

3524

22/
Erig (1)
CALP

4-679

Book "H"

BOOK 3524

FIELD NOTES

OF THE SURVEY OF THE

10th Standard Parallel North through Range 13 West,

the East boundary,

the North boundary,

and the Subdivision lines of

Township 41 North, Range 13 West,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Joseph P. Davis, U. S. Cadastral Engineer,

and Claude F. Warner, U. S. Transitman,

In the capacity of U. S. Surveyor s., under Special Instructions dated September 29, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 112, Arizona, which were approved by the Commissioner of the General Land Office, November 10, 1920, and Assignment Instructions dated December 15, 1920

Survey commenced March 21, 1921

Survey completed April 28, 1921

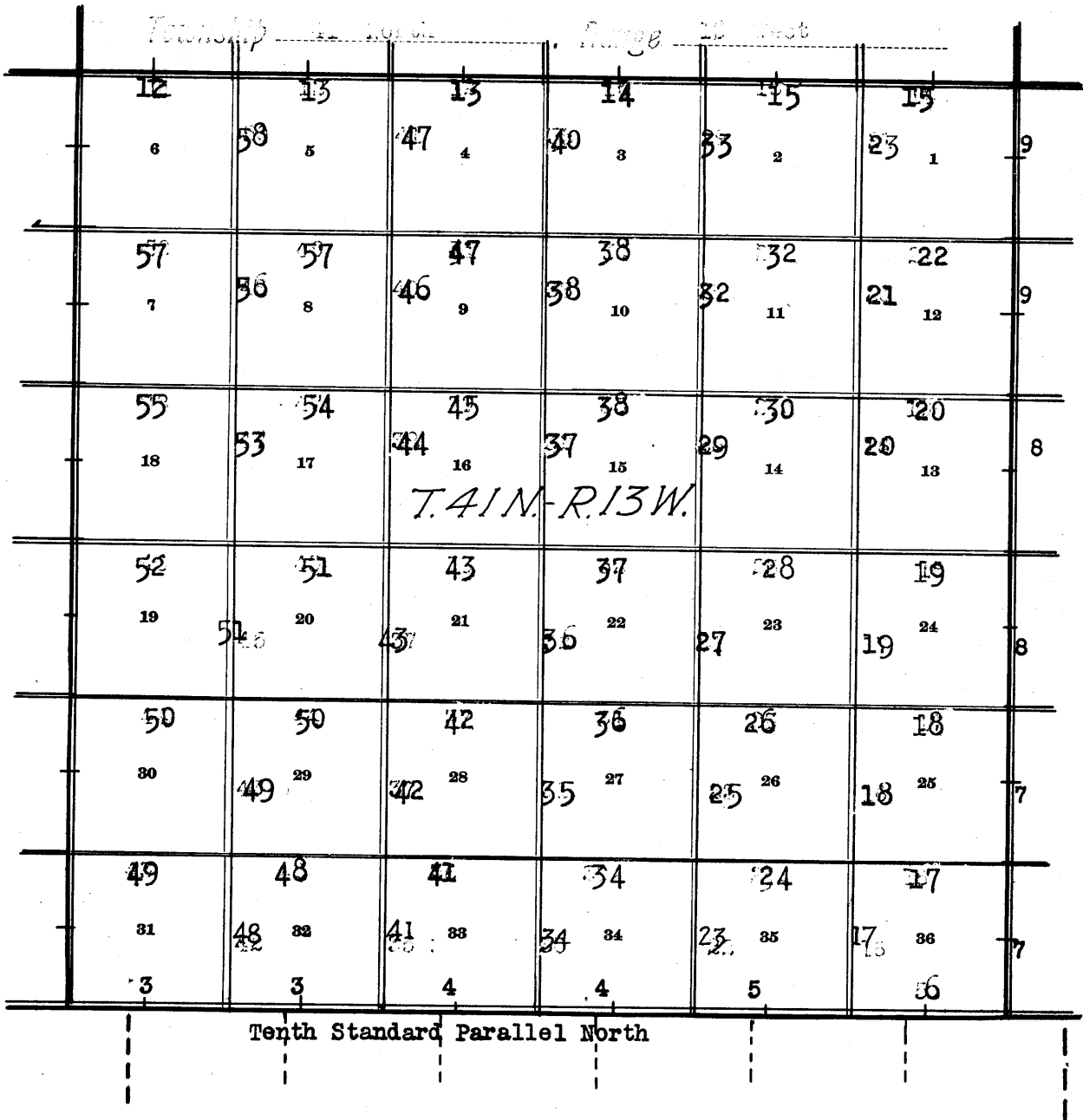
3524

3524

1A

BOOK 3524

INDEX DIAGRAM.



==== Lines surveyed under this Group.

----- Unsurveyed.

Book "H"
Group 112- Arizona
Date Diagram

Township 41 North, Range 13 West,

SEE BOOK "H" FOR DATES OF SURVEY OF THIS LINE

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

Tenth Standard Parallel North

On the above diagram:-
black lines indicate surveys executed by Joseph P. Davis,
U. S. Cadastral Engineer,
and red lines indicate surveys executed by Claude F. Warner,
U. S. Transitman, all on dates shown thereon.

Surveys hereinafter described executed by J. P. Davis, U. S. Cadastral Engineer and C. F. Warner, U. S. Transitman, on dates shown on diagram on page 1 hereof, using respectively Buff light mountain transit No. 10125 and Young and Sons light mountain transit No. 8532. For description of instruments and certificate of approval, see Book "A".

Unless otherwise specified, all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Chesterman standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined and the slope measurements properly reduced to true horizontal distances.

Examine the adjustments of the transits and correct all errors; then, to test the solar apparatus, by comparing their indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris at elongation, proceed as follows:

March 20, 1921.

At camp in sec. 2, T. 40 N., R. 13 W., G. and S. R. B. and M., lat. $36^{\circ}53\frac{1}{2}'$ N., long. $113^{\circ}40\frac{1}{2}'$ W., at 9 hrs. 0 m. a.m., l.m.t., set off $36^{\circ}53\frac{1}{2}'$ N. on the lat. arcs; $0^{\circ}10'$ S. on the decl. arcs; and determine a meridian with each solar.

At apparent noon, with the lat. arcs unchanged, observe the sun on the meridian; the resulting decl. with each instrument is $0^{\circ}7\frac{1}{2}'$ S., which is the computed decl. of the sun.

At 3 hrs. 0 m. p.m., l.m.t., with the lat. arcs unchanged, set off $0^{\circ}4'$ S. on the decl. arcs, and determine a meridian with each solar, which agrees with the morning observations.

At 7 hrs. 36.5 m., p.m., l.m.t., observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined by a tack in a stake, firmly driven in the ground 5 chs. N. of station.

March 21, 1921. At 8 hrs. 0 m., a.m., l.m.t., lay off the azimuth of Polaris, $1^{\circ}23\frac{1}{2}'$ to the E., and find that the true meridian thus determined coincides with the meridian determined by observations with the solars.

As all of the solar observations during the usual hours of solar work come within $1'30''$ of the true meridian, conclude that the adjustments of the solars are satisfactory.

Chains.

From a point 4 lks.S. of the standard cor.of Ts.41 N.,Rs. 13 and 14 W., on 10th Standard Parallel North, described in Book "F,"

N.39°58'E., on the secant, south of sec.31.

Over mountainous land, thru. scattering undergrowth.

Ascend 100 ft.

- 4.28 Ridge, brs.N.30°W. and S.30°E. Thence across top of ridge.
 7.50 Descend 200 ft., over NE.slope.
 20.10 Draw, course N. Asc. 120 ft., over NW.slope, to
 31.80 Spur, slopes N. Desc.85 ft., over NE.slope, to
 40.00 North, 2 lks. from the secant,
 Set an iron post, 3 ft.long, 1 in. in diam., 20 ins.in
 the ground, for standard $\frac{1}{4}$ sec.cor. of sec.31, marked
 on brass cap,

S C
 $\frac{1}{4}$ S 31

1921

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

Ascend 15 ft.

- 43.00 Spur, slopes N.15°W. Desc. 605 ft., over broken NE.slope.
 76.75 Gulch, course N.10°W. Asc. 70 ft., over SW.slope, to
 80.00 Set an iron post, 3 ft.long, 3 ins. in diam., on bedrock,
 with marked stone, for standard cor.of secs. 31 and
 32, and raise a mound of stone around post, with brass
 cap, marked

S C
 T41N | R13W
 S31 | S32

1921

Land, rough, mountainous.

Soil, rocky, gravel and brown loam, 4th rate.

No timber.

Undergrowth, cedar, pinyon, sagebrush and black brush.

N.89°59'E., on the secant, thru. sec.32.

Over mountainous land, thru. scattering undergrowth.

Ascend 25 ft.

- 2.96 Spur, slopes N. 60°W. Desc. 170 ft., over NE.slope.
 20.80 Gulch, course N. Asc. 150 ft., over W.slope.
 31.05 Ridge, brs.N. and S. Desc. 85 ft., over NE.slope, to
 40.00 South, 1 lk.from the secant,
 Set an iron post, 3 ft. long, 1 in. in diam., on bedrock,
 with marked stone for standard $\frac{1}{4}$ sec.cor. of sec.32,
 and raise a mound of stone around post, with brass cap,
 marked

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

1921

Descend 100 ft., over NE. slope, to

- 46.00 Short draw, course S.80°E. Descend 40 ft.
 51.00 Draw, course N.15°E. Ascend 135 ft., over NW.slope.
 62.15 Ridge, brs.N.10°E. and S.10°W. Desc. 200 ft., over NE.
 slope, to
 80.00 South, 2 lks.from the secant, at head of draw, course N.
 30°E.
 Set an iron post, 3 ft.long, 3 ins. in diam., 8 ins.in
 the ground, with marked stone, for standard cor.of
 secs. 32 and 33, and raise a mound of stone around post,
 with brass cap, marked

S C
 T41N | R13W
 S32 | S33

1921

4 10th Std. Par. North thru. Range 13 West.

Chains.

Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, cedar, black brush and sage brush.

N.89°59'E., on the secant, thru. sec.33.
Over mountainous land, thru. scattering undergrowth.
Ascend 10 ft. over N.slope.
9.20 Low spur, slopes N.10°E. Descend 110 ft. to
24.90 Spur, slopes N.45°E. Desc.175 ft., to
40.00 South, 3 lks. from the secant,
Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in
the ground, with marked stone, for standard $\frac{1}{4}$ sec.cor.
of sec.33, and raise a mound of stone around post, with
brass cap, marked

S C
33

1921

Descend 172 ft.
57.40 Gulch, course N.30°E. Ascend 100 ft.
60.50 Point of spur, sloping N.30°E. Desc. 150 ft.
77.30 Draw, course N. 45°E. Ascend 25., to top N.; ascend 45
ft., over NW.slope, to
80.00 South 3 lks. from the secant,
Set an iron post, 3 ft. long, 3 ins. in diam., on bed rock,
with marked stone, for standard cor. of secs. 33 and 34,
and raise a mound of stone around post, with brass cap,
marked

S C
T41N | R13W
S33 | S34

1921

Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush and cactus.

East, on the secant, thru. sec.34.
Over mountainous land, thru. scattering undergrowth.
Ascend 45 ft., over NW.slope.
7.47 Spur, slopes N. Descend 95 ft., over E.slope.
17.40 Narrow gulch, course N.30°E. Ascend 60 ft., over NW.slope.
21.90 Point of spur, slopes N. Desc. 50 ft., over NE.slope, to
25.40 Gulch, course N.15°E. Descend 100 ft., over N.80°E.
slope, to
40.00 South 3 lks. from the secant,
Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in
the ground, with marked stone, for standard $\frac{1}{4}$ sec.cor.
of sec.34, and raise a mound of stone around post, with
brass cap, marked

S C
34

1921

Descend 45 ft.
43.90 Head of draw, course N. Ascend 20 ft.
49.10 W. rim of canyon, brs. N. and S. Desc. 200 ft.
78.10 Box canyon, course N.10°E. Asc. 90 ft. to
80.00 South 2 lks. from the secant, at E. rim of canyon, bearing
N.10°E. and S.10°W.
Set an iron post, 3 ft. long, 3 ins. in diam., on bed rock.

Chains.

with marked stone, for standard cor. of secs. 34 and 35, and raise a mound of stone around post, with brass cap, marked

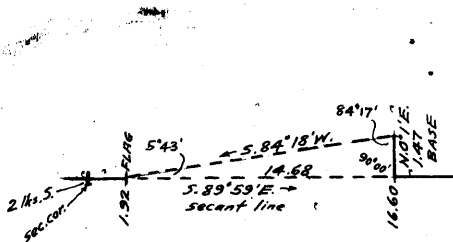
S C
T41N R13W
S34 S35

1921.

Land, mountainous.
Soil, rocky, 4th. rate.
No timber.
Undergrowth, black brush and greasewood.

S. 89° 59' E., on the sec nt, thru. sec. 35.
Over mountainous land, thru. scattering undergrowth.
Across nearly level top of point of short spur, sloping N.

1.92 W. rim of Black Rock canyon, brs. N. and S. Leave top of spur, and descend 270 ft., over W. wall of canyon. Chaining is impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



Leave flag at this point on secant.

From a point ahead on secant at E. rim of canyon, measure a base, N. 0° 1' E., 1.47 chs., which is as long a base as can be chained with accuracy.

From N. end of base, flag brs. S. 84° 18' W.

Included angles are 84° 17', 90° 00' and 5° 43', the sum of which is 180° 00'.

Triangulated dist. on secant is obtained by Tang. 84° 17' x base, or 9.98931 x 1.47 = 14.68 chs., which added to 1.92 chs. gives 16.60 chs. S. 89° 59' E., for the position of the triangulation point on secant.

9.50 (Approximate) Bottom of Black Rock canyon, course N. Asc. 250 ft., over E. wall of canyon.

16.60 Triangulation pt. on E. rim of canyon, bearing N. and S. Continue line and measurement, by chaining. Ascend 65 ft., over gradual N. 75° W. slope, to

36.90 Descend 12 ft. to
38.90 Draw, course N. 15° W. Ascend 10 ft. to

40.00 South 1 lk. from the secant,
Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for standard cor. of sec. 35, and raise a mound of stone around post, with brass cap, marked

S C
T41N R13W
S35 S36

1921

Ascend 185 ft., over W. slope.

61.80 Ridge, brs. N. and S. Descend 110 ft., over E. slope.

71.65 Box gulch, course N. At 15 lks. S. in this gulch is the mouth of a gulch, course W. Asc. 35 ft. to sec. cor., over SW. slope, along N. side of gulch.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 4 ins. in the ground, with marked stone for standard cor. of secs. 35 and 36, and raise a mound of stone around post, with brass cap, marked

S C
T41N R13W
S35 S36

1921

o 10th Standard Parallel North, thru. Range 10 West.

Chains.

Land, rough, mountainous.
Soil, lava rock and light loam, 3rd rate.
No timber.
Undergrowth, black brush and cactus.

S. 89° 58' E., on the secant, S. of sec. 30.
Over mountainous land, thru. scattering undergrowth.
Ascend 435 ft., over SW. slope, to $\frac{1}{4}$ sec. cor.
13.77 Road brs. S. to Black Rock Springs, Arizona, and N. to
Bloomington and St. George, Utah.

40.00 North, 2 lks. from the secant,
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground, for standard $\frac{1}{4}$ sec. cor. of sec. 30, marked
on brass cap,

S C
1/4 S 36

1921

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

Ascend 100 ft., over SW. slope.
46.00 Ridge, brs. N. 30° W. from S. 75° E. Thence along broken N.
slope of this ridge. Ascending gradually to

62.00 Head of draw, course N. 55° W. Continue along N. slope of
ridge, ascending 130 ft. to

80.00 North, 4 lks. from the secant, at SW. edge of wash, course
NW.

Set an iron post, 3 ft. long, 3 ins. in diam., 10 ins. in
the ground, with marked stone, for standard cor. of $\frac{1}{4}$ s.
41 N., Rs. 12 and 13 W., and raise a mound of stone
around post, with brass cap, marked

S C
T41N
R13W | R12W
S36 | S31

1921

Land, mountainous.
Soil, light loam, with lava rocks and gravel, 3rd rate.
No timber.
Undergrowth, black brush and cactus.

Survey of the East bdy. of Township 41 North, Range 13 West.

Chains.

From the standard cor. of Ts. 41 North, Ranges 12 and 13 West, on 10th Standard Parallel North, hereinbefore described,

North, on true line, bet. secs. 31 and 30.

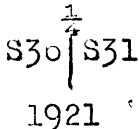
Over mountainous land, thru. scattering undergrowth.

Across bottom of wash, course NW.

0.30 Leave bottom of wash. Descend 600 ft., over NW. slope, to

37.65 Wash, course N.45°W. Asc. 25 ft., over SW. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock with marked stone for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



Ascend 65 ft., over SW. slope.

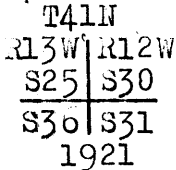
49.00 Spur, slopes NW. Descend 250 ft., over N. slope.

61.25 Short gulch, course W. near mouth of same. Ascend 50 ft.

64.00 Point of short spur, slopes W. Descend 135 ft.

64.70 Gulch, course N.15°E. Asc. 75 ft., over SE. slope, to

80.00 Spur, sloping NE. Set an iron post, 3 ft. long, 3 ins. in diam., 8 ins. in the ground, with marked stone, for cor. of secs. 25, 30, 31 and 30; and raise a mound of stone around post, with brass cap, marked



Land, mountainous.

Soil, lava rock and gravelly, light loam, 3rd rate.

No timber,

Undergrowth, black brush.

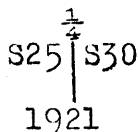
North, on true line, bet. secs. 25 and 30.

Over rolling land, thru. scattering undergrowth.

Descend 145 ft., over NW. slope of spur, to

18.80 Thence over W. slope from spur, with very little change in elevation to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



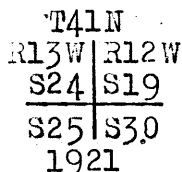
and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Ascend 70 ft., over SW. slope of same spur.

54.80 Top of same spur, slopes N.75°W. Descend 120 ft., over N. slope, to

65.10 Gulch, course E. Asc. 140 ft., over broken SW. slope, to

80.00 Top of spur, sloping SE. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked on brass cap,



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

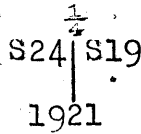
8 East boundary of Township 41 North, Range 13 West.

Chains.

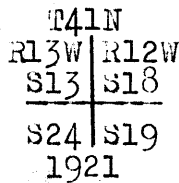
Land, rolling and broken.
Soil, gravel and light loam, rocky 3rd rate.
No timber.
Undergrowth, black brush and shellac brush.

North, on true line, bet. secs. 19 and 24.
Over rolling land; thru. scattering undergrowth.
Descend 165 ft., over NE. slope.

- 23.20 Gulch, course N. 60° E. Ascend 10 ft.
- 27.30 Descend 35 ft., over rolling NE. slope, to $\frac{1}{4}$ sec. cor.
- 37.50 Road brs. W. to Black Rock Spring, Arizona, and N. 75° E. to Bloomington and St. George, Utah.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



- 75.00 Descend 120 ft., over rolling NE. slope.
- Draw, course N. 30° E. Asc. 15 ft. to
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

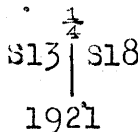


and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Land, rolling.
Soil, light loam, rocky, 3rd rate.
No timber.
Undergrowth, shellac brush and black brush.

North, on true line, bet. secs. 13 and 18.
Over rolling and hilly land, thru. scattering undergrowth.

- 7.00 Descend 25 ft.
- Ascend 100 ft.
- 11.00 Descend 80 ft.
- 22.60 Ascend 30 ft.
- 27.00 Descend 60 ft.
- 31.50 Draw, course N. 75° E. Ascend 100 ft. to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



- 41.30 Ascend slightly to Top of hill, brs. E. and W.
- Descend 50 ft.
- 51.30 Ascend 25 ft.
- 53.50 Descend 120 ft.
- 63.20 Draw, course N. 15° E. Ascend 15 ft.
- 70.00 Descend 10 ft.
- 75.80 Draw, course N. 75° E. Ascend 10 ft.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 7, 12, 13 and 18, marked on

Chains.

brass cap,

T41N	
R13W	R12W
S12	S 7
S13	S18
1921	

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

Land, rolling and hilly.

Soil, gravel and light loam, rocky, 3rd rate.

