Book "N."

(Subdivisions)

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RESURVEY OF THE MERIDIONAL SECTION LINES WEST OF SECTIONS 34, 27, 22, 15, 10 and 3, and Survey of the completion of the SUBDIVISION OF TOWNSHIP 20 NORTH, RANGE 19 WEST (WEST HALF),

Of the Gila and Salt River Base and *Meridian,*

In the State of Arizona.

EXECUTED BY

Guy H. Richardson, U. S. Surveyor,

and

Hugo Price, U.S. Transitman,

~~*In the capacity of U. S. Surveyor.*~~, *under instructions dated* January 4, *1915, issued by the United States Surveyor General to govern surveys included in Group No.* 43, *which were approved by the Commissioner of the General Land Office,* January 22, *1915.*

Resurvey & *Survey commenced* December 7, *1915.*

Resurvey & *Survey completed* December 16, *1915.*

Executed under assignment
Instructions dated Nov. 29-1915

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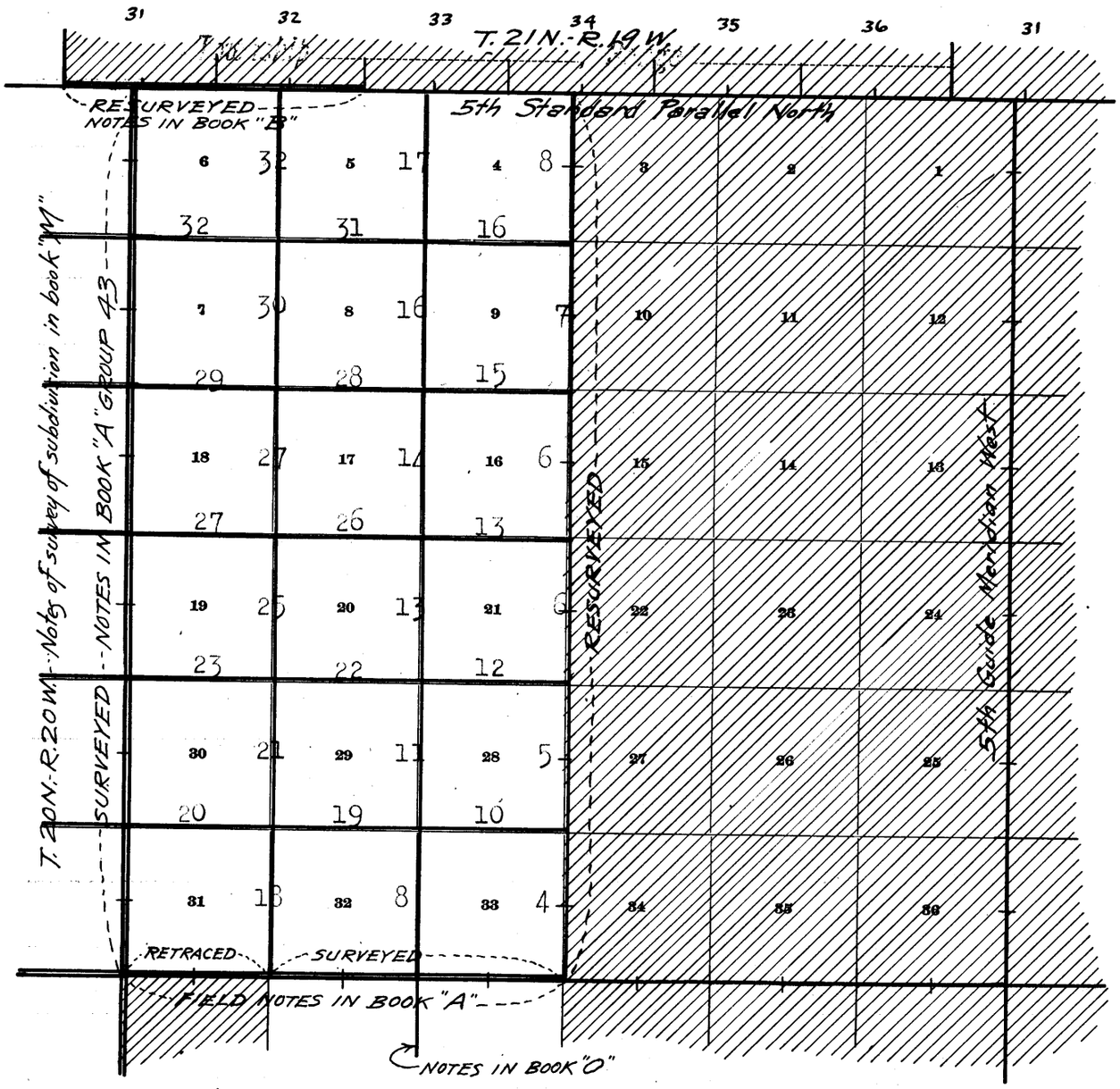
1A

Book "N" Group 43
T. 20 N. - R. 19 W.

BOOK 2889

INDEX DIAGRAM.



Surveys described in field notes of Group 43

Accepted surveyed lines

Shaded area surveyed as per accepted plats on file.

Retracement of West bdrs.of secs.34,27,22,15,10&3 of T.20 N.,R19W.

Chains.

Retracement,resurvey and survey commenced Dec.7,1915, and executed jointly by Guy H.Richardson,U.S.Surveyor,and Hugo Price,U.S.Transitman, with Young and Sons' light mountain transits Nos.8484 and 8539 respectively. The transits were approved by the Assistant Supervisor of Surveys for Arizona and California on Jan. 31, 1915.

The instruments are provided with Smith solar attachments, and the horizontal limbs are provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

Guy H.Richardson, U. S. Surveyor.

Dec.5,1915: At a point near my camp, which is located in the SE. ¼ of sec.33 of T.20 N.,R.19 W., I examine the adjustments of the transits, and correct the level and collimation errors; then, to test the solar apparatus, by comparing indications, resulting from solar observations made during p.m. and a.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At 2h. 0m. p.m., l.m.t., I set off 22° 18' S.on the decl. arc; and 35° 4½' N.(computed) on the lat.arc; and determine a meridian with the solar, and mark the line thus obtained with a tack on a hub set firmly in the ground about 5 chs. N.of my station.

Dec. 6, 1915: At 2h. 30m., a.m., I observe Polaris at western elongation, and mark the line thus obtained with a tack on a hub set firmly in the ground about 5 chs. northerly from my station. At 7h.30m., a.m., I set off the azimuth of Polaris 1° 23½' to the east, and note that the line obtained by solar observation yesterday afternoon is identical with the line obtained by Polaris observation.

At 8h.0m., a.m.,l.m.t., I set off 22° 21' S.on the decl. arc; and 35° 4½'N. on the lat.arc, and determine a meridian with the solar. The meridian thus obtained

2. Retracement of West bdrs. of secs.34,27,22,15,10&3 of T.20N.,R.10W.

Chains	
	is identical with the meridian established by Polaris observation. Having tested both instruments on the Polaris meridian and found them to check satisfactorily for both p.m.and a.m. hours, I conclude that they are in good adjustment. Lines run by Guy H.Richardson, U. S. Surveyor, as follows:
	Dec. 7,1915. At old cor.of secs.3,4,33 and 34 on the S. bdy.of Tp., which is a lava stone,8x6x5 ins. above ground marked and witnessed, as described by the Surveyor General, at 8h.0m. a.m.,l.m.t.,set off 22°29'S. on the decl.arc; 35°4' N.on the lat.arc; and determine a meridian with the solar.
	Thence I run,
	N.0° 15'W. on a random line, bet. secs.33 and 34.
40.00	Fall 4 lks.W.of old ¼ sec.cor., which is a lava stone,set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist.of S.½ bet. secs.33 and 34 is therefore N.0° 12'W., 40.00 chs.
	Continue random line and measurement.
80.11	Fall 20 lks.W.of old cor.of secs.27,28,33 and 34, which is a lava stone,set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of N.½ bet.secs.33 and 34 is therefore N.0° 1'W., 40.11 chs.

