

Book "C"

BOOK 2768

FIELD NOTES

OF THE ~~SURVEY OF THE~~  
RESURVEY OF THE

EAST BDY. OF THE FT. APACHE INDIAN RESERVATION

AND THE

EAST BDY. OF THE WHITE MOUNTAIN OR SAN CARLOS INDIAN  
RESERVATION

~~Of the Gila and Salt River Basins and Meridians,~~

In the State of ARIZONA

EXECUTED BY

WILLIAM B. KIMMEL

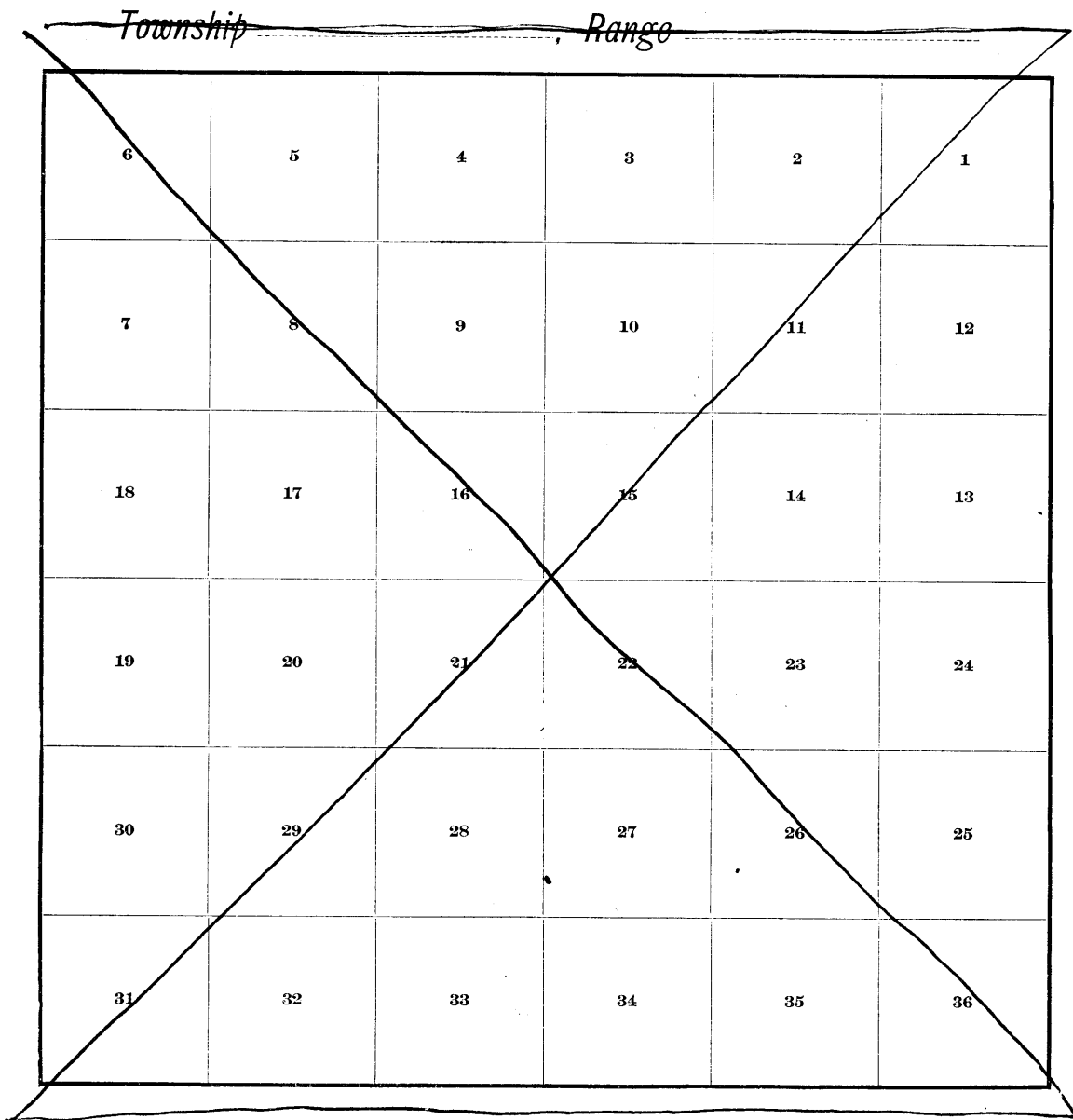
In the capacity of U. S. Surveyor, under instructions dated February 18, 1913,  
issued by the United States Surveyor General to govern surveys included in  
Group No. 26, which were approved by the Commissioner of the General Land  
Office, February 28, 1913, pursuant to authority contained in the Act of  
Congress dated June 23, 1913.

ReSurvey commenced October 8, 1913

ReSurvey completed November 12, 1913

# INDEX DIAGRAM.

(see special index)



# INDEX DIAGRAM

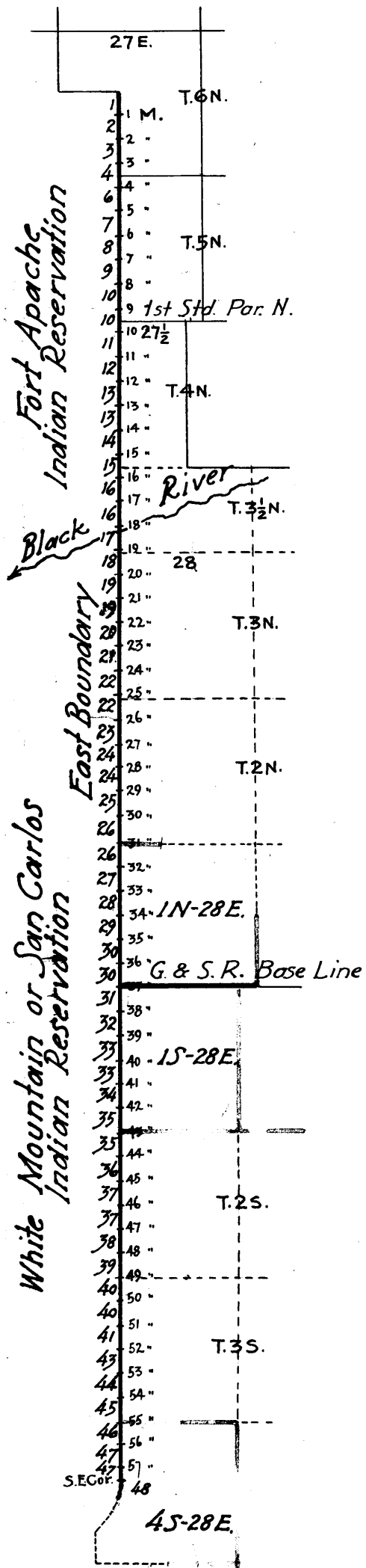
1A

Book "C"  
GROUP 26

Book No. 2768

- Notes in this Book (indexed in Red Figures)
- " " Book "A"
- " " " "B"
- Surveyed
- Unsurveyed

BOOK 2768



Resurvey of East bdy. of Fort Apache Indian Reservation. 1.

Chains.

Resurvey commenced Oct. 8, 1913, and executed with a Young and Sons' Light Mountain Transit No. 8541, described on page 1, Book "A."

At the NE. cor. of the Fort Apache Indian Reservation, which is a stone 18x8x16 ins. protruding from a mound of stone, marked and witnessed as described by the Surveyor General. Lat. 33°55' N. Long. 109° 30' W. at 6h.27m. p.m. by my watch, which is correct l.m.t., I observe Polaris at Eastern elongation in accordance with instructions in the Manual, and mark the line thus determined by a flag set firmly in the ground about 16 chs. south of the cor. Oct. 8, 1913.

Oct. 9, 1913. At the same station, at 8h. 2m. l.m.t., I lay off the azimuth of Polaris, 1°23½' to the left, and mark the true meridian thus determined by a flag firmly set in the ground about 14 chs. south of my instrument.

At the same station, at 8h. 5m. a.m., l.m.t., I set off 33° 55' N. on the lat. arc; 6°9½' S. on the decl. arc; and determine a meridian with the solar, which agrees with my Polaris observation taken last night; therefore, I conclude that the adjustments of the instrument are satisfactory.

Thence I resurvey the east bdy. of the Ft. Apache Indian Reservation, and also the East bdy. of the White Mountain or San Carlos Indian Reservation, which is a continuation of the same line on same course. Existing conditions of the public land surveys contiguous to this line, allow an independent resurvey, and those old closing cors. of accepted surveys which I find along the line, I destroy and reset on the resurveyed Reservation boundary east or west of their original positions as the case may be, as hereinafter described.

As the Black or Salt River forms a natural boundary between the Fort Apache Indian Reservation on the north, and the White Mountain or San Carlos Indian Reservation on the south, and is consequently not monumented, the east bdy. of both Reservations is resurveyed with the NE. cor. of the Fort Apache Indian Reservation as the initial point for both, and all mile and half mile cors. are marked "W M I R" as though the entire line formed the east bdy. of the White Mountain Indian Reservation, the original designation of the line, before the establishment of the Fort Apache Indian Reservation. At the NE. cor. of the Fort Apache Indian Reservation, the magnetic decl. is 16° 35' E.

Thence I run,

South, on true line, on 1st mile, east bdy. Fort Apache Indian Reservation, in sec. 16, frac. T. 6 N., R. 27 E.

Through heavy timber and undergrowth Descend SE. slope.

14.00 Draw, course SW. Descend SW. slope.

18.10 Spring on line, flows W. Thence along west slope.

21.80 Spring on line, flows west.

26.60 A fir, 34 ins. in diam., on line. Descend SW. slope.

35.25 Telephone line, brs. SE. and NW.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished ½ mile cor., marked on brass cap,

1913 on S. rim,

W M I R in W., and

½ M in E. half; from which,

A spruce, 18 ins. in diam., brs. N. 33° E., 14 lks. dist., marked W M I R ½ M B T.

A spruce, 13 ins. in diam., brs. N. 58½° W., 119 lks. dist., marked W M I R ½ M B T.

43.58 A point 25 lks. east of the original location of closing cor. to secs. 16 and 21, frac. T. 6 N., R. 27 E., which location I determined N. 10° W., 36 lks. from the burnt stump of original bearing tree, on which are indications of markings. I destroy markings on the stump, and reestablish the closing corner on Reservation line as follows:

## 2. Resurvey of East bdy. of the Fort Apache Indian Reservation

Chains.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 16 and 21, marked on brass cap,  
 1913 on S. rim,  
 C C W. of center,  
 W M I R in W. half;  
 T 6 N S 16 in. NE., and  
 S 21 R 27 E in SE. quadrant; from which,  
 A fir, 20 ins. in diam., brs. N.  $64\frac{1}{2}^{\circ}$  E., 151 lks. dist., marked T 6 N R 27 E S 16 B T.  
 A spruce, 10 ins. in diam., brs. S.  $40\frac{1}{4}^{\circ}$  E., 95 lks. dist., marked T 6 N R 27 E S 21 B T.

45.45 End of descent. Small stream, 4 lks. wide, 3 ins. deep, course SE. Thence along slight east slope.

55.00 Rocky spur ridge, brs. E. Descend SE. slope, 150 ft.

60.70 Trail, brs. E. and W.

62.30 End of descent. North fork of Blue River, 20 lks. wide, 8 ins. deep, course E.

64.50 Ascend N. slope. Enter burnt timber. Ascend 270 ft.

70.65 Rocky ledge, brs. E. and W. Ascend slight NE. slope; leave burnt timber. Enter fallen timber.

76.00 Along low ridge, brs. N. and S.

79.00 Low ridge rock, brs. E. and W.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for the reestablished 1 mile cor., marked on brass cap,  
 1913 on S. rim,  
 1 M W. of center,  
 W M I R in W., and  
 T 6 N R 27 E in E. half; from which,  
 A pine, 16 ins. in diam., brs. N.  $50\frac{1}{2}^{\circ}$  E., 86 lks. dist., marked T 6 N R 27 E S 21 B T.  
 An aspen, 10 ins. in diam., brs. S.  $51\frac{1}{4}^{\circ}$  E., 77 lks. dist., marked T 6 N R 27 E S 21 B T.  
 A pine, 10 ins. in diam., brs. S.  $60^{\circ}$  W., 17 lks. dist., marked W M I R 1 M B T.  
 A pine, 10 ins. in diam., brs. N.  $12\frac{1}{2}^{\circ}$  W., 26 lks. dist., marked W M I R 1 M B T.

Land, mountainous and hilly.  
 Soil, 3rd rate.  
 Timber, pine, fir, spruce and aspen.  
 Undergrowth, aspen.  
 Good grass.  
 Mountainous or heavily timbered land, 80.00 chains.  
Note: The sky was overcast at noon, making an observation for latitude impossible.

Oct. 9, 1913.

Oct. 10, 1913: At 7h. 59m. a.m., l.m.t., I set off  $33^{\circ}54'$  N. on the lat. arc;  $6^{\circ}32'$  S. on the decl. arc, and determine a meridian with the solar at the reestablished 1 mile corner on the east bdy. of the Fort Apache Indian Reservation. The magnetic variation at this cor. is  $14^{\circ}12'$  E.

Thence I run,  
 South, on the east bdy. of the Fort Apache Indian Reservation.  
 Through heavy timber and dense undergrowth. Descend SW. slope, 190 ft. to

13.70 Thence over level land.

14.90 Spring on line, flows east.

15.70 Ascend NE. slope, 25 ft. to

17.50 Spur ridge, brs. NE.; descend SE. slope, 30 ft. to

26.00 Draw, course NE. Ascend NE. slope, 15 ft. to

31.00 Low ridge, brs. E. and W. Descend SE. slope, 45 ft. to

37.20 Small draw, course E.; ascend slight NW. slope, 55 ft. to ridge.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in

Resurvey of East bdy. of the Fort Apache Indian Reservation. 3.

Chains.

reestablished  
 the ground, for  $1\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R on W., and  
 $1\frac{1}{2}$  M on E. half; from which,  
 A balsam fir, 7 ins. in diam., brs. N.  $32\frac{3}{4}^{\circ}$  E., 16  
 lks. dist., marked W M I R  $1\frac{1}{2}$  M B T.  
 A spruce, 8 ins. in diam., brs. N.  $67\frac{1}{2}^{\circ}$  W., 31 lks.  
 dist., marked W M I R  $1\frac{1}{2}$  M B T.

41.00

Enter burnt-over timber.

42.42

A point 24 lks. east of the original location of the closing  
 corner to secs. 21 and 28, fract 6 N., R. 27 E., which  
 location I determined N.  $30^{\circ}$  W., 20 lks. from the original  
 bearing tree, a dead fir tree, 6 ins. in diam., marked  
 T 6 N R 27 E S 28 B T.

I obliterate markings on this tree, and reestablish the  
 closing cor. on Reservation line, as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in  
 the ground, for closing cor. of secs. 21 and 28, marked  
 on brass cap,

1913 on S. rim,  
 C C W of center.  
 W M I R in W. half;  
 T 6 N S 21 in NE., and  
 R 27 E S 28 in SE. quadrant; from which,  
 A fir, 16 ins. in diam., brs. N.  $22\frac{1}{4}^{\circ}$  E., 80 lks.  
 dist., marked T 6 N R 27 E S 21 B T  
 A fir, 30 ins. in diam., brs. S.  $33^{\circ}$  E., 94 lks.  
 dist., marked T 6 N R 27 E S 28 B T

48.00

Continue to ascend NW. slope, to  
 Low ridge, brs. NE. and SW. Note: At this point, Oct. 10,  
 1913, I set off  $6^{\circ} 37\frac{1}{2}'$  S. on the decl. arc; and observe  
 the sun on the meridian at apparent noon; the result-  
 ing lat. is  $33^{\circ} 53\frac{1}{2}'$  N.

Descend SW. slope, 195 ft.

60.00

Leave timber, brs. E. and W.

62.00

End of descent; thence over level land.

63.70

Fork of Black River, 12 lks. wide, 8 ins. deep, course E.

Ascend NE. slope, 155 ft.

66.00

Enter scattering spruce timber, brs. E. and W.

68.00

Enter fallen burnt-over timber.

80.00

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 2 mile cor. marked on brass  
 cap,

1913 on S. rim,  
 2 M W. of center,  
 W M I R in W., and  
 T 6 N R 27 E S 28 in E. half; from which,  
 A fir, 18 ins. in diam., brs. S.  $70\frac{1}{2}^{\circ}$  E., 258 lks.  
 dist., marked T 6 N R 27 E S 28 B T.  
 A fir, 20 ins. in diam., brs. S.  $43\frac{1}{4}^{\circ}$  W., 177 lks.  
 dist., marked W M I R 2 M B T.

And raise a mound of stone, 3 ft. base, 2 ft. high, west of  
 cor. Pits impracticable.

Land, mountainous and hilly.

Soil, 2nd and 3rd rate.

Timber, heavy pine, fir, spruce and aspen.

Undergrowth, scattering dwarf aspen.

Heavily timbered land, 80.00 chs.

Good grass.

-----  
 South, on the east bdy. of the Fort Apache Indian Reserva-  
 tion.

Ascend NE. slope, 270 ft., through fallen burnt-over timber.

2.60

A fir tree, 30 ins. diam., on line. Enter green timber.

11.35

Ledge rock, brs. E. and W.

13.00

End of ascent; thence over level land. Leave green timber;  
 enter burned-over timber.

22.00

Enter green timber.

## 4. Resurvey of East bdy. of the Fort Apache Indian Reservation.

Chains.

- 30.00 Descend slight SE. slope, 300 ft.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $2\frac{1}{2}$  M. cor., marked on brass cap,  
     1913 on S. rim,  
     W M I R in W., and  
      $2\frac{1}{2}$  M in E. half; from which,  
     A pine, 10 ins. in diam., brs. N.  $15\frac{1}{2}^{\circ}$  E., 40 lks. dist., marked W M I R  $2\frac{1}{2}$  M B T.  
     A pine, 18 ins. in diam., brs. N.  $76\frac{1}{2}^{\circ}$  W., 30 lks. dist., marked W M I R  $2\frac{1}{2}$  M B T.
- 41.99 A point, 81 lks. E. of the original closing cor. of secs. 28 and 33, frac. T. 6 N., R. 27 E., which is a dead fir, 10 ins. in diam., marked  
     W M I R on W.,  
     T 6 N R 27 E S 28 on NE., and  
     T 6 N R 27 E S 33 on SE.  
 I obliterate the markings on this tree, and reestablish closing corner on Reservation line, as follows:  
 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 28 and 33, marked on brass cap,  
     1913 on S. rim,  
     C C W of center,  
     W M I R in W. half;  
     T 6 N S 28 in NE., and  
     R 27 E S 33 in SE. quadrant; from which,  
     An aspen, 10 ins. in diam., brs. N.  $52\frac{1}{2}^{\circ}$  E., 32 lks. dist., marked T 6 N R 27 E S 28 B T.  
     A pine, 8 ins. in diam., brs. S.  $47\frac{1}{2}^{\circ}$  E., 15 lks. dist., marked T 6 N R 27 E S 33 B T.
- 48.00 Spur ridge, brs. SW.; descend S. slope.  
 49.50 Rock ledge brs. SE. and NW.  
 64.00 Foot of descent; thence over level land.  
 64.72 Stream 10 lks. wide, 2 ins. deep, course SE.  
 66.00 Ascend NE. slope, 150 ft. to ridge.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 3 mile cor., marked on brass cap,  
     1913 on S. rim,  
     3 M W of center.  
     W M I R in W. half; and  
     T 6 N R 27 E S 33 in E. half; from which,  
     A fir, 11 ins. in diam., brs. N.  $74^{\circ}$  E., 23 lks. dist., marked T 6 N R 27 E S 33 B T.  
     A spruce, 10 ins. in diam., brs. S.  $31\frac{1}{2}^{\circ}$  E., 24 lks. dist., marked T 6 N R 27 E S 33 B T.  
     A spruce, 10 ins. in diam., brs. S.  $33\frac{1}{2}^{\circ}$  W., 27 lks. dist., marked W M I R 3 M B T.  
     An aspen, 8 ins. in diam., brs. N.  $77\frac{1}{2}^{\circ}$  W., 29 lks. dist., marked W M I R 3 M B T.
- Land, hilly and mountainous.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy pine, spruce, fir and aspen.  
 Undergrowth, scattering aspen.  
 Good grass. Heavy timber, 80.00 chains.  
     Oct. 10, 1913.

Oct. 11, 1913: At 8h. 15m. a.m., l.mt. I set off  $33^{\circ} 52\frac{1}{2}'$  N. on the lat. arc;  $6^{\circ} 55'$  S. on the decl. arc; and determine a meridian with the solar, at the reestablished 3 mile corner on the east bdy. of the Fort Apache Indian Reservation. The magnetic variation at this corner is  $13^{\circ} 42'$  E.

Thence I run,  
 South, on the east bdy. of the Fort Apache Indian Reservation.  
 Over rolling land, through heavy timber.

Resurvey of East bdy. of Fort Apache Indian Reservation. 5.