No timber.

Undergrowth, shellac brush and black brush.

North, on a true line, bet. secs. 7 and 12.

Over rolling and hilly land, thru. scattering undergrowth.

Descend 75 ft., over NE. slope.

13.00 Wash, course E. Ascend 20 ft.

22.50 Descend 30 ft.

27.50 Ascend 55 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$	
S12	S 7
1921	

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

Ascend 65 ft.

56.00 Top of ascent, brs. E and W. Apex of round hill, brs.

West 8 chs. dist. Descend 160 ft. over NE. slope, near foot of same.

80.00 On W. side of wash, course N. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T41N	
R13W	R12W
S 1	S 6
S12	S 7
1921	

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

Land, rolling.

Soil, gravel, 3rd rate.

No timber.

Undergrowth, black brush and shellac brush.

North, on true line, bet. secs. 1 and 6.

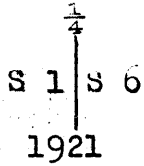
Over rolling land, thru. scattering undergrowth.

Cross wash, course N., and descend 60 ft. along E. side of same.

39.60 Dim road, brs. N. 75° E., and S. 75° W.40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked with brass cap,

10 East boundary of Township 41 North, Range 13 West.

Chains.



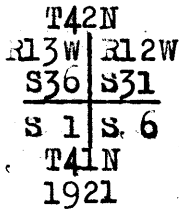
and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

44.60 Same wash, course NE. Ascend 45 ft.

65.00 Descend 25 ft.

71.50 Wash, course NE. Ascend 15 ft., over E. slope, to

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., on bedrock, with marked stone, for cor. of Ts. 41 N., Rs. 12 and 13 W., and frac. Ts. 42 N., Rs. 12 and 13 W.; and raise a mound of stone around post, with brass cap, marked



Land, rolling.

Soil, gravelly, 3rd rate.

No timber.

Undergrowth, black brush and shellac brush.



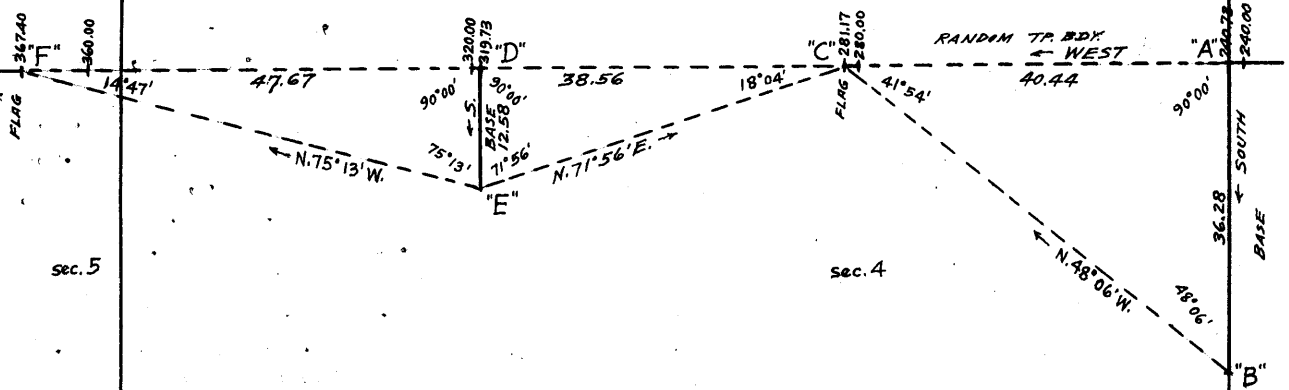
Survey of North boundary of Township 41 North, Range 13 West. 11

Chains.

From the cor. of Ts. 41 N., Rs. 12 and 13 W., and frac. Ts. 42 N., R. 12 and 12 W., hereinbefore described, West, on random line, setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs.

240.00 Set temp. cor. of secs. 3 and 4, and frac. secs. 33 and 34.

240.73 Discontinue chaining at this point. The line W. of this point passes over a deep gulch, course N., the sides of which are very steep and broken and beyond the gulch are steep cliffs. The line then passes over the Virgin River Canyon. Chain measurement between the 240.73 ch. station, and a point on random line on right or N. rim of Virgin River canyon being impracticable, make a series of triangulations to obtain measurement of this interval, as described as follows, and as shown on the diagram hereon:



sec. 5

sec. 4

From 240.73 ch. station on random Tp. bdy. indicated on diagram at "A," measure a Base, South, 36.28 chs. to point "B,"

Set flag ahead on random Tp. bdy. at "C," at point of spur, at left or S. rim of Virgin River Canyon. Bearing from "B" to "C," = N. 48° 06' W. Included angles of triangle "ABC" are 90° 00', 48° 06' and 41° 54', the sum of which is 180° 00'. Vertical angle from "A" to "C" is + 2°. Triangulated dist. on random Tp. bdy. from "A" to "C" is obtained by Tang. 48° 06' x Base "A B" or 1.11452 x 36.28 = 40.44 chs., which added to 240.73 chs. gives 281.17 chs. W. from Tp. cor. for the position of flag point "C."

280.00 From point "C," chain measurement 1.17 chs. East to Set temp. $\frac{1}{4}$ sec. cor. of sec. 4 and frac. sec. 33.

281.17 Flag point of triangle "ABC".

From point ahead on random Tp. bdy. indicated on diagram at "D," measure a Base, South 12.58 chs. to point "E."

Bearing from "E" to "C" = N. 71° 56' E. Included angles of triangle "CDE" are 18° 04', 90° 00' and 71° 56', the sum of which is 180° 00'. Vertical angle from "C" to "D" is - 22 $\frac{1}{2}$ °. Triangulated dist. on random Tp. bdy. from "C" to "D" is obtained by Tang. 71° 56' x Base "DE" or 3.06554 x 12.58 = 38.56 chs. which added to 281.17 chs. gives 319.73 chs. W. from Tp. cor. for the position of triangulation point "D."

319.73 Triangulation point "D" of triangle "CDE". Chain measurement, West, 0.27 chs. to

320.00 Set temp. cor. of secs, 3 4 and 5, and frac. secs. 32 and 33. Set flag ahead on random Tp. bdy. at point "F,"

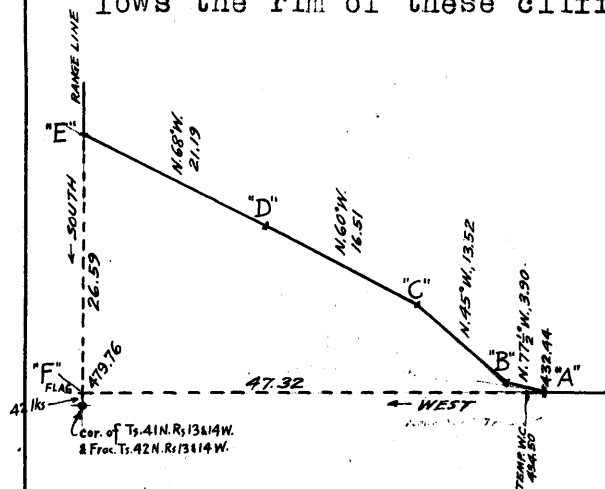
From S. end of base "DE", Flag brs. N. 75° 13' W. Included angles of triangle "DEF" are 90° 00', 75° 13' and 14° 47', the sum of which is 180° 00'. Vertical angle from "D" to "F" is + 20°. Triangulated distance on random Tp. bdy. from "D" to "F" is obtained by Tang. 75° 13' x Base "DE" or 3.78931 x 12.58 = 47.67 chs., which added to 319.73 chs. gives 367.40 chs. W. from Tp. cor. for the position of flag point "F."

360.00 Point for $\frac{1}{4}$ sec. cor. of sec. 5, and frac. sec. 32 falls on

Chains.

367.40
400.00
432.44
434.50

E. face of cliff and is inaccessible.
Flag point "F" of triangle "DEF" Set temp.witness cor.to $\frac{1}{4}$ sec.cor. of sec.5, and fracl.sec.32 at this point. Continue line and measurement, by chaining.
Set temp. cor.of secs.5 and 6, and fracl. secs.31 and 32. Traverse point.
Discontinue chaining on random Tp. bdy. at this point. Set temp.witness cor.to $\frac{1}{4}$ sec.cor. of sec.6, and fracl. sec.31 here, and obtain the measurement of the remainder of the random Tp, bdy.by traverse thru. fracl.sec. 31, as described as follows, and as shown on the diagram hereon. This process is necessary for the reason that the remainder of the random Tp.bdy.passes over steep, high cliffs facing SW. The traverse follows the rim of these cliffs.



From 432.44 ch.station on random Tp. bdy., designated on diagram at "A," flag set at 42 lks.N.of the cor.of Ts. 41 N., Rs. 13 and 14 W., and fracl. Ts. 42 N., Rs.13 and 14 W., bears west. The falling of the random Tp. bdy. is therefore 42 lks.N.of said Tp.cor. and gives a true bearing for the Tp. bdy.of N.89° 57'E.

From "A"
N.77 $\frac{1}{2}$ °W.; 3.90 chs. to "B." Thence,
N.45°W., 13.52 chs. to "C."
Thence,
N.60°W., 16.51 chs., to "D"
Thence,
N.68°W., 21.19 chs. to point "E," from which the flag "F" 42 lks.N.of Tp. cor., bears South.
Point "E" of traverse is therefore on the range line bet. fracl. Ts.42 N., Rs.13 and 14 W., and the dist. from same to Tp. cor. is obtained by Northing of traverse (E-F) + 42 lks. or 26.59 chs. + 0.42 chs.=27.01 chs.
The westing of traverse "A-F" is computed to be 47.32 chs., which added to 432.44 chs. gives 479.76 chs. as the total length of the Tp. bdy.
The true course and length of Tp. bdy. are therefore N. 89°57'E., 479.70 chs.

From cor.of Ts. 41 N., Rs.13 and 14 W., and fracl.Ts.42 N., Rs.13 and 14 W., described in Book "F," N.89°57'E., on true line, bet. sec.6 and fracl.sec.31. Over mountainous land, thru. scattering undergrowth. Ascend about 1200 ft., over SW.face of cliffs. Measurement of 47.32 chs. by traverse hereinbefore described.

39.76
45.20

Point for $\frac{1}{4}$ sec.cor. is inaccessible.
Rim of cliffs, brs.NW. and SE. Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for witness cor.to $\frac{1}{4}$ sec.cor., and raise a mound of stone around post, with brass cap, marked

WC $\frac{1}{4}$ S 31
S 6
1921

47.32
79.76

Descend 200 ft., over rolling and broken top of mesa. Traverse point.
Set an iron post, 3 ft.long, 3 ins. in diam., 5 ins.in

Chains.

the ground, on bed rock, with marked stone, for cor. of
secs. 5 & 6 and frac. secs. 31 & 32, and raise a mound of stone
around post, with brass cap, marked

T42N	R13W
S31	S32
S 6	S 5
T41N	
1921.	

Land, mountainous and rolling.
Soil, rocky, 4th rate. W. half; E. half, gravel, 3rd rate.
No timber.
Undergrowth, black brush.

N. 89° 57' E., on a true line, bet. sec. 5 and frac. sec. 32.
Over mountainous land, thru. scattering undergrowth.
Descend 35 ft.

10.30 Draw, course S. 45° E. Ascend 155 ft. to
32.00 Point of spur, sloping SE., and right rim of Virgin river
canyon, bearing NE. and SW.
Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
with marked stone, for witness cor. to sec. cor., and
raise a mound of stone around post, with brass cap,
marked

S 32	WC
S 5	
1921	

Descend 1535 ft. over cliffs, facing SE. on right or N.
wall of Virgin River Canyon by triangulated measurement
of 47.67 chss. to 80.27 ch. station, from which chain
measurement 0.27 chs., S. 89° 57' W. to
80.00 On bench, brs. N. and S., Set an iron post, 3 ft. long, 3
ins. in diam., 24 ins. in the ground, for cor. of secs.
4 and 5 and frac. secs. 32 and 33, marked on brass cap,

T42N	R13W
S32	S33.
S 5	S 4
T41N	
1921	

and raise a mound of stone 2 ft. base, 1½ ft. high, W.
of cor.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush.

N. 89° 57' E., on true line, bet. sec. 4 and frac. sec. 33.
Over mountainous land, thru. scattering undergrowth.
Chain measurement to

0.27 Triangulation point at E. side of bench, bearing N. and
S.
Continue measurement by triangulation of 38.56 chs. to
38.83 ch. station.
Descend 925 ft., over steep E. slope of right or N. wall
of Virgin River canyon.
12.50 (Approximate) Right bank of Virgin River, brs. N. 30° E.
and S. 30° W. Thence across Virgin River, course S. 30°
W. in bottom of canyon.
14.50 (Approximate) Left bank of river, brs. N. 30° E. and S. 30° W.
38.83 Leave bottom of canyon. Asc. 1965 ft., over NW. slope, to
Triangulation point, on top of short, sharp, steep spur,
sloping N. at left or S. rim of Virgin river canyon.

14 North boundary of Township 41 North Range 13 West

Chains.

40.00 Descend 64 ft. over NE. slope to $\frac{1}{4}$ sec. cor.
Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 33
S 4
1921

Discontinue chaining. Triangulate measurement of 40.44 chs. from 38.83 ch. station to 79.27 ch. station, as hereinbefore described; and from 79.27 ch. station chain back 4.67 chs. to E. rim of gulch, at 74.00 ch. station.

62.50 Descend 000 ft. from $\frac{1}{4}$ sec. cor. to
74.00 (Approximate) Bottom of gulch, course N. Ascend 635 ft. to E. rim of gulch; brs. N. and S. Thence along N. slope. Chain measurement to sec. cor.

79.27 Triangulation point.

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

T42N | R13W
S33 | S34
S 4 | S 3
T41N
1921

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

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, shellac brush and black brush.

N. 89° 57' E., on a true line, bet. sec. 3 and frac. sec. 34.
Over mountainous land, thru. scattering undergrowth.
Descend 60 ft.

12.70 Draw, course N. 30° W. Ascend 55 ft.

27.00 Ridge, brs. N. and S. Desc. 95 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 34
S 3
1921

43.50 Descend 03 ft. to
47.50 Gulch, course N. 00° E. Desc. over N. slope, to
54.00 Same gulch, course S. 45° E. Ascend 50 ft.

50.20 Descend 35 ft.

61.00 Draw, course S. 30° E. Asc. 35 ft.

Ridge, brs. NW. and E. Short spur, slopes S. from ridge at this point. Continue along top of ridge, descending slightly to

76.00 Leave top of ridge, brs. SE. and W. Desc. 45 ft., over NE. slope, to

80.00 Set an iron post 3 ft. long, 3 ins. in diam., on bed rock, with marked stone, for cor. of secs. 2 and 3 and frac. secs. 34 and 35 and raise a mound of stone around post, marked on brass cap, marked

T42N | R13W
S34 | S35
S 3 | S 2
T41N
1921

Land, mountainous.

Chains.

Undergrowth, shellac brush and black brush.
Soil, gravelly and rocky, 3rd rate.
No timber.

N. 89° 57' E., on a true line, bet. sec. 2 and frac. sec. 35.
Over mountainous land, thru. scattering undergrowth.
Descend 5 ft. over NE. slope, to

- 1.40 Head of draw, course N. 15° E. Ascend 35 ft.
- 4.00 Saddle in ridge, brs. N. and S. Descend 50 ft.
- 10.50 Head of draw, course SE. Ascend 30 ft.
- 15.55 Descend 155 ft.
- 24.20 Draw, course SE. Asc. 55 ft.
- 31.80 Spur, extends 10 chs. S. 60° E. Descend 90 ft. to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

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

1921

- 50.00 Descend 95 ft.
- 57.40 Center of draw, 4 chs. wide, course S. Asc. 55 ft.
- 60.00 Short spur, slopes S. Desc. 30 ft.
- 60.00 Gulch, course SW. Ascend 75 ft.
- 71.50 Descend 25 ft. in saddle of ridge, bearing NW. and SE.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 1 and 2, and frac. secs. 35 and 36, marked on brass cap,

T42N	R13W
S35	S36
S 2	S 1
T41N	
1921	

and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. This cor. is in saddle of ridge, bearing NW. and SE.

Land, mountainous.
Soil, gravelly and rocky, 3rd rate.
No timber.
Undergrowth, shellac brush and black brush.
Cor. stands on divide, bet. E. 1st and 2nd draws.

N. 89° 57' E., on a true line, bet. sec. 1 and frac. sec. 36.
Over rolling land, thru. scattering undergrowth.
Descend 65 ft. from saddle in ridge.

- 21.25 Draw, course N. 45° E. Ascend 35 ft.
- 23.00 Descend 115 ft. to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 0 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

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

1921

- 40.20 Descend slightly to
 - 43.00 Gulch, course N. 60° E. Ascend 10 ft.
 - 43.00 Descend 55 ft.
 - 48.05 Gulch, course N. 30° E. Ascend 45 ft.
 - 52.00 Descend 100 ft. to
 - 80.00 The cor. of Ts. 41 N., Rs. 12 and 13 W., and frac. Ts. 42 N., Rs. 12 and 13 W., hereinbefore described.
- Land, rolling.
Soil, gravelly and rocky, 3rd rate.

16 North boundary of Township 41 North, Range 13 West.

chains.

No timber, on a
Undergrowth, shellac brush and black brush.

Boundaries of Township 41 North, Range 13 West.

Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary, (10th. Std. Par. N.)	West,	480.00				480.00
West boundary,	North,	480.00	480.00			
North boundary,	N. 89° 57' E.	479.76	.42		479.70	
East boundary,	South,	480.00		480.00		
Convergency,					.55	
Totals,			480.42	480.00	480.31	480.00
			480.00		480.00	
	<u>Error in latitude,</u>		0.42			
	<u>Error in departure,</u>				0.31	

Chains.

From the standard cor. of secs. 35 and 30, on the S. bdy. of the Tp. (10th Std. Parallel North), hereinbefore described,
 N. 0° 1' W., bet. secs. 35 and 30.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 60 ft.
 17.00 Descend 50 ft.
 23.00 Ascend 30 ft.
 27.50 Descend 70 ft.
 35.00 Ascend 10 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

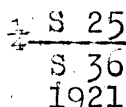


Descend 195 ft.
 65.00 Shallow draw, course N. 45° W. Ascend 30 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bedrock, with marked stone, for cor. of secs. 25, 26, 35 and 30, and raise a mound of stone around post, with brass cap, marked



Land, mountainous.
 Soil, rocky, 3rd rate.
 No timber.
 Undergrowth, black brush and shellac brush.

East, on a random line, bet. secs. 25 and 36.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.04 Fall 5 lks. S. of the cor. of secs. 25, 30, 31 and 36, on the E. bdy. of Tp., hereinbefore described.
 Thence,
 S. 89° 58' W., on a true line, bet. secs. 25 and 36.
 Over nearly level land, thru. scattering undergrowth.
 40.02 Set an iron post, 3 ft. long, 1 in. in diam., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
 Ascend over rolling land.
 42.50 Descend 30 ft.
 45.50 Ascend 25 ft.
 48.00 Road brs. N. 15° E. to Bloomington, and St. George, Utah, and S. 15° W. to Black Rock Springs, Arizona.
 59.30 Descend 20 ft.
 64.00 Draw, course N. 15° E. Asc. 90 ft.
 73.00 Low ridge, brs. N. and S. Desc. 25 ft. to
 80.04 The cor. of secs. 25, 26, 35 and 30.
 Land, nearly level and rolling.
 Soil, rocky and gravelly, 3rd rate.
 No timber.
 Undergrowth, black brush and shellac brush.

Chains

N.0°1'W., bet. secs. 25 and 20.
 Over rolling land, thru. scattering undergrowth.
 Descend 30 ft.
 12.00 Head of draw, course W. Ascend 35 ft.
 22.00 Low ridge, brs. NW and SE. Descend 90 ft.
 32.50 Head of draw, course NE. Ascend 15 ft.
 37.80 Descend 20 ft., to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 27 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S20 | S25
 1921

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

Descend slightly to
 41.20 Head of draw, course E. Ascend 60 ft.
 53.00 Descend 80 ft.
 75.10 Draw, course W. Ascend 30 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the
 ground, for cor. of secs. 23, 24, 25 and 20, marked on
 brass cap,

T41N | R13W
 S23 | S24
 S20 | S25
 1921

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. W. of cor.
 Land, rolling
 Soil, gravelly and rocky, 3rd rate.
 No timber.
 Undergrowth, shellac brush and black brush.

