

⑦

COUNTY DITCH N<sup>o</sup> 5

⑦

Box - 2

MINTING  
TRANSFER BOOK  
363



# KEUFFEL & ESSER CO.

DRAWING MATERIALS  
AND  
SURVEYING INSTRUMENTS.  
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

## TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1892, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

Index Page  
County Ditch nos. 1 to  
TIMESHEET JUNE 18  
JULY 40  
AUGUST 87  
SEPT 87



**NOTICE OF FILING OF AND HEARING ON DITCH PETITION.**

Notice is hereby given that a petition, of which the following is a copy, has been filed in the office of the county auditor of Cass county, State of Minnesota, and that a hearing will be had upon said petition before the county board, at the office of the county auditor of said county, in the Village of Walker on the 7th day of March, A. D. 1916, at 10 o'clock a.m.

Dated at Walker, Minn., this 8th day of January, 1916.

C. D. BACON,  
County Auditor.

**Petition for Public Ditch.**

To the County Board of the County of Cass, State of Minnesota:

The undersigned land owners, whose lands will be liable to be affected by, or assessed for, the expense of the construction of the county ditch herein-after described, would respectfully represent that the public health, convenience and welfare and the reclamation of wet and overflowed lands require the establishment and construction of county ditch along the following described route in the Town of Slater in said county of Cass, and that the construction of the same would be of public benefit and utility.

A general description of the proposed starting point, route and terminus of said ditch is as follows: Commencing at a little lake in the southeast quarter of section five (5), township one hundred and forty-two (142), range twenty-six (26), running thence of a westerly course to near center of section six (6) to old water course, thence southwesterly to creek in southwest quarter of section seven (7). Creek is about three-fourths of a mile long, ends in lake near one-fourth post on south line of section twelve (12), township one hundred and forty-two (142), range twenty-seven (27), same to be cleared out if necessary.

And your petitioners pray that you will proceed to establish such county ditch and cause the same to be constructed as provided by Chapter Two Hundred Thirty (230), of the General Laws of Minnesota for 1905.

Dated, November 25, 1915.

D. H. SLATER  
C. H. GODFREY,  
NED BORTSON,  
JAKE CARR,  
M. L. POHL,  
Petitioners.

Ditch 5, 6, 7 - 142 - 26 1

Monday June 12<sup>th</sup> / 16

I spend the day getting  
Copies of Govint notes and  
plots and take the 6.05 PM  
G.N. Ry train to Cass Lake.

Bus + baggage transfer \$ .25  
at Walker

R.R. fare Walker to Cass Lake \$ .49

Arriving in Cass Lake I go to  
the Eudemon Hotel + have  
supper + get a room

J. D. Wilson

**INDEX**  
Time sheet

	Page to Page
R. W. V. Notes	95 to 98
change lat notes	100 to 101
X section Main Ditch	102
Lat No 1	109 - 109
Lat No 2	110 - 111
Lat No 3	112 - 113
Lat No 4	114 - 115
Lat No 5	116
Lat No 6	117 - 119
Continuation of lat No 1	120
Levels on extension	121



Ditch 5-6+7 142-26

Clear &amp; warm Tuesday June 13/16

I have breakfast at the  
 Embury Hotel Cass Lake  
 and at 10 AM. after paying  
 my bill of \$1.50 I go to  
 Station and purchase ticket  
 to Rogers Spur fare .75 about  
 10.20 AM the train leaves Cass Lake  
 & I arrive at Rogers Spur at  
 11.30 AM and have dinner  
 at the camp .35¢ - I go out  
 to D.H. Slater's Sec. 8, 142, 26  
 where I make arrangements  
 to board while on this  
 survey -

Dewey Slater goes to the  
 Spur for my ~~thunder~~ tools.

F.F. Wilson

Ditch 5, 6, 7 142-26

Wednesday June 14/16

Rain

I get all the information I can  
 and go over the lands to be  
 drained in order to run a  
 proposed ditch to best advantage  
 as to cost & utility.

The petition is as follows.  
 Commencing at a little lake in  
 S.E.  $\frac{1}{4}$  of sec. 5 142-26 running  
 thence of a westerly course to  
 near the center of sec. 6 to old  
 watercourse thence south  
 westerly to creek in S.W.  $\frac{1}{4}$  sec. 7.  
 creek is about  $\frac{3}{4}$  mile long ends  
 in lake near  $\frac{1}{4}$  post on S. line  
 of sec 12 - 142, 27 same to be  
 cleared out if necessary -

I spend the day in looking  
 over the proposed route.

F.F. Wilson



A

Rain

As soon as it clears  
I take Gurley Transit & tools  
+ D.H. Slater & Dewey Slater  
and go to lake in S.E. 1/4 5  
142, 26 and start line of  
location of ditch (proposed.)

Through tamarac & spruce  
bog in westerly direction

at 5<sup>30</sup> P.M. we quit for  
the day.

