

4-679  
(April 1933)

BOOK 4159

# FIELD NOTES

OF THE SURVEY OF

PART OF WEST BOUNDARY

PART OF NORTH BOUNDARY and

PART OF SUBDIVISION LINES

and

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER

thru

TOWNSHIP 41 NORTH, RANGE 9 EAST

Of the GILA AND SALT RIVER Meridian,

In the State of ARIZONA

EXECUTED BY

Benjamin J. Kinsey, Surveyor.

supplemental  
Under special instructions dated March 27, 1936, which provided  
for the surveys included under Group No. 181, Arizona, bearing the approval of the  
Commissioner of the General Land Office under date of July 24, 1936  
and assignment instructions dated November 9, 1936.

Survey commenced March 24, 1937

Survey completed March 31, 1937

4159

4159

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

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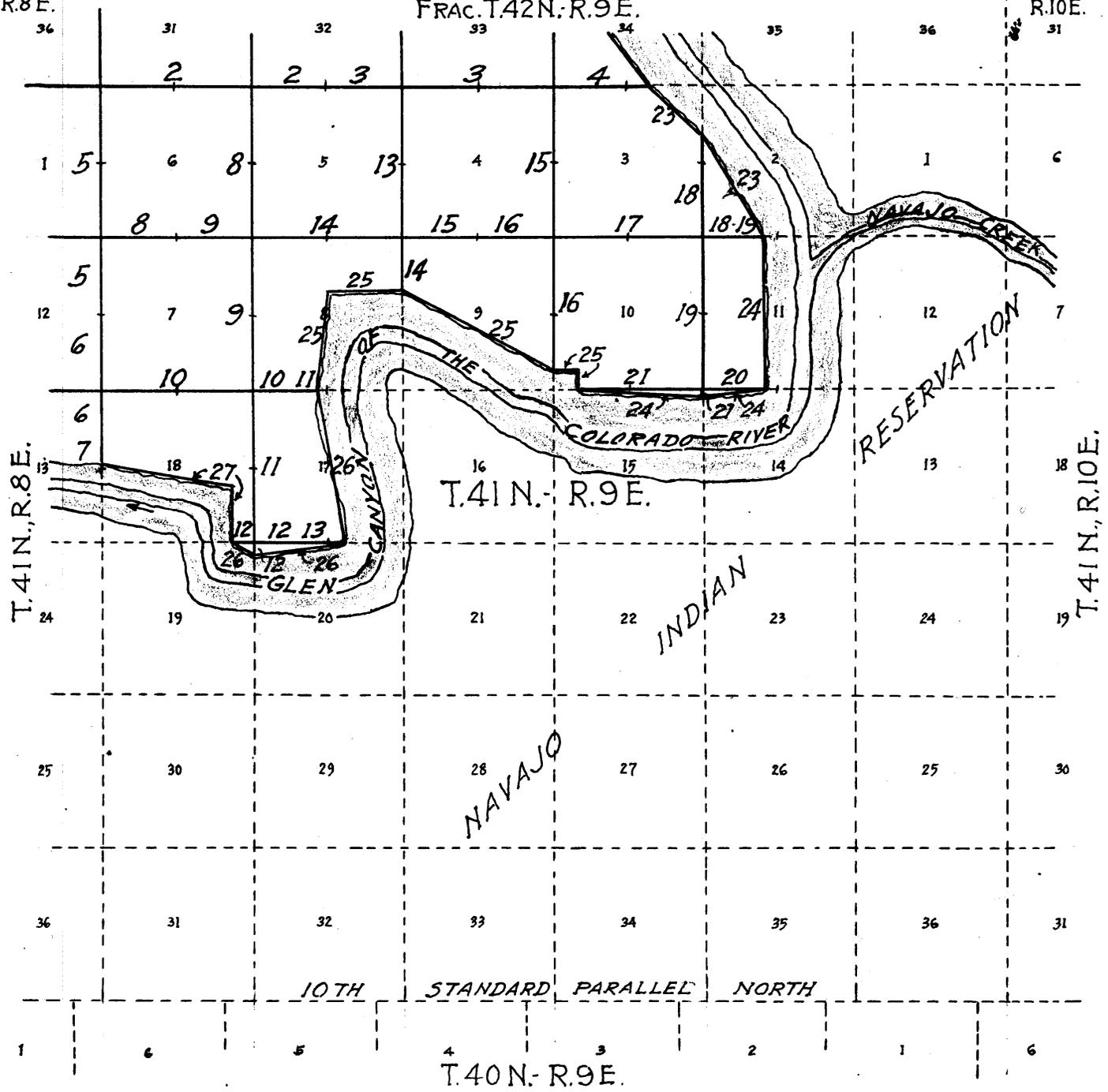
INDEX DIAGRAM

BOOK 4159

FRAC.  
T.42N.  
R.8E.

FRAC. T.42N. R.9E.

FRAC.  
T.42N.  
R.10E.



----- Unsurveyed lines.

———— Lines surveyed under this group (181, Ariz)

The surveys herein described were executed by Benjamin J. Kinsey, Surveyor, using Young and Son's transit No. 8570. This instrument is equipped with a Smith solar attachment, and otherwise conforms to the standard requirements of the General Land Office.

PRELIMINARY TEST OF INSTRUMENT

March 20, 1937: at station at cor. of Ts. 41 and 42 N., Rs. 8 and 9 E., G. & S.R. Meridian, Arizona, in latitude  $36^{\circ}59'21''$  N., longitude  $111^{\circ}28'23''$  W., as determined from data accompanying the Special Instructions, examine the adjustments of the transit and find no errors: then to test the solar apparatus by comparing its findings with a true meridian determined by observation on Polaris at elongation, proceed as follows:

At 7h. 45m., p.m., l.m.t., observe Polaris at western 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 about 5 chs. N.

Azimuth of Polaris at western elongation =  $1^{\circ}17'30''$ .

March 21, 1937:

At 8h. a.m., lay off the azimuth of Polaris  $1^{\circ}17\frac{1}{2}'$  to the east, and mark the true meridian thus determined by a tack in a stake driven firmly in the ground about 5 chs. N.

At 9h. 00m., a.m., app.t., set off  $36^{\circ}59\frac{1}{2}'$  N. on the lat. arc;  $0^{\circ}16\frac{1}{2}'$  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, and obtain a reading of  $0^{\circ}19\frac{1}{2}'$  N. on the decl. arc, which agrees with the computed declination of the sun.

At 3h. 00m., p.m., app.t., with the lat arc unchanged, set off  $0^{\circ}22\frac{1}{2}'$  N. on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations taken during the usual hours of solar work agree within 1' with the true meridian, conclude that this instrument is in satisfactory adjustment on this date.

Unless otherwise specified, all measurements herein recorded were made with a Lallie steel tape, 5 chs. in length, which was compared with a Lufkin standard tape and found correct. The measurements were made on the slope, the vertical angles determined by a clinometer in good adjustment, and the slope measurements properly reduced to true horizontal values for entry in the field notes.

SURVEY: PART OF NORTH BDY. OF T. 41 N., R. 9 E.

2.

