

Walker-Reiner Road

TRANSIT BOOK #2

DIETZGEN  
TRADE MARK

---

ENGINEERS'  
FIELD BOOK

No. 400

---

135



Notes Copied from previous  
Line Run in Aug. 1919.

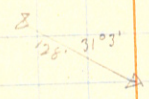
102+03.8 36°17'R. N 88°45'E = (0+20 Br. Survey)

110+58.8 P.O.T.

110+86.7 R.R. Xing

43°30'

N 1/2 Cor.  
5005.1+2



119+18.8 38°07'R. 552°30'E.

129+32.4 P.O.T.

141+49.0 P.O.T.

152+30.4 P.O.T.

156+37.0 P.O.T.

162+70.7 P.O.T.

170+05.1 33°41'L 584°E.

176+79.1 11°40'L

E 1/2 Cor. Sec. 1  
12

182+23.0 P.O.T.

188+59.3 Sec. Cor. 12/7 +141  
R31 R30

To hit Sec. Cor. from Sta. 119+18.8 turn  
23°00'R. (instead of 38°07'R) 7380.7' would make  
Sta. at Cor. 192+99.5



7  
6  
5  
4  
3  
202+262  
2  
1  
200  
199+51.8  
9  
8  
7  
6  
5  
4

Computed Cor.  $\Delta = 0^{\circ}00'$  g.m.g.

$0^{\circ}06'$  True Line  $\Delta$

$1^{\circ}08'$  R. N82E W.  $\frac{1}{4}$  sec. 6+7 Brass Cap.

$1^{\circ}23'$  L N81E Turned to hit the cor.  
use True Line angles as shown (calculated)  
Eliminates this  $\Delta$

X sections on True Line

193+460 P.O.T.

3  
2  
1

$(2^{\circ}26')$  True  $\Delta$  to  $\frac{1}{4}$  cor

$2^{\circ}09'$  L N82 $^{\circ}$ 15'E

Gas Pipe.

Continuing survey from  
end of previous line Run in Aug 1919

7141  
R30  
16  
12  
R31

Running East of Sec. line Between Sec. 6-7 T141 R. 30

Weather -  
Cold - Windy  
Light snow P.M.

Tue. Nov. 11, 1919 (3)  
R.J.T. F.F.C.  
C.J.B. John B.  
M. W.



Tan  $1^{\circ}08' = 1.98$

202+262  
188+59.3  
1366.9

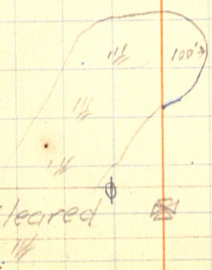
202+262  
199+51.8  
2744

Tan  $1^{\circ}23' = 2.41$

2 to 6' cut - 13yr. Birch  
Brush.

$2^{\circ}09'$  tan = 3.75  
 $2^{\circ}26'$  tan = 4.25

199+51.8  
188+59.3  
1092.5



Road R of W. Cleared not Graded.



To eliminate the 20' &

226+76.3 0° 20' True Line A  
E 1/4 Cor. Sec. 6 & 7 Brass Cap

was 101' R. of Cor.  
offset line from 1/4 Cor.  
Lake

- 6
- 5
- 4
- +982 P.O.T.
- 3
- 2
- 1

215+49.9  
202+26.2  
-----  
13 23.7

+493 P.O.T.

220

- 9
- 8
- 7

1° 25' R to eliminate L at 1/16 Cor

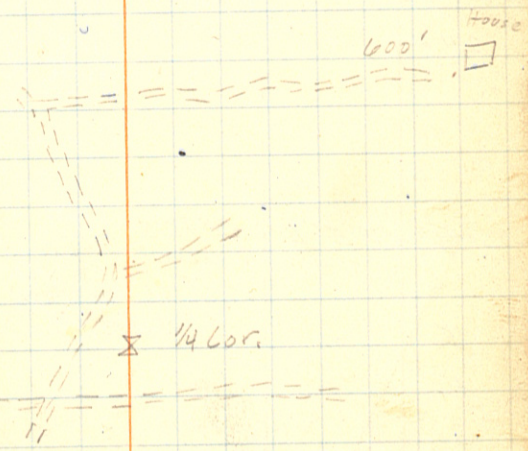
1° 40' R True angle Computed 1836 - 11 = 1° 25'

215+49.9 ~~2° 07' R~~ N 84° E 1/4 Cor. Sec. 6 - 7 Brass Cap  
→ 215 + 48.3

- 5
- 4
- 3
- 2
- 211 P.O.T.

240+80.6  
226+76.3  
215+49.9  
-----  
17+26.4  
14+04.3

240+80.6  
226+76.3  
215+49.9  
-----  
12+26.4  
13-04.3



Thick Brush

- 10
- 9
- 208



7  
6  
5

244+ P.O.T.

3

(N. 82° 26' E)

2

0° 16' L to eliminate the  $\Delta$  at the 1/6 Cor.

1

0° 07' L True Line  $\Delta$

240+80.6

10° 32' R

N 82 1/2° E

Sec Cor

6 5/8

Brass Cap.

240

9

8

7

236+41.3

10° 5' L N 82° 15' E

to hit Sec. Cor.

(2° 11' L) DOUBLE CENTER

6

Use True line  $\Delta$ s at 1/6 + Sec Cors.

5

Eliminates this  $\Delta$ .

4

3

X sections on True Line.

2

1

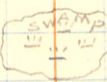
30

9

8

227

Light Brush  
Stamps



Light Brush

Sec Cor

Light Brush

SMALL BRUSH  
# BRUSH OVER  
BRUSH

SMALL BRUSH

SWAMP

SWAMP

SWAMP

Lake

← 250' →



Weather. —  
Cold, Windy.  
Light snow.

Wed. Nov. 12, 1919.

R.J.T.  
G.I.B.  
F.F.C.  
John B.

(6)

8  
247+372 (N. 82° 07' E)  
0° 19' 2" True Line  
0° 46' 2" N 82° E 1/4 Cor. 5-8

7  
6  
5 at 265 I set 4.1' at hub & read for  
4 back sight turning ahead from  
3 1/4 Cor.  
2 Nov. 17 - Sta. 364+71.3 beginning  
1 of revision ("R" Line) to left of  
260+0 P.O.T. this line. Ties back  
9 on this line at Sta  
8 327 = ("R" Sta. 332)  
7  
6  
5  
4  
3  
2  
1  
250  
9  
+026 P.O.T.  
248

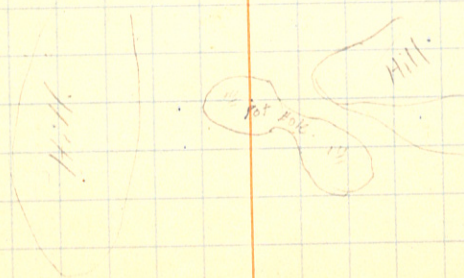
was 45' 8  
Did not correct this  
half mile. except to  
get backsight on  
true line.

Xsections taken  
on Ram. Line will  
be good for True  
line.

Thick Brush.

Some 16 to 30' steps, & old logs on ground.

91° 23'





+148 P.O.T.

8

7

6

5

4

3

2

1

280

9

8

+643 P.O.T.

7

6

5

4

3

2

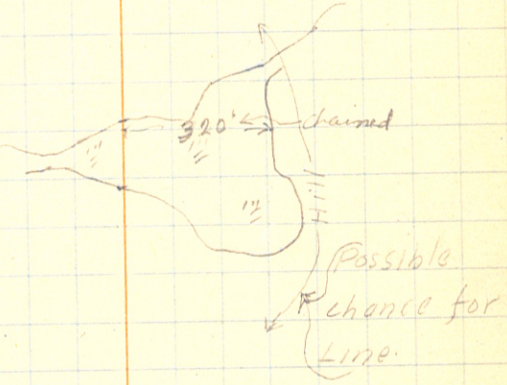
1

270

9

268+ P.O.T.

BURNT OVER STUMPS & LIGHT BRUSH





3114036 P.O.T.

310

9

8

306+978

0°04'R

6

5

4

3

2

1

300

1394

P.O.T.