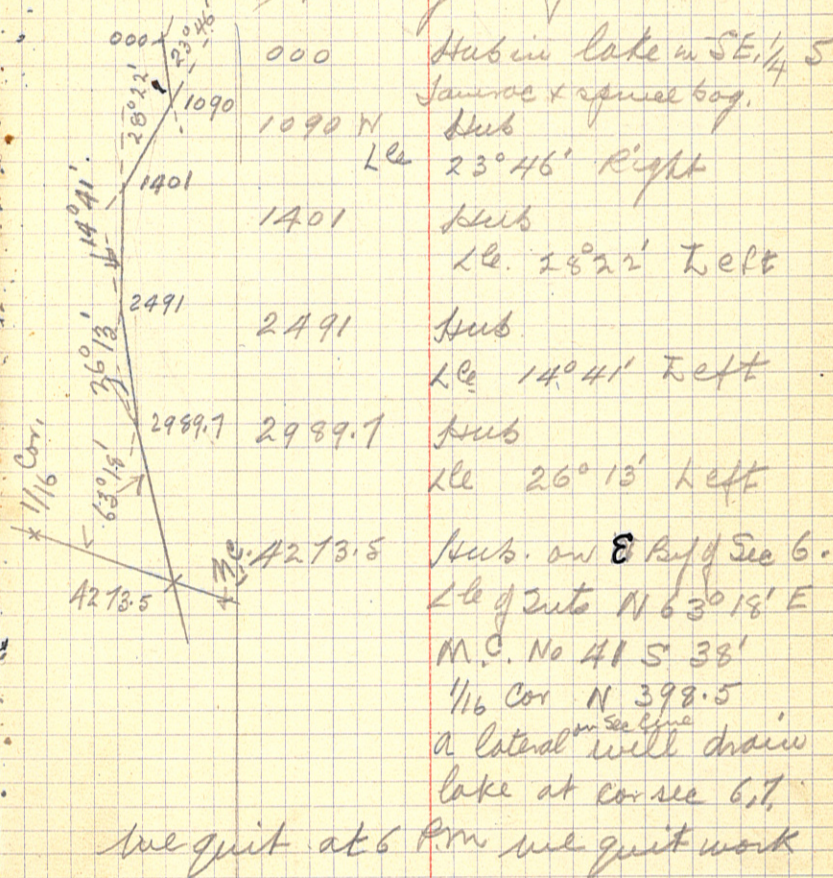
F. Wilson

Thursday June 15/16

Friday June 16/16

F. Wilson Asst engineer

D.H. Slater, axe + Flag Dewey  
Slater Chain + axe  
Continue running line of prop  
ditch. chainage as follows.



we quit at 6 P.M. we quit work

F. Wilson



Saturday June 13/16

I continue running line  
of proposed ditch same crew

4273.5 Hub on sec line W by 6

Sassafras + spruce bog

4682.5 Hub

Lc 22° 22' Right

22° 22'

5501.4

Hub same bog + enter bog ground

Lc 13° 49' Right

13° 49'

5624

(648' N from 11/2 on S by of sec 6)  
East edge of Graded Road running N

5660

Leave bog ground + enter bog

5855

Hub

Lc 37° 00' Left

37°

Sassafras + spruce Bog

6617

Hub

Lc 18° 07' Left

18° 07'

Sassafras + spruce Bog

6758.4

Hub

Lc 36° 45' Left

36° 45'

7067.4

Hub

Lc 32° 47' Left

32° 47'

7619.5 Hub

Lc 39° 33' Right

39° 33'

Sassafras + spruce Bog

9968.4

Hub

Lc 36° 45' Right

36° 45'

Sassafras + spruce Bog

10330.4

Hub

Lc 28° 53' Right

28° 53'

Sassafras + spruce Bog

10590.1

Hub

Lc 28° 50' Left

28° 50'

Sassafras + spruce Bog

10646.6

Hub

End of ditch in creek

This line of proposed ditch runs continuously  
in Sassafras + spruce Bog + if properly  
constructed will <sup>greatly</sup> benefit the surrounding  
lands.

We quit work at 5:30 P.M.

F. K. Wilson



8

Ditch 5,6,7, 142-26  
 Sunday June 18<sup>th</sup>/<sub>16</sub>

I take Transit & rod +  
 Dewey Slater rodman - D.H.  
 Slater sounding rod. + go to the  
 lake in S.E. 1/4 5 142.26 +  
 commence taking levels on line  
 of proposed ditch - D.H. Slater take  
 soundings every 100 feet.

Sta.	+S	HI	-S	Elev.
B.M.	3.49	103.49		100.00
4" nail in pine sawnee 2 1/2" 50' N. Sta. 100.				
000			5.1	98.39
100			5.2	98.3
200			5.1	98.4
300			5.1	98.4
400			5.1	98.4
500			4.9	98.59
600			4.9	98.6
700	B.M. Tp. Nail 2" green Spruce 10" N		3.96	99.53
	3.31	102.84		
700			4.5	98.34
800			4.7	98.1
900			4.9	97.9

Ditch 5,6,7 142-26  
 Sunday June 18<sup>th</sup>/<sub>16</sub>

Sta	+S	HI	-S	Elev
		102.84		
1000			4.8	98.04
1090			4.9	97.9
1100			4.9	97.9
1200			5.5	97.34
1300			6.4	96.4
1400			6.2	96.64
B.M.	Nail in 5" pine 4" N.		4.60	98.24
	T.P. Hub.		4.45	98.39
	3.29	101.68		
1500			4.8	96.88
1600			5.0	96.7
1700			5.0	96.7
1800			5.3	96.4
1900			5.4	96.3
2000			5.3	96.38
	T.P. Hub.		3.04	98.39
	2.34	100.98		
2100			5.0	96.0
2200			5.0	96.0
2300			5.1	95.9
2400			5.3	95.6
2500			5.6	95.39
2600			5.6	95.4
	T.P. Hub.		4.28	96.70