Chains.

- 1.00 Ridge, brs.E and W. Descend SE. slope, 90 ft.
  - 10.00 Leave timber, brs.NE. and SW.
  - 14.00 Draw, course NE. Ascend slight NE. slope.
  - 14.25 Telephone line, brs. NE. and SW. and
  - 16.40 Road brs.NE. and SW., bet. Thompson's/Reservation Ranch.
  - 17.00 Enter green timber, brs.NE. and SW.
  - 18.00 Ascend NW. slope, 60 ft.to
  - 28.00 Thence along ridge, brs.N.and S.
  - 34.50 A fir, 30 ins.diam., on line.
  - 35.20 A fir, 32 ins. diam., on line.
  - 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, for reestablished  $3\frac{1}{2}$  M. cor., marked on brass cap,
    - 1913 in S.rim,
    - W M I R in W., and
    - $3\frac{1}{2}$  M in E.half; from which,
    - A fir, 14 ins. in diam., brs. S.15°E., 11 lks. dist., marked W M I R  $3\frac{1}{2}$  M B T.
    - A fir, 8 ins. in diam., brs.S.57 $\frac{1}{4}$ °W., 29 lks. dist., marked W M I R  $3\frac{1}{2}$  M B T.
  - 41.40 Thence over level land.
  - 41.40 A point, 106 lks.E. of the original location of closing cor. to frac.Ts.5 and 6 N., R.27 E., which location I determined N.45°W., 14 lks. dist., from a dead pine tree, 8 ins. in diam., marked T 5 N R 27 E S 4 B T. I obliterate the markings on this bearing tree, and re-establish the closing cor. on Reservation line, as follows:
    - Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for closing cor.of frac.Ts.5 and 6 N., R. 27 E., marked on brass cap, 1913 in S.rim, C C W of center; W M I R in W.half; T 6 N R 27 E S 33 in NE., and T 5 N R 27 E, S 4 in SE. quadrant; from which,
    - An aspen 8 ins. in diam., brs. S.57° E., 39 lks. dist., marked T 5 N R 27 E S 4 B T.
    - A fir, 14 ins. in diam., brs.N.57°E., 33 lks. dist., marked T 5 N R 27 E S 33 B T.
  - 45.28 A fir, 18 ins. in diam., on line.
  - 59.30 A fir, 22 ins. diam., on line.
  - 60.55 A fir, 28 ins. diam., on line.
  - 70.53 A fir, 50 ins. diam., on line.
  - 74.00 Descend slight SW. slope.
  - 76.00 A dead fir, 40 ins.diam., on line.
  - 77.64 A fir, 18 ins. diam., on line. Thence over level land.
  - 78.38 A fir, 20 ins. diam., on line.
  - 80.00 Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for reestablished 4 mile cor., marked on brass cap,
    - 1913 on S.rim,
    - 4 M W of center, W M I R in W., and
    - T 5 N R 27 E S 4 in E.half; from which,
    - A fir, 11 ins. in diam., brs.N.67° E. 4 lks. dist., marked T 5 N R 27 E S 4 B T.
    - An aspen, 14 ins. diam., brs.S.44°E., 44 lks. dist., marked T 5 N R 27 E S 4 B T.
    - A fir, 20 ins. diam., brs.S. 83 $\frac{1}{4}$ °W., 82 lks. dist., marked W M I R 4 M B T.
    - An aspen, 18 ins. diam., brs.N.51 $\frac{1}{4}$ °W., 90 lks. dist., marked W M I R 4 M B T.
- Note: At this cor.Oct.11,1913, at apparent noon, I set off 6° 59 $\frac{1}{2}$ 'S. on the decl.arc; and observe the sun on the meridian; the resulting lat.is 33° 51 $\frac{1}{2}$ 'N.
- Land, level and rolling.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy fir, spruce pine and aspen.  
 Undergrowth, scattering.  
 Good grass. Heavily timbered land, 73 chains.  
 Magnetic var. at this cor. is 10 $\frac{1}{2}$ °E.



## 6. Resurvey of the East boundary of Fort Apache Indian Reservation.

Chains.

South, on the East bdy. of the Fort Apache Indian Reservation.

Over level land, through heavy timber.

4.00 Descend slight SW. slope.

14.00 Trail, brs. SE. and NW.

16.00 Leave timber, brs. E. and W. Thence over level land.

22.00 Enter timber, brs. SE. and NW. Thence along ridge, brs. S.

26.25 A fir tree, 22 ins. diam., on line.

34.35 A fir tree, 36 ins. diam., on line.

37.01 A point, 127 lks. west of the remains of original closing corner of secs 4. and 9, frac. T. 5 N., R. 27 E., which is a small mound of stone, witnessed by a

A Pine 30 ins. diam., brs. N. 80° E., 12 lks. dist., marked T 5 N R 27 E S 4 B T.

A dead pine brs. N. 40° W., 12 lks. dist., marked W M I R B T.

I destroy this corner, and obliterate the markings on the bearing trees, and reestablish the closing cor. on Reservation line, as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 4 and 9, marked on brass cap,

1913 on S. rim,  
C C W of center,  
W M I R in W. half;  
T 5 N S 4 in NE., and  
R 27 E-S 9 in SE. quadrant; from which,

A pine, 7 ins. in diam., brs. N. 47° E., 60 lks. dist., marked T 5 N R 27 E S 4 B T.

A pine, 28 ins. in diam., brs. S. 76½° E., 60 lks. dist., marked T 5 N R 27 E S 9 B T.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 4½ mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
4½ M in E. half; from which,

A pine, 14 ins. in diam., brs. N. 57¾° E., 80 lks. dist., marked W M I R 4½ M B T.

An aspen, 16 ins. diam., brs. N. 10½° W., 55 lks. dist., marked W M I R 4½ M B T.

41.17 Trail, brs. SE. and NW.

52.00 Leave timber, brs. E. and W.

59.00 Enter timber, brs. E. and W.

64.32 A pine, 36 ins. diam., on line.

66.00 Trail, brs. SE. and NW.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 5 mile cor., marked on brass cap,

1913 on S. rim,  
5 M W of center,  
W M I R in W., and  
T 5 N R 27 E S 9 in E. half; from which,

A fir, 24 ins. in diam., brs. N. 11° E., 53 lks. dist., marked T 5 N R 27 E S 9 B T.

A fir, 22 ins. in diam., brs. S. 35° E., 121 lks. dist., marked T 5 N R 27 E S 9 B T.

A fir, 12 ins. in diam., brs. N. 31° W., 80 lks. dist., marked W M I R 5 M B T.

No other trees within limits. Raise a mound of stone, 3 ft. base, 2 ft. high, west of cor. Pits impracticable.

Land, level and rolling.

Soil, 2nd and 3rd rate.

Timber, heavy pine, fir, spruce and aspen.

Undergrowth, scattering.

Heavily timbered land, 67 chs.

Oct. 11, 1913.

Resurvey of the East bdy. of the Fort Apache Indian Res.

Chains.

Oct. 13, 1913: At 8h. 10m. a.m., l.m.t., I set off  $33^{\circ} 50\frac{1}{2}'$  N. on the lat. arc;  $7^{\circ} 40'$  S. on the decl. arc; and determine a meridian with the solar at the reestablished 5 M. cor. on the East bdy. of the Fort Apache Indian Reservation. The mag. variation at this corner is  $13^{\circ} 55'$  E.

From this corner, Slaughter's Reservation Ranch brs. S.  $40^{\circ}$  W., about 7 chs. dist.

Thence I run,  
South, on the east bdy. of the Fort Apache Indian Reservation.

Over level land; no timber.

11.00 Ascend NW. slope, 15 ft. Corral brs. E. 3 chs. dist.

14.00 Enter green timber, brs. E and W.

17.00 End of ascent. Thence over level land.

24.00 Leave timber, brs. SE. and NW.

28.00 Small draw, course NW.

37.00 Enter scattering timber, brs. E. and W.

37.23 A point 107 lks. W. of remains of original closing cor. of secs. 9 and 16, frac. T. 5 N., R. 27 E., which is a small mound of stones. No indications of BTs. A small stone showed faint indications of chisel marks. I destroy this mound, and reestablish the closing corner on Reservation line as follows:

Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 9 and 16, marked on brass cap,

1913 on S. rim,  
C C W of center,  
W M I R in W. half;  
T 5 N S 9 in NE, and  
R 27 E S 16 in SE. quadrant; from which,

A spruce, 10 ins. in diam., brs. N.  $74\frac{3}{4}^{\circ}$  E., 551 lks. dist., marked T 5 N R 27 E S 9 B T.

A pine, 36 ins. diam., brs. S.  $7\frac{1}{2}^{\circ}$  E., 83 lks. dist., marked T 5 N R 27 E S 16 B T.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $5\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
W M I R on W., and  
 $5\frac{1}{2}$  M on E. half; from which,

An aspen, 14 ins. diam., brs. S.  $87\frac{1}{4}^{\circ}$  E., 99 lks. dist., marked W M I R  $5\frac{1}{2}$  M B T.

A pine, 14 ins. in diam., brs. N.  $52^{\circ}$  W., 17 lks. dist., marked W M I R  $5\frac{1}{2}$  M B T

43.75 Trail, brs. NW. and SE.

50.00 Enter timber, brs. SE. and NW. Descend S. slope, 215 ft.

62.00 Leave timber, brs. E. and W.

66.00 Draw, course SW. Thence along west slope.

72.00 Draw, course NW. Thence over level land.

77.09 A point, 109 lks. W. of the original  $\frac{1}{4}$  sec. cor. to sec. 16, frac. T. 5 N., R. 27 E., which is a stone, marked and witnessed as described by the Surveyor General.

I destroy all evidence of this cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 6 mile cor., marked on brass cap,

1913 on S rim,  
6 M W. of center,  
W M I R in W., and  
T 5 N R 27 E S 16 in E. half;

and raise a mound of stone, 5 ft. base, 4 ft. high, W. of corner. Pits impracticable.

The mag. variation at this cor. is  $13^{\circ} 25'$  E.

Land, level and mountainous.

Soil, 2nd, 3rd and 4th rate.

Timber, heavy pine, spruce, fir and aspen.

No undergrowth.

Mountainous land, 14 chs.

8. Resurvey of East boundary of Fort Apache Indian Reservation.  
Chains.

- South, on the East bdy. of the Fort Apache Indian Reservation.  
Over level land; no timber.
- 8.00 Draw, course NW. Ascend slight NE. slope, 30 ft.
- 10.50 Trail, brs. SE. and NW.
- 13.60 Trail, brs. SE. and NW.
- 16.00 Enter scattering timber, brs. E. and W.  
Note: At this point, Oct. 13, 1913, at apparent noon, I set off  $7^{\circ}45'$  S. on the decl. arc; and observe the sun on the meridian; the resulting lat. is  $33^{\circ}50'$  N.
- 30.00 Enter heavy timber, brs. E. and W.
- 33.00 Low ridge, brs. E. and W.
- 34.60 Trail, brs. NE. and SW.
- 37.00 Being unable to find any trace of original closing cor. of secs. 16 and 21, frac. T. 5 N., R. 27 E., at this point, set temp. closing cor. here, and after determining the distance between the closing cor. of secs. 9 and 16, and that of secs. 21 and 28 to be 159.79 chs., I find the proper proportional location to reestablish the closing cor. of secs. 16 and 21 on Reservation line midway between the two closing corners found, to be at
- 37.125 Where I set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished closing cor. of secs. 16 and 21, marked on brass cap,  
1913 on S. rim;  
C C W of center,  
W M I R in W. half;  
T 5 N S 16 in NE., and  
R 27 E S 21 in SE. quadrant; from which,  
An aspen, 12 ins. in diam., brs. N.  $54^{\circ}$  E., 137 lks. dist., marked T 5 N R 27 E S 16 B T.  
An aspen, 10 ins. in diam., brs. S.  $68^{\circ}$  E., 237 lks. dist., marked T 5 N R 27 E S 21 B T.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $6\frac{1}{2}$  mile cor., marked on brass cap,  
1913 on S. rim;  
W M I R in W., and  
 $6\frac{1}{2}$  M in E. half; from which  
A pine, 16 ins. in diam., brs. N.  $31\frac{1}{2}^{\circ}$  E., 29 lks. dist., marked W M I R  $6\frac{1}{2}$  M B T.  
A spruce, 9 ins. in diam., brs. N.  $58\frac{1}{2}^{\circ}$  E., 69 lks. dist., marked W M I R  $6\frac{1}{2}$  M B T.
- 44.00 Low ridge, brs. E. and W. Descend slight SW. slope, 150 ft.
- 59.19 A pine, 22 ins. diam., on line.
- 63.25 A pine, 30 ins. diam., on line.
- 74.63 A snag 22 ins. in diam., 30 ft. high, on line.
- 77.17 A point, 144 lks. W. of the original  $\frac{1}{4}$  sec. cor. of sec. 21, frac. T. 5 N., R. 27 E., a stone in a mound of stone, marked and witnessed, as described by the Subveyor General. I destroy all evidence of this cor.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 7 mile cor., marked on brass cap,  
1913 on S. rim,  
7 M W of center,  
W M I R in W., and  
T 5 N R 27 E S 21 in E. half; from which,  
A spruce, 8 ins. in diam., brs. N.  $15\frac{1}{2}^{\circ}$  E., 33 lks. dist., marked T 5 N R 27 E S 21 B T.  
An aspen, 6 ins. in diam., brs. S.  $52\frac{1}{4}^{\circ}$  E., 85 lks. dist., marked T 5 N R 27 E S 21 B T.  
A spruce, 14 ins. in diam., brs. S.  $32^{\circ}$  W., 61 lks. dist., marked W M I R 7 M B T.  
A pine, 20 ins. in diam., brs. N.  $22^{\circ}$  W., 58 lks. dist., marked W M I R, 7 M B T.
- Magnetic var. at this cor.,  $13^{\circ}30'$  E.  
Land, level and rolling.  
Soil, 2nd and 3rd rate.  
Timber, heavy pine, fir, aspen and spruce.

Resurvey of the East bdy. of Fort Apache Indian Reservation. 9

Chains.

Undergrowth, scattering.  
Heavily timbered land, 50 chs.

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South, on the East bdy. of the Fort Apache Indian Reservation.

Over level land, through heavy timber.

- 1.65 Draw, course SE. Ascend NE. slope, to
- 4.50 Spur ridge, brs. NE. Descend SE. slope, 25 ft. to
- 10.00 Thence along rocky ledge, brs. south.
- 16.00 Leave ledge; thence along ridge, brs. south.
- 36.00 Trail, brs. SE. and NW.
- 37.02 A point, 172 lks. west of the original location of closing

corner of secs. 21 and 28, frac. T. 5 N., R. 27 E., which location I determine S. 30° W., 28 lks. dist., from original bearing tree,

A pine, 30 ins. in diam., marked T 5 N R 27 E S 21 B T.

I destroy all evidence of the old closing cor. and reestablish it on Reservation line, as follows:

Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs 21 and 28, marked on brass cap,

1913 on S. rim,  
C CW of center,  
W M I R in W. half;  
T 5 N S 21 in NE., and  
R 27 E S 28 in SE. quadrant; from which,

An aspen, 10 ins. in diam., brs. N. 36° E., 78 lks. dist., marked T 5 N R 27 E S 21 B T.

A pine, 11 ins. in diam., brs. S. 46½° E., 77 lks. dist., marked T 5 N R 27 E S 28 B T.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 7½ mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
7½ M in E. half; from which,

A pine, 18 ins. in diam., brs. N. 11° E., 62 lks. dist., mkd. W M I R 7½ M B T.

A pine, 20 ins. in diam., brs. N. 57° W., 53 lks. dist., marked W M I R 7½ M B T.

Oct. 13, 1913:  
Oct. 14, 1913: At 8h. a.m., l.m.t., I set off 33° 48½' N. on the lat. arc; 8° 2½' S. on the decl. arc; and determine a meridian with the solar at this corner.

- 60.00 Descend slight SE. slope.

- 79.91 A pine, 20 ins. in diam., on line.

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 8 mile cor., marked on brass cap,

1913 on S. rim,  
8 M W of center,  
W M I R in W., and  
T 5 N R 27 E S 28 in E. half; from which,

A pine, 14 ins. in diam., brs. N. 75° E., 41 lks. dist., marked T 5 N R 27 E S 28 B T.

A pine, 24 ins. in diam., brs. S. 83° E., 24 lks. dist., marked T 5 N R 27 E S 28 B T.

A pine, 40 ins. in diam., brs. S. 43½° W., 108 lks. dist., marked W M I R 8 M B T.

A pine, 14 ins. in diam., brs. N. 58½° W., 108 lks. dist., marked W M I R 8 M B T.

The magnetic variation at this point is 11½° E.

Land, level and rolling.

Soil, 2nd and 3rd rate.

Timber, heavy pine, spruce, fir and aspen.

Undergrowth, scattering.

Heavily timbered land, 80.00 chs.

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## 10. Resurvey of East bdy. of Fort Apache Indian Reservation.

Chains.

- South, on the East bdy. of the Fort Apache Indian Reservation.
- Descend slight SE. slope, through heavy timber.
- 4.93 A pine 30 ins. in diam. on line.
- 8.34 A pine, 18 ins. in diam., on line.
- 32.52 A pine, 35 ins. in diam., on line. Descend gentle south slope.
- 37.00 Being unable to find any trace of the original closing corner of secs. 28 and 33, frac. T. 5 N., R. 27 E., I drive temporary stake at this point, and after determining the dist. between the closing corner of secs. 21 and 28, and standard closing cor. of frac. T. 5 N., R. 27 E. to be 160.56 chs., I find the proper proportional location (midway between located closing cors.) to reestablish this closing cor., to be at
- 37.30 Where I set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished closing cor. of secs. 28 and 33, marked on brass cap,  
1913 on S. rim,  
C C W of center,  
W M I R in W. half;  
T 5 N S 28 in NE., and  
R 27 E S 33 in SE. quad.; from which,  
An aspen, 8 ins. in diam., brs. N. 50° E., 70 lks. dist., marked T 5 N R 27 E S 28 BT.  
A pine, 20 ins. in diam., brs. S. 28° E., 104 lks. dist., marked T 5 N, R 27 E S 33 BT.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 8½ mile cor., marked on brass cap,  
1913 on S. rim,  
W M I R in W., and  
8½ M in E. half; from which,  
A pine, 10 ins. in diam., brs. S. 34° E., 39 lks. dist., marked W M I R 8½ M B T.  
A pine, 28 ins. in diam., brs. S. 4½° W., 72 lks. dist., marked W M I R 8½ M B T.
- Descend SW. slope, 106 ft.
- 72.54 A dead pine, 20 ins. in diam., on line.
- 80.00 Foot of descent. Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 9 mile corner, marked on brass cap,  
1913 on S. rim,  
9 M W of center,  
W M I R in W. half; and  
T 5 N R 27 E S 33 in E. half; from which,  
A pine, 28 ins. in diam., brs. N. 60° E., 11 lks. dist., marked T 5 N R 27 E S 33 BT.  
A pine, 24 ins. in diam., brs. S. 25° E., 24 lks. dist., marked T 5 N R 27 E S 33 B T.  
A pine, 10 ins. in diam., brs. S. 84½° W., 64 lks. dist., marked W M I R 9 M B T.  
A pine, 8 ins. in diam., brs. N. 5¼° W., 60 lks. dist., marked W M I R 9 M B T.
- The magnetic variation at this cor. is 9° 55' E.  
Note: Oct. 14, 1913: At this cor., I set off 8° 07' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is 33° 47' N.
- Land, rolling and level.  
Soil, 2nd and 3rd rate.  
Timber, heavy pine, aspen and fir.  
Undergrowth, scattering, same kind as timber.  
Heavily timbered land, 80 chs..

South, on the east bdy. of the Fort Apache Indian Reservation.

- Over level land, through heavy timber.
- 4.00 Descend slight SE. slope.
- 37.58 Intersect the 1st. Standard Parallel North, at a point 31 lks. west of original standard closing cor. of frac. T. 5 N. R. 27 E., which is a post badly decayed, set in a mound of stone. I destroy all evidence of this

Resurvey of the East bdy. of Fort Apache Indian Reservation. 11.

Chains.

corner, and reestablished standard township closing corner on the Reservation line as follows:  
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for closing cor. of frac. T.5 N., R.27 E., marked on brass cap,  
 1913 on S. rim,  
 C-C W of center,  
 W M I R in W. half;  
 T 5. N R 27 E S 33 in NE., and  
 P L in SE. quadrant; from which  
 A pine, 10 ins. in diam., brs. N. 74 $\frac{1}{2}$ ° E., 79 lks. dist., marked T 5 N R 27 E S 33 B T.  
 A pine, 20 ins. in diam., brs. S. 40 $\frac{1}{2}$ ° E., 64 lks. dist., marked W M I R P L B T.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 9 $\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 9 $\frac{1}{2}$  M in E. half; from which,  
 A pine, 12 ins. in diam., brs. N. 47° E., 32 lks. dist., marked W M I R 9 $\frac{1}{2}$  M B T.  
 A pine, 16 ins. in diam., brs. N. 59 $\frac{1}{2}$ ° W., 82 lks. dist., marked W M I R 9 $\frac{1}{2}$  M B T.