N81°30'E

9

8

7

6

5

4

993+934

0°04'0" L

N81°30'E

Sec. Cor

3

2

1

290

289

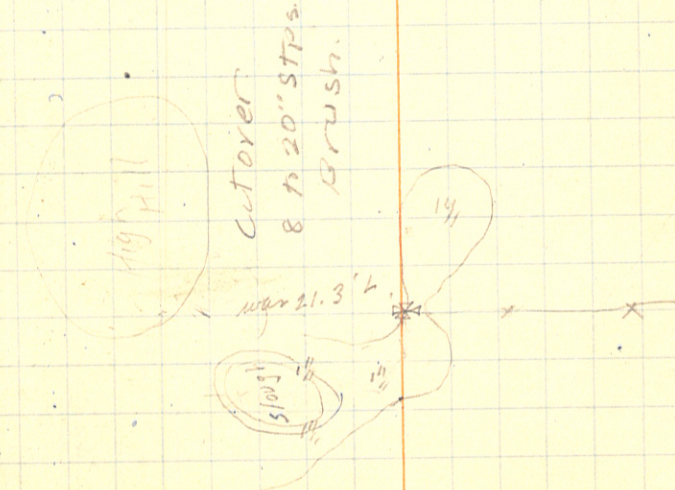
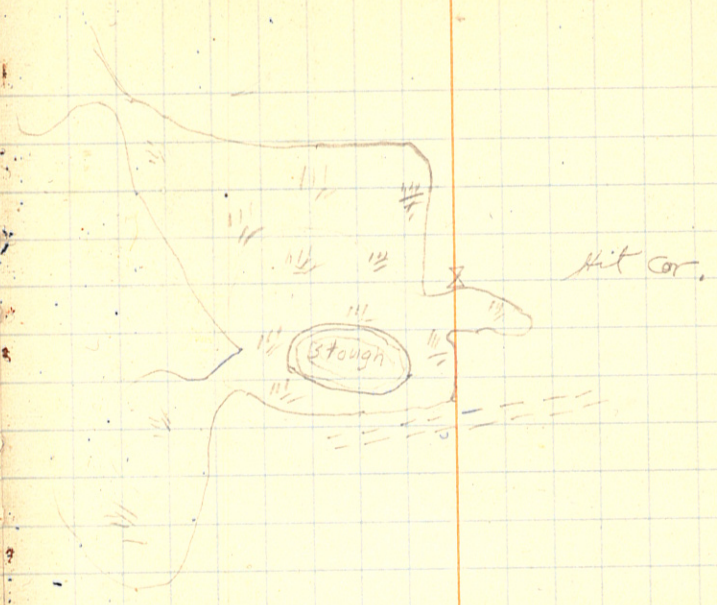
0°00' should be no angle here gmy.  
True Line Δ

W. 1/4 Sec. 4-9

0°38' to eliminate  
True Line Δ  
Lat 1/16 Cor. gmy.

5/8  
8  
T141R30

(8)





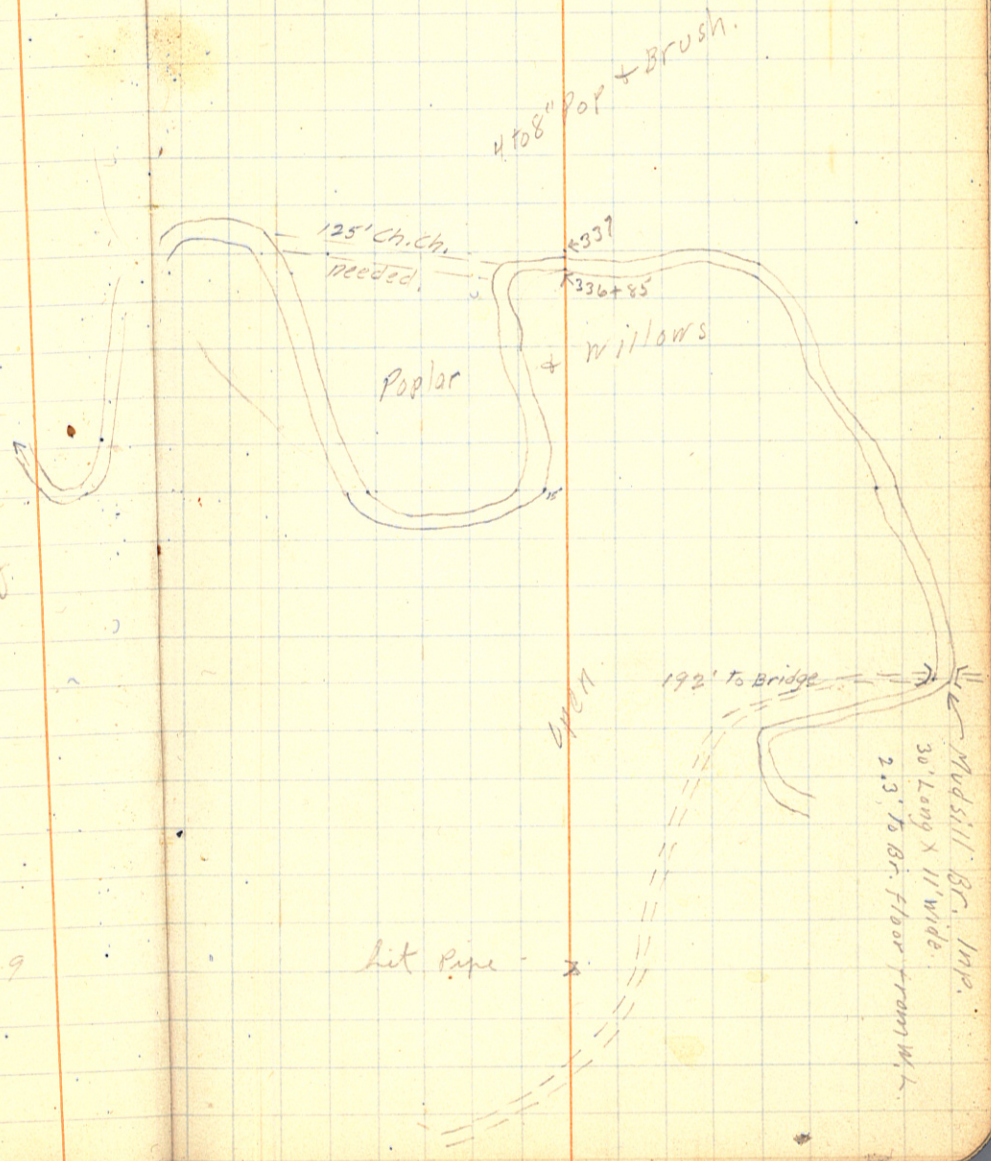




33 8  
 37 1  
 6  
 320  
 3  
 4  
 3  
 4  
 3  
 333  
 312

0000's should be no X here  
 True Line  $\Delta$   
 E 1/4 Cor. Sec. 4-9

Weather —  
 Fine - Warm.  
 Sat. — Nov. 15, 1919  
 R.S.T.  
 C.J.B.  
 F.F.C.  
 (Gutham Sick)  
 (10)