10 Ditch 5,6,7 142-26  
 Soundings taken by P.H. plates. Sunday June 18/16

000	more than 8'	2500	3.5
100	"	2600	level ground
200	"	2700	more than 8'
300	"	2800	3
400	"	2900	1
500	"	3000	2
600	"	3100	6
700	"	3200	more than 8'
800	"	3300	"
900	"	3400	"
1000	3.5	3500	"
1100	1.5	3600	"
1200	2	3700	"
1300	2.2	3800	"
1400	2.5	3900	"
1500	4.0	4000	"
1600	more than 8'	4100	"
1700	"	4200	"
1800	"	4300	"
1900	"	4400	"
2000	4'	4500	7
2100	5.1 ft	4600	4
2200	more than 8'	4700	1.5
2300	"	4800	4.5
2400	"	4900	more than 8'

Ditch 5,6,7 - 142-26  
 Sunday June 18/16

5000	more than 8'	100	more than 8'
5100	"	101	"
52	5	102	"
53	3.5		"
54	4	103	"
55	level	104	7
56	high		
57	1.4	105	4
58	4		
59	6	106	1
60	7		
61	6		
62	2.5		
63	2		
64	5		
65	6		
66	4.5		
67	6		
68	7		
69	6.5		
70	5		
71	2		
72	level		
73	high		
74	"		
75	1		
76	3		
77	2		
78	2		
79	4.5		
80	5		
81	3.5		
82	Beams Down		
83	1		
84	1.5		
85	3		
86	4		
87	5		
88	7		
89	5		
90	4.5		
91	more than 8'		
92	"		
93	"		
94	"		
95	4.5		
96	more than 8'		
97	"		
98	"		
99	"		

In taking soundings P.H. plates used  
 a 5/16" sound iron rod 8 1/2 feet long graduated  
 in feet and 1/2 feet, and depth as shown  
 here are to bottom.

J.W. Wilson



12

Ditch 5, 6, 7, 142-26  
Monday June 19/16

Clear &amp; warm.

F. Wilson - Dewey Slater - D. H. Slater's  
Sunt man.

Sta.	+S	H.I.	-S	Elev.	
2600	TP 3.37	100.07	4.73	96.70	Hub.
			4.7	95.3	
2700	TP 3.30		5.0	97.37	10 M.
				95.1	
2800			5.0	95.1	
2900			5.0	95.1	
2989.7			5.4	94.7	
3000			5.7	94.37	
3100			5.7	94.4	
3200			6.0	94.07	
	TP 3.34				Hub.
3300		98.98	4.48	95.59	
			4.9	94.03	
3400			5.0	93.90	
3500			5.0	93.93	
3600			5.1	93.93	
3700			5.4	93.53	
3800			5.3	93.63	
	TP 3.76	98.54	4.15	94.78	Hub.
3900			5.0	93.54	
4000			5.1	93.44	

Ditch 5, 6, 7, 142-26  
June 19/16 13

Sta	+S	H.I.	-S	Elev.	
4100		98.54	5.11	93.44	
4200			5.1	93.44	
4273			5.1	93.44	
4300			5.1	93.44	
4400	TP 5.34	98.25	5.1	93.44	
			3.13	95.11	Hub.
			3.50	98.91	Nail in green sand.
13 M.			4.7	93.55	
4500			4.9	93.35	
4600			5.3	92.95	
4700			5.6	92.65	
4800			5.7	92.55	
4900			5.9	92.35	
5000	TP 3.16	97.17	4.24	94.01	Hub.
			5.1	92.07	
51			5.3	91.97	
52			5.3	91.97	
53			5.1	92.07	
54			4.7	92.47	
55			4.6	92.57	
56			5.4	91.77	
	TP 1.28	94.99	3.51	93.66	Hub.



14

Ditch 5, 6, 7, 142-26  
No 5

June 19/16

Sta	+S	H.I.	-S	Elev.	
5650		94.94	3.8	91.14	
5700			5.0	89.94	
5800			5.1	89.84	
5855			5.2	89.74	
59			5.6	89.34	
60			5.3	89.64	
61			5.2	89.74	
62			5.7	89.24	
	Tr. 3.34	94.48	3.80	91.14	Hub.
63			4.9	89.58	
64			5.2	89.28	
65			5.0	89.48	
66			5.5	88.98	
	Tr. 3.20	94.19	3.49	90.99	Hub.
67			5.2	89.99	
				88.99	
6756.4			5.3	89.89	
68			5.6	89.59	
69			5.7	89.49	
70			6.1	89.09	
7067.4			6.7	87.49	
	Tr. 3.34	92.55	4.68	89.51	Hub.

