

3637

Book "H"

4-679

BOOK 3637

# FIELD NOTES

OF THE SURVEY OF THE

West Boundary,

Part of the South boundary,

Part of the Subdivision of

TOWNSHIP 31 NORTH, RANGE 13 WEST

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

William E. Hiester,

In the capacity of U. S. Surveyor, under Special Instructions dated Oct. 12, 1916, issued by the United States Surveyor General to govern surveys included in Group No. 73, which were approved by the Commissioner of the General Land Office, October 24, 1916, and Assignment Instructions dated Aug. 11, 1921.

Survey commenced April 18, 1922.

Survey completed July 9, 1923.

3637

3637

Aug 1923

3637

Book "H"

Group 73 ~ ~ Arizona

BOOK 3637

### INDEX DIAGRAM.

	Township				Range			
4	63	50	42	31	22	1		
	64	51	41	32	23	2		
	63	62	50	41	31	30	22	
4	61	49	41	30	21	18		
	60	49	40	29	20	19		
5	59	59	48	40	29	21	20	
	58	48	39	28	18			
	57	47	T. 31 N. R. 13 W.		27	19		
	56	47	39	38	28	27	19	
5	55	46	38	27	19			
	54	53	37	26	18			
6	54	53	45	37	36	26	18	18
	53	45	36	25	17			
	52	44	35	24	16			
7	52	44	44	35	34	24	16	16
	51	43	33	23	15			
7	51	43	33	23	15	36		
	42	32						
8								
	10	10	11	12	12	13	13	

==== Lines surveyed under this group.

==== Lines surveyed under current group No. 74.

---- Unsurveyed.

BOOK 3637

Book "H"

Group 73--Arizona

Township 31 North, Range 13 West

DATE DIAGRAM

For dates of execution of survey of this line see Book "C"

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

Surveyed in September and October 1917 under Group 74

Indicates surveys executed by William E. Hiester, US Surveyor on dates shown thereon.

Surveys herein described were executed by William E. Hiestler, U.S. Surveyor, on dates shown on diagram on page 1 hereof using Buff transit No. 9223 on the West boundary of the township, and Young & Sons transit No. 8532 on the South boundary and Subdivision lines. Each instrument is equipped with full vertical circle and Smith Solar attachment.

Unless otherwise specified all azimuth determinations are accomplished with the solar attachments.

Field Test of Buff Transit No. 9223.

April 16, 1922: At camp. near cor. of secs. 21, 22, 27 and 28, T. 32 N., R. 14 W., Gila and Salt River Base and Meridian, Arizona, latitude,  $36^{\circ}9'N.$ , longitude  $113^{\circ}47\frac{1}{2}'W.$ , examine the adjustments of the instrument, and correct all errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours with the true meridian determined at this point on April 7, 1922, by Polaris observation as described in Book "G" of this group, proceed as follows:

At 9h.00m. a.m., l.m.t., set off  $36^{\circ}9'N.$  on the lat. arc;  $10^{\circ}01'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At app. noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is  $10^{\circ}3\frac{1}{2}'N.$ , which agrees with the computed declination of the sun.

At 3h.00m. p.m., l.m.t., with the lat. arc unchanged, set off  $10^{\circ}6\frac{1}{2}'N.$ , on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made during the usual hours of solar work come within 1' of the meridian determined by observation on Polaris, conclude that the adjustments of the instrument are satisfactory.

-----  
Field Test of Young & Sons Transit No. 8532.

June 8, 1923: Examine the adjustments of the instrument, and correct all errors; then, to test the indications of the solar apparatus resulting from observations made during a.m. and p.m. hours by comparing them with a meridian determined from observation on Polaris, proceed as follows:

At camp which is located in the SW.  $\frac{1}{4}$  of sec. 13, T. 31 N., R. 13 W., Gila and Salt River Base and Meridian, Arizona, in latitude  $36^{\circ}5'N.$ ; longitude,  $113^{\circ}39'W.$  at 2h.33.4m. a.m., l.m.t., observe Polaris at eastern elongation, making four observations, two each with telescope in direct and reversed positions, and mark a point in the line thus determined on a stake driven firmly in the ground 10 chs. N.

Azimuth of Polaris at eastern elongation =  $1^{\circ}22'29''.$

At 8h.00m. a.m., l.m.t., lay off the azimuth of Polaris  $1^{\circ}22\frac{1}{2}'$  to the west, and mark a point in the meridian thus determined by a tack in a stake 10 chs. north.

At 9h.00m. a.m., l.m.t., set off  $36^{\circ}5'N.$  on the lat. arc;  $22^{\circ}48'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At app. noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is  $22^{\circ}48\frac{1}{2}'N.$ , which agrees with the computed declination of the sun.

At 3h.00m.p.m.,l.m.t., with the lat.arc unchanged, set off 22°49<sup>1</sup>/<sub>2</sub>'N.on the decl.arc, and determine a meridian with the solar, which agrees with the Polaris meridian.

As all of the solar observations made during the usual hours of solar work come within 1'of the meridian determined by observation on Polaris, conclude that the adjustments of the instrument are satisfactory.



All measurements are made with 5 chain steel tapes, compared with a standard steel tape and found correct. Measurements are made on the slope, the slope angles determined with a clinometer, and the slope distances reduced to the true horizontal equivalent for entry in the field notes.



Survey of West boundary of Township 31 North Range 13 West.

Chains.

From the cor. of Ts. 31 and 32 N., Rs. 13 and 14 W., which is a 3-inch iron post, described in Book "C," South, on a true line, bet. secs. 1 and 6. Over nearly level land, thru. scattering timber and dense undergrowth. Asc. slightly over N. and NE. slopes, to Enter rolling land. Desc. 24 ft. over SE. slope.  
 33.00  
 36.00 Ascend 23 ft., over NE. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 30 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S 1 | S 6

1922 from which,  
 A pinyon, 10 ins. in diam., brs. N.  $21\frac{1}{2}^{\circ}$  E., 190 lks. dist., marked  $\frac{1}{4}$  S 6 BT.  
 A cedar, 14 ins. in diam., brs. N.  $77\frac{3}{4}^{\circ}$  W., 80 lks. dist., marked  $\frac{1}{4}$  S 1 BT.

Descend 47 ft., over E. slope, to  
 54.00 Draw, course E. Asc. 21 ft., over N. slope.  
 57.40 Spur, slopes E. Desc. 45 ft., over S. slope.  
 63.00 Draw, course E. Asc. 20 ft., over N. slope.  
 68.40 Point of spur, slopes NE. Desc. 18 ft., over SE. slope.  
 73.90 Draw, course NE. near head. Enter mountainous land. Ascend 71 ft., over N. slope, to  
 80.00 Spur, slopes NE. Set an iron post, 3 ft. long, 2 ins. in diam., 14 ins. in the ground to bed rock, supported in a mound of stone for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T31N  
 R14W | R13W  
 S 1 | S 6  
 S12 | S 7  
 1922

from which,  
 A cedar, 24 ins. in diam., brs. N.  $67^{\circ}$  E., 73 lks. dist., marked T31N R13W S6 BT.  
 A cedar, 12 ins. in diam., brs. S.  $27\frac{1}{2}^{\circ}$  E., 139 lks. dist., marked T31N R13W S7 BT.  
 A pinyon, 8 ins. in diam., brs. S.  $40\frac{3}{4}^{\circ}$  W., 98 lks. dist., marked T31N R14W S12 BT.  
 A pinyon, 8 ins. in diam., brs. N.  $22\frac{1}{2}^{\circ}$  W., 70 lks. dist., marked T31N R14W S1 BT.

Land, nearly level, rolling and mountainous.  
 Soil, gravelly and rocky, 3rd rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

-----  
 South, on true line, bet. secs. 7 and 12. Over rolling land, thru. scattering timber and dense undergrowth. Descend 38 ft., over SE. slope, to Enter mountainous land. Desc. 120 ft., over SE. slope.  
 11.00  
 20.10 Draw, course E., heads about 5 chs. W. Enter rolling land. Ascend 55 ft., over NE. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S12 | S 7  
 1922

from which,  
 A cedar, 10 ins. in diam., brs. S.  $36\frac{3}{4}^{\circ}$  E., 87 lks. dist., marked  $\frac{1}{4}$  S 7 BT.  
 A cedar, 14 ins. in diam., brs. S.  $9^{\circ}$  W., 49 lks. dist., marked  $\frac{1}{4}$  S 12 BT.

Continue over rolling land. Asc. gradually over NE. slope, to Top of cliffs, bearing NW. and SE. facing SW. Enter mountainous land. Desc. 69 ft., over SW. slope, to Descend 1002 ft. over steep broken SE. slope, to  
 47.00  
 50.60

## Survey of West boundary of Township 31 North Range 13 West. 5

Chains.

80.00

Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground to bed rock, supported in a mound of stone for cor. of secs. 7, 12, 13 and 18, marked on brass cap,

T31N	
R14W	R13W
S12	S 7
S13	S18
1922	

from which,

A pinyon, 6 ins. in diam., brs. N.  $25\frac{1}{2}^{\circ}$  E., 34 lks. dist., marked T31N R13W S7 BT.

A cedar, 24 ins. in diam., brs. S.  $53\frac{1}{2}^{\circ}$  E., 30 lks. dist., marked T31N R13W S18 BT.

A cedar, 10 ins. in diam., brs. S.  $55\frac{1}{4}^{\circ}$  W., 30 lks. dist., marked T31N R14W S13 BT.

A pinyon, 6 ins. in diam., brs. N.  $25\frac{1}{2}^{\circ}$  W., 97 lks. dist., marked T31N R14W S12 BT.

Land, rolling and mountainous. Soil, rocky, 4th rate.

Timber, cedar and pinyon.

Undergrowth, black brush.

-----  
South, on true line, bet. secs. 13 and 18.

Over mountainous land, thru scattering timber and dense undergrowth. Desc. 192 ft., over SE. slope, to

14.40

Enter rolling land. Desc. 108 ft. over gradual SE. slope, to

33.60

Wash, 30 lks. wide, course SW. Desc. slightly over SW. slope, to

37.00

Wash, 30 lks. wide, course SW. Asc. 30 ft., over NW. slope, to

40.00

Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

S13	S18
-----	-----

1922

from which;

A pinyon, 14 ins. in diam., brs. N.  $60\frac{1}{4}^{\circ}$  E., 180 lks. dist., marked  $\frac{1}{4}$ S 18 BT.

A pinyon, 24 ins. in diam., brs. S.  $60\frac{1}{4}^{\circ}$  W., 56 lks. dist., marked  $\frac{1}{4}$ S 13 BT.

Ascend 18 ft., over NW. slope.

42.00

Spur, slopes SW. Desc. 23 ft., over SE. slope.

47.00

Ascend 10 ft., over NE. slope.

52.00

Point of short spur, slopes E. Enter mountainous land.

Descend 97 ft., over SE. slope.

60.00

Ascend 30 ft., over NE. slope.

66.30

Descend 88 ft., over S. slope, to

76.40

Enter rolling land. Desc. 22 ft., over SW. slope, to

80.00

Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in the ground to bed rock, supported in a mound of stone, for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

T31N	
R14W	R13W
S13	S18
S24	S19
1922	

1922

from which,

A pinyon, 14 ins. in diam., brs. N.  $38^{\circ}$  E., 78 lks. dist., marked T31N R13W S18 BT.

A pinyon, 12 ins. in diam., brs. S.  $32\frac{1}{2}^{\circ}$  E., 81 lks. dist., marked T31N R13W S19 BT.

A pinyon, 8 ins. in diam., brs. S.  $34\frac{1}{2}^{\circ}$  W., 69 lks. dist., marked T31N R14W S24 BT.

A pinyon, 8 ins. in diam., brs. N.  $72\frac{1}{2}^{\circ}$  W., 130 lks. dist., marked T31N R14W S13 BT.

Land, mountainous and rolling.

Soil, rocky and gravelly, 3rd rate.

Pinyon, cedar and pinyon. Undergrowth, black brush.

-----  
South, on true line, bet. secs. 19 and 24.

Over rolling land, thru scattering timber and dense undergrowth. Desc. 63 ft., over SW. slope.

10.00

Wash, 10 lks. wide, course SE. Enter nearly level land.

Descend slightly over E. slope.

6 Survey of West bdy. of Township 31 North, Range 13 West.

chains.  
 35.00 Ascend slightly over NE. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post for  $\frac{1}{4}$  sec. cor., marked on brass cap,  
 S24 | S19  
 1922  
 No bearing trees available. Thence over rolling land. Ascend 55 ft., over NE. slope.  
 64.00 SE. end of top of knoll, bearing NW. and SE.  
 Descend 106 ft., over SE. slope.  
 78.00 Wash, 20 lks. wide, course E. Asc. 26 ft., over NE. slope, to  
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 16 ins. in the ground to bed rock, supported in a mound of stone, for cor. of secs. 19, 24, 25 and 30, marked on brass cap,  
 T31N  
 R14W | R13W  
 S24 | S19  
 S25 | S30  
 1922  
 from which,  
 A pinyon, 24 ins. in diam., brs. N. 75° E., 63 lks. dist., marked T31N R13W S19 BT.  
 A pinyon, 36 ins. in diam., brs. S. 24° E., 59 lks. dist., marked T31N R13W S30 BT.  
 A pinyon, 14 ins. in diam., brs. S. 84 $\frac{1}{4}$ ° W., 126 lks. dist., marked T31N R14W S25 BT.  
 A pinyon, 16 ins. in diam., brs. N. 51 $\frac{1}{2}$ ° W., 56 lks. dist., marked T31N R14W S24 BT.  
 Land, rolling and nearly level.  
 Soil, rocky and gravelly, 3rd rate.  
 Timber, cedar and pinyon. Undergrowth, black brush.

---

South, on true line, bet. secs. 25 and 30.  
 Over rolling land, thru scattering timber and dense undergrowth. Asc. 17 ft., over NE. slope.  
 7.50 Descend 20 ft., over SE. slope.  
 12.10 Wash, 30 lks. wide, course E. Asc. 25 ft., over NE. slope.  
 16.45 Descend gradually over E. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on ledge of rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,  
 S25 | S30  
 1922 from which,  
 A pinyon, 12 ins. in diam., brs. S. 50 $\frac{1}{2}$ ° E., 86 lks. dist., marked  $\frac{1}{4}$  S 30 BT.  
 A pinyon, 14 ins. in diam., brs. W. 160 lks. dist., marked  $\frac{1}{4}$  S 25 BT.  
 Descend 39 ft., over SE. slope.  
 47.60 Draw, course E. Asc. 51 ft., over NE. slope, to  
 55.00 Thence over E. slope, descending slightly to  
 61.28 Triangulation point.  
 62.50 Top of cliff, 100 ft. high, bearing NE. and SW. facing SE., forming N. or left rim of a short side canyon. Enter mountainous land. Chaining across canyon being impracticable, triangulate as follows:  
 From 61.28 ch. station measure a Base, N. 60° 49' W., 5.00 chs.  
 Set flag ahead on township bdy. at S. or right rim of canyon.  
 From NW. end of Base the flag brs. S. 12° 19' E.  
 From 61.28 ch. station, the vertical angle to flag is 0°.  
 Dist. on Tp. bdy. = 61.28 chs. South.  
 Dist. triangulated = 17.56 chs. South.  
 Total distance = 78.84 chs. South.

71.00 (Approx.) Bottom of short side canyon, course E. heads 5 chs. W. of line, and at about  $\frac{1}{2}$  mile E. joins the bottom

Survey of West boundary of Township 31 North, Range 13 West. 7

Chains.

of main canyon, course S.  
 Ascend over precipitous NE.slope, to  
 78.84 Triangulation point at S.or right rim of canyon, bearing NW. and SE. Leave canyon. Enter rolling land. Continue line and measurement by chaining.  
 Ascend 6 ft., over E.slope, to  
 80.00 Set an iron post, 3 ft.long, 2 ins.in diam., on surface rock, supported in a mound of stone, for cor.of secs.25, 30, 31 and 36, marked on brass cap,  
 T31N  
 R14W | R13W  
 S25 | S30  
 S36 | S31  
 1922

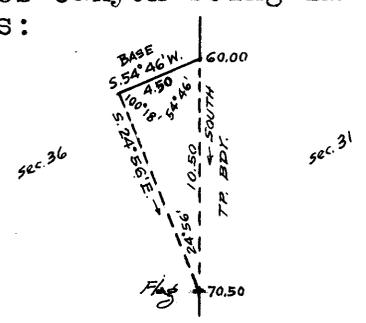
from which,  
 A pinyon, 12 ins.in diam., brs.N.21 $\frac{1}{4}$ °E., 188 lks, dist., marked T31N R13W S30 BT.  
 A pinyon, 14 ins.in diam., brs.S.27 $\frac{1}{4}$ °E., 119 lks. dist., marked T31N R13W S31 BT.  
 A pinyon, 20 ins.in diam., brs.S.69°W., 114 lks. dist., marked T31N R14W S36 BT.  
 A pinyon, 10 ins.in diam., brs.N.40°W., 555 lks. dist., marked T31N R14W S25 BT.

Land, rolling and mountainous.  
 Soil, rocky and gravelly, 3rd rate.  
 Timber, cedar and pinyon. Undergrowth, black brush.

-----  
 South, bet.secs. 31 and 36.  
 Over rolling land, thru.scattering timber & dense undergrowth. Descend 70 ft., over E.and SE.slopes.  
 10.20 Wash, 20 lks.wide, course E.into canyon.  
 Ascend 81 ft., over NE.slope, to  
 24.90 Enter nearly level bench land. Desc.slightly over E.slope, to  
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 24 ins.in the ground for  $\frac{1}{4}$  sec.cor., marked on brass cap,

S36 | S31  
 1922

No bearing trees available. Raise a mound of stone, 4 ft. base, 3 ft.high, W.of cor.  
 Continue over nearly level bench. Desc.slightly over E.slope, to  
 43.10 Wash, 20 lks.wide, course E. Enter gently rolling land on bench. Asc.40 ft., over NE.slope.  
 55.00 Thence over nearly level land, descending slightly to  
 60.00 North or left rim of short side canyon, brs, NE. and SW. Enter mountainous land. Chaining across canyon being impracticable, triangulate as follows:  
 Measure a Base S.54°46'W., 4.50 chs. along the left rim of canyon.  
 From SW. end of Base, the flag brs. S.24°56'E.  
 From 60 ch.station on Tp.bdy., the vertical angle to flag is 0°.  
 Dist.on Tp.bdy. =60.00 chs.South.  
 Dist.triangulated=10.50 chs.South.  
 Total distance=70.50 chs.South.



65.00 (Approx.) Bottom of short side canyon, course E.about 250 ft.deep. Heads about 10 chs.W.of this point, and joins the bottom of main canyon, course S.at about  $\frac{1}{2}$  mile E.  
 70.50 Triangulation point at S.or right rim of canyon, bearing NW. and SE. Leave canyon. Enter rolling land. Continue line and measurement by chaining.  
 Ascend 55 ft., over NE.slope, to  
 77.24 West or right rim of canyon, brs.NE. and SW. Set an iron post, 3 ft.long, 3 ins.in diam., on surface rock, supported in a mound of stone, deposit a stone marked with a cross (x) at base of post, and raise a mound of stone around post for witness cor.to cor.of Ts.30 and 31 N. Rs.13 and 14 W., marked on brass cap,

## 8 Survey of West boundary of Township 31 North, Range 13 West.

Chains.

T31N	
R14W	R13W
S36	S31
S 1	S 6
W C	
T30N	
1922	

from which,

A cedar, 16 ins. in diam., brs. N.  $15\frac{1}{2}^{\circ}$  E., 340 lks.  
dist., marked T31N R13W S31 WCBT.A pinyon, 24 ins. in diam., brs. N.  $81^{\circ}$  W., 205 lks.  
dist., marked T31N R14W S36 WCBT.

No other bearing trees available.

The bottom of the canyon, course S. bears E. from this  
cor. about  $\frac{1}{2}$  mile distant.80.00 The true point for cor. of Ts. 30 and 31 N., Rs. 13 and 14  
W. falls on precipitous slope, on W. or right wall of  
canyon, where it is inaccessible; therefore, a witness  
cor. is established at 2.76 chs. North, as described  
above.

Land, rolling, nearly level and mountainous.

Soil, rocky; 4th rate.

Timber, cedar.

Undergrowth, black brush.

Survey of part of South bdy. of Township 31 North, Range 13 West. 9

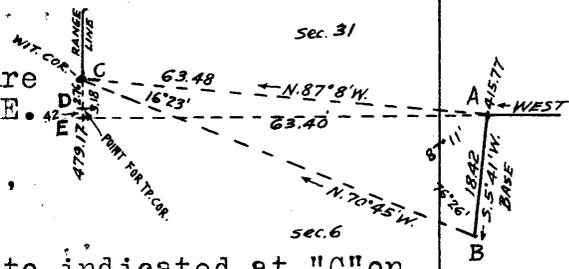
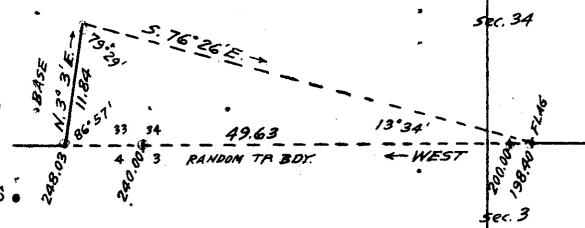
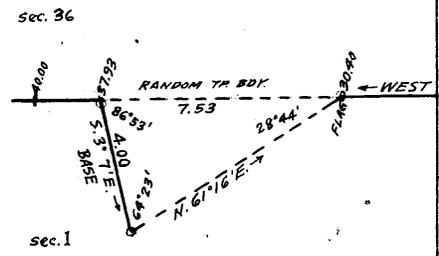
Chains. The cor. of Ts. 30 and 31 N., Rs. 12 and 13 W. established under current Group No. 74 is an iron post, 3 ins. in diam., projecting 12 ins. above ground, firmly set, properly mkd. on brass cap, and witnessed by 4 properly marked bearing trees, one each NE., SE., SW. & NW. of cor. Thence, West, on a random line, bet. Ts. 30 and 31 N., R. 13 W.

30.40 Top of cliffs, 500 ft. high, bearing N. and S., facing W. Discontinue chaining, and triangulate as follows:  
Set flag at this point.  
From a point ahead on random Tp. bdy., measure a Base, S. 3° 7' E., 4.00 chs. It is impracticable to chain a longer Base.  
From SE. end of Base, the flag brs. N. 61° 16' E.  
From NW. end of Base, the vertical angle to flag is +50°.  
Dist. on random Tp. bdy. = 30.40 chs. W.  
Dist. triangulated = 7.53 chs. W.  
Total distance = 37.93 chs. W.

37.93 Triangulation point, Continue line & measurement by chaining.  
40.00 Set temp. 1/4 sec. cor. of secs. 1 and 36.  
80.00 Set temp. cor. of secs. 1, 2, 35 and 36.  
120.00 Set temp. 1/4 sec. cor. of secs. 2 and 35.  
160.00 Set temp. cor. of secs. 2, 3, 34 and 35.  
198.40 East, or left rim of canyon, brs. N. and S. Discontinue chaining.  
Set temp. witness cor. to 1/4 sec. cor. of secs. 3 and 34.  
Triangulate measurement of random Tp. bdy. across canyon, as follows:  
Set flag at this point.  
From a point ahead on random Tp. bdy. at W. or right rim of canyon, measure a Base N. 3° 3' E., 11.84 chs. It is impracticable to chain a longer Base.  
From NE. end of Base, the flag brs. S. 76° 26' E.  
From SW. end of Base, the vertical angle to flag is 0° and to point on random Tp. bdy. in bottom of canyon is -40°.  
Dist. on random Tp. bdy. = 198.40 chs. West.  
Distance triangulated = 49.63 chs. West.  
Total distance = 248.03 chs. West.

200.00 Point for temp. 1/4 sec. cor. of secs. 3 and 34 is inaccessible.  
240.00 Point for temp. cor. of secs. 3, 4, 33 and 34 is inaccessible.  
248.03 Triangulation point on W. or right rim of canyon, bearing N. 5° E. and S. 5° W.  
Set temp. witness cor. to cor. of secs. 3, 4, 33 and 34.  
Continue line and measurement by chaining.