44.00 A pine, 20 ins. in diam. on line.  
 47.16 A pine, 28 ins. in diam., on line.  
 60.00 Spur ridge, brs. SE. Descend SW. slope.  
 64.00 Draw, course SE. Thence over level land.  
 65.18 Trail, brs. SE. and NW.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 10 mile cor., marked on brass cap,  
 1913 on S. rim,  
 10 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A pine, 12 ins. in diam., brs. N. 56 $\frac{1}{2}$ ° E., 25 lks. dist., marked W M I R 10 M P L B T.  
 A pine, 14 ins. in diam., brs. S. 30° E., 22 lks. dist., marked W M I R 10 M P L B T.  
 A pine, 12 ins. in diam., brs. S. 75° W., 23 lks. dist., marked W M I R 10 M B T.  
 A pine, 14 ins. in diam., brs. N. 51 $\frac{1}{2}$ ° W., 27 lks. dist., marked W M I R 10 M B T.

The magnetic variation at this cor. is 12° 5' E.  
 Land, level and rolling.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy pine and aspen.  
 No undergrowth.  
 Heavily timbered land, 80.00 chs.

Oct. 14, 1913.

Oct. 15, 1913: At 8h. 5m. a.m., l.m.t., I set off 33° 46 $\frac{1}{2}$ ' N. on the lat. arc; 8° 24 $\frac{1}{2}$ ' S. on the decl. arc; and determine a meridian with the solar at the reestablished 10 mile cor. on the east bdy. of the Fort Apache Indian Reservation, described above.

Thence I run, South, on the East bdy. of the Fort Apache Indian Reservation.

Over level land, through heavy timber.

6.96 A pine, 28 ins. in diam. on line.  
 26.53 A snag 24 ins. diam., on line.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 10 $\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R on W., and  
 10 $\frac{1}{2}$  M on E. half, from which,

## 12. Resurvey of East bdy. of the Fort Apache Indian Reservation.

Chains.

An aspen, 10 ins. in diam., brs. S.  $15^{\circ}$  E., 51 lks. dist., marked W M I R  $10\frac{1}{2}$  M B T.  
 A pine, 20 ins. in diam., brs. S.  $11\frac{1}{4}^{\circ}$  W., 67 lks. dist., marked W M I R  $10\frac{1}{2}$  M B T.

52.30 Trail brs. E. and W.  
 66.00 Ascend slight NE. slope, 65 ft.  
 79.25 A pine, 26 ins. in diam., on line.  
 80.00 End of ascent. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 11 mile cor., marked on brass cap,  
 1913 on S. rim,  
 11 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A pine, 30 ins. in diam., brs. N.  $34^{\circ}$  E., 32 lks. dist., marked W M I R 11 M P L B T.  
 A pine, 20 ins. in diam., brs. S.  $48^{\circ}$  E., 60 lks. dist., marked W M I R 11 M P L B T.  
 A pine, 28 ins. in diam., brs. S.  $75\frac{1}{2}^{\circ}$  W., 108 lks. dist., marked W M I R 11 M B T.  
 A pine 6 ins. in diam., brs. N.  $42^{\circ}$  W., 39 lks. dist., marked W M I R 11 M B T.

The magnetic variation at this cor. is  $13\frac{1}{2}^{\circ}$  E.  
 Land, level and rolling.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy pine and aspen.  
 No undergrowth.  
 Heavily timbered land, 80.00 chs.

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South, on the east bdy. of the Fort Apache Indian Reservation.

8.00 Through heavy timber. Descend SE. slope, 100 ft. to Draw, course SE. Ascend NE. slope, 75 ft. to ridge.  
 11.35 A pine, 20 ins. in diam., on line.  
 18.00 Spur ridge, brs. SE. Descend SE. slope,  
 26.00 Spur ridge, brs. SE. Descend SW. slope, 155 ft.  
 34.34 A pine, 18 ins. in diam., on line.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $11\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R on W., and  
 $11\frac{1}{2}$  M in E. half; from which,  
 A pine, 16 ins. in diam., brs. N.  $81\frac{1}{2}^{\circ}$  E., 21 lks. dist., marked W M I R  $11\frac{1}{2}$  M B T.  
 A pine, 12 ins. in diam., brs. N.  $78\frac{1}{2}^{\circ}$  W., 15 lks. dist., marked W M I R  $11\frac{1}{2}$  M B T.

Note: Clouds obscured the sun at noon this day, rendering an observation for lat. impossible.

44.00 Descend S. slope, 125 ft.  
 60.70 Trail, brs. NE. and SW.  
 62.30 A pine, 36 ins. diam., on line; descend slight S. slope, in draw.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 12 mile cor., marked on brass cap,  
 1913 on S. rim,  
 12 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A pine, 20 ins. in diam., brs. N.  $8\frac{1}{2}^{\circ}$  E., 52 lks. dist., marked W M I R 12 M P L B T.  
 A pine, 30 ins. in diam., brs. S.  $41^{\circ}$  W., 46 lks. dist., marked W M I R 12 M B T.  
 A pine 26 ins. in diam., brs. S.  $58^{\circ}$  E., 42 lks. dist., marked W M I R 12 M P L B T.  
 A pine, 8 ins. in diam., brs. N.  $70\frac{1}{2}^{\circ}$  W., 92 lks. dist., marked W M I R 12 M B T.

The mag. variation at this cor. is  $14^{\circ}15'$  E.  
 Land, rolling. Soil, 2nd and 3rd rate.

Resurvey of East bdy. of the Fort Apache Indian Reservation. 13.

Chains

Timber, heavy pine, fir, spruce and aspen.  
No undergrowth. Heavily timbered land, 80.00 chs.

South, on the East bdy. of the Fort Apache Indian Reservation.

Over rolling land, through heavy timber.  
4.20 Draw, course SE. Thence along broken east slope.  
16.00 East edge of rocky spur. Descend SE. slope, 45 ft. to  
20.50 Thence over level land.  
23.72 Trail, brs. E. and W.  
34.00 Descend SE. slope, of canyon, 90 ft.  
35.90 Rocky ledge, brs. NE and SW.  
38.70 Canyon, course SW. Ascend NW. slope, 60 ft.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 12 1/2 mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
12 1/2 M in E. half; from which,  
An aspen 6 ins. in diam., brs. N. 4 1/2° E., 24 lks. dist., marked W M I R 12 1/2 M B T.  
An aspen, 5 ins. in diam., brs. N. 19 1/2° W., 31 lks. dist., marked W M I R 12 1/2 M B T.

Oct. 15, 1913.

Oct. 16, 1913; At this corner, I set off 33° 44' N. on the lat. arc; 8° 46 1/2' S. on the decl. arc; and at 7h. 58m. a.m., l.m.t., I determine a meridian with the solar.

44.00 Rocky spur, brs. W. Descend SW. slope, 215 ft.  
44.90 Rocky precipice, 40 ft. to bottom, brs. SE and NW. Continue to descend SW. slope of canyon, to  
55.35 Trout Creek, 30 lks. wide, 18 ins. deep, flows E. Thence along broken east slope.  
57.50 Gulch, course E. Ascend broken NE slope, 240 ft.  
68.00 Spur ridge, brs. E. Continue ascent.  
69.00 Draw, course E. Continue ascent to  
78.50 Spur ridge, brs. E. Descend SE. slope, 20 ft. to  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 13 mile cor., marked on brass cap,

1913 on S. rim,  
13 M W. of center,  
W M I R in W., and  
P L in E. half; from which,  
A pine, 30 ins. in diam., brs. N. 15° E., 68 lks. dist., marked W M I R 13 M P L B T.  
A pine, 14 ins. in diam., brs. S. 17° E., 36 lks. dist., marked W M I R 13 M P L B T.  
An oak, 7 ins. in diam., brs. S. 84° W., 63 lks. dist., marked W M I R 13 M B T.  
A pine, 26 ins. in diam., brs. N. 40 1/2° W., 137 lks. dist., marked W M I R 13 M B T.

Land, mountainous and hilly.  
Soil, 2nd and 3rd rate.  
Timber, heavy pine.  
Undergrowth, scrub oak and aspen.  
Heavily timbered land, 80.00 chs.

South, on the East bdy. of the Fort Apache Indian Reservation.

Through heavy timber. Descend SE. slope, 120 ft. to  
6.00 Thence along east slope.  
12.00 Gulch, course NE. Ascend NW. slope, 200 ft. to  
24.00 Thence along slight east slope.  
34.00 Low ridge, brs. SE and NW. Descend south slope, 30 ft. to  
38.00 Draw, course E. Ascend slight NE. slope.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in



14. Resurvey of East bdy. of the Fort Apache Indian Reservation.

Chains.

the ground, for reestablished 13 1/2 mile cor., marked on brass cap,

1913 on S.rim, W M I R in W., and

13 1/2 M in E.half; from which,

A pine, 6 ins. in diam., brs.S. 86 1/2° E., 48 lks. dist., marked W M I R 13 1/2 M B T.

A pine, 8 ins. in diam., brs.S. 15 1/2° W., 69 lks. dist., marked W M I R 13 1/2 M B T.

40.23 From this point, a pine tree, 22 ins. in diam., brs.W. 98 1/4 lks.dist., marked W M I R 13 1/2.

52.50 Low ridge, brs.NE. and SW. Descend slight SE. slope.

64.00 Ridge, brs.SE. and NW. Descend SW. slope, 195 ft.to

78.40 Small creek, 6 lks.wide, 3 ins. deep, course SE. Ascend NE. slope, 10 ft.to

80.00 Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for reestablished 14 mile cor., marked on brass cap,

1913 on S.rim, 14 M W.of center,

W M I R in W., and

P L in E.half; from which,

A pine, 26 ins. diam., brs.N. 11° E., 51 lks. dist., marked W M I R 14 M P L B T.

A pine, 10 ins. in diam., brs.S. 8 1/2° E., 55 lks. dist., marked W M I R 14 M P L B T.

A pine, 8 ins. in diam., brs.S. 42 1/2° W., 41 lks. dist., marked W M I R 14 M B T.

A pine, 11 ins. diam., brs.N. 53° W., 58 lks.dist., marked W M I R 14 M B T.

The magnetic variation at this cor. is 13° 40' E.

Note: At this cor., Oct. 16, 1913, I set off 8° 51 1/2' S. on the decl. arc; and observe the sun on the meridian at apparent noon; the resulting lat. is 33° 43' N.

Land, mountainous and hilly.

Soil, 2nd, 3rd and 4th rat.

Timber, heavy pine, scattering fir and aspen timber.

Undergrowth, scattering.

Heavily timbered land, 80.00 chs.

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South, on the east bdy. of the Fort Apache Indian Reservation.

Through heavy timber. Ascend NE. slope, 70 ft. to Ridge, brs.SE. and SNW. Thence over rolling land.

10.00 Draw, course SE.

16.00 Draw, course E.; ascend.

26.00 Ridge, brs.E. and W. Descend slight SE. slope.

30.00 Draw, course SE.; ascend gradually.

36.50 A pine, 22 ins. diam., on line.

39.96 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 14 1/2 mile cor., marked on brass cap,

1913 on S.rim, W M I R in W., and

14 1/2 M in E.half; from which,

A pine, 6 ins. diam., brs. S. 43 1/2° E., 31 lks. dist., marked W M I R 14 1/2 M B T.

A pine, 16 ins. diam., brs.S. 36 1/2° W., 26 lks. dist., marked W M I R 14 1/2 M B T.

42.73 A pine, 20 ins. diam., on line.

56.00 Low ridge, brs.SE. and NW. Descend SW. slope.

75.00 Blazed trail, brs.SE. and NW.

75.83 A pine, 30 ins. diam., on line; descend S. slope.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for reestablished 15 mile cor., marked on same brass cap,

1913 on S.rim,

Resurvey of East bdy. of the Fort Apache Indian Reservation. 15.

Chains.

15 M W of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A pine, 18 ins. in diam., brs. N.  $67\frac{1}{2}^{\circ}$  E., 51 lks.  
 dist., marked W M I R 15 M P L B T.  
 A pine, 20 ins. in diam., brs. S.  $59^{\circ}$  E., 27 lks.  
 dist., marked W M I R 15 M P L B T.  
 A pine, 26 ins. in diam., brs. S.  $55^{\circ}$  W., 55 lks.  
 dist., marked W M I R 15 M B T.  
 A pine, 18 ins. diam., brs. N.  $59\frac{3}{4}^{\circ}$  W., 36 lks.  
 dist., marked W M I R 15 M B T.

The magnetic variation at this corner is  $12^{\circ} 50'$  E.  
 Land, rolling.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy pine.  
 No undergrowth.  
 Heavily timbered land, 80.00 chs.

South, on the East bdy. of the Fort Apache Indian Reserva-  
 tion.

14.00  
 16.00  
 32.00  
 38.40  
 38.85  
 40.00

Descend slight S. slope, through heavy timber.  
 Descend slight SE. slope.  
 Trail, brs. SE. and NW.  
 Corral, brs. E. 6 chs. dist.  
 Head of draw, course NE. Ascend NW. slope, 70 ft.  
 Trail, brs. NE. and SW.  
 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $15\frac{1}{2}$  mile cor., marked  
 on brass cap,

1913 on S. rim,  
 W M I R in W., and  
 $15\frac{1}{2}$  M in E. half; from which,  
 A pine, 24 ins. in diam., brs. N.  $57\frac{1}{2}^{\circ}$  E., 58 lks.  
 dist., marked W M I R 15  $\frac{1}{2}$  M B T.  
 A pine, 30 ins. in diam., brs. N.  $2\frac{1}{2}^{\circ}$  W., 80 lks.  
 dist., marked W M I R 15  $\frac{1}{2}$  M B T.

Oct. 16, 1913.

Oct. 17, 1913: At 8h. 3m. a.m., l.m.t., I set off  $33^{\circ} 41\frac{1}{2}'$  N.  
 on the lat. arc;  $9^{\circ} 8\frac{1}{2}'$  S. on the decl. arc, and determine  
 a meridian with the solar, at this cor.

47.00  
 47.50  
 49.00  
 58.00  
 71.70  
 76.00  
 80.00

Ledge rock, brs. NE. and SW.  
 End of ascent; thence along slight west slope.  
 A pine, 30 ins. diam., on line.  
 Ridge, brs. NE. and SW. Descend slight S. slope.  
 A pine, 20 ins. diam., on line.  
 Ridge, brs. E. and W. Descend SW. slope, 30 ft. to  
 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the  
 ground, for reestablished 16 mile cor., marked on  
 brass cap,

1913 on S. rim,  
 16 M W of center,  
 W M I R in W. half;  
 P L in E. half; from which,  
 A pine, 12 ins. in diam., brs. N.  $73\frac{1}{2}^{\circ}$  E., 85 lks.  
 dist., marked W M I R 16 M P L B T.  
 A pine, 11 ins. in diam., brs. S.  $67\frac{1}{2}^{\circ}$  E., 68  
 lks. dist., marked W M I R 16 M P L B T.  
 An oak, 9 ins. diam., brs. S.  $42\frac{1}{4}^{\circ}$  W., 120 lks.  
 dist., marked W M I R 16 M B T.  
 A pine, 14 ins. diam., brs. N.  $50^{\circ}$  W., 97 lks.  
 dist., marked W M I R 16 M B T.

The magnetic variation at this corner is  $14^{\circ} 12'$  E.  
 Land, gently rolling.  
 Soil, 2nd and 3rd rate.  
 Timber, heavy pine and scattering oak.  
 Undergrowth, scattering oak.  
 Heavily timbered land, 80.00 chs.

## 16. Resurvey of the East bdy. of the Fort Apache Indian Reservation.

Chains.

South, on the East bdy. of the Fort Apache Indian Reservation.

Through heavy timber. Descend slight SW. slope, 20 ft. to Draw, course SW. Thence along broken west slope. Ascend.

3.00  
11.00  
20.00  
24.00  
30.00  
37.50  
40.00

Spur ridge, brs. W. Descend.  
Ascend NW. slope, 40 ft to  
Thence over level land.  
Ascend NW. slope, 30 ft.  
A pine, 28 ins. diam., on line.  
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $16\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
 $16\frac{1}{2}$  M in E. half; from which,  
A pine, 20 ins. in diam., brs. N.  $51\frac{1}{2}^{\circ}$  E., 61 lks. dist., marked W M I R  $16\frac{1}{2}$  M B T.  
A pine, 18 ins. diam., brs. N.  $34\frac{1}{2}^{\circ}$  W., 97 lks. dist., marked W M I R  $16\frac{1}{2}$  M B T.

46.60 Enter oak thicket, brs. NE. and SW.  
50.40 Leave oak thicket, brs. NE. and SW.  
58.00 Descend slight SE. slope.  
70.15 A pine, 30 ins. in diam., on line.  
75.15 A pine 32 ins. in diam., on line.  
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 17 mile cor., marked on brass cap,

1913 on S. rim.  
17 M W of center,  
W M I R in W., and  
P L in E. half; from which,  
A pine, 30 ins. in diam., brs. N.  $30^{\circ}$  E., 48 lks. dist., marked W M I R 17 M P L B T.  
A pine, 7 ins. in diam., brs. S.  $22^{\circ}$  E., 31 lks. dist., marked W M I R 17 M P L B T.  
A pine, 8 ins. in diam. brs. S.  $7^{\circ}$  W., 23 lks. dist., marked W M I R 17 M B T.  
An oak, 12 ins. in diam., brs. N.  $54^{\circ}$  W., 5 lks. dist., marked W M I R 17 M B T.

The magnetic variation at this cor. is  $13\frac{1}{2}^{\circ}$  E.  
Note: At this cor. Oct. 17, 1913, I set off  $9^{\circ} 13\frac{1}{2}'$  S. on the decl. arc, and observe the sun on the meridian at apparent noon; the resulting lat. is  $33^{\circ} 40\frac{1}{2}'$  N.

Land, rolling and hilly.  
Soil; 2nd, 3rd and 4th rate.  
Timber, heavy pine and scrub oak.  
Undergrowth, scattering oak.  
Heavily timbered land, 80.00 chs.

South, on the East bdy. of the Fort Apache Indian Reservation.

Descend very slight SE. slope, through heavy timber.

32.75  
40.00

A pine, 18 ins. diam., on line.  
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished  $17\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
 $17\frac{1}{2}$  M in E. half; from which,  
A pine, 12 ins. in diam., brs. N.  $55^{\circ}$  E., 23 lks. dist., marked W M I R  $17\frac{1}{2}$  M B T.  
A pine, 10 ins. in diam., brs. N.  $40^{\circ}$  W., 13 lks. dist., marked W M I R  $17\frac{1}{2}$  M B T.

40.35 Rocky ledge, brs. NE. and SW.; descend SE. slope of Black River Canyon, 270 ft.  
44.95 Rocky ledge, brs. NE. and SW., 50 ft. to bottom.

Resurvey of the East bdy. of the Fort Apache Indian Reservation. 17.

Chains.

51.50 End of descent; head of gulch, course E. Ascend slight NE. slope, 25 ft. to

58.00 Ridge, brs. E. Descend SE. slope, 395 ft. to

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 18 mile cor., marked on brass cap, 1913 on S. rim, 18 M W. of center, W M I R in W., and P L in E. half; from which,

- A pine, 14 ins. in diam., brs. N. 57° E., 24 lks. dist., marked W M I R 18 M P L B T.
- A pine, 8 ins. in diam., brs. S. 72° E., 22 lks. dist., marked W M I R 18 M P L B T.
- A pine, 9 ins. in diam., brs. S. 24 1/2° W., 148 lks. dist., marked W M I R 18 M B T.
- A pine, 16 ins. in diam., brs. N. 17° W., 82 lks. dist., marked W M I R 18 M B T.

The magnetic variation at this corner is 12° 35' E.  
 Land, rolling and mountainous.  
 Soil, 2nd, 3rd and 4th rate.  
 Timber, heavy pine and scattering oak.  
 Heavily timbered land, 80.00 chs.

South, on the east bdy. of the Fort Apache Indian Reservation.

6.97 Descend SE. slope, 155 ft., through heavy timber. Trail, brs. NE. and SW.

8.40 Black River, 60 lks. wide, 3 ft. deep, flows SW. SE. cor. of Ft. Apache Indian Reservation.

Thence I run, continuing measurement south, on the

East Boundary of the White Mountain or San Carlos Indian Reservation.

15.00 Ascending N. slope, 280 ft. to Spur ridge, brs. W. Descend SW. slope, 190 ft.

16.00 County Bdy. Monument, a stone 16x16x6 ins., marked GRA on W., GRE on E., and 91 plus 35.44 on S., with mound of stone 6 ft. base, 6 ft. high, 6 ft. S. of cor., brs. N. 76° 29' W., 19.08 chs. dist.