Chains	<p>From the cor. of Ts. 41 and 42 N., Rs. 8 and 9 E., which is a brass-capped iron post, 3 ins. in diam., established under this group, as described in field notes of survey of T. 41 N., R. 8 E.</p> <p>East, bet. secs. 6 and 31.</p> <p>Over gently rolling land, thru scattering low undergrowth.</p> <p>Asc. 109 ft. over N. slope to</p> <p>39.75 Wash, 20 lks. wide, course NW.; asc. slightly over NW. slope to</p> <p>40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p> $\frac{1}{4} \frac{S \ 31}{S \ 6}$ <p>1937</p> <p>18x18x12 ins., E. and W. of cor., 3 ft. dist. <span style="float: right;">dig pits</span></p> <p>From cor., Castle Rock, bears N. 17°50'E. Echo Peak, bears S. 31°50'W. North edge of The Tower, bears S. 81°25'E.</p> <p>Continue over gently rolling land, thru scattering undergrowth; asc. gradually over NW. slope to sec. cor.</p> <p>73.30 Trail, bears NW. and SE.</p> <p>80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap marked</p> $\begin{array}{c c} T42N & R9E \\ \hline S31 & S32 \\ \hline S6 & S5 \\ T41N & \end{array}$ <p>1937</p> <p>18x18x12 ins., in each sec., 3 ft. dist. <span style="float: right;">dig pits</span></p> <p>From cor., Castle Rock, bears N. 1°50'E. Navajo Mt., bears N. 74°25'E. Echo Peak, bears S. 34°W.</p> <p>Land, gently rolling. Soil, sandy and sandstone formation, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.</p> <hr/> <p>East, bet. secs. 5 and 32.</p> <p>Over gently rolling land, thru scattering low undergrowth.</p> <p>Asc. gradually over NW. slope.</p> <p>25.00 Ridge, bears NE. and SW.; desc. gradually over SE. slope.</p> <p>40.00 Head of draw, course SW. Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bedrock, with a stone 4x4x3 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p>
--------	--

Chains

$\frac{1}{4} \frac{S 32}{S 5}$

1937

from which

Castle Rock, bears N.  $15\frac{1}{2}^{\circ}$ W.  
N. end of The Tower, bears S.  $80^{\circ}$ E.  
Echo Peak, bears S.  $36^{\circ}$ W.

Continue over gently rolling land; thru scattering undergrowth. Asc. gradually over W. slope to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap marked

$\frac{T42N}{S32} \frac{R9E}{S33}$   
 $\frac{S5}{S4}$   
T41N

1937

dig pits

18x18x12 ins., in each sec., 3 ft. dist.

Land, gently rolling.  
Soil, sandy and broken sandstone formations, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage and grease brush and cacti.

East, bet. secs. 4 and 33.

Over gently rolling land, thru scattering low undergrowth.

Asc. gradually over W. and SW. slopes 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., with brass cap marked

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

1937

dig pits

18x18x12 ins., E. and W. of cor., 3 ft. dist.

Continue over gently rolling land, thru scattering low undergrowth.

Asc. gradually over SW. slope to

55.00 Thence over South slope

70.00 From this point a low spur ridge extends SW. Continue over S. slope to

75.00 Small gully, course S., near head. Thence over level bench.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground to bedrock, with stone 5x5x2 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for cor. of secs. 3, 4, 33 and 34, with brass cap marked

## SURVEY: PART OF NORTH BDY. OF T. 41 N., R. 9 E.

4.

Chains	
	<div style="text-align: center;">           T42N R9E  <u>S33   S34</u>            S4   S3            T41N             1937             Land, gently rolling and level.            Soil, sandy and broken sandstone formation, 4th rate.            Timber, none.            Undergrowth, native weeds, sage, grease brush and cacti.         </div>
	<hr/> <div style="text-align: center;">           East, bet. secs. 3 and 34 (Part).             Over level bench, thru scattering low undergrowth.             3.60 Rim, bears NE. and SW. Leave bench and enter rolling land; desc. 64 ft. over SE. slope.             18.60 Draw, course S.; asc. 26 ft. over NW. slope.             29.65 Spur, slopes SW.; desc. 45 ft. over SE. slope to             40.00 Set an iron post, 3 ft. long, 1 in. in diam., 8 ins. in the ground to bedrock, with a stone 6x3 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for <math>\frac{1}{4}</math> sec. cor., with brass cap marked   <div style="text-align: center;"> <math>\frac{1}{4} \frac{S \ 34}{S \ 3}</math>             1937         </div>             Continue over rolling land, thru scattering low undergrowth; desc. slightly over S. slope to             43.60 Spur, slopes SE.; desc. 37 ft. over NE. slope to             51.07 Right or west rim of Glen Canyon of the Colorado River, bears NW. and SE. Set temp. monument at this point for traverse of the canyon rim thru Sec. 3 and discontinue survey of the Tp. bdy. Beyond this point, about 10 lks. dist., is the edge of west wall of the canyon, with a sheer descent of about 800 feet to the water surface of the Colorado River, course SE.             Land, rolling.            Soil, sandy and broken sandstone formations, 4th rate.            Timber, none.            Undergrowth, native weeds, sage, grease brush and cacti.         </div>

Chains

From the cor. of Ts. 41 and 42 N., Rs. 8 and 9 E., which is a brass-capped iron post, 3 ins. in diam. established under this group as described in the field notes of survey of T. 41 N., R. 8 E.

South, bet. secs. 1 and 6.

Over rolling and broken land, thru scattering low undergrowth.

Asc. gradually over N. slope.

5.00 Spur, slopes W.; desc. 16 ft. over S. slope.

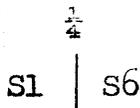
7.90 Wash, 30 lks. wide, course W.; asc. 119 ft. over broken NW. slope.

25.00 Spur, slopes W.; desc. 52 ft. over SW. slope.

30.00 Wash, 10 lks. wide, course W.; asc. 80 ft. over broken NW. slope to

38.00 Sandstone rim, brs. NE. and SW.; asc. slightly over SW. slope to

40.00 Set a brass cap, 3 1/2 ins. in diam., with stem 3 ins. long, in concrete, in solid rock, for 1/4 sec. cor., with cap marked



1937

raise a mound of stone, 4 ft. base, 2 ft. high, W. of cor.

Asc. 30 ft. over NW. slope.

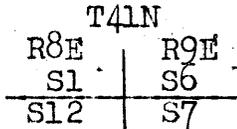
45.40 Spur, slopes SW.; desc. 50 ft. over SE. slope to

52.00 Sandstone rim; bears NE. and SW.; desc. 25 ft. over steep SE. slope to

52.30 Foot of sandstone outcropping, bears NE. and SW.; desc. 105 ft. over SE. slope.

62.90 Wash, 30 lks. wide, course SW.; asc. 53 ft. over NW. slope to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., on exposed bedrock, with a stone 5x5x2 ins.; marked with a cross (+) deposited at base, and in a mound of stone to top, for cor. of secs. 1, 6, 7 and 12, with brass cap marked



1937

Land, rolling and broken.  
Soil, sandy and rocky, sandstone formation, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, grease brush and cacti.

South, bet. secs. 7 and 12.

Over rolling land, thru scattering low undergrowth.

SURVEY: PART OF WEST BDY. OF T. 41 N., R. 9 E.

6.