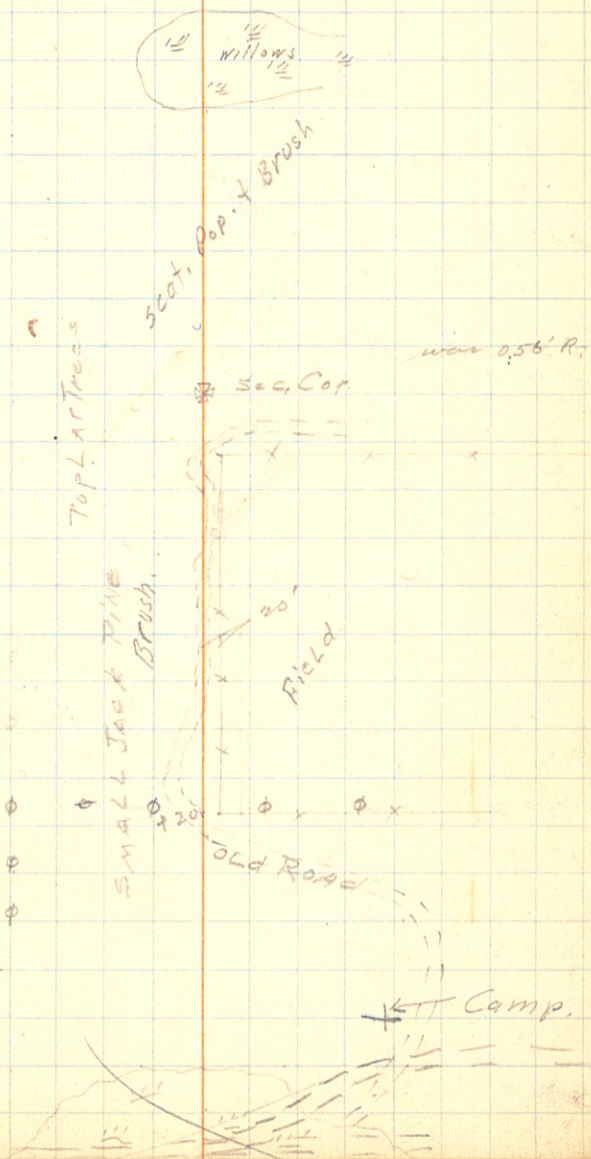




5  
 4  
 3  
 2  
 1  
 350  
 9  
 8  
 + 10.2  
 7  
 6  
 5  
 4  
 3  
 2  
 1  
 + 16.8  
 340  
 7  
 8  
 7  
 6  
 5  
 334

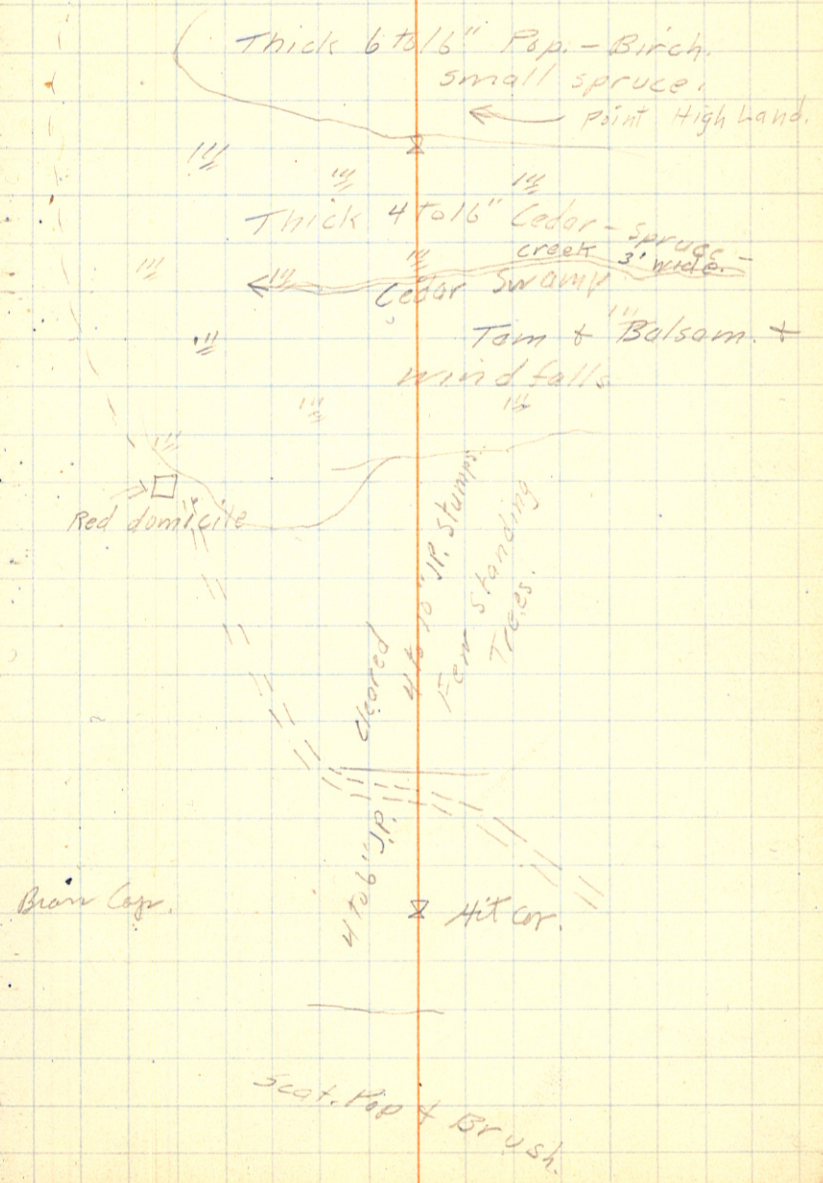
Cor. J. my  
 eliminate \* at 1/16  
 true line  
 0° 16' R  
 0° 20' R  
 0° 20' R, N 83° E. Sec. Cor.  
 (N. 82° 35' E)  
 $\frac{3}{10}$   
 $\times \frac{1}{9}$

○ T.P.O.T.





+70.0 P.O.T. Note see "X" Line for  
 5 Revision from 374+15.7 to 389+05.5  
 374+15.7 0°38' L N 82°40' E 1/4 Cor. 3-10 Bran Cap.  
 4 (0°25' L From Ran Line  
 3 0°24' L Computed True Line)  
 2 0°27' L to eliminate 2 lat 1/16 Cor. 4. 2. 4  
 1 Note - short of help this day  
 370 so cut line thru by eye in P.M.  
 9 Chained + Ran Transit Line P.M.  
 8 (Cause of these Δs)  
 +267 0°10' R to Hit 1/4 Cor.  
 7 True line angles eliminate  
 6 this  
 5 not here  
 4  
 3  
 2  
 1 0°00' L should be computed  
 0°06' L True line Δ  
 0°05' L  
 360+57.0 0°11' L N 82°45' E W. 1/6 Cor. Sec. 3-10  
 360  
 9  
 8  
 7  
 356



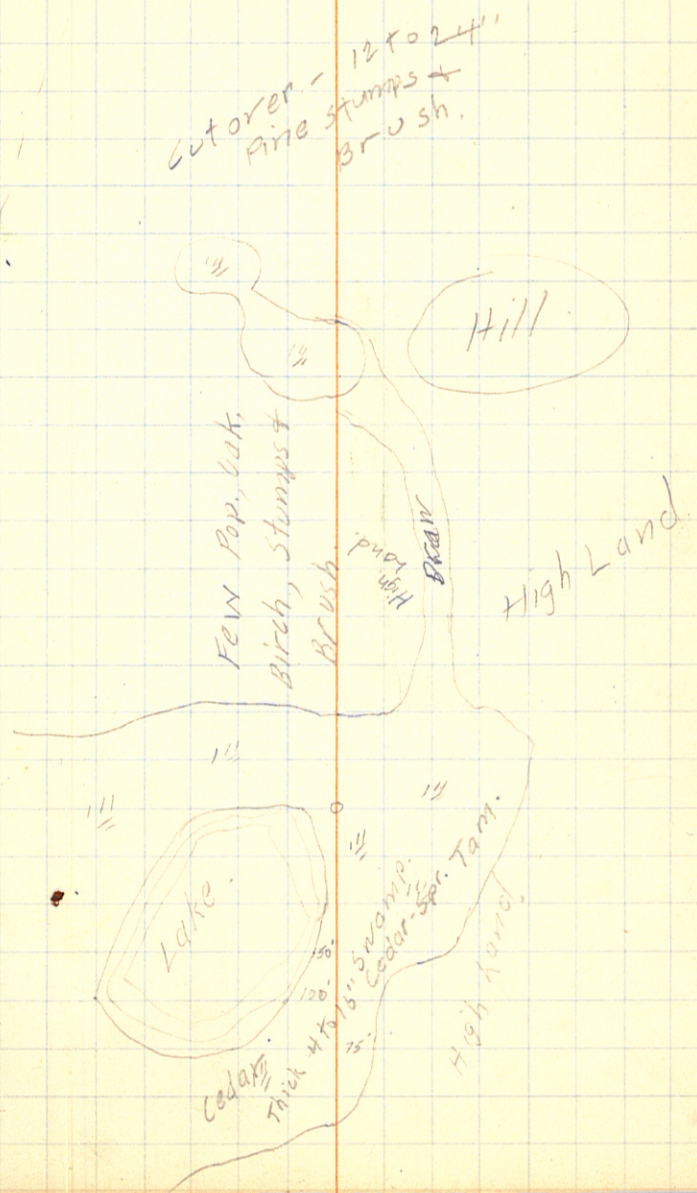


cont. 5 Pages ahead (after 'R' Line)

4  
 3  
 2  
 1  
 390  
 9  
 8  
 +741 ~~1017L~~ E 1/2 Sec 3-10  
 7  
 386+0 1017L N83°15'E  
 5  
 384+433 1038'R, N84°30'E  
 4  
 383+737 P.O.T.  
 3  
 2  
 381+00 P.O.T. all for Nov. 15.  
 1  
 380  
 9  
 8+550 0°10'R N83 E  
 7  
 376

See Aime Perrier  
(Notes about 19 pages ahead)

Good about here





"R" Line

This Line - designated  
R" Line is a revision of  
Previous Line Run on Sec. Line.  
Sta. 264+71.3 to 327

Weather -  
Warm Wind - Bright.