280.00 Set temp. 1/4 sec. cor. of secs. 4 and 33.  
320.00 Set temp. cor. of secs. 4, 5, 32 and 33.  
360.00 Set temp. 1/4 sec. cor. of secs. 5 and 32.  
400.00 Set temp. cor. of secs. 5, 6, 31 and 32.  
415.77 East or left rim of canyon, brs. N. 6° E. and S. 6° W. It is impracticable to chain the completion of the random Tp. bdy. owing to precipitous sides of this canyon; therefore triangulate as described as follows, and as shown on the diagram hereon:  
From this point on random Tp. bdy. indicated on diagram at "A", measure a Base S. 5° 41' W., 18.42 chs. along E. rim of canyon to Point "B."  
The point for cor. of Ts. 30 & 31 N., Rs. 13 & 14 W. indicated at point "D" on diagram being inaccessible, set flag on the witness cor. thereto indicated at "C" on diagram.  
The witness cor. is established at 2.76 chs. N. of the Tp. cor. point "D," as hereinbefore described.  
From point "A" on random Tp. bdy. at E. rim of canyon, the flag "C" brs. N. 87° 8' W.  
From point "B" at SW. end of Base, the flag brs. N. 70° 45' W.



10 Survey of part of South hdy of Township 31 North Range 13 West

Chains. The vertical angle from "A" to "C" is  $+19^\circ$  and from "A" to bottom of canyon is  $-48^\circ$ .  
 Vertical angle from flag to bottom of canyon is  $-60^\circ$ .  
 Dist. "A-C" triangulated = 63.48 chs. N.  $87^\circ 8' W$ .  
 Latitude of "A-C" = 3.18 chs. North.  
 Departure of "A-C" = 63.40 chs. West.  
 Dist. on random Tp. bdy = 415.77 chs. West.  
 Departure of "A-C" = 63.40 chs. West.  
 Total distance = 479.17 chs. West to point of intersection of random Tp. bdy. with N. & S. line thru. the W.C. to Tp. cor., which point of intersection is indicated on diagram at "E."

"E-C" = 3.18 chs. North.  
 "D-C" = 2.76 chs. North.  
 "E-D" = 0.42 chs. North.

440.00 The point for temp. sec. cor. of secs. 6 & 31 is inaccessible, and as no point within allowable limits is available for establishment of a witness cor. thereto, that portion of the Tp. bdy. bet. secs. 6 and 31 is unsurveyable. From the results of the above triangulation, the random Tp. bdy. extended west would at

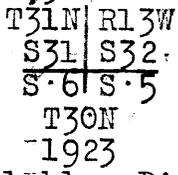
479.17 Fall 42 lks. S. of true point for cor. of Ts. 30 & 31 N., Rs. 13 & 14 W., witnessed 2.76 chs. N., as hereinbefore described. The correction is therefore 3' or 7 lks. N. per mile, counting from SE. cor. of Tp. From said Tp. cor. point, S.  $89^\circ 57' E$ , on a blank line, bet. secs. 6 and 31. Across impassable canyon. Measurement to E. rim by triangulation, hereinbefore described.

32.00 Descend about 3660 ft., over almost perpendicular cliffs, to (Approx.) Bottom of canyon, course S.  $10^\circ W$ .

Ascend about 2200 ft., over precipitous cliffs to E. rim.

39.17 Point for  $\frac{1}{4}$  sec. cor. of secs. 6 and 31 is inaccessible.  
 63.44 A point on E. rim of canyon, 37 lks. N.  $6^\circ E$ . from the triangulation point, hereinbefore described, or S.  $89^\circ 57' E$ . from Tp. cor. point. Leave canyon, thence over level bench land, chaining measurement to

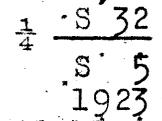
79.17 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in ground for cor. of secs. 5, 6, 31 and 32, marked on brass cap,



No bearing trees available. Dig pits, 18x18x12 ins., one each NE., SE., SW. and NW. of cor. 3 ft. dist.

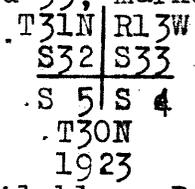
S.  $89^\circ 57' E$ , on a true line, bet. secs. 5 and 32. Over level land, thru. dense undergrowth.

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,



No bearing trees available. Dig pits, 18x18x12 ins., one each E. and W. of cor. 3 ft. dist.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 18 ins. in the ground to bed rock, supported in mound of earth, for cor. of secs. 4, 5, 32 and 33, marked on brass cap,



No bearing trees available. Dig pits, 18x18x12 ins., one each NE., SE., SW. and NW. of cor. 3 ft. dist.

Land, level.  
 Soil, gravelly, 3rd rate.  
 Timber, none.  
 Undergrowth, black brush.

Survey of part of South bdy. of Township 31 North, Range 13 West, 11

Chains.

S. 89° 57' E., on a true line, bet. secs. 4 and 33.  
 Over level land; thru. dense undergrowth.  
 35.00 Enter mountainous land. Desc. 50 ft., over E. slope.  
 37.70 Wash, 20 lks. wide, in gulch, course S. Enter scattering  
 timber. Asc. 50 ft., over W. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the  
 ground to bed rock, supported in a mound of stone, for  
 1/4 sec. cor., marked on brass cap,

1/4 S 33  
 S 4  
 1923

from which,

A pinyon, 14 ins. in diam., brs. N. 37° W., 235  
 lks. dist., marked 1/4 S 33 BT.  
 A pinyon, 16 ins. in diam., brs. S. 32° E., 82  
 lks. dist., marked 1/4 S 4 BT.

Leave mountainous, and enter gently rolling bench land. Ascend slightly over SW. slope.

50.00 Descend gradually over SE. slope, to

71.47 Triangulation point at West or right rim of Burnt Spring  
 Canyon, bearing N. 5° E. and S. 5° W. Beyond this point,  
 the township boundary passes over precipitous descent,  
 and chaining is impracticable. Measurement of Tp. bdy.  
 from this point is accomplished by the triangulation  
 hereinbefore described. The point for cor. of secs. 3, 4,  
 33 and 34 being inaccessible, locate a point for wit-  
 ness cor. thereto by chaining measurement on an off-  
 set line as follows:

From 71.47 ch. station on S. bdy. of  
 sec. 33, or 8.53 chs. N. 89° 57' W.  
 from true point for cor. of  
 secs. 3, 4, 33 and 34,

N. 0° 2' W., 9.60 chs. on offset line  
 in sec. 33, parallel to sec.  
 line, bet. secs. 33 & 34.

Over gently rolling  
 bench land. Thence,  
 S. 89° 57' E., 5.00 chs. parallel to S.  
 bdy. of Tp., over gently  
 rolling bench, to point on  
 W. rim of Burnt Spring  
 canyon, which is 3.53

chs. N. 89° 57' W. from 9.60 ch. point on the sec. line, bet.  
 secs. 33 and 34, or 10.23 chs. N. 20° 11' W. from true point  
 for cor. of secs. 3, 4, 33 and 34.

Establish witness cor. at this point as follows:

Set an iron post, 3 ft. long, 2 ins., in diam., on ledge of  
 rock, deposit a stone marked with a cross (x) at base of  
 post, and raise a mound of stone around post for  
 witness cor. to the cor. of secs. 3, 4, 33 and 34,  
 marked on brass cap,

T31N	R13W
S33	S34
S 4	S 3
T30N WC	
1923	

from which,

A pinyon, 16 ins. in diam., brs. N. 64° W., 167  
 lks. dist., marked T31N R13W S33 WC BT.  
 A pinyon, 16 ins. in diam., brs. N. 75° W., 81  
 lks. dist., marked T31N R13W S33 WC BT.

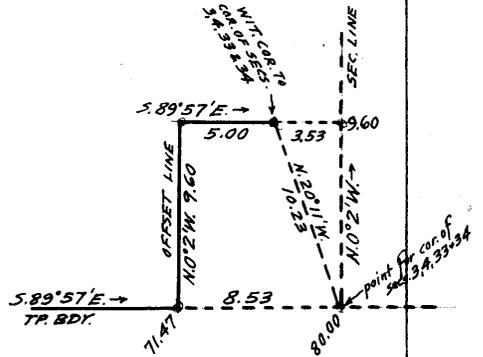
No other bearing trees available.

80.00 The true point for cor. of secs. 3, 4, 33 and 34 falls on  
 face of cliff on W. or right wall of Burnt Spring Can-  
 yon, where it is inaccessible.

Land, level, gently rolling and mountainous.

Soil, gravelly and rocky, 3rd and 4th rate.

Timber, scattering pinyon in E. 42 chs. No timber in W.  
 38 chs. Undergrowth, black brush.



## 12 Survey of part of South boundary of T. 31 N., R. 13 W.

Chains.

From true point for cor. of secs. 3, 4, 33 and 34,  
S. 89° 57' E., on a true line, bet. secs. 3 and 34.  
Over mountainous land, across Burnt Spring Canyon, with  
precipitous broken walls. Measurement by triangulation,  
as hereinbefore described.

15.00 Descend over precipitous E. slope.  
(Approx.) Bottom of Burnt Spring Canyon, about 1440 ft.  
deep, course S.

40.00 Ascend over precipitous W. slope.  
True point for  $\frac{1}{4}$  sec. cor. falls on cliffs, and is inaccess-  
ible; therefore, at

41.10 Triangulation point at E. or left rim of Burnt Spring Can-  
yon, bearing N. and S.

Set an iron post, 3 ft. long, 1 in. in diam., on ledge of  
rock, deposit a stone, marked with a cross (x) at base  
of post, and raise a mound of stone around post, for  
witness cor. to the  $\frac{1}{4}$  sec. cor., marked on brass cap,

WC  $\frac{1}{4}$  S 34  
S 3  
1923

No bearing trees available. Thence over level bench  
land, thru. dense undergrowth.

42.46 Trail, brs. N. and S.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in  
the ground, deposit a stone, marked with a cross (x) at  
base of post, and raise a mound of stone around post  
for cor. of secs. 2, 3, 34 and 35, marked on brass cap,

T31N | R13W  
S34 | S35  
S 3 | S 2  
T30N  
1923

from which,

A pinyon, 24 ins. in diam., brs. N. 83 $\frac{3}{4}$ ° E., 302  
lks. dist., marked T31N R13W S35 BT.

A pinyon, 16 ins. in diam., brs. S. 17 $\frac{1}{8}$ ° E., 381  
lks. dist., marked T30N R13W S2 BT.

No other bearing trees available.

Land, mountainous and level.

Soil, rocky and gravelly, 4th rate.

Timber, none.

Undergrowth, black brush.

S. 89° 57' E., on a true line, bet. secs. 2 and 35.

Over level land, thru. scattering timber and dense under-  
growth.

21.00 Enter mountainous land.

Ascend 29 ft., over SW. slope.

26.00 Descend 43 ft., over SE. slope.

28.60 Ascend 29 ft., over SW. slope.

33.50 Descend 55 ft., over SE. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in  
the ground to bed rock, deposit a stone marked with  
a cross (x) at base of post, and raise a mound of stone,  
around post, for  $\frac{1}{4}$  sec. cor., marked on brass cap,  
cor., marked on brass cap,

$\frac{1}{4}$  S 35  
S 2  
1923

No bearing trees available.

Descend 102 ft., over SE. slope.

47.50 Trail, brs. N. and S.

54.60 Wash, 100 lks. wide, course S. into head of canyon, 2.00 chs. S.

Survey of part of South bdy. of T. 31 N., R. 13 W. 13

chains.

58.50 Ascend 20 ft., over SW. slope, to Wash, 20 lks. wide, course SW.  
 80.00 Ascend 193 ft., over NW. slope, to Spur, slopes SW. Set an iron post, 3 ft. long, 2 ins. in diam., on ledge of rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for cor. of secs. 1, 2, 35 and 36, marked on brass cap,

T31N	R13W
S35	S36
S 2	S 1
T30N	
1923	

No bearing trees available.  
 Land, level and mountainous.  
 Soil, gravelly and rocky, 3rd and 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

S. 89° 57' E., on a true line, bet. secs. 1 and 36.  
 Over mountainous land, thru. scattering timber and dense undergrowth.

7.00 Ascend slightly, over S. slope, to Head of draw, course SW. Asc. 530 ft., over NW. slope, to  
 31.00 Sharp spur, slopes SW.  
 Ascend 28 ft., over S. slope, to  
 36.00 Head of gulch, course SW.  
 Ascend 194 ft., over steep W. slope, 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,

$\frac{1}{4}$ S 36
S 1
1923

from which,  
 A pinyon, 14 ins. in diam., brs. N. 53 $\frac{1}{2}$ ° W., 19 lks. dist., marked  $\frac{1}{4}$  S 36 BT.  
 A pinyon, 14 ins. in diam., brs. S. 27° E., 84 lks. dist., marked  $\frac{1}{4}$  S 1 BT.

42.07 Ascend 41 ft., over W. slope, to Triangulation point. Continue chaining, to  
 42.30 Foot of cliffs, bearing N. and S. Discontinue chaining. Measurement to top of cliffs by triangulation, as herein- before described.  
 Ascend 590 ft., to  
 49.60 Triangulation point at top of cliffs, bearing N. and S., facing W. Continue line and measurement by chaining. Enter gently rolling land and dense timber.  
 Ascend slightly over SW. slope.  
 51.70 Old road, brs. N. and S.  
 64.00 Descend gradually over SE. and E. slopes, to  
 80.00 The cor. of Ts. 30 and 31 N., Rs. 12 and 13 W., described in notes of current Group No. 74.  
 Land, mountainous and gently rolling.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

Boundaries of Township 31 North, Range 13 West.

Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.		
			N.	S.	E.	W.	
South boundary,	N.89°57'W.	479.17	0.42			479.17	
West boundary,	North,	480.00	480.00				
North boundary,	S.89°56'E.	478.88		0.52	478.88		
East boundary,	South,	480.00		480.00			
Convergency,					0.53		
Totals.			480.42	480.52	479.41	479.17	
				480.42	479.17		
Error in latitude.				0.10			
Error in departure.						0.24	

Survey of part of Subdivision lines of Township 31 North, Range 13 W15

Chains.

From the cor. of secs. 1, 2, 35 and 36 on S. bdy. of Tp., hereinbefore described, N.0°1'W., bet. secs. 35 and 36. Over mountainous land, thru scattering timber and dense undergrowth.

- 4.44 Descend 80 ft., over NW. slope. Wash, 10 lks. wide, course SW.
- 10.50 Ascend 100 ft., over S. slope, to Spur, slopes SW. Asc. slightly over W. slope, to
- 27.70 Wash, 50 lks. wide, course SW. Ascend 143 ft., over SE. slope, to
- 39.75 Wash, 10 lks. wide, course SE. Asc. slightly over S. slope, to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 28 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S35 | S36  
 1923

from which,

A pinyon, 12 ins. in diam., brs. N.32°E., 15 lks. dist., marked  $\frac{1}{4}$  S 36 BT.

A pinyon, 10 ins. in diam., brs. N.58°W., 73 lks. dist., marked  $\frac{1}{4}$  S 35 BT.

- 40.98 Ascend gradually over S. slope, to Discontinue chaining owing to precipitous ascent over cliffs, bearing NE. and SW. Triangulate as follows: Measure a Base, S:87°9'E., 8.50 chs.

It is impracticable to chain a longer Base.

Set flag ahead on sec. line at top of cliffs.

From SE. end of Base, the flag brs. N.11°52'W.

From point on sec. line at NW. end of Base, the vertical angle to flag is  $\frac{1}{4}$  26°.

Dist. on sec. line = 40.98 chs. N:0°1'W.

Dist. triangulated = 40.03 chs. N:0°1'W.

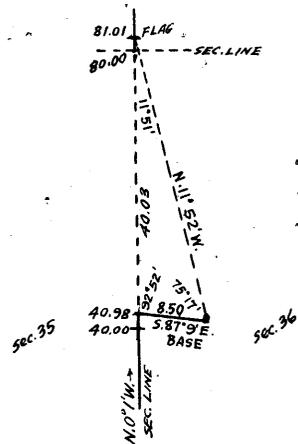
Total distance = 81.01 chs. N:0°1'W.

By return measurement = 1.01 chs. S:0°1'E.

80.00 chs. N:0°1'W.

- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on ledge of rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for cor. of secs. 25, 26, 35 and 36, marked on brass cap,

T31N | R13W  
 S26 | S25  
 S35 | S36  
 1923



No bearing trees available.

This cor. is about 1265 ft. above  $\frac{1}{4}$  sec. cor. of secs. 35 and 36.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar.

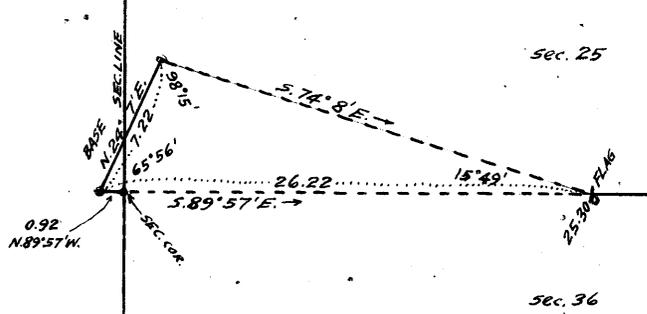
Undergrowth, black brush.

-----

S.89°57'E., on random line, bet. secs. 25 and 36. The beginning of this line falls on precipitous sides of a canyon, and chaining is impracticable; therefore, triangulate as follows:

16 Survey of part of Subdivision lines of T.31 N., R.13 W.

Chains.



The cor. of secs. 25, 26, 35 and 36 is on a ledge on steep SE. slope, from which it is impracticable to triangulate; therefore, from a point 92 lks. N. 89° 57' W. from said sec. cor., measure a Base, N. 24° 7' E.; 7.22 chs. Set flag ahead on random sec. line at E. or left rim of canyon.

From NE. end of Base, the flag brs. S. 74° 8' E.  
 From SW. end of Base, the vertical angle to flag is 0°.  
 From flag the vertical angle to point on random sec. line in bottom of canyon is - 39°.  
 Dist. triangulated = 26.22 chs. S. 89° 57' E.  
 Dist. from sec. cor. to triangulation point = 0.92 chs. N. 89° 57' W.  
 Dist. triang. bet. secs. 25 & 36 = 25.30 chs. S. 89° 57' E.  
 25.30 Triangulation point. Continue line and measurement by chaining.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 80.02 Fall 30 lks. S. of the cor. of secs. 25, 30, 31 and 36 on E. bdy. of Tp., established under current Group No. 74, which is a 2-in. iron post, projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by four properly marked bearing trees, one each NE., SE., SW. and NW. of cor.

Thence, S. 89° 50' W., on a true line, bet. secs. 25 and 36. Over gently rolling bench land, thru. dense timber and undergrowth.

Ascend gradually over S. and SE. slopes.  
 20.00 Descend gradually over SW. slope.  
 35.50 Old road, brs. N. and S.  
 40.01 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 25  
 S 36  
 1923

from which,  
 A cedar, 12 ins. in diam., brs. N. 24° E., 55 lks. dist., marked  $\frac{1}{4}$  S 25 BT.  
 A cedar, 12 ins. in diam., brs. S. 36° E., 72 lks. dist., marked  $\frac{1}{4}$  S 36 BT.

Descend gradually over SW. slope.  
 54.72 Triangulation point at top of cliffs, bearing NW. and SE., facing SW., and forming W. rim of bench. Discontinue chaining. Enter mountainous land in canyon. Measurement to sec. cor. by triangulation, hereinbefore described.

Descend 535 ft. to  
 65.00 (Approx.) Wash in bottom of canyon, course S.  
 Ascend about 500 ft. to

80.02 The cor. of secs. 25, 26, 35 and 36.  
 Land, gently rolling and mountainous.  
 Soil, gravelly and rocky, 4th rate.  
 Timber, cedar.  
 Undergrowth, black brush.

N. 0° 1' W., bet. secs. 25 and 26.  
 Over mountainous land, thru. scattering timber and undergrowth.

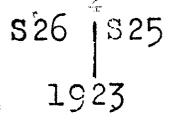
Ascend 23 ft., over steep SE. slope, to  
 1.00 West or right rim of canyon, brs. NE. and SW. Thence over gently rolling bench land.  
 Ascend slightly over E. slope, to

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 17

Chains.

24.37  
40.00

Wash, course E. Asc. slightly over SE. slope, 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,

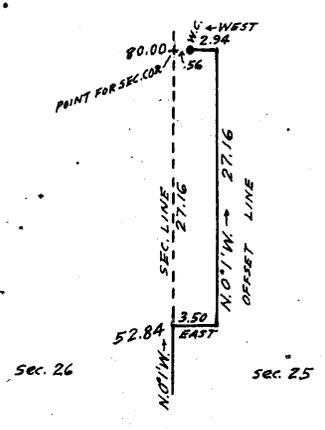


from which,  
A cedar, 6 ins. in diam., brs. S.  $69\frac{1}{4}^{\circ}$  E., 39 lks.  
dist., marked  $\frac{1}{4}$  S 25 BT.  
A cedar, 30 ins. in diam., brs. S.  $50\frac{3}{4}^{\circ}$  W., 25 lks.  
dist., marked  $\frac{1}{4}$  S 26 BT.

52.84

Continue over gently rolling bench land.  
Ascend slightly over SE. slope, to  
West rim of bench, brs. NE. and SW. At about 3 chs. NE., this  
rim turns to N. Precipitous descent from the rim pre-  
vents continuation of chaining on the sec. line beyond  
this point; therefore, measure the remainder of the sec.  
line by means of offset, as follows:

From 52.84 ch. station, on sec. line,  
East, 3.50 chs. on offset line in sec.  
25, over gently rolling bench land.

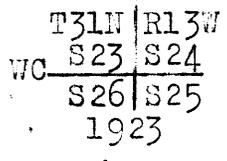


Desc. slightly over SE. slope.  
Thence,  
N.  $0^{\circ}1'W.$ , 27.16 chs., on offset  
line in sec. 25, parallel to  
and 3.50 chs. E. of true sec.  
line.

Over gently rolling bench land,  
near W. rim of bench, bearing  
N. and S. Asc. slightly over E.  
slope. Thence,

West, 2.94 chs. to a point on W. rim of bench, which is  
0.56 chs. E. of the true point for cor. of secs. 23, 24, 25  
and 26. The sec. cor. point being inaccessible, estab-  
lish a witness cor. at the bench rim 0.56 chs. N.  $89^{\circ}59'E.$  of cor.  
point as follows:

Set an iron post, 3 ft. long. 2 ins. in diam., on surface  
rock, deposit a stone, marked with a cross (x) at base of  
post, and raise a mound of stone around post, for witness  
cor. to cor. of secs. 23, 24, 25 and 26, marked on brass  
cap,



from which,  
A pinyon, 20 ins. in diam., brs. N.  $84^{\circ}$  E., 90 lks.  
dist., marked T31N R13W S24 WC BT.  
A pinyon, 20 ins. in diam., brs. S.  $82\frac{1}{2}^{\circ}$  E., 259 lks.  
dist., marked T31N R13W S25 WC BT,

80.00

No other bearing trees available.  
True point for cor. of secs. 23, 24, 25 and 26 falls on pre-  
cipitous SW. slope, where it is inaccessible; therefore,  
establish witness cor. at 56 lks. N.  $89^{\circ}59'E.$  as de-  
scribed above.

Land, gently rolling and mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush.

40.00  
80.04

N.  $89^{\circ}50'E.$ , on a random line, bet. secs. 24 and 25.  
Beginning at the witness cor. 56 lks. N.  $89^{\circ}59'E.$ , but counting meas-  
urement from true point for cor. of secs. 23, 24, 25 and 26.

