on S. bdy of sec. 33. Set a malpais  
 stone, 28x12x8ins., 17ins. in the ground, for closing  
 cor., marked 09 CC on S., with 1 groove on W. and 5 groo  
 ves on E. face; from which; -

A cedar 6ins. in diam., bears S 56°E. 54 lks.,  
 dist., marked; 09 CC T 20 N R 1 W S 5 RT.  
 A cedar 6ins. in diam., bears S 50°W 18 lks.,  
 dist., marked; 09 CC T 20 N R 1 W S 6 RT.  
 Land, nearly level.  
 Soil, rocky; 4th rate.  
 Timber, cedar.  
 Underbrush, cedar.  
 Land covered with loose rocks and dense timber and  
 underbrush, exceptionally difficult to survey, 59.82 chs.  
 July 2; At this cor. I set off 23°03, 1/2' N. on the decl.  
 arc and observe the sun on the meridian at noon; the  
 resulting lat. is 35°10' N.  
 July 2nd, 1909.

July 3rd: At 6h.00m., a.m., l.m.t., I set off 35°06' N. on  
 the lat. arc; 23°02' N. on the decl. arc and determine  
 a meridian with the solar at the cor. of secs. 29, 30,  
 31 and 32.

Thence I run  
 West bet. secs. 30 and 31.  
 Over level land covered with loose volcanic rocks thru  
 old timber cutting covered with dead limbs and brush  
 and a growth of young cedars.

6.86 On blank line across private claim.  
 Intersect the W. bdy. of Tract No. 46., 7, 97 chs. N. 0°23' W. of  
 cor. No. 5; Set a malpais stone, 18x8x6ins., 12ins. in the  
 ground, for closing cor., marked 09 CC on W., and PC on  
 E., with 1 groove on S. face; from which; -

26.00 A cedar 4ins., in diam. bears S 83°30' W. 57 lks.,  
 35.00 dist., marked; 09 CC T 20 N R 1 W S 31 RT.  
 38.00 A cedar 5ins. in diam., bears N 19°15' W. 57 lks.,  
 40.00 dist., marked; 09 CC T 20 N R 1 W S 30 RT.  
 Old wood road, bears N. and S.  
 oldwood road, bears NE. and SW.  
 Begin descent into Hells canyon over loose rocks.  
 Set a malpais stone, 14x10x8ins., 9ins. in the ground, for  
 1/4 sec. cor., marked 09 1/4 on N. face; from which; -  
 A cedar 6ins. in diam., bears S 11°W. 62 lks., dist.,  
 marked; 09 1/2 S 31 RT.  
 A cedar 8ins. in diam., bears N 72°15' W. 89 lks.,  
 dist., marked; 09 1/4 S 30 RT.

Subdivision of T<sub>o</sub>. 20 N., R<sub>g</sub>. 1 W.

chains.	
42.10	Wood road, bears NW and SE.
45.00	Same road, bears NE and SW.
52.50	Wash, 100 lks. wide, course SW. Asc. over loose rocks.
56.85	Telegraph line, bears NW and SW.
57.60	Railroad, bears NW and SW. Wood Spur bears South 20 chs.
58.20	Telegraph line, bears NW and SW. Over nearly level land covered with loose rocks, and dense underbrush.
71.20	Road, bears N. and S.
71.75	Wash, 25 lks. wide, course S. <span style="float: right;">S. 1° 02' E.</span>
82.25	Intersect the W. bdy of the Tp. 1. 28 chs. <del>S.</del> of the cor. of secs. 25 and 36, T <sub>o</sub> 20 N., R <sub>g</sub> 2 W. Set a malpais, 15X8X6 ins., 11 ins. in the ground, for closing cor. bet. secs. 30 and 31; marked 09 CC on E., with 1 groove on S. and 5 grooves on N. face; from which:- A cedar 6 ins. in diam., bears N 40° E. 106 lks., dist., marked: 09 CC T 20 N R 1 W S 30 RT. A cedar 7 ins. in diam., bears S 40° E. 100 lks., dist., marked: 09 CC T 20 N R 1 W S 31 RT.
	Land, mountainous and level.
	Soil, rocky: 4th rate.
	Timber, cedar.
	Underbrush, cedar and scrub oak.
	Land covered with loose rocks and dense timber or underbrush, exceptionally difficult to survey, 82.25 chs.
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	N 0° 01' E. bet. secs. 32 and 33. from true point for cor. Over nearly level land covered with loose volcanic rocks thru dense timber and underbrush.
	On blank line across private claim.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
72.35	Intersect the N. bdy. of Tract No 47, 10:00 chs. S 80° 47' E. of cor. No. 3; Set a malpais, 15X8X6 ins., 10 ins. in the ground, for closing cor., marked 09 CC on N., and PC on S. with 4 grooves on E. face; from which. A cedar 6 ins. in diam., bears N 33° E. 24 lks., dist., marked: 09 CC T 20 N R 1 W S 33 RT. A cedar 8 ins. in diam., bears N 28° W. 15 lks., dist., marked: 09 CC T 20 N R 1 W S 32 RT.
80.00	Set a malpais, 19X10X6 ins., 12 ins. in the ground, for cor. of secs. 28, 29, 32 and 33; marked 09 on NR., with 1 notch on S., and 4 notches on E. edge. from which:- A cedar 5 ins. in diam., bears N 24° 30' E. 48 lks., dist., marked: 09 T 20 N R 1 W S 28 RT. A cedar 6 ins. in diam., bears S 76° 45' E. 70 lks., dist., marked: 09 T 20 N R 1 W S 33 RT. A cedar 6 ins. in diam., bears S 27° 30' W. 39 lks., dist., marked: 09 T 20 N R 1 W S 32 RT. A cedar 6 ins. in diam., bears N 37° 30' W. 64 lks., dist., marked: 09 T 20 N R 1 W S 29 RT.
	Land, level.
	Soil, rocky: 4th rate.
	Timber, cedar.
	Underbrush, cedar.
	Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.
	July 3; At this cor. I set off 22° 59' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35° 06' N.
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40.00	West on random line bet. secs. 29 and 32.
79.96	Set temp. $\frac{1}{4}$ sec. cor. on E. line. Intersect the N. and S. line 5 lks. S. of the point for cor. of secs. 29, 30, 31 and 32. Thence I run S 89° 58' E. on true line bet. secs. 29 and 32. Over level land covered with loose volcanic rocks thru dense timber and underbrush. On blank line across private claim.

Subdivision of Td. 20 N., Rg. 1 W.

chains.	
39.98	Point for $\frac{1}{4}$ sec. cor. falls in private claim. $N. 2^{\circ} 59' E.$
70.41	Intersect the E. bdy. of Tract No. 46, 6.04 lks. $N. 2^{\circ} 59' E.$ of cor. No. 7; Set a malpais, 16X8X8 ins., 11 ins. in the ground, for closing cor., marked 09 CC on E., and PC on W., with 1 groove on S. face; from which:- A cedar 6 ins. in diam., bears N $49^{\circ} E.$ 147 lks., dist., marked; 09 CC T 20 N R 1 W S 29 RT. A cedar 6 ins. in diam., bears S $76^{\circ} E.$ 106 lks., dist., marked; 09 CC T 20 N R 1 W S 32 RT.
79.96	The cor. of secs. 28, 29, 32 and 33. Land, level. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar, Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 79.96 chs. July 3, 1909.
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	July 5th: At 6h. 00m., a.m., l.m.t, I set off $35^{\circ} 07' 1/2'' N.$ on the lat. arc; $22^{\circ} 52' N.$ on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30. Thence I run west bet. secs. 19 and 30. Over level land covered with loose volcanic rocks thru dense timber and underbrush. Desc. over loose rocks into canyon. Wash, 100 lks. wide, course S. Asc. over loose rocks. Set a malpais, 16X8X6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked; 09 $\frac{1}{4}$ on N. face; from which. A cedar 8 ins. in diam., bears S $47^{\circ} E.$ 278 lks., dist., marked; 09 $\frac{1}{4}$ S 30 RT. A cedar 16 ins. in diam., bears N $38^{\circ} W.$ 310 lks., dist., marked; 09 $\frac{1}{4}$ S 19 RT.
18.00	
30.50	
40.00	
74.00	Over level land covered with loose rocks thru scatterin timber and dense underbrush. $S. 2^{\circ} 29' E.$
85.26	Intersect the W. bdy. of the Tp. 2.25 chs. $S.$ of the old cor. of secs. 24 and 25, T 20 N R 2 W. Set a malpsia 18X10X8 ins., 12 ins. in the ground, for closing cor. bet. secs 19 and 30; marked 09 CC on E. face, with 2 grooves on S. and 4 grooves on N. face; from which:- A cedar 14 ins. in diam., bears N $43^{\circ} E.$ 135 lks., dist., marked; 09 CC T 20 N R 1 W S 19 RT. No other tree available. Dig pits, 24X18X12 ins., cross-wise on each line, N. and S. of stone, 3ft. dist., and E. of stone, 7ft. dist., and raise a mound of earth, 4ft. base 2ft. high, E. of cor. Land, level. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber or underbrush, exceptionally difficult to survey, 85.26 chs.
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	N $0^{\circ} 01' E.$ bet. secs. 28 and 29. Ascending over loose volcanic rocks thru dense timber and underbrush.
24.00	Over level land covered with loose rocks,
40.00	Set a malpais stone, 15X8X8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked 09 $\frac{1}{4}$ on W. face; from which:- A cedar 4 ins. in diam., bears S $85^{\circ} E.$ 09 lks., dist., marked 09 $\frac{1}{4}$ S 28 RT. A cedar 4 ins. in diam., bears S $65^{\circ} W.$ 03 lks., dist., marked; 09 $\frac{1}{4}$ S 29 RT.
66.50	Desc. steep slope over loose rocks into Hells canyon.
72.38	Intersect the S. bdy. of Tract No 43, 7.96 chs. $S. 2^{\circ} 29' E.$ of cor. No. 5; Set a malpais 24X12X10 ins., 18 ins. in the ground, for closing cor., marked 09 CC on S., and PC on N., with