Old Reservation Bdy. brs. west 14.90 chs. dist.

Oct. 17, 1913.  
 Oct. 25, 1913. At this point, at 8h. 10m. a.m., l.m.t., set off 33° 39' N. on the lat. arc, 12° 00' S. on decl. arc; and determine with the solar a meridian.

20.00 Precipice, 50 ft. high.

26.00 Foot of descent; thence along west slope.

26.40 A pine 30 ins. diam., on line.

38.35 Gulch, course W.

39.50 Ascend NE. slope, 795 ft.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 18 1/2 mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and 18 1/2 M in E. half; from which,

- A pine, 7 ins. in diam., brs. N. 79 1/2° E., 52 lks. dist., marked W M I R 18 1/2 M B T.
- An oak, 7 ins. diam., brs. N. 3 1/2° W., 63 lks. dist., marked W M I R 18 1/2 M B T.

51.30 A fir, 18 ins. diam., on line; gulch, course NE.

66.50 End of ascent; thence over level land.

70.12 Blazed line, brs. E. and W.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 19 mile cor., marked on brass cap, 1913 on S. rim, 19 M W. of center,

Resurvey of the

18. East Boundary of the White Mountain or San Carlos Ind. Res.  
Chains.

- W M I R in W., and
- P L in E. half; from which,
- A pine, 7 ins. in diam., brs. N.  $9\frac{3}{4}^{\circ}$  E., 50 lks. dist., marked W M I R 19 M P L B T.
- A pine, 12 ins. in diam., brs. S.  $13\frac{3}{4}^{\circ}$  E., 48 lks. dist., marked W M I R 19 M P L B T.
- A pine, 10 ins. in diam., brs. S.  $72\frac{1}{2}^{\circ}$  W., 32 lks. dist., marked W M I R 19 M B T.
- A pine, 10 ins. in diam., brs. N.  $60\frac{1}{2}^{\circ}$  W., 29 lks. dist., marked W M I R 19 M B T.

The magnetic variation at this cor. is  $13^{\circ} 10'$  E.

Land, mountainous and hilly.

Soil, 3rd and 4th rate.

Timber, heavy pine and fir. Scattering oak.

Undergrowth, aspen, willow and locust.

Heavily timbered land, 79.00 chs.

Note: Oct. 25, 1913: At the reestablished 19 mile cor., on the East bdy. of the White Mountain Indian Reservation, above described, I set off  $12^{\circ} 5'$  S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is  $33^{\circ} 38\frac{1}{2}'$  N.

Thence I run,

South, on the East bdy. of the White Mountain Indian Reservation.

4.00  
34.50  
40.00

Through heavy timber; ascend slight NE. slope to Ridge, brs. SE. and NW. Descend S. slope, 580 ft. to Canyon, course W. Ascend NW. slope, 115 ft. to ridge. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $19\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,

W M I R in W., and

$19\frac{1}{2}$  M in E. half; from which,

A pine, 16 ins. in diam., brs. N.  $65^{\circ}$  E., 33 lks. dist., marked W M I R  $19\frac{1}{2}$  M B T.

A pine, 8 ins. in diam., brs. N.  $65^{\circ}$  W., 33 lks. dist., marked W M I R  $19\frac{1}{2}$  M B T.

41.00  
55.70

Spur ridge, brs. SW. Descend S. slope, 540 ft. to Bear Wallow Creek, 10 lks. wide, 6 ins. deep, course W. Thence over level land.

56.00

Trail, brs. E. and W.

56.80

Low ridge, brs. E. and W.; ascend NW. slope, 55 ft.

63.70

Along west slope.

67.65

Draw, course NW. Ascend NE. slope, 115 ft. to

76.00

Spur ridge, brs. E. Descend SE. slope, 15 ft. to

78.00

Draw, course NE. Ascend NE. slope, 15 ft. to

80.00

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 20 mile cor., marked on brass cap,

1913 on S. rim,

20 M W. of center,

W M I R in W., and

P L in E. half; from which,

A fir, 18 ins. in diam., brs. N.  $46^{\circ}$  E., 64 lks. dist., marked W M I R 20 M P L B T.

A fir, 18 ins. in diam., brs. S.  $54\frac{1}{2}^{\circ}$  E., 69 lks. dist., marked W M I R 20 M P L B T.

A pine, 30 ins. in diam., brs. S.  $72^{\circ}$  W., 12 ins. dist., marked W M I R 20 M B T.

A pine, 14 ins. diam., brs. N.  $59^{\circ}$  W., 8 lks. dist., marked W M I R 20 M B T.

The magnetic variation at this cor. is  $14^{\circ} 8'$  E.

Land, mountainous and hilly.

Soil, 3rd and 4th rate.

Timber, heavy pine, fir, juniper and aspen.

Undergrowth, dense scrub oak, locust and willow.

Heavily timbered land, 80.00 chs.

Resurvey of the East bdy. of the White Mountain or San Carlos Ind. Res.  
Chains.

Note: The sky was overcast at noon, making an observation for latitude impossible.

Oct. 25, 1913.

Oct. 26, 1913: At the reestablished 20 mile cor., on the East bdy. of the White Mountain Indian Reservation, above described, I set off  $33^{\circ}37\frac{1}{2}'$  N. on the lat. arc;  $12^{\circ}20\frac{1}{2}'$  S. on the decl. arc; and determine a meridian with the solar at 8h. 04m. a.m., l.m.t.

Thence I run, South, on the East bdy. of the White Mountain Indian Reservation.

Through heavy timber. Ascend NE. slope, 110 ft. to  
5.00 Spur ridge, brs. E. Descend S. slope, 20 ft. to  
7.50 Gulch, course E. Ascend N. slope, 100 ft. to  
10.00 Rocky spur brs. E. and W. Descend S. slope, 30 ft. to  
12.50 Gulch, course NE. Ascend N. slope, 105 ft. to  
17.00 Thence along east slope.  
28.00 Descend SE. slope, 20 ft. to  
30.00 Draw, course NE. Ascend NW. slope, 355 ft.  
33.00 Ridge, brs. NE. and SW. Ascend NW. slope.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $20\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,

W M I R in W., and

$20\frac{1}{2}$  M in E. half; from which,

A pine, 8 ins. in diam., brs. N.  $2^{\circ}$  E., 67 lks. dist., marked W M I R  $20\frac{1}{2}$  M B T.

A pine, 10 ins. in diam., brs. N.  $12^{\circ}$  W., 60 lks. dist., marked W M I R  $20\frac{1}{2}$  M B T.

41.88 A pine 32 ins. diam., on line.  
43.25 End of ascent; ridge, brs. SE. and NW. Descend SW. slope, 70 ft. to

52.00 Gulch, course SW. Ascend NW. slope, 240 ft.  
66.65 A pine, 28 ins. diam., on line. Thence along W. slope.  
68.00 Descend SW. slope, 150 ft. to  
78.00 Gulch, course W. Ascend NW. slope, 50 ft. to  
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 21 mile cor., marked on brass cap,

1913 on S. rim,

21 M W. of center,

W M I R in W., and

P L in E. half; from which,

A pine, 16 ins. in diam., brs. N.  $37^{\circ}$  E., 60 lks. dist., marked W M I R 21 M P L B T.

A pine, 18 ins. in diam., brs. S.  $13^{\circ}$  E., 25 lks. dist., marked W M I R 21 M P L B T.

A pine, 8 ins. in diam., brs. S.  $46\frac{1}{4}^{\circ}$  W., 48 lks. dist., marked W M I R 21 M B T.

A pine, 20 ins. in diam., brs. N.  $78\frac{1}{2}^{\circ}$  W., 65 lks. dist., marked W M I R 21 M B T.

Note: At this corner, Oct. 26, 1913, I set off  $12^{\circ}25'$  S. on the decl. arc, and at apparent noon, I observe the sun on the meridian; the resulting lat. is  $33^{\circ}37'$  N.

Land, hilly and mountainous.

Soil, 4th rate.

Timber, heavy pine and fir.

Undergrowth, dense scrub oak and locust.

Heavy timbered land, 80 chs.

South, on the East bdy. of the White Mountain Indian Reservation.

Through heavy timber. Ascend NW. slope, 95 ft. to

10.00 Thence along west slope.

## 20. Resurvey of East bdy. White Mountain or San Carlos Ind. Res.

## Chains.

13.70 Draw, course W.; ascend NW. slope, 45 ft. to ridge.  
 14.58 A pine, 32 ins. diam., on line.  
 22.00 Ridge, brs. E. and W. Descend SW. slope, 160 ft. to  
 29.80 Gulch, course W. Ascend NW. slope, 410 ft.  
 39.00 Draw, course NW.; ascend NE slope.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $21\frac{1}{2}$  mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $21\frac{1}{2}$  M in E. half; from which,  
 A white pine, 18 ins. diam., brs. S.  $35^\circ$  E., 59  
 lks. dist., marked W M I R  $21\frac{1}{2}$  M B T.  
 A pine, 16 ins. diam., brs. S.  $61^\circ$  W., 36 lks.  
 dist., marked W M I R  $21\frac{1}{2}$  M B T.  
 Continue to ascend NE. slope, to  
 53.00 Ridge, brs. NW and SE. Descend SW. slope, 430 ft.  
 71.75 Gulch, course SW. Continue descent.  
 75.50 Spur ridge, brs. W. Descend SW. slope.  
 77.50 Gulch, course W. Ascend NW. slope, 50 ft. to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 22 mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 22 M W of center,  
 W M I R in W., and  
 P L in E half; from which,  
 A pine, 14 ins. diam., brs. N.  $64^\circ$  E., 33 lks. dist.,  
 marked W M I R 22 M P L B T.  
 A pine, 10 ins. in diam., brs. S.  $80\frac{3}{4}^\circ$  E., 122  
 lks. dist., marked W M I R 22 M P L B T.  
 A pine, 10 ins. in diam., brs. S.  $19\frac{1}{2}^\circ$  W., 16 lks.  
 dist., marked W M I R 22 M B T.  
 A pine, 8 ins. in diam., brs. N.  $72\frac{3}{4}^\circ$  W., 24 lks.  
 dist., marked W M I R 22 M B T.  
 The magnetic variation at this cor. is  $13^\circ 35'$  E.  
 Land, mountainous and hilly.  
 Soil, 3rd and 4th rate.  
 Timber, heavy pine, fir, oak and aspen.  
 Undergrowth, scrub oak and locust.  
 Heavily timbered land, 80.00 chs.  
 Oct. 26, 1913.

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 Oct. 27, 1913:

South on the East bdy. of the White Mountain Indian Res-  
 ervation.  
 Through heavy timber. Ascend NW. slope, 30 ft. to  
 2.00 Spur ridge, brs. W. Descend SW. slope, 215 ft. to  
 13.55 Canyon, course W. Ascend N. slope, 425 ft.  
 20.00 Spur ridge, brs. NW. Thence along west slope.  
 34.00 Gulch, course NW. Ascend NE. slope.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $22\frac{1}{2}$  mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $22\frac{1}{2}$  M in E. half; from which,  
 A pine, 28 ins. diam., brs. S.  $17^\circ$  E., 90 lks. dist.,  
 marked W M I R  $22\frac{1}{2}$  M B T.  
 A pine, 20 ins. in diam., brs. S.  $12\frac{1}{2}^\circ$  W., 73 lks.  
 dist., marked W M I R  $22\frac{1}{2}$  M B T.  
 42.00 End of ascent, ridge, brs. E. and W. Descend SW. slope,  
 245 ft. to  
 58.00 Gulch, course W. Ascend N. slope, 65 ft. to  
 63.00 Ridge, brs. E. and W. Descend SE. slope, 222 ft. to  
 74.00 Gulch, course W. Trail, brs. E. and W. Spring up gulch  
 about 3 chs. dist. Ascend NW. slope, 150 ft. to

Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 21.

Chains.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for reestablished 23 mile cor., marked on brass cap,

- 1913 on S. rim,
- 23 M W. of center,
- W M I R in W., and
- P L in E. half; from which,
- A pine, 14 ins. diam., brs. N. 53° E., 81 lks. dist., marked W M I R 23 M P L B T.
- A pine, 16 ins. diam., brs. S. 38° E., 89 lks. dist., marked W M I R 23 M P L B T.
- A pine, 12 ins. diam., brs. S. 34 1/2° W., 139 lks. dist., marked W M I R 23 M B T.

A pine, 8 ins. diam., brs. N. 19° W., 52 lks. dist., marked W M I R 23 M B T. The mag. variation at this cor. is 17° 42' E. Land, mountainous and hilly. Soil, rocky, 4th rate. Timber, heavy pine, fir and oak. Undergrowth, dense scrub oak, locust and aspen. Heavily timbered land, 80.00 chs.

At 2h. 5m. p.m., l.m.t., I set off 33° 35' N. on the lat. arc; 12° 46' S. on the decl. arc; and determine a meridian with the solar at the reestablished 23 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.

Thence I run, South, on the East bdy. of the White Mountain Indian Reservation.

4.00 Through heavy timber. Ascend NW. slope, 50 ft. to ridge. Head of draw, course W.

10.00 Ridge, brs. E. and W. Eagle and Black River Divide. Descend SW. slope, 575 ft. to

34.00 Gulch, course W. Ascend NW. slope, 105 ft.

38.50 Ridge, brs. E. and W. Descend S. slope, 550 ft. to gulch.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 23 1/2 mile cor., marked on brass cap,

- 1913 on S. rim,
- W M I R in W., and
- 23 1/2 M in E. half; from which,
- A juniper, 20 ins. in diam., brs. S. 75° E., 95 lks. dist., marked W M I R 23 1/2 M B T.
- A pine, 8 ins. in diam., brs. N. 76 1/2° W., 159 lks. dist., marked W M I R 23 1/2 M B T.

64.00 Gulch, course W. Thence over rolling land.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 24 mile cor., marked on brass cap,

- 1913 on S. rim,
- 24 M W. of center,
- W M I R in W., and
- P L in E. half; from which
- A juniper, 10 ins. in diam., brs. N. 20° E., 214 lks. dist., marked W M I R 24 M P L B T.
- A juniper, 26 ins. in diam., brs. S. 52 1/4° E., 68 lks. dist., marked W M I R 24 M P L B T.
- A juniper, 18 ins. diam., brs. S. 19 1/2° W., 126 lks. dist., marked W M I R 24 M B T.
- A juniper, 12 ins. in diam., brs. N. 65° W., 93 lks. dist., marked W M I R 24 M B T.

The magnetic variation at this cor. is 14° 34' E. Land, mountainous and rolling. Soil, 4th rate. Timber, scattering pine and juniper. Undergrowth, dense scrub oak. Scattering timber, 80 chs.

Oct. 27, 1913.



## 22. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.

Chains.

	Oct. 28, 1913: At 7h. 58m. a.m., l.m.t., I set off $33^{\circ}34'N$ on the lat. arc; $13^{\circ}1'S$ on the decl. arc; and determine a meridian with the solar at the reestablished 24 mile cor. on the East bdy. of the White Mountain Indian Reservation, above described.
	Thence I run, South, on the East bdy. of the White Mountain Indian Reservation.
32.00	Through heavy timber. Descend slight SW. slope, 350 ft. to Head of draw, course SW. Thence along west slope.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished $24\frac{1}{2}$ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and $24\frac{1}{2}$ M in E. half; from which, An oak, 20 ins. in diam., brs. $S. 14^{\circ}E.$ , 61 lks. dist., marked W M I R $24\frac{1}{2}$ M B T. A pine, 20 ins. in diam., brs. $S. 71^{\circ}W.$ , 44 lks. dist., marked W M I R $24\frac{1}{2}$ M B T.
46.00	Low ridge, brs. SW. Descend SE. slope, 345 ft. to wash.
48.30	A juniper, 26 ins. diam., on line.
71.00	Wash, 10 lks. wide, course E.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for reestablished 25 mile cor., marked on brass cap, 1913 on S. rim, 25 M W. of center, W M I R in W., and P L in E. half; from which An oak, 5 ins. diam., brs. $N. 68\frac{1}{2}^{\circ}E.$ , 72 lks. dist., marked W M I R 25 M P L B T. A pine, 6 ins. diam., brs. $S. 28\frac{1}{2}^{\circ}E.$ , 16 lks. dist., marked W M I R 25 M P L B T. A pine 16 ins. diam., brs. $S. 77\frac{1}{2}^{\circ}W.$ , 86 lks. dist., marked W M I R 25 M B T. An oak, 20 ins. diam., brs. $N. 64^{\circ}W.$ , 41 lks. dist., marked W M I R 25 M B T.
	The magnetic variation at this cor. is $14^{\circ} 25'E.$ Land, rolling and hilly. Soil, 4th rate. Timber, heavy oak, pine and juniper. Undergrowth, dense scrub oak. Heavily timbered land, 80.00 chs.
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	South, on the East bdy. of the White Mountain Indian Reservation.
	Along broken west slope, through dense scrub oak undergrowth.
30.00	Ascend slight NW. slope, to
36.00	Descend SW. slope, 180 ft.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished $25\frac{1}{2}$ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W. and $25\frac{1}{2}$ M in E. half; from which, An oak, 8 ins. in diam., brs. $N. 31\frac{1}{2}^{\circ}E.$ , 96 lks. dist., marked W M I R $25\frac{1}{2}$ M B T. An oak, 11 ins. in diam., brs. $N. 54^{\circ}W.$ , 15 lks. dist., marked W M I R $25\frac{1}{2}$ M B T.
56.00	Descend in wash, course SW. Enter from NW.
62.00	Leave wash, course SE. Ascend NE. slope, 35 ft. to
64.00	Spur ridge, brs. E. Descend SE. slope, 40 ft.
66.75	Ridge, and trail, brs. SE. and NW. Descend SW. slope.
74.00	Low spur ridge, brs. NE. Descend S. slope.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 26 mile cor., marked on brass cap,

Chains.

1913 on S. rim,  
 .26 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 An oak, 24 ins. in diam., brs. N. 18° E., 20 lks.  
 dist., marked W M I R 26 M P L B T.  
 An oak, 26 ins. in diam., brs. S. 57 1/2° E., 156  
 lks. dist., marked W M I R 26 M P L B T.  
 An oak, 12 ins. diam., brs. S. 46° W., 288 lks.  
 dist., marked W M I R 26 M B T.  
 A juniper, 26 ins. diam., brs. N. 26° W., 28 lks.  
 dist., marked W M I R 26 M B T.

The magnetic variation at this cor. is 14° 10' E.  
 Note: At this cor., Oct. 28, 1913, I set off 13° 5 1/2' S. on  
 the decl. arc; and at apparent noon, I observe the sun  
 on the meridian; the resulting latitude is 33° 32 1/2' N.  
 Land, rolling and hilly. Soil, 4th rate.  
 Timber, heavy pine and oak. Undergrowth, dense scrub oak. ---

South, on the East bdy. of the White Mountain Indian Res-  
 ervation.  
 Over gently rolling land, through heavy timber and scat-  
 tering undergrowth.  
 4.00 Draw, course SW.; ascend.  
 8.00 Spur ridge, brs. SW. Descend S. slope to wash.  
 14.45 Trail, brs. SE. and NW.  
 19.50 Wash, 40 lks. wide, 4 ft. deep, course SE.  
 Thence over level land.  
 24.00 Ascend NE. slope, 15 ft. to  
 26.00 SE. end of spur ridge.  
 27.00 Draw, course E. Ascend slight NE. slope.  
 34.00 Ridge, brs. E. and W. Thence along slight east slope.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished 26 1/2 mile cor., marked  
 on brass cap,

1913 on S. rim,  
 W M I R in W., and  
 26 1/2 M in E. half; from which,  
 An oak, 14 ins. in diam., brs. S. 65° E., 65 lks.  
 dist., marked W M I R 26 1/2 M B T.  
 An oak, 11 ins. in diam., brs. S. 48 1/2° W., 150  
 lks. dist., marked W M I R 26 1/2 M B T.

42.00 Descend south slope, 70 ft. to  
 51.00 Draw, course SE. Ascend NE. slope, 85 ft. to  
 60.00 Ridge, brs. E. and W. Thence along east slope.  
 67.00 Descend south slope, 70 ft. to  
 73.80 Dry fork of Eagle Creek, 50 lks. wide, 4 ft. deep. Thence  
 over level land.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 27 mile cor., marked  
 on brass cap,

1913 on S. rim,  
 27 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A pine, 10 ins. in diam., brs. N. 12 1/2° E., 28  
 lks. dist., marked W M I R 27 M P L B T.  
 A pine, 26 ins. in diam., brs. S. 9 1/2° E., 182  
 lks. dist., marked W M I R 27 M P L B T.  
 A pine, 20 ins. diam., brs. S. 3° W., 228 lks.  
 dist., marked W M I R 27 M B T.  
 A pine, 18 ins. diam., brs. N. 50 3/4° W., 22 lks.  
 dist., marked W M I R 27 M B T.

The magnetic variation at this cor. is 13° 15' E.  
 Land, level and rolling.  
 Soil, 3rd and 4th rate.  
 Timber, heavy oak, juniper and pine.  
 Undergrowth, scrub oak.  
 Heavily timbered land, 80 chs.