Set temp.  $\frac{1}{4}$  sec. cor.  
Fall 21 lks. N. of the cor. of secs. 19, 24, 25 and 30, on E.  
bdy. of Tp., established under current Group No. 74,  
which is an iron post, 2 ins. in diam., projecting 12  
ins. above ground, firmly set, properly marked on

18. Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Chains.

brass cap, and witnessed by four properly marked bearing trees, one each NE., SE., SW. and NW. of cor.

Thence, S. 89° 59' W., on a true line, bet. secs. 24 and 25.

Over nearly level bench land, thru. dense timber and undergrowth.

Ascend slightly over E. slope, to  $\frac{1}{4}$  sec. cor.

36.00 Old road, brs. SE. and NW.

40.02 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 24  
S 25  
1923

from which,

A pinyon, 8 ins. in diam., brs. N. 13 $\frac{1}{2}$ ° E., 47 lks. dist., marked  $\frac{1}{4}$  S 24 BT.

A cedar, 14 ins. in diam., brs. S. 19° W., 55 lks. dist., marked  $\frac{1}{4}$  S 25 BT.

Continue over nearly level bench land.

Ascend slightly over E. slope, to

79.49 West rim of bench, brs. NW. and SE. The witness cor. to cor. of secs. 23, 24, 25 and 26. Leave bench. Enter mountainous land. Discontinue chaining on sec. line. Measurement to sec. cor. point by offset from sec. line bet. secs. 25 and 26, as hereinbefore described.

Descend over precipitous SW. slope, to

80.04 The true point for cor. of secs. 23, 24, 25 and 26 falls on precipitous SW. slope, where it is inaccessible. Witness rd. 56 lks. N. 89° 59' E., as hereinbefore described.

Land, nearly level.

Soil, rocky and gravelly, 3rd and 4th rate.

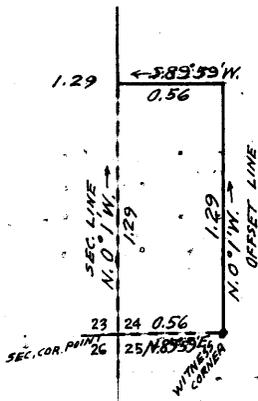
Timber, cedar and pinyon.

Undergrowth, sagebrush and yucca.

-----  
N. 0° 1' W., bet. secs. 23 and 24.

Over mountainous land, thru. scattering timber & undergrowth.

The true point for cor. of secs. 23, 24, 25 and 26 being inaccessible, measure the beginning of this line by offset as follows:



From the witness cor. to cor. of secs. 23, 24, 25 & 26, which is 56 lks. N. 89° 59' E. of cor. point.

N. 0° 1' W., 1.29 chs. on offset line in sec. 24, parallel to, and 56 lks. E. of sec. line, bet. secs. 23 & 24. Over nearly level bench land, thru. dense timber and undergrowth. Asc. slightly over E. slope. Thence, S. 89° 59' W., 0.56 chs. on offset line in sec. 24, over nearly level bench land, ascending slightly over E. slope. Return to point on sec. line, bet. secs. 23 and 24, at

1.29 Offset point at W. rim of bench, bearing NW. and SE. The sec. line leaves mountainous land, scattering timber and undergrowth at this point, and enters nearly level bench land and dense timber and undergrowth.

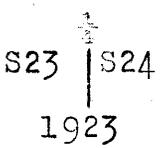
Continue measurement on sec. line.

Ascend gradually over E. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to bed rock, supported in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on brass cap,

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 19

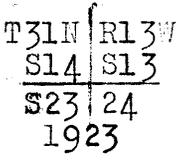
Chains.



from which,  
 A cedar, 26 ins. in diam., brs. S. 51° E., 56 lks.  
 dist., marked  $\frac{1}{4}$  S 24 BT.  
 A cedar, 30 ins. in diam., brs. N. 59 $\frac{1}{2}$ ° W., 79 lks.  
 dist., marked  $\frac{1}{4}$  S 23 BT.

Continue over nearly level bench land, thru dense timber and undergrowth.

80.00 Descend slightly over E. and NE. slopes, to.  
 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,

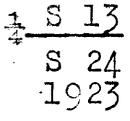


from which,  
 A cedar, 12 ins. in diam., brs. N. 59 $\frac{1}{2}$ ° E., 47 lks.  
 dist., marked T31N R13W S13 BT.  
 A cedar, 14 ins. in diam., brs. S. 56 $\frac{1}{2}$ ° E., 31 lks.  
 dist., marked T31N R13W S24 BT.  
 A cedar, 26 ins. in diam., brs. S. 46 $\frac{1}{2}$ ° W., 112 lks.  
 dist., marked T31N R13W S23 BT.  
 A cedar, 10 ins. in diam., brs. N. 58° W., 37 lks.  
 dist., marked T31N R13W S14 BT.

Land, mountainous and nearly level.  
 Soil, gravelly and rocky, 3rd rate.  
 Timber, cedar.  
 Undergrowth sagebrush and yucca.

40.00 N. 89° 59' E., on a random line, bet. secs. 13 and 24.  
 80.06 Set temp. sec. cor.  
 Fall 11 lks. S. of the cor. of secs. 13, 18, 19 and 24, on E. bdy. of Tp., established under current Group No. 74, which is an iron post, 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by four properly marked bearing trees, one each NE., SE., SW. and NW. of cor.

Thence,  
 S. 89° 54' W., on a true line, bet. secs. 13 and 24.  
 Over gently rolling bench land, thru dense timber and undergrowth.  
 7.50 Descend 20 ft., over NW. slope.  
 Wash, 10 lks. wide, course NE.  
 Ascend gradually over E. slope.  
 30.00 Enter nearly level land.  
 Ascend slightly over E. slope, to  $\frac{1}{4}$  sec. cor.  
 32.60 Old road, brs. N. and S.  
 40.03 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,



from which,  
 A pinyon, 14 ins. in diam., brs. N. 23 $\frac{1}{4}$ ° E., 48 lks.  
 dist., marked  $\frac{1}{4}$  S 13 BT.  
 A pinyon, 14 ins. in diam., brs. S. 20 $\frac{1}{2}$ ° W., 74 lks.  
 dist., marked  $\frac{1}{4}$  S 24 BT.

Continue over nearly level bench land, thru dense timber and undergrowth.

80.06 Ascend slightly over E. and NE. slopes, to  
 The cor. of secs. 13, 14, 23 and 24.  
 Land, gently rolling and nearly level.  
 Soil, gravelly and rocky, 3rd and 4th rate.  
 Timber, cedar and pinyon.

20 Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Undergrowth, scrub oak and sagebrush.

---

N.0°1'W., bet. secs. 13 and 14.  
 Over nearly <sup>level</sup> bench land, thru. dense timber and under-  
 growth. Descend 48 ft. over NE. and N. slopes, to  
 32.27 Wash, 20 lks. wide, course W. Enter gently rolling land.  
 Ascend 41 ft., over SW. slope.  
 33.00 Fence, brs. E. and W.  
 35.20 Top of ascent, brs. NW. and SE. Enter nearly level bench  
 land.  
 Ascend slightly over SW. slope, 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,  

$$\begin{array}{c} \frac{1}{4} \\ S14 | S13 \\ 1923 \end{array}$$
 from which,  
 A cedar, 20 ins. in diam., brs. N.9°E., 42 lks.  
 dist., marked  $\frac{1}{4}$  S 13 BT.  
 A cedar, 8 ins. in diam., brs. N.51 $\frac{1}{2}$ °W., 51 lks.  
 dist., marked  $\frac{1}{4}$  S 14 BT.  
 Continue over nearly <sup>level</sup> bench land.  
 Descend slightly over W. and NW. slopes, to  
 67.14 Rim of bench, brs. NW. and SE. Enter rolling land.  
 Descend 80 ft., over NE. slope, to  
 74.50 Wash, 5 lks. wide, course NW. Desc. 34 ft. over NW. slope, to  
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the  
 ground for cor. of secs. 11, 12, 13 & 14, marked on brass cap,  

$$\begin{array}{c} T31N | R13W \\ S11 | S12 \\ S14 | S13 \\ 1923 \end{array}$$
 from which,  
 A cedar, 14 ins. in diam., brs. N.57 $\frac{1}{2}$ °E., 107 lks.  
 dist., marked T31N R13W S12 BT.  
 A cedar, 8 ins. in diam., brs. S.71 $\frac{1}{2}$ °E., 12 lks.  
 dist., marked T31N R13W S13 BT.  
 A cedar, 8 ins. in diam., brs. S.77 $\frac{1}{2}$ °W., 71 lks.  
 dist., marked T31N R13W S14 BT.  
 A cedar, 6 ins. in diam., brs. N.54 $\frac{1}{2}$ °W., 83 lks.  
 dist., marked T31N R13W S11 BT.  
 Land, nearly level, gently rolling and rolling.  
 Soil, rocky clay, 3rd rate.  
 Timber, cedar and pinyon.  
 Undergrowth, scrub oak and buck brush.

---

N.89°54'E., on a random line, bet. secs. 12 and 13.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 79.98 Fall 9 lks. S. of the cor. of secs. 7, 12, 13 and 18, on E. bdy.  
 of Tp., established under current Group No. 74, which is  
 an iron post, 2 ins. in diam., projecting 12 ins. above  
 ground, firmly set, properly marked on brass cap, and  
 witnessed by four properly marked bearing trees, one  
 each NE., SE., SW. and NW. of cor.  
 Thence,  
 S.89°50'W., on a true line, bet. secs. 12 and 13.  
 Over nearly level land, thru. dense timber and under-  
 growth.  
 Ascend slightly over E. slope, to  
 39.99 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap,  

$$\begin{array}{c} \frac{1}{4} S 12 \\ S 13 \\ 1923 \end{array}$$
 from which,

Survey of part of the Subdivision lines of T.31 N., R.13 W. 21

Chains.	
	A cedar, 12 ins. in diam., brs. N. 24 $\frac{1}{2}$ ° W., 70 lks. dist., marked $\frac{1}{4}$ S 12 BT.
	A cedar, 8 ins. in diam., brs. S. 1° W., 19 lks. dist., marked $\frac{1}{4}$ S 13 BT.
	Continue over nearly level bench land, thru. dense timber and undergrowth.
70.00	Descend slightly over W. slope, to West rim of bench, brs. NW. and SE. Leave bench. Enter mountainous land.
79.74	Descend 136 ft., over SW. slope, to Wash, 10 lks. wide, course NW. Asc. slightly over N. slope, to
79.98	The cor. of secs. 11, 12, 13 and 14. Land, nearly level and mountainous. Soil, rocky clay, 3rd rate. Timber, cedar and pinyon. Undergrowth, scrub oak.
-----	
	N. 0° 1' W., bet. secs. 11 and 12. Over mountainous land, thru. dense timber and undergrowth. Descend slightly to
.46	Wash, 10 lks. wide, course NW. Ascend 15 ft., over SW. slope.
6.40	Point of low short spur, slopes W. Descend gradually over NW. and W. slopes, to
10.00	Spur, slopes NW. Descend gradually over E. slope, to
19.10	Descend 180 ft., over NE. slope.
33.20	Wash, 20 lks. wide, in gulch, course NW. Ascend 43 ft., over SW. slope.
34.60	Descend 51 ft., over NW. slope.
38.50	Wash, 20 lks. wide, in gulch, course SW. Ascend 64 ft., over S. slope, 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,
	$\frac{1}{4}$ S11   S12 1923
	from which,
	A cedar, 14 ins. in diam., brs. N. 28 $\frac{1}{2}$ ° E., 111 lks. dist., marked $\frac{1}{4}$ S12 BT.
	A cedar, 14 ins. in diam., brs. S. 89 $\frac{1}{2}$ ° W., 27 lks. dist., marked $\frac{1}{4}$ S 11 BT.
	Ascend 165 ft., over S. slope.
50.00	Point of spur, slopes SW. Desc. 23 ft., over NW. slope.
55.10	Ascend 35 ft., over SW. slope.
61.90	Descend 72 ft., over NW. slope, to
72.37	Rim of canyon, brs. NW. & SE. Desc. 276 ft., over steep NE. slope, to
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked on brass cap,
	T31N   R13W S 2   S 1 S11   S12 1923
	No bearing trees available. Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Land, mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, scrub oak and sagebrush.
-----	
40.00	N. 89° 50' E., on a random line, bet. secs. 1 and 12. Set temp. $\frac{1}{4}$ sec. cor.
79.90	Fall 9 lks. S. of the cor. of secs. 1, 6, 7 and 12, on E. bdy. of Tp., established under current Group No. 74, which

## 22 Survey of part of Subdivision lines of T.31 N. R.13 W.

Chains.

	<p>which is an iron post, 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by four properly marked bearing trees, one each NE., SE., SW. and NW, of cor.</p> <p>Thence S.89°46'W., on a true line, bet. secs.1 and 12. Over gently rolling land, thru. dense timber and undergrowth. Descend slightly over S.slope. Draw, 2.00 chs.wide, course SE. Ascend 30 ft., over SE.slope.</p>
2.00	Draw, 2.00 chs.wide, course SE.
12.00	Ascend 30 ft., over SE.slope.
33.50	Descend gradually over S. and SW. slopes. Wash, 10 lks.wide, course NW. Enter mountainous land. Ascend 280 ft. over NE.slope, to
39.95	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,
	$\frac{1}{4} \text{ S } 1$ $\text{S } 12$ $1923$
	<p>from which, A cedar, 16 ins. in diam., brs.N.15°E., 27 lks. dist., marked <math>\frac{1}{4}</math> S 1 BT. A pinyon, 16 ins. in diam., brs.S.40<math>\frac{1}{2}</math>°W., 100 lks. dist., marked S 12 BT.</p> <p>Ascend 230 ft., over NE.slope.</p>
51.50	Spur, slopes NW.
58.70	Descend 95 ft., over SW.slope, to Draw, course NW.
61.36	Descend 47 ft., over NW.slope, to Draw, course NW.
65.60	Ascend 63 ft., over NE.slope. Spur, slopes NW.
79.60	Descend 410 ft., over SW.slope, to Wash, 20 lks.wide, course NW.
79.90	Ascend 10 ft., over NE.slope, to The cor. of secs.1, 2, 11 and 12. Land, gently rolling and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, sagebrush and scrub oak.
40.00	N.0° 1'W., on a random line, bet. secs. 1 and 2. Set temp. $\frac{1}{4}$ sec.cor.
80.18	Intersect the cor. of secs. 1, 2, 35 and 36, on N, bdy. of Tp., which is an iron post, described in Book "C."
	<p>Thence, S.0°1'E., on a true line, bet. secs.1 and 2. Over mountainous land, thru. scattering timber and undergrowth. Descend 10 ft., over SE.slope.</p>
.18	Wash. 20 lks.wide, course E.
6.00	Ascend 70 ft., over N.slope, to N.edge of top of spur, sloping E. Thence across top of spur.
10.00	S.edge of top of spur; leave spur. Descend 96 ft., over SE and E.slopes, to
21.50	Spur, slopes SE.
23.70	Descend 48 ft., over SW. slope. Wash, 30 lks.wide, course SE.
29.60	Descend 74 ft., over E.slope, to Ascend 70 ft., over NE.slope.
35.40	Point of spur, slopes E. Descend 175 ft., over SE.slope, to
40.18	Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone, around post, for $\frac{1}{4}$ sec.cor., marked on brass cap.

Survey of part of Subdivision lines of Township 31 North, Range 13 W.

Chains.

S 2 1/4 S 1  
1923

from which,  
A cedar, 12 ins. in diam., brs. S. 69 1/2° E., 102  
lks. dist., marked 1/4 S 1 BT.  
No other bearing tree available.

- 45.50 Descend 140 ft., over SE. slope, to Wash, 40 lks. wide in bottom of ravine, course SW.
  - 46.90 Descend 10 ft., over W. slope, to Same wash, course SE.
  - 48.80 Descend 14 ft., over SE. slope, to Same wash, course SW. Leave bottom of ravine.
  - 50.10 Ascend 54 ft., over NW. slope.
  - 61.40 Descend 80 ft., over W. slope.
  - 68.20 Ascend 285 ft., over NW. slope.
  - Point of spur, slopes SW.
  - 78.10 Descend 195 ft., over SW. slope, to Wash, 30 lks. wide, course SW.
  - 79.70 Descend slightly over W. slope, to Wash, 30 lks. wide, course NW.
  - 80.18 Ascend 12 ft., over NE. slope, to The cor. of secs. 1, 2, 11 and 12.
- Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, sagebrush, black brush and cactus.

-----  
From the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., hereinbefore described, N. 0° 1' W., bet. secs. 34 and 35. Over nearly level bench land, thru. scattering timber and dense undergrowth.

- 33.20 Ascend slightly over W. slope, to Wash, 20 lks. wide, course W. Enter gently rolling land.
- 40.00 Ascend 25 ft., over SW. slope, to Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to bed rock, deposit a stone marked with a cross (x) at base of post, and raise a mound of stone around post, for 1/4 sec. cor., marked on brass cap,

1/4  
S 34 1/4 S 35  
1923

- 46.55 No bearing trees available. Ascend gradually over W. slope, to Wash, 20 lks. wide, course W.
- 63.25 Ascend 35 ft., over SW. slope. Enter mountainous land.
- 68.35 Descend 60 ft., over N. slope, to Wash, 20 lks. wide, course W.
- 70.85 Ascend 15 ft., over W. slope, to Wash, 20 lks. wide, course W.
- 80.00 Ascend 75 ft., over SW. and W. slopes, to Set an iron post, 3 ft. long, 2 ins. in diam., 16 ins. in the ground to bed rock, deposit a stone marked with a cross (x) at base of post, and raise a mound of stone around post, for cor. of secs. 26, 27, 34 and 35, marked on brass cap,

T 31 N | R 13 W  
S 27 | S 26  
S 34 | S 35  
1923

No bearing trees available.  
Land, nearly level, gently rolling and mountainous.



Survey of part of Subdivision lines of T. 31 N., R. 13 W. 25

Chains.

25.50 Wash, 30 lks. wide, course W.  
Ascend 75 ft., over SW. slope.  
31.00 Trail, brs. NE. and SW.  
36.50 Descend 40 ft., over NW. slope, to  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

S27 | S26

1923

No bearing trees available. Raise a mound of stone, 3 ft. base,  $2\frac{1}{2}$  ft. high, W. of cor.  
Descend 60 ft., over NW. slope.  
45.85 Wash, 30 lks. wide, course NW.  
Ascend 27 ft., over SW. slope.  
49.70 Descend 160 ft., over NW. slope.  
62.85 Wash, 50 lks. wide in head of short side canyon, course W.  
Ascend 60 ft., over SW. slope.  
65.20 Descend 90 ft., over NW. slope.  
72.00 Wash, 50 lks. wide, course W. Enter scattering timber.  
Ascend 100 ft., over SW. slope, to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 14 ins. in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for cor. of secs. 22, 23, 26 and 27, marked on brass cap,

T31N | R13W

S22 | S23

S27 | S26

1923

from which,

A pinyon, 14 ins. in diam., brs. N.  $1\frac{1}{2}^{\circ}$  E., 220 lks. dist., marked T31N R13W S23 BT.

A pinyon, 10 ins. in diam., brs. S.  $22\frac{1}{2}^{\circ}$  W., 278 lks. dist., marked T31N R13W S27 BT.

No other bearing trees available.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinyon in N. 8 chs. None elsewhere.

Undergrowth, black brush.

40.00 S.  $89^{\circ}54'E$ ., on random line, bet. secs. 23 and 26.

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

Discontinue chaining as the random sec. line beyond this point crosses precipitous slopes and cliffs. Triangulate as described as follows, and as shown on the diagram hereon:

Set flag "A" on the witness cor. to cor. of secs. 23, 24, 25 and 26, which is 56 lks. E. of cor. point.

From a point "B," 67 lks. S.  $0^{\circ}1'E$ . from cor. of secs. 22, 23, 26 & 27, measure a Base S.  $0^{\circ}1'E$ ., 41.15 chs. along sec. line, bet. secs. 26 & 27 to point "C."

Bearing "B-A" = N.  $89^{\circ}37'E$ .

Bearing "C-A" = N.  $62^{\circ}38'E$ .

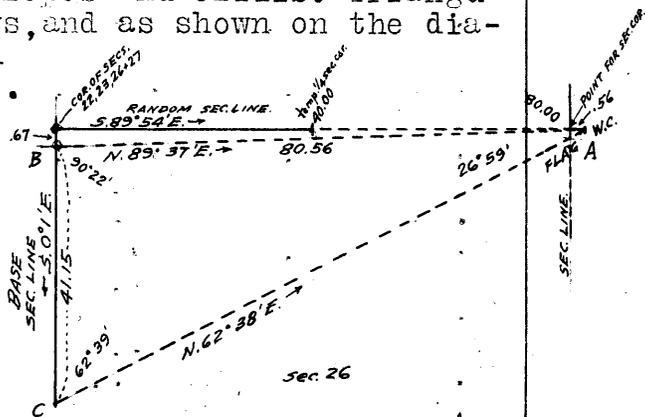
Vertical angle from "B" to "A" is  $+19^{\circ}$ .

Dist. "B-A" triangulated = 80.56 chs. N.  $89^{\circ}37'E$ .

Latitude of "B-A" = 0.54 chs. North.

Departure of "B-A" = 80.56 chs. East.

The length of line bet. secs. 23 and 26 is therefore 80.56 chs. - 0.56 chs. = 80.00 chs.



26 Survey of part of Subdivision lines of T1. 31 N., R. 13 W.

Chains.

The latitude of random sec. line S. 89° 54' E. = 0.14 chs. S.  
The latitude of a line connecting the cor. of secs. 22, 23, 26 and 27 with the point for cor. of secs. 23, 24, 25 and 26 is therefore 0.67 chs, - 0.54 chs. = 0.13 chs. South.

80.00 The latitude of the random sec. line being 0.14 chs. South, said line extended would at Fall 1 lk. S. of the true point for cor. of secs. 23, 24, 25 and 26.

Thence, N. 89° 54' W., on a true line, bet. secs. 23 and 26. Over mountainous land, thru. scattering timber and dense undergrowth, across a series of cliffs, bearing NW. and SE., facing SW. Measurement to 1/4 sec. cor. by triangulation hereinbefore described.

40.00 Descend 1365 ft., to Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bed rock, supported in a mound of stone for 1/4 sec. cor., marked on brass cap,

S 23  
S 26  
1923

from which,

A pinyon, 16 ins. in diam., brs. N. 23° W., 128 lks. dist., marked 1/4 S 23 BT.

A pinyon, 14 ins. in diam., brs. S. 51° E., 273 lks. dist., marked 1/4 S 26 BT.

Continue line and measurement by chaining.

52.00 Descend 175 ft., over S. slope, to Spur, slopes SW.

60.50 Descend 117 ft., over NW. slope.

67.00 Wash, 20 lks. wide in gulch, course SW.

Ascend 90 ft., over SE. slope.

Point of spur, slopes SW.

77.40 Descend 252 ft., over W. slope to sec. cor.

Trail, brs. SE. and NW.

80.00 The cor. of secs. 22, 23, 26 and 27.

Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush.

N. 0° 1' W., bet. secs. 22 and 23.

Over mountainous land, thru. scattering timber and dense undergrowth.

Descend 28 ft., over NW. slope.

1.20 Trail, brs. SE. and NW. Extends NW. to Burnt Spring in bottom of canyon, about 25 chs. dist.

9.70 Wash, 30 lks. wide, course W.

Ascend gradually over W. slope, to

15.84 Wash, 30 lks. wide; course W.

Ascend 40 ft., over SW. slope.

26.00 Descend 53 ft., over N. slope.

28.20 Wash, 150 lks. wide, course W.

Ascend 24 ft., over SW. slope, to

31.00 Draw. course SW.

Ascend 64 ft., over SW. slope, to

39.00 Descend 10 ft., over W. slope, to

40.00 Set an iron post; 3 ft. long, 1 in. in diam., 14 ins. in the ground to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,

S 22 | S 23

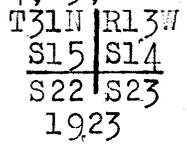
1923

from which,

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 27

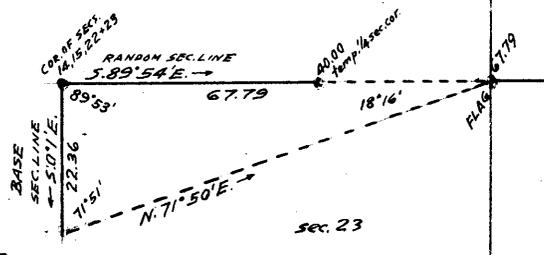
Chains.