N.89°58'E., on a random line, bet. secs. 24 and 25.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Fall 2 lks. N. of the cor. of secs. 19, 24, 25 and 30, on E.
 bdy. of Tp., hereinbefore described.
 Thence,
 S.89°59'W., on a true line, bet. secs. 24 and 25.
 Over rolling and mountainous land, thru. scattering under-
 growth.
 Descend 100 ft., over SW. slope.
 8.00 Draw, course S. Ascend 85 ft., over E. slope.
 12.00 Road, brs. N. to St. George, Utah and S. to Black Rock
 Springs, Ariz.
 23.30 Spur, slopes SE. Desc. 40 ft.
 38.00 Draw, course SE. Ascend 30 ft., to
 39.99 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in
 the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and
 raise a mound of stone around post, marked on brass
 cap,

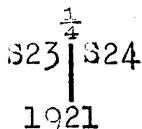
$\frac{1}{4}$ S 24
 S 25
 1921

Ascend 95 ft. to
 47.50 Spur, slopes SE. Desc. 35 ft.
 51.10 Draw, course SE. Asc. 75 ft.
 60.25 Descend 10 ft.
 75.00 Head of draw, course NE. Ascend 15 ft. to
 79.98 The cor. of secs. 23, 24, 25 and 20.
 Land, rolling and mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, shellac brush and black brush.

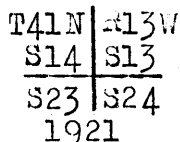
Subdivision of Township 41 North, Range 13 West.

Chains.

N.0°1'W., bet. secs. 23 and 24.
 Over rolling and mountainous land, thru. scattering under-
 growth.
 Ascend 10 ft.
 5.00 Ridge, brs.NW. and SE. Desc. 35 ft.
 9.00 Thence along E. slope.
 17.20 Draw, course E. Ascend 45 ft.
 27.00 Descend 70 ft..
 35.00 Draw, course E. Ascend 50 ft.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 6 ins. in
 the ground, with marked stone, for $\frac{1}{4}$ sec.cor., and
 raise a mound of stone around post, with brass cap,
 marked

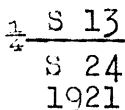


Ascend 140 ft.
 51.00 Apex of round hill, brs.West 1 ch.dist. Desc.195 ft.
 63.00 Draw, course N.85°E. Asc. 55 ft., over SE.slope.
 70.00 Descend 50 ft.to
 80.00 Head of shallow draw, course N.75°E. Set an iron post,
 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for
 cor.of secs.13,14, 23 and 24, marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,W.
 of cor.
 Land, rolling and mountainous.
 Soil,gravelly and rocky, 3rd rate.
 No timber.
 Undergrowth, black brush. and shellac brush.

N.89°59' E., on a random line, bet. secs.13 and 24.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.98 Fall 5 lks.N. of the cor.of secs.13,18,19 and 24, on E.
 bdy.of Tp., hereinbefore described.
 Thence,
 N.89°59'W., on a true line, bet.secs. 13 and 24.
 Over rolling and mountainous land, thru. scattering un-
 dergrowth.
 Ascend 105 ft.
 9.40 Ridge, brs.N. and S. Descend 05 ft.
 17.00 Draw, course N. Ascend 30 ft.
 20.90 Spur,slopes N. Descend 25 ft.
 24.20 Draw, course NE. Ascend 75 ft.
 34.00 Spur,slopes N.75°E. Descend 15 ft.to
 39.99 Set an iron post, 3 ft.long, 1 in. in diam.,6 ins. in the
 ground, with marked stone, for $\frac{1}{4}$ sec.cor., and raise
 a mound of stone around post, with brass cap, marked

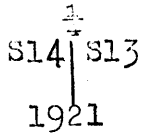


Descend 10 ft.to
 43.50 Draw, course N.80°E. Asc. 240 ft.to
 70.00 Spur,slopes N.75°E. Ascend 75 ft.to
 79.98 The cor.of secs.13,14,23 and 24 in head of draw,course
 N.75°E.
 Land, rolling and mountainous.
 Soil,3rd rate..
 No timber.
 Undergrowth, black brush.

20 Subdivision of Township 41 North, Range 13 West.

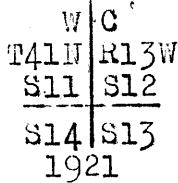
Chains.

N.0° 1'W., bet. secs. 13 and 14.
 Over rolling land, thru. scattering undergrowth.
 Ascend 15 ft.
 .5.50 Spur, slopes N.60°E. Desc. 130 ft.
 19.70 Gulch, course N. 75°E. Asc. 40 ft.
 29.00 Low spur, slopes N.75°E. Desc. 20 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the
 ground, for $\frac{1}{2}$ sec. cor., marked on brass cap,



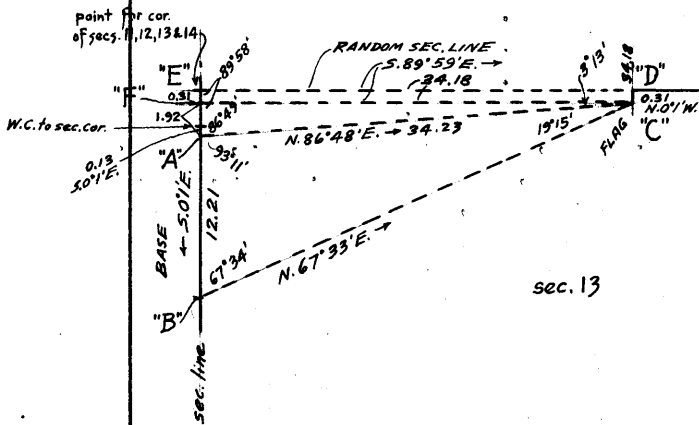
and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Descend 35 ft.
 42.50 Gulch, course N.60°E. Ascend 40 ft.
 51.20 Point of spur, sloping NE. Desc. 160 ft. to
 77.90 W. rim of deep gulch, brs. NW. and SE. Set an iron post, 3 ft. long, 2 ins. in diam., 8 ins. in the ground, with marked stone for witness cor. to cor. of secs. 11, 12, 13 and 14, and raise a mound of stone around post, with brass cap, marked



Discontinue chaining at this W.C.
 80.00 Descend 175 ft., over precipitous NE slope, to
 The true point for cor. of secs. 11, 12, 13 and 14 falls on steep NE slope, where it is inaccessible.
 Land, rolling and mountainous.
 Soil, rocky and gravelly, 3rd rate.
 No timber.
 Undergrowth, black brush and shellac brush.

From true point for cor. of secs. 11, 12, 13 and 14, S.89°59'E., on random line, bet. secs. 12 and 13. The beginning of this sec. line passes over a wide deep gulch, with precipitous sides, over which chaining is impracticable; therefore, triangulate a traverse thru. sec. 13, as described as follows, and as shown on the diagram hereon:



From point indicated on diagram at "A" which is on sec. line, bet. secs. 13 and 14, S 0° 1' E., 0.13 chs. from W.C. to cor. of secs. 11, 12, 13 and 14, or 2.23 chs. S. 0° 1' E. from cor. point "E."
 Measure a Base, S 0° 1' E., 12.21 chs. to point "B."
 Set flag on top of spur E. of gulch at point "C."
 Bearing "BC" = N. 67° 33' E.
 Bearing "AC" = N. 86° 48' E.

Included angles of triangle "ABC" are 93° 11', 67° 34' and 19° 15', the sum of which is 180° 00'.
 Vertical angle from "A" to "C" is $6\frac{1}{2}^\circ$.
 Triangulated dist. from "A" to "C" is obtained by
 $\frac{\text{sine } 67^\circ 34' \times \text{Base}}{\text{sine } 19^\circ 15'}$ or $\frac{.92432 \times 12.21}{.32969} = 34.23 \text{ chs.}$

Chains.

Point "F" on diagram indicates point on sec. line, bet. secs. 13 and 14. N. 89° 59' W. from flag point "C."

Included angles of triangle "ACF" are 80° 49', 3° 13' and 89° 58', the sum of which is 180° 00'.

Length of line from "F" to "C" is obtained by $\frac{\text{Sine } 86^\circ 49' \times \text{"AC"}}{\text{sine } 78^\circ 58'}$ or $\frac{.99846 \times 34.23}{1.00000} = 34.18$ chs., which is identical with distance on random sec. line from point for sec. cor. "E," S. 89° 59' E. to point "D," N. 0° 1' W. from flag point "C."

Distance on sec. line, bet. secs. 13 and 14 from "A" to "F" is obtained by $\frac{\text{sine } 3^\circ 13' \times \text{"AC"}}{\text{sine } 89^\circ 58'}$ or $\frac{.05611 \times 34.23}{1.00000} = 1.92$ chs. "A" to "F" being 2.23 chs., the distance from "F" to "E" identical with "C" to "D" is obtained by 2.23 chs. - 1.92 chs. = 0.31 chs. Therefore from flag point "C" traverse N. 0° 1' W., 0.31 chs.

34.18
40.00
80.16

6.00
14.00
33.65
37.15
40.08

Point "D" on random sec. line on top of spur. Continue line and measurement, by chaining.

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

Run 5 lks. N. of cor. of secs. 7, 12, 13 and 18, on E. bdy. of Tp., hereinbefore described.

Thence, N. 89° 57' W., on true line, bet. secs. 12 and 13. Over mountainous land, thru. scattering undergrowth. Ascend 40 ft.

Low spur, slopes NE. Descend 50 ft.

Head of draw, course NE. Ascend 390 ft., over NE. slope.

Spur, slopes N. 10° W. Descend 20 ft.

Head of draw, course N. 15° W. Ascend slightly to

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

S 12
S 13
1921

45.98

74.00
80.16

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

Ascend 50 ft. to

Spur, slopes NW. Discontinue chaining on sec. line, and measure to sec. cor. point by a triangulated traverse, thru. sec. 13, as hereinbefore described.

Descend 520 ft., over steep broken W. slope.

(Approximate) Bottom of gulch, course NW. Ascend about 100 ft. to

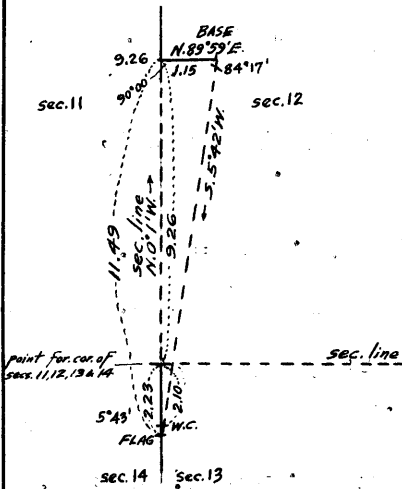
True point for cor. of secs. 11, 12, 13 and 14 on steep NE. slope, witnessed 2.10 chs. S. 0° 1' E., as hereinbefore described.

Land, mountainous.
Soil, rocky and gravelly, 3rd rate.
No timber.
Undergrowth, shellac brush and black brush.

From true point, for cor. of secs. 11, 12, 13 and 14, N. 0° 1' W., bet. secs. 11 and 12. Over mountainous land, thru. scattering undergrowth. Descend about 150 ft., over steep N. slope, to bottom of gulch. The cor. point being inaccessible, and it being impracticable to chain measurement across deep gulch, triangulate the beginning of this line as described as follows, and as shown on the diagram hereon.

22 Subdivision of Township 41 North, Range 13 West.

Chains.



Set flag on line bet. secs. 13 and 14, S. 0° 1' E., 2.23 chs. from sec. cor. point.

From a point on line bet. secs. 11 and 12, at E. rim of gulch, measure a Base, N. 89° 59' E., 1.15 chs., which is as long a Base as it is practicable to chain.

From E. end of base, flag brs. S. 5° 42' W.

Included angles are 84° 17', 5° 43' and 90° 00', the sum of which is 180° 00'.

Vertical angle from flag to triangulation point at W. end of base is - 4°.

Triangulated dist. on sec. line is obtained by

Tang. 84° 17' x Base or 9.98931 x 1.15 = 11.49 chs. N. 0° 1' W. from flag point, or 9.26 chs. N. 0° 1' W. from cor. of secs. 11, 12, 13 and 14.

5.50 (Approximate) Bottom of gulch, course NW. into Black Rock canyon. Ascend 245 ft., over steep SW. slope, to

9.20 Triangulation point, on E. rim of gulch, brs. NW. and SE. Continue line and measurement by chaining. Ascend 60 ft.

20.00 Spur, slopes N. 75° W. Desc. 140 ft., over NE. slope to $\frac{1}{4}$ sec. cor.

26.00 Head of draw, course NE.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$
 S11 | S12
 1921

Descend 165 ft., over NE. slope.

51.00 Draw, course N. 75° E. Ascend 215 ft., over SE. slope.

69.00 Spur, slopes N. 75° E. Desc. 305 ft., over N. slope, to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, marked on brass cap,

T41N	R13W
S 2	S 1
S11 S12	
1921	

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

Land, mountainous.

Soil, rocky and gravelly, 3rd rate.

No timber.

Undergrowth, black brush.

40.00 S. 39° 57' E., on a random line, bet. secs. 1 and 12.

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

Fall 7 lks. S. of the cor. of secs. 1, 6, 7 and 12, on the E. bdy. of Tp., hereinbefore described.

Thence,

West, on a true line, bet. secs. 1 and 12.

Over rolling land, thru. scattering undergrowth, Asc. 35 ft.

5.50 Spur, slopes N. Desc. 100 ft.

31.80 Wash, 6 lks. wide, course N. 15° W. Asc. gradually over N. slope.

40.04 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

chains.

$\frac{1}{4}$ S 1
S 12
1921

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Continue over N. slope, with little change in elevation.

- 41.10 Wash, 6 lks. wide, course N.10°W.
 - 60.50 Wash, 7 lks. wide, course N. Ascend 50 ft. to
 - 80.08 The cor. of secs. 1, 2, 11 and 12.
- Land, rolling.
Soil, sandy and gravelly, 3rd rate.
No timber.
Undergrowth, black brush and shellac brush.

-
- 40.00 N.0°1' W., on a random line, bet. secs. 1 and 2.
 - Set temp. $\frac{1}{4}$ sec. cor.
 - 80.13 Fall 19 lks. W. of the cor. of secs. 1, and 2 and frac. secs. 35 and 36 on N. bdy. of Tp., hereinbefore described.
 - Thence,
 - S.0°7' W., on a true line, bet. secs. 1 and 2.
 - Over mountainous land, thru. scattering undergrowth.
 - Descend 130 ft., over SW. slope.
 - 23.00 Draw, course W. Ascend 130 ft.
 - 30.25 Spur, slopes W. Desc. 185 ft. to
 - 40.13 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$
S 2 | S 1
1921

- Leave mountainous and enter rolling land.
 - Descend 85 ft.
 - 64.15 Wash, 7 lks. wide, course W. Asc. 45 ft. to
 - 80.13 The cor. of secs. 1, 2, 11 and 12.
- Land, mountainous and rolling.
Soil, rocky and gravelly, 4th rate.
No timber.
Undergrowth, shellac brush and black brush.

-
- From the standard cor. of secs. 34 and 35, on the S. bdy. of Tp. (10th Std. Par.), hereinbefore described,
 - N.0°1' W., bet. secs. 34 and 35.
 - Over mountainous land, thru. scattering undergrowth.
 - Descend 195 ft., over NW. slope.
 - 7.35 Bottom of side canyon from S., course NE. into Black Rock Canyon. Asc. 67 ft. over SE. slope.
 - 18.55 Descend 40 ft.
 - 28.55 Ascend 15 ft.
 - 30.85 Descend 50 ft.
 - 34.65 Ascend 95 ft. to
 - 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 5 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

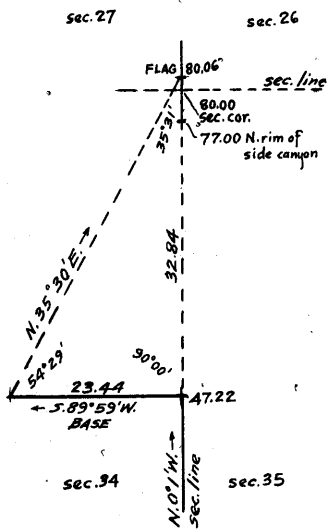
$\frac{1}{4}$
S 34 | S 35
1921

- Ascend 15 ft.
- 41.50 Point of spur, slopes NE. into Black Rock Canyon. Descend gradually to

Chains.

47.22

S. rim of side canyon, brs. E. and W., joins W. rim of Black Rock canyon, about 5 chs. E. of line. Descend about 500 ft. to bottom of side canyon. Chaining is impracticable on the remainder of this sec. line; therefore, triangulate as described as follows, and as shown on the diagram hereon:



From 47.22 ch. station, measure a Base S. 89° 59' W., 23.44 chs. Set flag ahead on sec. line, beyond W. rim of side canyon. From W. end of base, flag brs. N. 35° 30' E. Included angles are 54° 29', 35° 31' and 90° 00', the sum of which is 180° 00'. Triangulated dist. on sec. line is obtained by $\text{Tang. } 54^\circ 29' \times \text{Base or } 1.40109 \times 23.44 = 32.84 \text{ chs.}$, which added to 47.22 chs. gives 80.06 chs. N. 0° 1' W. from std. cor. of secs. 34 and 35, for the position of the flag point.

From flag point chain measurement, S. 0° 1' E., 3.06 chs. to N. rim of side canyon at 77.00 ch. station on line bet. secs. 34 and 35.

65.00

(Approximate) Bottom of side canyon, course E. into Black Rock Canyon. Ascend about 500 ft. to

77.00

N. rim of side canyon, and west rim of Black Rock canyon, brs. NE, and SW. Asc. gradually over broken E. slope. Continue line and measurement, by chaining.

80.00

Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground, with marked stone, for cor. of secs. 26, 27, 34 and 35, and raise a mound of stone around, post, with brass cap, marked

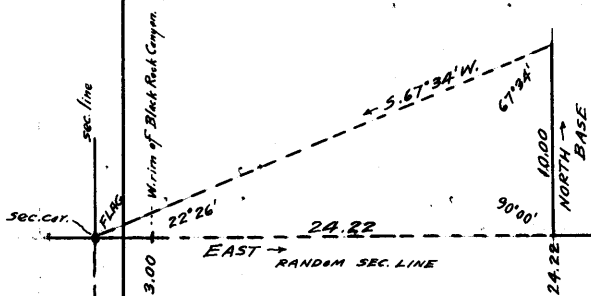
T41N	R13W
S27	S26
S34	S35

1921

Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, shellac brush and cactus.

3.00

East, on a random line, bet. secs. 26 and 35. Discontinue chain measurement here, as the line E. of this point passes over Black Rock canyon. Triangulate as described as follows, and as shown on the diagram hereon:



Set flag at cor. of secs. 26, 27, 34 and 35.

From a point ahead on random sec. line at E. rim of Black Rock Canyon, measure a Base, North, 10.00 chs.

From N. end of base, flag brs. S. 67° 34' W.

Included angles are 67° 34', 90° 00' and 22° 26', the sum of which is 180° 00'.

Triangulated dist. on random sec. line is obtained by $\text{Tang. } 67^\circ 34' \times \text{Base or } 2.42218 \times 10.00 = 24.22 \text{ chs.}$ Triangulation point at E. rim of Black Rock canyon. Continue line and measurement by chaining.

24.22

Chains.

40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.06 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 25, 26, 35 and 36.
 Thence,
 S. $89^{\circ}57'$ W., on true line, bet. secs. 26 and 35.
 Over rolling and mountainous land, thru scattering undergrowth.
 Descend 50 ft., over W. slope.
 22.40 Draw, course NW. Ascend 70 ft. to
 40.03 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 26
 S 35
 1921

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 Thence over rolling N. slope, with slight change in elevation.
 55.84 Triangulation point at E. rim of Black Rock Canyon, brs. N. and S.
 Measurement to cor. of secs. 26, 27, 34 and 35 by triangulation, hereinbefore described.
 Descend about 500 ft., over steep W. slope, on E. wall of canyon to
 70.00 (Approximate) Center of bottom of Black Rock canyon, 3.00 chs. wide, course N.
 Ascend about 500 ft., over steep E. slope on W. wall of canyon, to
 77.00 W. rim of Black Rock Canyon, and N. rim of side canyon, brs. N. and SW. Ascend gradually over E. slope.
 Chain measurement to
 80.06 The cor. of secs. 26, 27, 34 and 35.
 Land, mountainous and rolling.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush.