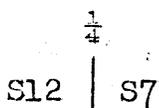
Chains

Asc. 20 ft. over NW. slope to

6.80 Spur slopes W., from bench, from which rims extend NE. and SE.; desc. 35 ft. over SW. slope to

23.60 Foot of broken slope from bench, brs. SE. and W.; desc. over gently rolling sandy W. slope to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground to bedrock, with a stone 6x4x4 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for  $\frac{1}{4}$  sec. cor., with brass cap marked

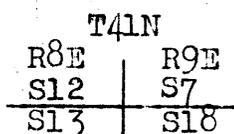


1937

Continue over gently rolling sandy land, thru low undergrowth; desc. gradually over W. slope.

50.00 Draw, course NW.; asc. 90 ft. over NE. slope to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in the ground to bedrock, with a stone 4x4x3 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for cor. of secs. 7, 12, 13 and 18, with brass cap marked



1937

Land, rolling, broken and gently rolling.  
Soil, sandy, stony and broken sandstone formations; 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, greasebrush and cacti.

South, bet. secs. 13 and 18 (N. $\frac{1}{2}$ )

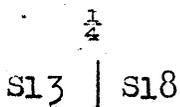
Over mountainous; broken and rolling land, thru scattering low undergrowth.

Asc. 109 ft. over broken NE. slope.

9.00 Ridge, bears E. and W.; desc. 70 ft. over steep S. slope to

12.75 Foot of steep S. slope, bears E. and W.; thence over rolling land. Desc. 75 ft. over S. slope to

36.25 Set a brass cap,  $3\frac{1}{2}$  ins. in diam., with a stem 3 ins. long, in concrete, in solid rock, for witness cor. to  $\frac{1}{4}$  sec. cor., marked on cap



1937  
WC

raise a mound of stone, 4 ft. base, 2 ft. high, W. of cor.

## SURVEY: PART OF WEST BDY. OF T. 41 N., R. 9 E.

BOOK 4156

7.

## Chains

Desc. slightly over S. slope to

38.25

Right rim of Glen Canyon of the Colorado River, bears N. 79°W. and S. 79°E. Discontinue survey of Tp. bdy. at this point owing to almost perpendicular descent of about 900 ft. over the canyon wall. Set temp. flag for traverse of canyon rim thru section 18, T. 41 N., R. 9 E., as hereinafter described.

40.00

True point for  $\frac{1}{4}$  sec. cor. falls on right wall of Glen Canyon, in an inaccessible position where it is impracticable to monument the corner; therefore establish witness cor. at 3.75 chs. North as herein before described.

Land, mountainous, broken and rolling.

Soil, sandy, stony and sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

SUBDIVISION: PART OF T. 41 N., R. 9 E.

8.

Chains

Commence the survey of the subdivision of that part of T. 41 N., R. 9 E., situate N. and W. of the rim of Glen Canyon of the Colorado River at the cor. of secs. 5, 6, 31 and 32, on the N. bdy. of the Tp., hereinbefore described.

Thence

S. 0°01'W., bet. secs. 5 and 6.

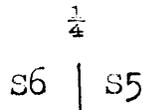
Over gently rolling land, thru scattering low undergrowth.

Asc. 23 ft. over NW. slope.

5.00 Ridge, bears E. and W.; desc. 40 ft. over S. slope.

30.00 Draw, course W.; asc. gradually over N. slope to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap marked



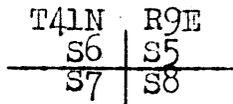
1937

18x18x12 ins., N. and S. of cor., 3 ft. dist. dig pits

Continue over gently rolling sandy land, thru low scattering undergrowth. Asc. gradually over NW. slope to sec. cor.

55.00 Draw, course NW.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, with brass cap marked



1937

18x18x12 ins., in each sec., 3 ft. dist. dig pits

Land, gently rolling.

Soil, sandy and sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

West, on a random line, bet. secs. 6 and 7.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect W. bdy. of the Tp. at the cor. of secs. 1, 6, 7 and 12, hereinbefore described.

Thence,

East, on true line, bet. secs. 6 and 7.

Over rolling and broken land, thru scattering low undergrowth.

Asc. 149 ft. over NW. slope to

16.60 Sandstone rim of bench, bears NE. and SW. Thence over

SUBDIVISION: PART OF T. 41 N., R. 9 E.

Chains

gently rolling land on bench; asc. gradually over NW. 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., with brass cap marked

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

1937

18x18x12 ins., E. and W. of cor., 3 ft. dist. dig pits

Continue over gently rolling sandy land, thru scattering low undergrowth; asc. gradually over NW. slope to

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

Land, rolling, broken and gently rolling.  
Soil, sandy and sandstone formations, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, grease brush and cacti.

S. 0°01'W., bet. secs. 7 and 8.

Over gently rolling land, thru scattering low undergrowth.

Asc. gradually over NW. slope.

25.00 Low sand ridge, bears NE. and W.; desc. slightly over SW. slope to

30.00 Sandstone rim, brs. W. and SE.; desc. 52 ft. 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., with brass cap marked

$\frac{1}{4}$   
S7 | S8

1937

18x18x12 ins., N. and S. of cor., 3 ft. dist. dig pits.

Continue over gently rolling land, thru scattering low undergrowth; desc. 28 ft. over SW. slope.

50.00 Low saddle, bears E. and W.; asc. 22 ft. over NE. slope to

62.75 Shallow draw, course NE.; asc. 71 ft. over NE. slope.

68.60 Top of sandstone rim, 25 ft. high, bears NW. and SE.; asc. 23 ft. over broken E. slope, across top of spur sloping E.

73.60 Sandstone rim, brs. NE. and SW. Leave top of spur; desc. 14 ft. over SE. slope to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., over a cross (+) 18 ins. long, chiseled in exposed rock and in a mound of stone to top, for cor. of secs. 7, 8, 17 and 18, with brass cap marked

T41N R9E  
S7 | S8  
S18 | S17

1937

## SUBDIVISION: PART OF T. 41 N., R. 9 E.

10

Chains	
	<p style="text-align: right;">raise a mound</p> <p>of stone, 3 ft. base, 2 ft. high, W. of cor.</p> <p>Land, gently rolling and broken. Soil, rocky, sandstone formation, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>West, on a random line, bet. secs. 7 and 18.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.06	Intersect W. bdy. of the Tp. 14 lks. N. of the cor. of secs. 7, 12, 13 and 18, hereinbefore described.
	<p>Thence,</p> <p>N. 89°54'E., on true line, bet. secs. 7 and 18.</p> <p>Over rolling and broken land, thru scattering undergrowth.</p> <p>Desc. 20 ft. over NE. slope to</p>
5.30	Wash, 10 lks. wide, course NE.; enter mountainous land; asc. 160 ft. over NW. slope.
23.60	Sandstone ridge, bears NE. and SW.; desc. 57 ft. over SE. slope.
28.55	Draw, course SW.; asc. 70 ft. over SW. slope to
40.03	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4} \frac{S 7}{S 18}$ <p>1937</p>
	<p style="text-align: right;">raise a mound</p> <p>of stone 3 ft. base, 2 ft. high, N. of cor.</p> <p>Asc. 35 ft. over SW. slope to</p>
47.70	Same ridge, bears E. and NW.; thence over nearly level top of ridge, bears E. and W.
73.00	Sandstone rim, brs. NE. and SW.; leave top of ridge; brs. W. and SE. Spur, slopes NE. from this point; desc. 54 ft. over broken SE. slope to
80.06	The cor. of secs. 7, 8, 17 and 18.
	<p>Land, rolling, broken and mountainous. Soil, sandy and rocky, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>East, bet. secs. 8 and 17 (W. <math>\frac{1}{2}</math>)</p> <p>Over mountainous land, thru scattering low undergrowth.</p> <p>Desc. slightly over SE. slope to</p>
0.60	Drain, course NE.; desc. gradually over N. slope to
3.90	Point of sandstone spur, slopes NE.; desc. 113 ft. over steep E. slope.
10.50	Wash, 20 lks. wide, course NE.; leave mountainous and enter gently rolling land.