	From the cor. of secs. 27,28, 33 and 34, I run,
	N.0° 5' W., on a random line, bet. secs. 27 and 28.
39.92	Fall 13 lks.W.of old ¼ sec.cor., which is a lava stone, firmly set in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of S.½ bet. secs.27 and 28 is therefore N.0° 6' E., 39.92 chs.
	Continue random line and measurement.
79.95	Fall 29 lks.W. of old cor. of secs. 21,22,27 and 28, which is a lava stone, firmly set in the ground, marked and

Chains.	
	witnessed as described by the Surveyor General.
	True course and dist. of N.½ bet. secs. 27 and 28 is therefore N.0°9'E., 40.03 chs.

	From the old cor. of secs. 21, 22, 27 and 28, I run, N.0°5' W., on a random line, bet. secs. 21 and 22.
39.98	Fall 5 lks. W. of old ¼ sec. cor., which is a lava stone, set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of S.½ bet. secs. 21 and 22 is therefore N.0°1'W., 39.98 chs.
	Continue random line and measurement.
79.93	Fall 11 lks. W. of old cor. of secs. 15, 16, 21 and 22, which is a lava stone, set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of N.½ bet. secs. 21 and 22 is therefore North, 39.95 chs.

	From old, cor. of secs. 15, 16, 21 and 22, I run, N. 0°5' W. on a random line, bet. secs. 15 and 16.
39.96	Fall 6 lks. E. of old ¼ sec. cor., which is a lava stone, set firmly in the ground, and marked and witnessed as described by the Surveyor General.
	True course and dist. of S.½ bet. secs. 15 and 16 is therefore N.0° 10'W., 39.96 chs.
	Continue random line and measurement.
80.02	Fall 10 lks. W. of old cor. of secs. 9, 10, 15 and 16, which is a lava stone, set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of N.½ bet. secs. 15 and 16 is therefore N.0°9'E., 40.06 chs.

	From the old cor. of secs. 9, 10, 15 and 16, I run, N.0°5' W., on a random line, bet. secs. 9 and 10.

4. Retracement of W.bdrs.of secs.34,27,22,15,10&3,T.20 N.,R.19 W.

Chains.	
40.08	Fall 1 lk. W.of old ¼ sec.cor., which is a lava stone,set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of S.½ bet. secs.27 and 28 is therefore N.0°4'W., 40.08 chs.
	Continue random line and measurement.
80.16	Fall 2 lks.W.of old cor. of secs. 3,4,9 and 10, which is a lava stone, set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of N.½, bet. secs.27 and 28 is therefore N.0° 4' W., 40.08 chs.

	From the old cor.of secs.3,4,9 and 10, I run
	N.0°5'W.,on a random line, bet. secs. 3 and 4.
40.03	Intersect old ¼ sec.cor., which is a lava stone,set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist. of S.½ bet. secs.3 and 4 is therefore N.0°5'W., 40.03 chs.
	Continue random line and measurement.
80.62	Intersect the 5th. Standard Parallel N.1 lk.E.of old closing cor.of secs. 3 and 4, which is a lava stone, set firmly in the ground, marked and witnessed as described by the Surveyor General.
	True course and dist.of N.½ bet. secs. 3 and 4 is therefore N.0°6' W., 40.59 chs.

	Resurvey of W.bdrs.of secs.34,27,22,15,10&3 of T.20N.R.19W.

	From the old cor.of secs.3,4,33 and 34 on the S.bdy.of the Tp.,hereinbefore described, I run,
	N.0° 12' W.,on a true line,bet.secs.33 and 34.
	Over level land.
19.98	Dry wash, course E.
40.00	Old ¼ sec.cor.,hereinbefore described. Reestablish in same place as follows: Set an iron post 3 ft.long,1 in.in 26 ins.in the ground alongside of stone,with brass cap,

Chains.	
	marked ¼ S 33 | S 34 1915
	Thence I run,
	N.0°1'W.,continuing measurement on N.½ bet.secs.33 and 34.
55.00	Leave level land; ascend.
60.90	Top of spur, slopes E., 115 ft. above level land; descend.
80.11	23 ft.below top of spur, intersect old cor. of secs.27,28, 33 and 34, hereinbefore described. Reestablish cor. as follows:
	Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground alongside of stone, with a brass cap, marked T 20 N R 19 W S 28 | S 27 S 33 | S 34 1915
	Land,level and rolling. Soil,stony,4th rate.
	Undergrowth, greasewood and sagebrush.

	From the cor.of secs. 27,28, 33 and 34, I run,
	N.0°6'E., on a true line, bet. secs.27 and 28.
	Over slightly rolling,and level land.
15.00	Wash, course E.
39.92	Intersect old ¼ sec.cor.,hereinbefore described. Reestablish cor.as follows:
	Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, alongside of stone , with a brass cap, marked ¼ S 28 | S 27 1915
	Thence I run,
	N.0° 9' E., continuing measurement on N.½ bet.secs.27 & 28.
79.95	Intersect old cor.of secs.21,22,27 and 28. Reestablish as follows:
	Set an iron post,3 ft.long,2 ins.in diam.,24 ins.in the ground,alongside of stone,with a brass cap,marked T 20 N R 19 W S 21 | S 22 S 28 | S 27 1915

6. Resurvey of W.bdrs.of secs.34,27,22,15,10&3 of T.20 N.,R.19 W.

Chains.	
	Land,slightly rolling and level.
	Soil,stony,4th rate.
	Undergrowth, greasewood and sagebrush.

	From the cor.of secs.21,22,27 and 28,I run,
	N.0°1'W.,on a true line, bet. secs.21 and 22.
	Over level land.
35.00	Wash,12 lks.wide, course S. 75° E.
39.98	Intersect old ¼ sec.cor.,hereinbefore described. Reestablish as follows:
	Set an iron post,3 ft.long,1 in.in diam, 26 ins. in the ground,alongside of stone,with a brass cap,marked
	¼ S 21 | S 22
	1915
	Thence I run,
	North, continuing measurement,on N.½ bet. secs. 21 and 22.
45.00	Leave level land; ascend.
56.06	Top of spur, slopes E.,105 ft. above level land; descend.
79.93	Intersect old cor.of secs.15,16,21 and 22, hereinbefore described, 240 ft. below top of spur. Reestablish as follows:
	Set an iron post, 3 ft.long, 2 ins. in diam.,24 ins.in the ground, alongside of stone, with a brass cap, marked
	T 20 N R 19 W S 16 | S 15 S 21 | S 22 1915
	Land,level and rolling.
	Soil,stony,4th rate.
	Undergrowth, greasewood and sagebrush.

	From the cor.of secs.15,16,21 and 22, I run,
	N.0°10'W.on a true line, bet. secs.15 and 16.
	Over level land.
39.96	Intersect old ¼ sec.cor.,hereinbefore described. Reestablish as follows:
	Set an iron post, 3 ft.long,1 in.in diam.,26 ins.in the ground,alongside of stone, with a brass cap,marked

Chains	
	1/4 S 16 | S 15 1915
	Thence I run
	N. 0° 9' E., continueing measurement, on N. half bet. secs. 15 and 16.
50.00	Dry wash, 10 lks. wide, course S. 70° E.
80.02	Intersect the cor. of secs. 9, 10, 15 and 16, hereinbefore described. Reestablish as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, along side of stone, with a brass cap, marked
	T 20 N. R 19 W S 9 | S 10 S 16 | S 15 1915
	Land, level.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, sagebrush and cactus.
	From old cor. of secs. 9, 10, 15 and 16, I run
	N. 0° 4' W. on a true line bet. secs. 9 and 10.
	Over level land.
40.08	Intersect old 1/4 sec. cor. hereinbefore described. Reestablish as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, along side of stone, with a brass cap, marked
	1/4 S 9 | S 10 1915
50.00	Dry wash, 20 lks. wide, course W.
80.16	Intersect cor. of secs. 3, 4, 9 and 10, hereinbefore described. Reestablish as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, along side of stone, with a brass cap, marked
	T 20 N R 19 W S 4 | S 3 S 9 | S 10 1915
	Land, level.