 N. $0^{\circ}1'$ W., bet. secs. 26 and 27.
 Over mountainous land, thru scattering undergrowth, along broken E. slope following the W. rim of Black Rock canyon, which is about 3 chs. E. of line.

Ascend 30 ft.
 4.50 S. rim of gulch, brs. E. and W. Descend 140 ft.
 11.80 Bottom of gulch, course N. 75° E.
 Ascend 100 ft. to
 16.50 N. rim of gulch, brs. E. and W. Ascend 20 ft.
 21.10 Descend 10 ft. to
 24.80 S. rim of gulch, brs. E. and W. Desc. 45 ft.
 27.20 Bottom of gulch, course E. Asc. 45 ft.
 29.60 N. rim of gulch, brs. E. and W. Asc. 30 ft. to
 34.80 Descend slightly to
 36.30 S. rim of gulch, brs. E. and W. Desc. 45 ft.
 38.70 Bottom of gulch, course N. 80° E. Asc. 20 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 27 | S 26
 1921

Ascend 20 ft. to
 41.50 N. rim of gulch, brs. NE. and SW. Thence over E. slope, to
 44.00 S. rim of gulch, brs. E. and W. Descend 220 ft.
 46.00 Bottom of gulch, course E. Asc. 200 ft. to
 49.00 N. rim of gulch, brs. E. and W. Ascend 35 ft.
 52.90 Descend 30 ft. to

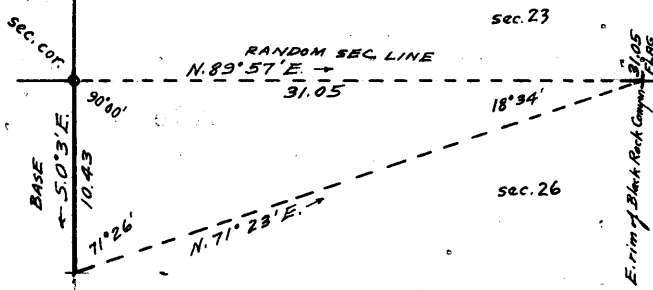
26 Subdivision of Township 41 North, Range 13 West.

Chains.
 56.00 S. rim of gulch, brs.E. and W. Desc. 75 ft.
 57.75 Bottom of gulch, course N.75°E. Asc. 65 ft.
 61.00 N. rim of gulch, brs.NE. and SW. Asc. 30 ft.
 69.50 Descend 30 ft.to
 77.00 S.rim of gulch, brs.NE. and SW. Desc. 25 ft.
 78.56 Bottom of gulch, course N.60°E. Ascend, 10 ft.to
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam.,on bed rock,
 with marked stone, for cor.of secs.22,23,26 and 27,
 and raise a mound of stone around post, with brass cap,
 marked

T41N R13W
 S22 | S23
 S27 | S26
 1921

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, shellac brush, black brush and cactus.

N.89°57'E., on random line, bet. secs. 23 and 26.
 The West half of this sec.line crosses Black Rock canyon,
 the steep broken walls of which render chaining im-
 practicable; therefore, triangulate as described as
 follows, and as shown on the diagram hereon:



Set flag ahead, on random
 sec. line at E. rim of
 Black Rock Canyon.
 From cor. of secs. 23, 23, 26
 and 27, measure a base S.
 0°3'E., 10.43 chs.
 From S. end of base, flag
 brs. N.71°23'E.
 Included angles are 71°26',
 90°00' and 18°34', the
 sum of which is 180°00'.

Vertical angle from sec.cor. to flag point is + 1°.
 Triangulated distance on random sec. line is obtained by
 Tang. 71°26' x Base or 2.97717 x 10.43 = 31.05 chs.
 31.05 Flag point of above described triangulation.
 Continue line and measurement by chaining.
 40.00 Set temp. 1/4 sec. cor.
 80.00 Intersect N. and S. line, 2 lrs. S. of the cor. of secs. 23,
 24, 25 and 26.

Thence,
 S.89°50'W., on true line, bet. secs. 23 and 26.
 Over mountainous land, thru. scattering undergrowth.
 Descend 65 ft.
 8.00 Draw, course NW. Ascend 40 ft.
 26.00 Low ridge, brs. N. and S. Descend 25 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for 1/4 sec. cor., and raise a mound
 of stone around post, with brass cap, marked

1/4 S 23
 S 26
 1921

Ascend 16 ft.
 43.60 Descend 30 ft. to
 48.95 Triangulation point at E. rim of Black Rock Canyon, brs.
 N. and S.
 Continue line by triangulated measurement of 31.05 chs.
 to sec. cor., as hereinbefore described.
 Descend 540 ft., over steep broken W. slope.
 63.00 (Approximate) Bottom of Black Rock Canyon, course N. Asc.
 about 750 ft. to sec. cor.
 76.00 (Approximate) Bottom of gulch, course N.60°E. Ascend.
 80.00 The cor. of secs. 22, 23, 26 and 27.
 Land, mountainous.

Chains.

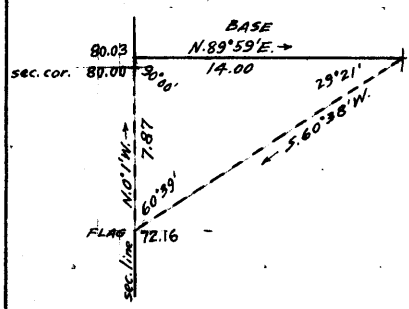
Soil, rocky and gravelly, 3rd and 4th rate.
No timber.
Undergrowth, black brush and shellac brush.

N.0°1'W., bet. secs. 22 and 23.
Over mountainous land, thru. scattering undergrowth, along broken E. slope, following W. rim of Black Rock canyon, which is about 10 chs. E. of line.

Ascend 16 ft. to
1.68 N. rim of gulch, brs. NE. and SW. Ascend 10 ft.
8.30 Descend 20 ft. to
14.50 South rim of gulch, brs. E. and W.; descend 75 ft.
16.10 Bottom of gulch, course E. Ascend 55 ft. to
19.50 N. rim of gulch, brs. E. and W. Asc. 112 ft.
35.30 Descend slightly to
33.25 S. rim of gulch, brs. E. and W. Descend 25 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

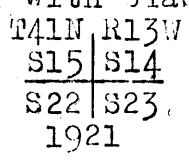


Descend 230 ft.
44.65 Bottom of gulch, course E. from NW. Ascend 200 ft. to
47.80 North rim of gulch, brs. E. and W. Asc. 40 ft.
56.75 Descend. 40. ft. to
72.16 Top of cliff, bearing NW. and SE. facing NE. The almost perpendicular descent from this cliff renders continuation of chaining impracticable; therefore, triangulate the measurement of the remainder of the line, as described as follows, and as shown on the diagram here on:



Leave flag at this point on sec. line.
From a point ahead on sec. line, measure a base N.89°59'E., 14.00 chs.
From E. end of Base, flag brs. S.00°38'W.
Included angles are 29°21', 60°39' and 90°00', the sum of which is 180°00'.

Vertical angle from flag to triangulation point on sec. line is - 26 $\frac{1}{2}$ °.
Triangulated dist. on sec. line is obtained by Tang. 29°21' x Base or .56232 x 14.00 = 7.87 chs., which added to 72.16 chs. gives 80.03 chs. N.0°1'W. from cor. of secs. 22, 23, 26 and 27, for the position of the triangulation point.
From triangulation point at 80.03 ch. station, measure 0.03 chs. S.0°1' E. to 80.00 ch. station, and establish the sec. cor., as hereinafter described.
76.00 (Approximate) Bottom of gulch, course E. about 360 ft. below 72.16 ch. station. Ascend about 100 ft. to
80.00 On point of spur, sloping E. Set an iron post, 5 ft. long, 2 ins. in diam., on bed rock, with marked stone, for cor. of secs. 14, 15, 22 and 23, and raise a mound of stone around post, with brass cap, marked

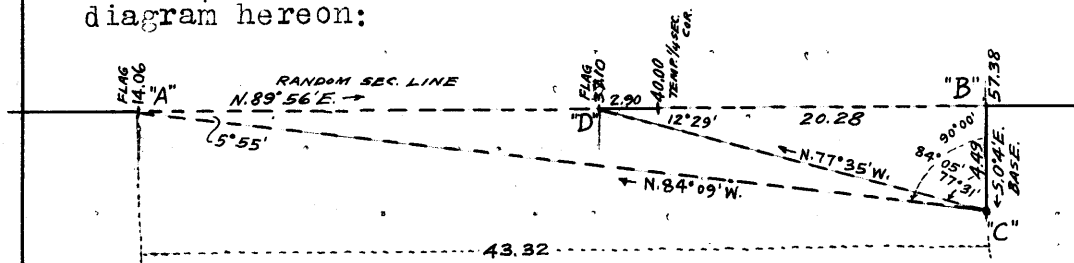


Land, mountainous.
Soil, rocky and gravelly, 3rd and 4th rate.
No timber.
Undergrowth, black brush and shellac brush.

28 Subdivision of Township 41 North, Range 13 West.

Chains.

14.06 N. 89°50'E., on random line, bet. secs. 14 and 23. Discontinue chaining at this point, owing to steep descent to Black Rock canyon. Triangulate measurement on random line to $\frac{1}{4}$ sec. cor., and to point on E. rim of canyon, as described as follows, and as shown on the diagram hereon:



Leave flag at this point, indicated on diagram at "A." Set flag on line at "D" on W. wall of canyon, near point for $\frac{1}{4}$ sec. cor.

From point on line at "B" on E. rim of canyon, measure a Base S. 0°4'E., 4.49 chs., which is as long a base as it is practicable to chain.

From S. end of base, indicated on diagram at "C" flag at "A" brs. N. 84°9'W., and flag at "D" brs. N. 77°35'W.

Included angles of triangle "ABC" are 5°55', 90°00' and 84°5', the sum of which is 180°00'.

Included angles of triangle "DBC" are 12°29', 90°00' and 77°31', the sum of which is 180°00'.

Vertical angle "A" to "B" is + 1°.

Vertical angle "D" to "B" is + 14 $\frac{1}{4}$ °.

Triangulated distance from "A" to "B" is obtained by

Tang. 84°5' x Base or 9.64935 x 4.49 = 43.32 chs., which added to 14.06 chs. gives 57.38 chs. N. 89°50'E. from sec. cor. for position of triangulation point "B."

Triangulated dist. from "D" to "B" is obtained by Tang. 77°31' x Base or 4.61693 x 4.49 = 20.28 chs., which subtracted from 57.38 chs. gives 37.10 chs. N. 89°50'E. from sec. cor. for triangulation point "D."

37.10 Triangulation point "D."

Chain measurement of 2.90 chs. N. 89°50'E. to

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

Thence by triangulated measurement to

57.38 Triangulation point "B."

Continue line and measurement by chaining.

80.08 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 13, 14, 23 and 24.

Thence,

S. 89°54'W., on true line, bet. secs. 14 and 23.

Over mountainous land, thru. scattering undergrowth.

Ascend 47 ft.

2.80 Ridge, brs. N. and S. Descend 206 ft. to

22.70 Triangulation point on E. rim of Black Rock canyon, brs. N. and S.

Continue line and measurement by triangulation.

36.00 Descend about 575 ft., over steep broken W. slope, to (Approximate) Bottom of Black Rock Canyon, course N. Asc. about 190 ft. to

40.04 On ledge bearing N. and S. Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground, with marked stone for $\frac{1}{4}$ sec. cor. and raise a mound of stone around post, with brass cap, marked

S 14
S 23
1921.

42.98 Chain measurement 2.94 chs. S. 89°54'W., to Triangulation point, 50 ft. above $\frac{1}{4}$ sec. cor.

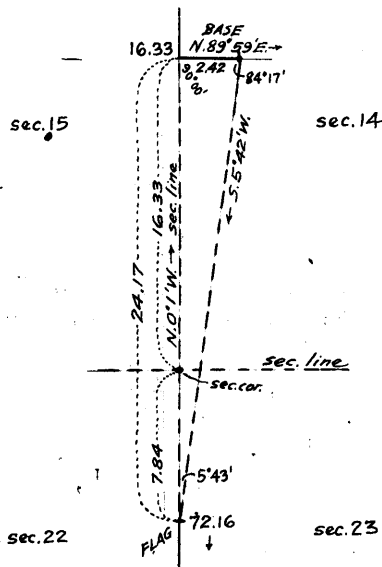
66.02 Continue line and measurement by triangulation. Ascend about 295 ft. over steep broken SE. slope, to Triangulation point at W. rim of Black Rock Canyon, brs. NE. and SW.

Continue line and measurement by chaining.

Chains.

68.90 Descend 25 ft., over S. slope, to
 77.02 North rim of gulch, brs. NW. and SE. Desc. 107 ft.
 80.08 Bottom of gulch, course S. 75° E. Asc. 110 ft. to
 The cor. of secs. 14, 15, 22 and 23 on point of spur, sloping
 E.
 Land, mountainous.
 Soil, rocky and gravelly, 3rd and 4th rate.
 No timber.
 Undergrowth, black brush and shellac brush.

N. 0° 1' W., bet. secs. 14 and 15.
 Over mountainous land, thru. scattering undergrowth.
 The beginning of this sec. line passes over the steep broken sides of a gulch, rendering chaining impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon;



Set flag on line, bet. secs. 22 and 23 at 72.16 ch. station thereon, or 7.84 chs, S. 0° 1' E. from cor. of secs. 14, 15, 22 and 23.
 From point ahead on sec. line, bet. secs. 14 and 15, measure a base N. 89° 59' E., 2.42 chs. which is as long a base as it is practicable to chain.
 From E. end of base, flag brs. S. 5° 42' W.
 Included angles are 84° 17', 5° 43' and 90° 00', the sum of which is 180° 00'.
 Vertical angle from flag to triangulation point at W. end of base is 0°.

Triangulated dist. on sec. line is obtained by
 Tang. 84° 17' x Base or 9.98931 x 2.42 = 24.17 chs., which added to 72.16 chs. gives 96.33 chs. N. 0° 1' W., from cor. of secs. 22, 23, 26 and 27, or 16.33 chs. N. 0° 1' W. from cor. of secs. 14, 15, 22 and 23, for the position of the triangulation point.

3.00 (Approximate) Bottom of gulch, course S. 80° E., about 100 ft. below sec. cor. Asc. about 120 ft. to
 6.00 (Approximate) N. rim of gulch, brs. NW. and SE. Asc. about 250 ft.
 16.33 Triangulation point on top of spur, sloping S. 75° E. Continue line and measurement, by chaining.
 Descend 80 ft.
 25.85 Gulch, course E. Asc. 72 ft.
 29.30 Desc. 160 ft.
 32.00 Gulch, course S. 75° E. Ascend 183 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for 1/4 sec. cor., and raise a mound of stone around post, with brass cap, marked

S15 | S14

1921

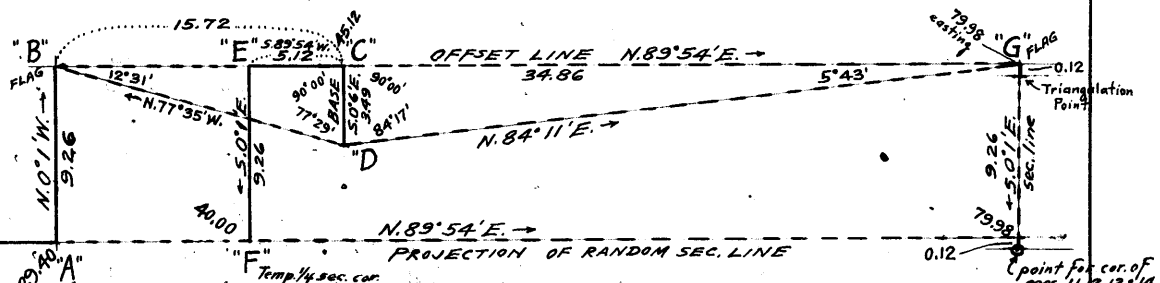
Ascend 20 ft.
 47.00 Spur, slopes S. 45° E. Desc. 35 ft.
 59.00 Head of gulch, course N. 30° W. Descend slightly to
 67.00 Spur, slopes N. 30° W. Desc. 40 ft. to
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground; for cor. of secs. 10, 11, 14 and 15, marked on brass cap.

Chains.

T41N	R13W
S10	S11
S15	S14
1921	

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush.

29.40 N. 89° 54' E., on random line, bet. secs. 11 and 14.
 W. rim of Black Rock canyon, brs. N. and S. Impracticable to continue measurement on random line by either chaining or triangulation from this point: therefore, chain and triangulate an offset line thru. sec. 11, as described as follows and as shown on the diagram hereon:

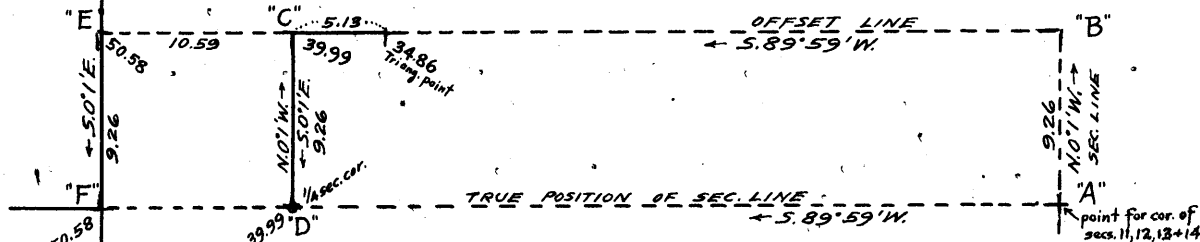


From 29.40 ch. station indicated on diagram at "A," chain measurement, N. 0° 1' W., 9.26 chs. to offset point "B." Set flag at offset point "B."
 From point "C" N. 89° 54' E. from "B", measure a Base, S. 0° 6' E., 3.49 chs. to point "D."
 Bearing from "D" to "B" is N. 77° 35' W.
 Included angles of triangle "BCD" are 12° 31', 90° 00' and 77° 29', the sum of which is 180° 00'.
 Triangulated dist. on random offset line, from "B" to "C" is obtained by Tang. 77° 29' x Base "CD" or 4.50451 x 3.49 = 15.72 chs., which added to 29.40 chs. gives 45.12 chs. easting from sec. cor. for position of point "C."
 From point "C," measure S. 89° 54' W., 5.12 chs. to point "E;" thence,
 S. 0° 1' E., 9.26 chs. to point "F"
 which is on random sec. line 40.00 chs. N. 89° 54' E. from cor. of secs. 10, 11, 14 and 15.

40.00 Set temp. 1/4 sec. cor.
 Set flag on sec. line, bet. secs. 11 and 12, N. 89° 54' E., from point "C," at point indicated on diagram at "G."
 Bearing from "D" to "G" is N. 84° 11' E.
 Included angles of triangle "CDG" are 90° 00', 84° 17' and 5° 43', the sum of which is 180° 00'.
 Triangulated dist. on random offset line from "C" to "G" is obtained by Tang. 84° 17' x Base "CD" or 9.98931 x 3.49 = 34.86 chs., which added to 45.12 chs. gives 79.98 chs. easting from cor. of secs. 10, 11, 14 and 15, for the position of offset point "G."
 From offset point "G"
 S. 0° 1' E., 0.12 chs. on sec. line, bet. secs. 11 and 12, to triangulation point of triangulation hereinbefore described, in notes of survey of said line.
 Thence measuring by said triangulation,
 S. 0° 1' E., 9.26 chs. to the true point for cor. of secs. 11, 12, 13 and 14.
 From the above described random offset line the falling of the random sec. line projected is found to be 12 lks. N. of cor. point, at 79.98 chs., N. 89° 54' E., from cor. of secs. 10, 11, 14 and 15.
 79.98 Intersect N. and S. line, 12 lks. N. of true point for cor. of secs. 11, 12, 13 and 14, witnessed 2.10 chs. S. 0° 1' E. therefrom as hereinbefore described.
 From true point for cor. of secs. 11, 12, 13 and 14,

Chains.

S:89°59'W.; on true line, bet. secs.11 and 14.
 Over mountainous land, thru. scattering undergrowth.
 Measurement of 50.58 chs., and to $\frac{1}{4}$ sec.cor. position by
 offset line, as described as follows, and as shown on
 the diagram hereon:



From true point for cor. of secs.11,12,13 and 14, indicated
 on diagram at "A,"

N.0°1'W., 9.26 chs. on sec. line, bet. secs.11 and 12, meas-
 urement by triangulation, as hereinbe-
 fore described, to offset point "B."