SUBDIVISION: PART OF T. 41 N., R. 9 E.

BOOK 418

11

Chains	Asc. 8 ft. over NW. slope to
12.75	Desc. 40 ft. over N. and NE. slopes to
33.34	Set an iron post, 3 ft. long, 1 in. in diam., over a cross (+) 12 ins. long, chiseled in exposed surface rock, and in a mound of stone to top, for witness cor. to $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4} \begin{array}{l} S 8 \\ S 17 \end{array} WC$
	1937
33.74	Right rim of Glen Canyon of the Colorado River, brs. N. and S. Discontinue survey of the sec. line here. The canyon is about 900 ft. deep at this point, with nearly vertical walls. The center of water surface of the Colorado River, course S. is about 15 chs. East of this point.
40.00	True point for $\frac{1}{4}$ sec. cor., falls in bottom of canyon, an inaccessible position, where it is impractical to monument the cor., therefore establish witness cor. at point 6.66 chs. W. as hereinbefore described.
	Land, mountainous, broken and gently rolling. Soil, sandy and rocky, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.
	From the cor. of secs. 7, 8, 17 and 18. S. 0°01'W., bet. secs. 17 and 18. Over rolling and broken land, thru scattering undergrowth. Desc. slightly over SE. slope.
0.40	Head of drain, course NE.; asc. gradually over NW. slope
3.00	Spur, slopes NE.; desc. slightly over SE. slope
5.40	Draw, course NE.; near head; asc. 22 ft. over NE. slope to
7.90	Ridge, bears NW. and SE.; desc. 74 ft. over SW. slope to
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground to bedrock, with a stone 6x6x4 ins., marked with a cross (+) deposited at base, and in a mound of stone to top, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4}$
	$S18 \quad   \quad S17$
	1937
	Continue over rolling and broken land, thru scattering undergrowth. Desc. 20 ft. over SW. slope to
64.15	Draw, course SE.; desc. 70 ft. over SE. slope to
80.00	Set a brass cap, $3\frac{1}{2}$ ins. in diam., with stem 3 ins. long, in concrete, in solid rock, for cor. of secs. 17, 18, 19 and 20, marked on cap

## SUBDIVISION: PART OF T. 41 N., R. 9 E.

12

Chains

T41N	R9E
S18	S17
S19	S20

1937

raise a mound  
of stone 4 ft. base, 2 ft. high, W. of cor.

Land, rolling and broken.

Soil, sandy and rocky, sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From cor. of secs. 17, 18, 19 and 20.

West, bet. secs. 18 and 19 (Part).

Over gently rolling and broken land, thru scattering low undergrowth.

Along S. slope to

10.00 Right rim of Glen Canyon of the Colorado River, bears N. and SE. Discontinue survey of the section line at this point owing to precipitous descent over cliffs on the right wall of the canyon. Set temp. monument at this point for traverse of the canyon rim thru secs. 18 and 19 as hereinafter described.

Land, gently rolling and broken.

Soil, sandy and broken sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From cor. of secs. 17, 18, 19 and 20.

S. 0°01'W., bet. secs. 19 and 20 (Part).

Over gently rolling and broken land, thru scattering low undergrowth.

Desc. gradually over SE. slope to

6.00 Right rim of Glen Canyon of the Colorado River, brs. NW. and E. Discontinue survey of the section line at this point, owing to precipitous descent over cliffs on the right wall of the canyon. Set temporary monument at this point for traverse of the canyon rim thru secs. 19 and 20, as hereinafter described.

Land, gently rolling and broken.

Soil, sandy and broken sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

East, bet. secs. 17 and 20 (Part).

Over mountainous rolling and broken land, thru scattering undergrowth, nearly parallel to right rim of Glen Canyon, which is about 5 chs. S. of line.

Desc. 22 ft. over SE. slope.

1.80 Wash, 20 lks. wide, course S.; asc. 112 ft. over SW. slope.

7.40 Top of ascent, on N. side of round knoll, at end of spur, sloping S.; desc. 58 ft. over SE. slope.

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Chains

20.20 Wash, 30 lks. wide, course SE.; asc. 56 ft. over SW. slope.

32.40 Point of spur, slopes SW.; desc. 117 ft. over SE. slope to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., over a 10 in. cross (+) chiseled in exposed surface rock and in a mound of stone to top, for 1/4 sec. cor., with brass cap marked

1/4 S 17 / S 20

1937

Desc. slightly over SE. slope.

40.50 Wash, 10 lks. wide, course SE.; asc. 45 ft. over SW. slope.

47.37 Point of spur, slopes S.; desc. 11 ft. over SE. slope to

48.55 Right rim of Glen Canyon of the Colorado River, bears NW. and SW. Discontinue survey of the sec. line at this point owing to almost perpendicular descent of 900 ft. over the canyon wall. The water surface of the river is about 15 chs. E. in a bend course West from N. Set temp. monument for rim traverse thru secs. 17 and 20.

Land, rolling, broken.

Soil, sandy, stony, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From the cor. of secs. 4, 5, 32 and 33, on N. bdy. of the township, hereinbefore described.

S. 0°01'W., bet. secs. 4 and 5.

Over gently rolling land, thru scattering low undergrowth.

Asc. gradually over W. and NW. slopes to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap marked

1/4 S5 | S4

1937

18x18x12 ins., N. and S. of cor., 3 ft. dist. dig pits

Continue over gently rolling land, thru scattering low undergrowth; asc. gradually over NW. slope.

70.00 Low sand ridge, bears NE. and SW.; desc. gradually over SE. slope to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, with brass cap marked

T41N R9E / S5 | S4 / S8 | S9

1937

## SUBDIVISION: PART OF T. 41 N., R. 9 E.

14

Chains

18x18x12 ins., in each sec., 3 ft. dist. dig pits

Land, gently rolling.

Soil, sandy and sandstone formations, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

West, on a random line, bet. secs. 5 and 8.

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

80.00 Intersect the cor. of secs. 5, 6, 7 and 8.

Thence,

East, on true line, bet. secs. 5 and 8.

Over gently rolling sandy land, thru scattering low undergrowth.

Asc. gradually over NW. 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., with brass cap marked

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

1937

18x18x12 ins., E. and W. of cor, dig pits

Continue over gently rolling sandy land, thru scattering undergrowth; asc. gradually over NW. slope.

70.00 Low sand ridge, bears NE. and SW.; desc. gradually over SE. slope to

80.00 The cor. of secs. 4, 5, 8 and 9.

Land, gently rolling.

Soil, sandy and sandstone formations, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

S. 0°01'W., bet. secs. 8 and 9 (Part).

Over gently rolling sandy land, on bench, thru scattering low undergrowth.