8. Resurvey of W. bdrs. of secs. 34, 27, 22, 15, 10 & 3 of T. 20 N., R. 19 W.

Chains

Soil, stony, 4th. rate.

Undergrowth, greasewood, sagebrush and cactus.

N. 0° 5' W. on a true line bet. secs. 3 and 4.

Over level land.

40.03 Intersect old 1/4 sec. cor. hereinbefore described. Reestablish as follows:
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, along side of stone, with a brass cap, marked

1/4 S 4 | S 3
1915

Thence I run

N. 0° 6' W., continuing measurement, on N. ½ bet. secs. 3&4.

80.62 Intersect old closing cor. of secs. 3 and 4, on the 5th. Standard Parallel N. hereinbefore described. Reestablish as follows:
Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground along side of stone, with a brass cap, marked

C | C
S 4 | S 3
T 20 N | R 19 W
1915

Land, level.

Soil, stony, 4th. rate.

Undergrowth, greasewood, sagebrush and cactus.

Guy H. Richardson,
U.S. Surveyor.
December 7, 1915.

Completion of Subdivision of T. 20 N., R. 19 W.

Dec. 9, 1915; lines run by Hugo Price, U.S. Transitman, as follows:
At the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the twp. described in Book "A," at 8h. 0m., a. m., l.m.t., set off 22° 42' S. on the decl. arc, and 35° 4' N. on the lat. arc, and determine a meridian with the solar,

Thence I run

N. 0° 2' W. bet. secs. 32 and 33.

Over rolling mountainous land, asc. SW. slope.

5.00 Top of 46 ft. ascent, desc.

Chains.

10.00 Foot of 22 ft. descent; ascend.

11.40 Top of 13 ft. ascent; descend.

13.83 Top of cliffs, bears E.and W. Chaining on sec.line N.of this point being impracticable owing to steep descent over cliffs, I triangulate as follows:

Set flag at this point.

Establish triangulation point on sec.line N.0°2'W., from flag.

From triangulation point, I lay off a base N.89°58' E., 10.50 chs.

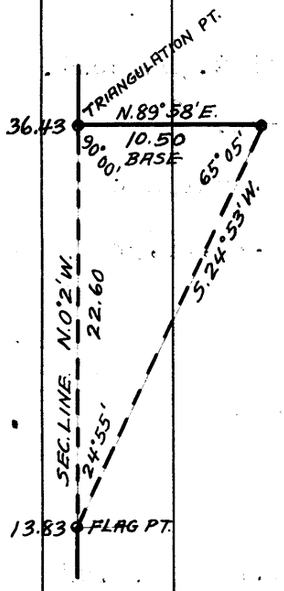
From E.end of base flag brs.S.24°53'W.

The included angles are 90°00', 65°05' and 24°55', the sum of which is 180°00'.

Therefore the dist.from flag to triangulation point is obtained by

Tang.65°05'x base or 2.15268x10.50= 22.60 chs.

13.83 chs. + 22.60 chs. =



36.43 Triangulation point, 670 ft. below flag point at top of cliffs.

Continue measurement by chaining. Descend.

40.00 47 ft.below triangulation point. Set an iron post 3 ft. long,1 in. in diam.,8 ins.in the ground, to solid rock, in a mound of stone for ¼ sec.cor., with a brass cap, marked ¼ S 32 | S 33 / 1915 and raise a mound of stone, 2 ft.base,1½ ft.high,W.of cor.

Chaining on sec.line N.of this cor.being impracticable, I triangulate as follows:

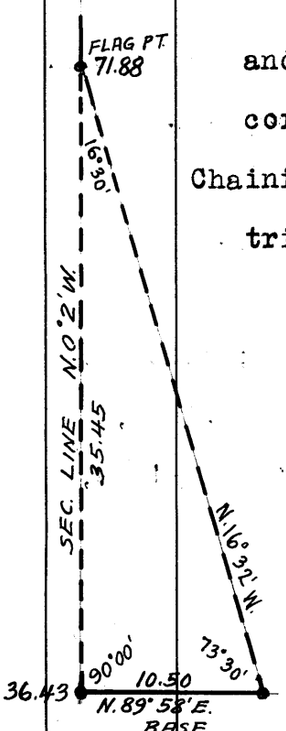
Set a flag on sec.line N.0°2'W.of ¼ sec.cor.

Return on sec.line to triangulation point of previous triangulation at 36.43 chs.station.

Thence lay off a base,N.89°58'E.,10.50 chs.

From east end of base,flag brs.N.16°32'W.

Included angles are 90°00', 73°30' and 16°30', the sum of which is 180° 00'.



10. Completion of Subdivision of T. 20 N., R. 19 W.

Chains.	
	Therefore dist.from triangulation point to flag is obtained by
	Tang.73°30'x base or 3.37594 x 10.54= 35.45 chs.
	36.43 chs. + 35.45 chs. =
71.88	Flag point, 330 ft. above 36.43 ch. station. Ascend. Continuing measurement, chaining
73.50	Top of spur, slopes SE., 30 ft. above flag point. Descend.
78.00	Foot of spur, 225 ft.below top, wash, course SE.
80.00	Set an iron post 3 ft.long, 2 ins. in diam.,on surface rock, in a mound of stone, for cor.of secs.28,29,32 and 33, with a brass cap, marked,

T 20 N R 19 W
S 29 | S 28
S 32 | S 33
1915

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

At this cor.at apparent noon,I set off 22°45½'S.on the decl.arc, and observe the sun on the meridian for lat. The resulting lat.is 35° 5'N.

Land,mountainous. Soil, stony, 4th rate.

Undergrowth, greasewood, catclaw and small juniper.

No timber.

N.89°41'E.,on a random line,bet.secs.28 and 33.

40.00	Set temp.¼ sec.cor.
79.94	Intersect N.and S. line, 4 lks.S.of the reestablished cor. of secs. 27,28,33 and 34,hereinbefore described.
	Thence I run,
	S.89°39'W., on a true line, bet. secs.28 and 33.
	Ascend over mountainous land, NE.slope.
30.90	Top of spur,slopes SE., 785 ft. above sec.cor.; descend.
39.97	212 ft.below top of spur, set an iron post, 3 ft.long, 4 ins. in diam.,on surface rock, in a mound of stone, for ¼ sec.cor.,with a brass cap, marked

¼ S 28
S 33
1915

Chains.

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.; continue to descend.

46.40 170 ft. below ¼ sec. cor.; ascend.

52.00 Top of 74 ft. ascent; descend.

74.40 Foot of 265 ft. desc., ravine, course SE.; ascend.

79.94 Cor. of secs. 28, 29, 32 and 33, 147 ft. above ravine.

Land, mountainous. Soil, stony, 4th rate.

Undergrowth, greasewood and small juniper.

No timber.

It being impracticable to measure N.0° 2' W. on sec. line, bet. secs. 28 and 29, from the cor. of secs. 28, 29, 32 and 33, I run on offset line from said sec. cor., as follows:

East 14.80 chs. Thence

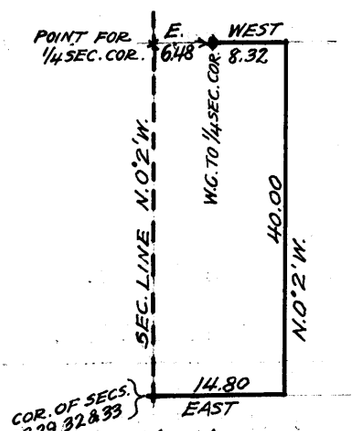
N.0°2'W., 40.00 chs. Ascending over mountainous land.