## Subdivision of Tp.20 N.,Rg.1 W1

chains.	
	4 grooves on E. face; from which:- A cedar 10ins. in diam., bears S 27° E. 119 lks., dist., marked; 09 CC T 20 N R 1 W S 28 FT. A cedar 7ins. in diam., bears S 33° W. 41 lks., dist., marked; 09 CC T 20 N R 1 W S 29 FT.
80.00	On blank line across private claim. Point for cor. of secs. 20, 21, 28 and 29 falls in a private claim. Land, level and mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs. July 5; At this point I set off 22° 48.1/2' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35° 07', N.
40.00	N 89° 58' W. on random line bet. secs. 20 and 29 Set temp. 1/4 sec. cor.
80.06	Intersect the N. and S. line 3 lks. N. of the cor. of sec 19, 20, 29 and 30. Thence I run S 89° 59' E. on true line bet. secs. 20 and 29 Over level land covered with loose volcanic rocks thru dense timber and underbrush.
40.03	Set a malpais 15x8x8ins., 10ins. in the ground, for 1/4 sec. cor. marked 09 1/4 on N. face; from which:- A cedar 14ins. in diam., bears N 42° E. 22 lks., dist., marked; 09 1/4 S 20 FT. A cedar 10ins. in diam., bears S 47° 30' W. 23 lks., dist., marked; 09 1/4 S 29 FT.
53.00	Desc. steep slope over loose rocks into canyon.
57.00	Wash, 25 lks. wide, course S. Asc. over loose rocks.
60.00	Along steep N. side of Hells canyon over loose rocks.
72.13	Intersect the W. bdy. of Tract No. 43, 6.09 chs. N. 0° 18' E. of cor. No. 5; Point falls on a malpais rock in place, 2x2x1, 1/2 ft. above ground. cut cross (X) at the exact point for closing cor; mark 09 CC, W., and PC, E. of cross, with 2 grooves on S. of cross. from which:- A cedar 10ins., in diam., bears S 21° 30' W. 56 lks., dist., marked; 09 CC T 20 N R 1 W S 29 FT. A cedar 7ins. in diam., bears N 33° 30' W. 34 lks., dist., marked; 09 CC T 20 N R 1 W S 20 FT.
80.06	On blank line across private claim. The cor. of secs. 20, 21, 28 and 29. Land, level and mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.06 chs. July 5, 1909.
	July 6; At 6h.00m. a.m., l.m.t., I set off 35° 08', N. on the lat. arc; 22° 46, 1/2' N. on the decl. arc; and determine a meridian with the solar at the cor. pt. of secs. 17, 18, 19 and 20. Thence I run west bet. secs. 18 and 19. on blank line, Ascending steep slope covered with loose rocks thru dense timber and underbrush.
6.55	Intersect W. bdy. of Tract No. 42, 7.90 chs. N. 3° 11' E. of cor. 5; Set a malpais, 18x10x6ins., 12ins. in the ground, for closing cor., marked 09 CC on W., and PC on E., with 3 grooves on S. face; from which:-

Subdivision of Td. 20 N. R. 1 W

chains.	
	A cedar 4ins. in diam., bears S 35°W. 61 lks., dist., marked; 09 CC T 20 N R 1 W S 19 BT.
	A cedar 4ins. in diam., bears N 63°30'W. 36 lks., dist., marked; 09 CC T 20 N R 1 W S 18 BT.
80.00	Top of ridge, bears N and S. Desc. over loose rocks.
19.20	Wash, 20 lks. wide, course S. Asc. over loose rocks.
28.00	Top of ridge, bears N. and S. Desc. over loose rocks.
33.80	Wash, 15 lks. wide, course SE. Asc. over loose rocks.
40.00	Set a malpais 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec cor., marked 09 $\frac{1}{4}$ on N. face; from which:- A cedar 8 ins. in diam., bears N 20°E. 53 lks., dist., marked; 09 $\frac{1}{4}$ S 18 BT. A cedar 10 ins. in diam., bears S 52°15'W. 72 lks., di dist., marked; 09 $\frac{1}{4}$ S 19 BT.
45.00	Top of ridge, bears N. and S. Desc. over loose rocks.
70.80	Wash, 25 lks. wide, course S. Asc. over loose rocks.
84.70	Intersect the W. bdy. of the Tp. 2.80 lks. S. of the cor. of secs. 13 and 24, T 20 N, R 2 W., Set a malpais, 16x8 x8 ins., 11 ins. in the ground, for closing cor. bet. secs. 18 & 19., marked 09 CC on E., with 3 grooves on S. and N. faces from which:- A cedar 4 ins. in diam., bears N 32°E. 74 lks., dist., marked; 09 CC T 20 N R 1 W S 18 BT. A cedar 5 ins. in diam., bears S 55°30'E. 61 lks., dist., marked; 09 CC T 20 N R 1 W S 19 BT.
	Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 84.70 chs.
	From the point for the cor. of secs. 20, 21, 28 & 29, N 0°01'E. bet. secs. 20 and 21. Ascending over loose rocks thru dense timber and under brush. On blank line across private claim.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim. S 80°05'E.
71.80	Intersect the N. Bdy. of Tract No. 43, 7.51 chs. E. of cor No 3. Set a malpais stoen, 18x12x6 ins., 12 ins. in the ground, for closing cor., marked 09 CC on N., and PC on S. with 4 grooves on E. face; from which:- A pinon 14 ins. in diam., bears N 40°E. 84 lks., dist., marked; 09 CC T 20 N R 1 W S 21 BT. A cedar 14 ins. in diam., bears N 72°W. 20 lks., dist., marked; 09 CC T 20 N R 1 W S 20 BT.
80.00	Set a malpais, 16x10x6 ins., 11 ins. in the ground, for cor. of secs. 16, 17, 20 and 21; marked 09 on NE., with 3 notches on S. and 4 notches on E. egde; from whcih;- A cedar 8 ins. in diam., bears N 24°E. 08 lks., dist., marked; 09 T 20 N R 1 W S 16 BT. A cedar 10 ins. in diam. bears S 21°E 66 lks., dist marked; 09 T 20 N R 1 W S 21 BT. A pinon 7 ins. in diam., bears S 62°W. 63 lks., dist., marked; 09 T 20 N R 1 W S 20 BT. A cedar 8 ins. in diam., bears N 47°W. 75 lks., dist., marked; 09 T 20 N R 1 W S 17 BT.
	Land, level and mountainous. Soil, rocky; 4th rate. Timbe, cedar, Underbrush, cedar. Land covered with loose rocks and dense underbrush, and timber, exceptionally difficult to survey, 80.00 chs. July 6; At this cor. I set off 22°43'N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35°08, N.

## Subdivision of Tp. 20 N., R. 1 W.

chains.	N 89°59'W. on random line bet. secs. 17 and 20.
40.00	-Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect the N. and S. line, 5 lks. N. of the cor. of secs. 17, 18, 19 and 20.
	Thence I run
	N 89°59'E. on true line bet. secs. 17 and 20.
	Descending over loose rocks thru dense timber and underbrush.
	On blank line across private claim.
40.02	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
72.71	Intersect the E. bdy. of Tract No. 42, 6.90 chs. N. 0°34'E. of cor. No. 7; Set a malpais, 20x10x6 ins., 15 ins. in the ground for closing cor., marked 09 CC on E., and PC on W., with 3 grooves on S. face; from which:-
	A cedar 8 ins. in diam., bears N 53°E. 42 lks., dist., marked; 09 CC T 20 N R 1 W S 17 FT.
	A cedar 8 ins. in diam., bears S 52°E. 29 lks., dist., marked; 09 CC T 20 N R 1 W S 20 FT.
80.04	The cor. of secs. 16, 17, 20 and 21.
	Land, level.
	Soil, rocky: 4th rate.
	Timber, cedar
	Underbrush, cedar.
	Land covered with loose rocks and dense underbrush and timber, exceptionally difficult to survey, 80.04 chs.
	July 6, 1909.
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	July 7; At 6h.00m., a.m., l.m.t., I set off 35°09' N. on the lat. arc; 22°40' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
	Thence I run
	west bet. secs. 7 and 18.
	Over level land covered with loose rocks thru dense timber and underbrush.
20.00	Begin gradual descent over loose rocks.
40.00	Set a malpais, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on N. face; from which:-
	A cedar 5 ins. in diam., bears S 10°W. 28 lks., dist., marked; 09 $\frac{1}{4}$ S 18 FT.
	A cedar 8 ins. in diam., bears N 58°W. 21 lks., dist., marked; 09 $\frac{1}{4}$ S 7 FT.
56.00	Wash, 15 lks. wide, course SW' asc. over loose rocks.
63.00	Top of ridge, bears NE. and SW. Desc. over loose rocks.
82.80	Wash, 15 lks. wide, course NE. Asc. over loose rocks.
85.16	Intersect the W. bdy. of the Tp. 3.81 chs. S. 0°10'E. of cor. of secs. 12 and 13, T. 20 N., R. 2 W.; Set a malpais stone, 20x10x10 ins., 15 ins. in the ground, for closing cor. bet. secs. 7 and 18, marked 09 CC on E., with 4 grooves on S. and 2 grooves on N. face; from which:-
	A cedar 8 ins. in diam., bears N 63°30'E. 49 lks., dist., marked; 09 CC T 20 N R 1 W S 7 FT.
	A cedar 12 ins. in diam., bears S 65°30'E. 100 lks., dist., marked; 09 CC T 20 N R 1 W S 18 FT.
	Land, level and mountainous.
	Soil, rocky: 4th rate.
	Timber, cedar.
	Underbrush, cedar.
	Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 85.16 chs.
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	N 0°01'E. bet. secs. 16 and 17.
	Descending over loose rocks thru dense timber and underbrush.
20.55	Wash, 20 lks. wide, course W. Asc. over loose rocks.
32.00	Top of ridge, bears E. and W. Desc. over loose rocks.