Oct. 28, 1913.

24. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. Chains.

Oct. 29, 1913: At 7h. 5m. a.m., l.m.t., O I set off  $33^{\circ} 31\frac{1}{2}'$  N. on the lat. arc;  $13^{\circ} 21\frac{1}{2}'$  S. on the decl. arc; and determine a meridian with the solar at the reestablished 27 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.

Thence I run, South, on the East bdy. of the White Mountain Indian Reservation.

Over level land, through heavy timber.

2.00 Ascend NE. slope, 155 ft. to  
17.00 Spur ridge, brs. NE. Descend SE. slope, 60 ft. to  
21.00 Gulch, course NE. Ascend NW. slope, 100 ft.  
29.00 Ascend slight NE. slope.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $27\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
 $27\frac{1}{2}$  M in E. half; from which,  
An oak, 20 ins. in diam., brs. N.  $65\frac{1}{2}^{\circ}$  E., 78 lks. dist., marked W M I R  $27\frac{1}{2}$  M B T.  
A pine, 14 ins. diam., brs. N.  $47\frac{1}{2}^{\circ}$  W., 99 lks. dist., marked W M I R  $27\frac{1}{2}$  M B T.

Ascend on ridge, brs. S.

53.00 Descend SW. slope, 20 ft. to  
56.00 Draw, course NW. Ascend N. slope, 45 ft. to  
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 28 mile cor., marked on brass cap,

1913 on S. rim,  
28 M W of center,  
W M I R in W., and  
P L in E. half; from which,  
An oak, 12 ins. in diam., brs. N.  $8^{\circ}$  E., 163 lks. dist., marked W M I R 28 M P L B T.  
An oak, 8 ins. in diam., brs. S.  $50\frac{1}{2}^{\circ}$  E., 127 lks. dist., marked W M I R 28 M P L B T.  
A juniper, 12 ins. in diam., brs. S.  $42\frac{1}{2}^{\circ}$  W., 204 lks. dist., marked W M I R 28 M B T.  
A juniper, 24 ins. in diam., brs. N.  $67^{\circ}$  W., 424 lks. dist., marked W M I R 28 M B T.

The magnetic variation at this corner is  $14^{\circ} 15'$  E.  
Land, level and rolling.  
Soil, 3rd and 4th rate.  
Timber, heavy oak, juniper and pine.  
Undergrowth, scattering scrub oak.  
Heavily timbered land, 80.00 chs.

South, on the East bdy. of the White Mountain Indian Reservation.

Through scattering timber. Descend slight SW. slope, 225 ft. to

23.00 Canyon, course SW. Ascend NW. slope. Ascend 190 ft.  
30.00 Thence along west slope.  
38.00 Head of draw, course NW. Ascend NE. slope.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $28\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
W M I R in W., and  
 $28\frac{1}{2}$  M in E. half; from which,  
An oak, 12 ins. in diam., brs. N.  $9\frac{1}{2}^{\circ}$  E., 64 lks. dist., marked W M I R  $28\frac{1}{2}$  M B T.  
A pine, 10 ins. in diam., brs. N.  $27\frac{1}{2}^{\circ}$  W., 43 lks. dist., marked W M I R  $28\frac{1}{2}$  M B T.

Note: At this cor. Oct. 29, 1913, I set off  $13^{\circ} 26'$  S. on decl. arc; & observe the sun on the mer.; the resulting lat. is  $33^{\circ} 7'$ .  
41.00 Spur ridge, brs. SW. Thence along slight E. slope, ( $30\frac{1}{2}'$  N.

Resurvey of East hdy. of White Mountain or San Carlos Ind. Res. 25.

Chains.

54.00 Descend S. slope, 240 ft. to  
 65.80 Canyon, course W. Ascend NW. slope, 200 ft. to  
 72.20 Thence along west slope.  
 73.15 Trail, brs. NE. and SW.  
 77.50 Descend SW. slope, 35 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 29 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 29 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A juniper, 20 ins. in diam., brs. N. 16° E., 27  
 lks. dist., marked W M I R 29 M P L B T.  
 An oak, 16 ins. diam., brs. S. 65° E., 25 lks.  
 dist., marked W M I R 29 M P L B T.  
 An oak, 12 ins. in diam., brs. S. 47° W., 107 lks.  
 dist., marked W M I R 29 M B T.  
 An oak, 10 ins. in diam., brs. N. 56° W., 69 lks.  
 dist., marked W M I R 29 B T.  
 The magnetic variation at this cor. is 13° E.  
 Land, rolling and hilly.  
 Soil, 4th rate.  
 Timber, heavy pine, oak and juniper.  
 Undergrowth, dense scrub oak.  
 Heavily timbered land, 80.00 chs.

South, on the Eastbdy. of the White Mountain Indian Res-  
 ervation.

Through heavy timber and dense undergrowth. Descend S.  
 slope, 210 ft. to  
 7.35 Canyon, course W. Ascend NW. slope, 205 ft. to  
 18.00 Spur ridge, brs. W. Descend SW. slope, 165 ft. to  
 29.00 Canyon, course W. Ascend N. slope, 170 ft. to  
 36.00 Spur ridge, course W. Descend SW. slope, 390 ft. to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished 29½ mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 29½ M in E. half; from which,  
 A juniper, 6 ins. in diam., brs. S. 73½° E., 145  
 lks. dist., marked W M I R 29½ M B T.  
 An oak, 67 ins. in diam., brs. S. 34½° W., 80 lks.  
 dist., marked W M I R 29½ M B T.  
 Descend SW. slope, 370 ft. to  
 51.00 Wash, course SW.  
 62.00 Wash, course SW.  
 66.00 Wash, course W. Ascend N. slope, 15 ft. to  
 68.00 Low spur ridge, brs. W. Descend SW. slope, 125 ft. to  
 77.00 Gulch, course W. Ascend NW. slope, 50 ft. to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 30 mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 30 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A juniper, 8 ins. in diam., brs. N. 59½° E., 208  
 lks. dist., marked W M I R 30 M P L B T.  
 A pine, 14 ins. in diam., brs. S. 84° E., 87  
 lks. dist., marked W M I R 30 M P L B T.  
 A juniper, 20 ins. in diam., brs. S. 35½° W., 164  
 lks. dist., marked W M I R 30 M B T.  
 A pine, 20 ins. in diam., brs. N. 60½° W., 194  
 lks. dist., marked W M I R 30 M B T.  
 The magnetic variation at this cor. is 14° 12' E.

## 26. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.

Chains.

Land, rolling and hilly.  
Soil, rocky, 4th rate.  
Timber, scattering oak, juniper and pine timber.  
Undergrowth, dense scrub oak and locust.  
Oct. 29, 1913.

Oct. 30, 1913: At 8h. 10m. a.m., l.m.t., I set off  $33^{\circ}29'$  N. on the decl. arc;  $13^{\circ}42'$  S. on the decl. arc; and determine a meridian with the solar, at the reestablished 30 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.

Thence I run,  
South, on the East bdy. of the White Mountain Indian Reservation.

Through scattering timber and dense undergrowth. Ascend NW. slope, 30 ft. to

- 4.00 Along west slope.  
8.00 Descend SW. slope, 125 ft. to  
15.00 Gulch, course SE. Ascend NE. slope, 50 ft. to  
20.00 Along east slope.  
22.00 Descend SE. slope, 180 ft. to  
38.00 Thence along east slope.  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $30\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,

W M I R in W., and

$30\frac{1}{2}$  M in E. half; from which,

A juniper, 10 ins. in diam., brs.  $S. 5\frac{1}{2}^{\circ} E.$ , 52 lks. dist., marked W M I R  $30\frac{1}{2}$  M B T.

An oak, 10 ins. in diam., brs.  $S. 15\frac{1}{2}^{\circ} W.$ , 58 lks. dist., marked W M I R  $30\frac{1}{2}$  M B T.

- 42.00 Middle Fork Eagle Creek, 7 lks. wide, 2 ins. deep, course SE. Ascend broken NE. slope, 115 ft.

42.65 Trail, brs. SE. and NW.

57.10 Spur ridge, brs. E. Descend SE. slope, 52 ft. to

60.10 Draw, course NE. Ascend NE. slope, 55 ft. to

62.80 Spur brs. E. Descend E. slope, 20 ft. to

69.00 Gulch, course E. Ascend N. slope, 50 ft. to

76.00 Spur ridge, brs. E. Descend S. slope, 15 ft. to

78.00 Canyon, course E. Ascend rocky point, 30 ft. to

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished  $31$  mile cor., marked on brass cap,

1913 on S. rim,

31 M W. of center,

W M I R in W., and

P L in E. half; from which,

A pine, 14 ins. diam., brs.  $N. 26\frac{1}{2}^{\circ} E.$ , 14 lks. dist., marked W M I R 31 M P L B T.

An oak, 16 ins. diam., brs.  $S. 89\frac{1}{4}^{\circ} E.$ , 65 lks. dist., marked W M I R 31 M P L B T.

A pine, 9 ins. in diam., brs.  $S. 86\frac{1}{4}^{\circ} W.$ , 62 lks. dist., marked W M I R 31 M B T.

A pine, 4 ins. in diam., brs.  $N. 83\frac{1}{2}^{\circ} W.$ , 91 lks. dist., marked W M I R 31 M B T.

The magnetic variation at this cor. is  $12^{\circ} 10' E.$

Land, rolling.

Soil, rocky, 4th rate.

Timber, scattering pine, oak, juniper and walnut timber.

Undergrowth, dense scrub oak.

South, on the east bdy. of the White Mountain Indian Reservation.

Through scattering timber and dense undergrowth. Ascend N. slope, 25 ft. to

## Resurvey of East bdy. of White Mountain and San Carlos Ind. Res. 27.

## Chains.

- 1.00 Rocky point, 60 ft. high; descend S. slope, 40 ft. to  
 4.00 Gulch, course E. Ascend NE. slope, 30 ft. to  
 7.00 Spur ridge, brs. E. Descend S. slope, 20 ft. to  
 8.00 Gulch, course E. Ascend NE. slope, 130 ft. to  
 12.00 Spur ridge, brs. E. Descend NE. slope, 85 ft. to  
 16.20 Gulch, course E. Ascend NE. slope, 255 ft. to  
 26.50 Spur ridge, brs. E. Descend SE. slope, 400 ft.  
 Leave timber, brs. E. and W.  
 36.00 Leave undergrowth, brs. E. and W.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $31\frac{1}{2}$  mile cor., marked on  
 brass cap,

1913 on S. rim,

W M I R in W., and

$31\frac{1}{2}$  M in E. half; from which,

A juniper, 10 ins. in diam., brs. N.  $66^\circ$  W., 174

lks. dist., marked W M I R  $31\frac{1}{2}$  M B T.

No other trees within limits; raise a mound of stone, 3  
 ft. base, 2 ft. high, west of cor. Pits impracticable.

- 49.50 Enter timber and undergrowth, brs. E. and W.  
 54.20 Gulch, course E. Ascend N. slope, 130 ft.  
 54.30 Trail, brs. SE. and NW.  
 61.80 Rocky point, 30 ft. high. Thence along west slope.  
 64.00 Descend SW. slope, 100 ft.  
 70.00 Descend SE. slope.  
 74.00 Low pass, E. and W. Thence along ridge.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 32 mile cor., marked on  
 brass cap,

1913 on S. rim,

32 M W. of center,

W M I R in W., and

P. L. in E. half; from which,

An oak, 10 ins. in diam., brs. N.  $\frac{1}{2}^\circ$  E., 35 lks.  
 dist., marked W M I R 32 M P L B T.

A cedar, 9 ins. in diam., brs. S.  $22\frac{1}{2}^\circ$  E., 14  
 lks. dist., marked W M I R 32 M P L B T.

A cedar, 9 ins. diam., brs. S.  $46^\circ$  W., 64 lks.  
 dist., marked W M I R 32 M B T.

An oak, 8 ins. in diam., brs. N.  $11\frac{3}{4}^\circ$  W., 34 lks.  
 dist., marked W M I R 32 M B T.

The magnetic variation at this cor. is  $13^\circ 37'$  E.

Land, rolling and hilly.

Soil, rocky, 4th rate.

Timber, scattering oak, juniper, pine and cedar.

Undergrowth, dense scrub oak.

Note: The sky was overcast at noon, making an observation  
 for lat. impossible.

Oct. 30, 1913.

Oct. 31, 1913: At 8h. 10m. a.m., l.m.t., I set off  $33^\circ 27'$  N.  
 on the lat. arc;  $14^\circ \frac{1}{2}'$  S. on the decl. arc, and de-  
 termine a meridian with the solar at the reestablished  
 32 mile cor. on the east bdy. of the White Mountain  
 Indian Reservation, described above.

Thence I run,

South, on the East bdy. of the White Mountain Indian Res-  
 ervation.

Through heavy timber and scattering undergrowth. Descend  
 SW. slope. Descend 210 ft. to creek.

- 8.25 Spur ridge, brs. SW. Descend S. slope.  
 16.00 Dry channel of West fork of Eagle Creek, 150 lks. wide,  
 course SE.  
 24.00 Draw, course NE. Ascend slight NW. slope, 45 ft. to  
 27.00 Spur ridge, brs. NW. Descend SE. slope, 40 ft. to  
 37.75 Gulch, course E. Ascend 15 ft. to  
 39.00 Spur ridge, brs. E. Descend 10 ft.

## 28. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.

Chains.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $32\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $32\frac{1}{2}$  M in E. half; from which,  
 A pine, 7 ins. diam., brs. N.  $24\frac{1}{2}^{\circ}$  E., 40 lks. dist., marked W M I R  $32\frac{1}{2}$  M B T.  
 A pine, 6 ins. in diam., brs. N.  $63\frac{1}{2}^{\circ}$  W., 28 lks. dist., marked W M I R  $32\frac{1}{2}$  M B T.
- 40.05 Cliff, 10 ft. high.
- 44.00 Spur ridge, brs. NE. Ascend NE. slope.
- 50.00 Wash, course NE.
- 56.50 Thence along east slope.
- 60.00 Descend SE. slope, 40 ft. to
- 65.00 Canyon, course E. Ascend NE. slope, 185 ft. to
- 76.00 Spur ridge, brs. E. Descend SE. slope, 75 ft. to
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground; for reestablished 33 mile cor., marked on brass cap,  
 1913 on S. rim,  
 $33$  M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 An oak, 8 ins. in diam., brs. N.  $51^{\circ}$  E., 24 lks. dist., marked W M I R  $33$  M P L B T.  
 A pine, 10 ins. in diam., brs. S.  $61\frac{1}{2}^{\circ}$  E., 271 lks. dist., marked W M I R  $33$  M P L B T.  
 A pine, 8 ins. in diam., brs. S.  $29\frac{1}{2}^{\circ}$  W., 140 lks. dist., marked W M I R  $33$  M B T.  
 A pine, 8 ins. in diam., brs. N.  $30^{\circ}$  W., 60 lks. dist., marked W M I R  $33$  M B T.
- The magnetic variation at this cor. is  $13^{\circ} 35'$  E.  
 Land, rolling and hilly.  
 Soil, rocky, 4th rate.  
 Timber, heavy pine, cedar and juniper.  
 Undergrowth, scrub oak.  
 Heavily timbered land, 80.00 chs.  
 Note: Cloudy and raining at noon this day, rendering an observation for latitude impossible.

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South, on the East bdy. of the White Mountain Indian Reservation.

- Through scattering timber and undergrowth. Descend SE. slope, 45 ft. to
- 2.00 Gulch, course SE. Ascend NE. slope, 20 ft. to
- 4.50 Spur ridge, brs. E. Descend SE. slope, 15 ft. to
- 7.00 Gulch, course NE. Ascend NE. slope, 115 ft. to
- 12.00 Thence along east slope.
- 20.00 Ridge, brs. E. and W. Descend SE. slope, 140 ft. to
- 27.00 Canyon, course E. Ascend NE. slope, 215 ft.
- 34.00 Leave timber and undergrowth, brs. E. and W.
- 35.50 Spur ridge, brs. E. Descend SE. slope, 140 ft. to canyon.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $33\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $33\frac{1}{2}$  M in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, west of cor. Dits impracticable.
- Oct. 31, 1913.
- Nov. 1, 1913: At 8h. 20m. a.m., 1.m.t., I set off  $33^{\circ} 26'$  N. on the lat. arc;  $14^{\circ} 20'$  S. on the decl. arc, and determine with the solar a meridian at this cor.
- 45.75 Canyon, course E. Ascend NE. slope, 65 ft.  
 Enter timber, brs. E. and W.
- 55.00 Spur ridge, brs. E.; descend SW. slope, 25 ft. to

## Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 29.

Chains.

56.00 Ascend NW. slope, 45 ft. to  
 61.00 Spur ridge, brs. SW. Descend SE. slope, 180 ft. to  
 71.00 Draw, course SW. Thence along west slope.  
 79.00 Draw, course W. Ascend NW. slope, 10 ft. to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished  $3\frac{1}{4}$  mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 34 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A cedar, 6 ins. in diam., brs. N.  $79\frac{1}{2}^{\circ}$  E., 76 lks.  
 dist., marked W M I R 34 M P L B T.  
 A pine, 10 ins. in diam., brs. S.  $20\frac{3}{4}^{\circ}$  E., 83 lks.  
 dist., marked W M I R 34 M P L B T.  
 A cedar, 10 ins. in diam., brs. S.  $46\frac{1}{2}^{\circ}$  W., 93 lks.  
 dist., marked W M I R 34 M B T.  
 An oak, 6 ins. in diam., brs. N.  $74\frac{1}{2}^{\circ}$  W., 35 lks.  
 dist., marked W M I R 34 M B T.  
 Land, rolling, hilly and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, scattering oak, pine, cedar and juniper.  
 Undergrowth, scattering scrub oak.  
 Heavily timbered land, 68 chs.  
 Mountainous land 54 chs.

-----  
 South, on the east bdy. of the White Mountain Indian Res-  
 ervation.  
 Through scattering timber and undergrowth. Ascend NW. slope,  
 36 ft. to

5.00 Spur ridge, brs. W. Descend SW. slope, 231 ft. to  
 21.00 Canyon, course SE. Ascend NE. slope, 330 ft. to ridge.  
 26.00 Wash, course E. Continue ascent.  
 35.00 Ridge, brs. SE. and NW. Descend SW. slope, 35 ft. to  
 37.65 Canyon, course SE. Ascend NE. slope, 70 ft. to ridge.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $3\frac{1}{2}$  mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $34\frac{1}{2}$  M in E. half; from which,  
 A pine, 5 ins. in diam., brs. S.  $42\frac{1}{2}^{\circ}$  E., 37 lks.  
 dist., marked W M I R  $34\frac{1}{2}$  M B T.  
 A juniper, 10 ins. in diam., brs. S.  $62^{\circ}$  W., 28  
 lks. dist., marked W M I R  $34\frac{1}{2}$  M B T.  
Note: At this cor. Nov. 1, 1913, I set off  $14^{\circ}24\frac{1}{2}'$  S. on  
 the decl. arc; and at apparent noon, I observe the  
 sun on the meridian; the resulting lat. is  $33^{\circ}25'$  N.  
 42.00 Leave timber and undergrowth, brs. SE. and SW.  
 44.00 Spur ridge, brs. SE. Descend slight SE. slope; descend 190  
 ft. to gulch.  
 60.00 Spur ridge, brs. SE. Continue descent on SW. slope, to  
 68.50 Gulch, course SE. Ascend NE. slope, 80 ft. to ridge.  
 Enter scattering timber, brs. E. and W.  
 76.00 Leave timber, brs. E. and W.  
 76.50 Ridge, brs. E. and W. Descend SW. slope, 25 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 35 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 35 M W. of center,  
 W M I R in W., and  
 P L in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, N. of  
 cor. Pits impracticable.  
 The magnetic variation at this cor. is  $13^{\circ}$  E.



30. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.  
Chains.

Land, rolling and hilly.  
Soil, rocky, 4th rate.  
Timber, scattering oak, cedar, pñon, pine and juniper.  
Undergrowth, scattering scrub oak and locust.  
Heavily timbered land, 50 chs.

Nov. 1, 1913.

Nov. 2, 1913: At 8h. 8m. a.m., l.m.t., I set off  $33^{\circ}24\frac{1}{2}'$  N. on the lat. arc;  $14^{\circ}39\frac{1}{2}'$  S. on the decl. arc; and determine a meridian with the solar at the reestablished 35 mile corner on the east bdy. of the White Mountain Indian Reservation, described above.

Thence I run, South, on the east bdy. of the White Mountain Indian Reservation. No timber.