Mon. Nov. 17

R.J.T.  
C.J.B.  
F.F.C.  
J. B.

(14)

3  
2  
1  
280  
9  
8  
7  
6  
5  
+ 89.6 O.P.O.T.  
4  
3  
2  
1  
270  
9  
8  
7  
6  
5

153.4  
18) 27.6166  
18  
90  
6  
54  
6

$\Delta = 27^{\circ} 37'$   
 $D = 18^{\circ} \text{ C. L.}$

$R = 319.6 \quad 2.504638$

$\log \tan 13^{\circ} 48' = 9.422207$

$\log T = \log 84.5 \quad 1.926845$

$h^{\circ} = 153.4$

264+71.3  $27^{\circ} 37' 2''$  N55°E

P.I. 264+71.3

84.5

P.C. 263+86.8

P.T. 265+55.8

263+86.8

153.4

P.T. 265+40.2

Brush + Stumps



Light Brush

Light Brush

+69



"R" LINE

(15)

4  
3  
+ 45.0 O.P.O.T.

2  
1  
300

|    |         |       |
|----|---------|-------|
|    |         | 153.8 |
| 29 | 44.6166 |       |
|    | 29      |       |
|    | 156     |       |
|    | 145     |       |
|    | 111     |       |
|    | 87      |       |
|    | 246     |       |
|    | 232     |       |

$\Delta = 44^{\circ}37'$

$D = 29^{\circ}$

$R = 199.7$  2,300.970

$\log \tan 22^{\circ}18' \frac{1}{2}$  9.613101

$\tan = 8193$  1.913471

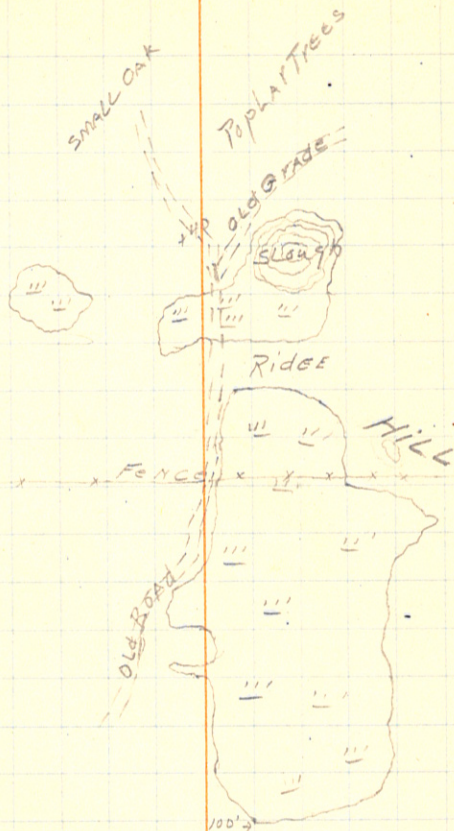
+ 74.0  $\Delta 44^{\circ}37'$   $S 80^{\circ} E$   
=  $89^{\circ}15'$  Double Center

$L^c = 153.8$

1  
290

9  
8  
7  
+ 26.8 O.P.O.T.

6  
5  
284



Light Brush



"R" Line

$$326 + 62.5 \Delta 13^\circ 18' R S 66^\circ E \quad \Delta = 13^\circ 18' R$$

$$(26^\circ 37')$$

$$D = 5^\circ C$$

$$R = 11463 \quad 3.059290$$

$$\log \tan 6^\circ 39' = 9.066655$$

$$\hline 2.125945$$

3 O.P.O.T.

$$T = 133.6$$

$$L^\circ = 266.0$$

320

9

$$+ 49.5 \Delta 7^\circ 31' R S 79^\circ 15' E \quad \Delta = 7^\circ 31' R$$

$$(150' 2' \text{ Double Center}) \quad D = 2^\circ$$

$$R = 2864.9 \quad 3.457115$$

$$\log 3^\circ 45 \frac{1}{2}' = 8.817495$$

$$\hline 2.274606$$

$$T = 188.2$$

$$L^\circ = 375.8$$

2

1

$$310 \Delta 7^\circ 17' L S 87^\circ 20' E \quad \Delta = 7^\circ 17' L$$

$$(140' 35')$$

$$D = 2^\circ$$

$$R = 2864.9 \quad 3.457115$$

$$\log \tan 2^\circ 38 \frac{1}{2}' = 8.803761$$

$$\hline 2.260876$$

$$T = 182.3$$

$$L^\circ = 364.2$$

305

(16)

$$326 + 62.5$$

$$\hline 1 \quad 33.6$$

$$325728.9$$

$$327 + 96.1$$

$$325 + 28.9$$

$$\hline 2 \quad 66$$

$$32794.9$$

$$318149.5$$

$$\hline 1 \quad 88.2$$

$$31661.3 = PC$$

$$320437.7 = PT$$

$$316 + 61.3$$

$$\hline 3 \quad 75.8$$

$$320437.7 = PT$$

$$310 + 00.0 = PI.$$

$$\hline 1 \quad 82.3 = T.$$

$$30817.7 = PC$$

$$31182.3 = PT$$

$$308 + 17.7$$

$$\hline 3 \quad 64.2$$

$$31148.19$$





R Line

(17)

& with true line computed  
as  $30^{\circ}39'N$ ,  $D = 20^{\circ}$

$$R = 287.9 = 2.459300$$

$$\log 15^{\circ}18\frac{1}{2}' = \frac{9.437315}{1.896615}$$

$$\log T = \frac{1.896615}{1.896615}$$

$$T = 78.8$$

$$L^c = 153.2$$

$$R 332+00.0 = 30^{\circ}41'2'' N 83^{\circ}30' E$$

(327+00 sel. Line Line)

1

330

9

8

327

(0°03' closure)

$$\begin{array}{r} 157.6 \\ 153.2 \\ \hline 4.4 \end{array}$$

$$332+00 = 327 = P.I.$$

$$78.8$$

$$331+21.2 = P.C.$$

$$327+00.0$$

$$78.8$$

$$327+78.8 = P.T.$$

$$4.4$$

$$327+74.4 = P.T.$$

1 1/2  
1 1/2  
1 1/2  
Tam. Swamp.

Thick 6" to 12" Stems.  
Few standing Trees.

x x x x x x x x  
FENCE



+65.2 0°07'R. To hit 1/4 Cor.  
 4 10  
 9  
 8  
 +95.5 Hit Bran Cor. (allotment Cor.)  
 7  
 6  
 5  
 40440 P.O.T.  
 3  
 2 (3°15'L) computed to hit 1/4 Cor.  
 401+32° 3°17'L N 80°30'E Sec Cor. 3-10-2-11  
 1  
 400  
 9  
 158.3 0°03'R. To hit Sec. Cor.  
 8  
 7  
 6  
 39.5

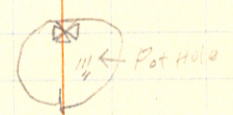
This line has angles  
 a lot of little close  
 but enough to  
 50 D.K. sections  
 for true line.  
 These true line angles  
 will have to be  
 calculated sometime  
 by someone.