Ditch No 5

June 19/16

Sta.	+S	H.I.	-S	Elev.	
71.00		92.85	5.3	87.55	
72	13.11		5.3	89.96	Nail in Birch 12' E
73			5.1	87.55	
74			5.8	87.75	
75			5.8	87.05	
76			6.7	86.15	
7619.5			7.7	85.15	
	Tr. 1.77	89.02	5.6	87.25	Hub.
77			3.9	85.12	
78			4.9	84.12	
79			5.1	83.98	
80			5.3	83.72	
81			5.6	83.32	
82			4.8	84.22	Beaver dam.
	Tr. 1.92	86.54	4.40	84.62	Hub.
82.40			3.35	83.29	
83			3.6	82.94	
84			4.5	82.04	Small B. dam
85			4.9	81.64	A. Top
86			5.3	81.24	
87			5.5	81.04	
88			5.5	81.04	
	Tr. 3.67	86.01	4.20	82.34	Hub.



## Ditch No 5

Sta	TS	H.I.	-S	Elev.	
8900		86.01	4.7	81.31	
90			5.1	80.91	
91			5.1	80.91	
92			5.2	80.81	
93			5.2	80.81	
94			5.5	80.51	
	Tr. 2.82	84.88	3.95	82.06	Hub.
95			4.4	80.48	
96			4.8	80.08	
97			5	79.88	
98			5.3	79.58	
99			5.4	79.48	
9968.5			5.4	79.48	
	Tr. .88	82.45	8.81	81.57	Hub
100			3.1	79.35	
101			3.5	78.95	
102			4.0	78.45	
103			5.0	77.45	
10330.4			5.19 <sup>ground</sup>	77.35	
			3.82 <sup>Hub</sup>		
104			5.4	77.05	
105			5.90	76.55	

## Ditch No 5

Sta	TS	H.I.	-S	Elev.	
10590.1		82.46	6.45 <sup>ground</sup>	76.00	
			4.89	77.56	Hub.
			8.00	74.45	Creek bottom
Sta	TS	H.I.	-S	Elev.	
10590.1	4.9	82.46	.89	77.56	
9968.5	3.31	84.89	2.85	81.58	
9400	3.98	86.02	3.69	82.04	
8800	4.25	86.58	1.96	82.33	
8200	4.40	89.07	1.76	84.67	
7600	5.58	92.84	3.30	87.26	
7067.4	4.64	94.18	3.16	89.54	
66	3.38	94.40	3.24	91.02	
62	3.79	94.95	1.28	91.16	
5600				93.67	Hub.
<del>56</del>					

Check Levels



TIME SHEET Ditch No 5 142-26

18

Ditch No 5

142-26

JUNE 1916																		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
/	/	/	/	/	/	/	/	/	/	/	/	/	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1
				1/2	1	1/2	1	1	1	1	1	1	1	1	1	1	1	1

F.F. Wilson 18<sup>sup</sup>

D.H. Slater

Dewey Shorter

Harry "

Chas Godfrey

John Poll

Martin Poll

Ed.

Board

Team to Spur

Reming & Coating Sump

Travelling Gold Blue Run

June 12 Bus to G.M. Station at Walker 25 RR. Pine & Saw Lake 49x  
 June 13 Hotel Saw Lake 41.20 RR. Pine Ripens Spur 75x Dinner, 20c Supp. 35  
 June 27 RR. Pine Spur to Berings 7.07 Supplies at Ditch 30 RR. 8 loads 69  
 June 29 RR. Walker to Pine Run 6.07 RR. PINE R. to W. 67. Total 76.94

Ditch No 5

142-26

19

Tuesday June 20<sup>th</sup> /16

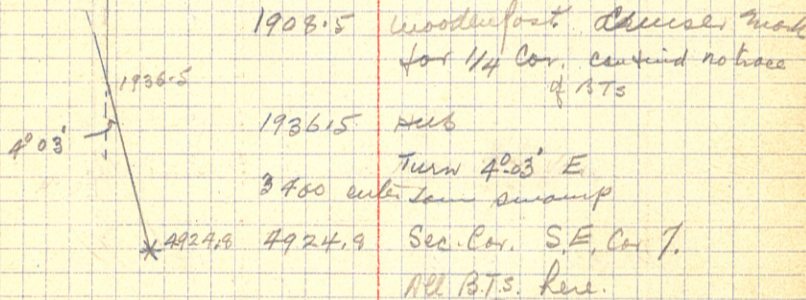
Clear & Warm

Survey crew - F. Wilson Transmitter  
 D.H. Slater Flag & Axe - Dewey Slater Chain  
 Chas. Godfrey Chain - Harry Slater Axe  
 Martin & John Poll. AXE.

Starting at a point 18 ft. East of M.C. No 43  
 Run line S low fence line.

M.C. 15000

000 point 18' E M.C. No 43



Will establish 1/4 Cor. if we fail to find any trace of Bearing Trees.



20

Ditch No 5 142-26

June 20/16

We go to line run by Todd  
Deputy Co. Surveyor. Starting at  $\frac{1}{4}$   
Cor between 6+7 & running S  
at 5280 he placed  
wooden Post + Bearing Trees we  
find Post + B.T.s and continue  
his line S to intersection with  
line running W from  $\frac{1}{4}$  Cor between  
7+18 -

000 wooden post 5280'

420. Into line run W  
 $\frac{1}{4}$  stands E 90'

Then we go to SW Cor 7 and  
run line N Var. 7° E

Find all B.T.s

000 SW Cor sec. 7  
land swamp

405 Creek

2515.5 Run into line run  
from E. Corner of Cor.2691  $\frac{1}{4}$  post set by Dept 7' N2700 Enter bog  
5000

Ditch No 5

142-26

June 20/16 21

5000 leave bog.