- 10.00 Descend S. slope, 135 ft. to Gulch, course E. Ascend NE slope, 40 ft. to ridge. Enter scattering timber, brs. E. and W.
- 14.00 Leave timber, brs. E. and W.
- 15.00 Ridge, brs. E. and W. Descend S. slope, 60 ft. to
- 22.00 Wash, course E. Ascend NE slope, 50 ft. to
- 28.00 Spur ridge, brs. E. Descend SE slope, 80 ft. to
- 36.00 Draw, course E. Thence over level land.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $35\frac{1}{2}$  mile cor., marked on brass cap,  
1913 on S. rim,  
W M I R in W., and  
 $35\frac{1}{2}$  M in E. half;  
and raise a mound of stone, 3 ft. base, 2 ft. high, W. of corner. Pits impracticable.
- 77.00 Gulch, 50 lks. wide, 12 ft. deep, course SE.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 36 mile cor., marked on brass cap,  
1913 on S. rim,  
36 M W. of center,  
W M I R in W., and  
P L in E. half;  
and raise a mound of stone 3 ft. base, 2 ft. high, north of cor. Pits impracticable.
- From this cor., a stone, 16x20x10 ins., marked G R A on W., GRE on E., and 73 on S. face, with a mound of stone on N., brs. S.  $64^{\circ}17'$  W., 20.48 chs. dist.
- Wade Harris' house brs. S.  $86^{\circ}$  E., about 10 chs. dist.
- Land, rolling.  
Soil, rocky, 4th rate.  
Timber, scattering oak and cedar.  
Undergrowth, mesquite.

South, on the east bdy. of the White Mountain Indian Reservation.

Over level land.

- 3.00 NE. bank of gulch; descend S. slope, 40 ft. to
- 8.00 Wash, 40 lks. wide, 3 ft. deep, course SE. Ascend S. slope, 70 ft. to
- 12.50 South bank of gulch; thence along gently rolling east slope.
- 18.00 Old Indian ruins, rock foundation, brs. E. 3 chs. dist. Thence over level land.
- 30.00 Irrigation ditch, 1 ft. wide, course SW.
- 32.20 Wash, course E. drains into Eagle Creek bottom.
- 33.00 Wash, course E.
- 33.50 Irrigation ditch, course SW.

## Resurvey of East bdy. White Mountain or San Carlos Ind. Res. 31.

37.30  
Chains.

- 35.60 Wash, course E.  
39.55 3-strand wire fence, brs. NE. and SW. Enter cane patch..  
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $36\frac{1}{2}$  mile cor., marked on brass cap,  
1913 on S. rim,  
W M I R in W., and  
 $36\frac{1}{2}$  M in E. half;  
and raise a mound of stone 3 ft. base, 2 ft. high, west of corner. Pits impracticable.
- 42.85 3-strand wire fence, brs. SE. and NW. Leave cane patch.  
50.00 Descend west bank of Eagle Creek, 15 ft. to  
52.00 Thence along old channels of creek.  
56.25 One channel of Eagle Creek, course SW.  
63.40 Main channel of Eagle Creek, 70 lks. wide, 3 ins. deep, course SW.; clear water.  
65.94 From this point, an iron post 3 ins. in diam., set in a mound of stone, marked  
U S F S Bdy. Post #2 on top,  
6 notches on E., W. and N. edges,  
Reserve on NE. and NW. bevel, and  
T 1 N R 28 E sec. 31 on NE., and  
T 1 N R 27 E sec. 36 on NW. side,  
1902 on S. bevel, P L on N., brs. E. 115 lks. dist.  
Also from this point, an iron post 3 ins. diam. set in mound of stone, marked USFS Bdy. Post No. 1 on top, Reserve in NE. quad. on N. bevel, 60 T 1 N R 7 E Sec. 36 on NE. side, & 1902 on S. P L on N. of brass cap, brs. W. 19.85 chs. dist. Note: See resurvey G. & S. R. Base
- 66.60 South bank of Eagle Creek. (Line in Book "B.")  
67.55 Old road and main trail, brs. NE. and SW.  
Thence along slight west slope.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 37 mile cor., marked on brass cap,  
1913 on S. rim,  
37 M W. of center, W M I R in W., and  
P L on E. half;  
and raise a mound of stone 3 ft. base, 2 ft. high, N. of cor. Pits impracticable.  
A sycamore, 24 ins. in diam., brs. S.  $73\frac{1}{2}$  W., 224 lks. dist., marked W M I R 37 M B T.  
The magnetic variation at this cor. is  $13^{\circ} 20'$  E.  
Land, level and gently rolling.  
Soil, 2nd, 3rd and 4th rate.  
Timber, scattering oak, cottonwood and sycamore along creek.  
Undergrowth, scattering mesquite.  
Note: The sky was overcast at noon, making an observation for latitude impossible.  
Nov. 2, 1913.
- 
- Nov. 3, 1913: At 9h. 5m. a.m., l.m.t., I set off  $33^{\circ} 23'$  N. on the lat. arc;  $15^{\circ} 00'$  S. on the decl. arc; and determine a meridian with the solar at the reestablished 37 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.  
Thence I run,  
South, on the East bdy. of the White Mountain Indian Reservation.  
Over level land.  
2.00 Descend from bench, 14 ft. to Eagle Creek.  
2.85 Old road and trail, brs. NW. and SE.  
8.45 Main channel of Eagle Creek, 50 lks. wide, 3 ins. deep, clear water, course SE.  
22.35 Fence brs. SE. and NW. Enter corn field.  
30.88 Row of apple trees, brs. SE. and NW.  
31.30 Row of apple trees, brs. SE. and NW. Leave field. Ascend

## 32. Resurvey of East bdy. of White Mountain pr San Carlos Ind. Res.

Chains

	NE. slope, 55 ft. to ridge.
31.74	Small ditch, course SE. and NW.
32.80	Fence brs. SE. and NW.
36.00	Spur ridge, brs. E. Descend slight SE. slope, 25 ft.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 37 $\frac{1}{2}$ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and 37 $\frac{1}{2}$ M in E. half; and raise a mound of stone 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.
45.20	Davis' Ranch House brs. S. 62° E., about 12 chs. dist. Foot of descent. Thence over level land; wire fence brs. NE. and SW. Enter Davis' pasture.
50.70	Wire fence brs. SE. and NW. Leave pasture.
51.50	Gulch, course E. Ascend NE. slope, 75 ft. to
60.00	End of ascent. Thence along east slope.
66.00	Spur ridge, brs. SE. Descend S. slope, 35 ft. to gulch.
68.40	Old road, brs. SE. and NW.
78.00	Gulch, course E. Ascend NE. slope, 20 ft. to
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 38 mile cor., marked on brass cap, 1913 on S. rim, 38 M W of center, W M I R in W., and P L in E. half; from which, An oak, 20 ins. in diam., brs. N. 62° E., 120 lks. dist., marked W M I R 38 M P L B T. A juniper, 6 ins. in diam., brs. N. 35 $\frac{1}{2}$ ° W., 79 lks. dist., marked W M I R 38 M B T. No other trees within limits. Raise mound of stone, 3 ft. base, 2 ft. high, north of cor. Pits impracticable. Magnetic variation at this cor., 13° 15' E. Land, level and rolling. Soil, 2nd, 3rd and 4th rate. Timber, cottonwood, oak, and sycamore along creek. No undergrowth.
-----	
	South on the east bdy. of the White Mountain Indian Reservation.
	No timber. Ascend NE. slope, 30 ft. to
4.00	Thence over level land.
18.00	Descend SW. slope, 25 ft. to
19.60	Gulch, course SE. Ascend NE. slope, 30 ft. to
24.00	Thence over level land.
26.00	School house brs. E. about 14 chs. dist.
30.00	Descend slight SE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 38 $\frac{1}{2}$ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and 38 $\frac{1}{2}$ M in E. half; and raise a mound of stone 3 ft. base, 2 ft. high, west of corner. Pits impracticable.
60.00	Foot of descent; thence over level land.
71.30	Small draw, course SE.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 39 mile cor., marked on brass cap, 1913 on S. rim, 39 M W of center, W M I R in W., and P L in E. half; and raise a mound of stone 3 ft. base, 2 ft. high, N.

## Resurvey of East bdy. White Mountain or San Carlos Indian Res. 33

Chains.

of cor. Pits impracticable.

Note: At this cor. Nov. 3, 1913, I set off  $15^{\circ} 2\frac{1}{2}'$  S. on the decl. arc, and at apparent noon, I observe the sun on the meridian; the resulting lat. is  $33^{\circ} 21' N$ .

Land, gently rolling and level.

Soil, rocky, 4th rate.

Timber, none.

No undergrowth.

-----

South, on the East bdy. of the White Mountain Indian Reservation.

Over level land; no timber or undergrowth.

9.30 Road brs. NE. and SE.

25.80 NW. cor. of 4-strand wire fence, brs. E. and S.; is 36 lks. E. of line.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $39\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,

W M I R in W., and

$39\frac{1}{2}$  M in E. half;

and raise a mound of stone, 3 ft. base, 2 ft. high, west of cor. Pits impracticable.

53.35 Road brs. SE. and NW. SW. cor. of fence brs. E. 20 lks. dist.

56.00 Descend SW. slope, 15 ft. to

57.00 Thence over level land.

62.00 Road brs. SE. and NW.

67.75 N. bank of Willow Creek. Descend 18 ft. into channel. Enter sycamore and cottonwood timber.

75.00 © Ranch house about 5 chs. east.

76.00 Willow Creek, course SW. Thence over level land.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 40 mile cor., marked on brass cap,

1913 on S. rim,

40 M W. of center,

W M I R in W., and

P L in E. half; from which,

An ash, 18 ins. in diam., brs. N.  $16^{\circ} E.$ , 205 lks. dist., marked W M I R 28 M P L B T.

A sycamore, 40 ins. in diam., brs. S.  $19^{\circ} E.$ , 249 lks. dist., marked W M I R 28 M P L B T.

An ash, 16 ins. in diam., brs. S.  $66\frac{1}{2}^{\circ} W.$ , 147 lks. dist., marked W M I R 40 M B T.

A sycamore, 20 ins. diam., brs. N.  $60\frac{1}{2}^{\circ} W.$ , 99 lks. dist., marked W M I R 40 M B T.

The magnetic variation at this corner is  $13\frac{1}{2}^{\circ} E.$

Land, level and gently rolling.

Soil, rocky, 4th rate.

No timber, except in Willow Creek bottom--sycamore and ash.

No undergrowth.

-----

South, on the east bdy. of the White Mountain Indian Reservation.

Along Willow Creek bottom, through scattering timber.

6.60 Old road, brs. NE. and SW.

23.30 Main channel of Eagle Creek, course SW.

24.25 Channel of Eagle Creek, course W.

27.00 Channel of Eagle Creek, course SW.

32.00 Trail, brs. NE. and SW.

37.30 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness cor. to reestablished  $40\frac{1}{2}$  mile cor., marked on brass cap,

34. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.  
Chains.

1913 on S. rim,  
W C 40 $\frac{1}{2}$  M. in N. half;  
W M I R in W., and  
P L in E. half; from which,  
An ash, 26 ins. in diam., brs. S. 71° E., 120 lks.  
dist., marked W C W M I R 40 $\frac{1}{2}$  M B T.  
An ash, 28 ins. diam., brs. S. 53° W., 13 lks.  
dist., marked W C W M I R 40 $\frac{1}{2}$  M B T.

37.65 Enter channel of Eagle Creek.  
40.00 Point for reestablished 40 $\frac{1}{2}$  mile cor. falls in Eagle  
Creek, where it is impracticable to set post.

44.00 Wire fence brs. SE. and NW.  
67.00 Leave Eagle Creek, course SW. Ascend steep bluff, 75 ft.  
76.00 Ascend NW. slope, 40 ft. to  
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground, for reestablished 41 mile cor., marked  
on brass cap,

1913 on S. rim,  
41 M W. of center,  
W M I R in W., and  
P L in E. half; from which,  
A cedar, 8 ins. in diam., brs. N. 60° E., 84 lks.  
dist., marked W M I R 41 M P L B T.

No other trees within limits; raise a mound of stone 3  
ft. base, 2 ft. high, north of cor. Pits impracticable.  
A stone 24x16x6 ins. in a mound of stone, marked © 5 on  
W., brs. N. 75° E., 64 lks. dist., from this cor., Magnetic  
variation at this corner is 11° 28' E.  
Land, level.  
Soil, rocky, 4th rate.  
Timber, scattering cottonwood, sycamore and ash along  
creeks only.  
No undergrowth.

Nov. 3, 1913.

Nov. 4, 1913: At 7h. 25m. a.m., l.m.t. I set off 33° 19 $\frac{1}{2}$ ' N.  
on the lat. arc; 15° 16' S. on the decl. arc; and deter-  
mine a meridian with the solar at the reestablished  
41 mile cor. on the East bdy. of the White Mountain  
Indian Reservation, described above.

Thence I run,  
South, on the East bdy. of the White Mountain Indian Res-  
ervation.

Ascend NW. slope, 45 ft. No timber.

2.00 Ascend NE. slope.

6.00 End of ascent. Top of hill, covered with Indian ruins.

7.00 Stone stockade, brs. E. and W. Built by Indians.

11.00 Descend south slope, 110 ft. to

14.00 Low pass, brs. E. and W. Ascend NE. slope.

20.00 Along east slope. Rocky point 1 chain west.

26.00 Ascend NE. slope, 80 ft. to

33.50 Spur ridge, brs. E. Descend SW. slope, 175 ft. to Eagle  
Creek.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
the ground, for reestablished 41 $\frac{1}{2}$  mile cor., marked  
on brass cap,

1913 on S. rim,  
W M I R in W. and  
41 $\frac{1}{2}$  M in E. half;

and raise a mound of stone 3 ft. base, 2 ft. high, west  
of cor. Pits impracticable.

42.83 4-strand wire fence, brs. NE. and SW.

52.00 Eagle Creek Canyon.

57.13 Eagle Creek, 60 lks. wide, 1 ft. deep, course SE.

58.00 Ascend NE. slope, 165 ft. to

70.00 Spur ridge, brs. E. Descend SE. slope, 30 ft. to

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
the ground, for reestablished 42 mile cor., marked  
on brass cap,

## 35. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 35.

Chains.

- 1913 on S. rim,  
42 M W. of center,  
W M I R in W., and  
P L in E. half;  
and raise a mound of stone 3 ft. base, 2 ft. high, N.  
of cor. Pits impracticable.  
Magnetic variation at this cor. is  $12^{\circ} 18' E$ .  
Land, level and rolling.  
Soil, rocky, 4th rate.  
Timber, sycamore and cottonwood along creek.  
No undergrowth.
- 
- South, on the East bdy. of the White Mountain Indian Res-  
ervation.  
No timber. Descend south slope, 115 ft. to  
8.00 Canyon, course E. Ascend NE. slope, 35 ft. to  
11.00 Rocky spur, brs. NE. Thence along broken east slope of  
creek bank.  
22.80 Trail, brs. NE and SW. Ascend rolling NE slope, 40 ft. to  
29.00 Leave creek bank; descend SE. slope, 15 ft. to  
31.30 Gukch, course NE. Ascend N. slope, 25 ft. to ridge.  
35.00 Cook's ranch house, brs. E. about 18 chs. dist.  
36.00 Ridge, brs. E. and W. Descend slight S. slope, to wash.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the  
ground for reestab.  $42\frac{1}{2}$  mile cor., marked on brass cap,  
1913 on S. rim,  
W M I R in W., and  
 $42\frac{1}{2}$  M in E. half;  
and raise a mound of stone, 3 ft. base, 2 ft. high, W. of  
corner. Pits impracticable.  
52.10 Wash, course E. Ascend NE. slope, 30 ft. to  
61.16 North bank of Box canyon, 100 ft. deep, course  $S. 15^{\circ} W.$ ;  
Eagle Creek in bottom.  
It being impossible to chain across this canyon, I take  
stadia measurement to rod on line on the opposite bank.  
Rod reading, 9.440 ft. Ratio, 1 ft. = 2.00 chs. Focal  
constant, 1.025 ft. Level. The dist. on line to rod is  
therefore,  $9.440 \times 2$  plus  $.016 = 18.90$  chs., which  
added to 61.16 chs. = 80.06 chs. rod point, from which,  
I measure back on line, .06 chs. to  
80.00 Where I set an iron post, 3 ft. long, 3 ins. in diam.,  
24 ins. in the ground for reestablished  $43$  mile cor.,  
marked on brass cap,  
1913 on S. rim,  
43 M W. of center,  
W M I R in W., and  
P L in E. half; from which,  
An oak, 16 ins. in diam., brs.  $N. 72\frac{3}{4}^{\circ} E.$ , 78 lks.  
dist., marked W M I R 43 M P L B T.  
A juniper, 14 ins. in diam., brs.  $S. 51^{\circ} E.$ , 100  
lks. dist., marked W M I R 43 M P L B T.  
No other trees within limits; raise a mound of stone 3 ft.  
base, 3 ft. high, north of cor. Pits impracticable.  
Mag. variation at this corner is  $13^{\circ} 55' E$ .  
Land, rolling and hilly.  
Soil, rocky, 4th rate.  
Timber, only in canyon on banks of Eagle Creek; cotton-  
wood and sycamore.  
No undergrowth.
- 
- South, on the East bdy. of the White Mountain Indian  
Reservation.  
Ascend NW. slope, 15 ft. to  
2.00 Thence along slight west slope.

36. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.

## Chains.

4.75 Wash, course W. Ascend slight NW. slope.  
 25.50 North bank of Canyon, 100 ft. deep, course W. Enter timber, brs. E. and W. Dry channel lava formation. Impossible to chain across; therefore, return to a point on line at

23.91 Where I take stadia measurement to rod on line on opposite side of canyon. Rod reading, 4.028 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level. The dist. on line to rod is therefore,  $4.028 \times 2$  plus .016 = 8.07 chs., which added to 23.91 chs. = 31.98 chs. rod point from which I measure north, 1.23 chs. to

30.75 South bank of canyon. Ascend NW. slope.  
 31.98 Stadia rod point.  
 32.00 Leave timber, brs. E. and W.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $43\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
 W M I R in W., and  
 $43\frac{1}{2}$  M in E. half;

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

43.00 Draw, course NW. Ascend slight N. slope, to  
 52.00 Thence over level land.  
 64.00 Descend SW. slope, 20 ft. to  
 66.00 Gulch, course NW. Ascend NE. slope, 20 ft. to  
 68.30 Thence over level land, to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 44 mile cor., marked on brass cap,

1913 on S. rim,  
 44 M W. of center,  
 W M I R in W., and  
 P L in E. half;

and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor. Pits impracticable.

Magnetic variation at this corner,  $13^{\circ}28'E$ .

Land, level and rolling.

Soil, rocky, 4th rate.

Timber, oak, ash, cottonwood and sycamore in canyons.

No undergrowth.

Note: The sky was overcast at noon, making an observation for lat. impossible.

Nov. 4, 1913.

Nov. 5, 1913: At 7h. 55m. a.m., l.m.t., I set off  $33^{\circ}17'$  N. on the lat. arc;  $15^{\circ}35'S$ . on the decl. arc; and determine a meridian with the solar at the reestablished 44 mile cor. on the east bdy. of the White Mountain Indian Reservation, described above.

Thence I run,

South, on the East bdy. of the White Mountain Indian Reservation.

Over level land; no timber.

3.00 Descend SE. slope. Descend 275 ft. to bottom of canyon.

11.00 Spur ridge, brs. E. Descend S. slope.

12.00 Ledge rock, brs. E. and W. N. bank of canyon.

17.90 Bottom of canyon, course W.

Enter timber, brs. E. and W.

19.00 Ascend N. slope, 400 ft. to ridge.

32.00 Leave timber, brs. E. and W.

34.00 Ridge, brs. W. Descend S. slope, 75 ft. to canyon.

38.00 Enter scrub oak undergrowth, brs. E. and W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $44\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
 W M I R in W., and

Resurvey of East. bdy. of White Mountain or San Carlos Ind. Res. 37.

Chains.

44½ M in E. half;  
 and raise a mound of stone, 3 ft. base, 2 ft. high, W.  
 of cor. Pits impracticable.

42.50 Canyon, course NW. Ascend NW. slope, 135 ft.  
 49.00 Leave undergrowth, brs. E. and W.  
 49.75 Ridge, brs. E. and W. Descend SW. slope, 70 ft. to  
 57.00 Gulch, course W. Ascend NW. slope, 55 ft. to  
 62.00 Spur ridge, brs. W. Descend SW. slope, 35 ft. to  
 64.10 Gulch, course NW. Ascend N. slope, 100 ft. to  
 74.00 Ridge, brs. E. and W. Descend SE. slope, 15 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 45 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 45 M W. of center,  
 W M I R in W., and  
 P L in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, north  
 of cor. Pits impracticable.  
 Magnetic variation at this cor. is 13° 15' E.  
 Land, rolling and hilly.  
 Soil, rocky, 4th rate.  
 Timber, cottonwood, ash and sycamore in canyons.  
 Undergrowth, none.

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South, on east bdy. of the White Mountain Indian Reserva-  
 tion.

10.00 No timber or undergrowth. Descend SE. slope, 125 ft. to  
 Canyon, course W. Ascend NE. slope. Ascend 215 ft. to  
 ridge.