Desc. gradually over SE. slope to

10.00 Sandstone rim of bench, bears NE. and SW. Leave bench and enter mountainous land; desc. 198 ft. over bare sandstone on SE. slope to

22.00 Foot of slope bears NE. and SW. Leave mountainous and enter gently rolling land. Desc. gradually over SE. slope to right rim of Glen Canyon, across bare rock.

26.50 Set temp. monument for traverse of Glen Canyon rim thru secs. 8 and 9 as hereinafter described.

28.00 Right rim of Glen Canyon of the Colorado River, bears W. and SE. Discontinue survey of the sec. line at this point owing to precipitous descent over cliffs on the canyon wall.

Chains	<p>Land, gently rolling and mountainous.          Soil, sandy and sandstone formations, 4th rate.          Timber, none.          Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>From the cor. of secs. 3, 4, 33 and 34, on the N. bdy. of the Tp., hereinbefore described.          S. 0°02'W., bet. secs. 3 and 4.          Over level bench, thru low scattering undergrowth.</p>
5.00	<p>Sandstone rim of bench, bears NE. and W. A water pocket, bears S. 55°E., about 30 chs. dist. Leave bench and enter gently rolling and broken land; desc. 45 ft. over S. slope to</p>
10.00	<p>Foot of slope from bench, hrs. NE. and NW.; desc. 48 ft. over gradual S. slope to</p>
40.00	<p>Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p>
	<p style="text-align: center;"><math>\frac{1}{4}</math>          S4   S3          1937</p> <p style="text-align: right;">dig pits</p> <p>18x18x12 ins., N. and S. of cor., 3 ft. dist.</p>
	<p>Continue over gently rolling sandy land, thru scattering low undergrowth. Desc. gradually over S. slope.</p>
75.00	<p>Draw, course SW.; desc. gradually over SW. slope to</p>
80.00	<p>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, with brass cap marked</p>
	<p style="text-align: center;">T41N R9E          S4   S3          S9   S10          1937</p> <p style="text-align: right;">dig pits</p> <p>18x18x12 ins., in each sec., 3 ft. dist.</p>
	<p>Land, level, gently rolling and broken.          Soil, sandy and rocky, 4th rate.          Timber, none.          Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>West, on a random line, bet. secs. 4 and 9.</p>
40.00	<p>Set temp. <math>\frac{1}{4}</math> sec. cor.</p>
80.00	<p>Intersect the cor. of secs. 4, 5, 8 and 9.</p>
	<p>Thence,</p>
	<p>East, on true line, bet. secs. 4 and 9.</p>
	<p>Over gently rolling land on bench, thru low scattering undergrowth.</p>
	<p>Desc. 20 ft. over gradual SE. slope to</p>

16.

Chains	
10.00	Top of sandstone rim of bench, bears NE. and SW. Leave bench, desc. 75 ft. over sandstone on SE. slope to
20.00	Foot of slope from bench, bears NE. and SW.
	Thence over gently rolling sandy land; desc. 86 ft. over gradual SE. 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., with brass cap marked
	$\frac{1}{4}$ $\frac{S 4}{S 9}$
	1937
	18x18x12 ins., E. and W. of cor., 3 ft. dist. <span style="float: right;">dig pits</span>
	Continue over gently rolling land, thru scattering low undergrowth; desc. gradually over SE. slope to
50.00	Shallow draw, course SW., from N.; thence over S. slope.
63.00	Shallow draw, course S.; asc. gradually over SW. slope to sec. cor.
74.00	Shallow draw, course SW.
80.00	The cor. of secs. 3, 4, 9 and 10.
	Land, gently rolling. Soil, sandy and sandstone formation, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.
	S: 0°02'W.; bet. secs. 9 and 10.
	Over gently rolling land, thru scattering low undergrowth.
	Desc. gradually over SW. slope to
40.00	Set a brass cap $3\frac{1}{2}$ ins. in diam., with stem 3 ins. long, in concrete, in solid rock, for $\frac{1}{4}$ sec. cor., with cap marked
	$\frac{1}{4}$
	S9   S10
	1937
	of stone, 3 ft. base, 2 ft. high, W. of cor. <span style="float: right;">raise a mound</span>
	Continue over gently rolling land, thru low scattering undergrowth. Desc. 70 ft. over SW. slope to
69.70	Gully course SE.; asc. slightly over NE. slope to
70.00	No iron post, being available, set a sandstone 4x18x24 ins. in a mound of stone, marked with 4 grooves on S. face, 3 grooves on E. face, and WC on west face, for witness cor. to cor. of secs. 9, 10, 15 and 16,

SUBDIVISION: PART OF T. 41 N., R. 9 E.

BOOK 4150

17

Chains	
	<p style="text-align: right;">raise a mound</p> <p>of stone 3 ft. base, 2 ft. high, W. of cor.</p> <p>Asc. slightly over broken NE. slope to</p>
71.00	Right or north rim of Glen Canyon of the Colorado River, brs. N. 61°W. and E. Discontinue chaining on the section line at this point owing to precipitous descent of about 1000 ft. over canyon wall.
80.00	True point for cor. of secs. 9, 10, 15 and 16, falls in the canyon where it is inaccessible and impractical to monument the cor., therefore, establish witness cor. on sec. line 10 chs. N. 0°02'E., as hereinbefore described.
	<p>Land, gently rolling and broken.</p> <p>Soil, sandy and sandstone formations, 4th rate.</p> <p>Timber, none.</p> <p>Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>From the cor. of secs. 3, 4, 9 and 10.</p> <p>East, bet. secs. 3 and 10.</p> <p>Over gently rolling, sandy land, thru scattering low undergrowth.</p> <p>Asc. 75 ft. over gradual SW. and W. slopes to</p>
32.00	Foot of steep sandstone bluff, bears N. 6°E. and S. 6°W.; asc. 50 ft. over W. slope.
34.20	Point of sandstone spur, slopes SW.; desc. 25 ft. over gradual SE. 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., with brass cap marked
	$\frac{1}{4} \begin{array}{l} S \ 3 \\ S \ 10 \end{array}$
	1937
	<p style="text-align: right;">dig pits</p> <p>18x18x12 ins., E. and W. of cor., 3 ft. dist.</p> <p>Continue over gently rolling sandy land, thru low undergrowth.</p> <p>Desc. 15 ft. over SE. slope.</p>
47.90	Wash, 10 lks. wide, course SW.; asc. 32 ft. over gradual NW. slope to
50.00	Foot of sandstone bluff, bears NE. and SW.; asc. 30 ft. over steep NW. slope to
50.90	Top of sandstone bluff, bears NE. and SW.; asc. gradually over W. slope.
58.00	Ridge, bears N. and S.; desc. 20 ft. over E. slope to
69.00	Top of sandstone bluff, bears NW. and SE.; desc. 30 ft. over steep NE. slope to
71.25	Foot of sandstone bluff, bears NW. and SE.; desc. 52 ft. over gradual NE. slope to

Chains

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 2, 3, 10 and 11, with brass cap marked

T41N	R9E
S3	S2
S10	S11

1937

18x18x12 ins., in each sec., 3 ft. dist. dig pits

Land, gently rolling and broken.

Soil, sandy and sandstone outcropping; 4th rate.

Timber, none.

Undergrowth, sage, grease brush and cacti.

N. 0°03'E., bet. secs. 2 and 3 (Part).

Over gently rolling and broken land, thru scattering low undergrowth.