Subdivision of Tp. 20 N., Rg. 1 W.

chains.	
40.00	Set a malpais, stone, 20X10X6 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked; 09 $\frac{1}{4}$ on W. face; from which:- A cedar 8 ins. in diam., bears S 40° E. 20 lks., dist., marked; 09 $\frac{1}{4}$ S 16 BT. A cedar 14 ins. in diam., bears S 75° 30' W. 73 lks., dist., marked; 09 $\frac{1}{4}$ S 17 BT.
43.85	Wash, 25 lks. wide, course W. Asc. over loose rocks.
68.00	Top of ridge, bears NE. and SW. desc. over loose rocks.
71.33	Intersect the S. bdy. of Tract No. 39, 5.19 chs. <sup>385° 27' E</sup> of cor. No. 5; Set a malpais stone, 18X10X10 ins., 12 ins. in the ground, for closing cor., marked 09 CC on S., and PC on N. with 4 grooves on E. face; from which:- A cedar 10 ins. in diam., bears S 46° E. 22 lks., dist., marked; 09 CC T 20 N R 1 W S 16 BT. A cedar 4 ins. in diam., bears S 44° 30' W. 40 lks., dist., marked; 09 CC T 20 N R 1 W S 17 BT.
80.00	On blank line across private claim. The cor. of secs. 8, 9, 16 and 17 falls in private claim. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs. July 7; <sup>9</sup> at this point I set off 22° 36, 1/2' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35° 09' N.
40.00	S 89° 59' W. on random line bet. secs. 8 and 17. Set temp. $\frac{1}{2}$ sec. cor.
80.02	Intersect the N. and S. line 5 lks. S. of the cor. of secs 7, 8, 17 and 18. Thence I run S 89° 59' E. on true line bet. secs. 8 and 17. Over level land covered with loose rocks thru dense timber and underbrush.
28.00	Desc. over loose rocks.
40.01	Set a malpais stone, 20X14X8 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked; 09 $\frac{1}{4}$ on N. face; from which:- A cedar 18 ins. in diam., bears N 35° E. 24 lks., dist., marked; 09 $\frac{1}{4}$ S 8 BT. A cedar 12 ins. in diam., bears S 15° E. 08 lks., dist., marked; 09 $\frac{1}{4}$ S 17 BT.
40.80	Wash, 20 lks. wide, course S. E. Asc. over loose rocks.
66.70	Top of rim, bears N. and S. Desc. over loose rocks.
70.00	Wash, 80 lks. wide, course SW. Asc. steep slope out of canyon over loose rocks.
74.81	Intersect the W. bdy. of Tract No. 39, 8.04 chs. N. 0° 10' W. of cor. No. 5. Set a malpais stone, 20X10X6 ins., 15 ins. in the ground, for closing cor., marked 09 CC on W., and PC on E., with 4 grooves on S. face; from which:- A cedar 8 ins. in diam., bears S 55° W. 13 lks., dist., marked; 09 CC T 20 N R 1 W S 17 BT. A cedar 11 ins. in diam., bears N 8° W. 81 lks., dist., marked; 09 CC T 20 N R 1 W S 8 BT.
80.02	On blank line across private claim. The cor. of secs. 8, 9, 16 and 17. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land mountainous, covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.02 chs.

July 7, 1909.

## Subdivision of Tp. 20 N., Rg. 1 W.

chains	<p>July 8; At 6h.00m., a.m., l.m.t., I set off <math>35^{\circ}09\frac{1}{2}'</math> N on the lat. arc; <math>23^{\circ}33, 1/2'</math> N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 7, and 8.</p> <p>Thence I run west bet. secs. 6 and 7. Descending over loose rocks thru dense timber and underbrush.</p> <p>On blank line across private claim.</p>
5.20	<p>Intersect the W. bdy. of Tract No. 38, 7.65 chs. N. <math>0^{\circ}19'W</math>. of cor. No. 4; Set a malpais stone, 18X10X8 ins., 12 ins. in the ground, for closing cor., marked 09 CC on W., PC on E., with 5 grooves on S. face; from which:-</p> <p>A cedar 10 ins. in diam., bears S <math>60^{\circ}W</math>. 57 lks., dist., marked; 09 CC T 20 N R 1 W S 7 BT.</p> <p>A cedar 9 ins. in diam., bears N <math>40^{\circ}15'W</math>. 17 lks., dist., marked; 09 CC T 20 N R 1 W S 6 BT.</p>
16.00	Top of ridge, bears NE. and SW. Desc. over loose rocks.
33.40	Wash, 25 lks. wide, course SW. Asc. over loose rocks.
40.00	<p>Set a malpais stone, 18X10X8 ins., 12 ins. in the ground, for <math>\frac{1}{4}</math> sec. cor., marked 09 <math>\frac{1}{4}</math> on N. face; from which:-</p> <p>A cedar 14 ins. in diam., bears N <math>72^{\circ}E</math>. 14 lks., dist., marked; 09 <math>\frac{1}{4}</math> S 6 BT.</p> <p>A cedar 14 ins. in diam., bears S <math>49^{\circ}30'E</math>. 13 lks., dist., marked; 09 <math>\frac{1}{4}</math> S 7 BT.</p>
80.00	Leave dense timber.
82.30	Road, bears N. and S.
86.73	<p>Intersect the W. bdy. of the Tp. 4.38 chs. S. <math>1^{\circ}35'E</math>. of cor. of secs. 1 and 12, T. 20 N., R 2 W.; Set a malpais stone, 16X10X8 ins., 11 ins. in the ground, for closing cor. bet. secs. 6 and 7, marked 09 CC on E. face, with 5 grooves on S., and 1 groove on N. face; from which:-</p> <p>A cedar 24 ins. in diam., bears N <math>11^{\circ}45'E</math>. 416 lks dist., marked 09 CC T 20 N R 1 W S 6 BT.</p> <p>A cedar 9 ins. in diam., bears S <math>20^{\circ}30'E</math>. 121 lks., dist., marked; 09 CC T 20 N R 1 W S 7 BT.</p> <p>Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber or underbrush, exceptionally difficult to survey, 86.73 chs.</p>
	<p>From the point for the cor. of secs. 8, 9, 16 &amp; 17, N <math>0^{\circ}01'E</math>. bet. secs. 8 and 9. Descending steep slope into canyon over loose rocks thru dense timber and underbrush.</p> <p>On blank line across private claim.</p>
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim. $s. 83^{\circ}15'E$
71.05	<p>Intersect the N. bdy. of Tract No. 39, 4.82 chs. <math>E</math> of cor. No. 3; Set a malpais stone, 18X10X6 ins., 12 ins. in the ground, for closing cor., marked 09 CC on N., and PC on S., with 4 grooves on E. face; from which:-</p> <p>A pinon 7 ins. in diam., bears N <math>18^{\circ}E</math>. 79 lks., dist., marked; 09 CC T 20 N R 1 W S 9 BT.</p> <p>A cedar 8 ins. in diam., bears N <math>52^{\circ}30'W</math>. 102 lks., dist., marked; 09 CC T 20 N R 1 W S 8 BT.</p>
80.00	<p>Set a malpais stone, 16X10X8 ins., 11 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, marked 09 on NE. with 5 notches on S. and 4 notches on E. edge; from which.</p> <p>A cedar 14 ins. in diam., bears N <math>43^{\circ}45'E</math>. 76 lks. dist., marked; 09 T 20 N R 1 W S 4 BT.</p> <p>A cedar 10 ins. in diam., bears S <math>79^{\circ}15'E</math>. 81 lks., dist., marked; 09 T 20 N R 1 W S 9 BT.</p> <p>A cedar 4 ins. in diam., bears S <math>46^{\circ}30'W</math>. 16 lks., dist., marked; 09 T 20 N R 1 W S 8 BT.</p> <p>A cedar 8 ins. in diam., bears N <math>56^{\circ}30'W</math>. 72 lks., dist., marked; 09 T 20 N R 1 W S 5 BT.</p> <p>Land, level and mountainous. Soil, rocky; 4th rate.</p>