32.14 chs. Top of spur slopes SE.

865 ft. above sec. cor. Descend.

40.00 chs. 250 ft. below top of spur. Thence

West, 8.32 chs. To a point at foot of cliffs bearing NW. and SE. As true point for ¼ sec. cor. is inaccessible and as this point on my offset is the nearest practicable location for the establishment of a witness cor., I set an iron post, 3 ft. long,



1 in. in diam., on surface rock in a mound of stone for witness cor. to ¼ sec. cor., with a brass cap, marked

¼ S 29 | S 28

WC
1915

and raise a mound of stone 2 ft. base, 1½ ft. high, E. of cor. This witness cor. is located 6.48 chs. E. of the true point for ¼ sec. cor.

It being impracticable to chain measurement on sec. line N. of true point for ¼ sec. cor. or N. from the witness cor., I run on offset line as follows:

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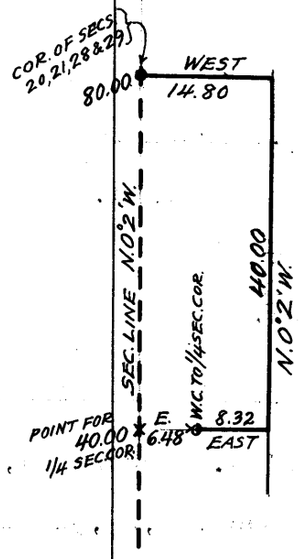
Chains.

East, 8.32 chs. Thence

N.0°2'W.,40.00 chs. Descending.



14.36 chs. Ravine, course E.622 ft. below top of spur. Ascend SE. slope.

19.45 chs. Top of spur, slopes E.210 ft. above ravine. Descend.

23.10 chs. Foot of 100 ft. descent. Asc.

27.93 chs. Top of 175 ft. ascent. Descend.

34.31 chs. Foot of 85 ft. descent. Ravine course E. Ascend.

40.00 chs. 33 ft. above ravine. Thence

West, 14.80 chs. Returning to sec. line at

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on surface rock, in a mound of stone for cor. of secs. 20, 21, 28 and 29, with a brass cap, marked,

T 20 N R 19 W
S 20 | S 21
S 29 | S 28
1915

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

Land, mountainous.

Soil, stony, 4th rate.

Undergrowth, greasewood, juniper and catclaw.

Dec. 10, 1915.

Dec. 11, 1915. At the cor. of secs. 20, 21, 28 and 29, at 8h. 0m. a.m., l.m.t., set off 22°53'S. on the decl. arc; 35° 6'N. on the lat. arc, and determine a meridian with the solar.

Thence I run,

N.89°39'E., on a random line, bet. secs. 21 and 28.

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line, 12 lks. N. of the reestablished cor. of secs. 21, 22, 27 and 28, hereinbefore described.

Thence I run,

S.89°44'W., on a true line, bet. secs. 21 and 28.

Over level land.

Chains.	
39.99	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, to solid rock, in a mound of stone, for ¼ sec. cor., with a brass cap, marked, ¼ S 21 / S 28 / 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
46.00	Leave level land, brs. N. and S., wash, course NE., ascend.
79.98	Cor. of secs. 20, 21, 28 and 29, 280 ft. above wash. Land, level and rolling. Soil, stony, 4th rate. Undergrowth, greasewood, cactus, catclaw and sagebrush.

	N. 0° 2' W., bet. secs. 20 and 21. Over rolling land; descend slightly.
24.00	Dry wash, course E., 40 ft. below sec. cor.; ascend.
39.00	Top of 250 ft. ascent; descend.
40.00	79 ft. below top of ascent, set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to solid rock, in a mound of stone, for ¼ sec. cor., with a brass cap, marked ¼ S 20 | S 21 / 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Continue to descend.
54.42	Ravine, course E., 262 ft. below sec. cor.; ascend.
68.80	Top of spur, slopes E., 200 ft. above ravine; descend.
80.00	130 ft. below top of spur, set an iron post 3 ft. long, 2 ins in diam., 8 ins. in the ground, to solid rock, in a mound of stone, for cor. of secs. 16, 17, 20 and 21, with a brass cap, marked T 20 N R 19 W / S 17 | S 16 / S 20 | S 21 / 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling. Soil, stony, 4th rate.

14 Completion of Subdivision of Township 20 N., R. 19 W.

Chains.

Undergrowth, cactus, catclaw and greasewood.

At the cor.of secs.16,17,20 and 21, at apparent noon,I set off 22°57'S.on the decl.arc, and observe the sun on the meridian for lat. The resulting latitude is 35°7' N.

N.89°44 ' E., on a random line bet. secs.16 and 21.

40.00 Set temp.¼ sec.cor.

80.20 Intersect N.and S. line 7 lks.N.of the reestablished cor. of secs.15,16,21 and 22, hereinbefore described.

Thence I run,

S.89°47'W., on a true line, bet. secs.16 and 21.

Over level land.

40.10 Set an iron post, 3 ft.long, 1 in. in diam., 10 ins.in the ground to solid rock,in a mound of stone,for ¼ sec.cor., with a brass cap marked

¼ S 16

S 21
1915

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

59.37 Dry wash, course NE.; ascend.

80.20 Cor.of secs.16,17,20 and 21, 207 ft. above wash.

Land,level and rolling. Soil,stony,4th rate.

Undergrowth,cactus, greasewood and catclaw.

N.0°2'W.,bet.secs. 16 and 17.

Descend over rolling land.

34.76 Leave hills, enter level land, brs.NW.and SE.,120 ft.below sec.cor.

39.90 Dry wash, course SE.

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

¼ S 17 | S 16

1915

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

63.00 Dry wash,course SE.

80.00 Enter shallow dry wash, course SE.

Set an iron post, 3 ft.long,2 ins.in diam., 12 ins. in

Chains	
	the ground, to solid rock, in a mound of stone, for cor. of secs. 8, 9, 16 and 17, with a brass cap, marked T 20 N R 19 W. S 8 | S 9 S 17 | S 16 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, level and rolling.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, cactus and catclaw.
	Dec. 11, 1915.
	Dec. 14, 1915; At the cor. of secs. 8, 9, 16 and 17, at 8h. 0m., a. m,, l.m.t. set off 23° 7' S. on the decl. arc, 35° 7½' N. on the lat. arc, and determine a meridian with the solar, and run
	N. 89° 47' E. on a random line bet. secs. 9 and 16.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. and S. line 5 lks. N. of the reestab. cor. of secs. 9, 10, 15 and 16, hereinbefore described.
	Thence I run
	S. 89° 49' W. on a true line bet. secs. 9 and 16.
	Over level wash land.
10.00	Enter Secret Pass wash, shallow, course SE.
40.03	Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 9 S 16 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
75.00	Leave Secret Pass wash, course SE.
80.06	Cor. of secs. 8, 9, 16 and 17.
	Land, level.
	Soil, sandy and gravelly, 3rd. rate.

Chains	
	Undergrowth, cactus, catclaw and greasewood.
	N. 0° 2' W. bet. secs. 8 and 9.
	Over level wash land, sloping SE.
28.50	Center of Secret Pass wash, course SE.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 8 | S 9 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
51.00	Leave wash land, asc. SW. slope, bears NW. and SE.
80.00	500 ft. above wash land, set an iron post, 3 ft. long, 2 ins. in diam., on surface rock, in a mound of stone, for cor. of secs. 4, 5, 8 and 9, with a brass cap, marked T 20 N R 19 W S 5 | S 4 S 8 | S 9 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, level and rolling.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, catclaw and juniper.
	Dec. 14, 1915.
	Dec. 16, 1915; From the cor. of secs. 4, 5, 8 and 9, I run
	N. 89° 49' E. on a random line bet. secs. 4 and 9.
40.00	Set temp. 1/4 sec. cor.
80.08	Intersect N. and S. line 10 lks. S. of the reestab. cor. of secs. 3, 4, 9 and 10 hereinbefore described.
	Thence I run
	S. 89° 45' W. on a true line bet. secs. 4 and 9.
	Over level land.
35.00	Leave level land, enter hills, bear NW. and SE., asc.