A pinyon, 18 ins. in diam., brs. S. 69 1/4° E., 58 lks. dist., marked 1/4 S 23 BT.  
 A pinyon, 12 ins. in diam., brs. S. 82 1/4° W., 86 lks. dist., marked 1/4 S 22 BT.  
 Ascend 32 ft., over SW. slope.  
 46.10 Descend 70 ft., over NW. slope.  
 55.40 Wash, 150 lks. wide, course SW. Trail, brs. NE. and SW.  
 Ascend 80 ft., over SE. slope, to  
 66.80 Wash, 100 lks. wide, course SE.  
 Ascend 75 ft., over SE. slope, to  
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for cor. of secs. 14, 15, 22 and 23, marked on brass cap,



No bearing trees available. Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

40.00 S. 89° 54' E., on a random line, bet. secs. 14 and 23. Set temp. 1/4 sec. cor. Beyond this point, precipitous ascent over cliffs prevents continuation of chaining on random sec. line; therefore, triangulate as follows:



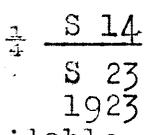
Set flag ahead on random sec. line at top of cliffs.  
 From cor. of secs. 14, 15, 22 & 23, measure a Base, S. 0° 1' E., 22.36 chs. along the sec. line, bet. secs. 22 & 23.  
 From S. end of Base, the flag brs. N. 71° 50' E.  
 From cor. of secs. 14, 15, 22 and 23 the vertical angle to flag is † 20°.

Dist. by triangulation = 67.79 chs. S. 89° 54' E.  
 67.79 Triangulation point. Continue line and measurement by chaining.

80.10 Fall 7 lks. S. of the cor. of secs. 13, 14, 23 and 24. Thence, N. 89° 57' W., on a true line, bet. secs. 14 and 23. Over nearly level bench land, thru dense timber and undergrowth.

12.31 Triangulation point. Top of cliff, 200 ft. high, bearing N. and S., facing W. forming W. rim of bench. Leave dense, and enter scattering timber. Enter mountainous land. Discontinue chaining. Measurement to 1/4 sec. cor. by triangulation, hereinbefore described.

40.05 Descend 1080 ft., over precipitous W. and SW. slopes, to Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,



No bearing trees available. Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.  
 Continue line and measurement by chaining.

42.60 Descend 137 ft., over steep SW. slope. Wash, 30 lks. wide, in gulch, course NW.  
 Ascend 30 ft., over NE. slope.  
 44.00 Descend 204 ft., over NW. slope, to  
 52.60 Same wash, 100 lks. wide, course SW.

28 Survey of part of Subdivision lines of T.31 N., R. 13 W.

Chains.  
 73.80 Descend 285 ft., over SW.slope.  
 76.00 Trail, brs.N. and S.  
 80.10 Wash, 150 lks.wide, course S.  
 Ascend 43 ft., over SE.slope, to  
 The cor.of secs.14,15, 22 and 23.  
 Land, nearly level and mountainous.  
 Soil, gravelly and rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

-----  
 N.0°1'W., bet. secs.14 and 15.  
 Over mountainous land, thru. scattering timber and dense  
 undergrowth.  
 8.80 Ascend 20 ft., over SE.slope, to  
 Wash, 30 lks.wide, in bend, course SE.from NE.  
 10.40 Ascend 25 ft., over SE.slope, to  
 Same wash, course SE.  
 16.60 Ascend 65 ft., over SE.slope, to  
 Wash, 20 lks.wide, course SE.  
 20.60 Ascend 40 ft., over SE.slope, to  
 Wash, 30 lks.wide, course SE.  
 26.30 Ascend 85 ft., over SE.slope, to  
 Wash, 30 lks.wide, course SE.  
 37.70 Ascend 178 ft., over SW. slope.  
 Spur, slopes SE.  
 40.00 Ascend 10 ft., over E.slope, 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,

S15 | S14

1923

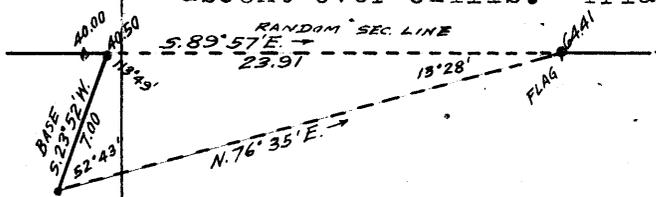
from which,  
 A cedar, 10 ins. in diam., brs. S.77°E., 22 lks.  
 dist., marked  $\frac{1}{4}$ S 14 BT.  
 A cedar, 26 ins. in diam., brs. S.35 $\frac{1}{2}$ °W., 81 lks.  
 dist., marked  $\frac{1}{4}$ S 15 BT.

59.80 Ascend 388 ft., over E. and SE.slopes.  
 68.00 Ascend 176 ft., over SW.slope.  
 72.90 Spur, slopes SE.  
 Descend 150 ft., over NE.slope.  
 80.00 Wash, 20 lks.wide, in gulch, course SE.  
 Ascend 310 ft., over SE.slope, to  
 Set an iron post, 3 ft.long, 2 ins. in diam., 20 ins. in  
 the ground to bed rock, deposit a stone, marked with a  
 cross (x) at base of post, and raise a mound of stone  
 around post, for cor.of secs.10,11,14 and 15, marked  
 on brass cap,

T31N | R13W  
 S10 | S11  
 S15 | S14  
 1923

No bearing trees available.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, sagebrush, scrub oak and manzanita.

-----  
 40.00 S.89°57'E., on random line, bet.secs.11 and 14.  
 Set temp.  $\frac{1}{4}$  sec.cor.  
 40.50 Discontinue chaining at this point owing to precipitous  
 ascent over cliffs. Triangulate as follows:



Measure a Base S.23°52'W.  
 7.00 chs. It is impractical  
 to chain a longer Base.  
 Set flag ahead on random  
 sec.line at top of cliffs,  
 the vertical angle to which

Survey of part of Subdivision lines of T.31 N. R.13 W. 29

Chains.

is +28°.

From SW.end of Base,the flag brs.N.76°35'E.

Dist. on random sec.line = 40.50 chs.S.89°57' E.

Distance triangulated = 23.91 chs.S.89°57'E.

Total distance, = 64.41 chs.S.89°57'E.

64.41 Triangulation point. Continue line and measurement by chaining.

80.04 Intersect the cor.of secs.11,12,13 and 14.

Thence,  
N.89°57'W., on a true line, bet.secs.11 and 14.  
Over mountainous land,thru.dense timber and undergrowth.  
Ascend 50 ft., over NE.slope.

2.20 Spur.slopes NW.

Descend 185 ft., over W.slope.

12.85 Wash,10 lks.wide, course NW.

Ascend 12 ft.,over NE.slope.

14.34 Point of spur, slopes NW.

Descend 25 ft.,over W.slope,to

15.63 Triangulation point at top of cliff,200 ft.high, bearing N.and S.,facing W.

Discontinue chaining. Measurement of 23.91 chs.by triangulation, hereinbefore described.

Descend 840 ft., over precipitous W.slope,to

39.54 Triangulation point in wash, 20 lks.wide, course SW. Continue line and measurement by chaining.

Ascend 10 ft., over S.slope,to

40.02 Set an iron post, 3 ft.long 1 in. in diam., 24 ins.in the ground for  $\frac{1}{4}$  sec.cor., marked on brass cap,

$\frac{1}{4}$  S 11  
S 14  
1923

from which,  
A pinyon,12 ins. in diam.,brs.N.39°E., 20 lks. dist., marked  $\frac{1}{4}$  S 11 BT.  
A pinyon,14 ins. in diam., brs.S.42 $\frac{3}{4}$ °W.,64 lks. dist., marked  $\frac{1}{4}$  S 14 BT.

Descend 55 ft., over SW.slope.

45.00 Center of wash, 200 lks.wide, course S.

Ascend 795 ft., over SE.slope to sec.cor.

45.83 Trail,brs.N.and S.

80.04 The cor.of secs.10,11,14 and 15.

Land,mountainous.  
Soil,rocky, 3rd and 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush, sagebrush, scrub oak and cranberry.

---

N.0°1'W., bet.secs. 10 and 11.  
Over mountainous land, thru. scattering timber and dense undergrowth.

Ascend 360 ft., over SE.slope.

10.20 Short spur,sloping NE. from bench.

Descend 140 ft., over NW.slope.

20.76 Wash,20 lks.wide,in gulch, course NE.

Ascend 90 ft., over SE.slope.

28.20 Sharp spur,slopes NE.

Descend 435 ft.,over NW.slope.

40.00 True point for  $\frac{1}{4}$  sec.cor. falls in center of wash,100 lks.wide,course NE.,where cor.monument would be liable to destruction; therefore, at

40.65 A point 40 ft. above wash, Set an iron post, 3 ft.long, 1 in.in diam.,12 ins.in ground to bed rock,supported in a mound of stone, for witness cor.to the  $\frac{1}{4}$  sec.cor., marked on brass cap,

## 30. Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Chains.

from which,

A pinyon, 10 ins. in diam., brs. S.  $50\frac{1}{2}^{\circ}$  E., 16 lks. dist., marked WC  $\frac{1}{4}$ S 11 BT.A pinyon, 18 ins. in diam., brs. N.  $9\frac{3}{4}^{\circ}$  W., 82 lks. dist., marked WC  $\frac{1}{4}$ S 10 BT.

Ascend 480 ft., over SE. slope, to

53.85 Lower rim of bench, brs. NE, and SW. Enter nearly level land.

Ascend slightly over E. slope.

64.00 Enter gently rolling land on lower bench.

Descend 30 ft., over NE. slope.

71.40 Wash, 10 lks. wide, course E. Thence over nearly level land on lower bench.

Ascend slightly to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 4 ins. in the ground to bed rock, supported in a mound of stone, for cor. of secs. 2, 3, 10 and 11, marked on brass cap,

T31N R13W

S 3 | S 2

S10 | S11

1923

from which,

A pinyon, 12 ins. in diam., brs. N.  $12\frac{3}{4}^{\circ}$  E., 117 lks. dist., marked T31N R13W S2 BT.A pinyon, 14 ins. in diam., brs. S.  $51\frac{1}{2}^{\circ}$  E., 87 lks. dist., marked T31N R13W S11 BT.A cedar, 14 ins. in diam., brs. S.  $59^{\circ}$  W., 112 lks. dist., marked T31N R13W S10 BT.A cedar, 12 ins. in diam., brs. N.  $19\frac{1}{4}^{\circ}$  W., 45 lks. dist., marked T31N R13W S3 BT.

Land, mountainous, nearly level and gently rolling.

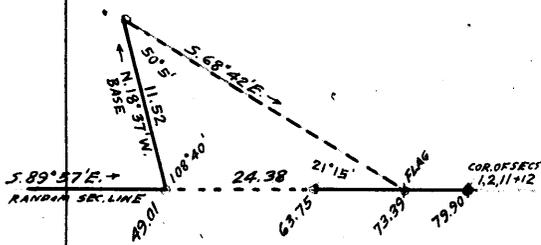
Soil, rocky, 4th rate.

Timber, cedar and pinyon.

Undergrowth, sagebrush, yucca and scrub oak.

40.00 S.  $89^{\circ}57'$  E., on random line, bet. secs. 2 and 11.Set temp.  $\frac{1}{4}$  sec. cor.

49.01 Point of sharp spur, sloping SE. Beyond this point, the random line crosses a canyon with precipitous sides over the NW. or right side of which chaining is impracticable; therefore, triangulate as follows:

Measure a base, N.  $18^{\circ}37'$  W., 11.52 chs. along top of spur.

Set flag ahead on SE. or left side of canyon.

From NW. end of Base, the flag brs. S.  $68^{\circ}42'$  E.From point on random sec. line at SE. end of Base, the vertical angle to flag is -  $11^{\circ}$ .Dist. on random sec. line = 49.01 chs. S.  $89^{\circ}57'$  E.Distance triangulated = 24.38 chs. S.  $89^{\circ}57'$  E.Total distance = 73.39 chs. S.  $89^{\circ}57'$  E.By return measurement = 9.64 chs. N.  $89^{\circ}57'$  W.Dist. to bottom of canyon = 63.75 chs. S.  $89^{\circ}57'$  E.

63.75 Bottom of canyon, course SW. Continue line and measurement by chaining.

73.39 Triangulation point. Continue chaining.

79.90 Intersect the cor. of secs. 1, 2, 11 and 12.

Thence,

N.  $89^{\circ}57'$  W., on true line, bet. secs. 2 and 11.

Over mountainous land, thru. scattering timber and undergrowth.

Ascend 40 ft., over steep NE. slope, to

1.50 SE. or left rim of canyon, brs. NW and S. Thence over N. slope. Asc. 10 ft. to

BOOK 8037

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 31

Chains.

- 2.50 Same canyon rim, brs. NE, and SW.  
Descend 415 ft., over steep broken NW. slope to bottom of canyon.
- 6.51 Triangulation point. Continue chaining.
- 16.15 Wash, 50 lks. wide in bottom of canyon, course SW. A trail bearing NE. and SW. follows the wash. Discontinue chaining. Measurement over the NW. or right side of canyon by triangulation; as hereinbefore described.
- 30.89 Ascend about 645 ft.; over precipitous SE. slope, to Triangulation point at SE. end of spur; which slopes SE. from bench.  
Continue line and measurement by chaining.
- 39.95 Descend 205 ft., over SW. slope, to Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor. marked on brass cap,

$\frac{1}{4}$  S 2  
 S 11  
 1923

from which,

A cedar, 8 ins. in diam., brs. N.  $26\frac{1}{2}^{\circ}$  W., 74 lks. dist., marked  $\frac{1}{4}$  S 2 BT.

A pinyon, 14 ins. in diam., brs. S.  $49\frac{1}{2}^{\circ}$  E., 80 lks. dist., marked S 11 BT.

- 44.00 Descend 105 ft., over SW. slope.
- Wash, 20 lks. wide, in bottom of canyon, course SE.
- Ascend 230 ft., over NE. slope.
- 50.90 South or right rim of canyon, brs. SE. and SW.
- Descend 63 ft., over NW. slope, to
- 56.20 Ascend 92 ft., over N. slope, near S. rim of canyon.
- 70.60 Ascend 202 ft., over steep NE. slope, to
- 79.10 South or right rim of canyon, brs. NW. and SE. Thence over nearly level bench.
- 79.90 The cor. of secs. 2, 3, 10 and 11.  
Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, sage brush and scrub oak.

- 
- 40.00 N.  $0^{\circ} 1' W.$ , on a random line, bet. secs. 2 and 3.  
Set temp.  $\frac{1}{4}$  sec. cor.
  - 80.23 Fall 19 lks. E. of the cor. of secs. 2, 3, 34 and 35 on N. bdy. of Tp.; described in Book "C."  
Thence,  
S.  $0^{\circ} 9' E.$ , on a true line, bet. secs. 2 and 3.  
Over rolling land; thru. dense timber and undergrowth.
  - 11.20 Descend 55 ft., over SW. slope.  
Draw, course SE.
  - 13.55 Ascend 15 ft., over NE. slope, to
  - 23.83 Descend gradually over E. slope, to
  - 30.00 Descend 54 ft., over SE. slope.  
Draw, course SE.
  - Ascend 16 ft., over NE. slope.
  - 32.60 Descend 37 ft., over E. slope, to
  - 40.23 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 3 | S 2  
 1923

from which,

A cedar, 30 ins. in diam., brs. S.  $38\frac{1}{2}^{\circ}$  E., 106 lks. dist., marked  $\frac{1}{4}$  S 2 BT.

A cedar, 36 ins. in diam., brs. N.  $42^{\circ}$  W., 18 lks. dist., marked S 3 BT.

32 Survey of part of Subdivision lines of T1 31 N., R.13 W.

Chains.

- 42.50 Descend slightly over E.slope, to Wash, 15 lks. wide, course SW.
- 50.69 Ascend 35 ft., over NW.slope, to Rim of bench, brs. NE. and SW. Thence over nearly level bench.
- 59.10 Descend slightly to Same bench-rim also N. or left rim of canyon, brs. E. and W. Enter mountainous land.
- 72.70 Descend 265 ft., over steep S.slope. Wash, 20 lks. wide, in bottom of canyon, course E.
- 79.80 Ascend 215 ft., over steep N.slope, to South or right rim of canyon, brs. NW and SE. Enter nearly level bench.
- 80.23 The cor. of secs. 2, 3, 10 and 11. Land, rolling, nearly level and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, sage brush, scrub oak and dwarf cedar.

From true point for cor. of secs. 3, 4, 33 and 34 on the S. bdy. of the Tp., hereinbefore described, N.0°2'W., bet. secs. 33 and 34.

Over mountainous land, along precipitous E.slope, on the W. or right side of Burnt Spring Canyon, thru scattering timber and undergrowth. The canyon side being impassable where the sec. line crosses, the measurement of such portion of the sec. line is accomplished by means of an offset line as follows:

From point on W. rim of canyon on S. bdy. of Tp., 8.53 chs. N.89°57'W. from point for cor. of secs. 3, 4, 33 and 34, N.0°2'W., 25.37 chs. on offset line in sec. 33, parallel to and 8.53 chs. W. from sec. line. Over

gently rolling bench land, thru scattering timber and undergrowth, along near E. rim of bench, or W. rim of Burnt Spring Canyon.

Asc. gradually over SE. slope. At 9.64 chs., the witness cor. to cor. of secs. 3, 4, 33 and 34, hereinbefore described, brs. S. 89°57'E., 5.00 chs. dist.

At 25.37 chs., this offset line intersects the W. rim of Burnt Spring Canyon, bearing NW & SE.

Thence,

N.89°57'W., 3.65 chs. on offset line in sec. 33, parallel to S. bdy. of Tp.

Over gently rolling bench land, thru scattering timber and undergrowth.

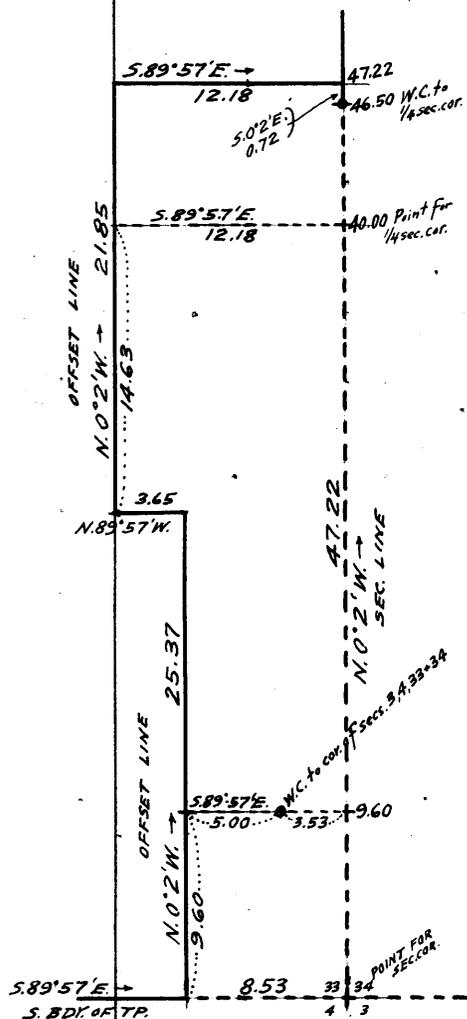
Asc. slightly over SE. slope to offset point. Thence,

N.0°2'W., 21.85 chs. on offset line in sec. 33, parallel to and 12.18 chs. W. from sec. line.

Over gently rolling bench land, thru scattering timber and undergrowth, near W. rim of Burnt Spring Canyon.

Asc. gradually over E. slope. At 4.50 chs., is the head of a gulch, course SE., where the canyon rim brs. NE. and SE.

At 8.10 chs. trail brs. NE. & SW. At 14.63 chs. the point for sec. cor. brs. S. 89°57'E., 12.18



Survey of part of Subdivision lines of T. 31 N., R. 13 W. 33

Chains.

chs.dist., but is inaccessible, and the dist. from the cor. point W. to the canyon rim exceeds the allowable limit for a witness cor. off line; therefore, continue measurement on offset line to offset point.

Thence, S.89°57'E. 12.18 chs. on offset line in sec. 33, parallel to S. bdy. of Tp. Over gently rolling bench land, thru scattering timber and undergrowth. Desc. slightly over SE. slope.

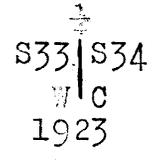
At 12.18 chs. the offset line intersects the sec. line, bet. secs. 33 and 34, at a point 47.22 chs. N.0°2'W. from true point for cor. of secs. 3, 4, 33 and 34.

Thence, S.0°2'E., 0.72 chs. on sec. line, bet. secs. 33 and 34, to intersection with the W. or right rim of Burnt Spring Canyon, bearing NE, and SW. at 46.50 chs. station on sec. line. This being the nearest accessible point on sec. line, establish the witness cor. to 1/4 sec. cor. of secs. 33 and 34 here as hereinafter described.

9.60 Inaccessible point on sec. line, from which the witness cor. to cor. of secs. 3, 4, 33 and 34, brs. N.89°57'W., 3.53 chs. dist.

22.00 (Approx.) Bottom of gulch, course SE. into bottom of Burnt Spring Canyon, about 20 chs. dist. Ascend over precipitous broken SE. slope, on W. side of canyon.

40.00 Point for 1/4 sec. cor. is inaccessible; therefore at West, or right rim of Burnt Spring Canyon, brs. NE, and SW. Set an iron post, 3 ft. long, 1 in. in diam., 28 ins. into a crack in surface rock at top of cliff, facing SE., for witness cor. to 1/4 sec. cor., marked on brass cap,



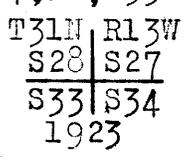
No bearing trees available. Mark a cross (x) on face of cliff, S. of post. Raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Continue measurement N.0°2'W., bet. secs. 33 and 34. Leave mountainous land and canyon, and enter gently rolling bench land.

47.22 Descend gradually over E. slope. Offset point. Continue measurement on sec. line.

51.92 Trail, brs. NE, and SW.

72.20 Descend 46 ft., over NE. slope.

77.20 Wash, 20 lks. wide, course E. Ascend 20 ft., over S. slope, to Set an iron post, 3 ft. long, 2 ins. in diam., 22 ins. in the ground to bedrock, supported in a mound of stone, for cor. of secs. 27, 28, 33 and 34, marked on brass cap.



from which, A cedar, 12 ins. in diam., brs. N.62°E., 149 lks. dist., marked T31N R13W S27 BT. A pinyon, 14 ins. in diam., brs. S.2°E., 216 lks. dist., marked T31N R13W S34 BT.

34 Survey of part of Subdivision lines of T.31 N., R. 13 W.

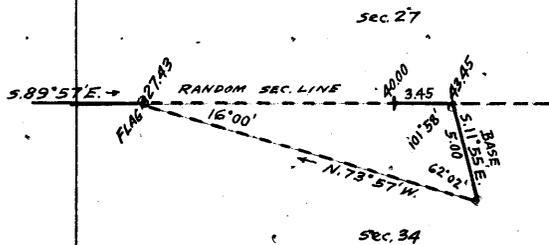
Chains.

A cedar, 12 ins. in diam., brs. S. 29 1/2° W., 66 lks. dist., marked T31N R13W S33 BT.  
 A cedar, 24 ins. in diam., brs. N. 54° W., 82 lks. dist., marked BT. (tree partly dead.)

Land, mountainous and gently rolling.  
 Soil, rocky, 3rd rate.  
 Timber, cedar.  
 Undergrowth, black brush.