5382 NW Cor 7. stands 18 ft.  
West

we find NW + SE B.T.s stamps

we quit at 6 P.M.

H. Hoibson



22

Ditch No 5 142-26

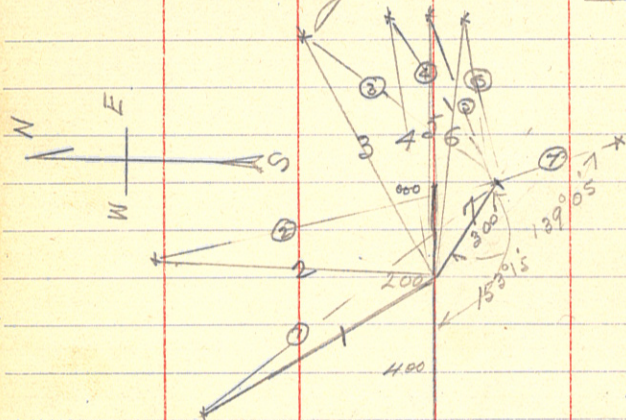
June 21/16

Clear + Hot

Survey new

T. Wilson D. H. Slater &amp; Wesley Slater

Chas. Godfrey.

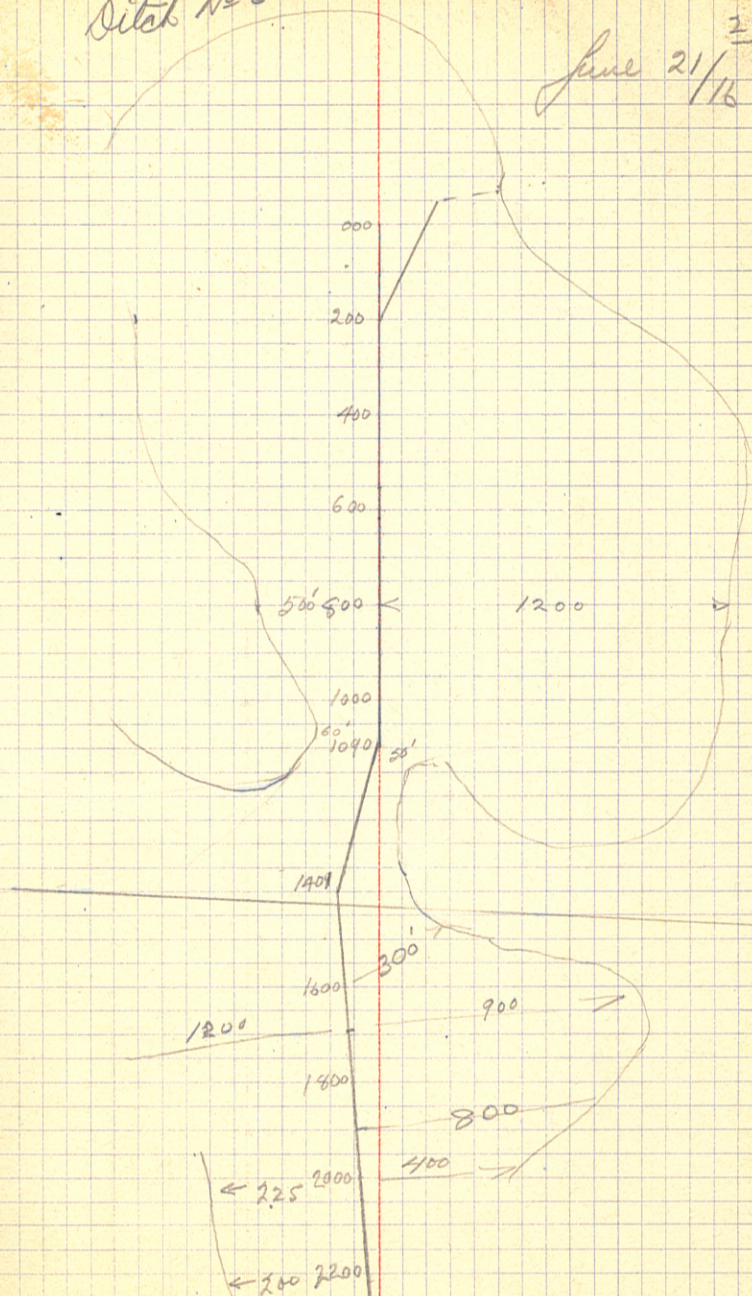
We go to starting point of ditch  
and triangulate Taurus Slough

Lc	dist
1 W 68° 40' N	970
2 103° 56'	1002
3 153°	1135
4 169° 30'	1590
5 177° 32'	1374
6 187° 35'	1263
7 206° 45'	300

Lc	Dist
① 32° 22'	1209
② 62° 06'	1124
③ 112° 04'	989
④ 132° 12'	987
⑤ 143° 19'	1120.5
⑥ 155° 06'	964.9
⑦	220

Ditch No 5

June 21/16





24

Ditch No 5

June 21/16

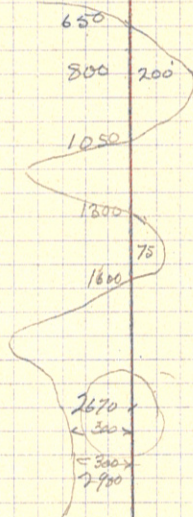
	2600	High Ground
1200 N	2700	
400 N	3000	900 ✓
500	3400	
400	3600	1200
	3900	250 to Lake
250	4100	
200	4273.5	190 to Lake
150	44	
30	47	
200	50	
175	53	
150	54	
.00	55	

Ditch No 5

142-26 25

June 21/16

Run line E from 1/4 between 576  
000 1/4 bet. 576. Todd Cor.