Chains	
40.04	Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 4 S 9 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
80.00	Top of spur, slopes SE., 700 ft. above level land.
80.08	Cor. of secs. 4, 5, 8 and 9.
	Land, level and rolling mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, Greasewood, juniper, catclaw and scrub oak.
	No timber.
	Dec. 16, 1915.
	Dec. 14, 1915; from the cor. of secs. 4, 5, 8 and 9, I run
	N. 0° 2' W. on a true line, bet. secs. 4 and 5.
	Asc. over mountainous land, asc.
2.65	Top of spur, slopes SE., 100 ft. above sec. cor., continue to asc. along E. slope.
14.40	Top of spur, slopes E., 170 ft. ascent, desc.
39.76	Ravine, course E., 835 ft. below top of spur.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 5 | S 4 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor., asc. SW. slope.
54.20	Top of spur, slopes SE., 170 ft. above 1/4 sec. cor., desc.
70.00	Leave mountains, enter level land, bears NW. and SE, 235 ft. below top of spur.
80.84	Intersect the 5th. Standard Parallel N. 3.09 chs. W. of old Std. 1/4 sec. cor. of sec. 33, T. 21 N., R. 19 W., which

Chains

is a lava stone, 16 X 10 X 3 ins., marked and witnessed as described by the surveyor general.
At point of intersection,
Set an iron post 3 ft. long, 2 ins. in diam., 12 ins. in the ground, to solid rock, in a mound of stone, for closing cor. of secs. 4 and 5, with a brass cap, marked

C | C
S 5 | S 4
T 20 N | R 19 W

1915

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

Land, rolling mountainous and level.

Soil, stony, 4th. rate.

Undergrowth, greasewood, juniper and catclaw.

Hugo Price,
U. S. Transitman.
December 14,1915.

Dec. 9, 1915; line run by Guy H. Richardson, U.S.Surveyor, as follows:
I commence at old cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the twp, described in Book "A,", and at 8h. 0m., a. m., l.m.t., set off 22° 42' S. on the decl. arc, and 35° 4' N. on the lat. arc, and determine a meridian with the solar.

Thence I run

N. 0° 2' W. bet. secs. 31 and 32.

Desc. over mountainous land.

4.83 Head of canyon, course S. 30° E., 90 ft. below sec. cor., asc.

24.60 Top of ridge, bears NE. and SW., 370 ft. above canyon, desc.

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

1/4 S 31 | S 32

1915

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

49.47 Dry wash, course W., 425 ft. below top of ridge, asc.

Chains.

77.96 Top of ridge, bears NW. and SE., 320 ft. above wash.

80.00 Set an iron post, 3 ft.long, 2 ins. in diam., on surface rock, in a mound of stone, for cor.of secs.29,30,31 and 32, with a brass cap, marked,

T 20 N | R 19 W
S 30 | S 29

S 31 | S 32
1915

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

Land,rolling,mountainous. Soil,stony,4th rate.

Undergrowth, cactus and greasewood.

Guy H. Richardson,
U.S.Surveyor.

Line run by Hugo Price,U.S.Transitman,as follows:

N.89°41'E.,on random line, bet. secs.29 and 32.

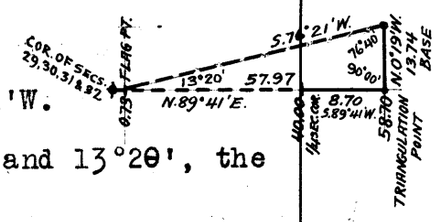
Chaining being impracticable on this line E.from sec.cor., I triangulate as follows:

Establish a triangulation point on random sec.line N.89°41'E.,from sec.cor.

Set a flag 73 lks.N.89°41'E.,from sec.cor.

From triangulation point,I lay off a base,N.0°19'W., 13.74 chs.

From N.end of base,flag brs.S.76°21'W.



Included angles are 90° 00',76°40' and 13°20', the sum of which is 180° 00'.

Therefore the dist. on random sec.line from flag to triangulation point is obtained by

Tang.76°40' x base or 4.21933 x 13.74 = 57.97 chs.

0.73 chs. + 57.97 chs.=

58.70 Triangulation point from which I chain measurement on random sec.line S.89°41'W., 8.70 chs. to

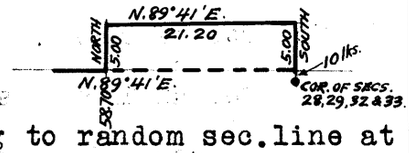
40.00 Set temp.¼ sec.cor. Thence return to triangulation point.

Chaining on random sec.line being impracticable E.of this triangulation point at 58.70 ch.station I run an offset line as follows:

20. Completion of Subdivision of Township 20 N., R. 19 W.

Chains.

North, 5.00 chs., thence



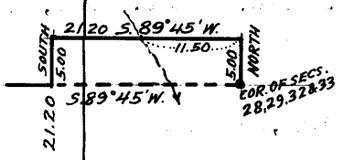
N.89°41'E.21.20 chs. thence

South, 5.00 chs. returning to random sec.line at

79.90 A point 10 lks. N.of the cor.of secs.28,29,32 and 33. Thence I run,on offset to true line bet. secs. 29 and 32, as follows:

North, 5.00 chs. thence

S.89°45'W.21.20 chs. Descending over rough mountainous land.



11.50 chs. Dry wash, course SE.

21.20 chs. Thence

South 5.00 chs. returning to true line bet. secs.29 and 32, at

21.20 Triangulation point hereinbefore described, 230.0 ft.below cor.of secs.28,29,32 and 33. Thence chaining measurement S.89° 45' W. Ascend.

39.95 Set an iron post 3 ft.long, 1 in. diam., 10 ins. in the ground to solid rock,in a mound of stone,for ¼ sec.cor., with a brass cap, marked

¼ S 29

S 32
1915

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

Thence measuring by triangulation hereinbefore described.

79.17 Flag point of triangulation hereinbefore described,on top of ridge bearing NW.and SE., 1600 ft. above triangulation point. Thence chaining measurement.

79.90 The cor.of secs. 29,30, 31 and 32.

Land, rough and mountainous.

Soil,stony, 4th rate.

Undergrowth, greasewood, catclaw and junipen.

Hugo Price, U.S. Transitman.

Lines run by Guy H.Richardson, U.S.Surveyor, as follows:

From the cor.of secs. 29,30,31 and 32, I run

Chains.	
	N.89° 53' W., on a random line, bet. secs.30 and 31.
38.25	Set temp. witness cor.to ¼ sec. cor.
78.45	Intersect the west bdy.of the Tp., 14 lks.N.of the cor.of secs. 25.30,31 and 36, described in Book "A."
	Thence I run,
	S.89°59'E., on a true line, bet. secs.30 and 31.
	Descend over rough mountainous land.
21.48	Canyon, 20 lks.wide, course S. 15° W., 780 ft. below sec. cor.; ascend.
38.45	Point for ¼ sec.cor.falls on perpendicular cliffs, bear N. and S. Impracticable to set iron post at this point.
40.20	Top of cliffs, 440 ft. above canyon, set an iron post,3 ft. long, 1 in. in diam.,on surface rock,in a mound of stone,for witness cor.to ¼ sec.cor., with brass cap, marked WC ¼ S 30 / S 31 / 1915 and raise a mound of stone, 2 ft.base,1½ ft. high,N.of cor. Continue to ascend.
71.45	Top of ridge, bears NW. and SE., 387 ft. above ¼ sec.cor. Descend.
78.45	Cor.of secs. 29,30,31 and 32, 150 ft. below top of ridge.
	Land mountainous.
	Soil, stony, 4th rate.
	Undergrowth,greasewood,cactus and scrub cedar.