27.43 S. 89° 57' E., on random line, bet. secs. 27 and 34.  
 West, or right rim of Burnt Spring Canyon, brs. N. and S.  
 Chaining on random sec. line beyond this point is impracticable owing to precipitous slopes on the sides of this canyon.

Triangulate as follows:



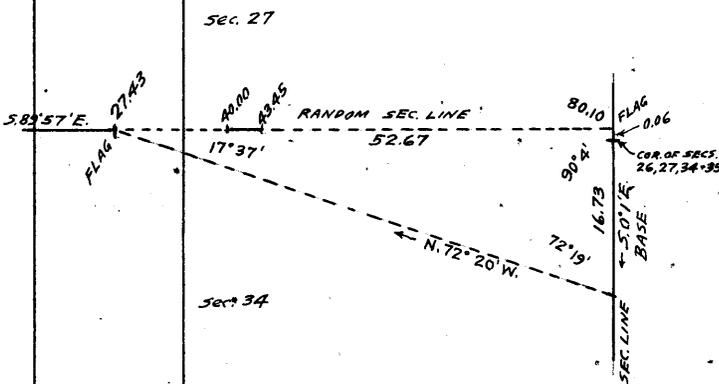
Set a flag at this point.  
 From a point ahead on random sec. line at E. side of bottom of canyon, measure a Base, S. 11° 55' E., 5.00 chs. It is impracticable to chain a longer base.

From SE. end of Base, the flag brs. N. 73° 57' W.  
 From NW. end of base, the vertical angle to flag is +36°.

Dist. on random sec. line = 27.43 chs. S. 89° 57' E.  
 Distance triangulated = 16.02 chs. S. 89° 57' E.  
 Total dist., = 43.45 chs. S. 89° 57' E.  
 By return measurement = 3.45 chs. N. 89° 57' W.  
 40.00 chs. S. 89° 57' E.

40.00 Point for temp. sec. cor. falls in wash, 4.00 chs. wide in bottom of canyon, where it would be impracticable to set monument; therefore, at

43.45 Triangulation point. Set temp. witness cor. to sec. cor. This point is at E. side of wash, and at foot of precipitous W. slope of E. side of canyon. It is impracticable to chain measurement on the random sec. line E. from this point; therefore, triangulate as follows:



From 27.43 ch. station on random sec. line a flag at a point 6 lks. N. of the cor. of secs. 26, 27, 34 and 35, brs. S. 89° 57' E.

From this flag, measure a Base S. 0° 1' E., 16.73 chs. along the sec. line, bet. secs. 34 and 35.

From S. end of Base, flag at the 27.43 ch. station on random sec. line bet. secs. 27 and 34, brs. N. 72° 20' W.

From N. end of Base, the vertical angle to 27.43 ch. station on random line is +4°.

Dist. on random sec. line = 27.43 chs. S. 89° 57' E.  
 Dist. triangulated = 52.67 chs. S. 89° 57' E.  
 Total length of random sec. line = 80.10 chs. S. 89° 57' E.

80.10 Fall 6 lks. N. of the cor. of secs. 26, 27, 34 and 35. Thence, N. 89° 54' W., on a true line, bet. secs. 27 and 34.

Over mountainous land, thru. scattering timber and dense undergrowth, chaining measurement of 16.01 chs. to E. rim of canyon.

Descend 160 ft., over W. slope.  
 10.00 Trail, brs. N. and S.  
 14.30 Ascend 33 ft., over E. slope, to

Chains.	
16.00	East, or left rim of Burnt Spring Canyon, brs. N. and S. Discontinue chaining. Measurement to W.C. by triangulation, hereinbefore described.
36.65	Descend about 400 ft., over precipitous W. slope, to Triangulation point. Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, deposit a stone marked with a cross (x) at base of post, and raise a mound of stone around post, for witness cor. to the $\frac{1}{4}$ sec. cor., marked on brass cap,  <div style="text-align: center;">       WC <math>\frac{1}{2}</math> S 27        S 34        1923     </div>
39.05	No bearing trees available. This witness cor. is on E. or left bank of wash, bearing NE. and SW. Continue line and measurement by chaining. Descend 10 ft. to
40.05	Center of wash, 4.00 chs. wide, course SW. in bottom of Burnt Spring Canyon. Continue chaining. Asc. 10 ft. to W. or right bank of wash. True point for $\frac{1}{4}$ sec. cor. falls in wash where a monument would be liable to destruction; therefore, establish witness cor. at 3.40 chs. S. $89^{\circ}54'$ E., as described above.
41.45	West, or right bank of wash, brs. NE. and SW., and foot of precipitous ascent. Discontinue chaining. Measurement to W. rim of canyon by triangulation, as hereinbefore described.
52.67	Ascend about 770 ft., over precipitous E. slope, to Triangulation point at W. or right rim of Burnt Spring Canyon, brs. N. and S. Leave canyon. Continue line and measurement by chaining. Enter gently rolling bench land.
58.00	Descend 20 ft., over NW. slope. Wash, 30 lks. wide, course NE.
61.90	Ascend gradually over SE. slope, to Same wash, course SE.
68.00	Ascend 20 ft., over NE. slope. Ascend gradually over N. slope.
71.40	Trail, brs. NE. and SW.
73.00	Descend 20 ft., over NW. slope.
75.60	Same wash, course NE. Ascend 30 ft., over SE. slope, to
80.10	The cor. of secs. 27, 28, 33 and 34. Land, mountainous and gently rolling. Soil, rocky, 4th rate. Timber, cedar. Undergrowth, black brush.
-----	
40.00	N. $0^{\circ}2'$ W., bet. secs. 27 and 28. Over gently rolling land, thru. scattering timber and undergrowth. Ascend 75 ft., over SE. and E. slopes, 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,  <div style="text-align: center;">       S 28   S 27        1923     </div>
	from which, A pinyon, 8 ins. in diam., brs. N. $67^{\circ}$ E., 48 lks. dist., marked $\frac{1}{2}$ S 27 BT. A pinyon, 6 ins. in diam., brs. S. $34\frac{1}{2}^{\circ}$ W., 14 lks. dist., marked $\frac{1}{2}$ S 28 BT.
45.50	Leave gently rolling, and enter mountainous land. Ascend 70 ft., over SE. slope.
50.40	Descend 75 ft., over NE. slope. Wash, 20 lks. wide, course E. Ascend 28 ft., over S. slope:

36 Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Chains.

- 54.50 Descend 10 ft., over N. slope.
- 58.50 Wash, 30 lks. wide, course E.
- Ascend 26 ft., over S. slope.
- 63.80 Descend 55 ft., over NE. slope.
- 72.00 Wash, 20 lks. wide, course E.
- Ascend slightly over SE. slope, to
- 72.90 Wash, 20 lks. wide, course SE.
- Ascend 50 ft., over SW. slope, to
- 76.30 Spur, slopes SE.
- Ascend 23 ft., over E. slope, to
- 77.80 Head of draw, course SE.
- Ascend 41 ft., over S. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on ledge of rock, supported in a mound of stone, for cor. of secs. 21, 22, 27 and 28, marked on brass cap,

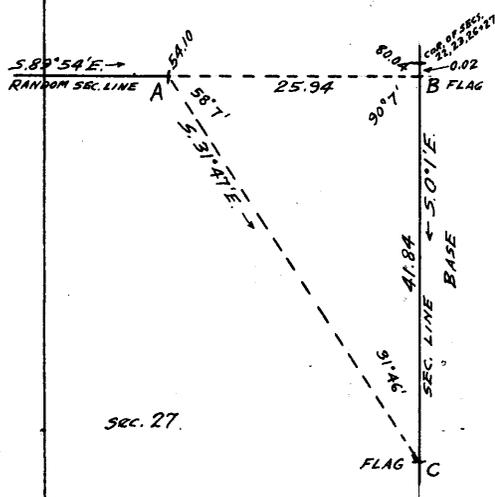
T31N R13W  
 S21 | S22  
 S28 | S27  
 1923

from which,

- A pinyon, 6 ins. in diam., brs. N.  $64\frac{3}{4}^{\circ}$  E., 48 lks. dist., marked T31N R13W S22 BT.
- A pinyon, 6 ins. in diam., brs. S.  $79\frac{1}{2}^{\circ}$  E., 47 lks. dist., marked T31N R13W S27 BT.
- A pinyon, 10 ins. in diam., brs. S.  $63^{\circ}$  W., 74 lks. dist., marked T31N R13W S28 BT.
- A pinyon, 10 ins. in diam., brs. N.  $66\frac{1}{4}^{\circ}$  W., 135 lks. dist., marked T31N R13W S21 BT.

Land, gently rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

- 40.00 S.  $89^{\circ}54'E.$ , on a random line, bet. secs. 22 and 27.
- 54.10 Set temp.  $\frac{1}{4}$  sec. cor.  
 West or right rim of Burnt Spring Canyon. Discontinue chaining at this point owing to precipitous slopes on sides of canyon, and triangulate as described as follows, and as shown on the diagram hereon:



Set flag ahead on random line at point 2 lks. S. of the cor. of secs. 22, 23, 26 and 27, as indicated at "B," on diagram. From flag "B" measure a Base S.  $0^{\circ}1'E.$ , 41.84 chs. on the sec. line, bet. secs. 26 and 27 to point "C." From 54.10 ch. station, on random sec. line, indicated at "A," a flag at "C" brs. S.  $31^{\circ}47'E.$  The vertical angle from "A" to "B" is  $-3^{\circ}$ .  
 Dist. on random line = 54.10 chs.  
 Dist. triangulated = 25.94 chs.  
 Total distance = 80.04 chs.

- 80.04 Fall 2 lks. S. of the cor. of secs. 22, 23, 26 and 27. Thence, N.  $89^{\circ}55'W.$ , on a true line, bet. secs. 22 and 27. Over mountainous land, thru. scattering timber and dense undergrowth. Chaining measurement to E. rim of canyon.
- 15.10 Descend 87 ft., over W. slope, to East or left rim of Burnt Spring Canyon, brs. N. and S. Discontinue chaining. Measurement across canyon by triangulation, as hereinbefore described.
- 20.50 Descend about 250 ft. to (Approx.) Wash 50 lks. wide, course SW. in bottom of Burnt Spring Canyon. Burnt Spring brs. N. about 17 chs. dist. Asc. about 450 ft. to

Survey of part of Subdivision lines of T. 31 N. R. 13 W. 37

Chains.

25.94 Triangulation point at W. or right rim of Burnt Spring Canyon, brs. N. and S. Leave Canyon. Continue line and measurement by chaining.  
 Descend 10 ft., over NW. slope.

29.00 Wash, 30 lks. wide, course NE.  
 Ascend 60 ft., over SE. slope to  $\frac{1}{4}$  sec. cor.

29.64 Trail, brs. N. and S.

40.02 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 22  
 S 27  
 1923

No bearing trees available. Raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.  
 Ascend 90 ft., over SE. slope, to

59.60 Wash, 50 lks. wide, course SE.  
 Ascend 130 ft., over NE. slope.

68.00 Spur, slopes SE.  
 Descend 34 ft., over SW. slope.

73.34 Ascend 100 ft., over S. slope, to

80.04 The cor. of secs. 21, 22, 27 and 28.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush, cactus and scrub oak.

N. 0° 2' W., bet. secs. 21 and 22.  
 Over mountainous land, thru. scattering timber and dense undergrowth.  
 Ascend 15 ft., over S. slope.

1.50 Spur, slopes E.  
 Descend 74 ft., over N. slope.

6.50 Wash, 40 lks. wide, course E.  
 Ascend 120 ft., over SE. and E. slopes, to

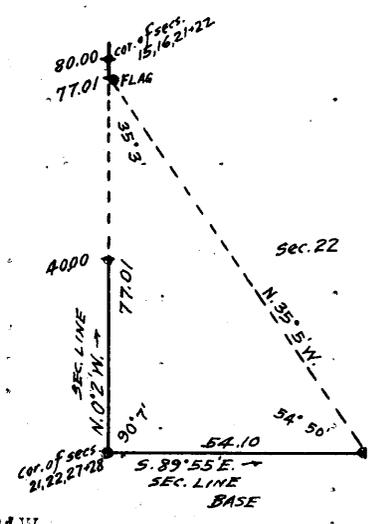
23.50 Wash, 50 lks. wide, course E.  
 Ascend 150 ft., over SE. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, supported in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on brass cap,

S 21 | S 22  
 1923

from which,  
 A pinyon, 6 ins. in diam., brs. N. 14° E., 73 lks. dist., marked  $\frac{1}{4}$  S 22 BT.  
 A pinyon, 6 ins. in diam., brs. N. 19 $\frac{1}{2}$ ° W., 87 lks. dist., marked  $\frac{1}{4}$  S 21 BT.

Beyond this  $\frac{1}{4}$  sec. cor., the sec. line crosses precipitous cliffs, rendering chaining impracticable; therefore, triangulate as follows:  
 Set a flag ahead on sec. line at top of cliffs.  
 From cor. of secs. 21, 22, 27 and 28, measure a Base, S. 89° 55' E., 54.10 chs. along the sec. line bet. secs. 22 and 27.  
 From E. end of Base, the flag brs. N. 35° 5' W.  
 From said sec. cor., the vertical angle to flag is +23°.  
 Dist. triangulated = 77.01 chs. N. 0° 2' W.



38 Survey of part of Subdivision lines of T.31 N., R.13 W.

Chains.

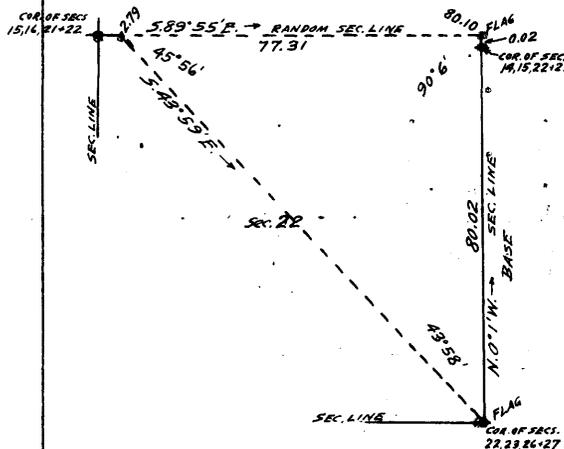
Approximate ascent from sec.cor. to top of cliffs is 1950 ft.  
 77.01 Triangulation point at top of cliffs, bearing NE. and SW. facing SE., and forming E. rim of a large bench, known as Burnt Canyon Point. Enter nearly level land. Continue line and measurement by chaining.  
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap,

T31N R13W  
 S16 | S15  
 S21 | S22  
 1923

- from which,
- A cedar, 10 ins. in diam., brs. N. 50 $\frac{1}{2}$ ° E., 167 lks. dist., marked T31N R13W S15 BT.
  - A cedar, 10 ins. in diam., brs. S. 58 $\frac{1}{2}$ ° E., 179 lks. dist., marked T31N R13W S22 BT.
  - A cedar, 12 ins. in diam., brs. S. 10 $\frac{3}{4}$ ° W., 76 lks. dist., marked T31N R13W S21 BT.
  - A cedar, 10 ins. in diam., brs. N. 47 $\frac{1}{2}$ ° W., 48 lks. dist., marked T31N R13W S16 BT.

Land, mountainous and nearly level.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush and sage brush.

2.79 S. 89° 55' E., on a random line, bet. secs. 15 and 22. Top of cliff, bearing NE. and SW., facing SE. Beyond this point, chaining is impracticable owing to precipitous descent over cliffs; therefore, triangulate as follows:



Set a flag ahead on random sec. line at a point 2 lks. N. of the cor. of secs. 14, 15, 22 and 23, and another flag on the cor. of secs. 22, 23, 26 and 27, both being visible from 2.79 ch. station on random sec. line.  
 The bearing to the flag on the cor. of secs. 22, 23, 26 and 27, is S. 43° 59' E.  
 The Base for this triangulation is therefore 80.00 chs. + 0.02 chs. = 80.02 chs. N. 0° 1' W. along the sec. line, bet. secs. 22 and 23.

The vertical angle from 2.79 ch. station on random line to flag at N. end of Base is 17°.

Dist. on random sec. line = 2.79 chs. S. 89° 55' E.  
 Distance triangulated = 77.31 chs. S. 89° 55' E.

Total length of random sec. line; = 80.10 chs. S. 89° 55' E.

80.10 Fall 2 lks. N. of the cor. of secs. 14, 15, 22 and 23. Thence

N. 89° 54' W., on a true line, bet. secs. 15 and 22. Over mountainous land, thru. scattering timber and dense undergrowth.

4.50 Ascend 32 ft., over SE. slope, to Wash, 50 lks. wide, course SE.

9.60 Ascend 29 ft., over SE. slope, to Wash, 150 lks. wide, course SE.

13.00 Ascend 14 ft., over SE. slope, to Wash, 20 lks. wide, course SE.

27.75 Ascend 360 ft. over E. slope to Thence along N. slope, ascending gradually, to

34.90 Ascend 30 ft. over SE. slope to

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 39

Chains.

36.69 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, deposit a stone marked with a cross (x) at base of post, and raise a mound of stone around post, for witness cor. to the 1/4 sec. cor., marked on brass cap,

WC 1/4 S 15  
S 22  
1923

No bearing trees available. Thence by triangulation, as hereinbefore described.

40.05 Ascend about 1100 ft., over precipitous SE. slope. True point for 1/4 sec. cor. falls on face of cliffs, and is inaccessible.

77.31 Triangulation point at top of cliffs, bearing NE. and SW. Leave mountainous, and enter nearly level land on large bench, known as Burnt Canyon Point.

80.10 Continue line and measurement by chaining. The cor. of secs. 15, 16, 21 and 22. Land, mountainous and nearly level. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, sagebrush, black brush, cactus and yucca.

N. 0° 2' W., bet. secs. 15 and 16. Over nearly level land, on large bench known as Burnt Canyon Point, thru. scattering timber and dense undergrowth.

6.00 Ascend slightly over E. slope.  
13.60 Descend slightly over NE. slope. Drain, course NE.  
30.00 Ascend 34 ft., over E. slope, to Wash, 10 lks. wide, course E.  
38.20 Ascend gradually over E. slope to 1/4 sec. cor. Drain, 10 lks. wide, course E.  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1/4  
S16 | S15  
1923

from which,  
A pinyon, 10 ins. in diam., brs. S. 86 1/2° E., 41 lks. dist., marked 1/4 S 15 BT.  
A cedar, 12 ins. in diam., brs. S. 67 1/2° W., 14 lks. dist., marked 1/4 S 16 BT.

80.00 Continue over nearly level land, thru. scattering timber and dense undergrowth. Ascend slightly over E. slope, to Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked on brass cap,

T31N R13W  
S 9 | S10  
S16 | S15  
1923

from which,  
A double cedar, 14 ins. in diam., brs. N. 76 1/8° E., 20 lks. dist., marked T31N R13W S10 BT.  
A pinyon, 12 ins. in diam., brs. S. 83 3/4° E., 37 lks. dist., marked T31N R13W S15 BT.  
A cedar, 14 ins. in diam., brs. S. 36° W., 78 lks. dist., marked T31N R13W S16 BT.  
A cedar, 16 ins. in diam., brs. N. 63° W., 76 lks. dist., marked T31N R13W S9 BT.

Land, nearly level.  
Soil, rocky, 4th rate.

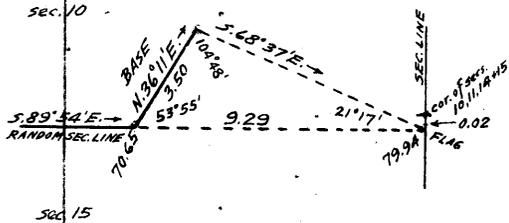
40 Survey of Part of Subdivision lines of T. 31 N., R. 13 W.

Chains.

Timber, cedar and pinyon.  
Undergrowth, sagebrush, scrub oak and dwarf cedar.

40.00  
70.65

S.89°54'E., on a random line, bet. secs.10 and 15.  
Set temp. 1/4 sec.cor.  
Top of cliffs, brs. NE. and S. The remainder of the random sec.line crosses face of these cliffs, and chaining is impracticable; therefore, triangulate as follows:



Measure a Base, N.36°11'E., 3.50 chs. along top of cliffs. It is impracticable to chain a longer Base.

Set a flag ahead on random sec.line at a point 2 lks.S. of the cor.of secs.10,11,14 and 15.

From NE.end of Base, the flag brs.S.68°37'E.

From SW.end of Base, the vertical angle to flag is -35°  
Distance on random sec.line = 70.65 chs. S.89°54'E.  
Distance triangulated = 9.29 chs.S.89°54'E.  
Total length of random sec. line = 79.94 chs.S.89°54'E.

79.94

Fall 2 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 timber and undergrowth. Measurement of 9.29 chs.by triangulation, herein before described.

9.29

Ascend 430 ft., over cliffs, to Triangulation point at top of cliffs, bearing NE. and S., facing E. and SE. Thence over rolling land on large bench, known as Burnt Canyon Point.. Enter dense timber and undergrowth. Continue line and measurement by chaining.

13.30  
25.00  
30.00

Ascend 30 ft., over SE. slope.  
Descend 41 ft., over NW.slope.  
Ascend 30 ft., over SE. slope.  
Enter nearly level land.

39.97

Ascend slightly over E.slope, to Set an iron post, 3 ft.long, 1 in. indiam., 24 ins. in the ground for 1/4 sec.cor., marked on brass cap,

1/4 S 10  
S 15  
1923

from which,

A pinyon, 10 ins. in diam., brs.N.23°W., 35 lks. dist., marked 1/4 S 10 BT.

A pinyon, 6 ins. in diam., brs.S.20 1/2°W., 38 lks. dist., marked 1/4 S 15 BT.

Continue over nearly level land, across Burnt Canyon Point, thru. dense timber and undergrowth.

79.94

Ascend slightly over E.slope, to The cor.of secs. 9,10,15 and 16. Land, mountainous, rolling and nearly level. Soil, gravelly and rocky, 3rd rate. Timber. cedar and pinyon. Undergrowth, scrub oak, sagebrush and manzanita.

N.0°2'W., bet. secs.9 and 10. Over nearly level land, on Burnt Canyon Point, thru.dense timber and undergrowth. Ascend slightly over E.slope, to

## Survey of part of Subdivision lines of T. 31 N., R. 13 W. 41

Chains.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
S 9 | S 10  
1923

from which,

A cedar, 8 ins. in diam., brs. N.  $77\frac{1}{2}^{\circ}$  E., 71 lks. dist., marked  $\frac{1}{4}$  S 10 BT.

A cedar, 14 ins. in diam., brs. N.  $82\frac{3}{4}^{\circ}$  W., 37 lks. dist., marked  $\frac{1}{4}$  S 9 BT.

Continue over nearly level land on Burnt Canyon Point, thru. dense timber and undergrowth.

Descend slightly over NE. slope to sec. cor.

46.80 Drain, course NE.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked on brass cap,

T31N R13W  
S 4 | S 3  
S 9 | S 10  
1923

from which,

A pinyon, 6 ins. in diam., brs. N.  $12\frac{1}{4}^{\circ}$  E., 71 lks. dist., marked T31N R13W S3 BT.

A pinyon, 10 ins. in diam., brs. S.  $8\frac{1}{4}^{\circ}$  E., 66 lks. dist., marked T31N R13W S10 BT.

A pinyon, 12 ins. in diam., brs. S.  $59\frac{1}{2}^{\circ}$  W., 114 lks. dist., marked T31N R13W S9 BT.

A pinyon, 6 ins. in diam., brs. N.  $27\frac{1}{4}^{\circ}$  W., 95 lks. dist., marked T31N R13W S4 BT.

Land, nearly level.

Soil, gravelly and rocky, 3rd rate.

Timber, cedar and pinyon.

Undergrowth, sagebrush, scrub oak and cranberry.

40.00 S.  $89^{\circ}55'$  E., on a random line, bet. secs. 3 and 10. Set temp.  $\frac{1}{4}$  sec. cor.

79.94 Fall 3 lks. N. of the cor. of secs. 2, 3, 10 and 11.

Thence,

N.  $89^{\circ}54'$  W., on a true line, bet. secs. 3 and 10.

Over nearly level land on lower bench, near S. rim of canyon, bearing E. and W., thru. heavy timber and undergrowth.