## Subdivision of Tp.20 N.,R.1 W.

chains	
	<p>Timber, cedar and pinon. underbrush, cedar and scrub oak. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs. July 8; At this cor. I set off <math>23^{\circ}30'N</math> on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is <math>35^{\circ}09\frac{1}{2}'N</math>.</p>
40.00	N $89^{\circ}59'W$ . on random line bet. secs. 5 and 8.
80.10	Set temp. $\frac{1}{4}$ sec. cor. Intersect the N. and S. line 2 lks. S. of the cor. of sec. 5, 6, 7, and 8. Thence I run S $89^{\circ}58'E$ . on true line bet. secs. 5 and 8. Ascending over loose rocks thru dense timber and underbrush. On blank line across private claim.
40.05	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
75.22	Intersect the E. bdy. of Tract No. 38, 8.37 chs N $0^{\circ}25'W$ . of cor. No. 6; Set a malpais stone, 16X14X6 ins., 11 ins. in the ground for closing cor., marked: 09 CC on E., and PC on W., with 5 grooves on S. face; from which:- A cedar limb, 12 ins. in diam., bears N $42^{\circ}30'E$ . 60 lks. dist., marked: 09 CC T 20 N R 1 W S 5 FT. A cedar limb 8 ins. diam., bears S $61^{\circ}E$ . 84 lks., dist., marked: 09 CC T 20 N R 1 W S 8 FT.
80.10	The cor. of secs. 4, 5, 8 and 9. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.10 chs.
	N $0^{\circ}01'E$ . bet. secs. 4 and 5. Ascending over loose rocks thru dense timber and underbrush.
3.00	Top of ridge, bears E. and W. Desc. over loose rocks.
25.40	Wash, 25 lks. wide, course SW. Asc. over loose rocks.
32.00	Top of ridge, bears E. and W. Desc. over loose rocks.
40.00	Set a malpais stone, 15X12X10 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on W. face; from which:- A cedar 10 ins. in diam., bears N $87^{\circ}E$ . 98 lks., dist., marked: 09 $\frac{1}{4}$ S 4 FT. A pinon 6 ins. in diam., bears S $82^{\circ}30'W$ . 46 lks., dist., marked: 09 $\frac{1}{4}$ S 5 FT.
44.35	Wash, 20 lks. wide, course W. Asc. steep slope over loose rocks.
58.95	Intersect the 5th Standard Parallel North 16.97 S $89^{\circ}53'E$ . of standard $\frac{1}{4}$ sec. cor. for secs. 34, T 21N., R 1 W. Set a malpais 16X10X8 ins., 11 ins. in the ground, for closing cor. bet. secs. 4 and 5, marked 09 CC on S., with 2 grooves on W. and 4 grooves on E.; from which. A cedar limb 14 ins., in diam., bears S $14^{\circ}30'E$ . 192 lks. dist., marked: 09 CC T 20 N R 1 W S 4 FT. A cedar 6 ins. in diam., bears S $60^{\circ}45'W$ . 86 lks., dist., marked: 09 CC T 20 N R 1 W S 5 FT.
	Land, mountainous. Soil, rocky; 4th rate. Timber, cedar and pinon. underbrush, cedar. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 58.95 chs.

July 8, 1909.

## Subdivision of Tp.20 N., Rg.1 W.

chains.	July 9: At 6h.00m., a.m., l.m.t., I set off $35^{\circ}05'N.$ on the lat. arc; $22^{\circ}27'N.$ on the decl. arc; and determine a meridian with the solar at the cor. of secs. 33 and 34. Thence I run N $0^{\circ}01'E.$ bet. secs. 33 and 34. Descending over loose rocks thru dense timber and under brush.
10.00	Desc. into canyon over loose rocks, along N. slope.
37.50	Wagontire wash, bears SW. Asc. over loose rocks.
40.00	Set a malpais stone, 16x12x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked; 09 $\frac{1}{4}$ on W. face; from which;- A cedar 8 ins. in diam., bears S $84^{\circ}E.$ 43 lks., dist., marked; 09 $\frac{1}{4}$ S 34 FT. A cedar 10 ins. in diam., bears S $26^{\circ}W.$ 22 lks., dist., marked; 09 $\frac{1}{4}$ S 33 FT.
66.05	Intersect the S. bdy. of Tract No. 45, 6.52 chs. N $87^{\circ}50'E.$ of cor. No. 5; Set a malpais stone, 15x10x6 ins., 10 ins. in the ground, for closing cor. marked 09 CC on S., and PC on N., with 3 grooves on E. face; from which;- A cedar 6 ins. in diam., bears S $85^{\circ}E.$ 83 lks., dist., marked; 09 CC T 20 N R 1 W S 34 FT. A cedar 10 ins. in diam., bears S $18^{\circ}30'W.$ 71 lks., dist., marked; 09 CC T 20 N R 1 W S 33 FT.
80.00	On blank line across private claim. Point for cor. of secs. 27, 28, 33 and 34 falls in a private claim. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar, and scrub oak. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.
40.00	West on random line bet. secs. 28 and 33. Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect the N. and S. line 23 lks. N. of the cor. of secs 28, 29, 33 and 32. Thence I run N $89^{\circ}50'E.$ on true line bet. secs. 28 and 33. Over level land covered with loose rocks thru dense timber and underbrush.
31.25	Drain, course SW. 1
39.99	Set a malpais stone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on N. face; from which;- A cedar 8 ins. in diam., bears North 5 lks., dist., marked; 09 $\frac{1}{4}$ S 28 FT. A cedar 4 ins. in diam., bears S $45^{\circ}W.$ 15 lks., dist., marked; 09 $\frac{1}{4}$ S 33 FT.
73.74	Intersect the W. bdy. of Tract No. 45, 14.20 chs. N $1^{\circ}09'E.$ of cor. No. 5. Set a malpais stone, 20x8x6 ins., 15 ins. in the ground, for closing cor., marked 09 CC on W., and PC on E., with 1 groove on S. face; from which;- A cedar 10 ins. in diam., bears S $53^{\circ}30'W.$ 55 lks., dist., marked; 09 CC T 20 N R 1 W S 33 FT. A cedar 4 ins. in diam., bears N $44^{\circ}30'W.$ 28 lks., dist., marked; 09 CC T 20 N R 1 W S 28 FT.
79.98	On blank line across private claim. The cor. of secs. 27, 28, 33 and 34. Land, level. Soil, rocky 4th rate. Timber, cedar. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 79.98 chs. July 9: At this point I set off $22^{\circ}23'N.$ on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is $35^{\circ}08'N.$

Subdivision of Td. 20 N. Rf. 1 W.

chains.

N 0°01'E. bet. secs. 27 and 28.  
Over level land covered with loose rocks thru dense timber and underbrush.

40.00  
65.73

On blank line avross private claim.  
Point for 1/4 sec. cor falls in private claim.  $S 89^{\circ}44'E$   
Intersect the N. bdy. of Tract No. 45, 5.25 chs. E. of cor No. 3; Set a malpais stone, 24X12X6 ins., 18 ins. in the ground, for closing cor., marked PC on S., and 09 CC on N. with 3 grooves on E. face; from which:-

- A pinon 6 ins. in diam., bears N 37°30'E. 117 lks., dist., marked: 09 CC T 20 N R 1 W S 27 RT
- A cedar 5 ins. in diam., bears N 63°30'W. 20 lks., dist., marked: 09 CC T 20 N R 1 W S 28 RT.

80.00

Set a malpais stone, 18X10X6 ins., 12 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, marked 09 on NE., with 2 notches on S., and 3 notches on E. edge; from which:-

- A cedar 4 ins. in diam., bears N 36°E. 51 lks., dist., marked: 09 T 20 N R 1 W S 22 RT.
- A cedar 7 ins. in diam., bears S 55°E. 33 lks., dist., marked: 09 T 20 N R 1 W S 27 RT.
- A cedar 12 ins. in diam., bears S 38°W. 19 lks., dist., marked: 09 T 20 N R 1 W S 28 RT.
- A cedar 4 ins. in diam., bears N 48°W. 43 lks., dist., marked: 09 T 20 N R 1 W S 21 RT.

Land, level.  
Soil, rocky: 4th rate.  
Timber, cedar and pinon.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.  
July 9, 1909.

July 10: At 6h.00m. a.m., l.m.t., I set off  $35^{\circ}07' N.$  on the lat. arc:  $22^{\circ}19, 1/2' N.$  on the decl. arc; and determine a meridian with the solar at the cor. of secs 21 22, 27 and 28;

40.00  
80.04

Thence I run  $S 89^{\circ}50' W.$  on random line bet. secs. 21 and 28.  
Set temp. 1/4 sec. cor.  
Intersect the N. and S. line 10 lks., S. on the cor. of secs. 20, 21, 28 and 29.

Thence I run  $N 89^{\circ}54' E.$  on true line bet. secs. 21 and 28.  
Over level land covered with loose rocks thru dense timber and underbrush.

40.02  
74.80

On blank line across private claim.  
The Point for 1/4 sec. cor. falls in private claim.  $N 84^{\circ} E.$   
Intersect the E. bdy. of Tract No. 43, 14, 24 chs. E. of cor. No. 7. Set a malpais stone, 18X10X6 ins., 12 ins. in the ground, for closing cor., marked 09 CC on E., and PC on W. with 2 grooves on S. face; from which:-

- A cedar 6 in., in diam., bears N 20°E. 100 lks., dist., marked: 09 CC T 20 N R 1 W S 21 RT.
- A cedar 7 ins. in diam., bears S 30°E. 10 lks., dist., marked: 09 CC T 20 N R 1 W S 28 RT.