Desc. 44 ft. over NE. slope to

12.20 Wash, 10 lks. wide, course NE.; asc. 22 ft. over SE. slope

14.50 Desc. gradually over E. and NE. slopes to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., over a 10 inch cross (+) chiseled in exposed surface rock and in a mound of stone to top; for  $\frac{1}{4}$  sec. cor., with brass cap marked

$\frac{1}{4}$	
S3	S2

1937

Thence over bare sandstone; desc. gradually over NE. slope to

49.90 Edge of steep NE. slope, brs. NW. and SE. Leave gently rolling and enter mountainous land; desc. 102 ft. over bare sandstone on NE. slope to right rim of Glen Canyon.

54.66 Set temp. monument for traverse of right rim of Glen Canyon, thru secs. 2 and 3 as hereinafter described.

54.76 Right rim of Glen Canyon of the Colorado River, bears NW. and SE. Discontinue survey of the sec. line at this point as the line beyond this point crosses the canyon with almost vertical walls about 900 ft. high above the water surface of the Colorado River flowing SE.

Land, rolling, broken and mountainous.

Soil, sandy and sandstone, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From the cor. of secs. 2, 3, 10 and 11.

East, bet. secs. 2 and 11 (W.  $\frac{1}{2}$ ).

Over gently rolling sandy land, thru scattering low undergrowth.

Desc. 104 ft. over gradual NE. slope to

Chains	
31.86	<p>Set an iron post, 3 ft. long, 1 in. in diam., 4 ins. in the ground to bedrock, and deposit a stone 7x8x3 ins., marked with a cross (+) at base of post, and in a mound of stone to top, for witness cor. to <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p> $\frac{1}{4} \frac{S 2}{S 11} WC$ <p style="text-align: center;">1937</p>
31.96	<p>Right rim of Glen Canyon of the Colorado River, bears N. 30°W. and S. 1°E. Discontinue survey of the sec. line at this point owing to almost perpendicular descent over cliffs on the canyon wall. The center of the Colorado River, course southerly, is about 20 chs. E. from and 900 ft. below this point on rim, and the mouth of Navajo Creek on E. side of the river is about 30 chs. E.</p>
40.00	<p>Point for <math>\frac{1}{4}</math> sec. cor. inaccessible.                  Land, gently rolling.                  Soil, sandy and rocky, 4th rate.                  Timber, none.                  Undergrowth, native weeds, sage brush and cacti.</p> <hr/> <p>From the cor. of secs. 2, 3, 10 and 11.                  S. 0°03'W., bet. secs. 10 and 11.                  Over gently rolling sandy land, thru scattering low undergrowth.                  Asc. gradually over NE. slope.</p>
5.00	<p>Thence over E. slope to</p>
40.00	<p>Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for <math>\frac{1}{4}</math> sec. cor., with brass cap marked</p> $\frac{1}{4} \begin{array}{c} S10 \\   \\ S11 \end{array}$ <p style="text-align: center;">1937.</p> <p style="text-align: right;">raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.</p> <p>Continue over gently rolling sandy land, thru scattering undergrowth.                  Desc. gradually over SE. slope.</p>
45.00	<p>Low saddle, bears NE. and SW.; desc. gradually over SW. slope.</p>
70.00	<p>Low rim, bears NE. and SW. Desc. 34 ft. over SE. slope to</p>
80.00	<p>Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground for cor. of secs. 10, 11, 14 and 15, with brass cap marked</p> $\begin{array}{c} T41N \quad R9E \\ S10 \quad   \quad S11 \\ \hline S15 \quad   \quad S14 \end{array}$ <p style="text-align: center;">1937</p> <p style="text-align: right;">raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.</p>

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Chains	
	Land, gently rolling. Soil, sandy and stony, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.
	East, bet. secs. 11 and 14 (W. $\frac{1}{2}$ ).. Over gently rolling land, thru scattering low undergrowth. Desc. gradually over SE. slope.
3.40	Wash, 10 lks. wide, course S.; enter broken and mountainous land; asc. 50 ft. over SW. slope.
9.85	Spur, slopes SE.; desc. 195 ft. over broken E. and SE. slopes.
24.67	Wash, 10 lks. wide, course S.; asc. 33 ft. over W. slope.
28.30	Point of spur, slopes S.; desc. 40 ft. over SE. slope to
33.05	No iron post being available, mark a cross (+) 6 ins. long, on surface rock, with W on E. of cross, and $\frac{1}{4}$ on the W., for witness cor. to $\frac{1}{4}$ sec. cor., raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
33.15	Right rim of Glen Canyon of the Colorado River in abrupt bend from N. 1°W. to S. 81 $\frac{1}{2}$ °W.  Discontinue survey of the sec. line at this point owing to precipitous descent of about 900-ft. over cliffs to the Colorado River.
40.00	Point for $\frac{1}{4}$ sec. cor. inaccessible. Land, gently rolling, broken and mountainous. Soil, sandy and sandstone formations, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.
	From the cor. of secs. 10, 11, 14 and 15. West, on random line, bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
66.34	Offset point.
66.84	Right rim of Glen Canyon in bend from SE. to N. Beyond this point the random sec. line enters canyon where chaining is impracticable, therefore obtain measurement and bearing to the sec. cor. point by offset line as follows:  From 66.34 ch. station, on random sec. line, N. 0°02'E., 10.00 chs. on offset line in sec. 10, parallel to sec. line bet. secs. 9 and 10.  Thence West, 13.66 chs. on offset line, parallel to and 10 chs. North of the random sec. line, and intersect the witness cor. to cor. of secs. 9, 10, 15 and 16, set on the sec. line bet. secs. 9 and 10 at 70 ch. station, or 10 chs. N. 0° 02'E., from true point for cor. of said secs.

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Chains	
80.00	<p>The random line extended West would therefore at Intersect the true point for cor. of secs. 9, 10, 15 and 16, in Glen Canyon, witnessed 10 chs. N. <math>0^{\circ}02'E.</math>, as hereinbefore described.</p> <p>Thence, from true sec. cor. point East, on true line, bet. secs. 10 and 15. Over mountainous land, in Glen Canyon of the Colorado River in bend from East to Northwest, ascending about 1000 ft. over cliffs facing SW. on right wall of canyon, measurement of 13.66 chs. E. by offset line in sec. 10, and return chaining of 50 lks. W. to</p>
13.16	<p>Right rim of Glen Canyon, in bend from SE. to N. Thence continue measurement from sec. cor. point, commencing chaining. Over rolling and broken land, thru scattering low undergrowth. Ascend 52 ft. over SW. slope to point of spur.</p>
13.66	<p>Offset point. Set temporary monument at this point for traverse of the canyon rim thru secs. 10 and 15. Continue line and measurement.</p>
26.00	<p>Point of spur, slopes S.; desc. 33 ft. over E. slope.</p>
30.00	<p>Draw, course SW.; asc. 55 ft. over NW. slope.</p>
37.80	<p>Spur, slopes SW.; desc. 8 ft. over SE. slope to</p>
40.00	<p>No iron post being available, set a stone 14x10x6 ins., 6 ins. in the ground, marked <math>\frac{1}{2}</math> on N. face, for <math>\frac{1}{4}</math> sec. cor. and raise a mound of stone, 4 ft. base, 2 ft. high, N. of cor. Desc. 30 ft. over SE. slope.</p>
51.00	<p>Draw, course S.; asc. gradually over SW. slope.</p>
56.00	<p>Point of spur, slopes S.; desc. gradually over SE. slope.</p>
60.00	<p>Thence over broken S. slope.</p>
75.00	<p>Desc. 29 ft. over SE. slope to</p>
80.00	<p>The cor. of secs. 10, 11, 14 and 15. Land, mountainous, rolling and broken. Soil, sandy, stony and sandstone formation, 4th rate. Timber, none. Undergrowth, native weeds, sage, grease brush and cacti.</p>
	<p>S. <math>0^{\circ}03'W.</math>, bet. secs. 14 and 15 (Part). Over gently rolling land thru scattering low undergrowth. Desc. gradually over SE. slope.</p>
5.00	<p>Right rim of Glen Canyon of the Colorado River, bears E. and W. Discontinue survey of the sec. line at this point as precipitous descent over cliffs into the canyon renders chaining impracticable. Set temp. monument at this point for traverse of the canyon rim thru secs.</p>

chains

14 and 15.