4270 x

Lake

5341 x 1/4 Cor. bet. 445  
B.T. Here

F. Swanson



26

Ditch N<sup>o</sup> 5

June 22/16

Cloudy

Survey Crew

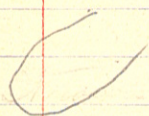
F. Wilson - D. A. Slater Chas. Godfrey  
 we go to post in center of sec 5 and  
 run line S var. 90 W

75  
 200

000 Wood Post at 2670 + E 70 W  
 200 leave camp  
 300 enter bog



1372.7 intersect ditch  
 at 1427.2  
 16 into  
 N 104° 11' E



1450 leave bog

2200 we quit at rains

heavy.

F. Wilson

27

June 23<sup>rd</sup>/16

Cloudy

Survey Crew

F. Wilson, D. A. Slater, Dewey Slater  
 Chas. Godfrey -

we continue running line  
 S from center of sec. 5.

280' to bog 2200 say 200' E

2640 - bog 300' E

end of bog. 2691

find stumps of old  
 BTs and place 1/4 Post  
 W 93° 22' N 121.5'

we then go to 1/4 between 7+8 and  
 place 1/4 Post at 2807 N E 67'

we then run line old cutting to  
 center of 7 and after correcting  
 Todd's old 1/4 line N 75. set a  
 same post for temporary center  
 of section at 2673 W.



28

Ditch No 5 142-26  
 Lateral No 2 June 24/16  
 Line & worm

Survey crew. J. Wilson, D. H. Slater,  
 Chas. Godfrey.

We go to  $\frac{1}{4}$  <sup>Cor.</sup> between 6+7.  
 Run section line to intersection  
 with ditch R

000 Sub. 69 1/6 W on ditch R  
 Lc

266  $\frac{1}{4}$  Post between 6+7

600 Edge of ridge (Small island)

700 across "

1100 Edge ridge (Small Island)

1165 " "

1633.8 Sub.  $\frac{1}{16}$  Cor.

Lc.  $45^{\circ} 38'$  left.

3400 Sub.

Lc.  $7^{\circ} 13'$  Right

3610 End of Ditch

$\frac{1}{16}$  Cor. Stands  $3^{\circ} E. 140^{\circ} 18' N. 108'$

W.C. Birch & Lc.  $25^{\circ} 30'$  1508

We quit work at 6 PM

J. Wilson

Ditch No 5

June 25<sup>th</sup>

Andy.

J. Wilson, D. H. Slater, Chas. Godfrey  
 go to Sta. 3610 on Lat No 1 and  
 just start to run levels when it  
 commences to rain heavy so.  
 we quit & go to D. H. Slater's Residence  
 I spend the day repairing notes.

J. Wilson



30

Ditch No 5 142-26

worm

June 26/16

F. Wilson D. S. Slater Chas

Godfrey Devey Slater

New levels on lateral No 2+3

Lateral No 3 commencing at 3610 N

Sta.	+S	H.I.	-S	Elev.
B.M.	2.61	102.61		100 <i>Spoken 5.2 inch</i>
3610			5.0	97.61
3600			5.0	97.6
35			5.3	97.3
34			5.1	97.5
33			5.0	97.6
32			5.1	97.5
31			5.2	97.4
30			5.3	97.31
	Tr. 4.56	102.75	4.42	98.19 <i>Hub.</i>
29			5.2	97.55
28			5.1	97.7
27			5.1	97.7
26			5.3	97.5
25			5.4	97.4
24			5.6	97.15
	Tr. 3.92	102.33	4.34	98.41 <i>Hub.</i>

Ditch No 5 142-26

Lateral No 3

31

Sta.	+S	H.I.	-S	Elev.
23		102.33	5.2	97.13
22			5.3	97.0
21			5.3	97.0
20			5.4	96.9
19			5.5	96.8
18			5.5	96.8
	Tr. 4.52	101.96	4.89 <i>Hub.</i>	97.44
17			5.3	96.66
		1633.8	4.39 <i>Hub.</i>	
		1600	5.2	96.8
15			5.3	96.7
14			5.4	96.6
13			5.4	96.5
12			5.5	96.46
	Tr. 4.58	101.57	4.97	96.99 <i>Hub.</i>
		1125	4.23	97.3
		1100	5.0	96.6
		1000	5.3	96.3
		900	5.1	96.5
		800	5.3	96.3
		700	5.3	96.3
		625	4.8	96.8
		600	5.5	96.1
	Tr. 4.16		4.73	96.84