On account of steep descent over cliffs on line bet.secs. 29 and 30, N.0°2' W., from the cor. of secs. 29,30,31 and 32, I triangulate as follows:

Set flag onsec. line N.0°2'W.,from sec.cor.

From sec.cor.lay off a base N.56° 16' W., 9.70 chs. (a longer base is impracticable).

From NW. end of base, flag brs.N.12°22'E.

Included angles are 56°14',111°22' and 12°24', the sum of which is 180° 00'.

22. Completion of Subdivision of Township 20 North, Range 19 W.

Chains.

Therefore dist. on sec.line from sec.cor.to Flag is obtained by

$\frac{\text{Sine } 111° 22' \times \text{base}}{\text{sine } 12°24'}$ or $\frac{.93127 \times 9.70}{.21474} = 42.07$ chs.

42.07 243 ft.below sec.cor. Flag point,from which I return on sec.line, S. 0° 2' E., 2.07 chs. to

40.00 Set an iron post, 3 ft.long, 1 in. in diam.,on surface rock, in a mound of stone for ¼ sec.cor., with a brass cap, marked

¼ S 30 | S 29

1915

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

42.97 Flag point on top of ridge, bears E.and W., 225 ft. above ¼ sec.cor. Descend.

69.09 Canyon, 40 lks.wide, course S. 75° E., 540 ft. below top of ridge; Ascend.

80.00 170 ft. above canyon,set an iron post, 3 ft. long, 2 ins. in diam., on surface rock, in a mound of stone, for cor.of secs.19,20,29 and 30, with a brass cap,marked

T 20 N R 19 W

S 19 | S 20

S 30 | S 29

1915

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

Land, rough and mountainous. Soil,stony, 4th rate. Undergrowth,cactus and greasewood.

Dec. 9,1915.

Dec. 10,1915. At the cor.of secs.19,20,29 and 30,at 10h., 0m.,a.m.,l.m.t.,set off 22°50½'S.on the decl.arc;35°6' N.on the lat.arc,and determine a meridian with the solar. Thence I run,

N.89°45'E.on a random line,bet.secs.20 and 29.

40.00 Set temp.¼ sec.cor.

79.90 Intersect N.and S. line 10 lks.S.of the cor.of secs.20,21, 28 and 29. Thence I run,

S.89°41'W.,on a true line,bet.secs.20 and 29.

Ascend over rough, mountainous land.

Chains.	
28.20	Top of spur, slopes S.,880 ft.above sec.cor.; descend.
34.95	Canyon,course S.20°E., 223 ft.below spur; ascend.
39.95	Set an iron post, 3 ft.long, 1 in. in diam.,on surface rock,in a mound of stone,for ¼ sec.cor.,with a brass cap, marked ¼ S 20 S 29 1915 and raise a mound of stone,2 ft. base,1½ ft.high,N.of cor.
42.00	Top of low spur,slopes S., 55 ft. above canyon;descend.
55.00	Box canyon,30 lks.wide,course S.20°W. 144 ft. below top of spur; ascend slightly.
66.40	Point of rocks, bears N.and S.; descend.
75.20	Canyon,20 lks.wide,course S.10°E., 268 ft.below point of rocks; ascend.
79.90	Cor.of secs. 19,20,29 and 30, 113 ft. above canyon.

Land,rough and mountainous. Soil,stony, 4th rate.

Undergrowth,cactus, juniper andgreasewood.

December 10, 1915.

Dec. 11,1915: At the cor.of secs. 19,20,29 and 30,at 9h. 0m. a.m., l.m.t., set off 22° 55'S., on the decl.arc; 35° 6' N.on the lat.arc, and determine a meridian with the solar.

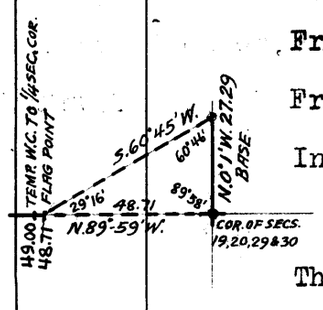
Impracticable to chain measurement on random line, bet. secs.19 and 30, N.89° 59'W., from this cor.;therefore, I triangulate as follows:

Set flag on random sec.line,N.89°59'W.from sec.cor.

From sec.cor. lay off a base N.0°1'W.,27.29 chs.

From N.end of base, flag brs.S.60°45'W.

Included angles are 89°58',60°46' and 29°16',the sum of which is 180°00'



Therefore dist. on random sec.line from sec.cor. to flag is obtained by

$$\frac{\text{sine } 60°46' \times \text{base}}{\text{sine } 29°\ 16'} \quad \text{or} \quad \frac{.87264 \times 27.29}{.48888} = 48.71 \text{chs}$$

48,71	Flag point; thence by chain measurement.

24. Completion of Subdivision of Township 20 North, Range 19 West.

Chains.

49.00 Set temp. witness cor. to ¼ sec. cor. at this point, as the true point for ¼ sec. cor. is inaccessible.

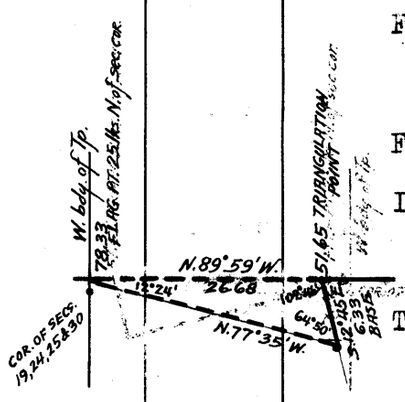
51.65 Discontinue chain measurement on random line at this point, owing to cliffs, and triangulate as follows:

Set flag on random sec. line N.89°59'W. at its intersection with W. bdy. of Tp.

From triangulation point lay off a base, S.12°45'E., 6.33 chs. (longer base impracticable).

From SE. end of base, flag brs. N.77° 35'W.

Included angles are 102°46', 64°50' and 12°24', the sum of which is 180°00'.



Therefore dist. on random sec. line from triangulation point to flag is obtained by

$$\frac{\text{sine } 64°50' \times \text{base}}{\text{sine } 12°24'} \quad \text{or} \quad \frac{.90507 \times 6.33}{.21474} = 26.68 \text{ chs.}$$

51.65 chs. + 26.68 chs. =

78.33 Flag point on W. bdy. of Tp., 25 lks. N. of the cor. of secs. 19, 24, 25 and 30; described in Book "A."

Thence I run,

N.89°50'E., on a true line, bet. secs. 19 and 30. Ascending over rough, mountainous land.

Measuring by triangulation hereinbefore described.

26.68 Triangulation point. Thence by chain measurement.

N.89°50'E. on a true line, bet. secs. 19 and 30.

Ascend over rough, mountainous land.

True point for ¼ sec. cor. is inaccessible; therefore, at

29.33 The nearest accessible point on sec. line suitable for establishment of witness cor., I set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, for witness cor. to ¼ sec. cor., with a brass cap, marked

¼ S 19
WC
S 30
1915

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

Chains	
29.62	Flag point. Top of ridge, brs. N. and S., 1030 ft. above sec. cor. on Tp. line. Thence by triangulation measurement, hereinbefore described.
38.33	True point for ¼ sec. cor. on rock cliffs, brs. N. and S.; inaccessible.
78.33	Triangulation point, Cor. of secs. 19, 20, 29 and 30, 1400 ft. below top of ridge.
	Land, rough mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, cactus, greasewood and juniper.
	N. 0° 2' W. bet. secs. 19 and 20.
	Asc. over rough mountainous land.
9.83	Gulch, course S. 60° E., continue to asc.
27.30	Top of ridge, bears E. and W., 750 ft. above sec. cor., desc. N. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 19 | S 20 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
45.08	Draw, course E., 570 ft. below top of ridge, asc.
48.00	Top of low spur, slopes E., 27 ft. above draw, desc.
58.07	Draw, course N. 65° E., 310 ft. below spur, asc.
64.30	Top of spur, slopes N. 50° E., 110 ft. above draw, desc.
80.00	300 ft. below spur, set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground to solid rock, in a mound of stone, for cor. of secs. 17, 18, 19 and 20, with a brass cap, marked T 20 N | R 19 W S 18 | S 17 S 19 | S 20 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rough mountainous.