24.23 Ascend slightly over NE. and N. slopes, to Wash, 10 lks. wide, course NE. Enter rolling land.

31.93 Ascend 50 ft., over NE. slope, to Wash, 10 lks. wide, course NE.

39.80 Ascend 50 ft., over SE. slope, to Rim of upper bench, brs. NE. and SW. Enter nearly level bench land.

39.97 Ascend slightly to Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bedrock, supported in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 3  
S 10  
1923

from which,

A pinyon, 8 ins. in diam., brs. N.  $23\frac{1}{2}^{\circ}$  E., 40 lks. dist., marked  $\frac{1}{4}$  S 3 BT.

A pinyon, 16 ins. in diam., brs. S.  $23\frac{3}{4}^{\circ}$  W., 35 lks. dist., marked  $\frac{1}{4}$  S 10 BT.

Continue over nearly level bench land, thru. dense timber and undergrowth.

Ascend slightly over NE. slope, to

79.94 The cor. of secs. 3, 4, 9 and 10.

## 42 Survey of part of Subdivision lines of T.31 N., R. 13 W.

Chains.

Land, rolling and nearly level.  
Soil, gravelly and rocky, 3rd rate.  
Timber, cedar and pinyon.  
Undergrowth, scrub oak, sage brush and manzanita.

40.00 N.0°9'W., on a random line, bet. secs. 3 and 4.  
Set temp.  $\frac{1}{4}$  sec. cor.  
80.05 Fall 7 lks. E. of the cor. of secs. 3, 4, 33 and 34, on the N.  
bdy. of Tp., described in Book "C."  
Thence,  
S.0°12'E., on a true line, bet. secs. 3 and 4.  
Over rolling land, thru. dense timber and undergrowth.  
Descend slightly over S. slope, to  
2.10 Wash, 10 lks. wide, course SW. near head.  
Descend 52 ft., over SW. slope, to  
6.90 Same wash, course SE.  
Ascend 21 ft., over NE. slope.  
9.70 Descend 10 ft., over SE. slope.  
13.00 Draw, course E.  
Ascend 40 ft., over NE. slope.  
19.60 Spur, slopes SE. from W. Enter mountainous land.  
Descend 118 ft., over SW. and W. slopes.  
35.50 Ascend 53 ft., over NW. slope.  
39.27 Point of spur, slopes SW.  
Descend 12 ft., over S. slope, to  
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,

 $\frac{1}{4}$ 

S 4 | S 3

1923

• from which,

A pinyon, 10 ins. in diam., brs. S.3 $\frac{1}{4}$ °E., 109  
lks. dist., marked  $\frac{1}{4}$ S 3 BT.

A cedar, 14 ins. in diam., brs. N.79 $\frac{1}{4}$ °W., 87  
lks., marked  $\frac{1}{4}$ S 4 BT.

48.00 Descend 305 ft., over S. slope.  
Wash, 20 lks. wide, course NW. (General course SW.) in bot-  
tom of canyon.  
53.30 Ascend 124 ft., over NE. slope, to  
Rim of bench, brs. NW. and SE. Thence across bench.  
Ascend slightly to  
56.60 Leave bench, Ascend 230 ft., over NW. slope, to  
66.65 SE. or left rim of canyon, brs. NE. and SW. Leave canyon.  
Enter nearly level bench land.  
Ascend slightly over N. slope, to  
80.05 The cor. of secs. 3, 4, 9 and 10.  
Land, rolling, mountainous and nearly level.  
Soil, gravelly and rocky, 3rd and 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, scrub oak, sage brush and manzanita.

From the cor. of secs. 4, 5, 32 and 33, on S. bdy. of Tp.,  
hereinbefore described,  
N.0° 3'W., bet. secs. 32 and 33.  
Over level land, thru. dense undergrowth.  
10.00 Enter rolling land and scattering timber.  
Ascend 30 ft., over SW. slope.  
14.60 Descend 30 ft., over NW. slope.  
19.75 Ascend 100 ft., over W. and SW. slopes, to  
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on ledge of  
rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor.,  
marked on brass cap,

Chains.

S32 | S33  
1923

from which,

- A pinyon, 10 ins. in diam., brs. S. 87 1/4° E., 75 lks. dist., marked 1/4 S 33 BT.
- A pinyon, 6 ins., in diam., brs. N. 47 3/4° W., 107 lks. dist., marked 1/4 S 32 BT.

Enter mountainous land.

- Ascend 195 ft., over SW. slope.
- 54.16 Point of spur, slopes W.
- Descend 63 ft., over NW. slope.
- 59.00 Wash, 30 lks. wide, course W.
- Ascend 60 ft., over SW. slope.
- 64.15 Ascend gradually over W. slope.
- 71.85 Descend 91 ft., over NW. slope.
- 76.90 Wash, course NW. from E.
- Ascend 15 ft., over SW. slope, to
- 80.00 Set an iron post, 3 ft. long; 2 ins. in diam., 16 ins. in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post for cor. of secs. 28, 29, 32 and 33, marked on brass cap,

T31N R13W  
S29 | S28  
S32 | S33  
1923

from which, . .

- A pinyon, 10 ins. in diam., brs. N. 68 3/4° E., 21 lks. dist., marked T31N R13W S28 BT.
- A pinyon, 8 ins. in diam., brs. S. 39 1/4° E., 150 lks. dist., marked T31N R13W S33 BT.
- A pinyon, 4 ins. in diam., brs. N. 78 3/4° W., 66 lks. dist., marked BT.

No other bearing tree available.

Land, level and rolling, and mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush.

S. 89° 57' E., on random line, bet. secs. 28 and 33.  
Precipitous ascent renders chaining impracticable; therefore, triangulate as follows:

From cor. of secs. 28, 29, 32 and 33, measure a Base, N. 0° 3' W., along sec. line, bet. secs. 28 and 29 to 1/4 sec. cor.

Set flag ahead on random line, the vertical angle to which is +15°.

From North end of Base, the flag brs. S. 27° 34' E.

Dist. triangulated = 20.85 chs, S. 89° 57' E.

Ascent = 370 ft.

20.85 Triangulation point on red sandstone ridge known as Red Point.

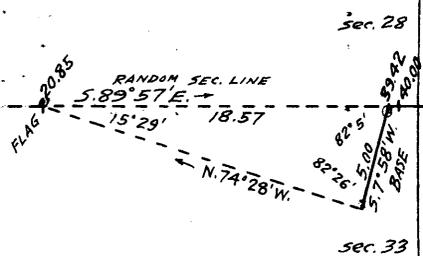
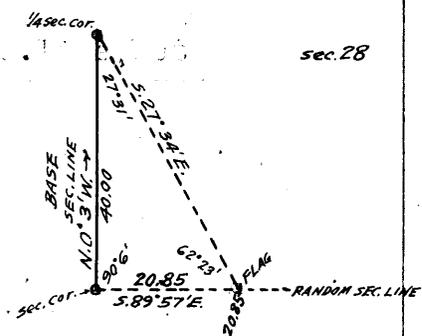
Beyond this point, precipitous descent renders chaining impracticable; therefore, triangulate as follows:

Leave flag at this point.

From a point ahead on random sec. line at foot of precipitous descent, measure a Base S. 7° 58' W., 5.00 chs.

It is impracticable to chain a longer Base.

From SW. end of Base, the flag brs. N. 74° 28' W.



44 Survey of part of Subdivison lines of T.31 N., R.13 W.

Chains.	
	From NE.end of Base,the vertical angle to flag is +24°.
	Dist. on random sec. line = 20.85 chs. S.89°57'E.
	Distance triangulated = 18.57 chs.S.89° 57'E.
	Total distance = 39.42 chs.S.89°57'E.
	Descent = 546 ft.
39.42	Triangulation point. Continue line and measurement by chaining.
40.00	Set temp. 1/4 sec.cor.
79.98	Fall 7 lks.S. of the cor.of secs.27, 28, 33 and 34.
	Thence, West, on a true line, bet. secs.28 and 33. Over gently rolling bench land, thru. scattering timber and undergrowth.
6.50	Ascend slightly over S.slope, to Wash,20 lks.wide, course SE.
10.50	Ascend slightly over SE.slope, to Wash,30 lks.wide, course SE.
19.80	Ascend 30 ft., over NE.slope, to Same wash, 20 lks.wide, course NE.
38.50	Ascend 76 ft.,over SE. slope, to Head of wash, course SE. Enter mountainous land.
39.99	Ascend 40 ft.,over SE.slope, to Set an iron post, 3 ft.long, 1 in. in diam., 24 ins. in the ground, for 1/4 sec.cor., marked on brass cap,
	$\frac{1}{4} \text{ S } 28$ $\text{S } 33$ $1923$
	from which, A pinyon, 12 ins. in diam., brs.N.23 1/2°E., 166 lks.dist., marked 1/4 S 28 BT. A cedar, 10 ins.in diam., brs.S.22 1/2° W., 95 lks.dist., marked 1/4 S 33 BT.
	From this cor., Red Springs brs.S.35°W., about 10 chs. dist.
40.56	Triangulation point at foot of steep slope, brs.NE. and SW. Discontinue chaining. Continue line and measurement by triangulation as hereinbefore described.
59.13	Ascend 546 ft., over precipitous SE.and E.slopes, to Triangulation point at top of red sandstone ridge, bearing N.and S., known as Red Point. Continue line and measurement by triangulation.
79.98	Descend 370 ft., over precipitous W.slope, to The cor.of secs.28,29, 32 and 33. Land, gently rolling and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, black brush.
-----	
	N.0° 3'W., bet. secs. 28 and 29. Over mountainous land, thru. scattering timber and dense undergrowth.
12.30	Descend 202 ft., over W.and NW.slopes. Wash,20 lks.wide, course NW.
14.00	Ascend 27 ft.,over SW.slope.
20.00	Descend 30 ft., over N.slope. Wash,10 lks.wide, course NW.
22.50	Ascend 20 ft., over SW.slope.
24.90	Descend 35 ft.,over NE.slope. Wash,15 lks.wide, course NW.
27.40	Ascend 12 ft.,over SW.slope.
29.70	Descend 50 ft.,over NE.slope. Wash,20 lks.wide, course NW.
40.00	Ascend 80 ft.,over SW.slope. Spur, slopes NW. Set an iron post, 3 ft.long, 1 in. in diam., .26 ins.in the ground for 1/4 sec.cor., marked on brass cap,

Survey of part of Subdivision lines of T.31 N., R.13 W. 45

Chains.

S29 | S28  
1923

from which,

A pinyon, 8 ins. in diam., brs. S. 47° E., 196 lks. dist., marked 1/4 S 28 BT.

A pinyon, 6 ins. in diam., brs. N. 42 1/4° W., 301 lks. dist., marked 1/4 S 29 BT.

- 45.40 Descend 60 ft., over NE. slope, to Wash, 20 lks. wide, course W. Enter rolling land.
- 49.00 Ascend 20 ft., over W. slope, to Wash, 40 lks. wide, course W.
- 71.80 Ascend 138 ft., over SW. slope. Wash, 40 lks. wide, course SW.
- 80.00 Ascend 80 ft., over SE. slope, to Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 20, 21, 28 and 29, marked on brass cap,

T31N R13W  
S20 | S21  
S29 | S28  
1923

No bearing trees available. Raise a mound of stone, 4 ft. base, 3 ft. high, W. of cor. Land, mountainous and rolling. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, black brush and scrub oak.

- 40.00 East, on a random line, bet. secs. 21 and 28. Set temp. 1/4 sec. cor.
- 79.98 Fall 12 lks. N. of the cor. of secs. 21, 22, 27 and 28. Thence, N. 89° 55' W., on a true line, bet. secs. 21 and 28. Over mountainous land, thru. scattering timber and undergrowth.
- 3.50 Ascend 48 ft., over steep SE. slope, to
- 8.50 Descend 80 ft., over steep S. slope, to Head of wash, course SE.
- 22.80 Ascend 370 ft., over SE. slope. Red sandstone ridge, brs. NE. and SW.
- 28.80 Descend 110 ft., over NW. slope, to Wash, 20 lks. wide, course SW.
- 39.99 Descend gradually over S. and SW. slopes, to Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,

1/4 S 21  
S 28  
1923

from which,

A pinyon, 12 ins. in diam., brs. N. 25 1/4° W., 38 lks. dist., marked 1/4 S 21 BT.

A pinyon, 16 ins. in diam., brs. S. 46 1/2° W., 55 lks. dist., marked 1/4 S 28 BT.

- 40.30 Descend 14 ft., over W. slope, to Wash, 50 lks. wide, course SW.
- 41.00 Ascend 15 ft., over SE. slope. Enter rolling land.
- 50.00 Descend 70 ft., over SW. slope, to
- 74.50 Descend gradually over S. and SW. slopes, to Wash, 40 lks. wide, course SW.
- 79.98 Ascend 30 ft., over SE. slope, to The cor. of secs. 20, 21, 28 and 29.

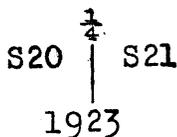
46 Survey of part of Subdivision lines of T.31 N., R.13 W.

Chains

Land, mountainous and rolling.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush, catclaw, cactus and yucca.

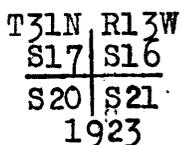
N.0° 3'W., bet. secs. 20 and 21.  
Over rolling land, thru. scattering timber and dense undergrowth.

- 15.80 Ascend 136 ft., over SW. slope, to Wash, 40 lks. wide, course SW.
- 22.80 Ascend 75 ft. over SW. slope, to Wash, 30 lks. wide, course SW. Enter mountainous land.
- 33.00 Ascend 155 ft., over SE. slope. Spur, slopes SW.
- 35.60 Descend 58 ft., over NW. slope. Wash, 30 lks. wide, course SW.
- 40.00 Ascend 130 ft., over SW. slope, to Spur, slopes W.  
Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bed rock, supported in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on brass cap,



- from which,
- A pinyon, 6 ins. in diam., brs. N.52°E., 109 lks. dist., marked  $\frac{1}{4}$  S 21 BT.
  - A pinyon, 6 ins. in diam., brs. S.36°W., 122 lks. dist., marked  $\frac{1}{4}$  S 20 BT.

- 43.30 Descend 70 ft., over NW. slope. Wash, 20 lks. wide, course NW.
- 53.80 Ascend 117 ft., over SW. slope. Descend 162 ft., over NW. slope.
- 61.50 Ascend 30 ft., over W. slope.
- 65.00 Descend 87 ft., over NW. slope.
- 71.20 Wash, 50 lks. wide, course W. Ascend 150 ft., over SW. slope.
- 76.30 Descend 30 ft., over W. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 16, 17; 20 and 21, marked on brass cap,



- from which,
- A pinyon, 12 ins. in diam., brs. N.40°E., 41 lks. dist., marked T31N R13W S16 BT.
  - A pinyon, 18 ins. in diam., brs. S.84°E., 37 lks. dist., marked T31N R13W S21 BT.
  - A pinyon, 14 ins. in diam., brs. S.44°W., 15 lks. dist., marked T31N R13W S20 BT.
  - A pinyon, 8 ins. in diam., brs. N.11 $\frac{1}{2}$ °W., 107 lks. dist., marked T31N R13W S17 BT.

Land, rolling and mountainous.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, black brush and yucca.

S.89°55'E., on a random line, bet. secs. 16 and 21.  
Owing to precipitous cliffs over which the western part of this line crosses, chaining is impracticable; therefore, triangulate as follows:

BOOK 3637

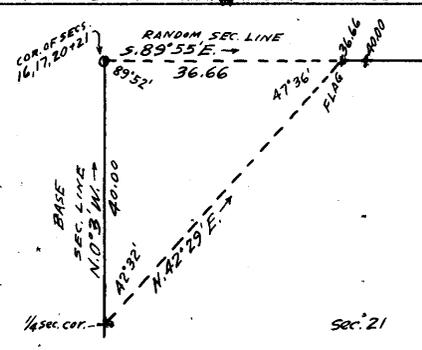
Survey of part of Subdivision lines of T. 31 N. R. 13 W.

Chains.

Set a flag ahead on random line, at top of cliffs, the vertical angle to which is + 24°.

Use as a Base the N.  $\frac{1}{2}$  of line bet. secs. 20 and 21, which is N. 0° 3' W., 40.00 chs.

From the  $\frac{1}{4}$  sec. cor. of secs. 20 and 21, the flag brs. N. 42° 29' E.



Dist. triangulated = 36.66 chs. S. 89° 55' E.  
 Ascent = 1077 ft.

36.66 Triangulation point. Continue line and measurement by chaining.

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

79.96 Fall 28 lks. S. of the cor. of secs. 15, 16, 21 and 22.

Thence, S. 89° 53' W., on a true line, bet. secs. 16 and 21. Over nearly level land, on large bench, known as Burnt Canyon Point, thru. dense timber and undergrowth. Ascend slightly over E. slope, to

39.98 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 16  
 S 21  
 1923

from which,  
 A cedar, 14 ins. in diam. brs. N. 29° W., 108 lks. dist., marked  $\frac{1}{4}$  S 16 BT.  
 A cedar, 14 ins. in diam. brs. S. 74° W., 36 lks. dist., marked  $\frac{1}{4}$  S 21 BT.

Continue over nearly level bench land, thru. dense timber and undergrowth.

43.30 Triangulation point at W. rim of Burnt Canyon Point, bearing N. and S. Discontinue chaining. Enter mountainous land. Measurement to sec. cor. by triangulation, as hereinbefore described.

79.96 Descend 1077 ft., over precipitous W. slope, to the cor. of secs. 16, 17, 20 and 21. Land, nearly level and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, black brush and cactus.

N. 0° 3' W., bet. secs. 16 and 17. Over mountainous land, thru. scattering timber and dense undergrowth.

Ascend slightly over steep W. slope, to

4.40 Descend 160 ft., over NW. slope.

11.70 Wash, 30 lks. wide, course NW.

Descend slightly over W. slope, to

17.70 Wash, 30 lks. wide, course SW.

Ascend 90 ft., over S. slope.

21.50 Spur, slopes W.

Descend 85 ft., over NW. slope.

25.60 Ascend 21 ft., over W. slope.

28.50 Descend 15 ft., over NW. slope.

31.00 Wash, 30 lks. wide, course SW.

Ascend 125 ft., over S. slope.

35.70 Spur, slopes W.

Descend 112 ft., over N. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 4 ins. in the ground to bed rock, supported in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S17 | S16  
 1923

from which,

48 Survey of part of Subdivision lines of T.31 N., R.13 W.

Chains.

- A pinyon, 8 ins. in diam., brs. S. 10 1/2° E., 6 lks. dist., marked 1/4 S 16 BT.
- A pinyon, 14 ins. in diam., brs. N. 45 1/2° W., 71 lks. dist., marked 1/4 S 17 BT.
- 40.70 Descend 15 ft., over N. slope.
- Wash, 10 lks. wide, course W.
- Ascend 53 ft., over SW. slope.
- 45.80 Descend 42 ft., over NW. slope.
- 53.00 Wash, 20 lks. wide, course SW.
- Ascend 22 ft., over SE. slope.
- 56.00 Descend 37 ft., over NW. slope.
- 59.00 Wash, 20 lks. wide, course SW.
- Ascend 56 ft., over SW. slope.
- 64.50 Descend 50 ft., over W. slope.
- 69.00 Ascend 48 ft., over W. slope.
- 74.20 Descend 20 ft., over NW. slope.
- 78.70 Wash, 30 lks. wide, course W.
- Ascend 6 ft., over SW. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 8, 9, 16 and 17, marked on brass cap,

T31N R13W  
S 8	S 9
 S17 | S16  
 1923

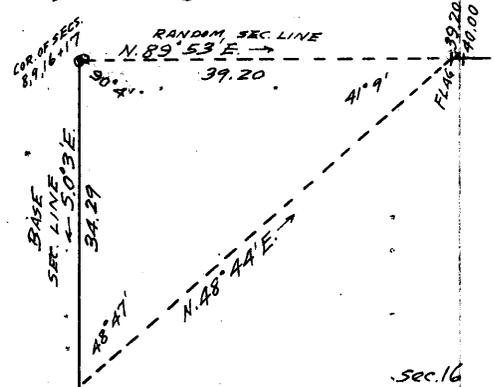
from which,

- A pinyon, 6 ins. in diam., brs. N. 48 1/2° E., 70 lks. dist., marked T31N R13W S9 BT.
- A cedar, 8 ins. in diam., brs. S. 86 1/2° E., 28 lks. dist., marked marked T31N R13W S16 BT.
- A cedar, 8 ins. in diam., brs. S. 9 1/2° W., 111 lks. dist., marked T31N R13W S17 BT.
- A cedar, 12 ins. in diam., brs. N. 32° W., 55 lks. dist., marked T31N R13W S8 BT.

Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush, scrub oak, yucca and cactus.

N. 89° 53' E., on random line, bet. secs. 9 and 16.  
 The western portion of the line cannot be chained owing to a series of cliffs; therefore, triangulate as follows.

From cor. of secs. 8, 9, 16 and 17, measure a Base, S. 0° 3' E., 34.29 chs. along the sec. line bet. secs. 16 and 17.  
 Set flag ahead on random sec. line at top of cliffs, the vertical angle to which is +25°.  
 From S. end of Base the flag brs. N. 48° 44' E.  
 Dist. triangulated = 39.20 chs.  
 Ascent = 1206 ft.



- 39.20 Triangulation point. Continue line and measurement by chaining.
- 40.00 Set damp 1/4 sec. cor.
- 80.02 Fall 5 lks. N. of the cor. of secs. 9, 10, 15 and 16. Thence, S. 89° 55' W., on a true line, bet. secs. 9 and 16. Over nearly-level land, thru. dense timber and undergrowth, to on large bench, known as Burnt Canyon Point.
- Ascend slightly over E. slope, to
- 40.01 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for a sec. cor., marked on brass cap,

S 9  
 ---|---  
 S 16  
 1923

Chains.

from which,  
A cedar, 8 ins. in diam., brs. N. 28 1/4° E., 84 lks.  
dist., marked 1/4 S 9 BT.  
A cedar, 14 ins. in diam., brs. S. 86 1/2° W., 27 lks.  
dist., marked 1/4 S 16 BT.

Continue over nearly level bench land, thru. dense timber and undergrowth.

40.82 Triangulation point at W. rim of Burnt Canyon Point, bearing N. and S. Discontinue chaining. Enter mountainous land.

Descend 1206 ft. over cliffs to sec. cor., measurement by triangulation, as hereinbefore described.

80.02 The cor. of secs. 8, 9, 16 and 17.  
Land, nearly level and mountainous.

Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, sage brush, scrub oak, black brush, cactus and yucca.

N. 0° 3' W., bet. secs. 8 and 9.  
Over mountainous land, thru. scattering timber and dense undergrowth.

19.90 Ascend 130 ft., over SW. and W. slopes to Wash, 20 lks. wide, course W.

22.00 Ascend slightly over W. slope, to Wash, 20 lks. wide, course W.

30.00 Ascend 78 ft., over SW. slope. Descend 40 ft., over NW. slope.

35.00 Wash, 20 lks. wide, course W. Ascend 10 ft., over W. slope, to

38.25 Wash, 10 lks. wide, course SW. Ascend 20 ft., over SW. slope, to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,

S 8 1/4 S 9

1923

from which,  
A cedar, 12 ins. in diam., brs. N. 62 1/2° E., 97 lks.  
dist., marked 1/4 S 9 BT.  
A pinyon, 8 ins. in diam., brs. S. 61 3/4° W., 42 lks.  
dist., marked 1/4 S 8 BT.

48.40 Descend 20 ft., over NW. slope. Wash, 100 lks. wide, course SW. Thence over steep S. and SE. slopes, broken by cliffs.