Land, gently rolling.

Soil, sandy, stony and sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER  
Thru T. 41 N., R. 9 E.

BOOK 4159

23

## Chains

The following notes describe a survey of the right rim of the Glen Canyon of the Colorado River thru T. 41 N., R. 9 E. Owing to irregularities in the outline of said rim; the precipitous descent therefrom into the canyon; the resulting danger to the lives of the surveyor and his assistants in surveying along said rim in the ordinary manner; and added time and expense in obtaining and recording a large number of courses and distances along the rim, it was not deemed practicable to make such a survey of the rim. The traverse courses and lengths of same, as recorded in the following notes are either triangulated, or computed from the other boundaries of the section, which were surveyed by the usual methods, with the exception of the traverse in SW. corner of section 10, which is a chained offset line along the rim. Those traverse lines, the courses and lengths of which were computed from other surveyed lines of the section, were also checked by triangulation.

With the exception of sections 8, 10 and 18, the traverse of the rim thru each section is a direct line between either witness corners or temporary monuments erected at each point of intersection of subdivision line or township bdy. with the said canyon rim. These direct traverse lines give a fairly accurate mean bearing for outline of the rim thru the section.

From temp. monument on rim of canyon, on N. bdy. of Tp. at 51.07 chs. E. from cor. of secs. 3, 4, 33 and 34.

Traverse thru sec. 3.

Over rolling and broken land, thru scattering low undergrowth.

S.  $48^{\circ}46'E.$ , 38.44 chs. to temp. monument on line bet. secs. 2 and 3, set near right rim of Glen Canyon, at 54.66 chs. N.  $0^{\circ}03'E.$ , from cor. of secs. 2, 3, 10 and 11.

Land, rolling and broken.

Soil, sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From temp. monument near rim of canyon, on sec. line, bet. secs. 2 and 3, 54.66 chs. N.  $0^{\circ}03'E.$ , from cor. of secs. 2, 3, 10 and 11.

Traverse thru sec. 2.

Over gently rolling and broken land, thru scattering low undergrowth.

S.  $30^{\circ}12'E.$ , 63.24 chs. to the witness cor. to  $\frac{1}{4}$  cor. of secs. 2 and 11 on the sec. line at 31.86 chs. E. from the cor. of secs. 2, 3, 10 and 11 and 10 lks. W. from the right rim of Glen Canyon.  
At approximately 35.00 ch. station on this traverse, a wash, course NE. breaks thru the canyon rim into the Colorado River.

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER  
Thru T. 41 N., R. 9 E.

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## Chains

Land, gently rolling and broken.  
Soil, sandy and sandstone, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sagebrush and cacti.

From the witness cor. to  $\frac{1}{4}$  sec. cor. of secs. 2 and 11,  
on the sec. line bet. said secs. 31.86 chs. East from  
the cor. of secs. 2, 3, 10 and 11, and 10 lks. W. from  
right rim of Glen Canyon.

Traverse thru sec. 11.

Over gently rolling and broken land, thru scattering low  
undergrowth.

S.  $0^{\circ}48'E.$ , 80.01 chs. to the witness cor. to the  $\frac{1}{2}$  sec.  
cor. of secs. 11 and 14, on the  
sec. line bet. said secs. 33.05  
chs. E. from the cor. of secs. 10,  
11, 14 and 15, and 10 lks. W. from  
right rim of Glen Canyon.

Land, gently rolling and broken.  
Soil, sandy and rocky, 4th rate.  
Timber, none.  
Undergrowth, sage, grease brush and cacti.

From the witness cor. to  $\frac{3}{4}$  sec. cor. of secs. 11 and 14  
on the sec. line bet. said secs. 33.05 chs. E. from the  
cor. of secs. 10, 11, 14 and 15, and 10 lks. W. from  
canyon rim.

Traverse thru sec. 14.

Over rolling, broken and mountainous land, thru scatter-  
ing low undergrowth.

S.  $81^{\circ}24'W.$ , 33.43 chs. to temp. monument on line bet.  
secs. 14 and 15, set on right rim  
of Glen Canyon at 5.00 chs. S.  $0^{\circ}$   
 $03'W.$ , from cor. of secs. 10, 11,  
14 and 15.

Land, rolling, broken and mountainous.  
Soil, sandy and rocky, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, greasebrush and cacti.

From temp. monument on line bet. secs. 14 and 15, set on  
right rim of Glen Canyon at 5.00 chs. S.  $0^{\circ}03'W.$ , from  
cor. of secs. 10, 11, 14 and 15.

Traverse thru sec. 15.

Over rolling and broken land, thru scattering low under-  
growth.

N.  $85^{\circ}41'W.$ , 66.33 chs. to temp. monument on line bet.  
secs. 10 and 15, set at 50 lks. E.  
from right rim of Glen Canyon,  
and 66.34 chs. W. from cor. of  
secs. 10, 11, 14 and 15.

Land, rolling and broken.  
Soil, sandy and rocky, sandstone formation, 4th rate.  
Timber, none.  
Undergrowth, sage, grease brush and cacti.

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER  
Thru T. 41 N., R. 9 E.

BOOK 415  
25

Chains

From temp. monument on line bet. secs. 10 and 15, set at 50 lks. E. from right rim of Glen Canyon, and 13.66 chs. E. from true point for cor. of secs. 9, 10, 15 and 16.

Traverse thru sec. 10.

Over rolling and broken land, thru scattering low undergrowth.

Ascend gradually over SW. slope.

N. 0°02'E., 10.00 chs. to angle point, thence

West, 13.66 chs. to the witness cor. to cor. of secs. 9, 10, 15 and 16, set on sec. line bet. secs. 9 and 10 at 10.00 chs. N. 0°02'E. from true point for cor. of secs. 9, 10, 15 and 16. At 2 chs. W. of angle point, traverse crosses wash course SW. and at 20 lks. E. of witness cor. crosses gully, course SE.

Land, rolling and broken.

Soil, sandy and sandstone formation, 4th rate.

Timber, none.

Undergrowth, sage, grease brush and cacti.

From witness cor. to cor. of secs. 9, 10, 15 and 16, on sec. line bet. secs. 9 and 10, at 70 chs. S. 0°02'W. from cor. of secs. 3, 4, 9 and 10, and 1.00 ch. N. of right rim of Glen Canyon.