Thence,
 S.89°59'W.; 39.99 chs. on offset line thru. sec.11 (E₂), par-
 allel to, and 9.26 chs. N. of true posi-
 tion of sec. line, measurement by
 triangulation for 34.86 chs., and
 chaining for 5.13 chs.

From offset point "B" desc. about
 250 ft., over steep SW. slope to 7.00,
 (Approximate) ch. station on offset
 line, which is the bottom of gulch,
 course NW. Thence asc. about 100 ft.
 to 18.00 ch. (approximate) ch. sta-
 tion, which is point of spur, sloping
 NW. in Black Rock Canyon.

Thence descend about 100 ft. to
 30.00 (Approximate) chain station,
 which is the bottom of Black Rock
 Canyon, course N. Thence ascend about
 210 ft. to 34.86 ch. station, which is
 the triangulation point. Thence
 chain measurement of 5.13 chs., S.89°
 59'W. on offset line, ascending 65
 ft. over steep E. slope to 39.99 ch.
 station indicated on diagram at "C."

Thence chain measurement,
 S.0°1'W., 9.26 chs., on offset line, along steep E. slope,
 on W. wall of Black Rock canyon, de-
 scending 35 ft. to

39.99 Midpoint on true sec. line, Set an iron post, 3 ft. long,
 1 in. in diam., 20 ins. in the ground, with marked
 stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone,
 around post, with brass cap, marked

$\frac{1}{4}$ S 11
 S 14
 1921

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

From above described $\frac{1}{4}$ sec. cor., indicated on diagram at
 "D,"

N:0°1'W., 9.26 chs., returning to point "C" on offset
 line.

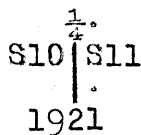
Thence,
 S.89°59'W., 10.59 chs. on offset line, in W. $\frac{1}{4}$ of sec.11,
 measurement by triangulation, as
 hereinbefore described.

Ascend about 450 ft., over steep E.
 slope of W. wall of Black Rock, Can-
 yon, to offset and triangulation
 point at W. rim of said canyon, indi-
 cated on diagram at "E," which is

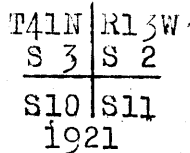
Chains.

50.58'chs., S. 89°59'W. from
offset point "B" on sec. line
bet. secs. 11 and 12.
From offset point "E" at
S. 0°1'E., 9.26 chs., on offset line, along W. rim of
Black Rock canyon, ascending
slightly to
50.58 Offset point "F," on true sec. line, bet. secs. 11 and 14,
at W. rim of Black Rock canyon.
Thence,
S. 89°59'W., on true sec. line, continuing measurement, by
chaining.
Ascend 92 ft.
61.80 Spur, slopes N. Desc. 47 ft.
68.75 Ascend 60 ft. to
79.98 The cor. of secs. 10, 11, 14 and 15.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush and sage brush.

N. 0°1'W.; bet. secs. 10 and 11.
Over mountainous land, thru. scattering undergrowth.
Descend 35 ft.
12.50 Draw, course N. 60°W. Asc. 60 ft.
26.00 Spur, slopes NW. Descend 30 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of
stone around post, with brass cap, marked



Descend slightly over E. slope, to
46.50 Same spur, slopes N. 30°E. Desc. 40 ft., over NW. slope, to
49.16 Left rim of Black Rock Canyon, brs. NE. and SW. Desc. 850
ft., over steep NW. slope, to
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for cor. of secs. 2, 3, 10 and 11, marked on
brass cap,



and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of
cor. This cor. is at left edge of the bottom of Black
Rock Canyon, bearing E. and W.
Land, mountainous.
Soil, rocky, 3rd and 4th rate.
No timber.
Undergrowth, black brush, and shellac brush.

N. 89°59'E., on a random line, bet. secs. 2 and 11.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.80 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 1,
2, 11 and 12.
Thence,
S. 89°58'W., on a true line, bet. secs. 2 and 11.
Over mountainous land, thru. scattering undergrowth.
Ascend 185 ft.
-23.00 Spur, slopes N. Desc. 100 ft.
31.05 Ascend 30 ft.
38.50 Point of spur, sloping N. 20°E. from SE. Descend 15 ft. to
37.00

chains.

39.90 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

S 2
S 11
1921

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

42.00 Descend 30 ft. to Point in right rim of Black Rock Canyon, brs. NE and SW. Descend 282 ft. to

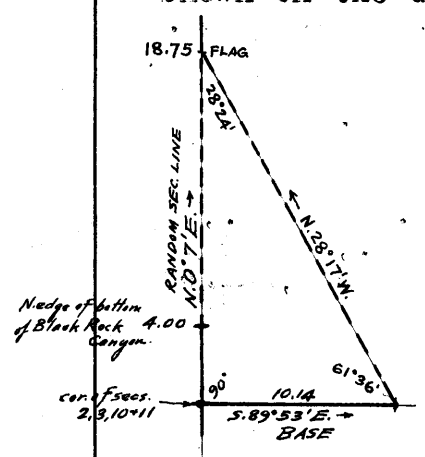
55.10 Bottom of Black Rock Canyon, course N 80° W., in bend of said canyon, from S. to W. Ascend 75 ft.

69.86 Point of spur, slopes N. Desc. 30 ft. to

79.80 The cor. of secs. 2, 3, 10 and 11 at S. or left edge of bottom of Black Rock Canyon.

Land, rough and mountainous.
Soil, rocky, 3rd rate.
No timber.
Undergrowth, shellac brush and black brush.

4.00 N. 0° 7' E., on random line, bet. secs. 2 and 3. North edge of bottom of Black Rock Canyon, brs. E. and W. Discontinue chaining at this point as the random line passes over steep cliffs on the N. or right wall of Black Rock Canyon, rendering chain measurement impracticable. Triangulate as described as follows, and as shown on the diagram hereon:



Set flag ahead on random line from cor. of secs. 2, 3, 10 and 11, measure a Base S. 89° 53' E., 10.14 chs. From E. end of Base, flag brs. N. 28° 17' W. Included angles are 61° 36', 90° 00' and 28° 24', the sum of which 180° 00'. Vertical angle from sec. cor. to flag is + 18°. Triangulated distance on random sec. line is obtained by

18.75 Tang. 61° 30' x Base or 1.84946 x 10.14 = 18.75 chs, Flag point of above described triangulation. Continue line and measurement by chaining.

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

80.12 Fall 12 lks. E. of the cor. of secs. 2 and 3, and frac. secs. 34 and 35 on the N. bdy. of the Tp., hereinbefore described.

Thence, S. 0° 2' W., on true line, bet. secs. 2 and 3. Over rough, mountainous land, thru. scattering undergrowth. Ascend 40 ft.

5.10 Ridge, brs. E. and NW. Desc. 272 ft.

27.30 Draw, course S. 60° E. Asc. 90 ft.

30.40 Spur, slopes E. Desc. 35 ft.

38.35 Draw, course E. Asc. 35 ft. to

40.12 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

S 3 | S 2
1921

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Asc. 15 ft.

34 Subdivision of Township 41 North, Range 13 West.

Chains.

41.10 Spur, slopes N. 75°E. Desc. 30 ft.
 43.20 Ascend 120 ft.
 48.00 Spur, slopes N. 80°E. Desc. 110 ft. to
 61.37 Triangulation point on right or N. rim of Black Rock
 Canyon, bearing NE. and SW.
 Continue line and measurement by triangulation.
 Descend 400 ft., over cliffs, facing SE.
 76.12 Foot of descent at N. edge of bottom of Black Rock Canyon,
 bearing NE. and W.
~~Thence across bottom of canyon, course W.~~
 Descend 400 ft. over cliffs, facing SE.
 79.12 Foot of descent at E. edge of bottom of Black Rock Canyon,
 bearing N. and W. Thence across bottom of canyon, course
 W.
 80.12 The cor. of secs. 2, 3, 10 and 11 at S. edge of bottom of
 canyon.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, shellac brush and black brush.

From the standard cor. of secs. 33 and 34, on the S. bdy.
 of the Tp. (10th Std. Parallel North), hereinbefore de-
 scribed,

N. 0° 2' W., bet. secs. 33 and 34.

Over mountainous land, thru. scattering undergrowth.

Descend 25 ft.

2.50 Draw, course NE Ascend 35 ft.

7.80 Spur, slopes N. 45°E. Desc. 22 ft.

11.40 Gulch, 2 chs. wide, course N. 70°E. Asc. 15 ft.

16.40 Descend 30 ft.

23.90 Asc. 25 ft.

28.90 Point of spur, slopes E. Desc. 12 ft.

32.00 Gulch, course E. Asc. 20 ft.

38.10 Desc. slightly to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

S33 | S34

1921

Descend 30 ft.

45.30 Wash, course N. 75°E. Ascend 75 ft.

57.40 Spur, slopes E. Desc. 515 ft.

65.00 Bottom of canyon, 2 chs. wide, course N. 80°E. Ascend 500 ft.

72.45 Point of spur, slopes E. Desc. 40 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock,
 with marked stone, for cor. of secs. 27, 28, 33 and 34, and
 and raise a mound of stone around post, with brass cap,
 marked

T41N | R13W

S28 | S27

S33 | S34

1921

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sage brush, and black brush.

East, on a random line, bet. secs. 27 and 34.

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

79.88 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 26,
 27, 34 and 35.

Subdivision of Township 41 North, Range 13 West, 35

Chains.

Thence,
 N. 39° 59' W., on a true line, bet. secs. 27 and 34.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 15 ft.
 3.25 Descend 20 ft.
 9.10 Ascend 50 ft.
 13.80 Point of spur, slopes S. 30° E. Descend 10 ft.
 18.20 Wash, 25 lks. wide, course S. 45° E. Asc. 160 ft.
 36.00 Spur, slopes S. 10° E. Desc. 40 ft. to
 39.94 Set an iron post 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

$\frac{1}{4}$ S 27
 S 34
 1921

Descend 20 ft.
 41.90 Gulch, course S. 10° W. Asc. 220 ft.
 50.80 Spur, slopes N. Desc. 160 ft., over W. slope.
 67.80 Center of wash, 1 ch. wide, course N. 10° W. Ascend 220 ft. to
 79.88 The cor. of secs. 27, 28, 33 and 34.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and shellac brush.

N. 0° 2' W., bet. secs. 27 and 28.
 Over mountainous land, thru. scattering undergrowth.
 Descend 57 ft.
 7.00 Ascend 10 ft.
 7.90 Descend 55 ft.
 11.20 Wash, 60 lks. wide, course S. 45° E. Ascend 105 ft.
 19.40 Point of spur, sloping E. and left rim of canyon, brs. N.
 60° W. and S. 00° E. Descend 305 ft., over NE. slope.
 32.20 Center of bottom of Purgatory canyon, 4 chs. wide, course
 N. 45° W., near head of same. Asc. 150 ft., over SW.
 slope, on right wall of canyon.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 28 | S 27
 1921

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W.
 of cor.
 Continue over right wall of Purgatory Canyon, thru. re-
 mainder of mile.
 Ascend 105 ft., over W. slope.
 54.50 Desc. 140 ft., over NW. slope.
 60.60 Ascend 60 ft., over SW. slope.
 63.80 Descend 15 ft.
 70.50 Asc. 20 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock,
 with marked stone for cor. of secs. 21, 22, 27 and 28,
 and raise a mound of stone around post, with brass cap,
 marked

T41N | R13W
 S21 | S22
 S28 | S27
 1921

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and sagebrush.

Chains.

40.00 S. 39°59' E., on a random line, bet. secs. 22 and 27.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.82 Intersect N. and S. line, 21 lks. N. of the cor. of secs. 22, 23, 20 and 27.
 Thence,
 N. 89°50' W., on a true line, bet. secs. 22 and 27.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 125 ft.
 12.00 South end of ridge, brs. N. 10° W. and S. 10° E. Desc. 15 ft.
 14.00 Ascend 15 ft.
 17.50 Point of spur, slopes S. Desc. 15 ft.
 20.30 Wash, 60 lks. wide, course S. 30° E. Asc. 45 ft.
 22.60 Point of spur, slopes SE. Desc. 10 ft.
 23.85 Ascend 50 ft.
 30.50 Descend 20 ft.
 34.10 Gulch, 40 lks. wide, course S. 80° E. Asc. 140 ft. to
 39.91 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 22
 S 27
 1921

Ascend 35 ft. to
 45.00 Same gulch, course N. 45° E. Ascend 145 ft. to
 71.50 East or right rim of Purgatory canyon, brs. N. and S. Desc. 315 ft., over steep W. slope, to
 79.82 The cor. of secs. 21, 22, 27 and 28, on E. wall of Purgatory Canyon.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sage brush, black brush, shellac brush and juniper.

N. 0° 2' W., bet. secs. 21 and 22.
 Over mountainous land, thru. scattering undergrowth, along E. wall of Purgatory Canyon, thru. entire mile.
 Descend 185 ft., along steep W. slope.
 19.80 Ascend 50 ft., along W. slope.
 31.40 Point of spur, slopes W. Desc. 30 ft., along W. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S21 | S22
 1921

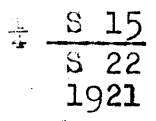
and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 Along broken W. slope, with very little change in elevation.
 49.00 Desc. 135 ft., over W. slope, to
 67.70 Top of cliff, brs. N. 10° E. and S. 10° W., facing W. Desc. 132 ft. to
 72.25 Foot of cliff. Desc. 80 ft., over steep W. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock with marked stone, for cor. of secs. 15, 16, 21 and 22, and raise a mound of stone around post, with brass cap, marked

T41N | R13W
 S16 | S15
 S21 | S22
 1921

Land, mountainous.
 Soil, rocky, 4th rate. No timber.
 Undergrowth, black brush, sagebrush and shellac brush.

Subdivision of Township 41 North, Range 13 West. 37

Chains.
 40.00 S.89°50'E., on a random line, bet. secs.15 and 22.
 Set temp. $\frac{1}{4}$ sec.cor.
 79.84 Intersect N. and S. line, 5 lks.N.of the cor.of secs.14,
 15, 22 and 23.
 Thence,
 N.89°48'W., on a true line, bet. secs.15 and 22.
 Over mountainous land, thru. scattering undergrowth.
 Along top of spur, sloping E. Ascend 25 ft.to
 5.70 Leave top of spur, slopes E. from NW. Asc. 45 ft.
 19.90 Spur, slopes S.20°E. Desc. 35 ft.
 24.00 Wash, 30 lks.wide, course S.45°E. Asc. 40 ft.
 30.00 Spur, slopes S.45°E. Desc. 50 ft.
 35.80 Ascend 60 ft.to
 39.92 Set an iron post, 3 ft.long, 1 in. in diam., on bed rock,
 with marked stone, for $\frac{1}{4}$ sec.cor., and raise a mound
 of stone around post, with brass cap, marked

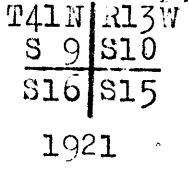


Ascend 155 ft., over E.slope.
 65.60 Ridge, brs.N. and S. Desc.15 ft.to
 67.58 East or right rim of Purgatory Canyon, brs.N. and S., fac-
 ing W. Desc.515 ft., over steep W.slope, to
 79.84 The cor.of secs.15,16,21 and 22, on E.wall of Purgatory
 Canyon.
 Land, mountainous.
 Soil, rocky and gravelly, 3rd rate.
 No timber.
 Undergrowth, sagebrush, black brush and shellac brush.

N.0°2'W., bet. secs. 15 and 16.
 Over mountainous land, thru. scattering undergrowth, along
 steep slope of E. wall of Purgatory canyon; asc.190 ft.
 12.00 Point of spur, slopes W. Desc.285 ft.
 20.00 Ascend 30 ft.
 25.00 Descend 60 ft.to
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., on solid
 rock, with marked stone, for $\frac{1}{4}$ sec.cor., and raise a
 mound of stone around post, with brass cap, marked



Continue over steep slope on E.wall of Purgatory Canyon.
 Ascend 340 ft.
 61.20 Point of spur, sloping W. and E.or right rim of Purgatory
 canyon, brs.NW and SE.
 Leave E. wall of said canyon. Descend 75 ft.to
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 6 ins.in
 the ground, with marked stone, for cor.of secs.9,10,15
 and 16, marked on brass cap,



Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and cactus.

Subdivision of Township 41 North, Range 13 West.

Chains.

S. 89° 48' E., on a random line, bet. secs. 10 and 15.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 30.02 Intersect N. and S. line, 16 lks. S. of the cor. of secs. 10
 11, 14 and 15.
 Thence,
 N. 89° 55' W., on a true line, bet. secs. 10 and 15.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 25 ft.
 4.00 Point of spur, sloping N. Desc. 175 ft.
 13.50 Gulch, course N. Ascend 350 ft.
 34.70 Spur, slopes N. Descend 15 ft. to
 40.01 Set an iron post 3 ft. long, 1 in. in diam., on solid rock,
 with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of
 stone, around post, with brass cap, marked

$$\begin{array}{r} \frac{1}{4} \text{ S } 10 \\ \hline \text{S } 15 \\ 1921 \end{array}$$

Descend 270 ft.
 55.50 Bottom of canyon, course N. Ascend 295 ft.
 67.50 Spur, slopes NW. Desc. 250 ft. to
 80.02 The cor. of secs. 9, 10, 15 and 10.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and cactus.

N. 0° 2' W., bet. secs. 9 and 10.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 240 ft.
 8.50 Descend 110 ft.
 22.30 Ascend 40 ft.
 32.65 S. or left rim of Black Rock Canyon, brs. E and W. facing
 N. Desc. 295 ft., to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 15 ins. in
 the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise
 a mound of stone around post, with brass cap, marked

$$\begin{array}{r} \frac{1}{4} \\ \text{S } 9 \text{ S } 10 \\ \hline 1921 \end{array}$$

Continue over S. wall of Black Rock Canyon.
 Descend 120 ft. to
 52.52 Top of cliffs, bearing E and W. Desc. 575 ft., over cliffs
 facing N.
 76.00 Bottom of Black Rock Canyon, course W. Asc. 60 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on solid rock,
 with marked stone, for cor. of secs. 3, 4, 9 and 10, and
 raise a mound of stone around post, with brass cap,
 marked

$$\begin{array}{r|l} \text{T41N} & \text{R13W} \\ \hline \text{S } 4 & \text{S } 3 \\ \hline \text{S } 9 & \text{S } 10 \\ 1921 \end{array}$$

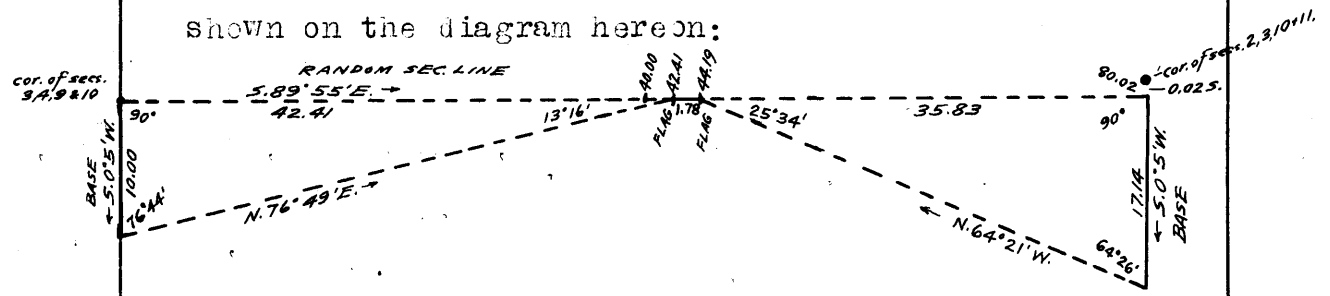
Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and shellac brush.