73.00 Ascend 840 ft. to Top of cliffs, brs. NE. and SW., facing SE.

80.00 Ascend 92 ft., over SE. slope, to Set an iron post, 3 ft. long, 2 ins. in diam., 28 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked on brass cap,

T31N, R13W  
S 5 S 4  
S 8 S 9

1923

from which,  
A cedar, 10 ins. in diam., brs. N. 51° E., 70 lks.  
dist., marked T31N R13W S4 BT.  
A pinyon, 8 ins. in diam., brs. S. 57° E., 104 lks.  
dist., marked T31N R13W S9 BT.  
A pinyon, 16 ins. in diam., brs. S. 40 1/2° W., 48 lks.  
dist., marked T31N R13W S8 BT.  
A pinyon, 12 ins. in diam., brs. N. 6 1/4° W., 187 lks.  
dist., marked T31N R13W S5 BT.

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

Chains.	
	Timber, cedar and pinyon. Undergrowth, black brush and sagebrush.
40.00	N.89°55'E., on a random line, bet.secs.4 and 9. Set temp. $\frac{1}{4}$ sec.cor.
79.96	Fall 12 lks.N.of the cor.of secs.3,4,9 and 10. Thence, West, on true line, bet. secs.4 and 9. Over nearly level bench land, thru.dense timber and under- growth.
17.90	West rim of bench, brs.NE. and SW. Leave bench and dense timber, and enter mountainous land and scattering tim- ber.
39.98	Descend 660 ft., over steep W.slope, 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,
	$\begin{array}{r} \frac{1}{4} \text{ S } 4 \\ \hline \text{S } 9 \\ 1923 \end{array}$
	No bearing trees available. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Descend 75 ft., over W.slope.
45.75	Wash, 75 lks.wide, in bottom of ravine, course SW.
54.60	Ascend 75 ft., over SE. slope, to Wash, 20 lks.wide, course SE. Thence over cliffs, facing SE.
75.14	Ascend 505 ft., to Top of cliffs, bearing NE. and SW., facing SE.
79.96	Ascend 76 ft., over SE.slope, to The cor.of secs.4,5,8 and 9. Land, nearly level and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, black brush and sagebrush.
40.00	N.0°12'W., on a random line, bet.secs.4 and 5. Set temp. $\frac{1}{4}$ sec.cor.
79.85	Fall 2 lks.W.of the cor.of secs.4,5,32 and 33 on N.bdy. of Tp., described in Book "C." Thence, S.0°11'E., on a true line, bet.secs.4 and 5. Over rolling land, thru. scattering timber and dense undergrowth.
9.30	Descend 70 ft., over W.slope. Enter mountainous land.
21.55	Descend 290 ft., over SW. slope. Wash, 40 lks.wide, course SW. in bottom of canyon
39.85	Ascend 160 ft., over NW. slope, to Set an iron post, 3 ft, long, 1 in. in diam., 26 ins. in the the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,
	$\begin{array}{r} \frac{1}{4} \\ \text{S } 5 \text{ S } 4 \\ 1923 \end{array}$
	from which, A pinyon, 12 ins.in diam., brs.N.66°E., 59 lks. dist., marked $\frac{1}{4}$ S 4 BT. A pinyon, 12 ins.in diam., brs.S.82 $\frac{1}{2}$ °W., 60 lks. dist., marked $\frac{1}{4}$ S 5 BT.
	From this cor., Tincanebits Spring brs.N.77°W. about 30 chs.dist.
46.70	Ascend 160 ft., over NW.slope, to East or left rim of canyon, brs.NE. and SW. Leave canyon.
58.00	Descend 52 ft., over W. and SW.slopes to Draw, course W. into bottom of canyon. Ascend 68 ft., over NW.slope, to

6667

Survey of part of Subdivision lines of T.31 N., R.13 W.

Chains.

64.90 Descend 20 ft., over W. slope, to  
 71.35 Spur, slopes SW.  
 79.85 Descend 180 ft., over SE. slope, to  
 The cor. of secs. 4, 5, 8 and 9.  
 Land, rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, sage brush, scrub oak and dwarf cedar.

-----  
 From the cor. of secs. 5, 6, 31 and 32, on S. bdy. of Tp., here-  
 inbefore described,

12.63 N. 0° 3' W., bet. secs. 31 and 32.  
 14.50 Over level bench land, thru dense undergrowth.  
 Triangulation point. Continue chaining to  
 South, or left rim of short side canyon, brs. NE and SW.  
 Enter mountainous land. Beyond this point, chaining is  
 impracticable owing to precipitous sides of this can-  
 yon; therefore, triangulate as follows:

From 12.63 ch. station on sec. line,  
 measure a Base N. 81° 55' E.,  
 11.11 chs.

Set flag ahead on sec. line, at  
 N. or right rim of canyon.

From NE. end of Base, the flag  
 brs. N. 20° 15' W.

From SW. end of Base, the ver-  
 tical angle to flag is 0°,  
 and to point on sec. line in  
 bottom of canyon is - 55°.

Dist. on sec. line = 12.63 chs. N. 0° 3' W.

Dist. triangulated = 31.45 chs. N. 0° 3' W.

Total distance = 44.08 chs. N. 0° 3' W.

Descent to bottom of canyon is 1637 ft.

25.00 (Approx.) Gulch, course NW.

30.00 Descend over steep NW. slope, to

(Approx.) Bottom of side canyon, course W. for about 40  
 chs., where it joins the bottom of main canyon, course  
 S.

40.00 Ascend 1637 ft., over cliffs to N. rim of canyon.

True point for  $\frac{1}{4}$  sec. cor. falls on face of cliff, and is  
 inaccessible; therefore, at

44.08 Triangulation point at N. or right rim of side canyon,  
 bearing E. and W.

Set an iron post, 3 ft. long, 1 in. in diam., on ledge of  
 rock, deposit a stone, marked with a cross (x) at base of  
 post, and raise a mound of stone around post, for wit-  
 ness cor. to the  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S31 | S32  
 W | C  
 1923

No bearing trees available. Leave canyon and mountainous  
 land, and enter level bench land.

53.48 Enter gently rolling bench land.

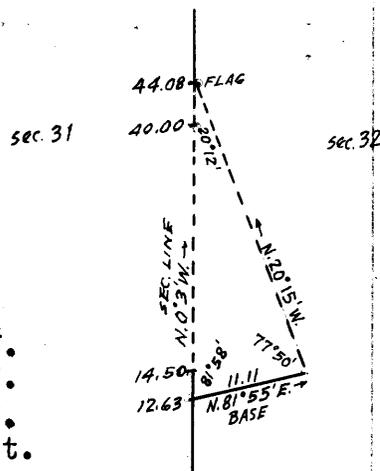
70.80 Descend 100 ft., over NW. slope.

Wash, 20 lks. wide, course NW.

80.00 Ascend 45 ft., over SW. slope, to

Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in  
 the ground to bed rock, deposit a stone, marked with a  
 cross (x) at base of post, and raise a mound of stone  
 around post, for cor. of secs. 29, 30, 31 and 32, marked  
 on brass cap,

T31N R13W  
 S30 | S29  
 S31 | S32  
 1923



52 Survey of part of Subdivision lines of T.31 N. R.13 W.

Chains.

No bearing trees available.  
 Land, level, mountainous and gently rolling.  
 Soil, rocky, 4th rate.  
 Timber, none.  
 Undergrowth, black brush, and yucca.

40.00 S.89°57'E., on a random line, bet. secs.29 and 32.  
 Set temp. 1/4 sec. cor.  
 80.04 Intersect the cor. of secs.28, 29, 32 and 33.  
 Thence,  
 N.89°57'W., on a true line, bet. secs.29 and 32.  
 Over mountainous land, thru. scattering timber and dense undergrowth.  
 2.50 Descend 25 ft., over W. slope.  
 Wash, course NW.  
 25.50 Descend 220 ft., over N. and NW. slopes, to  
 Wash, 10 lks. wide, course NW. Enter gently rolling bench land.  
 Descend gradually over NW. slope to 1/4 sec. cor.  
 39.00 Wash, 10 lks. wide, course NW.  
 40.02 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

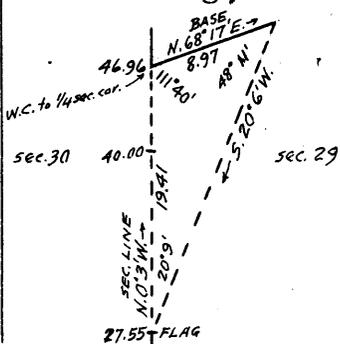
1/4 S 29  
 S 32  
 1923

from which,  
 A pinyon, 14 ins. in diam., brs. N.38 1/4°W., 188 lks. dist., marked 1/4 S 29 BT.  
 A pinyon, 14 ins. in diam., brs. S.58 3/4°E., 186 lks. dist., marked 1/4 S 32 BT.

Continue over gently rolling bench land, descending gradually over NW. slope to sec. cor.  
 61.00 Trail, brs. N. and S.  
 62.00 Wash, 10 lks. wide, course NW.  
 63.20 Wash, 10 lks. wide, course N.  
 80.04 The cor. of secs. 29, 30, 31 and 32.  
 Land, mountainous and gently rolling.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

The line bet. secs. 30 and 31 crosses a deep canyon, course S., the sides of which are impassable; therefore, as the 1/4 sec. cor. cannot be monumented or witnessed, the sec. line is unsurveyable.

N.0°3'W., bet. secs. 29 and 30.  
 Over gently rolling bench land, thru. scattering timber and dense undergrowth.  
 11.90 Descend 45 ft., over NW. slope, to  
 Wash, 20 lks. wide, course NW.  
 Ascend 50 ft., over SW. slope.  
 23.10 Descend 45 ft., over NW. slope, to  
 27.55 South or left rim of side canyon brs. E. and W. Enter mountainous land. Precipitous sides of canyon prevent chaining; therefore, triangulate as follows:



Set flag at this point on sec. line.  
 From a point ahead on sec. line, on N. or right rim of canyon, measure a Base N.68°17'E., 8.97 chs.  
 From NE. end of Base, the flag brs. S.20°6'W.  
 From SW. end of Base, the vertical angle to flag is 0° and to point

8057

Survey of part of Subdivision lines of T. 31 N., R.13 W. 53.

Chains.

on sec. line in bottom of canyon is  $48^\circ$ .  
 Dist. on sec. line = 27.55 chs. N.  $0^\circ 3' W$ .  
 Dist. triangulated = 19.41 chs. N.  $0^\circ 3' W$ .  
 Total distance = 46.96 chs. N.  $0^\circ 3' W$ .  
 Descent to bottom of canyon is 715 ft.  
 37.30 (Approx.) Bottom of canyon, course W. for about 40 chs.,  
 where it joins bottom of main canyon, course S.  
 Ascend 715 ft., over precipitous S. slope to N. rim of canyon.

40.00 True point for  $\frac{1}{4}$  sec. cor. falls on precipitous slope, and  
 is inaccessible; therefore, at  
 46.96 Triangulation point at N. or right rim of canyon, bearing  
 E. and W., Set an iron post 3 ft. long, 1 in. in diam.,  
 on surface rock, supported in a mound of stone, for  
 witness cor. to the  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S30 | S29  
 W | C  
 1923

from which,  
 A pinyon, 12 ins. in diam., brs. S.  $56\frac{1}{2}^\circ E.$ , 193  
 lks. dist., marked  $\frac{1}{4} S 29$  WC BT.  
 A pinyon, 14 ins. in diam., brs. N.  $82\frac{1}{2}^\circ W.$ , 225  
 lks. dist., marked  $\frac{1}{4} S 30$  WC BT.

Leave mountainous and enter gently rolling bench land.  
 Continue line and measurement by chaining.  
 Descend 70 ft., over W. and NW. slopes, to  
 64.00 Wash, course SW.  
 Ascend gradually over SW. slope, 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,

T31N | R13W  
 S19 | S20  
 S30 | S29  
 1923

No bearing trees available. Raise a mound of stone, 2 ft.  
 base,  $1\frac{1}{2}$  ft. high, W. of cor.  
 Land, gently rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush.

-----  
 S.  $89^\circ 57' E.$ , on a random line, bet. secs. 20 and 29.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 80.00 Fall 5 lks. N. of the cor. of secs. 20, 21, 28 and 29.  
 Thence,  
 N.  $89^\circ 55' W.$ , on a true line, bet. secs. 20 and 29.  
 Over rolling land, thru. scattering timber and dense  
 undergrowth.  
 Descend 166 ft., over SW. slope, to  
 30.60 Wash, 10 lks. wide, course SW. Enter mountainous land.  
 Descend 55 ft., over SW. slope, to  
 35.30 Wash, 10 lks. wide, course SW.  
 Ascend 92 ft., over SE. slope, to  
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the  
 ground, to bed rock, supported in a mound of stone, for  
 $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 20  
 S 29  
 1923

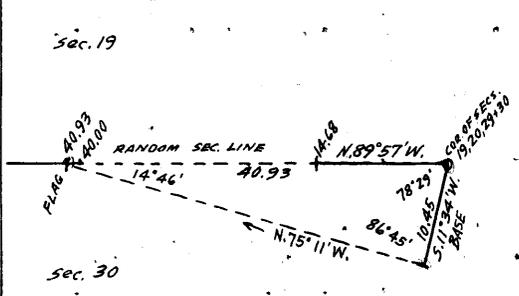
from which,  
 A pinyon, 12 ins. in diam., brs. N.  $17\frac{1}{4}^\circ W.$ , 95 lks.  
 dist., marked  $\frac{1}{4} S 20$  BT.

54 Survey of part of Subdivision lines of T. 31 N. R. 13 W.

Chains.

A pinyon, 6 ins. in diam., brs. S. 71° E., 143 lks. dist., marked  $\frac{1}{4}$  S 29 BT.  
 Continue over mountainous land.  
 Ascend 105 ft., over SE. slope.  
 46.00 Point of spur, slopes S.  
 Descend 100 ft., over SW. slope, to  
 61.20 Draw, course SW. Enter rolling land. Leave timber.  
 Ascend 25 ft., over S. and SE. slopes.  
 70.50 Descend 75 ft. over SW. slope, to sec. cor.  
 79.00 Trail, brs. SE. and NE.  
 80.00 The cor. of secs. 19, 20, 29 and 30.  
 Land, rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, pinyon and cedar in E. 61 chs. No timber in W. 19 chs.  
 Undergrowth, black brush.

14.68 N. 89° 57' W., on random line, bet. secs. 19 and 30.  
 East or left rim of canyon, brs. N. and S. The sides of the canyon are too precipitous to permit chaining; therefore, triangulate as follows:



From cor. of secs. 19, 20, 29 and 30, measure a Base, S. 11° 34' W., 10.45 chs.  
 Set flag ahead on random sec. line, near W. or right rim of canyon.  
 From SW. end of Base, the flag brs. N. 75° 11' W.  
 From sec. cor. at NE. end of Base, the vertical angle to flag is 0°.  
 From E. rim to bottom of canyon on the sec. line the vertical angle is - 42°.

Dist. triangulated = 40.93 chs. N. 89° 57' W.  
 By return measurement = 40.93 chs. S. 89° 57' E.  
 40.00 chs. N. 89° 57' W.  
 40.00 Descent from E. rim to bottom of canyon is 847 ft.  
 Set temp.  $\frac{1}{4}$  sec. cor. at W. or right rim of canyon, bearing NW. and S.  
 40.93 Continue line and measurement by chaining.  
 78.94 Triangulation point. Continue chaining.  
 Fall 5 lks. S. of the cor. of secs. 19, 24, 25 and 30, on W. bdy. of Tp., hereinbefore described.

Thence, S. 89° 55' E. on a true line, bet. secs. 19 and 30.  
 Over rolling land, thru. scattering timber and dense undergrowth.  
 1.95 Descend 25 ft., over NE. slope.  
 Wash, 30 lks. wide, course SE.  
 6.50 Ascend 30 ft., over SW. slope, to  
 Thence over nearly level land.  
 Descend slightly over SE. slope.  
 15.00 Leave timber.  
 38.01 Triangulation point. Continue chaining, to  
 38.94 West or right rim of canyon, brs. S. and NW.  
 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 19  
 S 30  
 1923

No bearing trees available. Leave nearly level, and enter

## Survey of part of Subdivision lines of T.31 N., R.13 W. 55

Chains.

- mountainous land in canyon. Discontinue chaining. Measurement across canyon by triangulation, as hereinbefore described.
- 50.00 Descend 847 ft. to (Approx.) Bottom of canyon, course S.
- 64.26 Ascend 847 ft. to East or left rim of canyon, brs. N. and S. Leave canyon. Enter gently rolling land. Continue line and measurement by chaining.
- 78.94 Ascend gradually over SW. slope, to The cor. of secs. 19, 20, 29 and 30. Land, rolling, nearly level, mountainous and gently rolling. Soil, rocky, 4th rate. Timber, pinyon and cedar in W. 15 chs. No timber in E. 64 chs. Undergrowth, black brush and yucca.
- 
- N. 0° 3' W., bet. secs. 19 and 20. Over gently rolling land, thru. dense undergrowth.
- 3.00 Ascend gradually over SW. slope, to Saddle in low ridge, brs. E. and NW.
- 12.00 Descend 35 ft., over NW. slope, to Wash, 20 lks. wide, course W.
- 19.00 Ascend slightly over W. slope, to Wash, 20 lks. wide, course SW. Enter scattering timber.
- 33.70 Ascend slightly over SW. slope. Descend 35 ft., over NW. slope, to
- 39.08 Left rim of canyon, brs. NE. and SW. Set an iron post, 3 ft. long, 1 in. in diam., on surface rock, supported in a mound of stone, for witness cor. to the  $\frac{1}{4}$  sec. cor., marked on brass cap,
- W C  
 $\frac{1}{4}$   
 S19 | S20  
 1923
- from which,
- A pinyon, 12 ins. in diam., brs. N. 31 $\frac{1}{2}$ ° E., 48 lks. dist., marked WC  $\frac{1}{4}$  S 20 BT.
- A pinyon, 16 ins. in diam., brs. S. 31° W., 94 lks. dist., marked WC  $\frac{1}{4}$  S 19 BT.
- Enter mountainous land in head of canyon.
- 40.00 Descend 50 ft., over NW. slope, to True point for  $\frac{1}{4}$  sec. cor. falls in Tincanebits Wash, 100 lks. wide, course S. 80° W. from N.
- 46.00 Ascend 40 ft. in bed of said wash, to Right edge of Tincanebits Wash, brs. NE. and S. 2° W., joined at this point by a wash from NW.
- 52.84 Ascend 95 ft., over steep S. slope. Right rim of canyon, brs. NE. and NW. Leave head of canyon. Enter rolling land on bench.
- 62.25 Ascend slightly over S. slope, to Leave bench. Enter mountainous land.
- 67.52 Ascend 80 ft., over S. slope, to Point of spur, slopes S. 5° W.
- 80.00 Ascend 35 ft., over W. slope, to Set an iron post, 3 ft. long, 2 ins. in diam., on surface rock, supported in a mound of stone, for cor. of secs. 17, 18, 19 and 20, marked on brass cap,

T31N R13W  
 S18 | S17  
 S19 | S20  
 1923

from which,  
 A pinyon, 12 ins. in diam., brs. N. 48° E., 200 lks. dist., marked T31N R13W S17 BT.

## 56 Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Chains.

- A pinyon, 10 ins. in diam., brs. S.  $21\frac{3}{4}^{\circ}$  E., 157 lks. dist., marked T31N R13W S20 BT.  
 A pinyon, 8 ins. in diam., brs. S.  $40\frac{1}{4}^{\circ}$  W., 150 lks. dist., marked T31N R13W S19 BT.  
 A cedar, 24 ins. in diam., brs. N.  $78\frac{1}{2}^{\circ}$  W., 84 lks. dist., marked T31N R13W S18 BT.

Land, gently rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon in N. 61 chs.  
 No timber in S. 19 chs.  
 Undergrowth, black brush, scrub oak and yucca.

- 40.00 S.  $89^{\circ}55'$  E., on a random line, bet. secs. 17 and 20.  
 Set temp.  $\frac{1}{4}$  sec. cor.  
 80.04 Fall 5 lks. S. of the cor. of secs. 16, 17, 20 and 21.  
 Thence,  
 N.  $89^{\circ}57'$  W., on a true line, bet. secs. 17 and 20.  
 Over mountainous land, thru. scattering timber and dense undergrowth.  
 13.40 Descend 295 ft., over steep W. and NW. slopes, to  
 Foot of descent, in bend of wash, course NW. from NE.  
 17.00 Ascend 30 ft., over NE. slope, to  
 Descend slightly over N. slope, to  
 20.00 Sharp spur slopes NW.  
 Descend 146 ft., over SW. slope, to  
 29.50 Wash, 20 lks. wide, course NW.  
 Descend 28 ft., over N. slope.  
 31.60 Ascend 50 ft., over NE. slope.  
 35.30 Descend 68 ft., over N. slope, to  
 40.02 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in  
 the ground to bed rock, supported in a mound of stone,  
 for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 17  
 S 20  
 1923

from which,

- A pinyon, 18 ins. in diam., brs. N.  $43^{\circ}$  W., 73 lks. dist., marked  $\frac{1}{4}$  S 17 BT.  
 A pinyon, 20 ins. in diam., brs. S.  $50\frac{1}{2}^{\circ}$  E., 41 lks. dist., marked  $\frac{1}{4}$  S 20 BT.  
 Descend 90 ft., over N. and NW. slopes.  
 47.20 Trail, brs. N. and S.  
 49.40 Center of Tincanbits Wash, 2 chs. wide, course SW.  
 Ascend 55 ft., over SE. slope.  
 54.70 Sharp spur slopes S.  
 Descend 70 ft., over W. slope.  
 57.83 Wash, 40 lks. wide, course S.  
 Ascend 20 ft., over SE. slope, to  
 64.30 Wash, 20 lks. wide, course SE.  
 Ascend 195 ft., over NE. slope.  
 76.00 Spur slopes S.  
 Descend 85 ft., over W. slope, to  
 80.04 The cor. of secs. 17, 18, 19 and 20.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush, scrub oak, willow, yucca and catclaw.

- 40.00 N.  $89^{\circ}55'$  W., on a random line, bet. secs. 18 and 19.  
 Set temp.  $\frac{1}{4}$  sec. cor.  
 79.06 Fall 5 lks. N. of the cor. of secs. 13, 18, 19 and 24, on W. bdy.  
 of Tp., hereinbefore described.  
 Thence,  
 S.  $89^{\circ}57'$  E., on a true line, bet. secs. 18 and 19.  
 Over rolling land, thru. scattering timber and dense undergrowth.

FOOTAGE

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 57

Chains.

- 8.00 Ascend 55 ft., over SW.slope.
- 10.70 Descend 60 ft., over SE.slope, to Wash, 30 lks.wide, course SE.
- 17.00 Ascend 50 ft., over SW.slope.
- 29.75 Descend 26 ft., over SE.slope, to Wash, 30 lks.wide, 5 ft.deep, course SE.
- 34.00 Descend 23 ft., over SE.slope, to Wash, 10 lks.wide, 5 ft. deep, course SE.
- 35.56 Descend 5 ft., over SE.slope, to Wash, 10 lks.wide, 5 ft.deep, course SE.
- 39.06 Ascend 23 ft., over SW.slope, to Set an iron post, 3 ft.long, 1 in. in diam., 12 ins.in the ground to bed rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for  $\frac{1}{4}$  sec.cor., marked on brass cap

$\frac{1}{4}$  S 18  
S 19  
1923

- No bearing trees available.
- 46.25 Ascend 15 ft., over SW.slope.
- 53.66 Descend 30 ft., over SE.slope, to Wash, 20 lks.wide, course SE.
- 69.00 Descend gradually over SE.slope, to Wash, 30 lks.wide, course SE.
- 74.35 Ascend 17 ft., over SW.slope.
- 78.56 Descend 40 ft., over SE.slope. Wash, 10 lks.wide, course S. Enter mountainous land.
- 79.06 Ascend 8 ft., over W.slope, to The cor.of secs.17,18,19 and 20. Land, rolling and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinyon. Undergrowth, black brush.