80.04

The cor. of secs. 21, 22, 27 and 28  
Land, level and mountainous.  
Soil, rocky: 4th rate.  
Timber, cedar.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.04 chs.

25.50

N 0°01'E bet. secs. 21 and 22.  
Over level land covered with loose rocks thru dense timber and underbrush.  
Top of rim of Hells canyon, bears NE. and SW. Desc. steep preceptitious slope in to canyon.

## Subdivision of Tp.20 N., Rg.1 W.

chains.	
32.50	Wash, 90 lks. wide, course SW. Asc. steep preceptitious slope over loose rocks.
39.90	Top of rim of Hells canyon. Asc. over loose rocks.
40.00	Point for $\frac{1}{4}$ sec. cor. falls on a malpais stone in place, 30X15X10 ins., above ground. mark a cross (X) at exact point for $\frac{1}{4}$ sec. cor. and mark 09 $\frac{1}{4}$ on W. side of cross. from which:- A cedar 12 ins. in diam., bears S 35° W. 77 lks., dist., marked 09 $\frac{1}{4}$ S 21 FT. A cedar 6 ins., in diam., bears S 62° E. 73 lks., dist., marked: 09 $\frac{1}{4}$ S 22 FT.
50.00	Top of ridge, bears NE. and SW. Desc. over loose rocks
66.19	Intersect the S. bdy. of Tract No. 41, 4.86 N 88° 44' E. of cor. No. 5; Set a malpais stone, 24X8X8 ins., 18 ins. in the ground for closing cor., marked: 09 CC on S., and PC on N., with 3 grooves on E. face; from which:- A cedar 8 ins., in diam., bears S 49° 30' E. 40 lks., dist., marked: 09 CC T 20 N R 1 W S 22 FT. A pinon 10 ins. diam. bears S 25° W. 92 lks., dist., marked: 09 CC T 20 N R 1 W S 21 FT.
80.00	On blank line across private claim. Point for cor. of secs. 15, 16, 21 and 22 falls in a private claim. Land, level and mountainous. Soil, rocky; 4th rate. Timber, cedar and pinon. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs. July 10; At this cor. I set off 22° 16' N. on the decl. arc and observe the sun on the meridian at which the resulting lat. is 35° 08' N.
40.00	S 89° 54' W. on random line bet. secs. 16 and 21.
80.24	Set temp. $\frac{1}{4}$ sec. cor. Intersect the N. and S. line 19 lks., S. of the cor. of secs. 16, 17, 20 and 21. Thence I run S 89° 58' E. on true line bet. secs. 16 and 21. Over level land covered with loose rocks thru dense timber and underbrush.
20.00	Asc. steep slope over loose rocks.
40.12	Set a malpais stone, 16X8X6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on N. face; from which:- A cedar 12 ins. in diam., bears N 42° 30' E. 47 lks., dist., marked 09 $\frac{1}{4}$ S 16 FT. A cedar 8 ins. in diam., bears S 75° W. 15 lks., dist., marked: 09 $\frac{1}{4}$ S 21 FT.
50.00	Top of ridge, bears N. and S. Desc. over loose rocks.
53.80	Drain, course S. Asc. over loose rocks.
62.00	Top of ridge, bears N. and S. Desc. over loose rocks.
70.50	Wash, 15 lks. wide, course SW. Asc. over loose rocks.
75.29	Intersect the W. bdy. of Tract No. 41, 13.92 chs. N 0° 22' W. of cor. No. 5. Set a malpais stone, 20X12X8 ins., 15 ins. in the ground, for closing cor., marked 09 CC on W., and PC on E. with 3 grooves on S. face; from which:- A pinon 6 ins., diam., bears S 59° 30' W. 79 lks., dist., marked: 09 CC T 20 N R 1 W S 21 FT. A pinon 6 ins., diam., bears N 60° 30' W. 76 lks., dist., marked: 09 CC T 20 N R 1 W S 16 FT.
80.24	On blank line across private claim. The cor. of secs. 15, 16, 21 and 22. Land, level and mountainous. Soil, rocky; 4th rate. Timber, cedar and pinon. Underbrush, cedar. Land covered with loose rocks and dense timber and underbrush, except onally difficult to survey, 80.24 chs. July 10, 1909.

## Subdivision of Tp.20 N.,Rg.1 W.

chains.	<p>July 11; At 6h.00m., a.m., l.m.t., I set off <math>35^{\circ}08'N</math>, on the lat. arc; <math>22^{\circ}12'N</math> on the decl. arc and determine a meridian with the solar at the cor. pt. of secs. 15, 16, 21 and 22.</p> <p>Thence I run.</p> <p>N <math>0^{\circ}01'E</math>. bet. secs. 15 and 16.</p> <p>Over level land covered with loose rocks thru dense timber and underbrush.</p> <p>On blank line across private claim.</p>
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
64.18	Intersect the W. bdy. of Tract No. 41, 1.45 chs. $S79^{\circ}50'W$ . of cor. No. 3; Set a malpais stone, 20X10X6 ins., 15 ins. in the ground, for closing cor., marked 09 CC on N., and PC on S. with 3 grooves on E. face; from which:-
	A cedar limb 6 ins. diam., bears N $48^{\circ}W$ . 53 lks., dist., marked: 09 CC T 20 N R 1 W S 16 FT.
	No other tree available. raise a mound of stone, 2 ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable.
66.64	Intersect the S. bdy. of Tract No. 39, 20 lks. $N87^{\circ}57'W$ . of cor. No. 7; Set a malpais stone, 16X10X8 ins., 11 ins. in the ground, for closing cor., marked 09 CC on S., and PC on N. with 3 grooves on E. face; from which:-
	A cedar 14 ins., in diam., bears S $87^{\circ}E$ . 11 lks., dist., marked 09 CC T 20 N R 1 W S 15 FT.
	A cedar 7 ins. in diam., bears S $72^{\circ}W$ . 17 lks., dist., marked: 09 CC T 20 N R 1 W S 16 FT.
	On blank line across private claim.
80.00	Point for cor. of secs. 9, 10, 15 and 16 falls in a private claim
	Land, level.
	soil, rocky; 4th rate.
	Timber, cedar and pinon.
	Underbrush, cedar.
	Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.
	<hr/>
	N $89^{\circ}58'W$ . on random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.28	Intersect the N. and S. line, 2 lks., S. of the cor. pt. of secs. 9, 9, 16 and 17.
	Thence I run
	S $89^{\circ}57'E$ . on true line bet. sec. s. 9 and 16.
	Ascending over loose rocks thru dense timber and underbrush.
	On blank line across private claim.
40.14	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
80.28	The cor. pt. of secs. 9, 10, 15 and 16.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, cedar, and pinon.
	Underbrush, cedar.
	Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.28 chs.
	July 11; At this point. I set off $22^{\circ}08'N$ . on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is $35^{\circ}09'N$ .
	<hr/>
	N $0^{\circ}01'E$ . bet. secs. 9 and 10.
	Descending over loose rocks thru dense timber and underbrush.
	On blank line across private claim.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
64.88	Intersect the N. bdy. of Tract No. 39, 08 lks., $N87^{\circ}36'W$ . of cor. No 1; Set a malpais stone, 24X12X8 ins., 18 ins. in the ground, for closing cor., marked 09 CC on N., and PC on S., with 3 grooves on E. face; from which:-

Subdivision of T<sub>p</sub>. 20 N., R<sub>g</sub>. 1 W.

chains	<p>A cedar 18ins. in diam., bears N 32°W. 54 lks., dist., marked; 09 CC T 20 N R 1 W S 9 RT. No other tree available. Raise a mound of stone, 2ft. base, 1, 1/2 ft. high, N. of cor. Pits impracticable. Wash, 20 lks. wide, course SE. Asc. steep bluff. Top of bluff. Asc. over loose rocks. Set a malpais stone, 16x14x8ins., 11ins. in the ground, for cor. of secs. 3, 4, 9 and 10., marked 09 on NE., with 3 notches on E., and 5 notches on S. edge. from which:- A cedar limb 5ins. diam., bears N 13°E. 05 lks., dist., marked; 09 T 20 N R 1 W S 3 RT. A cedar 10ins. in diam., bears S 51°E. 88 lks., dist., marked; 09 T 20 N R 1 W S 10 RT. A cedar 8ins. in diam., bears S 40°W. 70 lks., dist., marked; 09 T 20 N R 1 W S 9 RT. A cedar 8ins. in diam., bears N 49°W. 104 lks., dist., marked; 09 T 20 N R 1 W S 4 RT.</p> <p>Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.</p>
68.25	
78.00	
80.00	
40.00	<p>N 89°57'W. on random line bet. secs. 4 and 9. Set temp. 1/4 sec. cor., Intersect the N. and S. line 10 lks., N. of the cor. of secs. 4, 5, 8 and 9. Thence I run N 89°59'E on true line bet. secs. 4 and 9. Descending over loose rocks thru dense timber and underbrush.</p>
80.30	
16.50	<p>Wash, 25 lks. wide, course SW. Asc. over loose rocks. Top of ridge, bears N. and S. Desc. over loose rocks. Set a malpais stone, 16x14x8ins., 11ins. in the ground, for 1/4 sec. cor., marked 09 1/4 on N. face; from which:- A cedar limb, 4ins. diam., bears N 37°E. 82 lks., dist., marked; 09 1/4 S 4 RT. A cedar limb, 8ins. diam., bears South, 37 lks., dist. dist., marked; 09 1/4 S 9 RT.</p>
36.50	
40.15	
53.20	<p>Wash, 30 lks. wide, course SW. Asc. over loose rocks. The cor. of secs. 3, 4, 9 and 10. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.30 chs. July 11, 1909.</p>
80.30	
3.00	<p>July 12; At 6h. 00m., a.m., l.m.t., I set off 35°09 1/2' N. on the lat. arc; 22°04' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10. Thence I run N 0°01'E. on true line bet. secs 3 and 4. Ascending over loose rocks thru dense timber and underbrush. Top of ridge, bears NE. and SW. Desc. over loose rocks. Wash, 20 lks. wide, course SW. Asc. over loose rocks. Top of ridge, bears NE. and SW. Desc. over loose rocks. Wash, 15 lks. wide, course SW. Asc. over loose rocks. Set a malpais stone, 16x8x8ins., 11ins. in the ground, for 1/4 sec. cor., marked 09 1/4 on W. face; from which:-</p>
16.50	
22.00	
29.45	
40.00	