16.00 Ledge brs. SE. and NW. Ascend NW. slope, to  
 33.00 Ridge, brs. E. and W. Descend SW. slope, 145 ft. to gulch.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished 45½ mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 45½ M in E. half;  
 and raise a mound of stone, 3 ft. base, 2 ft. high, W.  
 of cor. Pits impracticable.

Note: At this cor., Nov. 5, 1913, I set off 15° 39½' S. on  
 the decl. arc; and at apparent noon, I observe the sun  
 on the meridian; the resulting lat. is 33° 16' N.

43.80 Gulch, course W. Ascend N. slope, 170 ft. to  
 58.00 Ridge, brs. E. and W. Descend S. slope, 370 ft. to canyon.  
 70.00 Enter scattering timber, brs. East and West.  
 76.00 Canyon, course W. Ascend N. slope, of Table Mountain, 100  
 ft. to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 46 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 46 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A cedar, 20 ins. in diam., brs. S. 50° E., 167  
 lks. dist., marked W M I R 46 M P L B T.  
 No other trees within limits; raise a mound of stone, 3  
 ft. base, 2 ft. high, north of cor. Pits impracticable.  
 Magnetic variation at this cor. is 13° 5' E.  
 Land, rolling and hilly.  
 Soil, very rocky, 4th rate.  
 No timber or undergrowth, except in canyons.

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South, on the East bdy. of the White Mountain Indian Res-  
 ervation.



## 38. Resurvey of East bdy. White Mountain or San-Carlos Ind. Res.

Chains.

- Ascend N. slope. Ascend 700 ft. to top of Table Mountain. Through scattering timber and undergrowth.
- 8.00 Ascend NW. slope.
- 23.45 Rock ledge, 40 ft. high, brs. E. and W.
- 25.00 Ledge brs. NE. and SW., 40 ft. high.
- 33.70 A dead cedar, 24 ins. in diam., on line.
- 40.00 On top of Table Mountain; set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 46½ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and 46½ M in E. half; from which, A cedar, 10 ins. in diam., brs. S. 10° E., 88 lks. dist., marked W M I R 46½ M P L B T. A cedar, 14 ins. in diam., brs. S. 36° W., 240 lks. dist., marked W M I R 46½ M B T.
- 41.00 Ledge, brs. NE. and SW. Descend SE. slope of Table Mountain, 700 ft.
- 45.00 Ledge, brs. NE. and SW. Enter mesquite undergrowth, brs. NE. and SW.
- 63.00 Wash, course E. Continue descent.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 47 mile cor., marked on brass cap, 1913 on S. rim, 47 M W. of center, W M I R in W., and P L in E. half; from which, A cedar, 14 ins. in diam., brs. S. 63½° E., 46 lks. dist., marked W M I R 47 M P L B T.
- No other trees within limits. Raise a mound of stone, 3 ft. base, 2 ft. high; north of cor. Pits impracticable. Magnetic variation at this cor. is 11° 52' E. Land, mountainous and hilly. Soil, very rocky, 4th rate. Timber, scattering cedar. Undergrowth, dense scrub oak.
- Nov. 5, 1913.

- Nov. 6, 1913: At 8h. 54m. a.m., l.m.t., I set off 33° 14' N. on the lat. arc; 15° 55' S. on the decl. arc; and determine a meridian with the solar at the reestablished 47 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.
- Thence I run, South, on the East bdy. of the White Mountain Indian Reservation. Through scattering timber and dense undergrowth. Descend SE. slope, 90 ft. to
- 14.75 Gulch, course SW., foot of Table Mountain. Ascend NW. slope, 160 ft. to
- 29.00 Ridge, brs. E. and W. Descend SE. slope, 130 ft. to draw.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 47½ mile cor., marked on brass cap, 1913 on S. rim, W M I R in W., and 47½ M in E. half; from which, A cedar, 10 ins. in diam., brs. N. 78½° E., 152 lks. dist., marked W M I R 47½ M P L B T. A pine, 7 ins. in diam., brs. S. 14½° W., 172 lks. dist., marked W M I R 47½ M B T.
- 41.50 Draw, course E. Ascend NE. slope, 40 ft. to
- 45.00 Spur ridge, brs. E. Descend SE. slope, 135 ft. to
- 51.70 Gulch, course SE. Ascend NE. slope, 15 ft. to
- 53.00 Spur ridge, brs. SE. Descend SE. slope, 45 ft. to
- 58.00 Gulch, course W. Ascend N. slope, 180 ft. to
- 65.00 Point of conical hill, 1 chain W. Descend SE. slope. Descend 180 ft.

BOOK 2766

## Resurvey of East bdy. White Mountain or San Carlos Ind. Res. 39.

Chains.

72.00 Gulch, course SW. Descend SW. slope, to  
 76.25 Gulch, course W.; ascend NE. slope, 55 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 48 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 48 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A cedar limb; 8 ins. in diam., brs. N.  $8\frac{1}{4}^{\circ}$  E., 166  
 lks. dist., marked W M I R 48 M P L B T.  
 A cedar 16 ins. in diam., brs. S.  $42^{\circ}$  E., 290  
 lks. dist., marked W M I R 48 M P L B T.  
 A cedar, limb, 5 ins. in diam., brs. S.  $11\frac{1}{4}^{\circ}$  W.,  
 172 lks. dist., marked W M I R 48 M B T.  
 A cedar, 20 ins. in diam., brs. N.  $82^{\circ}$  W., 102 lks.  
 dist., marked W M I R 48 M B T.  
 Mag. variation at this cor. is  $13^{\circ} 15'$  E.  
 Land, hilly.  
 Soil, rocky, 4th rate.  
 Timber, scattering cedar and pinon.  
 Undergrowth, dense scrub oak and mesquite.

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 South, on the East bdy. of the White Mountain Indian Reser-  
 vation.

Through scattering timber and dense undergrowth. Ascend  
 NE. slope, 70 ft. to  
 4.00 Ridge, brs. E. and W. Descend SE. slope, 50 ft. to  
 9.50 Gulch, course SE. Ascend NE. slope, 50 ft.  
 11.00 Point of conical hill, brs. W. 75 lks. dist.  
 21.00 Descend SE. slope, 200 ft. to  
 21.00 Canyon, course W. Ascend NW. slope, 245 ft. to ridge.  
 32.00 Wash, course W. Ascend NW. slope, to  
 34.00 Spur ridge, brs. E. Descend SW. slope, 25 ft. to  
 37.00 Gulch, course W. Ascend NW. slope, 135 ft.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $48\frac{1}{2}$  M cor., marked on  
 brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $48\frac{1}{2}$  M in E. half; from which,  
 A cedar, 12 ins. in diam., brs. S.  $54\frac{1}{2}^{\circ}$  E., 91  
 lks. dist., marked W M I R  $48\frac{1}{2}$  M P L B T.  
 A cedar limb, 5 ins. in diam., brs. west  $63^{\circ}$   
 lks. dist., marked W M I R  $48\frac{1}{2}$  M B T.  
 Note: At this cor., Nov. 6, 1913; I set off  $15^{\circ} 57\frac{1}{2}'$  S. on  
 the decl. arc; and at apparent noon, I observe the sun  
 on the meridian; the resulting lat. is  $33^{\circ} 13'$  N.  
 44.00 Draw, course NW. Ascend NE. slope, to  
 52.00 Ridge, brs. E. and W. Descend S. slope, 295 ft. to  
 65.00 Head of canyon, course NW. Ascend NW. slope, 35 ft. to  
 69.00 Ridge, brs. E. and W. Descend SE. slope, 200 ft. to canyon.  
 72.50 Precipice, 20 ft. high, brs. E. and W.  
 78.00 Canyon, course E. Thence along east slope.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 49 mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 49 M W. of center,  
 W M I R in W., and  
 P L in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, N. of  
 cor. Pits impracticable.  
 Mag. variation at this cor. is  $12^{\circ} 45'$  E.  
 Land, mountainous and hilly. Soil, very rocky, 4th rate.  
 Timber, scattering oak and pine.  
 Undergrowth, dense scrub oak and mesquite.

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## 40. Resurvey of East bdy. White Mountain or San Carlos Ind. Res.

Chains.

South, on the East bdy. of the White Mountain Indian Reservation.  
 Through scattering timber and undergrowth. Descend SE. slope, 75 ft. to  
 4.25 Canyon, course E. Ascend NE. slope, 160 ft. to  
 21.00 Spur ridge, brs. E. Descend SE. slope, 50 ft. to  
 25.00 Canyon, course E. Ascend NE. slope, 80 ft.  
 35.60 Rock cliff, 20 ft. high, 5 lks. west of line. Thence along east slope of bluff.  
 38.50 Cliff, 20 ft. high, brs. NE. and SW.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $49\frac{1}{2}$  mile cor., marked on brass cap,  
     1913 on S. rim,  
     W M I R in W., and  
      $49\frac{1}{2}$  M in E. half;  
     and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.  
 Rocky cliff, 50 ft. high, 30 lks. NW. of cor.  
 Descend SE. slope. Descend 225 ft. to canyon.  
 48.00 Descend S. slope.  
 56.00 Head of draw, course W. Continue descent.  
 57.00 Low ridge, brs. E. and W. Descend SE. slope.  
 60.50 Canyon, course E. Ascend NE. slope, 75 ft. to  
 63.50 Spur ridge, brs. E. Descend SE. slope, 100 ft. to  
 69.50 Canyon, course SW. Descend in canyon.  
 72.50 Leave canyon; ascend broken NW. slope, 215 ft. to ridge.  
 73.75 Cliff, 50 ft. high, brs. NE. and SW. South bank of canyon. Ascend broken NW. slope, to  
 77.60 Spur ridge, brs. W. Continue along west slope to  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 50 mile cor., marked on brass cap,  
     1913 on S. rim,  
     50 M W. of center,  
     W M I R in W., and  
     P L in E. half; from which,  
     A pine, 12 ins. in diam., brs. N.  $46\frac{1}{2}^{\circ}$  E., 239 lks. dist., marked W M I R 50 M P L B T.  
     A cedar limb, 6 ins. in diam., brs. S.  $48^{\circ}$  E., 67 lks. dist., marked W M I R 50 M P L B T.  
     A pine, 10 ins. in diam., brs. S.  $26^{\circ}$  W., 4 lks. dist., marked W M I R 50 M B T.  
     An oak, 12 ins. in diam., brs. N.  $9\frac{1}{2}^{\circ}$  W., 46 lks. dist., marked W M I R 50 M B T.  
 Magnetic variation at this cor. is  $13^{\circ}12'$  E.  
 Land, mountainous and hilly.  
 Soil, rocky, 4th rate.  
 Timber, scattering cedar, oak and pinon.  
 Undergrowth, scattering scrub oak.

Nov. 6, 1913.

Nov. 7, 1913: At 8h. 56m. a.m., l.m.t., I set off  $33^{\circ}11\frac{1}{2}'$  N. on the lat. arc;  $16^{\circ}13'$  S. on the decl. arc; and determine a meridian with the solar at the reestablished 50 mile cor. on the East bdy. of the White Mountain Indian Reservation, described above.

Thence I run,  
 South, on the east bdy. of the White Mountain Indian Reservation, described above.

Ascend broken NW. slope, 25 ft., through scattering timber.

1.63 Point of rock, 8 lks. west of line.

2.19 North edge of canyon, with perpendicular sides, across which I cannot chain; therefore, I take stadia measurement to rod on opposite side. Rod reading, 4.813 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Vertical angle plus  $13^{\circ}13'$ . The distance on line

Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 41.

Chains.

to rod is therefore,  $4.813 \times 2 \times .9478$  plus  $.016 = 9.14$  chs., which added to 2.19 chs. =

11.33 Stadia rod point on cliff, 40 ft. high, brs. E. and W. Descend south slope, 200 ft. to canyon.

12.00 Foot of cliff; continue descent.

17.00 Wash, course SW. Thence along broken west slope.

21.00 Gulch, course W. Continue descent.

24.50 Rocky point, brs. W. 15 lks. dist. Descend broken SW. slope.

31.50 Canyon, 107 lks. wide, 25 ft. deep. Ascend NE. slope; ascend 160 ft. to ridge.

39.00 Bottom of cliff, 40 ft. high.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $50\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
 W M I R in W., and  
 $50\frac{1}{2}$  M in E. half; from which,  
 A cedar, 6 ins. in diam., brs. N.  $80\frac{1}{2}^\circ$  E., 31 lks. dist., marked W M I R  $50\frac{1}{2}$  M P L B T.  
 A pine, 14 ins. in diam., brs. S.  $44^\circ$  W., 79 lks. dist., marked W M I R  $50\frac{1}{2}$  M BT.

Ascend N. slope, to

43.50 Spur ridge, brs. W. Descend SE. slope, 430 ft. to Eagle Creek.

46.00 Precipice, 20 ft. deep, brs. NE. and SW.

59.25 Top of precipice, 60 ft. deep; continue to descend SE. slope.

60.35 Top of precipice, 30 ft. deep.

66.98 Top of precipice, brs. E. and W., 150 ft. to bottom. Eagle creek at bottom, about 60 lks. wide, clear water, course E. Impossible to chain across canyon; therefore, from this point I take stadia measurement to rod on line on south edge of canyon. Rod reading, 3.583 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level. The dist. on line to rod is therefore,  $3.583 \times 2$  plus  $.016 = 7.18$  chs., which added to 66.98 chs. =

74.16 Stadia rod point at top of cliff on S. edge of Eagle Creek Canyon, brs. E. and W.

76.25 Ascend NE. slope, 30 ft.

78.50 Spur ridge, brs. E. Descend SE. slope, 20 ft. to

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 51 mile cor., marked on brass cap,

1913 on S. rim,  
 51 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A cedar, 22 ins. diam., brs. S.  $61\frac{1}{4}^\circ$  E., 231 lks. dist., marked W M I R 51 M P L B T.

No other trees with limits. Raise a mound of stone, 3 ft. base, 2 ft. high, north of cor. Pits impracticable. Magnetic variation at this corner is  $12^\circ 5'$  E. Land, mountainous and hilly. Soil, very rocky, 4th rate. Timber, heavy sycamore, ash and oak along creek. Undergrowth, scattering scrub oak and mesquite.

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South, on the east bdy. of the White Mountain Indian Reservation.

Through scattering timber and undergrowth. Descend SE. slope, 55 ft. to

4.00 Thence along east slope.

7.92 Instrument point for stadia measurement.

8.29 Top of bluff, 75 ft. high, brs. E. and W. Discontinue chaining; return to 7.92 ch. station and take stadia measurement across Eagle Creek Canyon. Rod reading, 1.430 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Angle of depression =  $3^\circ 20'$ . The distance to rod is therefore,  $1.430 \times 2 \times .9966$  plus  $.016 = 2.87$  chs.,

## 42. Resurvey of East bdy. White Mountain or San Carlos Ind. Res.

Chains.

- which added to 7.92 chs. = 10.79 chs. rod point  
 10.00 (Approx.) Eagle Creek, 60. lks. wide, 18 ins. deep, course E.  
 10.79 Stadia rod point on top of cliff, 85 ft. high, brs. E. and W.  
 Jan. 7, 1913.  
 Nov. 8, 1913: At this point, at 8h. 32m. a.m., l.m.t., I set  
 off  $33^{\circ}10\frac{1}{2}'$  W. on the lat. arc;  $16^{\circ}29\frac{1}{2}'$  S. on the decl. arc;  
 and determine a meridian with the solar.  
 Ascend NW. slope, 240 ft. to ridge.  
 13.00 Low ledge, brs. NE. and SW.  
 24.00 Rocky ridge, brs. E. and W. Descend SW. slope, 185 ft. to  
 wash.  
 25.90 Ledge, 10 ft. to bottom, brs. E. and W.  
 30.00 Wash, course E. Ascend NE. slope, 15 ft.  
 32.00 Spur ridge, brs. E. Descend S. slope, 110 ft. to Eagle Creek.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $51\frac{1}{2}$  mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $51\frac{1}{2}$  M in E. half, from which,  
 A mesquite, 6 ins. in diam., brs. N.  $63\frac{3}{4}^{\circ}$  E., 125  
 lks. dist., marked W M I R  $51\frac{1}{2}$  M P L B T  
 A mesquite, 5 ins. in diam., brs. N.  $43^{\circ}$  W., 216  
 lks. dist., marked W M I R  $51\frac{1}{2}$  M B T.  
 43.00 Top of precipice, sloping into Eagle Creek.  
 44.50 Eagle Creek, 75 lks. wide, 3 ins. deep, course SE.  
 46.00 Enter timber, brs. SE. and NW. in Eagle Creek Canyon.  
 51.94 As it is impossible to chain measurement on line over cliff  
 south of Eagle Creek, I therefore, set instrument over  
 this point on line, and take stadia measurement to rod  
 on line on top of cliff. Rod reading, 1.999 ft. Ratio,  
 1 ft. = 2 chs. over this point on line. Focal constant,  
 1.025 ft. Vertical angle, plus  $23^{\circ}40'$ . The distance  
 on line to rod is therefore,  $1.999 \times 2 \times .8389$  plus  
 .016 = 3.37 chs. which added to 51.94 chs. = 55.31 chs.  
 Rod point. The topography in this dist. is given at  
 approx. distances, as follows:  
 53.30 Bend of Eagle Creek from NE. to SE. Leave timber, brs. NE.  
 and SW.  
 54.50 Foot of cliff; ascend precipitously.  
 55.31 Stadia rod point on top of cliff, 100 ft. above Eagle  
 Creek.  
 54.00 Thence along broken east slope.  
 57.50 Wash; course E.; ascend.  
 58.60 Rock spur ridge, brs. E. Descend slight SE. slope.  
 66.75 Precipice, brs. E. and W. North bank of dry canyon; descend  
 south slope, 65 ft. to  
 68.00 Foot of descent. Enter heavy timber, brs. E. and W.  
 69.04 Main gulch, course E.  
 69.25 Foot of cliff, 80 ft. high. Leave timber, brs. E. and W.  
 69.45 Top of cliff. Ascend rocky, NW. slope, 150 ft. to ridge.  
 71.75 Cliff, 30 ft. high, brs. E. and W. Continue ascent to  
 74.00 Ridge, brs. NE. and SW. Thence along east slope.  
 77.25 Small draw, course E. Ascend NE. slope, 15 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in  
 the ground, for reestablished 52 mile cor., marked on  
 brass cap,  
 1913 on S. rim,  
 52 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,  
 A cedar, 6 ins. in diam., brs. N.  $43\frac{1}{2}^{\circ}$  E., 51  
 lks. dist., marked W M I R 52 M P L B T.  
 A cedar, 8 ins. in diam., brs. S.  $29^{\circ}$  E., 129 lks.  
 dist., marked W M I R 52 M P L B T.  
 A pine, 7 ins. in diam., brs. S.  $60^{\circ}$  W., 37 lks.  
 dist., marked W M I R 52 M B T.  
 A cedar, 5 ins. in diam., brs. N.  $57^{\circ}$  W., 64 lks.  
 dist., marked W M I R 52 M B T.

Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 43.  
Chains.

Magnetic variation at this cor. is 12° 55' E.  
Land, mountainous and hilly.  
Soil, very rocky, 4th rate.  
Timber, mesquite, pinon and cedar; in the creek bottom,  
ash, cottonwood and sycamore.  
Undergrowth, scattering scrub oak and mesquite.