Chains	
	Soil, stony, 4th. rate.
	Undergrowth, cactus, catclaw and scrub oak.
	December 11, 1915.
	December 13, 1915; I commence At the cor. of secs. 17, 18, 19 and 20, and at 9h. 0m. a. m., l.m.t., set off 23° 5' S. on the decl. arc, and 35° 7' N. on the lat. arc, and determine a meridian with the solar, Thence I run, N. 89° 41' E. on a random line bet. secs. 17 and 20.
40.00	Set temp. 1/4 sec. cor.
79.92	Intersect N. and S. line 5 lks. N. of the cor. of secs. 16, 17, 20 and 21.
	Thence I run
	S. 89° 43' W. on a true line bet. secs. 17 and 20.
	Asc. over rough mountainous land.
25.10	Top of spur, slopes N. 10° W., 440 ft. above sec. cor., desc.
32.64	Draw, course NE., 350 ft. below top of spur, asc.
34.90	Top of spur, slopes N., 43 ft. above draw, desc.
39.96	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 17 S 20 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.75	Draw, course NE., 34 ft. below top of spur, asc.
50.90	Top of spur, slopes N., 250 ft. above draw, desc.
63.40	Draw, course N. 5° E., 240 ft. below top of spur, asc.
77.30	Top of spur, slopes N. 10° W., 250 ft. above draw, desc.
79.92	Cor. of secs. 17, 18, 19 and 20, 86 ft. below top of spur.
	Land, rough and mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, cactus and catclaw.
	No timber
	Dec. 13, 1915.

Chains	
	Dec. 14, 1915: At the cor. of secs. 17, 18, 19 and 20, at 9h. 0m., a. m., l.m.t., set off 23° 8½' S. on the decl. arc, 35° 7' N. on the lat. arc, and determine a meridian with the solar. Thence I run, S. 89° 50' W. on a random line bet. secs. 18 and 19.
40.00	Set temp. 1/4 sec. cor.
78.23	Intersect the W. bdy. of the twp. 12 lks. N. of the cor. of secs. 13, 18, 19 and 24, described in Book "A."
	Thence I run
	N. 89° 45' E. on a true line bet. secs. 18 and 19.
	Desc. over rough mountainous land.
9.30	Head of short canyon, course N. 70° E., 300 ft. below sec. cor., asc.
17.60	Point of spur, slopes NE., 60 ft. above canyon, desc.
33.60	Head of canyon, course NE., 240 ft. below spur, asc.
38.23	Set an iron post, 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked
	1/4 S 18
	S 19
	1915
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.60	Top of ridge, bears NE. and S., 190 ft. above canyon, desc.
73.30	Canyon, 20 lks. wide, course N. 80° E., creek 3 ft. wide in bottom, 900 ft. below top of ridge, asc.
78.23	Cor. of secs. 17, 18, 19 and 20, 57 ft. above canyon. Land rough, mountainous. Soil, stony, 4th rate. Undergrowth greasewood, cactus, & catclaw. No timber.
	At this corner at apparent noon, I set off 23° 10' S. on the decl. arc, and observe the sun on the meridian for lat. The resulting latitude is 35° 7' N., Dec. 14, 1915.
	N. 0° 2' W. bet. secs. 17 and 18.
	Desc. over rough mountainous land.
8.65	Canyon, 20 lks. wide, course E., small creek in bottom,

Chains	
	134 ft. below sec. cor., asc. SE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 18 | S 17 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
54.40	Top of ridge, bears NE. and SW., 400 ft. above canyon, desc. NW. slope.
58.75	Gulch, course NE., 180 ft. below top of ridge, asc.
64.00	Top of spur, slopes NE., 160 ft. above gulch, desc.
80.00	234 ft. below top of spur, set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in the ground to solid rock, in a mound of stone, for cor. of secs. 7, 8, 17 and 18, with a brass cap, marked T 20 N | R 19 W S 7 | S 8 S 18 | S 17 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rough mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, cactus, juniper and greasewood. Guy H. Richardson, U.S. Surveyor, Dec. 14, 1915.

Dec. 15, 1915; lines run by Hugo Price, U.S. Transitman, as follows:

At the cor. of secs. 7, 8, 17 and 18, and at 9h. 0m., a. m., l.m.t., set off 23° 12½' S. on the decl. arc, and 34° 7½' N. on the lat. arc, and determine a meridian with the solar, and run

N. 89° 43' E. on a random line bet. secs. 8 and 17.

40.00 Set temp. 1/4 sec. cor.

79.90 Intersect N. and S. line 10 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence I run

Chains	
	S. 89° 47' W. on a true line bet. secs. 8 and 17.
	Asc. over rolling mountainous land.
39.95	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 8 S 17 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
52.00	Top of spur, slopes NW., 586 ft. above sec. cor., desc.
69.48	Ravine, course NE., 180 ft. below top of spur, asc.
76.15	Top of spur, slopes NE., 95 ft. above ravine, desc.
79.81	Gulch, course N., 12 ft. below top of spur.
79.90	Cor. of secs. 7, 8, 17 and 18.
	Land, rolling mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, juniper and catclaw.
	S. 89° 45' W. on a random line bet. secs. 7 and 18.
40.00	Set temp. 1/4 sec. cor.
78.56	Intersect the W. bdy. of the twp. 10 lks. N. of the cor. of secs. 7, 12, 13 and 18, described in Book "A".
	Thence I run
	N. 89° 41' E. on a true line bet. secs. 7 and 18.
	Desc. over rolling mountainous land.
10.43	Ravine, course N., 321 ft. below sec. cor., asc.
13.30	Top of spur, slopes N., 50 ft. above ravine, desc.
23.75	Ravine, course N., 100 ft. below top of spur, asc.
35.60	Spring creek, 3 lks. wide, course NW.
38.56	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 7 S 18 1915

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
65.55	Top of spur, slopes NW., 377 ft. above ravine, desc.
78.56	Cor. of secs. 7, 8, 17 and 18, 335 ft. below top of spur.
	Land, rolling mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, cactus and juniper.

Hugo Price,
U.S.Transitman,

Line run by Guy H. Richardson, U.S. Surveyor, as follows:

From the cor. of secs. 7, 8, 17 and 18, I run N. 0° 2' W. bet. secs. 7 and 8.

Desc. over rolling land.

29.50	Leave hills, enter level land, bears E. and W., 300 ft. below sec. cor.
37.75	Center of Secret Pass wash, 1 ch. wide, course S. 75° E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with a brass cap, marked 1/4 S 7 | S 8 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

At apparent noon at the 1/4 sec. cor., I set off 23° 13½' S. on the decl. arc, and observe the sun on the meridian for lat. The resulting latitude is 35° 8' N., Dec. 15, 1915.

54.98	Leave level land, asc. hills, bear E. and W.
80.00	330 ft. above level land, set an iron post, 3 ft. long, 2 ins. in diam., 7 ins. in the ground to solid rock, in a mound of stone, for cor. of secs. 5, 6, 7 and 8, with a brass cap, marked T 20 N R 19 W S 6 | S 5 S 7 | S 8 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.

Land, rolling mountainous.