## Subdivision of Tp.20 N.,Rg.1 W.

chains

- A cedar 6ins. in diam., bears N 51°45'E. 42 lks.,  
dist., marked; 09  $\frac{1}{4}$  S 3 FT.  
A pinon 5ins. in diam., bears S 43°W. 37 lks.,  
dist., marked; 09  $\frac{1}{4}$  S 4 FT.
- 58.66 Intersect the 5th Standard Parallel North 15.98 N. 89°40'E.  
of standard  $\frac{1}{4}$  sec. cor of sec. 35, T 21 N., R 1 W. Set a  
malpais stone, 1.5x10x6ins., 10ins. in the ground, for  
closing cor. bet. secs. 3 and 4., marked 09 CC on S., with  
3 grooves on E. and W. faces; from which:-  
A cedar 12ins. in diam., bears S 27°E. 27 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 3 FT.  
A cedar 14ins. in diam., bears S 37°W. 20 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 4 FT.
- Land, mountainous.  
Soil, rocky; 4th rate.  
Timber, cedar.  
Underbrush, cedar.  
Mountainous land covered with loose rocks and dense  
timber and underbrush, exceptionally difficult to survey  
58.66 chs.  
July 12; At this cor. I set off 22°00'N. on the decl  
arc and observe the sun on the meridian at noon; the  
resulting lat. is 35°10'N.  
July 12, 1909.
- July 13:  
At 6h.oom., a.m., l.m.t., I set off 35°05'N. on the lat. arc  
21°55, 1/2'N. on the decl. arc and determine a meridian  
with the solar at the true point for cor. of secs. 34 & 35  
Thence I run.  
N 0°02'E. bet. secs. 34 and 35.  
Over level land covered with loose rocks thru dense  
timber and underbrush.  
On blank line across private claim.
- 40.00 Point for  $\frac{1}{4}$  sec. cor. falls in private claim.  
67.23 Intersect the N. bdy. of Tract No. 48, 6.75 chs. N 85°56'E. of  
Cor. 3. Set a malpais stone, 20x12x12ins., 15ins. in the  
ground, for closing cor., marked 09 CC on N., and PC on S.  
with 2 grooves on E. face; from which:-  
A cedar 8ins. in diam., bears N 43°E. 95 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 35 FT.  
A cedar 7ins. in diam., bears N 19°30'W. 89 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 34 FT.
- 80.00 Set a malpais stone, 16x10x8ins., 11ins. in the ground,  
for cor. of secs. 26, 27, 34 and 35, marked 09 on NE., with  
1 notch on S. and 2 notches on E. edge; from which:-  
A cedar 8ins., in diam., bears N 45°30'E. 104 lks.,  
dist., marked; 09 T 20 N R 1 W S 26 FT.  
A cedar 10ins. in diam., bears S 14°30'E. 112 lks.,  
dist., marked; 09 T 20 N R 1 W S 35 FT.  
A cedar 4ins., in diam., bears S 55°W. 34 lks.,  
dist., marked; 09 T 20 N R 1 W S 34 FT.  
A cedar 4ins. in diam., bears N 36°30'W. 45 lks.,  
dist., marked; 09 T 20 N R 1 W S 27 FT.
- Land, level and mountainous.  
Soil, rocky; 4th rate.  
Timber, cedar.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and  
underbrush, exceptionally difficult to survey, 80.00 chs.
- West on random line bet. secs. 27 and 34.  
40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
80.08 Intersect the N. and S. line 2 lks. N. of the cor. of  
secs. 27, 28, 33 and 34. pt.  
Thence I run  
N 89°59'E. on true line bet. secs. 27 and 34.

## Subdivision of Tp.20 N., Rg.1 W.

	chains.	Descending over loose rocks thru dense timber and underbrush.
	11.00	On blank line across private claim.
	40.04	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
	73.26	Intersect the E. bdy. of Tract No. 45, 13.24 chs. <sup>N. 0°18' W</sup> of cor. No. 7; Set a malpais stone, 20X14X6 ins., 15 ins. in the ground for closing cor. marked; 09 CC on E., and PC on W., with 1 groove on S. face; from which; - A cedar 4 ins. in diam., bears N 55°30' E. 07 lks., dist., marked; 09 CC T 20 N R 1 W S 27 FT. A cedar 8 ins. in diam., bears S 24° E. 32 lks., dist., marked; 09 CC T 20 N R 1 W S 34 FT.
	80.08	The cor. of secs. 26, 27, 34 and 35. Land, mountainous. Soil, rocky: 4th rate. Timber, cedar. Underbrush, cedar. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.08 chs.  July 13; At this cor. I set off 21°51, 1/2' N. on the decl arc and observe the sun on the meridian at noon; the resulting lat. is 35°06' N.
		<hr/>
		East bet. secs. 26 and 35.
		Descending over loose rocks thru dense timber and underbrush.
	12.00	Wash, 25 lks. wide, course S. Asc. over loose rocks.
	27.13	Intersect the Meridian, 13.79 <sup>S. 0°18' W</sup> of the $\frac{1}{4}$ sec. cor. for sec. 30, T 20 N, R 1 E. Set a malpais stone, 24X14X8 in 18 ins. in the ground, for closing cor. bet. secs. 26 and 35 marked 09 CC on W., with 1 groove on S., and 5 grooves on N. face; from which; - A cedar 8 ins. in diam., bears S 47° W. 41 lks., dist., marked 09 CC T 20 N R 1 W S 35 FT. A cedar 8 ins. in diam., bears N 56°30' W. 52 lks., dist., marked; 09 CC T 20 N R 1 W S 26 FT.
		Land, mountainous. Soil, rocky: 4th rate. Timber, cedar. Underbrush, cedar Mountainous and covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey 27.13 chs.
		<hr/>
		N 0°02' E. bet. secs. 26 and 27
		Over nearly level land covered with loose rocks thru dense timber and underbrush.
	38.00	Desc. over loose rocks into canyon.
	40.00	Set a malpais stone, 16X8X6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on W. face; from which; - A cedar 8 ins. in diam., bears N 72° E. 35 lks., dist., marked; 09 $\frac{1}{4}$ S 26 FT. A cedar 14 ins. in diam., bears West 11 lks., dist., marked 09 $\frac{1}{4}$ S 27 FT.
	47.20	Wash, 25 lks. wide, course SW. Asc. over loose rocks.
	52.50	Top of rim. over level land covered with loose rocks.
	65.75	Intersect the S. bdy. of Tract No. 44, 6.90 chs. <sup>N. 85°34' E</sup> of the cor. No. 5. Set a malpais stone, 20X12X8 ins., 15 ins. in the ground, for closing cor., marked; 09 CC on S., and PC on N with 2 grooves on E. face; from which; - A pinon 6 ins. in diam., bears S 20° E. 60 lks., dist., marked; 09 CC T 20 N R 1 W S 26 FT. A pinon 14 ins. in diam., bears S 74° W. 57 lks., dist., marked; 09 CC T 20 N R 1 W S 27 FT.
	80.00	On blank line across private claim. Point for cor. of secs. 22, 23, 26 and 27 falls in a private claim

Subdivision of Tp.20 N.,Rg.1 W.

chains.

Land, level, and mountainous.  
Soil, rocky; 4th rate  
Timber, cedar, and pinon.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.  
July 13, 1909.

40.00 S 89°59'W. on random line bet. secs. 22 and 27.  
80.10 Set temp. 1/4 sec. cor.  
Intersect the N. and S. line 2 lks. N. of the cor. of secs. 21, 22, 27 and 28.  
Thence I run  
N 89°58'E' on true line bet. secs. 22 and 27.  
40.05 Over level land covered with loose rocks thru dense timber and underbrush.  
A cedar, 4 ins. diam., for 1/4 sec. cor. I mark 09 1/4 S 22 on N. side and 27 on S. side; from which:-  
A cedar 5 ins. diam., bears N 30°E. 63 lks.,  
dist., marked; 09 1/4 S 22 BT.  
A cedar 6 ins. diam., bears S 20°E. 20 lks.,  
dist., marked; 09 1/4 S 27 BT.  
54.00 Top of W. rim of canyon. Desc. steep slope over loose rocks  
58.40 Wash, 20 lks. wide, course SW. Asc. steep slope over loose rocks.  
62.00 Top of E. rim of canyon. Asc. over loose rocks.  
70.00 Top of ridge, bears NE. and SW. Desc. over loose rocks.  
73.17 Intersect the W. bdy. of Tract No. 44, 14, 30 chs. N 09°W. of cor. No. 5; Set a malpais stone, 16X10X8 ins., 11 ins. in the ground, for closing cor., marked 09 CC on W., and PC on E. with 2 grooves on S. face; from which  
A cedar 12 ins. in diam., bears S 48°W. 17 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 27 BT.  
A cedar 8 ins. in diam., bears N 75°W. 28 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 22 BT.