32

Ditch No 5  
Lateral No 3142-26  
June 26/16

Sta	+S	H.I.	-S	Elev.
500		101.00	5.2	95.70
400			5.2	95.8
300			5.1	95.9
200			5.3	95.7
100			5.9	95.10
000			6.1	94.90
			5.04	Hub 95.9
			8.5	in 8.10

6617 3.33 4.87 Hub 89.35

B.M. Spike in Tree 5"  
E 15 from 69.16

4.38 89.84

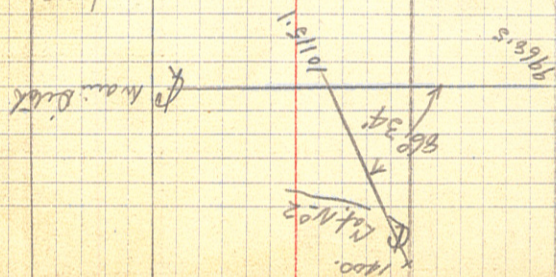
95.96

89.35

6.61 Equation in Levels  
as figured by Parnasel from Wilson's  
Notes.

Ditch No 5  
Lateral No 2142-26  
June 26/16 33

Sta	+S	H.I.	-S	Elev.
9968.4	2.15			81.57 Hub
101.151		83.72	2.65	81.07 Hub
000			4.87	78.85 Ground
100			4.8	78.92
200	TP 4.62		4.8	78.92
300		84.18	4.16	79.56
400			5.1	79.08
500			5.0	79.10
600			4.9	79.28
700			4.8	79.38
800			4.5	79.68
			4.4	79.78
	TP 4.28		3.04	81.14
900		85.42	5.50	79.92
1000			5.40	80.02
1100			5.25	80.17
1200			5.30	80.12
1300			5.30	80.12
1400			5.4	80.02
B.M. spike in Shump.			3.62	81.80





34

Ditch No 5 142-26

Main Ditch

June 27/16

F. H. Wilson D. H. Slater & Dewey Slater  
 Go to Meander Cor. 43 and get  
 information of location of Swamp  
 lands adjoining Lake at sec. Cor. 56;  
 7-8.

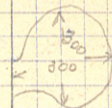
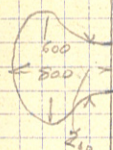
Also low lands along main  
 ditch Sta 42+73 to Sta 55

After dinner Dewey Slater  
 takes me and survey outfit to  
 Rogers Spur. This charge \$1.50  
 I take the 3:30 M + J train to Bemis  
 have supper at Dalton's Restaurant  
 50¢ - Railway Spur to Bemis \$1.07  
 I go to walk on the midnight  
 M + J June 29<sup>th</sup>. I go to the  
 Chase Hotel.

F. H. Wilson

Distances to High Ground from Sta on Main Ditch 35

Right		Left
200 W	70.00	150 E
150 W	72.00	150 E
800 N	74.00	300 E
150 W	76.00	150 E
	78.00	
200 W	80.00	100 E
	82.00	
100 W		100 E
200 W	84.00	75 E
700 W	86.00	500 E
	88.00	
700 W	90.00	500 E
250 W	92.00	400 E
	94.00	
150 W		400 E
	96.00	
	98.00	400 E
	100	1400
	102	
	104	
	106	





36

Ditch No. 5

142-26

June 28 / 16

I spend June 28<sup>th</sup> in J. Wilson  
County Surveyor's Office at Walker  
working on plats + estimates

Ditch No. 5.

Stop at Chase Hotel.

J. Wilson

Ditch No. 5

142-26

June 29 / 16<sup>37</sup>

Work in J. Wilson County Surveyor's  
Office at Walker on plats + estimates  
County Ditch No. 5.

Stop at Chase Hotel.

J. Wilson



June 30/16

I take M & D morning train  
to Pine River N.H. fare 87¢ +  
work on plans & estimates in  
AW Moulster County Engineer's Office.  
Stay at Travelers Hotel

H. Wilson

July 1/16

I work in AW Moulster's Office  
Pine River on plots & estimates County  
Ditch N<sup>o</sup> 5

H. Wilson







Sta.	Elev. Ground	Elev. Bottom	Cut	Slope	Cu yds sec. ft.	Cost yd	Cost per Sec.
47	92.95	86.67	6.28	1 1/2	224.6	169	35.93
48	.65	.57	6.08	3'	210.1		36.62
49	.55	.47	6.08	cut 1/2	204.5		32.72
50	.35	.37	5.98	1/2	201.6		32.26
51	.07	.27	.70		191.2		30.59
52	91.87	.17	.70		188.7		29.39
53	91.87	86.07	.80		186.7		29.81
54	92.07	85.97	6.10		197.3		31.47
55	92.47	.87	6.6		219.9		35.16
56	91.77	.68					
57	89.94	.49					
58	.94	.31					
59	.34	.12					
60	.64	84.93					
61	.74	.75					
62	.24	.56					
63	.58	.37					
64	.28	.167					
65	.48	84.00					
66	84.94	83.81					
67	88.99	.62					
68	.59	.24					
69	.49	.15					
70	.09	83.00	5.09				



AA

July 3/16

I work in A.W. Moulster's  
Office at Pine River Minn  
on plots and estimates for  
Ditch No 5

J. Wilson

45

July 5/16

I work in A.W. Moulster's Office  
at Pine River on estimates & plots  
Ditch No 5.