Weather - Fair.  
 Wed. Nov. 19, 1919  
 R.J.T.  
 C.J.B.  
 F.F.C.  
 J.B. (18)

401+32  
 162.5  
 399+69.5  
 40499.5  
 Δ = 3°15' D = 1°  
 R = 5729.7 · 3.758128  
 log tan 1.37 1/2 8.452841  
 T = 162.5 2.210969  
 Lc = 32.5

T141R30

Thin 1/8" Pop.  
 Oak, Birch &  
 Brush (few pine)



514.5  
 Few Pop & Birch  
 Brush



Cont. from 5 Pages back.



430+404 P.O.T.

9

8

427+554 1°22'L N80 E. 1/4 Cor. Sec. 2-11

7

426+184 1°23'R. N81°36'E Turned to hit 1/4 Cor.

6

5

4

3

2

1

420+600

420

9

8

7

6

5

414+594 0°18'L N80 E E 1/6 Sec 2-11 Brass Cap.

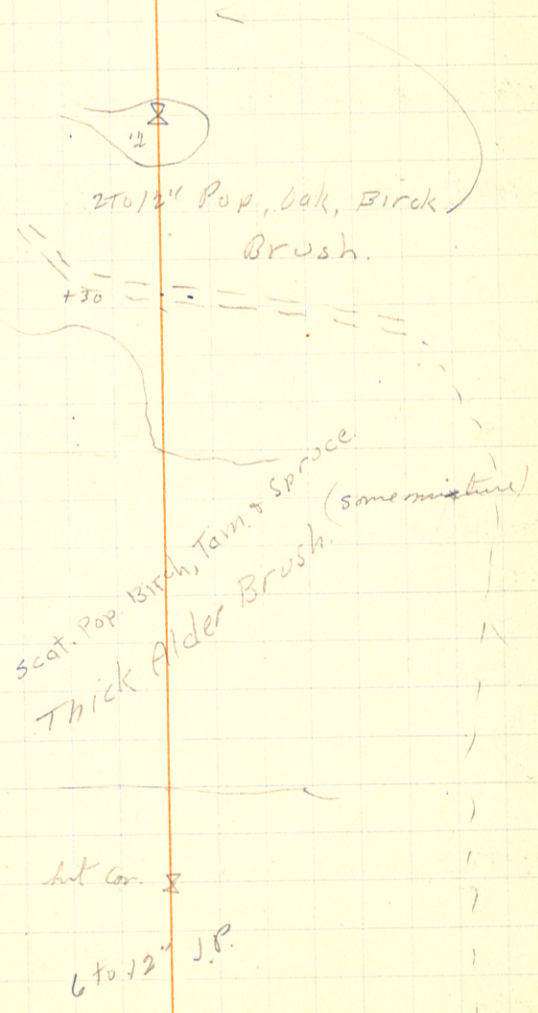
4

3

412

411

Hitting down old line



hit Cor. X

6 to 12" J.P.



450

9

8

447+150

0°35' N79°15' E Turned to hit sec. cor.

7

6

5

4

3

2

441+186

E 1/6 cor. sec 2-11

1

440+118

P.O.T.

440

9

8

437+0

P.O.T.

6

5

434+52

hit allotment cor.

4

3

2

431

I would judge this to be an error from the fact that the change is in the opposite direction from that of the magnetic bearing.

J. M. Greene  
Dec. 10, 1919  
I shall take liberty

seems to be on a 1/6 cor.

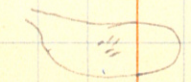
is the of changing this 100035'w. If the amount may forgive me J. M. Greene. Correct you are Mr Greene. R. J. J.

(line produced runs on 7.4' on R.)

Thick 2 to 4" Pop. + Birch.

was 0.9' L. Cont. same line

Thick 2 to 4" Pop. + Birch.





2  
1  
470  
9  
8

467+94.5 P.O.T.

7  
6  
5  
4  
3  
2  
1

460

9

458+0

7

6

5

454+49.0

4

3

2

451

0°15'R N84½E turned Tahit 1/6 cor

5°08'R N84½E sec. Cor. 2-11-1-12

Am trying to follow old  
Govt. line which is fairly well  
cut out thru here, but seems  
to have a few little kinks

W. 1/6 Sec. 1-12

Weather —

Thur. Nov. 20 1919

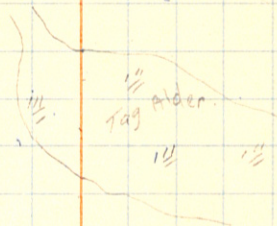
R.J.T.

C.J.B.

F.F.C.

J.B.

(21)



4 to 8' Pop. Oak & Brush.

2 to 4' Oak, Pop, Birch  
Brush — few 8-10' oak

T141R30



all for Nov. 19



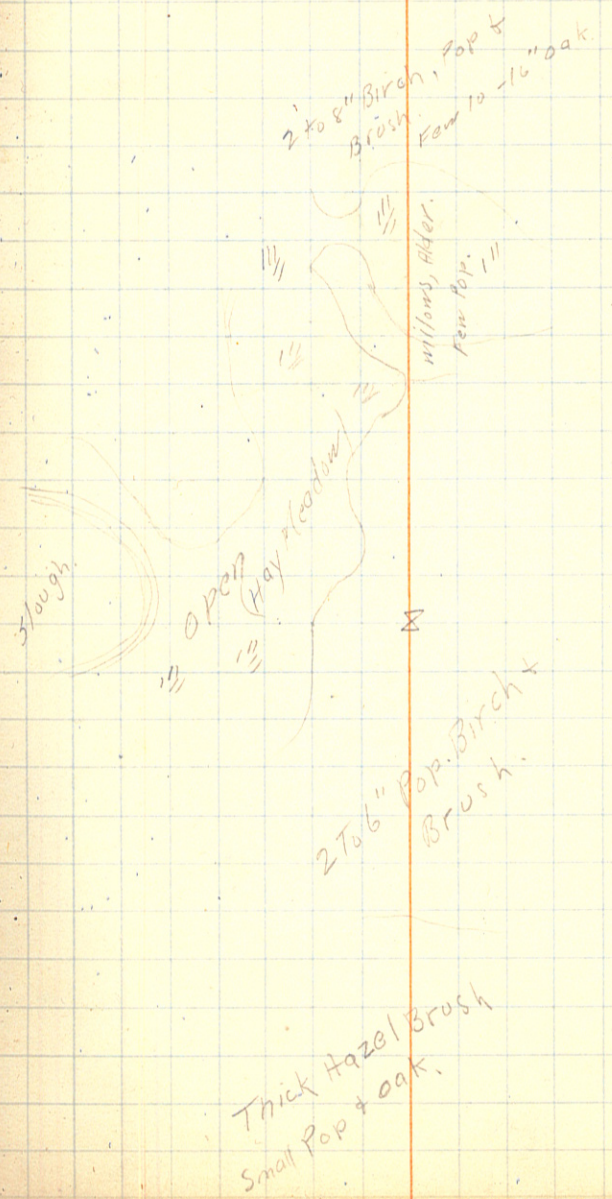
- 2
- 1
- 490
- 9
- 8
- 487+542
- 7
- 6
- 5
- 4
- 3
- 2

481+415 0°05'R N85E 1/4 Cor. Sec. 1-12

- 1
- 480
- 9
- 8
- 7
- 6

475+38.0 0°02'R Turned to hit 1/4 Cor.

- 5
- 4
- 473+659 P.O.T.
- 473



2 to 8" Birch, Pop & Brush. Few 10-16" oak.

Willows, Alder. Few Pop.

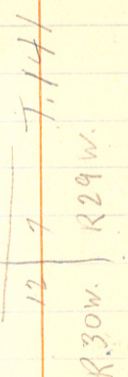
2 to 6" Pop. Birch + Brush.

Thick Hazel Brush Small Pop + oak.