80.10 On blank line across private claim.  
The cor. of secs. 22, 23, 26 and 27.  
Land, level and mountainous.  
Soil, rocky; 4th rate.  
Timber, cedar.  
Underbrush, cedar.  
Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.10 chs.  
July 13, 1909.

July 14 : At 6h.00m., a.m., l.m.t., I set off 35°07' N. on the lat. arc; 21°47' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

27.55 Thence I run  
East bet. secs. 23 and 26.  
Ascending steep slope over loose rocks thru dense timber and underbrush.  
On blank line across private claim.  
Intersect the Meridian 12.92 chs. S 1°42'E. of the 1/4 sec. cor. of sec. 19, T 20 N., R. 1 E. Set a malpais stone, 24X10X8 ins. 18 ins. in the ground, for closing cor. bet. secs. 23 and 26 marked; 09 CC on W. face, with 2 grooves on S., and 4 grooves on N. face; from which  
A pinon 12 ins. in diam., bears S 75°W 22 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 26 BT.  
A cedar 6 ins. diam., bears N 55°W. 58 lks.,  
dist., marked; 09 CC T 20 N R 1 W S 23 BT.  
Land, mountainous.  
Soil, rocky; 4th rate.  
Timber, cedar and pinon.  
Underbrush, cedar.

## Subdivision of Tp.20 N., Rg.1 W.

chains.

Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 27.55 chs.

N 0°02'E. bet. secs. 22 and 23.

Descending in to canyon over loose rocks thru dense timber and underbrush.

On blank line across private claim.

40.00

Point for  $\frac{1}{4}$  sec. cor. falls in private claim. <sup>N. 89°29'E.</sup>

66.57

Intersect the N. bdy. of Tract No. 44, 7.84 chs. #. of cor. No. 3. Set a malpais stone, 18X8X8 ins., 12 ins. in the ground, for closing cor., marked 09. CC on N., and PC on S. with 2 grooves on E. face; from which

A cedar 8 ins. diam., bears N 56°E. 14 lks., dist., marked 09 CC T 20 N R 1 W S 23 BT.

A cedar 6 ins. diam., bears N 52°W. 57 lks. dist., marked 09 CC T 20 N R 1 W S 22 BT.

80.00

Set a malpais stone, 20X10X8 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, marked 09 on NE. face; with 3 notches on S. and 2 notches on E. edge; from which

A cedar 12 ins. diam., bears N 78°E. 67 lks., dist., marked: 09 T 20 N R 1 W S 14 BT.

A pinon 6 ins. diam., bears S 49°30'E. 27 lks., dist., marked: 09 T 20 N R 1 W S 23 BT.

A cedar 7 ins. diam., bears S 54°30'W. 70 lks., dist., marked: 09 T 20 N R 1 W S 22 BT.

A cedar 10 ins. diam., bears N 42°30'W. 12 lks., dist., marked: 09 T 20 N R 1 W S 15 BT.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, cedar, and pinon.

Underbrush, cedar.

Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.00 chs.

July 14; At this cor. I set off 21°42, 1/2' N. on the decl arc and observe the sun on the meridian at noon; the resulting lat. is 35°08, N.

S 89°58'W. on random line bet. secs. 15 and 22.

40.00

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

80.16

Intersect the N. and S. line 5 lks. S. of the cor. of secs. 15, 16, 21 and 22. <sup>pt.</sup>

Thence I run

East bet. secs. 15 and 22.

Descend steep slope over loose rocks thru dense timber and underbrush.

On blank line across private claim.

40.08

Point for  $\frac{1}{4}$  sec. cor. falls in private claim. <sup>N. 3°05'E.</sup>

73.05

Intersect the E. bdy. of Tract No. 41, 13.50 chs. #. of cor. No. 7. A cedar, 7 ins. diam., for closing cor. I mark 09 CC on E. side, and PC on W. side, with 3 grooves of S. side. from which;

A pinon 9 ins. diam., bears N 50°E. 55 lks., dist., marked: 09 CC T 20 N R 1 W S 15 BT.

A pinon 8 ins. diam., bears S 30°E. 49 lks., dist., marked: 09 CC T 20 N R 1 W S 22 BT.

80.16

The cor. of secs. 14, 15, 22 and 23.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, cedar, and pinon.

Underbrush, cedar.

Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.16 chs.

July 14, 1909.

Subdivision of Tp.20 N., Rg.1 W.

chains.

July 15; At 6h.00m., a.m., l.m.t., I set off 35°08' N. on the lat.arc; 21°38' N. on the decl.arc; and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.

Thence I run East bet.secs.14 and 23. Over level land covered with loose rocks thru dense timber and underbrush.

25.50

Intersect the Meridian, 12.65 chs. S 0°12' E. of the 1/4 sec.cor. of sec.18, T 20 N., R.1 E. Betnt for closing cor.falls on malpais rock in place, 5X3X1, 1/2 ft.above ground, cut a cross (X) at the point for closing cor.bet.secs. 14 and 23, mark 09 CC on W. side of cross with 3 grooves N. and S. of cross. from which

A cedar limb 6ins.diam., bears S 47°30' W. 57 lks., dist., marked; 09 CC T 20 N R 1 W S 23 RT.

A cedar 6ins.diam., bears N 56°30' W. 99 lks., dist., marked; 09 CC T 20 N R 1 W S 14 RT.

Land, level. Soil, rocky: 4th rate. Timber, cedar. Underbrush, cedar.

Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 25.50 chs.

N 0°02' E. bet.secs.14 and 15.

Ascending over loose rocks thru dense timber and underbrush.

5.40

Top of S. rim of hells canyon. Desc.steep preceptitious slope almsot impossible to chain.

18.50

Wash, 100 lks.wide, course SW. Asc.steep slope almost impossible to chain.

30.00

Top of N. rim of Hells canyon. Asc.over loose rocks.

40.00

Set a malpais stone, 16X10X6ins., 11ins.in the ground, for 1/4 sec.cor., marked 09 1/4 on W face; from which

A cedar 6ins.diam., bears S 81°30' E. 35 lks., dist., marked; 09 1/4 S 14 RT.

A pinon 8ins.diam., bears S 35°45' W. 37 lks., dist., marked; 09 1/4 S 15 RT.

75.00

Leave dense timber, thru dense underbrush, over loose rock

80.00

Set a malpais stone, 18X8X8ins., 12ins.in the ground, for cor. of secs. 10, 11, 14 and 15, marked 09 on NE. face, with 4 notches on S., and 2 notches on E. egde. raise a mound of stone, 2ft.base, 1, 1/2 ft.high, W. of cor. pits impraticable.

Land, mountainous. Soil, rocky: 4th rate. Timber, cedar and pinon. Underbrush, cedar.

Mountainous land covered with loose rocks and dense timber and unierbrush, exceptionally difficult to survey, 80.00 chs.

July 15; At this cor.I set off 21°33, 1/2' N. on the decl arc and observe the sun on the meridian atthoche the resulting lat.is 35°09' N.

West on random line bet.secs. 10 and 15.

40.00

Set temp. 1/4 sec.cor.

80.20

Intersect the N. and S. line, 4 lks.S. of the cor. of secs. 9, 10, 15, and 16.

Thence I run S 89°58' E. bet.secs.10 and 15.

0.27

Ascend over loose rocks thru dense timber and underbrush

Intersect the E. bdy.of Tract No.39.14.37 chs. of cor No.7. Set a malpais stone 20X14X10ins., 15ins.in the ground, for closing cor., marked 09 CC on E. face, and PC on W. face with 4 grooves on S. face; from which