S. 89° 55' E., on random line, bet. secs. 3 and 10.
 Chain measurement of this line is impracticable, owing
 to the steep walls of Black Rock Canyon, over which
 the line passes for nearly its entire length. Triangu-
 late measurement, as described as follows, and as

Subdivision of Township 41 North, Range 13 West. 39

Chains.

shown on the diagram hereon:



Set flag ahead on random sec. line.
 From corner of secs. 3, 4, 9 and 10, measure a base, S. 0° 5' W., 10.00 chs.
 From S. end of base, flag brs. N. 76° 49' E.
 Included angles are 70° 44', 90° 00' and 13° 16', the sum of which is 180° 00'.
 Vertical angle from cor. of secs. 3, 4, 9 and 10 to flag is + 11½°.
 Triangulated dist. on random sec. line is obtained by Tang. 76° 44' x Base or 4.24132 x 10.00 = 42.41 chs.
 Point for temp. ¼ sec. cor. is inaccessible.
 40.00 Flag point of first triangulation. Set temp. witness cor. to ¼ sec. cor. at this point, and chain measurement, 1.78 chs. S. 89° 55' E., to
 42.41
 44.19 Set flag at this point, and triangulate again.
 A flag set at a point 0.02 chs. S. of the cor. of secs. 2, 3, 10 and 11, brs. S. 89° 55' E. from flag at 44.19 chs. station; therefore, the falling of the random line at said sec. cor. is 2 lks. S. therefrom.
 From the flag 2 lks. S. of the cor. of secs. 2, 3, 10 and 11, measure a Base S. 0° 5' W., 17.14 chs.
 From S. end of base, flag at 44.19 ch. station brs. N. 64° 21' W.
 Included angles are 64° 26'; 25° 34' and 90° 00', the sum of which is 180° 00'.
 Vertical angle from 44.19 ch. station to cor. of secs. 2, 3, 10 and 11 is - 12°.
 Triangulated dist. on random sec. line by the second triangulation is obtained by Tang. 64° 26' x Base or 2.09028 x 17.14 = 35.83 chs., which added to 44.19 chs. gives 80.02 chs., the total length of random line.
 80.02 Intersect N. and S. line at triangulation point, 2 lks. S. of cor. of secs. 2, 3, 10 and 11, at S. edge of bottom of Black Rock canyon.
 Thence, N. 89° 50' W., on true line, bet. secs. 3 and 10.
 Over mountainous land, thru. scattering undergrowth.
 Along S. edge of bottom of Black Rock Canyon.
 3.00 Enter bottom of canyon, thence across same, course S. 60° W.
 12.00 N. edge of bottom of canyon, brs. N. 60° E. and S. 60° W. Leave bottom of canyon, and ascend over steep cliffs facing SW. on N. wall of canyon.
 Discontinue chaining at this point.
 Continue line and measurement by triangulation, from cor. of secs. 2, 3, 10 and 11, as hereinbefore described.
 35.83 Triangulation point at north or right rim of Black Rock canyon, 500 ft. above the bottom of canyon, brs. NE. and SW. This is also a point of spur sloping S.
 Continue line and measurement by chaining.
 Desc. 25 ft. to
 37.61 Triangulation point at N. or right rim of Black Rock canyon, brs. NW. and SE. The true point for ¼ sec. cor. 2.41 chs. N. 89° 50' W. from this point, falls on face of cliffs, and is inaccessible; therefore, this being the nearest point on line at which the cor. point can be witnessed,
 Set an iron post, 3 ft. long, 1 in. in diam., in crevice of cliff, with marked stone, for witness cor. to ¼ sec. cor., and raise a mound of stone around post, with brass cap, marked

40 Subdivision of Township 41 North, Range 13 West.

Chains.

W.C. 3 3
3 10
1921

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of post.

Discontinue chaining at this W.C., and triangulate the measurement of the remainder of the line, as hereinbefore described,

Over cliffs on N. or right wall of canyon.

Descend 570 ft. to

80.02 Triangulation point at cor. of secs. 3, 4, 9 and 10, on N. wall of canyon.

Land, mountainous.

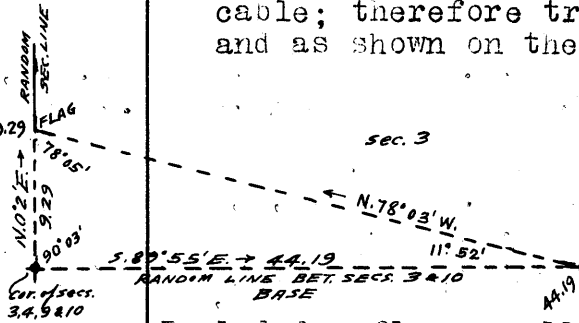
Soil, rocky, 4th rate.

No timber.

Undergrowth, shellac brush and black brush.

N. 0° 2' E., on a random line, bet. secs. 3 and 4.

The beginning of this line passes over steep cliffs on N. wall of Black Rock Canyon, and chaining is impracticable; therefore triangulate as described as follows, and as shown on the diagram hereon:



Set a flag ahead on random line at top of cliffs.

From the triangulation point on random line, bet. secs. 3 and 10 (44.19 chs. S. 89° 55' E. from cor. of secs. 3, 4, 9 and 10) the flag brs. N. 78° 03' W.

Included angles are 11° 52', 90° 03' and 78° 05', the sum of which is 180° 00'.

Vertical angle from sec. cor. to flag is + 40°.

Triangulated dist. on random line is obtained by

$$\frac{\text{Sine } 11^{\circ} 52' \times \text{Base}}{\text{sine } 78^{\circ} 05'} \text{ or } \frac{.20563 \times 44.19}{.97845} = 9.29 \text{ chs.}$$

9.29 Flag point of above described triangulation.

Continue line and measurement by chaining.

40.00 Set temp. 1/4 sec. cor.

79.99 Intersect the cor. of secs. 3 and 4, and frac. secs. 33 and 34, on the N. bdy. of Tp., hereinbefore described.

Thence,

S. 0° 2' W., on a true line, bet. secs. 3 and 4.

Over mountainous land, thru scattering undergrowth.

Ascend 85 ft.

15.00 Descend 30 ft.

20.00 Ascend 85 ft. to

39.99 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

S 4 | S 3
1921

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Ascend 10 ft.

45.00 Ridge, brs. E and W. Descend 400 ft. to

70.70 Triangulation point at N. or right rim of Black Rock Canyon, brs. E. and W. Continue line and measurement by triangulation. Desc. 530 ft., over cliffs facing S., to

79.99 The cor. of secs. 3, 4, 9 and 10, on steep N. wall of Black Rock Canyon.

Land, mountainous.

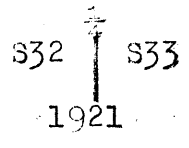
Soil, rocky, 3rd rate.

No timber. Undergrowth, black brush and shellac brush.

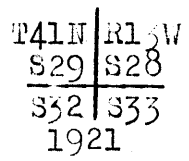
chains.

From the standard cor. of secs. 32 and 33, on the S. bdy. of the Tp., (10th. Std. Parallel North), hereinbefore described,

- N. 0° 3' W., bet. secs. 32 and 33.
- Over mountainous land, thru. scattering undergrowth.
- Desc. 60 ft.
- 11.70 Wash, 35 lks. wide, course N. 70° E. Ascend 40 ft.
- 23.80 Descend 75 ft. to
- 38.70 Ridge, brs. N. 45° E. and S. 45° W. Descend 25 ft. to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

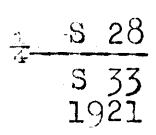


- Descend 110 ft.
- 47.50 Ascend 52 ft.
- 52.50 Point of spur, slopes W. Desc. 140 ft.
- 59.60 Bottom of canyon, 150 lks. wide, course N. 45° E. Asc. 150 ft.
- 67.80 Spur, slopes N. 80° E. Desc. 15 ft.
- 78.10 Ascend 10 ft. to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock, with marked stone for cor. of secs. 28, 29, 32 and 33, and raise a mound of stone around post, with brass cap, marked



Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sagebrush and black brush.

- 40.00 ~~Last~~, on a random line, bet. secs. 28 and 33.
- Set temp. $\frac{1}{4}$ sec. cor.
- 80.10 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 27, 28, 33 and 34.
- Thence,
- N. 89° 59' W., on a true line, bet. secs. 28 and 33.
- Over mountainous land, thru. scattering undergrowth.
- Asc. 185 ft.
- 22.40 Ridge, brs. N. and S. Descend 100 ft.
- 28.80 Wash, 35 lks. wide, course N. 30° E. Asc. 15 ft.
- 33.90 Desc. 10 ft. to
- 36.40 Same wash, 45 lks. wide, course S. 60° E. Asc.
- 39.10 Same wash, 40 lks. wide, course N. 30° E. Asc.
- 40.05 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



- and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
- Ascend 125 ft.
- 52.00 Point of spur, slopes S. 15° E. Desc. 40 ft.
- 57.70 Wash, 20 lks. wide, course S. 45° E. Asc. 130 ft.
- 69.00 Spur, slopes S. Desc. 70 ft.
- 72.50 Wash, course S. 10° E. Asc. 50 ft. to
- 80.10 The cor. of secs. 28, 29, 32 and 33.
- Land, mountainous.
- Soil, rocky, 4th rate.
- No timber. Undergrowth, black brush.

chains.

N. 0°31'W., bet. secs. 28 and 29.
 Over mountainous land, thru. scattering undergrowth.
 Descend 45 ft.
 6.15 Wash, 40 lks. wide, course S. 30°E. Asc. 110 ft.
 15.45 Descend 100 ft.
 32.63 Wash, 60 lks. wide, course S., Asc. 30 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone for $\frac{1}{4}$ sec. cor., and raise a mound of
 stone around post, with brass cap, marked

S29 | S28
 1921

Descend 120 ft. to
 63.50 S. rim of canyon, brs. E. and W. Descend 320 ft. Asc. 400 ft.
 67.18 Bottom of canyon, course N. 35°E., 150 lks. wide. Asc. 400
 ft.
 72.95 Point of spur, slopes N. 45°E. Desc. 185 ft.
 79.00 Wash, 65 lks. wide, course S. 75°E. in bottom of canyon.
 Ascend 25 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock,
 with marked stone, for cor. of secs. 20, 21, 28 and 29,
 and raise a mound of stone around post, with brass
 cap, marked

T41N | R13W
 S20 | S21
 S29 | S28
 1921

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sagebrush, black brush and Spanish bayonet.

40.00 S. 89°59'E., on a random line, bet. secs. 21 and 28.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line, 11 lks. S. of the cor. of secs. 21,
 22, 27 and 28.
 Thence,
 S. 89°50'W., on a true line, bet. secs. 21 and 28.
 Over mountainous land, thru. scattering undergrowth,
 across Purgatory Canyon.
 Descend 345 ft., over W. slope on E. wall of canyon.
 13.60 Center of bottom of Purgatory Canyon, 5 chs. wide, course
 N. 20°E. Asc. 550 ft., over W. wall of canyon.
 32.40 Point of spur, slopes S. at W. rim of canyon, bearing N. and
 S. Desc. 15 ft.
 33.60 Wash, 60 lks. wide, course S. 45°E. Asc. 10 ft. to
 39.99 Set an iron post, 3 ft. long, 1 in. in diam., on bedrock,
 with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

S 21
 S 28
 1921

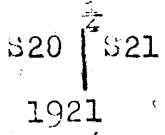
Ascend 320 ft.
 66.40 Spur, slopes S. 10°E. Desc. 10 ft. to
 68.20 N. or left rim of canyon, brs. NW. and SE. Desc. 350 ft. to
 79.98 The cor. of secs. 20, 21, 28 and 29.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and sagebrush.

N. 0°31'W., bet. secs. 20 and 21.

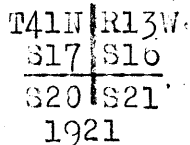
Subdivision of Township 41 North, Range 13 West. 43

chains.

N.0°3' W., bet. secs.20 and 21.
Over mountainous land, thru. scattering undergrowth.
Ascend 245 ft., over SW. slope, on N. or left wall of canyon,
to
8.70 N. or left rim of canyon, brs. NW and SE. Asc. 60 ft.
24.20 Descend 140 ft., over NE. slope, to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
with marked stone, for sec. cor., and raise a mound
of stone around post, with brass cap, marked

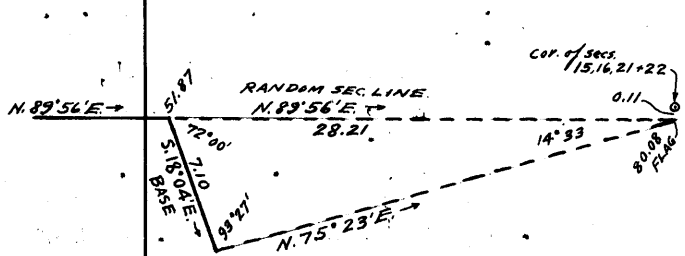


46.60 Ascend 25 ft., over SE. slope.
57.00 Ridge, brs. N.40°E. and S. 40°W. Desc. 135 ft.
59.10 Wash, 60 lks. wide, course N.30°E. Asc. 25 ft., over SE.
63.80 slope.
72.40 Point of short spur, slopes E. Desc. 40 ft.
80.00 Asc. 75 ft.
Descend 25 ft. to
Set an iron post, 3 ft. long, 2 ins. in diam., on bedrock,
with marked stone, for cor. of secs. 16, 17, 20 and 21; and
raise a mound of stone around post, with brass cap,
marked



Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush, black brush and juniper.

40.00 N.89°50'E., on random line, bet. secs.16 and 21.
51.87 Set temp. sec. cor.
W. rim of Purgatory Canyon, brs. N.10°W. and S.20°E. Discon-
tinue chaining, as the line E. of this point crosses
Purgatory Canyon.
Triangulate the measurement of the remainder of this line
as described as follows, and as shown on the diagram
hereon:



From this point, measure a
Base S.18°04'E., 7.10 chs.
Set flag 0.11 chs. S. of the
cor. of secs. 15, 16, 21 and 22.
From 51.87 ch. station, or NW.
end of base, flag brs. N.89°
50'E.; therefore, flag is at
terminus of random line
projected, and the falling
of the line is therefore
S.11 lks. from the cor. of
secs. 15, 16, 21 and 22.

The bearing to the flag from SE. end of base is N.75°23'E.
Included angles are 93°27', 72°00' and 14°33', the sum
of which is 180°00'.

Triangulated distance on random sec. line is obtained by
sine $93^{\circ} 27'$ x Base or $.99819 \times 7.10$
sine $14^{\circ} 33'$ $\frac{.25122}{.25122} = 28.21$ chs., which
added to 51.87 chs. gives 80.08 chs. as the total
length of random sec. line.

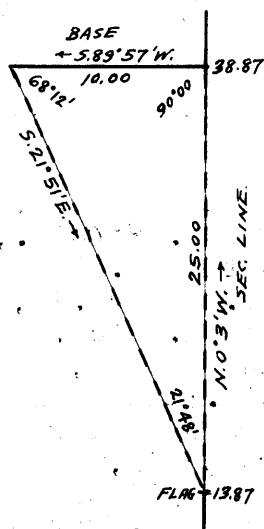
80.08 Triangulation point 11 lks. S. of the cor. of secs. 15, 16,
21 and 22, on E. wall of Purgatory Canyon.
Thence,
S.89°51'W., on true line, bet. secs. 16 and 21.

44 Subdivision of Township 41 North Range 13 West

Chains.

- Over mountainous land, thru. scattering undergrowth. Desc. over steep W. slope, on E. wall of Purgatory Canyon. Measurement of 28.21 chs. by triangulation, hereinbefore described.
- 7.00 (Approximate) Bottom of Purgatory Canyon, with wash, 150 lks. wide, course N.10°W. Ascend over steep E. slope, on W. wall of canyon.
- 28.21 Triangulation point at W. rim of canyon, brs. N.10°W. and S.20°E.
Continue line and measurement by chaining.
Ascend 40 ft. to
- 40.04 Set an iron post, 3 ft. long, 1 in. in diam., on bedrock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked stone, for $\frac{1}{4}$ sec. cor.
- $\frac{1}{4}$ S 16
S 21
1921
- Ascend 35 ft.
- 43.80 Spur, slopes N. Descend 70 ft.
- 55.50 Ascend 35 ft.
- 65.00 Point of spur, slopes N. Descend 140 ft.
- 70.80 Bottom of canyon, with wash 80 lks. wide, course N.10°W. Ascend 130 ft. to
- 80.08 The cor. of secs. 16, 17, 20 and 21.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush, sagebrush, scrub juniper and shellac brush.

- N: 0°3'W., bet. secs. 16 and 17.
Over mountainous land, thru. scattering undergrowth. Descend 95 ft., over NE. slope, to
- 13.87 S. or right rim of canyon, brs. NE. and SW.
Chaining across canyon being impracticable, triangulate as described as follows, and as shown on the diagram hereon:



- Leave flag at this point.
From a point ahead on sec. line, at N. or left rim of canyon, measure a Base, S. 89° 57' W., 10.00 chs.
From W. end of base, flag brs. S. 21° 51' E.
Included angles are 68° 12', 90° 00' and 21° 48', the sum of which is 180° 00'.
Triangulated dist. on sec. line is obtained by
Tang. 68° 12' x Base or 2.50018 x 10.00 = 25.00 chs., which added to 13.87 chs. gives 38.87 chs. N. 0° 3' W. from sec. cor. for position of triangulation point.
- 25.00 (Approximate) Bottom of canyon, course NE. Asc. steep SE. slope.
- 38.87 Triangulation point on N. or left rim of canyon, brs. NE. and SW.
Continue line and measurement by chaining.
Ascend very gradually to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

$\frac{1}{4}$
S 17 | S 16

1921

Subdivision of Township 41 North, Range 13 West, 45

Chains.

Thence over rolling top of mesa, with little change in elevation.

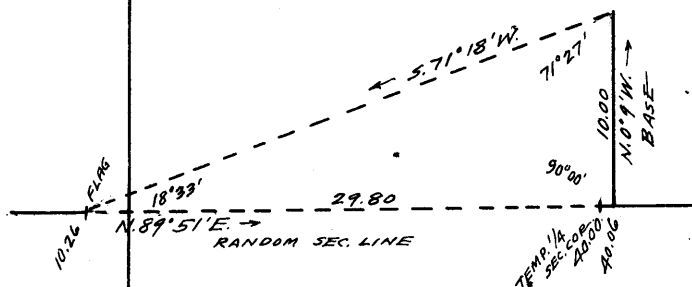
66.30
80.00

Leave top of mesa, and descend 110 ft. to Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground, with marked stone, for cor. of secs. 8, 9, 16 and 17, and raise a mound of stone around post, with brass cap, marked

T41N	R13W
S 8	S 9
S17	S16
1921	

Land, mountainous and rolling.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush.

10.26 N. 89° 51' E., on random line, bet. secs. 9 and 16. W. or left rim of Purgatory Canyon, brs. N. and S. Owing to steep cliffs on W. wall of Purgatory Canyon, which renders chaining impracticable, triangulate as described as follows, and as shown on the diagram hereon:



Leave flag at this point. From a point ahead on random sec. line near foot of cliffs, measure a Base, N. 0° 9' W., 10.00 chs. From N. end of Base, flag brs. S. 71° 18' W. Included angles are 71° 27', 90° 00' and 18° 33', the sum of which is 180° 00'.

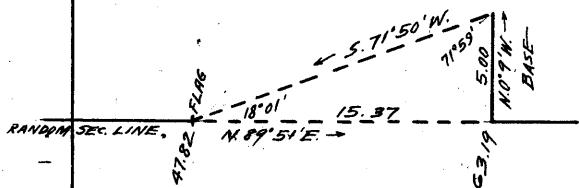
Triangulated dist. on random sec. line is obtained by Tang. 71° 27' x Base, or 2.98004 x 10.00 = 29.80 chs., which added to 10.26 chs., gives 40.06 chs. N. 89° 51' E. from sec. cor. for position of the triangulation point. From triangulation point, chain measurement of 0.06 chs. S. 89° 51' W., to

40.00

Set temp. 1/4 sec. cor.

47.82

Continue line and measurement, by chaining to Discontinue chaining at this point, owing to steep cliffs ahead on E. wall of Purgatory Canyon. Triangulate as described as follows, and as shown on the diagram thereon:



Leave flag at this point. From point ahead on random sec. line at E. rim of Purgatory Canyon, measure a Base, N. 0° 9' W., 5.00 chs. From N. end of base, flag brs. S. 71° 50' W. Included angles are 71° 59', 90° 00' and 18° 01', the sum of which is 180° 00'.

Triangulated dist. on random sec. line is obtained by Tang. 71° 59' x Base or 3.07464 x 5.00 = 15.37 chs., which added to 47.82 chs. gives 63.19 chs. N. 89° 51' E. from sec. cor. for position of the triangulation point.

63.19

Triangulation point at E. or right rim of Purgatory Canyon, brs. N. 10° W. and S. 10° E.