- N.0°3'W., bet.secs. 17 and 18.  
Over mountainous land, near top of spur, sloping S. about 3 chs.E.of line, thru.scattering timber and dense undergrowth.
- 40.00 Ascend 510 ft., over W. and SW.slopes, to Set an iron post, 3 ft.long, 1 in. in diam., on surface rock, supported in a mound of stone, for  $\frac{1}{4}$  sec.cor., marked on brass cap,

$\frac{1}{4}$   
S18 | S17  
1923

from which,

A pinyon, 12 ins. in diam., brs.N.82 $\frac{1}{4}$ °E.; 89 lks.dist., marked  $\frac{1}{4}$ S 17 BT.

A pinyon, 10 ins. in diam., brs.N.17 $\frac{1}{2}$ °W., 62 lks.dist., marked  $\frac{1}{4}$ S 18 BT.

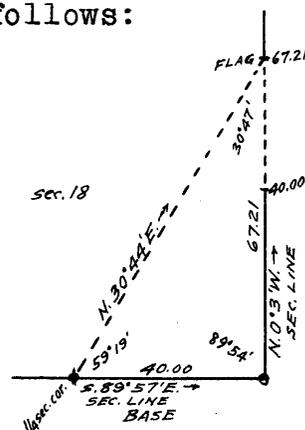
Discontinue chaining at this  $\frac{1}{4}$  sec.cor., as the line beyond this point passes over precipitous ascent of a series of cliffs. Triangulate as follows:

Set flag ahead on sec.line at top of cliffs, the vertical angle to which is +29°.

Use the E. $\frac{1}{2}$  of line bet.secs.18 and 19 as a Base, which is S.89°57'E., 40.00 chs.

From the  $\frac{1}{4}$  sec.cor.of secs.18 and 19, the flag brs.N.30°44'E.

Dist. triangulated = 67.21 chs.N.0°3'W.





Chains.  
 80.06 Fall 2 lks.S.of the cor.of secs.8,9,16 and 17.  
 Thence  
 N.89°58'W., on a true line; bet. secs.8 and 17.  
 Over mountainous land, thru. scattering timber and dense  
 undergrowth, chaining measurement to  $\frac{1}{4}$  sec.cor.  
 Descend 84 ft., over W.slope.  
 9.10 Trail, brs.N. and S.  
 11.00 Center of Tincanebits wash, 100 lks.wide, course S.  
 Ascend 37 ft., over SE. slope, to  
 18.00 Wash, 30 lks.wide, course SE.  
 Ascend 130 ft., over NE.slope, to  
 26.70 Same wash, course NE.  
 Ascend 60 ft., over SE.slope, to  
 32.00 Same wash, course SE.  
 Ascend 205 ft., over NE.slope, to  
 40.03 Set an iron post, 3 ft.long, 1 in. in diam., on surface  
 rock, supported in a mound of stone, for  $\frac{1}{4}$  sec.cor.,  
 marked on brass cap,

$\frac{1}{4}$  S 8  
 S 17  
 1923

from which,  
 A pinyon, 10 ins.in diam., brs.N.85 $\frac{1}{2}$ °W., 80 lks.  
 dist., marked  $\frac{1}{4}$  S 8 BT.  
 A pinyon, 6 ins. in diam., brs.S.60 $\frac{3}{4}$ °E., 36 lks.  
 dist., marked  $\frac{1}{4}$  S 17 BT.

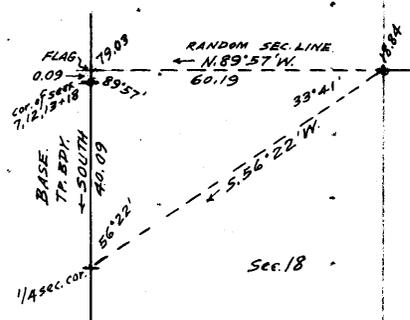
Discontinue chaining. Measurement to top of spur by trian-  
 gulation, as hereinbefore described.

58.47 Ascend about 350 ft., over cliffs, to  
 Triangulation point on top of sharp spur, sloping SE., Con-  
 tinue line and measurement across cliffs by triangula-  
 tion, as hereinbefore described.

80.06 Ascend 115 ft., to  
 The cor.of secs. 7,8,17 and 18.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush, scrub oak, willow and yucca.

18.84 N.89°57'W., on random line, bet.secs.7 and 18.  
 Top of cliffs, brs.NW. and SE. facing SW. Abrupt descent  
 prevents chaining; therefore, triangulate as follows:  
 Set flag ahead on random sec.line  
 at its intersection with the  
 W.bdy.of the Tp.at 9 lks.N.  
 of the cor.of secs.7,12,13 and 18  
 the vertical angle to which is  
 - 14°

Set another flag at the  $\frac{1}{4}$ sec.cor.  
 of secs.13 and 18 on the W.bdy.  
 of the Tp., the bearing to which  
 is S.56°22'W.



This gives a Base bet. the flags on  
 W.bdy.of S.40.09 chs.

Dist.on random sec.line = 18.84 chs.N.89°57'W.

Dist. triangulated = 60.19 chs.N.89°57'W.

Total length of random  
 sec.line = 79.03 chs.N.89°57'W.

Descent from 18.84 ch.station to sec.cor.on W.bdy is  
 990 ft.

79.03 Fall 9 lks.N. of the cor.of secs.7;12,13 and 18, on W.bdy.  
 of Tp., hereinbefore described.

Thence,  
 N.89°59'E., on a true line, bet. secs.7 and 18.  
 Over mountainous land, thru. scattering timber and dense  
 undergrowth, chaining measurement to W.C.to  $\frac{1}{4}$  sec.cor.  
 Descend 62 ft., over steep SE.slope, to

2.30 Wash, 20 lks.wide, course SE.

BOOK 3637

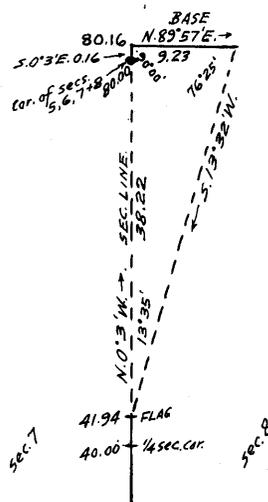
part of  
60 Survey of Subdivision lines of T. 31 N., R. 13 W.

Chains.	Ascend 60 ft. over SW.slope.
10.74	Descend 15 ft., over SE.slope.
15.80	Wash, 20 lks.wide, course S.
24.90	Ascend 50 ft., over SW.slope, to
25.70	Descend 6 ft., over E.slope.
	Wash, 20 lks.wide, course S.
34.25	Ascend 145 ft., over SW.slope.
38.90	Descend 20 ft., over SE.slope.
39.03	Wash, 30 lks.wide, course SW. Asc. 10 ft. over SW. slope to W.C.
39.17	True point for $\frac{1}{4}$ sec.cor. falls in wash, therefore at
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
	the ground for witness cor. to the $\frac{1}{4}$ sec.cor., marked
	on brass cap,
	$\frac{1}{4} \begin{array}{c} S \quad 7 \\ \hline S \quad 18 \\ 1923 \end{array} WC$
	from which,
	A pinyon, 4 ins. in diam., brs. N. 55° E., 50 lks.
	dist., marked BT.
	A pinyon, 6 ins. in diam., brs. S. 62° E., 44 lks.
	dist., marked WC $\frac{1}{4}$ S 18 BT.
	Discontinue chaining.
	Ascend about 620 ft. to top of cliffs, measurement by trian-
	gulation, as hereinbefore described.
60.19	Triangulation point at top of cliffs, bearing NW. and SE.,
	facing SW. Continue line and measurement by chaining.
63.00	Ascend 32 ft., over SW.slope.
	Point of spur, sloping S.
79.03	Descend 28 ft., over SE.slope to
	The cor. of secs. 7, 8, 17 and 18.
	Land, mountainous.
	Soil, rocky, 4th rate.
	Timber, cedar and pinyon.
	Undergrowth, black brush.
-----	
	N. 0° 3' W., bet. secs. 7 and 8.
	Over mountainous land, thru. scattering timber and dense
	undergrowth.
4.00	Ascend 100 ft., over S.slope.
	Spur, slopes E.
9.30	Descend 100 ft., over NE.slope.
	Gulch, course E.
17.50	Ascend 90 ft., over SE.slope.
	Spur, slopes E.
24.50	Descend 250 ft. over N.slope.
	Gulch, course E.
35.00	Ascend 90 ft., over SE.slope.
	Spur, slopes E.
40.00	Descend 30 ft. over NE.slope.
	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,
	$S \quad 7 \quad   \quad S \quad 8$
	1923
	from which,
	A cedar, 12 ins. in diam., brs. N. 44 $\frac{1}{2}$ ° E., 117
	lks. dist., marked $\frac{1}{4}$ S 8 BT.
	A cedar, 12 ins. in diam., brs. S. 88 $\frac{1}{4}$ ° W., 120
	lks. dist., marked $\frac{1}{4}$ S 7 BT.
41.94	Top of cliffs, bearing NW. and SE. Discontinue chaining, and
	triangulate the measurement of the remainder of the
	sec. line as follows:

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 61

Chains.

Set flag at this point.  
 From a point N.0°3'W., from flag,  
 measure a Base, N.89°57'E., 9.23  
 chs.  
 It is impracticable to chain a  
 longer Base.  
 From E. end of Base, the flag brs.  
 S.13°32'W.  
 From W. end of Base, the vertical  
 angle to flag is 0°.  
 Dist. on sec. line = 41.94 chs. N.0°3'W.  
 Dist. triangulated = 38.22 chs. N.0°3'W.  
 Total distance = 80.16 chs. N.0°3'W.  
 By return meas-  
 urement = 0.16 chs. S.0°3'E.  
 80.00 chs. N.0°3'W.



- 50.00 (Approx.) Gulch, course NE.
- 62.00 (Approx.) Gulch, course SE. in bottom of ravine.
- Ascend over precipitous SE. slope.
- 65.00 (Approx.) Joe Spring, brs. W. about 12 chs. dist.
- 75.00 (Approx.) Rim of ravine, brs. NW. and SW.
- Descend over precipitous NE. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on surface rock, deposit a stone, marked with a cross (x) at base of post, and raise a mound of stone around post, for cor. of secs. 5, 6, 7 and 8, marked on brass cap,

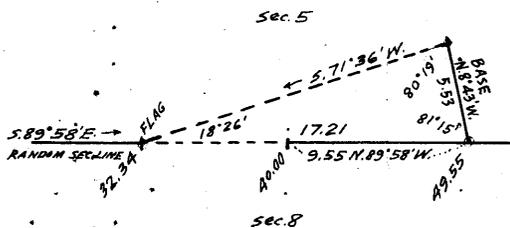
T31N R13W  
 S 6 | S 5  
 S 7 | S 8  
 1923

from which,  
 A pinyon, 8 ins. in diam., brs. N.47<sup>1</sup>/<sub>2</sub>°E., 92  
 lks. dist.; marked T31N R13W S5 BT.  
 A pinyon, 16 ins. in diam., brs. S.59°W., 64  
 lks. dist., marked T31N R13W S7 BT.  
 A pinyon, 10 ins. in diam., brs. N.34°W., 47 lks.  
 dist., marked T31N R13W S6 BT.  
 No other bearing trees available.

Land, mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush and sagebrush.

- 32.34 S.89°58'E., on random line, bet. secs. 5 and 8.
- Top of cliffs, brs. N. and S. facing W. Precipitous descent beyond this point prevents continuation of chaining; therefore, triangulate as follows:

Set flag at this point.  
 From a point ahead on  
 random line, measure a  
 Base N.8°43'W., 5.53 chs.  
 It is impracticable to chain  
 a longer Base.  
 From NW. end of Base, the flag  
 brs. S.71°36'W.

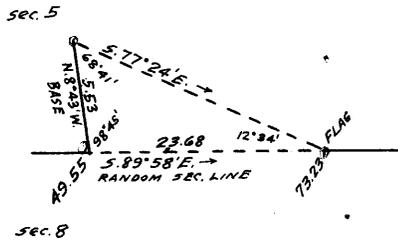


From point on random sec. line at SE. end of Base, the ver-  
 tical angle to flag is +33°.  
 Dist. on random sec. line = 32.34 chs. S.89°58'E.  
 Dist. triangulated = 17.21 chs. S.89°58'E.  
 Total dist., = 49.55 chs. S.89°58'E.  
 By return measurement = 9.55 chs. N.89°58'W.  
 40.00 chs. S.89°58'E.

- 40.00 Set temp. <sup>1</sup>/<sub>2</sub> sec. cor., Continue line and measurement by chaining.
- 49.55 Triangulation point. Continue chaining to
- 55.25 Beyond this point, precipitous ascent prevents chaining; therefore, triangulate as follows:

62 Survey of part of Subdivision lines of T. 31 N., R. 13 W.

Chains.



Set a flag ahead on random sec. line at top of cliffs, the vertical angle from 49.55 ch. station to which is +25°. From the NW. end of the same Base used in the preceding triangulation, the flag brs. S. 77° 24' E.

Dist. by 1st triangulation = 49.55 chs. S. 89° 58' E.

Dist. by 2nd triangulation = 23.68 chs. S. 89° 58' E.

Total distance, = 73.23 chs. S. 89° 58' E.

73.23 Triangulation point. Continue line and measurement by chaining.

79.96 Intersect the cor. of secs. 4, 5, 8 and 9.

Thence

N. 89° 58' W., on a true line, bet. secs. 5 and 8.

Over mountainous land, thru. scattering timber and dense undergrowth.

Ascend 80 ft., over SE. slope.

2.85 Point of spur, slopes S.

Descend 120 ft., over W. slope, to

6.73 Triangulation point at top of cliffs, bearing N. and S., facing W. and forming East, or left rim of canyon.

Discontinue chaining.

Descend 796 ft., over precipitous W. slope, measurement by triangulation, as hereinbefore described.

24.71 Tin canebits wash, 100 lks. wide, course S. in bottom of canyon.

Continue line and measurement by chaining.

Ascend 70 ft., over E. slope, to

30.41 Triangulation point. Continue chaining.

Ascend 286 ft., over steep E. slope, to

39.98 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bed rock, supported in a mound of stone, for 1/4 sec. cor., marked on brass cap,

1/4 S 5  
S 8  
1923

from which,

A pinyon, 6 ins. in diam., brs. N. 24 3/4° E., 65 lks. dist., marked 1/4 S 5 BT.

A pinyon, 6 ins. in diam., brs. S. 71 3/4° E., 28 lks. dist., marked 1/4 S 8 BT.

Discontinue chaining. Measurement to top of cliffs by triangulation, hereinbefore described.

Ascend 450 ft., to

47.62 Triangulation point at top of cliffs, bearing N. and S., facing E., and forming W. or right rim of canyon. Leave canyon. Continue line and measurement by chaining.

Ascend 195 ft., over SE. slope.

56.00 Point of spur, slopes S.

Descend 150 ft. over W. slope, to

65.00 Draw, course SW.

Descend 185 ft., over SW. slope, to

75.80 Wash, 20 lks. wide, in gulch, course S.

Ascend 142 ft., over NE. slope, to

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

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinyon.

Undergrowth, black brush, sage brush and scrub oak.

S. 89° 59' W., on a random line, bet. secs. 6 and 7.

40.00 Set temp. 1/4 sec. cor.

79.08 Fall 2 lks. S. of the cor. of secs. 1, 6, 7 and 12, on W. bdy. of Tp., hereinbefore described.

Thence,

BOOK 3007

Survey of part of Subdivision lines of T. 31 N., R. 13 W. 63

Chains.

East, on a true line, bet. secs. 6 and 7.  
 Over rolling land, thru. scattering timber and undergrowth.  
 Descend 24 ft., over S. slope.  
 6.00 Ascend 20 ft., over SW. slope.  
 10.50 Descend 76 ft., over SE. slope.  
 19.00 Draw, course SE. from SW.  
 Descend 23 ft., over S. slope.  
 32.00 Spur, slopes E. from NW.  
 Descend 70 ft. along top of spur, to  
 39.08 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 6  
 S 7  
 1923

from which,  
 A cedar, 10 ins. in diam., brs. N.  $1\frac{3}{4}^{\circ}$  W., 38 lks.  
 dist., marked  $\frac{1}{4}$  S 6 BT.  
 A pinyon, 10 ins. in diam., brs. S.  $50\frac{1}{4}^{\circ}$  E., 15 lks.  
 dist., marked  $\frac{1}{4}$  S 7 BT.

Leave top of spur, sloping SE. from W. Enter mountainous  
 land.  
 Descend 225 ft., over NE. slope.  
 52.34 Wash, 20 lks. wide, course SE. in bottom of ravine.  
 Ascend 66 ft., over SW. slope.  
 55.80 Descend gradually along S. slope.  
 64.70 Ascend 80 ft., over SW. slope.  
 70.25 Spur, slopes SE.  
 Descend 120 ft., over NE. slope, to  
 79.08 The cor. of secs. 5, 6, 7 and 8.  
 Land, rolling and mountainous.  
 Soil, rocky, 4th rate.  
 Timber, cedar and pinyon.  
 Undergrowth, black brush, scrub oak and dwarf cedar.

N.  $0^{\circ}11'$  W., on a random line, bet. secs. 5 and 6.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 79.85 Fall 9 lks. E. of the cor. of secs. 5, 6, 31 and 32, on N. bdy. of  
 Tp., described in Book "C."

Thence,  
 S.  $0^{\circ}15'$  E., on a true line, bet. secs. 5 and 6.  
 Over mountainous land, thru. scattering timber and dense  
 undergrowth.  
 Descend slightly over S. slope.  
 0.10 Wash, 20 lks. wide, course SE.  
 Ascend 100 ft., over NE. slope.  
 5.35 Point of spur, slopes E.  
 Descend 55 ft. over SE. slope.  
 9.35 Wash, 10 lks. wide, in gulch, course NE.  
 Ascend 200 ft., over NW. slope, to  
 19.25 North rim of bench, brs. N.  $80^{\circ}$  E. and S.  $80^{\circ}$  W. Enter nearly  
 level land.  
 Descend slightly over E. slope, to  
 39.85 Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in  
 the ground, to bed rock, supported in a mound of  
 stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$   
 S 6 | S 5  
 1923

from which,  
 A pinyon, 12 ins. in diam., brs. S.  $30\frac{3}{4}^{\circ}$  E., 103 lks.  
 dist., marked  $\frac{1}{4}$  S 5 BT.  
 A cedar, 14 ins. in diam., brs. S.  $9\frac{1}{4}^{\circ}$  W., 113 lks.  
 dist., marked  $\frac{1}{4}$  S 6 BT.

Continue over nearly level land, to  
 42.38 South rim of bench, brs. NW. and SE. Leave bench. Enter  
 mountainous land.

## 64 Survey of part of Subdivision lines of T.31 N., R. 13 W.

Chains.

50.85 Descend 240 ft., over S. slope.  
Draw, course SE.

60.00 Ascend 152 ft., over NE. slope.  
Point of spur, slopes E.  
Descend 160 ft., over SE. slope, to

71.85 Draw, course E.  
Ascend 26 ft., over N. slope.

75.15 Descend 44 ft., over S. slope.

78.00 Draw, course E.  
Ascend 10 ft., over NE. slope, to

79.85 The cor. of secs. 5, 6, 7 and 8.  
Land, mountainous and nearly level.  
Soil, rocky, 4th rate.  
Timber, cedar and pinyon.  
Undergrowth, scrub oak, sage brush, black brush and cactus.

---

FINAL FIELD TEST OF BUFF TRANSIT NO. 9223.

April 20, 1922: At camp, near cor. of secs. 21, 22, 27 and 28, T.32 N., R.14 W., Gila and Salt River Base and Meridian, Arizona; lat.  $36^{\circ}9'N.$ , long.  $113^{\circ}47\frac{1}{2}'W.$ , examine the adjustments of the instrument, and correct all errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with the true meridian established at this point on April 7, 1922, by Polaris observation as described in Book "G," of this group, proceed as follows:

At 9h.0m. a.m., l.m.t., set off  $36^{\circ}9'N.$  on the lat. arc;  $11^{\circ}25'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is  $11^{\circ}27'N.$ , which agrees with the computed declination of the sun.

At 3h. 00m. p.m., l.m.t., with the lat. arc unchanged set off  $11^{\circ}30'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made during the usual hours of solar work, come within 1' of the meridian determined by Polaris observations, conclude that the instrument has remained in satisfactory adjustment during its use in the execution of survey of the West bdy. of T.31 N., R.13 W., as described in the foregoing field notes.

---

FINAL FIELD TEST OF YOUNG AND ISONS TRANSIT NO. 8532.

July 9, 1923: Examine the adjustment of the instrument, correct all errors, and test the solar as follows:

At camp, in SW.  $\frac{1}{4}$  of sec. 3, T.31 N., R.13 W., Gila and Salt River Base and Meridian, Arizona, in lat.  $36^{\circ}6\frac{1}{2}'N.$ , long.  $113^{\circ}35'W.$ , at 0h.32.0m., a.m., l.m.t., observe Polaris at eastern elongation, making four observations, two each with the telescope in direct and reversed positions, and mark the mean point in the line thus determined by a tack in a stake driven firmly in the ground 5 chs. north.

Azimuth of Polaris at eastern elongation =  $1^{\circ}22' 34''$ .

At 7h.30m. a.m., l.m.t., lay off the azimuth of Polaris  $1^{\circ}22\frac{1}{2}'$  to the west, and mark a point on the meridian thus determined, on a stake 5 chs. N.

At 8h.0m. a.m., l.m.t., set off  $36^{\circ}6\frac{1}{2}'N.$  on the lat. arc;  $22^{\circ}27'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl.

arc is  $22^{\circ} 25\frac{1}{2}'$  N., which agrees with the computed declination of the sun.

At 4h.0m. p.m., l.m.t. with the lat. arc unchanged, set off  $22^{\circ} 24\frac{1}{2}'$  N. on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made during the usual hours of solar work come within 1' of the meridian determined by Polaris observation, conclude that the instrument has remained in satisfactory adjustment during its use in the execution of survey of the South boundary and Subdivision lines of T. 31 N., R. 13 W., as described in the foregoing field notes.

GENERAL DESCRIPTION.

The surface of the greater part of this township is mountainous, sloping steeply into two canyons crossing the Tp. from north to south. The surface of most of the east range of sections is gently rolling and nearly level on a large bench known as West side of Twin Point. In the north central part is a large bench between the canyons, bearing N. and S., known as Burnt Canyon Point, where the surface is nearly level. There is some level surface along the South boundary. The greater part of sections 30 and 31 falls on precipitous walls of a canyon rendering survey impracticable.

The soil is mostly rocky, 4th rate, except on the benches, where a gravelly, 3rd rate soil predominates.

The timber consisting of cedar and pinyon is dense over the benches in the eastern and north central parts of the township, and scattering elsewhere, except in the southwestern part, where there is no timber.

The undergrowth, consisting of black brush, sagebrush, cactus, scrub oak and manzanita is dense over most of the township.

There are no permanent flowing streams of water, but there are several springs, Tincanebits Spring in sec. 5, Joe Spring in sec. 7, Burnt Spring in sec. 22 and Red Spring in sec. 33.

There are no settlers, and the only improvement is a fence in secs. 13 and 14. An old road, bearing N. and S. thru. the eastern part, and several trails following the canyons are the only means of travel thru. the township.

There is no evidence of valuable mineral deposits.



CERTIFICATE OF UNITED STATES SURVEYOR.

BOOK 3637

I, William E. Hiester, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 73, Arizona, bearing date of the 12th day of October, 1916, 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 West boundary, South boundary, and Subdivision lines of TOWNSHIP 31 NORTH, RANGE 13 WEST, of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and 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 73, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place: Phoenix Arizona
Date: May 15 1924

William E. Hiester
U. S. Surveyor.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, Sept 20, 1924

The foregoing field notes of the survey of the West boundary, Part of the South boundary, and Part of the Subdivision lines of TOWNSHIP 31 NORTH, RANGE 13 WEST,

of the Gila and Salt River Base and Meridian, in the State of Arizona, executed by William E. Hiester, U.S. Surveyor, under his special instructions dated Oct. 12, 1916, for Group 73, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Charles M. Donohoe
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.