## Subdivision of Tp. 20 N., Rg. 1 W.

	<p>A cedar 4 ins. diam., bears N 52° E. 9 lks., dist., unmarked; 09 CC T 20 N R 1 W S 10 FT.  A cedar 7 ins. diam., bears S 73° E. 05 lks., dist., marked; 09 CC T 20 N R 1 W S 15 FT.</p>
18.00	Asc.: steep N.W. slope over loose rocks.
34.75	Highest point on line. Desc. steep slope over loose rock
40.10	Set a malpais stone, 18X10X8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked 09 $\frac{1}{4}$ on N. face from which A cedar 4 ins. diam., bears N 27° E. 34 lks., dist., marked 09 $\frac{1}{4}$ S 10 FT. A cedar 16 ins. diam., bears S 60° E. 34 lks., dist., marked; 09 $\frac{1}{4}$ S 15 FT.
52.00	Wash, 30 lks. wide, course NW. Asc. over loose rocks.
70.00	Leave dense timber: thru dense underbrush, over loose rocks.
80.20	The cor. of secs. 10, 11, 14 and 15. Land, mountainous. Soil, rocky: 4th rate. Timber, cedar. Underbrush, cedar and buck brush. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.20 chs.
	<p>East bet. secs. 11 and 14.  Over level land covered with loose rocks thru dense underbrush.</p>
7.00	Enter dense timber.
23.85	Intersect the Meridian, 18.30 chs. S 3° 09' W. of the $\frac{1}{4}$ sec. cor. for secs 7, T 20, N. R. 1 E. Set a malpais stone, 16X10X8 in 11 ins. in the ground, for closing cor bet. secs. 11 and 14 marked 09 CC on W. face, with 2 grooves on N. face and 4 grooves on S. face, from which A cedar 9 ins. diam., bears S 13° 30' W. 11 lks., dist., marked; 09 CC T 20 N R 1 W S 14 FT. A cedar 10 ins. diam., bears N 71° W. 11 lks., dist., marked; 09 CC T 20 N R 1 W S 11 FT.
	<p>Land, level.  Soil, rocky: 4th rate.  Timber, cedar.  Underbrush, cedar.  Land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 23.85 chs.  July 15, 1909.</p>
	<p>July 16; At 6h. oom. a.m., l.m.t., I set off 35° 09' N. on the lat. arc; 21° 28, 1/2' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.  Thence I run  N 0° 03' E. bet. secs. 10 and 11.  Descend over loose rocks thru dense underbrush.</p>
25.02	Intersect the S. bdy. of Tract No 40, 4.76 chs. <sup>S 89° 45' E.</sup> of cor No. 3. Set a malpais stone, 18X8X8 ind., 12 ins. in the ground for closing cor., marked 09 CC on S. face, and PC on N. face with 2 grooves on E. face. and raise a mound of stones, 2 ft. base, 1, 1/2 ft. high, S. of cor. Pits impracticable. On blank line across private claim.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in private claim.
65.04	Intersect the N. bdy. of Tract No 40, 4.95 chs. S 88° 43' E. of cor. No. 2. Set a sandstone, 18X14X6 ins., 12 ins. in the ground, for closing cor., marked 09 CC on N. face, PC on S. face, with 2 grooves on E. face; from which A pinon 9 ins. diam., bears N 51° E 76 lks., dist., marked; 09 CC T 20 N R 1 W S 11 FT. A cedar 20 ins. diam., bears N 49° W. 54 lks., dist., marked; 09 CC T 20 N R 1 W S 10 FT.
65.50	Along steep W. slope over loose rocks.

Subdivision of T<sub>20</sub> N., R<sub>1</sub> W.

chains. 80.00	Set a sandstone, 18X12X6 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 10 and 11. marked 09 on NE. face, with 5 notches on S. and 2 notches on E. edge. and raise a mound of stones, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar and pinon. Underbrush, cedar and buck brush. Mountainous land covered with loose rocks and dense underbrush, exceptionally difficult to survey, 80.00 chs.
40.00	N 89° 58' W. on random line bet. secs 3 and 10. Set temp. 1/4 sec. cor.
80.25	Intersect the N. and S. line 14 lks. N. of the cor. of secs. 3, 4, 9 and 10. Thence I run N 89° 56' E. on true line bet. secs. 3 and 10. Ascend over loose rocks thru dense timber and underbrush.
0.16	Intersect the W. bdy. of Tract No. 37, 15.12 chs. N. 0° 17' E. of Cor. 4. Set a malpais stone, 18X12X8 ins., 12 ins. in the ground, for closing cor., marked 09 CC on W. face, and PC on E. face, with 5 grooves on S. face from which A cedar limb, 9 ins. diam., bears N 73° W. 08 lks., dist., marked: 09 CC T 20 N R 1 W S 3 BT. No other tree available. Raise a mound of stones, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable. On blank line across private claim.
40.125	Point for 1/4 sec. cor. falls in private claim.
75.37	Intersect the E. bdy. of Tract No. 37, 14.85 chs. N. 0° 16' W. of cor. No. 5. Set sandstone, 18X8X5 ins., 12 ins. in the ground for closing cor., marked 09 CC on E. face, and PC on W. face; with 5 grooves on S. face; and raise a mound of stones, 2 ft. base, 1, 1/2 ft. high, E. of cor. Pits impracticable.
78.10	Wash, 25 lks. wide, course S. Asc. steep slope over loose rocks.
80.25	The cor. of secs. 2, 3, 10 and 11. Land, mountainous. Soil, rocky; 4th rate. Timber, cedar. Underbrush, cedar and buck brush. Mountainous land covered with loose rocks and dense timber and underbrush, exceptionally difficult to survey, 80.25 chs. July 16: At this cor. I set off 21° 24' N. on the decl. arc and observe the sun on the meridian at noon; the resulting lat. is 35° 09 1/2 N.
13.00	East bet. secs. 2 and 11. Ascend steep slope over loose rocks and boulders thru dense underbrush.
16.70	Desc. steep NE. slope over loose rocks and boulders.
24.74	Drain, course N. Asc. steep slope over loose rocks. Intersect the Meridian 15.54 chs. S. of the 1/4 sec. cor. for sec. 6, T 20 N., R. 1 E. Set malpais stone, 16X14X8 ins. 11 ins. in the ground, for closing cor. bet. secs. 2 and 11, marked 09 CC on W. face, with 5 grooves on S., and 1 groove on N. face; raise a mound of stones, 2 ft. base, 1, 1/2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th rate. No timber. Underbrush, cedar, and buck brush. Mountainous land covered with loose rocks and dense underbrush, exceptionally difficult to survey, 24.74 chs.

## Subdivision of Tp. 20 N., Rg. 1 W.

chains.

- N 0°02'E. bet. secs. 2 and 3.  
Descend steep slope over loose rocks thru dense underbrush.
- 2.35 Wash, 20 lks. wide, course SW. Asc. steep slope over loose rocks.
- 26.50 Top of sharp malpais ridge, bears NW. and SE. Desc. steep slope over loose rocks.
- 38.30 Wash, 15 lks. wide, course E. Asc. steep slope over loose rocks.
- 40.00 Set a malpais stone, 18x10x8 ins., 12 ins. in th ground, for  $\frac{1}{2}$  sec. cor., marked: 09  $\frac{1}{2}$  on W. face; and raise a mound of stones, 2 ft. base, 1, 1/2 ft. high. W. of cor. Pits impracticable.
- 56.00 Intersect the 5th Standard Parallel North, 15.50 S. 86°54' E. of standard  $\frac{1}{2}$  sec. cor. for sec. 36, T 21 N., R 1 W., Point for closing cor. falls on a malpais rock in place, 2x2 ft by 10 ins., above ground, mark a cross at the exact point for closing cor., and mark 09 CC S. of cross, with 4 grooves W. and 2 grooves E. of cross. from which  
A cedar 10 ins. diam., bears S 23°W. 81 lks., dist., marked: 09 CC T 20 N R 1 W S 3 RT.  
No other tree available. Raise a mound of stone, 2 ft. base 1, 1/2 ft. high, S. of cor. Pits impracticable.  
Land, mountainous.  
Soil, rocky; 4th rate.  
No timber.  
Underbrush, cedar and buck brush.  
Mountainous land covered with loose rocks and dense underbrush, exceptionally difficult to survey, 56.00 chs.  
July 16, 1909.

## SUMMARY

This township is covered with loose volcanic rocks and an exceptionally dense growth of cedar timber and underbrush, a few pinon trees being in the Eastern portion of the Tp.

Hells canyon together with several canyons run across the Tp. with a general course to the SW. These canyons are very deep Hells canyon being 500 ft. deep and has very steep walls,

There was no water on the Tp. at the time that I was there but some of the pools in the bottom of the canyons contain water most of the year.

There are no settlers.

In making this survey I destroyed the old corners.

*Alfred N. Plummer*  
U. S. Deputy Surveyor.

*For authority for red ink corrections see Deputy's letter - of Dec. 15 - 1909.*



FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfred N. Oliver, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Private Claim Lines and resurvey of the Subdivision Lines of Tps. 17, 18, 19 and 20 N. Rg. 1 W. showing the respective capacities in which they acted:

- Will W. Shawk, Chainman.
Archie Johnston, Chainman.
Moundman.
Moundman.
W. R. Johnston, Azman.
Azman.
R. R. Lane, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred N. Oliver, United States Deputy Surveyor, in surveying all those parts or portions of the Private Claim Lines and resurveying The Subdivision lines of Tps. 17, 18, 19 and 20 N. Rg. 1 W.

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

- Will W. Shawk, Chainman.
Archie Johnston, Chainman.
Moundman.
Moundman.
W. R. Johnston, Azman.
Azman.
R. R. Lane, Flagman.

Subscribed and sworn to before me this 17th day of July, 1909, 190

Alfred N. Oliver, U. S. Deputy Surveyor.



No notary available without loss of time and great expense.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfred N. Oliver, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 19th. day of November, 1909., 1909, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Private Claim Lines and resurveyed the Subdivision Lines of Tps. 17, 18, 19 and 20 N. Rg. 1W.

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

Alfred N. Oliver  
United States Deputy Surveyor.

Subscribed by said Alfred N. Oliver, and sworn to before me }  
this 18th day of November, 1909



Frank S. Ingalls  
United States Surveyor General  
for Arizona.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. April 27, 1910.

The foregoing field notes of the survey by miles and bounds of the private tracts in Tps. 17, 18, 19, 20 N. Rg. 1W, and the resurvey of said Township, Gila and Salt River Base and Meridian, Arizona.

executed by Alfred N. Oliver U.S. Deputy Surveyor under his contract No. 153, dated November 19, 1909, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls  
United States Surveyor General.

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

United States Surveyor General.