80.06

Continue line and measurement by chaining. Intersect N. and S. line, 21 lks. N. of the cor. of secs. 9, 10, 15 and 16.

Thence, West, on true line, bet. secs. 9 and 16. Over mountainous land, thru. scattering undergrowth.

16.87

Desc. 200 ft., over SWSlope, to Triangulation point at E. or right rim of Purgatory

46 Subdivision of Township 41 North Range 13 West.

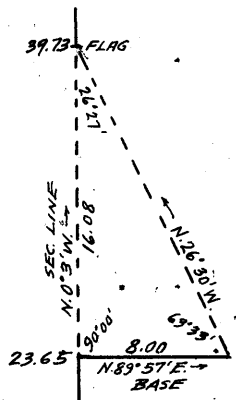
Chains.

Canyon, brs. N.10°W. and S.10°E.
 Descend over cliffs on E. wall of canyon.
 Measurement by triangulation to
 32.24 Triangulation point, at foot of E. wall of canyon. Thence
 across bottom of Purgatory Canyon, brs. N.20°W. and S:20°
 E.
 33.50 Continue line and measurement by chaining.
 Wash, 50 lks. wide, course N.20°W. and S.20°W.
 Continue over bottom of canyon.
 Ascend slightly to
 40.00 Triangulation point.
 40.03 Set an iron post, 3 ft. long, 1 in. in diam., 8 ins. in the
 ground, with marked stone for $\frac{1}{4}$ sec. cor., and raise a
 mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 9
 S 16
 1921

Ascend over cliffs, bearing N. and S. facing E. on W. wall
 of Purgatory Canyon.
 Measurement by triangulation to
 69.80 Triangulation point at W. or left rim of Purgatory Canyon.
 brs. N. and S.
 Continue line and measurement, by chaining.
 Ascend 45 ft.
 72.00 Descend 127 ft. to
 80.06 The cor. of secs. 8, 9, 16 and 17.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and cactus.

N.0°3'W., bet. secs. 8 and 9.
 Over mountainous land, thru. scattering undergrowth.
 Desc. 465 ft. to
 23.65 S. or left rim of Black Rock Canyon, brs. E. and W.
 Discontinue chaining, as the line now passes over steep
 cliffs bearing E. and W. facing N. on the S. wall of
 the canyon.
 Triangulate from this point, as described as follows, and
 as shown on the diagram hereon:



Measure a base from this point,
 N.89°57'E., 8.00 chs.
 Set flag ahead on sec. line at
 foot of cliffs.
 From E. end of base, flag brs.
 N.26°30'W.
 Included angles are 63°33'90°
 00' and 26°27', the sum of
 which is 180°00'.
 Vertical angle from triangulation
 point at 23.65 ch. station
 to flag point is - 18°.

Triangulated dist. on sec. line, is obtained by
 Tang. 63°33' x Base or 2.01008 x 8.00 = 16.08 chs., which
 added to 23.65 chs. gives 39.73 chs. N.0°3'W., from
 sec. cor., of the position of the flag point.

39.73 Flag point of above described triangulation at foot of
 cliffs, bearing E. and W., 325 ft. below S. rim of
 Black Rock Canyon.
 Continue line and measurement, by chaining.
 Descend slightly to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 8 ins. in the
 ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise
 a mound of stone around post, with brass cap, marked

$\frac{1}{4}$
 S 8 1/2 S 9
 1921

Chains.

51.40 Descend 225 ft., over N. slope on S. wall of canyon to Wash, 50 lks. wide, course W. in bottom of Black Rock Canyon.
 Thence over canyon wall, facing Black Rock Canyon on the S. and Virgin river canyon on the W.
 Ascend 75 ft.
 58.60 Descend 25 ft.
 63.60 Ascend 115 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock, with marked stone, for cor. of secs. 4, 5, 8 and 9, and raise a mound of stone around post, with brass cap, marked

T41N	R13W
S 5	S 4
S 8	S 9
1921	

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sagebrush and black brush.

40.00 East, on a random line, bet. secs. 4 and 9.
 79.96 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line, 9 lks. N. of the cor. of secs. 3, 4, 9 and 10.
 Thence,
 N. $89^{\circ}56'$ W., on a true line, bet. secs. 4 and 9.
 Over mountainous land, thru. scattering undergrowth.
 Along steep S. slope, on N. wall of Black Rock Canyon.
 16.00 Ascend 50 ft.
 21.00 Descend 55 ft. to
 39.80 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for witness cor. to $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

WC $\frac{1}{4}$	S 4
	S 9
1921	

39.98 The true point for $\frac{1}{4}$ sec. cor. falls where it cannot be monumented.
 Continue along N. wall of Black Rock Canyon, slope changing from S. to SW. Ascend 60 ft. to
 46.50 Thence descending slightly to
 66.00 Ascend 80 ft.
 71.50 Descend 110 ft. to
 79.96 The cor. of secs. 4, 5, 8 and 9.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush and sagebrush.

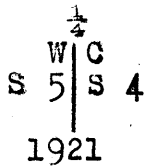
40.00 N. $0^{\circ}2'$ E., on a random line, bet. secs. 4 and 5.
 80.02 Set temp. $\frac{1}{4}$ sec. cor.
 Fall 2 lks. E. of the cor. of secs. 4 and 5, and frac. secs. 32 and 33, on the N. bdy. of Tp., hereinbefore described.
 Thence,
 S. $0^{\circ}1'$ W., on a true line, bet. secs. 4 and 5.
 Over mountainous land, thru. scattering undergrowth.
 Descend 100 ft., over broken SE. slope, on N. or right wall of Virgin river canyon, bearing NE and SW.
 39.00 Foot of descent at N. or right bank of Virgin river, brs. NE and SW. Thence across river.
 40.02 The true point for $\frac{1}{4}$ sec. cor. falls in Virgin River, 2,50

48 Subdivision of Township 41 North Range 13 West

Chains.

43.50 chs, wide, course SW.
South or left bank of Virgin river, brs. NE. and SW. Asc. 10 ft. to

45.52 Set an iron post, 3 ft. long, 1 in. in diam., on solid rock with marked stone, for witness cor. to 1/4 sec. cor., and raise a mound of stone around post, with brass cap, marked

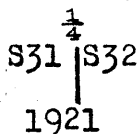


73.52 Ascend 120 ft., over broken W. and NW. slope on S. or left wall of Virgin River Canyon.
Top of ascent overlooking Black Rock Canyon to the S., and Virgin River Canyon to the W.

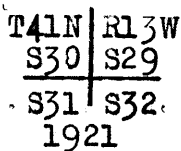
80.02 Descend 107 ft., to
The cor. of secs. 4, 5, 8 and 9.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush.

From the standard cor. of secs. 31 and 32, on the S. bdy. of the Tp. (10th Std. Par. N.), hereinbefore described, N. 0° 3' W., bet. secs. 31 and 32.

Over mountainous land, thru. scattering undergrowth.
Ascend 10 ft.
2.80 Descend 105 ft.
19.20 Wash, 40 lks. wide, course N. 45° E. Ascend 95 ft.
38.60 Ridge, brs. E. and W. Desc. 15 ft. to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 13 ins. in the ground, with marked stone, for 1/4 sec. cor., and raise a mound of stone around post, with brass cap, marked



52.80 Descend 85 ft.
Ascend 17 ft.
57.80 Descend 50 ft. to
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 29, 30, 31 and 32, marked on brass cap,



and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush, black brush and juniper.

40.00 East, on a random line, bet. secs. 29 and 32.
Set temp. 1/4 sec. cor.
80.18 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 28, 29, 32 and 33.

Thence,
S. 89° 57' W., on a true line, bet. secs. 29 and 32.
Over mountainous land, thru. scattering undergrowth.
Ascend 125 ft.
16.40 Spur, slopes S. 20° E. Desc. 75 ft.

Subdivision of Township 41 North, Range 13 West.

Chains.	
35.00	Wash, 60 lks.wide, course S.20°E. Asc. 25 ft. to
40.09	Set an iron post, 3 ft.long, 1 in. in diam., 6 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec.cor., and raise a mound of stone around post, with brass cap, marked
	$\frac{1}{4} \text{ S } 29$ $\frac{1}{4} \text{ S } 32$ 1921
	Ascend 85 ft.
52.19	N. end of ridge, brs.N. and S. Desc. 40 ft.
62.70	Wash, 45 lks.wide, course N.30°E. Ascend 25 ft.
66.30	Point of spur, slopes S. Descend.
68.80	Same wash, 40 lks.wide, course S.40°E. Asc. 20 ft.
74.80	Desc.10 ft. to
80.18	The cor.of secs.29,30,31 and 32. Land,mountainous. Soil,rocky, 4th rate. No timber. Undergrowth, sagebrush and black brush.

	West, on a random line, bet. secs.30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.00	Intersect the cor.of secs. 25,30, 31 and 36, on the W.bdy. of the Tp., described in Book "F."
	Thence, East, on a true line, bet. secs.30 and 31. Over mountainous land, thru. scattering undergrowth. Ascend 160 ft.
13.00	Spur, slopes N. 20°W. Desc. 180 ft.
25.20	Bottom of canyon, course N.20°E. Asc. 75 ft.
29.20	Ridge, brs.N. and S. Desc. 60 ft. to
40.00	Set an iron post, 3 ft.long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec.cor., and raise a mound of stone around post, with brass cap, marked
	$\frac{1}{4} \text{ S } 30$ $\frac{1}{4} \text{ S } 31$ 1921
	Desc. 275 ft.
60.30	Draw, course N.25°E. Asc. 10 ft.
70.20	Spur, slopes N.20°E. Desc.30 ft.
71.60	Asc. 35 ft. to
80.00	The cor.of secs.29,30, 31 and 32. Land,mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, black brush and sagebrush.

	N.0°3'W., bet. secs.29 and 30. Over mountainous land, thru. scattering undergrowth. Ascend 30 ft.
18.99	Fork of spur to NE. and SE. from SW. Desc.175 ft.
38.30	Wash, 70 lks.wide, course N.70°E. Asc. 15 ft. to
40.00	Set an iron post 3 ft.long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec.cor., and raise a mound of stone around post, with brass cap, marked
	$\frac{1}{4} \text{ S } 30 \text{ S } 29$ 1921
	Ascend 50 ft.
43.70	Point of spur, slopes S.60°E. Desc. 25 ft.
47.10	Asc.87 ft.
54.20	Point of spur, slopes E. Desc. 60 ft.

50 Subdivision of Township 41 North, Range 13 West.

Chains.

67.00 Ascend 25 ft.
 73.70 Ridge, brs. N. 80° E. and S. 80° W. Desc. 145 ft. to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the
 ground, for cor. of secs. 19, 20, 29 and 30, marked on
 brass cap,

T41N	R13W
S19	S20
S30	S29
1921	

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

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sage brush and black brush.

40.00 N. 89° 57' E., on a random line, bet. secs. 20 and 29.
 Set temp. ¼ sec. cor.
 80.16 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 20,
 21, 28 and 29.

Thence,

West, on a true line, bet. secs. 20 and 29.

Over mountainous land, thru. scattering undergrowth.

Ascend 380 ft., over E. slope, to

40.08 Set an iron post 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for ¼ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

¼ S 20
¼ S 29
1921

Ascend 20 ft., over E. slope.

42.10 Ridge, brs. N. 10° E. and S. 10° W. Desc. 55 ft., over W. slope.

46.10 Wash, 30 lks. wide, course N. 15° E. Asc. 45 ft.

52.10 Point of spur, slopes N. 10° E. Desc. 120 ft.

61.20 Wash, 40 lks. wide, course N. 40° E. Asc. 80 ft.

69.10 Point of spur, slopes N. Desc. 125 ft. to

80.16 The cor. of secs. 19, 20, 29 and 30.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sagebrush, black brush and Spanish dagger.

40.00 West, on a random line, bet. secs. 19 and 30.
 Set temp. ¼ sec. cor.
 79.90 Fall 21 lks. S. of the cor. of secs. 19, 24, 25 and 30,
 on the W. bdy. of Tp., described in Book "F."

Thence,

S. 89° 51' E., on a true line, bet. secs. 19 and 30.

Over mountainous land, thru. scattering undergrowth.

Ascend 375 ft., over cliffs, facing N. 80° W.

6.00 Rim of cliffs, brs. N. 10° E. and S. 10° W. Desc. 115 ft.

19.40 Ascend 85 ft.

31.00 Ridge, brs. N. 50° E. and S. 50° W. Desc. 45 ft. to

39.90 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for ¼ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

¼ S 19
¼ S 30
1921

56.50 Descend 210 ft.

Wash, 40 lks. wide, course N. 40° E. Asc. 40 ft.

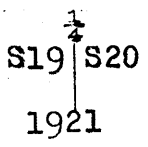
Subdivision of Township 41 North, Range 13 West.

Chains.

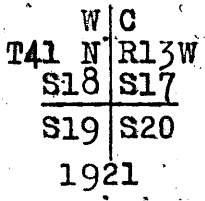
60.70 Point of spur, slopes N.45°E. Desc. 210 ft.
 74.90 Wash, 80 lks.wide, course N.20°E., near head of same.
 Ascend 10 ft.
 77.50 Descend 50 ft.to
 79.90 The cor.of secs.19,20, 29 and 30.
 Land, mountainous.
 Soil,rocky, 4th rate.
 No timber,
 Undergrowth, black brush.

N.0°3'W., bet. secs.19 and 20.
 Over mountainous land, thru. scattering undergrowth.
 Descend 25 ft.

4.50 Wash, 90 lks.wide, course N.60°E. Ascend 180 ft.
 31.50 Point of spur, slopes S.80°E. Desc. 45 ft.to
 40.00 Set an iron post, 3 ft.long, 1 in. in diam.,on bed rock,
 with marked stone, for 1/4 sec.cor., and raise a mound
 of stone around post, with brass cap, marked



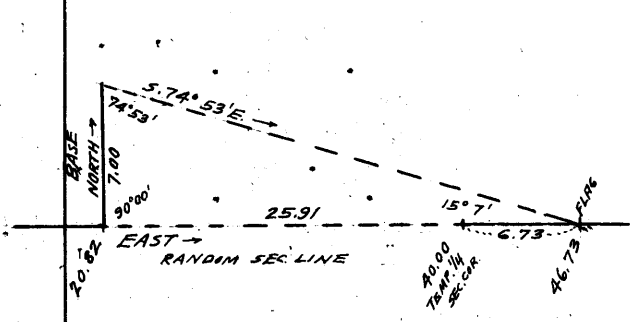
Ascend 50 ft.
 52.70 Spur, slopes N.85°E. Desc.145 ft.to
 79.85 Set an iron post, 3 ft.long, 2 ins. in diam.,on bedrock,
 with marked stone, for witness cor.to cor.of secs.17,
 18, 19 and 20, and raise a mound of stone around post,
 with brass cap, marked



80.00 The true point for cor.of secs.17,18,19 and 20 falls on
 face of small cliff, where it cannot be monumented.
 Land, mountainous.
 Soil,rocky, 4th rate.
 No timber.
 Undergrowth, sage brush and black brush.

From the true point point for cor.of secs. 17,18,19 and 20,

20.82 East, on a random line, bet. secs.17 and 20.
 Discontinue chaining at this point, owing to steep walls
 of a canyon, over which the line passes. Triangulate
 as described as follows, and as shown on the diagram
 hereon:



Measure a Base North, 7.00
 chs.
 Set flag ahead on random
 sec. line at E. rim of can-
 yon.
 From N. end of base, flag brs.
 S.74°53'E.
 Included angles are 74°53',
 15°7' and 90°00', the sum
 of which is 180°00'.

Triangulated distance on random line is obtained by
 Tang.74°53' x Base. or 3.70188 x 7.00 = 25.91 chs., which
 added to 20.82 chs. gives 46.73 chs. E. from sec. cor.
 for position of flag point.

40.00 Point for temp. 1/4 sec. cor. falls on face of cliff on E.
 wall of canyon, and is inaccessible.

52 Subdivision of Township 41 North, Range 13 West.

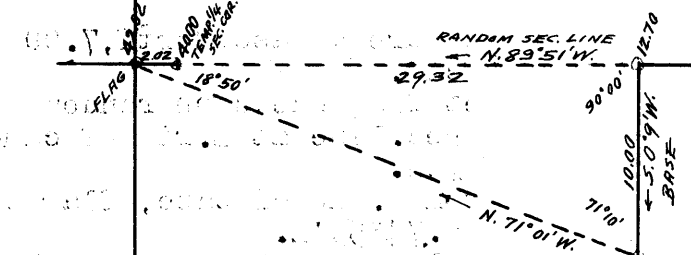
Chains.

- 46.73 Flag point of above described triangulation at E. rim of canyon.
Set temp. witness cor. to $\frac{1}{4}$ sec. cor. at this point.
Continue line and measurement, by chaining.
- 80.14 Intersect N. and S. line, 9 lks. S. of the cor. of secs. 16, 17, 20 and 21.
Thence,
S. $89^{\circ}50'W.$, on a true line, bet. secs. 17 and 20.
Over mountainous land, thru. scattering undergrowth.
Ascend 15 ft.
- 1.80 Ridge, brs. N. and S. Desc. 115 ft.
- 11.69 Wash, 35 lks. wide, course N. $10^{\circ}E.$ Ascend 27 ft.
- 18.80 Descend 10 ft.
- 22.50 Wash, 30 lks. wide, course N. Asc. 100 ft.
- 30.10 Ridge, brs. N. and S. Desc. 22 ft. to.
- 33.30 Set an iron post 3 ft. long, 1 in. in diam., on bedrock, with marked stone, for witness cor. to $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked

WC $\frac{1}{4}$ S 17
S 20
1921

- 33.41 Descend slightly to
Triangulation point at E. rim of canyon, brs. N. and S.
Continue line and measurement by a triangulation for 25.91 chs., as hereinbefore described.
- 40.07 Descend about 800 ft. over cliffs, on E. wall of canyon.
True point for $\frac{1}{4}$ sec. cor. on face of cliff, and inaccessible.
- 42.00 (Approximate) Wash, 70 lks. wide, course N. Ascend about 800 ft., over steep E. slope on W. wall of canyon.
- 59.32 Triangulation point on W. rim of canyon, bearing N. and S.
Continue line and measurement by chaining.
Ascend 57 ft.
- 64.30 Spur, slopes N. Desc. slightly to
- 60.20 E. rim of canyon, brs. N. and S. Desc. 265 ft.
- 72.05 Bottom of canyon, course N. Asc. 165 ft. to
- 80.14 The true point for cor. of secs. 17, 18, 19 and 20, witnessed 0.15 chs. S. $0^{\circ}3'E.$, as hereinbefore described.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush and cactus.

- 12.70 From true point for cor. of secs. 17, 18, 19 and 20, N. $89^{\circ}51'W.$, on random line, bet. secs. 18 and 19.
Top of cliffs, bearing NE and SW. Steep descent over these cliffs renders chaining impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



Measure a Base, S. $0^{\circ}9'W.$, 10.00 chs.

Set flag on random line beyond the base of cliffs.
From S. end of base, flag brs. N. $71^{\circ}01'W.$

Included angles are $71^{\circ}10'$, $18^{\circ}50'$ and $90^{\circ}00'$, the sum of which is $180^{\circ}00'$.

- Triangulated dist. on random sec. line is obtained by Tang. $71^{\circ}10' \times$ Base or $2.93189 \times 10.00 = 29.32$ chs., which added to 12.70 chs. gives 42.02 chs. for the position of the flag point on random sec. line.

- From flag point, measure S. $89^{\circ}51'E.$, 2.02 chs. to
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
Continue line and measurement, chaining the remainder of the line.

Chains.

42.02 Flag point of above described triangulation.
 79.80 Fall 9 lks.N. of the cor.of secs. 13,18,19 and 24, on W. bdy.of Tp., described in Book "F."
 Thence,
 S.89°55'E., on true line, bet. secs.18 and 19.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 57 ft.
 4.06 Desc. 37 ft.
 9.00 Ascend 40 ft.
 22.35 Descend 50 ft.
 23.65 Ascend 145 ft.to 1/4 sec.cor.
 37.78 Triangulation point.
 39.80 Set an iron post 3.ft.long, 1 in. in diam.,on bed rock, with marked stone, for 1/4 sec.cor.,and raise a mound of stone, around post,with brass cap, marked

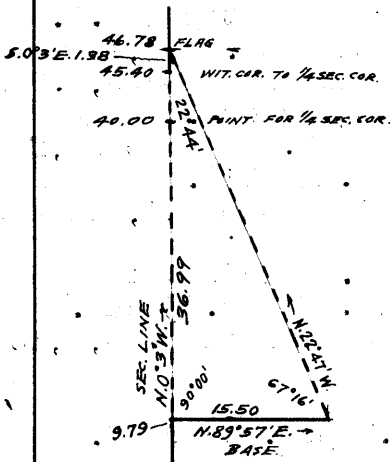
1/4 S 18
 S 19
 1921

This cor.is at base of cliffs bearing NE. and SW.,facing NW.
 Measurement to top of cliffs by triangulation, here inbefore described.
 Ascend.