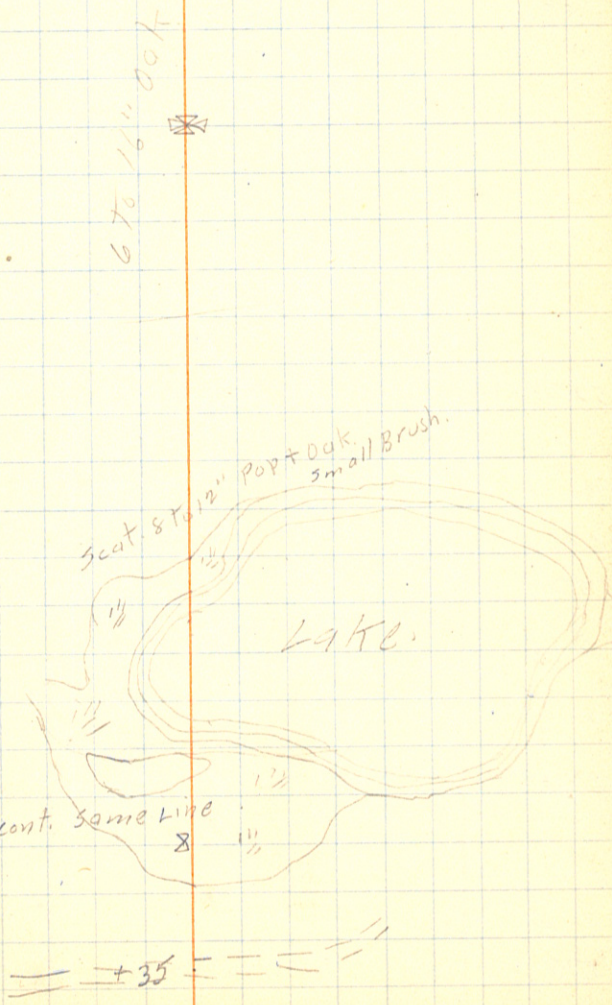


2  
 1  
 510  
 509+695 2°25'R. N81°40'E  
 9  
 508+373 5°05'L N79°15'E Sec. Cor.  
 8 turned this to get  
 7 on Ran. Line. Then  
 6 hit down Ran. Line from 509+695.  
 5 Saves some heavy line cutting.  
 4  
 503+000 0°16'L N84°30'E Turned to hit Sec. Cor.  
 2  
 1  
 500  
 9  
 8  
 7  
 6  
 5  
 494+90.5 E 1/6 Cor. Secs 1-12  
 4  
 493+44.0 P.O.T.  
 493

see "B" line  
 1/2 pages ahead



See "B" line notes for line  
 around Lake to left.





Cont. on second Page.

3  
2  
1  
530  
9  
8  
7  
6  
5  
4  
3  
522+136  
2  
1  
520+80.0  
520  
9  
8  
7  
516+39.6  
6  
5  
4  
513

0° 11' R  
P.O.T.

N 81° 45' E

turned to hit 1/4 lot.

W 1/6 sec. 6-7

all for Nov. 20.

500 "L" line  
5 pages ahead  
revision Sta. 518 to 527

P.O.T.

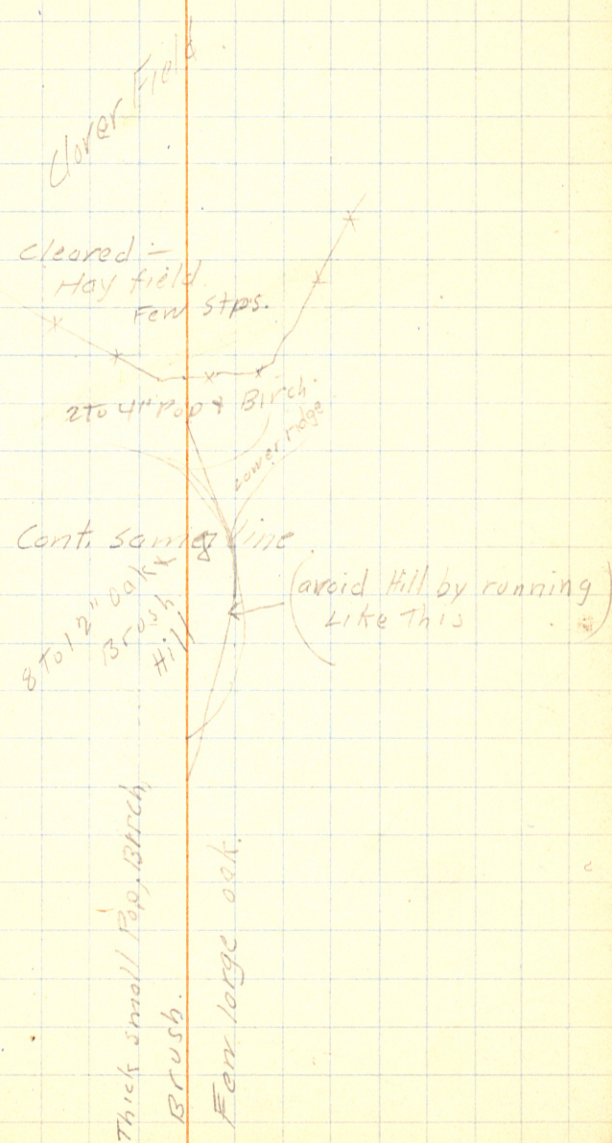
Weather —  
Misty in morning —  
Light snow A.M.  
Fair P.M.

Fri. Nov. 21 -

R.T.  
C.J.B.  
F.P.C.  
J.B.

(24)

was 3.7 L — Cont. same line





"B" Line

"B" Line - Running around  
North end of small Lake.

(See two pages back)

503+00 Sec line Line  
End of "B" Line

5044 75.1# 34°08' L N84°30'E Hit Sec. Cor.

4

3

2

1

500

499+44.0 Δ 51°17' R S61°35'E  
(102°35')

9

8

+38.7 Δ 19° R N67°15'E  
(380')

7

6

5

4

493+44.0 Δ 36°23' L N48°30'E  
(72°46')

Turned from & Tied to  
"A" from Line

serub oak  
Brush





2  
 1  
 550  
 9  
~~548~~  
 547+93.0  
 7  
 546+94.5  
 6  
 5  
 4  
 3  
 2  
 1  
 540  
 9  
 8  
 537+75.0  
 7  
 6  
 535+15.3  
 5  
 534

0°04'R. N82E E 1/6 Sec. 6-7

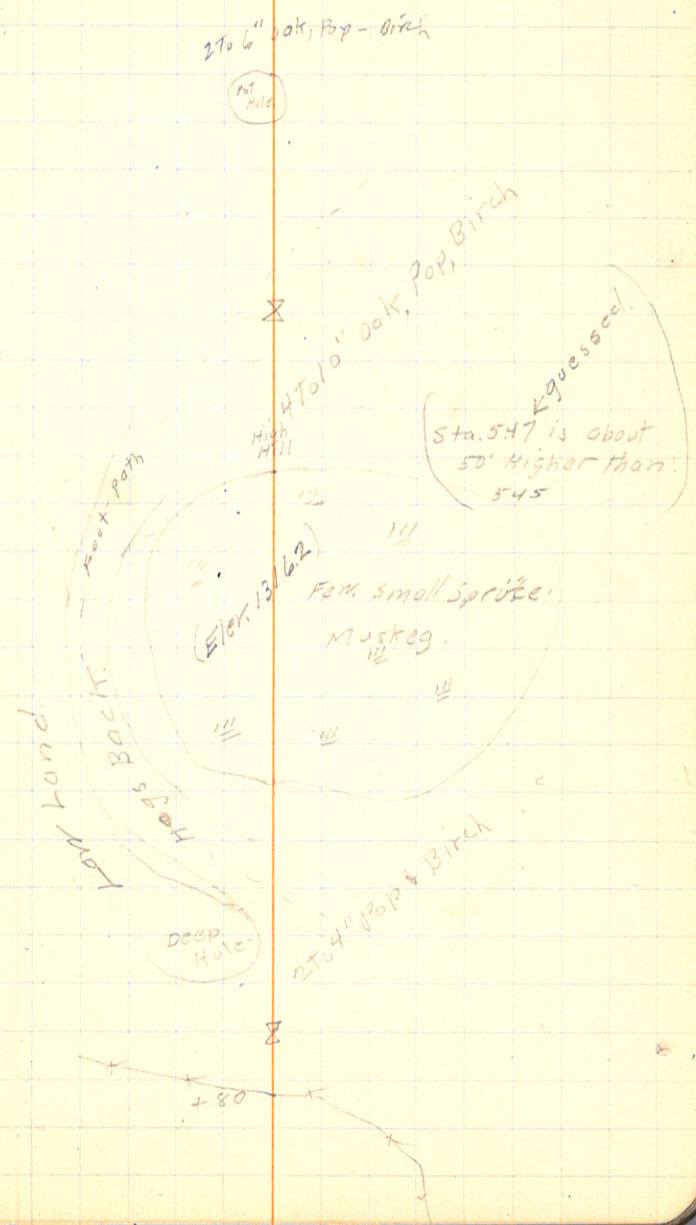
0°22'R. N82E turned to hit 1/6 Cor.

see "D" Line  
 (4 pages ahead)  
 Revising from 537 to 552

0°28'L. N81°30'E

0°16'R. N82E 1/4 Cor. Sec. 6-7.