-----  
South, on the east bdy. of the White Mountain Indian  
Reservation.  
Through scattering timber and dense undergrowth. Ascend  
NE. slope, 25 ft. to

- 1.52 Rocky spur ridge, brs. E. Descend SE slope, 85 ft. to
- 7.28 N. bank of Box canyon, with perpendicular sides, over which  
I cannot chain; therefore, I take stadia measurement  
to rod on line on opposite bank. Rod reading, 1.306 ft.  
Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Level.  
The dist. on line to rod is therefore, 1.306 x 2 plus  
.016 = 2.63 chs., which added to 7.28 chs. =
- 9.91 Stadia rod point on rocky spur ridge, brs. E. Chaining be-  
ing impossible, I take stadia measurement from here  
to the next accessible point on line. Rod reading,  
3.064 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025  
ft. Vertical angle plus 9° 44'. The distance on line  
to rod is therefore, 3.064 x 2 x .9714 plus .016 =  
5.97 chs., which added to 9.91 chs. =
- 15.88 Stadia rod pt. on rock spur brs. E. Chaining being impossible  
I take stadia measurement to the next accessible point  
on the line. Rod reading, 1.140 ft. Ratio, 1 ft. = 2  
chs. Focal constant, 1.025 ft. Level. The dist. on  
line to rod is therefore, 1.140 x 2 plus .016 = 2.30  
chs., which added to 15.88 chs. =
- 18.18 Stadia rod point on rock spur brs. E. Thence across box  
canyon 200 ft. deep, course E. Chaining being impos-  
sible, I leave rod at this point, and with instrument  
on line on opposite side, I take stadia measurement.  
Rod reading, 3.006 ft. Ratio, 1 ft. = 2 chs. Focal  
constant, 1.025 ft. Vertical angle, plus 6° 18'. The  
dist. on line to instrument is therefore, 3.006 x 2 x  
.9880 plus .016 = 5.95 chs., which added to 18.18 chs.  
=
- 24.13 Instrument point. Thence over broken rocky cliffs, bearing  
N. and S. Chaining being impossible I take stadia mea-  
surement to rod on line at next accessible point. Rod  
reading, 1.823 ft. Ratio, 1 ft. = 2 chs. Focal con-  
stant, 1.025 ft. Level. Dist. on line to rod is there-  
fore, 1.823 x 2 plus .016 = 3.66 chs., which added to  
24.13 chs. =
- 27.79 Stadia rod point on rocky point of cliff. Thence across  
points of cliffs. Chaining being impossible, I  
leave rod at this point, and from instrument on line I  
take stadia measurement. Rod reading 3.481 ft. Ratio,  
1 ft. = 2 chs. Focal constant, 1.025 ft. Vertical  
angle plus 23° 40'. The dist. on line to instrument  
is therefore, 3.481 x 2 x .8389 plus .016 chs. = 5.86 chs.  
added to 27.79 chs. =
- 33.65 Instrument point on short spur ridge, brs. E. Thence by  
chain measurement. Descend.
- 35.00 Draw, course E. Thence along broken E. slope; ascend.
- 36.00 Ridge, brs. E. and W. Descend.
- 37.00 Draw, course SE. Ascend.
- 38.00 Along E. slope; leave heavy timber. Enter dense under-  
growth.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
the ground, for reestablished 52½ mile cor., marked  
on brass cap,  
1913 on S. rim,  
W M I R in W., and  
52½ M in E. half; from which,

## 44. Resurvey of E. bdy. of White Mountain or San Carlos Ind. Res.

Chains.

- An oak, 8 ins, in diam., brs. S.  $83\frac{1}{2}^{\circ}$  E., 185 lks. dist., marked W M I R  $52\frac{1}{2}$  M P L B T.  
 A cedar, 10 ins. in diam., brs. N.  $3\frac{1}{4}^{\circ}$  W., 180 lks. dist., marked W M I R  $52\frac{1}{2}$  M B T.
- 42.00 Ascend NE. slope, 50 ft.  
 44.00 Gulch, course NE.  
 47.00 Gulch, course NE.  
 49.43 Discontinue chaining, and take stadia measurement across a V-shaped rocky canyon, course E. Rod reading, 2.592 ft. Ratio, 1 ft. = 2 chs. Focal constant, 1.025 ft. Vertical angle, plus  $4^{\circ} 40'$ . The dist. on line to rod is therefore,  $2.592 \times 2 \times .9934$  plus  $.016 = 5.16$  chs., which added to 49.43 chs. =
- 54.59 Stadia rod point on spur brs. E. Chaining being impossible over another deep canyon, I take stadia measurement from instrument at this point to rod on line on opposite side. Rod reading, 7.257 ft. Ratio, 1 ft. = 2.00 chs. Focal constant, 1.025 ft. Vertical angle plus  $8^{\circ} 28'$ . The distance on line to rod is therefore,  $7.257 \times 2 \times .9783$  plus  $.016 = 14.21$  chs., which added to 54.59 chs. =
- 68.80 Stadia rod point on spur ridge, brs. SE. Descend SW. slope, 80 ft. to
- 72.00 Canyon, course. Ascend NE. slope, 228 ft. to  
 79.00 Rocky ridge, brs. NW. and SE. Descend SW. slope, 25 ft. to  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 53 mile cor., marked on brass cap,  
 1913 on S. rim,  
 53 M W. of center,  
 W M I R in W., and  
 P-L in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, N. of cor. Pits impracticable.  
 The magnetic variation at this cor. is  $13^{\circ} 40'$  E.  
 Land, mountainous.  
 Soil very rocky, 4th rate.  
 Timber, scattering cedar, mesquite and oak.  
 Undergrowth, dense scrub oak and mesquite.  
 Note: The sky was overcast at noon; making an observation for latitude impossible.  
 Nov. 8, 1913.
- 
- Nov. 10, 1913: At 7h. 59m. a.m., l.m.t., I set off  $33^{\circ} 9'$  N. on the decl. arc  $17^{\circ} 3'$  S. on the lat. arc, and determine a meridian with the solar at the reestablished 53 mile corner on the East bdy. of the White Mountain Indian Reservation, described above.  
 Thence I run,  
 South, on the East bdy. of the White Mountain Indian Reservation.  
 Through scattering timber and dense undergrowth. Descend SW. slope, 200 ft. to
- 7.80 Canyon, course SE. Ascend NE. slope, 125 ft. to  
 15.00 Spur ridge, brs. E. Descend SE. slope, 50 ft. to  
 19.00 Wash, course E. Ascend NE. slope, 50 ft. to  
 24.20 Spur ridge, brs. SE. Descend rocky S slope, 290 ft. to  
 29.35 Eagle Creek, 20 lks. wide, 2 ft. deep, course W.  
 33.50 Ledge of rock, 10 ft. high, brs. E. and W. Leave creek bottom, ascend NE. slope, 100 ft. to
- 38.00 Thence over level bench.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $53\frac{1}{2}$  mile cor., marked on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $53\frac{1}{2}$  M in E. half; from which,

Resurvey of East bdy. White Mountain or San Carlos Ind. Res. 45.

Chains.

A cedar, 10 ins. in diam., brs. S.  $72\frac{1}{4}^{\circ}$  E., 114 lks. dist., marked W M I R  $53\frac{1}{2}$  M P L B T.  
 A cedar limb, 6 ins. in diam., brs. S.  $60^{\circ}$  W., 188 lks. dist., marked W M I R  $53\frac{1}{2}$  M B T.  
 Note: At this cor., Nov. 10, 1913; I set off  $17^{\circ}7\frac{1}{2}'$  S. on the decl. arc; and at apparent noon, I observe the sun on the meridian; the resulting lat. is  $33^{\circ}8\frac{1}{2}'$  N.  
 41.00 Ascend N. slope, 340 ft. to  
 49.65 Red rock spur ridge, brs. NW. and SE. Descend SW. slope, 215 ft. to  
 62.00 Draw, course W. Ascend NW. slope, 10 ft. to  
 63.00 Spur ridge, brs. W. Descend SW. slope, 120 ft. to  
 70.00 Thence over level land.  
 77.00 Gulch, course W.  
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished  $54$  mile cor., marked on brass cap,

1913 on S. rim,  
 54 M W. of center,  
 W M I R in W., and  
 P L in E. half; from which,

A cedar, 12 ins. in diam., brs. N.  $29\frac{1}{2}^{\circ}$  E., 165 lks. dist., marked W M I R 54 M P L B T.  
 A cedar, 8 ins. in diam., brs. S.  $61^{\circ}$  E., 229 lks. dist., marked W M I R 54 M P L B T.  
 A mesquite, 6 ins. in diam., brs. S.  $41^{\circ}$  W., 105 lks. dist., marked W M I R 54 M B T.  
 A mesquite 6 ins. in diam., brs. N.  $18^{\circ}$  W., 411 lks. dist., marked W M I R 54 M B T.

The magnetic variation at this cor. is  $13^{\circ}10'$  E.  
 Land, mountainous and hilly.  
 Soil, very rocky, 4th rate.  
 Timber, scattering cedar, oak and mesquite.  
 Undergrowth, dense scrub oak and mesquite.

-----  
 South, on the East bdy. of the White Mountain Indian Reservation.  
 Over level land, through scattering timber and dense undergrowth.

2.00 Descend N. bank of Eagle Creek, 50 ft.  
 4.39 Rocky cliff, brs. NW. and SE.  
 6.00 Foot of cliff, Eagle Creek, 90 lks. wide, 8 ins. deep, course SE. Enter timber, brs. NW. and SE.  
 11.50 Eagle Creek, 85 lks. wide, 8 ins. deep, course SW.  
 16.20 Foot of cliffs, bear NE. and SW.  
 19.80 Spur ridge, brs. W. Descend SW. slope of river bank, 200 ft. to Eagle Creek.  
 26.00 Gulch, course W. Continue descent.  
 27.00 Spur ridge, brs. W. Descend SW. slope into Eagle Creek.  
 29.00 Eagle Creek, 75 lks. wide, 6 ins. deep, course SE.  
 31.20 Trail, brs. SE. and NW. along river.  
 33.55 Leave river bottom; ascend NE. slope, 60 ft.  
 38.00 Along broken E. slope.  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished  $54\frac{1}{2}$  mile cor., marked on brass cap,

1913 on S. rim,  
 W M I R in W., and  
 $54\frac{1}{2}$  M in E. half; from which,

A walnut, 6 ins. in diam., brs. N.  $56\frac{1}{2}^{\circ}$  E., 85 lks. dist., marked W M I R  $54\frac{1}{2}$  M P L B T.  
 A cedar limb, 5 ins. in diam., brs. S.  $62\frac{1}{2}^{\circ}$  W., 20 lks. dist., marked W M I R  $54\frac{1}{2}$  M B T.

Nov. 10, 1913.  
 Nov. 11, 1913: At this cor. at 8h. 10m. a.m., l.m.t., I set off  $33^{\circ}7\frac{1}{2}'$  N. on the lat. arc;  $17^{\circ}20'$  S. on the decl. arc, and determine a meridian with the solar.



## 46. Resurvey of East bdy. of White Mountain or San Carlos Ind. Res.

Chains.

- From above described cor. I offset 1.72 chs. east to avoid cliffs, and run south on the offset line, continuing mile measurement.
- 40.60 Irrigation ditch, 20 lks. wide, course SW.
- 40.85 Eagle Creek, 60 lks. wide, 8 ins. deep, course SW. Thence along gravel creek bottom.
- 48.94 Pole fence, brs. E. and W. Enter Mexican's garden.
- 51.72 At this point, I offset, 1.72 chs. W. to true line, and run, South, continuing measurement.
- 51.85 Enter irrigation ditch.
- 52.50 Leave ditch, thence along east bank.
- 62.00 Ascend NE. slope, 30 ft.
- 63.60 Irrigation ditch, 2 ft. wide, course SE.
- 66.00 J. Jaggr's house brs. due east, about 8 chs. dist.
- 79.80 Trail, brs. NE. and SW. Thence along broken east slope.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 55 mile cor., marked on brass cap,
- 1913 on S. rim,  
55 M W. of center,  
W M I R in W., and  
P L in E. half; from which,  
A mesquite, 6 ins. in diam., brs. N. 65° E., 160 lks. dist., marked W M I R 55 M P L B T?  
An oak, 5 ins. in diam., brs. S. 34° W., 155 lks. dist., marked W M I R 55 M B T.
- No other trees within limits. Raise a mound of stone 3 ft. base, 2 ft. high, north of cor. Pits impracticable. Magnetic variation at this 55 mile cor. is 13° 22' E. From this cor., Tom Ponce's ranch house brs. S. 77° E., about 12 chs. dist.
- A 3-strand wire fence, brs. NE. and SW., 5 lks. east of cor. Land, mountainous and rolling. Soil, very rocky, 4th rate. Timber, scattering cedar and oak. Undergrowth, scattering oak and mesquite.
- 
- South, on the east bdy. of the White Mountain Indian Reservation.
- Over level land, through dense undergrowth.
- .10 Wire fence brs. NE. and SW. Enter field.
- .65 Wash, 90 lks. wide, 3 ft. deep, course E.
- 2.50 Ascend NE. slope, 410 ft. to ridge.
- 5.55 Wire fence brs. SE. and NW. Leave field.
- 12.00 Orchard, brs. east 6 chs. dist.
- 27.00 Spur ridge, brs. NE. Descend SE. slope, 30 ft. to
- 33.00 Draw, course NE. Ascend N. slope, 210 ft. to ridge.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 55½ mile cor., marked on brass cap,
- 1913 on S. rim,  
W M I R in W., and  
55½ M in E. half; from which,  
A pine, 12 ins. in diam., brs. S. 14° E., 44 lks. dist., marked W M I R 55½ M P L B T.  
A pine, 14 ins. in diam., brs. S. 20½° W., 93 lks. dist., marked W M I R 55½ M B T.
- Note: At this cor., Nov. 11, 1913, I set off 17° 24' S. on the decl. arc, and at apparent noon, observe the sun on the meridian; the resulting lat. is 33° 7' N.
- 40.50 Cliff, 20 ft. high, brs. E. and W.
- 41.05 Rock point, 60 ft. high.
- 42.00 Ridge, brs. SE. and NW. Descend SW. slope, 50 ft. to
- 49.00 Head of canyon, course NW. Ascend N. slope, 495 ft. to
- 66.00 Ridge, brs. SE. and NW. Descend S. slope, 350 ft. to
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 56 mile cor., marked on

Resurvey of East bdy. of White Mountain or San Carlos Ind. Res. 47.

Chains.

brass cap,

1913 on S.rim,

56 M W. of center,

W M I R in W., and

P L in E. half; from which,

A pine 8 ins. in diam., brs. S. 7° E., 205 lks. dist., marked W M I R 56 M P L B T.

No other trees, within limits. Raise a mound of stone, 3 ft. base, 2 ft. high, north of cor. Pits impracticable.

Magnetic variation at this cor. is 13° 2' E.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, scattering cedar, oak and pinon.

Undergrowth, dense scrub oak and mesquite.

South, on the east bdy. of the White Mountain Indian Reservation.

Through scattering timber, and dense undergrowth. Descend SW. slope, 110 ft. to

3.90 Canyon, course SE. Ascend NE. slope, 15 ft. to

6.00 Spur ridge, brs. SE. Descend SW. slope, 45 ft. to

8.00 Canyon, course E.; ascend N. slope, 480 ft. to mesa.

10.00 Ascend NW. slope.

21.50 Thence over level mesa. Nov. 11, 1913.

Nov. 12, 1913: At this point, at 8h. 55m. a.m., l.m.t., I set off 33° 6' N. on the lat. arc; 17° 39' S. on the decl. arc; and determine a meridian with the solar.

27.50 Descend SW. slope, 85 ft. to

37.50 Draw, course W. Ascend NW. slope, 400 ft. to ridge.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 56 1/2 mile cor., marked on brass cap,

1913 on S.rim,

W M I R in W., and

56 1/2 M. in E. half; from which,

A pine, 6 ins. in diam., brs. N. 45 1/2° E., 49 lks. dist., marked W M I R 56 1/2 M P L B T.

A pine, 10 ins. in diam., brs. N. 9° W., 6 lks. dist., marked W M I R 56 1/2 M B T.

57.00 Spur ridge, brs. W. Descend SW. slope, 35 ft. to

61.00 Draw, course NW. Ascend NW. slope, 240 ft. to ridge.

71.00 Ridge, brs. NE. and SW. Descend SE. slope, 144 ft. to

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished 57 mile cor., marked on brass cap,

1913 on S.rim,

57 M W. of center,

W M I R in W., and

P L in E. half; from which,

A pine, 12 ins. in diam., brs. N. 65 1/2° E., 49 lks. dist., marked W M I R 57 M P L B T.

A cedar, 8 ins. in diam., brs. S. 46 1/2° E., 45 lks. dist., marked W M I R 57 M P L B T.

A pine, 6 ins. in diam., brs. S. 15° W., 115 lks. dist., marked W M I R 57 M B T.

A cedar limb, 5 ins. in diam., brs. N. 67° W., 82 lks. dist., marked W M I R 57 M B T.

Mag. var. at this cor. is 11° 30' E.

Land, mountainous and hilly.

Soil, rocky, 4th rate.

Timber, scattering cedar, pinon and oak.

Undergrowth, dense scrub oak and mesquite.

South, on the east bdy. of the White Mountain Indian Reservation.

Through scattering timber and dense undergrowth. Descend

## 48. Resurvey of East bdy of White Mountain on San Carlos Ind. Res.

Chains.

- SE. slope, 20 ft. to  
 1.25 Gulch, course E. Ascend NE. slope, 25 ft. to  
 4.50 Spur ridge, brs. E. Descend SE. slope, 315 ft. to  
 14.75 Canyon, course E. Ascend NE. slope, 520 ft. to  
 26.30 Spur ridge brs. NW. Thence along W. slope.  
 32.30 Ascend. NW. slope, 260 ft. to ridge.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in  
 the ground, for reestablished  $57\frac{1}{2}$  mile cor., marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W., and  
 $57\frac{1}{2}$  M in E. half;  
 and raise a mound of stone 3 ft. base, 2 ft. high, west  
 of cor. Pits impracticable.
- 49.63 Ridge, brs. NE. and SW. Set an iron post 3 ft. long, 3 ins.  
 in diam., 24 ins. in the ground, for reestablished SE.  
 cor. of the White Mountain Indian Reservation, marked  
 on brass cap,  
 1913 on S. rim,  
 W M I R in W.,  
 P L in E. half; and  
 S E cor. on NW. quad.; from which,  
 A juniper, 5 ins. in diam., brs. S.  $73\frac{1}{4}^{\circ}$  E., 13.  
 lks. dist., marked W M I R SE. cor. P L BT.  
 A juniper, 4 ins. in diam., brs. S.  $85\frac{1}{4}^{\circ}$  W., 37.  
 lks. dist., marked W M I R SE. cor. BT.  
 No other trees within limits. Raise a mound of stone 3 ft.  
 base, 2 ft. high, N. of cor. Pits impracticable.  
 Magnetic variation at this cor. is  $13^{\circ} 40' E.$   
 Land, mountainous and hilly.  
 Soil, very rocky, 4th rate.  
 Undergrowth, dense scrub oak and mesquite.  
 Timber, scattering cedar, pinon and oak.

From the Reestablished SE. cor. of the White Mountain  
 Indian Reservation, above described, I run,  
 S.  $20^{\circ} 47' W.$

- .50 Ascend. slight NE. slope, to  
 7.50 Thence along steep east slope, to  
 Rocky spur brs. SE. Descend east slope, 35 ft. to  
 14.00 Head of wash, course E. Ascend NE. slope, 50 ft. to  
 15.00 Rocky spur ridge, brs. SE.; descend.
- 22.00 Head of wash, course E. Asc. rocky broken NE. slope,  
 225 ft.  
 27.00 Rocky ledge, brs. N. and S.  
 28.00 Rocky spur ridge, brs. E.  
 31.50 Rocky ledge, brs. N. and S.  
 33.00 Ledge, brs. N. and S. Thence along top of mountain.  
 37.77 To center of mound, 5 ft. base, 7 ft. high, marked on flat  
 rock 3 ft. S. of center of mound, WMIR  
 Marked on flat rock, 4 ft. N. of center of mound,  
 50+51.95  
 Marked on flat rock, about 8 ft. NE. of center of  
 mound, GREENLEE COUNTY.  
 Marked on flat rock, about 12 ft. SW. of center of  
 mound, GRA CO.  
 From this monument, a monument, 5 ft. base, 5 ft. high,  
 marked WMIR on flat rock, 4 ft. S. of center, brs.  
 S.  $43^{\circ} 30' W.$ , 152.31 chs. dist. as determined by tri-  
 angulation using a base line 25.00 chs. in length.

Nov. 12, 1913.

*William B. Kimmel.*

U. S. Surveyor

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, William B. Kimmel, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in <sup>re</sup> surveying all those parts or portions of the East bdy. of the Fort Apache Indian Reservation and the East bdy. of the White Mountain or San Carlos Indian Reservation

East of the Gila & Salt River Meridian, in the State of Arizona.

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said <sup>re</sup> survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

Table with columns: NAME, PERIOD OF SERVICE (BEGUN, ENDED), CAPACITY. Includes handwritten entries for O O Prooy, L D..., S H..., and Wrey Herman.

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

Signature of William B. Kimmel, U. S. Surveyor.

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BOOK 2763

FINAL OATH OF UNITED STATES SURVEYOR.

MAR 15 1915

I, William B. Kimmel, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona for Group 26 bearing date of the 18 th day of February, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, <sup>re</sup>surveyed all those parts or portions of the East bdy. of the Fort Apache Indian Reservation and the East bdy. of the White Mountain or San Carlos Indian Reservation

East of the Gila and Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said <sup>re</sup>survey have been <sup>re</sup>established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona for Group 26 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such <sup>re</sup>survey.

*William B. Kimmel*  
U. S. Surveyor.

Subscribed by said William B. Kimmel, and sworn to before me }  
this 4<sup>th</sup> day of March, 1915



*Frank S. Ingalls*  
SURVEYOR-GENERAL OF ARIZONA

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz. June 19, 1915

The foregoing field notes of the <sup>re</sup>survey of the East bdy. of the Fort Apache Indian Reservation and the East bdy. of the White Mountain or San Carlos Indian Reservation East of the Gila and Salt River Meridian, in the State of Arizona.

executed by William B. Kimmel, U.S. Surveyor under his special instructions dated February 18, 1913 for Group 26, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the <sup>re</sup>surveys they describe, are hereby approved.

*Frank S. Ingalls*  
U. S. Surveyor General.  
of Arizona.

~~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.~~