Chains	
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, cactus and catclaw.
	Guy H. Richardson, U. S. Surveyor. Dec. 15,1915.
	Dec. 16, 1915; Lines run by Hugo Price, U.S.Transitman, as follows: At the cor. of secs. 5, 6, 7 and 8, and at 10h. 0m., a. m., l.m.t., set off 23° 16' S. on the decl. arc, and 35° 8½' N. on the lat. arc, and determine a meridian with the solar, Thence I run,
	N. 89° 47' E. on a random line bet. secs. 5 and 8.
40.00	Set temp. 1/4 sec. cor.
79.98	Intersect N. and S. line 10 lks. N. of the cor. of secs. 4, 5, 8 and 9.
	Thence I run
	S. 89° 51' W. on a true line bet. secs. 5 and 8.
	Desc. over rolling, land.
19.80	Ravine, course SE., 444 ft. below sec. cor., asc.
28.12	Top of low spur, slopes SE., 140 ft. above wash, desc.
33.06	Dry wash, course SE., 52 ft. below top of spur, asc.
39.99	Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked 1/4 S 5 S 8 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
68.70	Top of spur, slopes SE., 515 ft. above wash, desc.
79.98	Cor. of secs. 5, 6, 7 and 8, 194 ft. below top of spur.
	Land, rolling mountainous.
	Soil, stony, 4th. rate.
	Undergrowth, juniper, greasewood, catclaw and scrub oak.
	Dec. 16, 1915: at the cor. of secs. 5, 6, 7 and 8, at apparent noon, I set off 23° 17' S. on the decl. arc, and observe the sun on the meridian for lat. The re-

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Chains	
	sulting latitude is 35° 8½' N.
	S. 89° 41' W. on a random line bet. secs. 6 and 7.
40.00	Set temp. 1/4 sec. cor.
78.45	Intersect the W. bdy. of the twp. 5 lks. N. of the cor. od secs. 1, 6, 7 and 12, described in Book "A."
	Thence I run
	N. 89° 39' E. on a true line bet. secs. 6 and 7.
	Asc.. over rolling land.
4.60	Top of 97 ft. ascent, desc.
19.30	Foot of 90 ft. descent, ravine, course SE., asc.
29.85	Top of spur, slopes S., 200 ft. above ravine, desc.
38.45	80 ft. below top of spur, set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to solid rock, in a mound of stone, for 1/4 sec. cor., with a brass cap, marked
	1/4 S 6
	S 7
	1915
	and raise a mound of stone, 2 ft. base, 1½ ft. high; N. of cor., asc.
49.45	Top of low spur, slopes SE., 46 ft. above 1/4 sec. cor., desc.
50.90	Foot of 115 ft. descent, asc. slightely,
67.00	Top of 49 ft. ascent, desc.
70.10	Foot of 32 ft. descent, ravine, course S., asc.
78.45	Cor. of secs. 5, 6, 7 and 8, 142 ft. above ravine.
	Land, rolling.
	Soil, stony, 4th. rate.
	Undergrowth, greasewood, juniper, catclaw and scrub oak.
	Hugo Price, U. S. Transitman, Dec. 16, 1915.

Dec. 15, 1915; line run by Guy H. Richardson, U.S. Surveyor as follows:

From the cor. of secs. 5, 6, 7 and 8, I run

N. 0° 2' W., on a true line bet. secs. 5 and 6.

Asc. over rough mountainous land.

Chains.	
13.45	Top of ridge, brs. NW. and SE., 105 ft. above sec.cor.; descend.
19.83	Head of canyon, course E., 47 ft. below top of ridge; ascend.
33.75	Top of 350 ft. ascent; descend.
40.00	Foot of 240 ft. descent, set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in the ground to solid rock, in a mound of stone, for ¼ sec.cor., with a brass cap, marked ¼ S 6 | S 5 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.; ascend.
48.18	Top of spur, slopes E., 275 ft. above ¼ sec.cor.; descend.
53.86	Head of ravine, course E., 68 ft. below top of spur; ascend.
58.36	Top of ridge, brs. NW. and SE., 145 ft. above ravine; descend.
	The intersection of this sec.line, with the N.bdy. of Tp. (5th. Standard Parallel N.) will fall on face of cliffs where the establishment of a closing cor. would be impracticable; therefore, at
76.72	Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground to solid rock, in a mound of stone, for witness cor. to closing cor. of secs. 5 and 6, with a brass cap, marked C C S 6 | S 5 T 20 N | R 19 W W C 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
76.80	Wash, course E., 30 lks. wide, 440 ft. below top of ridge; ascend.
81.17	Base of exceptionally steep cliffs, brs. E. and W.
81.92	Intersect the 5th. Standard Parallel N., 2.83 chs. N. 89°1' W. of true point for standard ¼ sec.cor., or 2.90 chs. N. 89°1' W. of the reestablished witness cor. to standard ¼ sec.cor. to secs. 32, T. 21 N., R. 20 W., described in Book "B."

34. Completion of Subdivision of Township 20 North, Range 19 W.

Chains.

The point of intersection falls on cliff rocks, 58 ft. above wash, an unsuitable location for establishment of closing cor. of secs. 5 and 6.

Land, rough, mountainous.

Soil, stony, 4th rate.

Undergrowth, greasewood, cactus, and scrub cedar.

Dec. 16, 1915.

Guy H. Richardson, U.S.S.

Boundaries of West half of T. 20 N., R. 19 W.
Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South bdy. of Tp.	S. 89°41' W.	160.36		.88		160.36
	N. 89°19' W.	39.96	.48			39.96
	S. 89°33' W.	38.31		.30		38.31
West bdy. of Tp.	North	473.71	473.71			
North bdy. of Tp.	N. 77°28' E.	42.45	9.22		41.44	
	S. 89°01' E.	80.14		1.38	80.13	
	East	80.00			80.00	
	S. 89°58' E.	36.67		.02	36.67	
Subdivisional bdy.	S. 0°06' E.	40.59		40.59	0.07	
	S. 0°05' E.	40.03		40.03	0.06	
	S. 0°04' E.	80.16		80.16	0.10	
	S. 0°09' W.	40.06		40.06		0.11
	S. 0°10' E.	39.96		39.96	0.12	
	South	39.95		39.95		
	S. 0°01' E.	39.98		39.98	0.01	
	S. 0°09' W.	40.03		40.03		0.10
	S. 0°06' W.	39.92		39.92		0.07
	S. 0°01' E.	40.11		40.11	0.01	
	S. 0°12' E.	40.00		40.00	0.14	
Convergency					0.25	
Totals			483.41	483.37	239.00	238.91
			483.37		238.91	
Error in latitude.			0.04			
Error in departure.					0.09	

GENERAL DESCRIPTION.

The west ½ of this township is rough and mountainous, with the exception of secs. 4 and 5, which are rolling. The soil is of very low grade, and the land is generally covered with rock, making it unsuitable for farming purposes. There are no settlers in the W. half of Tp., but considerable prospecting has been done, and the district is generally mineralized. There is water in secs. 4 and 17. The undergrowth is cactus, greasewood and some scrub juniper, oak and cedar.

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For Certificates of U.S. Surveyor and U.S. Transitman, See Book "C" of this group.

FINAL OATH OF UNITED STATES SURVEYOR.

See Book "C" of this Group.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ _____ _____ _____ _____ of the _____ _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____

U. S. Surveyor.

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

_____

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona February 26, 1917.

The foregoing field notes of the Resurvey of the Meridional lines west of Sections 34, 27, 22, 15, 10 and 3, and survey of the completion of the Subdivision of Township 20 North, Range 19 West (west half) of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Guy H. Richardson, U.S. Surveyor, and Hugo Price, U.S. Transitman, under special instructions dated January 4, 1915, for Group 43, , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the resurveys and surveys they describe, are hereby approved.

Frank C. Pratt

U. S. Surveyor General.
of Arizona.

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

_____

~~*U. S. Surveyor General.*~~
of Arizona.

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