Cont. from 2 Pages back.





5724

1

570+00 P.O.T.

9

568+08.7 P.O.T.

8

7

67+28.6 36, allotment lot.

6

565+75.0 0°24'L N83°30'E

5

4

3

2

1

560+70.2 2°30'R. N84 E Sec. Cor. 6-7-5-8 T141R29

560

9

8

7

6

5

554+50.0 0°35'L N81°30'E turned to hit Sec. Cor.

4

553

Land  
J.H.H.

Deep Hole.

quite a drop here

oot

47.70" Pop. Birch

Indian lives on  
this "40"  
Foot path on this line.

47.10" Pop. Birch

oot  
hole



(cont. third Page (For'd))

9

8

7 5000 L to M.C.

586+93.8 A 5° 08' L N 81° 20' E 1/4 Cor. <sup>10' 16'</sup>  
(20° 16')  
+23.5 A 2° 47' R N 86° 35' E Turned to hit 1/4 Cor.  
(5° 35')

6

5

4

3

2

+85.0 O.P.O.T.

1

580

9

8

7

576+27.9 O.P.O.T.

6

5

4

573+82.8 A 1° 16' L N 83° 30' E W 1/4 Cor. 5-8  
(2° 33')

3

572+40 1° 16' R N 84° 30' E Turned to hit 1/4 Cor.

Weather —  
FINE

Sat. Nov. 22 —

R.J.T.  
C.J.B.  
F.F.C.  
J.B.

(29)

Phone Lines

Hard Wood Timber

all for Nov. 21

Birch Oak  
& Poplar (4" to 10")

Poplar + Hard Wood



C.K. No

SAT. Nov. 22-1919

(29)

Notes by C.J.B.

C<sup>o</sup> 527+42.9 =

527+00 (Sec Line line)

7

6

+85.0 A30°37' L N48°45'E  
(61°13')

5

4

+85.4 O.P.O.T.

3

2

+53 A21°58' L N79°45'E  
(43°56') Double Center

1

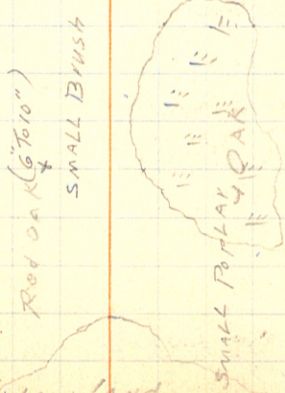
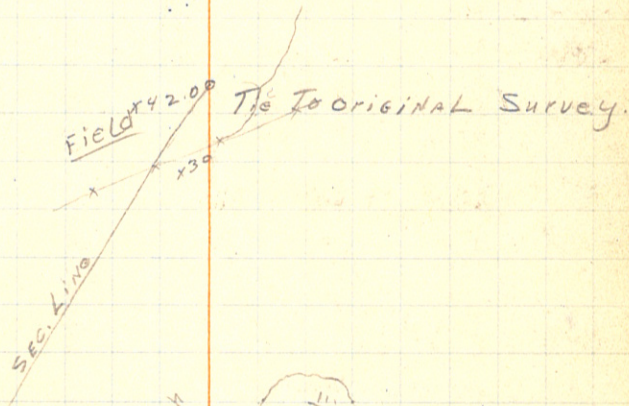
+50 O.P.O.T.

520

9

518+46.3 A17°43' R S78°15'E  
(39°27')

Turned from Tota. Bar. line  
Does not look very good.





SAT. Nov. 22 - 1919

(30)

C  
D<sup>o</sup> Line

0<sup>o</sup> 553 + 325.5

531 + 98.0 Δ 19° 07' L N 82° 15' E

3 Sec. Line line.

+ 61.2 O P O T.

550

9

8

7

6

+ 54.4 Δ 16° 48' R S 78° 30' E

5 (33° 36')

4

+ 17.9 Δ 17° 20' R N 84° 45' E

3 (34° 40') DOUBLE CENTER

2

1 Δ 15° 2' R N 67° 20' E

(30° 4')

+ 54.0 Δ 17° 49' R N 52° 20' E

9 (35° 38')

8

5 537 + 75.0 Δ 47° 47' L N 34° 40' E

(95° 34')

turned from & to the my Pot hole.

P.O.T.

Line follows on top of hogsback to left  
of sec. line's ground deep hole

(Notes by C. J. B.)

Tie To ORIGINAL Survey

ORIGINAL SURVEY

Hard Wood Grove

4" to 12"

Poplar Trees

(40 to 100)

100  
100  
100  
100

SMALL Birch

LIGHT BRUSH

POPULAR

(4" to 12")

RED OAK

(4" to 12")

CLWYMS





(Cont. second Page Ford)  
(See second Page Forward)

+ 50 A  
 9  
 5984.00 Δ 17° 00' S 67° 10' E  
 7 Change  
 6  
 5  
 + 65.0 Δ 15° 15' R 55° 10' E  
 (30° 29')  
 4 (32° 38' R Δ from true line)  
 + 10.7 Δ 32° 46' R S 65° 30' E  
 (65° 32')  
 3  
 2  
 1  
 + 14.7 O.P.O.T.  
 590

Cont. to line  
 50767 290' was  
 20' L. of N.E. 1/4 S. 8.  
 (check for tea)





"A" LINE

Being Revision of Sec. Line,  
line from Sta. 374+15.7 to 389+08.5

← 389+08.5  
389+60.0 A" =

9

8

7

386+81.4 Δ 29° 16' L

6

5

4

3

382+22.7 Δ 4° 16' L  
(8° 32')

2

1

380

377+39.5 O.P.O.T.

9

8

7

376+74.2 Δ 16° 32' L  
(33° 05')

6

375+69.0 O.P.O.T.

5

374+15.7 Δ 20° 52' R  
(42° 47')

Δ = 29° 46' D = 20° R

R = 287.9 2,459,300

log tan 14° 53' = 9.424503

T = 76.5 1,883,803

L<sup>c</sup> = 148.8 - 153.0

N 53° 26' E Δ 29° 16' D = 20° L  
N 54° 10' E

R = 287.9 2,459,300

log tan 14° 39' = 9.416810

T = 75.2 1,876,110

(N 82° 42' E) L<sup>c</sup> = 146.3

N 83° 30' E Δ = 4° 16' D = 10

R = 5729.7 - 3,758,128

log tan 2° 08' = 8.571137

T = 213.4 2,329,265

L<sup>c</sup> = 426.7

Δ = 16° 32' D = 6°

(N 86° 58' E) R = 955.4 2,980,170

N 87° 30' E log tan 8° 16' = 9.162236

T = 138.8 2,142,406

L<sup>c</sup> = 275.5

from true line = 5.76° 30' E

(using Ran. Line Hub Sta. 367+267 for backsight)

(5.76° 30' E)

5.76° 10' E 1/4 Cor

9/0  
9/0

Weather -  
Cold - windy

Tue, Nov. 25 A.M.

P.T.  
C.B.  
F.F.C.  
J.B.

(32)

Δ = 20° 55'

D = 11°

R = 523.3 2,711,739

9,266,201

T = 96.3 1,983,598

L<sup>c</sup> = 190.7

389+60

76.5

388+83.5 P.C.

389+08.5

76.5

389+85.0 = P.T.

4.2

389+80.8 P.T.

386+81.4

75.2

386+06.2 = P.C.

387+56.6 = P.T.

387+52.5

Lot C.

Light Brush  
& FEW OAK (W" TOP)

Cedar SWAMP

SPRUCE

Tamp. Spruce  
Birch  
Brushy

Birch & Tiplar Trees

Cedar & Spruce SWAMP

382+22.7 P.I.

213.4

380+09.3 P.C.

384+36.1 =

384+36 = P.T.