Traverse thru sec. 9.

Over gently rolling land, thru scattering low undergrowth.

N. 61°27'W., 91.05 chs. to temp. monument on line bet. secs. 8 and 9 set at 26.50 chs. S. 0°01'W., from the cor. of secs. 4, 5, 8 and 9 and 1.50 chs. N. of right rim of Glen Canyon.

Land, gently rolling.

Soil, sandy and broken sandstone formation, 4th rate.

Timber, none.

Undergrowth, native weeds, sage, grease brush and cacti.

From temp. monument on line bet. secs. 8 and 9 set at 26.50 chs. S. 0°01'W. from the cor. of secs. 4, 5, 8 and 9 and 1.50 chs. N. of right rim of Glen Canyon.

Traverse thru sec. 8.

Over rolling and broken land, mostly bare sandstone.

West, 40.00 chs. to angle point on a red sandstone point near bend in rim of Glen Canyon.

Thence

S. 7°07'W., 53.92 chs. to the witness cor. to  $\frac{1}{4}$  sec. cor. of secs. 8 and 17, on the sec. line at 33.34 chs. E. from the cor. of secs. 7, 8, 17 and 18, and at 40 lks. W. from the right rim of Glen Canyon.

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER  
Thru T. 41 N., R. 9 E.

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Land, rolling and broken.  
Soil, sandstone, 4th rate.  
Timber, none.  
Undergrowth, none.

From the witness cor. to the  $\frac{1}{2}$  sec. cor. of secs. 8 and 17, on the sec. line at 33.34 chs. E. from the cor. of secs. 7, 8, 17 and 18, and 40 lks. W. from right rim of Glen Canyon.

Traverse thru sec. 17.

Over rolling and broken land, mostly bare sandstone.

S.  $10^{\circ}45'E.$ , 81.43 chs. to temp. monument on line bet. secs. 17 and 20, at 48.55 chs. E. from the cor. of secs. 17, 18, 19 and 20 and on the right rim of Glen Canyon.

Land, rolling and broken.  
Soil, sandstone, 4th rate.  
Timber, none.  
Undergrowth, none.

From temp. monument on line bet. secs. 17 and 20 at 48.55 chs. E. from the cor. of secs. 17, 18, 19 and 20, on the right rim of Glen Canyon.

Traverse thru sec. 20.

Over rolling and broken land, thru very scattering low undergrowth.

S.  $82^{\circ}57'W.$ , 48.92 chs. to temp. monument on line bet. secs. 19 and 20, at 6.00 chs. S.  $0^{\circ}01'W.$  from the cor. of secs. 17, 18, 19 and 20, and on the right rim of Glen Canyon.

Land, rolling and broken.  
Soil, sandy and rocky, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, grease brush and cacti.

From temp. monument on line bet. secs. 19 and 20, on canyon rim, at 6.00 chs. S.  $0^{\circ}01'W.$  from the cor. of secs. 17, 18, 19 and 20.

Traverse thru sec. 19.

Over gently rolling and broken land, thru very scattering low undergrowth.

N.  $59^{\circ}02'W.$ , 11.66 chs. to temp. monument on line bet. secs. 18 and 19 at 10.00 chs. W. from cor. of secs. 17, 18, 19 and 20, and on the right rim of Glen Canyon.

Land, gently rolling and broken.  
Soil, rocky, sandstone formation, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, grease brush and cacti.

TRAVERSE OF RIGHT RIM OF GLEN CANYON OF THE COLORADO RIVER  
thru T. 41 N., R. 9 E.

BOOK 4150

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From temp. monument on line bet. secs. 18 and 19 at 10.00 chs. W. from cor. of secs. 17, 18, 19 and 20, and on right rim of Glen Canyon.

Traverse thru sec. 18.

Over rolling and broken land, thru scattering low undergrowth.

North, 30.00 chs. to angle point near canyon rim, thence, N. 80°28'W., 70.98 chs. to temp. flag on W. bdy. of the Tp. at point on right rim of Glen Canyon at 38.25 chs. S. from cor. of secs. 7, 12, 13 and 18.

Land, rolling and broken.  
Soil, sandy and rocky, 4th rate.  
Timber, none.  
Undergrowth, native weeds, sage, greasebrush and cacti.

GENERAL DESCRIPTION

The portion of T. 41 N., R. 9 E., subdivided as described in the foregoing field notes is a high plateau with an elevation of about 5,000 feet above sea level, of sandstone formation, which is practically devoid of vegetation on areas in close proximity to Glen Canyon of the Colorado River. The elements have carved from the sandstone ridges and knolls many caves and natural water pockets which hold water during and for some time after the rainy and stormy seasons.

The soil is mostly sand, with outcroppings of sandstone, 4th rate.

There is no timber in this part of the township.

The undergrowth in a scattering growth, consists of bear grass, sage, grease brush, cacti and native weeds.

There are no settlers or improvements in this part of the township and no roads.

No traces of valuable mineral deposits were observed.

The land is suitable for grazing only.

The center of the Colorado River forms part of the boundary of the Navajo Indian Reservation, and said reservation embraces all of this township situate S. and E. of the center of the Colorado River.

FINAL TEST OF INSTRUMENT

April 4, 1937: at station at cor. of Ts. 41 and 42 N., Rs. 8 and 9 E., in latitude 36°59'21"N., longitude 111°28'23"W., and on the meridian determined by Polaris observation at this station March 20 and 21, 1937 as hereinbefore described, test the solar apparatus of Young and Son's transit No. 8570 as follows:

At 9h. 00m., a.m., app.t., set off 36°59½'N. on the lat. arc; 5°43½'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, and obtain a reading of  $5^{\circ}46'N.$  on the decl. arc, which agrees with the computed declination of the sun.

At 3h. 00m., p.m., app. t., with the lat. arc unchanged, set off  $5^{\circ}49\frac{1}{2}'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations taken during the usual hours of solar work agree within 1' with the true meridian, conclude that this instrument has remained in satisfactory adjustment throughout the surveys executed with same and described in the foregoing field notes.



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CERTIFICATE OF UNITED STATES SURVEYOR

I, Benjamin J. Kinsey, Surveyor, hereby certify upon honor that, in pursuance of supplemental special instructions received from the District Cadastral Engineer for Arizona bearing date of the 27th day of March, 1936, 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 West Boundary,  
North Boundary

Subdivision Lines and  
Right or West rim of Glen Canyon of the Colorado River

Township 41 North, Range 9 East of the Gila and Salt  
River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the supplemental special written instructions of the District Cadastral Engineer for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*Feb. 15, 1938.*  
Phoenix, Arizona

*Benjamin J. Kinsey*  
Surveyor.

APPROVAL

OFFICE OF SUPERVISOR OF SURVEYS,  
Denver, Colorado, June 29, 1938

The foregoing field notes of the survey of Part of West Boundary,  
Part of North Boundary,

Part of Subdivision Lines and

Traverse of Right or West rim of Glen Canyon of the Colorado River  
thru

Township 41 North, Range 9 East

of the Gila and Salt River Meridian, in the State of Arizona.

executed by Benjamin J. Kinsey, Surveyor  
under supplemental special instructions dated March 27, 1936, for Group 181, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Wm. H. Johnson*  
Supervisor of Surveys.

~~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.~~

~~Supervisor of Surveys.~~