67.10 Triangulation point at top of cliffs, bearing NE and SW. Continue line and measurement, by chaining.
 Desc. 85 ft.,over NE.slope,to
 79.80 The true point for cor.of secs.17,18,19 and 20,witnessed 0.15 chs.S.0°3'E.
 Land,mountainous.
 Soil,rocky, 4th rate.
 No timber.
 Undergrowth, black brush and yucca.

From true point for cor.of secs. 17,18,19 and 20, N.0°3'W.; bet. secs.17 and 18.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 75 ft.

5.10 Descend 40 ft.to
 9.79 Rim of cliffs, bearing NE and SW., facing NW. Descent over these cliffs is too steep to chain measurement; therefore, triangulate as described as follows, and as shown on the diagram hereon:



Measure a Base, N.89°57'E.,15.50 chs.
 Set flag ahead on sec.line beyond foot of cliffs.
 From E. end of base, flag brs. N.22°47'W.
 Included angles are 67°16',90°00' and 22°44', the sum of which is 180°00'.
 Triangulated dist. on sec.line is obtained by
 Tang.67°16'x Base or 2.38668x 15.50= 36.99 chs., which added to 9.79 chs. gives 46.78 chs.N.0°3'W. from point for

cor.of secs. 17,18,19 and 20, for the position of the flag point.
 40.00 True point for 1/4 sec.cor. falls on face of cliff,and is inaccessible.
 45.40 From flag point, measure S.0°3'E.,1.38 chs. to Foot of cliffs, brs.NE. and SW. At this point, Set an iron post 3 ft.long, 1 in. in diam., 6 ins. in the ground, with marked stone, for witness cor.to 1/4 sec.cor., and raise a mound of stone around post,with brass cap, marked

54 Subdivision of Township 41 North, Range 13 West.

Chains.

1/4
S18 | S17
W C
1921

Continue line and measurement, by chaining.

80.00

Desc. 380 ft. to
Set an iron post, 3 ft. long, 2 ins. in diam., 4 ins. in the ground, with marked stone, for cor. of secs. 7, 8, 17 and 18, and raise a mound of stone around post, with brass cap, marked

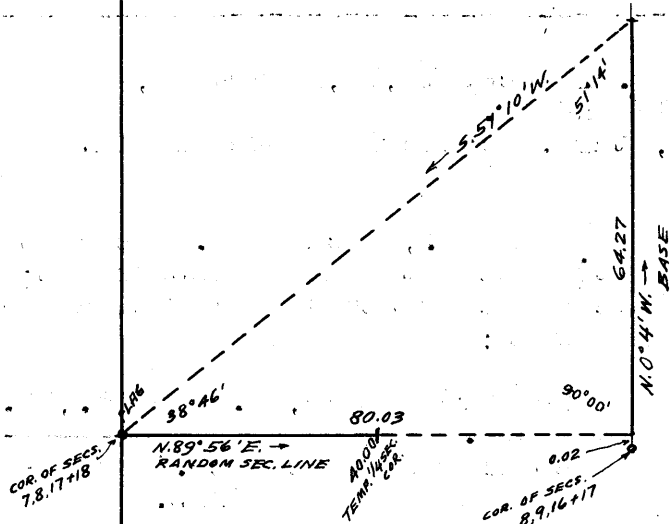
T41N | R13W
S 7 | S 8
S18 | S17
1921

Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush.

40.00

N. 89° 50' E., on a random line, bet. secs. 8 and 17.

Set temp. 1/4 sec. cor.
The east half of this sec. line passes over cliffs, and chaining is impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



Set flag at cor. of secs. 7, 8, 17 and 18.

A flag set 2 lks. N. of cor. of secs. 8, 9, 16 and 17, brs. N. 89° 50' E. from flag at cor. of secs. 7, 8, 17 and 18; therefore, the falling of the random line projected is 2 lks. N. of the cor. of secs. 8, 9, 16 and 17.

The true bearing of the sec. line is therefore, S. 89° 57' W.

From point 2 lks. N. of cor. of secs. 8, 9, 16 and 17, measure a Base, N. 0° 4' W., 64.27 chs.

From N. end of base, flag brs. S. 51° 10' W.

Included angles are 51° 14', 90° 00' and 38° 46', the sum of which is 180° 00'.

Triangulated length of random sec. line is obtained by Tang. 51° 14' x Base or 1.24523 x 64.27 = 80.03 chs.

80.03

Triangulation point 2 lks. N. of cor. of secs. 8, 9, 16 and 17.

From cor. of secs. 8, 9, 16 and 17, S. 89° 57' W., on a true line, bet. secs. 8 and 17.

Over mountainous land, thru. scattering undergrowth. Over cliffs, facing NW.

Measurement to 40.03 chs. station by triangulation of entire line, as hereinbefore described, from which station measure N. 89° 57' E., 0.01 1/2 chs. to

40.01 1/2

Set an iron post 3 ft. long, 1 in. in diam., 8 ins. in the ground, with marked stone for 1/4 sec. cor., and raise a mound of stone around post, with brass cap, marked

1/4
S 8
S 17
1921

Subdivision of Township 41 North, Range 13 west.

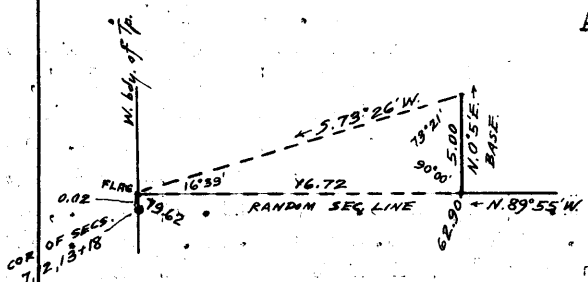
chains.

This cor. is at the foot of the cliffs, over which the East half of the sec. line passes.
 Continue line and measurement by chaining.
 40.03 E. rim of canyon, brs. N. and S.
 Descend 205 ft., over steep W. slope.
 52.45 Bottom of canyon, course N. Asc. 150 ft.
 68.00 W. rim of canyon, brs. N. and S. Asc. 65 ft. to
 80.03 The cor. of secs. 7, 8, 17 and 18.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush.

N. 89° 55' W., on a random line, bet. secs. 7 and 18.
 40.00 Set temp. 1/4 sec. cor.
 62.90 S. or left rim of Virgin River Canyon, brs. N. and S. Steep descent over cliffs on S. wall of canyon renders chaining impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:

Measure a Base, N. 0° 5' E., 5.00 chs.

A flag set at 0.02 chs. N. of the cor. of secs. 7, 12, 13 and 18, on W. bdy. of Tp., brs. N. 89° 55' W. from triangulation point at 62.90 ch. station, on random sec. line, and is therefore, at the terminus of said random line.



The true course of the sec. line is therefore S. 89° 56' E.

From N. end of base, flag brs. S. 73° 26' W.
 Included angles are 73° 21', 90° 00' and 16° 39', the sum of which is 180° 00'.
 Triangulated distance on random sec. line is obtained by Tang. 73° 21' x Base or 3.34377 x 5.00 = 16.72 chs., which added to 62.90 chs. gives 79.62 chs. as the total length of random line.
 79.62 Flag point of above described triangulation 2 lks. N. of the cor. of secs. 7, 12, 13 and 18, on W. bdy. of Tp. described in Book "F."

From cor. of secs. 7, 12, 13 and 18,
 S. 89° 56' E., on true line, bet. secs. 7 and 18.
 Over mountainous land, thru. scattering undergrowth, in Virgin River canyon.
 Descend slightly to
 6.77 W. or right bank of Virgin River, brs. NE. and SW. Thence across river, course SW.
 8.30 E. or left bank of Virgin River, brs. NE. and SW.
 Discontinue chaining. Measurement to top of cliffs by triangulation from cor. of secs. 7, 12, 13 and 18, as hereinbefore described.
 Ascend over steep high cliffs, bearing N. and S. facing W. on S. or left wall of Virgin River canyon.
 16.72 Triangulation point at S. or left rim of Virgin River Canyon, brs. N. and S.
 Continue line and measurement by chaining.
 Ascend 45 ft.
 19.60 Descend 35 ft.
 22.60 Ascend 30 ft.
 29.40 Spur, slopes N. 10° W. Desc. 115 ft. to
 39.62 Set an iron post, 3 ft. long, 1 in. in diam., 4 ins. in the ground, with marked stone, for 1/4 sec. cor., and raise a mound of stone around post, with brass cap, marked

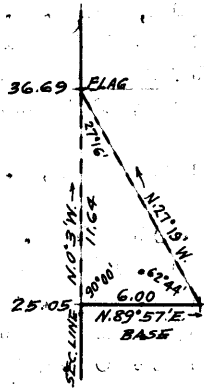
1/4 S 7
 S 18
 1921

56 Subdivision of Township 41 North. Range 13 West.

Chains.

49.82 Descend 45 ft.
 79.62 Gulch, course N. Ascend 200 ft. to
 The cor. of secs. 7, 8, 17 and 18.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush.

25.05 N. 0° 3' W., bet. secs. 7 and 8.
 Over mountainous land, thru. scattering undergrowth.
 Descend 218 ft. to
 South or left rim of Virgin River canyon, brs. E and W.
 Steep descent, over the canyon wall renders chaining im-
 practicable; therefore, triangulate as described as
 follows, and as shown on the diagram hereon:



From this point, measure a
 Base, N. 89° 57' E., 6.00 chs.
 Set flag ahead on sec. line
 in bottom of canyon be-
 yond the river.
 From E. end of Base, flag
 brs. N. 27° 19' W.
 Included angles are 62° 44',
 90° 00' and 27° 16', the
 sum of which is 180° 00'.
 Triangulated dist. on sec.
 line is obtained by

Tang. 62° 44' x Base, or 1.94023 x 6.00 = 11.64 chs., which
 added to 25.05 chs. gives 36.69 chs., N. 0° 3' W. from
 cor. of secs. 7, 8, 17 and 18, for the position of the
 flag point.

30.70 From flag point chain measurement S. 0° 3' E., 5.99 chs. to
 Center of Virgin river, 150 lks. wide, course W.
 Continue line and measurement, by chaining.

36.69 Ascend slightly across bottom of Virgin River canyon.
 40.00 Flag point of above described triangulation.

Set an iron post 3 ft. long, 1 in. in diam., on surface
 rock, with marked stone, for 1/4 sec. cor., and raise a
 mound of stone around post, with brass cap, marked.

S 7 | S 8
 1921

Leave bottom of Virgin River canyon, and commence to
 ascend, over rocky, broken surface of N. or right wall
 of said canyon.

54.20 Ascend 126 ft.
 Point of rocky spur, slopes W. from N. Desc. 90 ft. over
 NW. slope of this spur, to

62.70 Ascend 195 ft., along W. slope of same spur, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on surface
 rock, with marked stone, for cor. of secs. 5, 6, 7 and 8,
 and raise a mound of stone around post, with brass
 cap, marked

T41N | R13W
 S 0 | S 5
 S 7 | S 8
 1921

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, black brush.

Subdivision of Township 41 North, Range 13 West.

Chains.

N. 89°57'E., on random line, bet. secs. 5 and 8.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.18 Intersect the cor. of secs. 4, 5, 8 and 9,
 Thence,
 S. 89°57'W., on true line, bet. secs. 5 and 8.
 Over mountainous land, thru. scattering undergrowth, over
 S. or left wall of Virgin River Canyon at its junction
 with N. or right wall of Black Rock Canyon.
 Descend 185 ft.
 10.70 Ascend 75 ft.
 17.10 Descend 105 ft. to
 32.68 Foot of canyon wall, brs. NE. and SW. Thence across nearly
 level bottom of Virgin River Canyon.
 38.10 E. or left bank of Virgin River, brs. NE. and SW. Thence
 across river, course SW.
 40.09 True point for $\frac{1}{4}$ sec. cor. falls in river.
 41.10 W. or right bank of river, brs. NE and SW. Leave river and
 bottom of canyon, and ascend 93 ft. to
 45.18 Set an iron post, 3 ft. long, 1 in. in diam., 5 ins. in the
 ground, with marked stone for witness cor. to $\frac{1}{4}$ sec.
 cor., and raise a mound of stone around post, with
 brass cap, marked

$\frac{1}{4}$ S 5 WC
 S 8
 1921

Continue over N. or right wall of Virgin River Canyon,
 throughout the remainder of mile.
 Ascend 270 ft. to
 52.15 Point of spur, sloping S. Desc. 290 ft. to
 71.80 Head of gulch, course SE. Ascend 70 ft.
 78.20 Spur, slopes S. Desc. 15 ft. to
 80.18 The cor. of secs. 5, 6, 7 and 8.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sagebrush and black brush.

N. 89°50'W., on a random line, bet. secs. 6 and 7.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.36 Fall 5 lks. S. of the cor. of secs. 1, 6, 7 and 12, on W. bdy.
 of Tp., described in Book "F."
 Thence,
 S. 89°54'E., on true line, bet. secs. 6 and 7.
 Over mountainous land, thru. scattering undergrowth, along
 N. or right wall of Virgin River Canyon, throughout
 the entire mile.
 Descend slightly to
 0.20 Gulch, course SE. Ascend 200 ft.
 7.95 Descend 120 ft.
 19.55 Gulch, course S. Asc. 105 ft.
 25.85 Descend 35 ft.
 35.00 Ascend 35 ft. to
 39.36 Set an iron post, 3 ft. long, 1 in. in diam., on surface
 rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a
 mound of stone around post, with brass cap, marked

$\frac{1}{4}$ S 6
 S 7
 1921

Ascend 95 ft.
 49.85 Point of spur, sloping S. Desc. 185 ft.
 56.00 Ascend 20 ft.
 62.25 Descend 115 ft.
 68.15 Gulch, course SE. Asc. 65 ft. to
 79.36 The cor. of secs. 5, 6, 7 and 8.

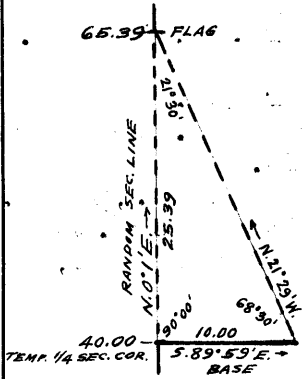
58 Subdivision of Township 41 North, Range 13 West.

Chains.

Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, black brush.

40.00

N.0°1' E., on random line, bet. secs. 5 and 6.
Set temp. 1/4 sec. cor.
Beyond this point, high cliffs bearing E. and W. facing S.,
rander chaining impracticable; therefore, triangulate
as described as follows, and as shown on the diagram
hereon:



From this point, measure a
Base S.89°59'E., 10.00 chs.
Set flag ahead on random line
at top of cliffs.
From E. end of Base, flag brs.
N.21°29'W.
Included angles are 68°30',
90°00' and 21°30', the sum
of which is 180°00'.

Triangulated dist. on random
sec. line is obtained by

Tang. 68°30' x Base or 2.53865 x 10.00 = 25.39 chs., which
added to 40.00 chs. gives 65.39 chs. N.0°1'E. from cor.
of secs. 5, 6, 7 and 8, for the position of the flag
point.

65.39

Flag point of above described triangulation at top of
cliffs.

80.10

Continue line and measurement, by chaining.
Fall 28 lks. W. of the cor. of secs. 5 and 6, and frac. secs.
31 and 32 on N. bdy. of Tp., hereinbefore described.

Thence,
S.0°13'W., on true line, bet. secs. 5 and 6.
Over mountainous land, thru. scattering undergrowth.
Ascend 40 ft.

4.00

Desc. 95 ft. to

14.71

Triangulation point at N. or right rim of Virgin River
Canyon, bearing E. and W.

Thence over cliffs on N. wall of canyon, measuring to
the 1/4 sec. cor. by triangulation, as hereinbefore de-
scribed.

40.10

Triangulation point at foot of cliffs, Set an iron post,
3 ft. long, 1 in. in diam., on surface rock, with marked
stone, for 1/4 sec. cor., and raise a mound of stone
around post, with brass cap, marked.

S 6 1/4 S 5
1921

80.10

Continue line and measurement, by chaining.
Over N. or right wall of Virgin River canyon. Desc. 372
ft., over rocky S. slope, to

The cor. of secs. 5, 6, 7 and 8.

Land, mountainous.
Soil rocky, 4th rate.
No timber.
Undergrowth, sagebrush and black brush.

FINAL FIELD TESTS OF INSTRUMENTS.

In order to determine whether the transits are in satis-
factory adjustment, test them on the meridian at camp
in sec. 2, T. 41 N., R. 13 W., G. and S. R. B. and M., lat. 36°
58 1/2' N.; long. 113° 40 1/2' W., using the meridian determined
as described in Book "G."

Chains.

At 9h.0m., a.m., l.m.t., April 29, 1921, set off $36^{\circ}58\frac{1}{2}'$ N. on the lat. arcs; $14^{\circ}26\frac{1}{2}'$ N. on the decl. arcs; and determine a meridian with each solar which agrees with the true meridian.

At 3h.0m. p.m., l.m.t., with the lat. arcs unchanged, set off $14^{\circ}31\frac{1}{2}'$ N., on the decl. arcs; and determine a meridian with each solar which agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1'30''$ of the true meridian, conclude that the adjustments of the solars during the survey of this township have been satisfactory.

GENERAL DESCRIPTION.

This township is very rough, broken, mountainous land, traversed by deep canyons, the largest of which is the Virgin River Canyon, in which the Virgin River flows thru. the NW. corner of the Tp., draining with its tributaries Purgatory Canyon and Black Rock Canyon, practically the entire area of the Tp. Along these canyons, no areas of cultivable land are found, but only barren rocky land. A sparse growth of cactus and black brush finds sustenance on these denuded, rocky slopes. No one has settled in this township; a road, winding thru. secs. 24, 25, and 36 from Black Rock Springs, Ariz. to St. George, Utah is the only encroachment of civilization. No mineral has been found in the township, and the only permanent water is in the Virgin river.

4-680

FIELD ASSISTANTS. to

Claude F. Warner, U. S. Transitman,

NAMES.	CAPACITY.
Gilbert N. Hunter,	1st chainman,
Francis Hinton,	1st chainman,
Kanute Jensen,	2nd chainman,
Isaac Alldredge,	cornerman,
Wesley Pierce,	axman,
Lee Alldredge,	flagman.

BOOK 3524

CERTIFICATE OF UNITED STATES ~~TRANSITMAN.~~

52

I, Claude F. Warner, U. S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 112, Arizona, bearing date of the 29th day of September, 1920, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Subdivision lines of

Township 41 North, Range 13 West,

of the Gila and Salt River

Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 1 hereof the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 112, Arizona

and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place Helena, Mont.
Date Jan 19, 1922.

Claude F. Warner
U. S. Transitman

~~APPROVAL~~

~~OFFICE OF THE UNITED STATES SURVEYOR GENERAL,~~

~~191~~

~~The foregoing field notes of the survey of~~

~~executed by~~

~~under his special instructions dated~~, ~~191~~, ~~having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.~~

~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above described surveys in~~

~~, has been correctly copied from the original notes on file in this office.~~

~~U. S. Surveyor General.~~

CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER.

LOC 104

I, Joseph P. Davis, U. S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 112, Arizona, bearing date of the 29th day of September, 1920, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Tenth Standard Parallel North through Range 13 West, the East and North boundaries, and the Subdivision lines of

Township 41 North, Range 13 West,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 1 hereof the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 112, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place - Bowie, Adok
Date - January 16, 1922

Joseph P. Davis
U. S. Cadastral Engineer

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, January 25, 1922

The foregoing field notes of the survey of the Tenth Standard Parallel North through Range 13 West, the North and East boundaries, and Subdivision lines of Township 41 North, Range 13 West, of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Joseph P. Davis, U.S. Cadastral Engineer, and Claude F. Warner, U.S. Transitman under his special instructions dated September 29, 1920, for Grp. 112, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Claude F. Warner
U. S. Surveyor General.

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

U. S. Surveyor General.