376+74.2 = P.I.

138.8

375+35.4 = P.C.

378+13.0 =

378+10.9 = P.T.



2  
611+66.2  $\Delta 6^{\circ} 07' L S 88^{\circ} 40' E$   
( $12^{\circ} 15'$ )

610

9

8

7

606+09.4  $\Delta 7^{\circ} 19' R S 82^{\circ} 15' E$   
( $14^{\circ} 38'$ )

6

5

4

3

3

602+43.3 @ T.O.T.

2

601+24.0 @ T.O.T.

1

600

9

598+48.9  $\Delta 5^{\circ} 09' L S 89^{\circ} 58' E$   
( $20^{\circ} 18'$ )

8

7

6

5

594+65.0  $\Delta 25^{\circ} 42' R S 40^{\circ} 0' E$   
( $51^{\circ} 28'$ )

607 + 09.4

598 + 48.9

8460.5

Find when running Levels  
that there are two stations  
603 - (Did not correct)

500 # line  $\nearrow$

Weather  
Cold + Clear

Monday - 12/1 - 1919

R.J.T.

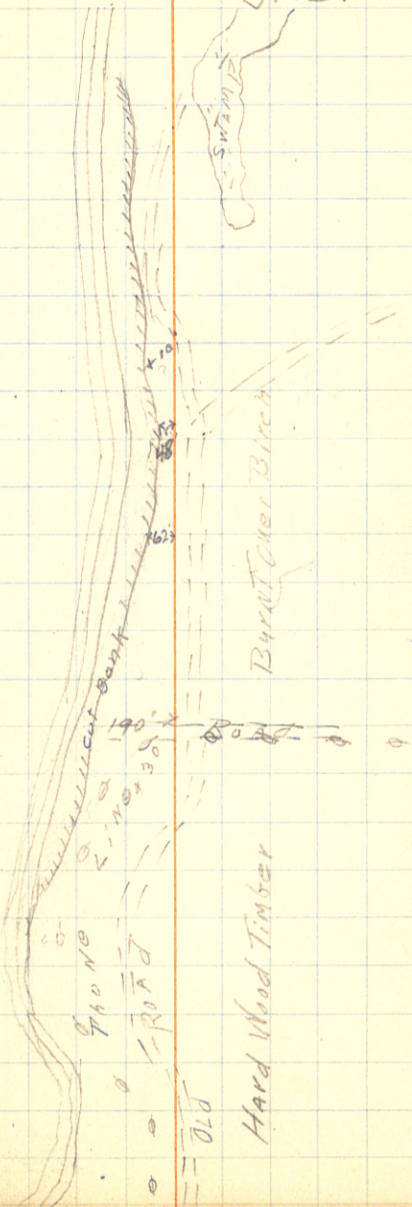
C.J.B.

F.F.C.

J.T.B.

(33)

Leech Lake





631+83.9 N 56° L  
 1  
 630  
 7  
 8

4394'

66' ahead on  
 Tangent  
 at point  
 center of Sec. 9  
 this doesn't fit  
 when I got it plotted (No 4 line)  
 up. (Some they had somewhere)

627+44.4 N 73° 30' E  
 (13° 29')

7  
 6  
 5  
 4  
 3  
 2

591'

621+73.3 N 66° 50' E  
 (23° 52')

620  
 9  
 8

617 N 78° 45' E  
 (25° 34')

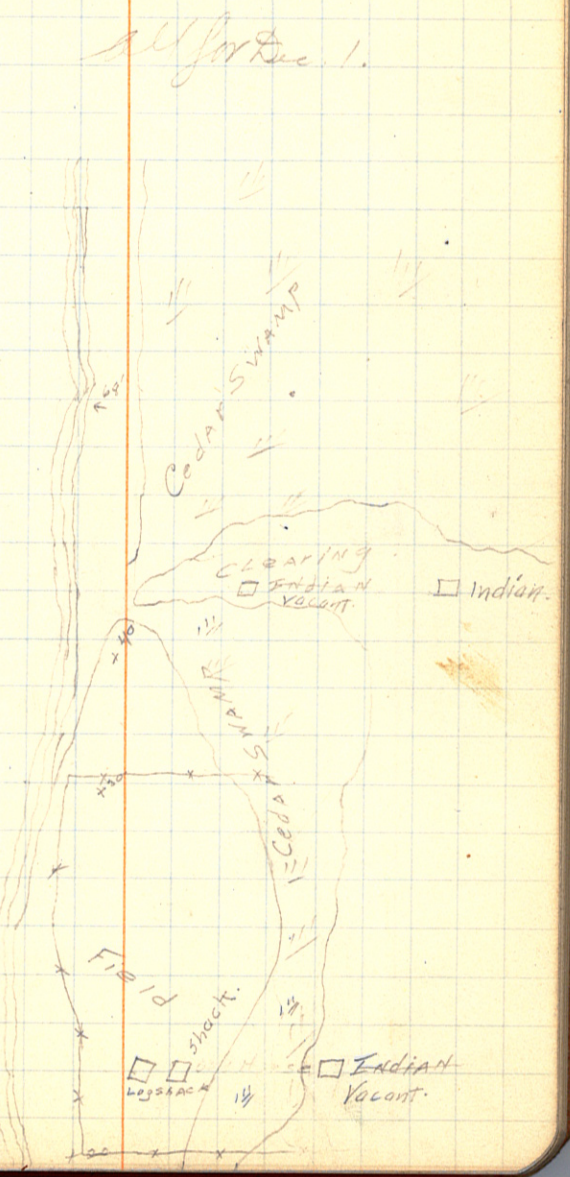
5  
 4

613

612+85-67' To M.C. on  
 sec. line sec. 8 & 9.

± on top of Swd. bank  
 between Cedar Swamp  
 and Lake  
 (about 70' from water's edge)

Leach Lake





E Line

7

6

5

594+62.0 Δ 36° 33' R S 68° 05' E

(73° 06')

4

3

2

591+31.0 Δ 37° 44' L N 75° 10' E

(75° 28')

1

590+17.0 O.P.O.T.

590

9

8

7

6

585+50 Δ 29° 03' R S 67° 15' E

(58° 06')

8050' R

Weather -  
Cloudy with some  
snow.

Sat. Dec. 6

T.P.T.  
C.J.B.  
A.P.P.  
J.B.

(35)



Hard Wood  
(C. to 10')

Hard Wood Timber



E Line

$S. 67^{\circ} 17' E$   
 $37^{\circ} 44' L$   


---

 $105^{\circ} 01'$   
 $N 74^{\circ} 59' E$   
 $36^{\circ} 33' R$   


---

 $111^{\circ} 32'$   
 $68^{\circ} 28'$   


---

 $21^{\circ} 50'$   


---

 $90^{\circ} 18'$   
 $N 89^{\circ} 42' E \text{ change to } N. 89^{\circ} 38' E$

$= 598 + 488$  ?  
 $(21^{\circ} 54')$  OF ORIGINAL SURVEY  
 $597 + 69.4$   $21^{\circ} 50' L$   $S 89^{\circ} 50' E$   
 $(43^{\circ} 40')$



| ⊙    | +    | ∩      | - | Rod | Elv.   |
|------|------|--------|---|-----|--------|
|      | ✓    |        | ✓ |     |        |
| B.M. | 5.00 | 105.00 |   |     | 100.00 |
| 0    |      |        |   | ✓   | -      |
| 1    |      |        |   | ✓   | -      |
| 2    |      |        |   | ✓   | -      |
| 3    |      |        |   | ✓   | -      |
| T.P. | ✓    | —      | — |     | — / —  |



Time on Revision Sta. 40 to 60

|                |                  |
|----------------|------------------|
| R.J. Torgerson | Oct. 31 - Nov. 1 |
| C.J. Bark      | " 31 - " 1       |
| A.R. Peterson  | " 31 - " 1       |
| Frank Marsh    | " 31 - " 1       |

Brainerd Moley Road.

|        |                  |                          |
|--------|------------------|--------------------------|
| R.J.T. | Nov. 30 - Nov. 3 | } in office<br>on plans. |
| C.J.B. | " 30 - " 3       |                          |

Time

Oct. — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

R.J. Torgerson

C.J. Bark

A. R. Peterson

Keeping

Time in loose leaf book.