J. Wilson



July 6/16

Work in A.W. Moulster's  
Office at Pine River on  
Plats & Estimates Ditch  
No 5

J. Wilson

July 7<sup>47</sup>/16

Work in A.W. Moulster's  
Office on Plats & Estimates  
Ditch No 5 until 3 P.M. Then  
Check out of Travellers Hotel  
& go to Walker on 3:40 P.M. M<sub>2</sub>  
Train fare 67¢, I get transit  
Kurney tools & take Olsew bus  
to G.N. Station .25¢ and then  
take 6:15 P.M. G.N. train to Cass Lake  
fare 49¢. Have supper & spend  
night at Eudion Hotel.

J. Wilson



July 8/16

Check out Eudion Hotel  
 after Breakfast charge \$1.50 and  
 take Soo train to Rogers Spur  
 fare .75 & arrive at Rogers  
 Spur 11:30 A.M. get dinner  
 at the Camp .75 & and  
 walk out to D.H. Slater's in  
 Sec 6 Twp 142. 28 -

John Poll brings out survey  
 outfit.

Have supper at D.H. Slater's  
 & arrange to board here while  
 continuing survey ditch No 5.

A. Wilson

Sunday July 9/16

Clear &amp; Hot

A. Wilson D.H. Slater Harry  
 Slater

000 <sup>1/4</sup> Post between 7 & 18

1861.3 N Hub approx 1/16 Cor.  
 L to 136° 27' Right  
 43° 33' Left

3386 N Hub Poll fence  
 L W 85° 33' N

6102.5 N Hub  
 1/16 Cor 5 by 6 stands  
 S 82° 37' E 12'  
 L 181° 25' Right  
 10 25' Right

6749.5 N Hub. 5635 W on main d.  
 L to into W 80° 06' N

8819.3 N Hub  
 1/16 Cor stands E 12'



Sunday July 9.

000 Hub Iron pin  $1\frac{1}{16}$  Cor  
 No of MC on E by of 6  
 1350  $\frac{1}{4}$  Cor between 5 & 6  
 $\angle$  to  $S 88^{\circ} 06' E$  into  
 with  $\odot$  E to tri 5

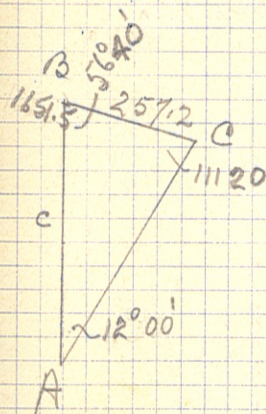
quit work at 5 P.M.

F. Wilson

Monday July 10/16

Clear + Hot  
 F. Wilson, D. H. Slater, Dewey Slater.  
 Ed.

Run line N from 2670 E on  $\odot$  of No. 5.  
 $\angle$  to  $S 91^{\circ} 22' W$   
 000 Hub 2670 E on  $\odot$  No. 5.



1651.5 Sub. S shore Taylor Lake  
 $\Delta$  or

Lake

2799. Sub. #E  
 2487' Sub. #E shore Taylor Lake  
 Sub.

$$c = \frac{257.2 \times \sin 65^{\circ} 40'}{\sin 12^{\circ}} = \frac{257.2 \times .91315}{.2079}$$

$$= 1147.5$$

quit work at 5:20 P.M.

F. Wilson



Tuesday July 11/16

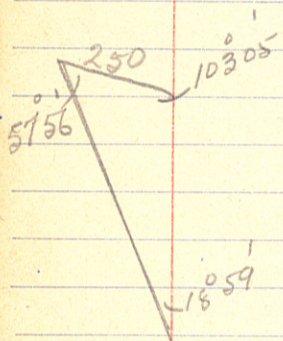
Hot

F. J. Wilson, D. H. Slater, Dewey  
Slater, Ed.

Run line E from Hub

2837 N Lg. S 89° E

000 Hub 2837 N



1439.3 Hub Lg Hub

1490 enter bog

1840 leave bog

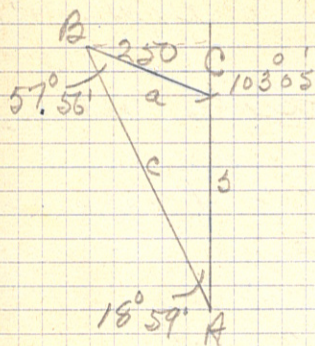
2090.6 Hub Lg Hub

2690.6 Hub.

We look for B.T.'s for see cor.  
4, 5, 32, 33 but can find no  
trace of Goulet trees.

We quit work at 5:20 P.M.

F. J. Wilson



$$b = \frac{a \sin B}{\sin A} = \frac{250 \times \sin 57^{\circ}}{\sin 18^{\circ}59'}$$

$$= \frac{250 \times .8474}{.3253} = 651.3$$



Hot Wednesday July 12/16

F.H. Wilson, J.H. Slater, Harry Slater  
Ed.

As we can not find any trace  
of Goumit bearing trees to see Cor.  
45, 32, 33 we continue running  
line E from Hub 2690.6

2690.6 Hub.

5314.8 Hub

1/4 Cor between 7, 33  
stands N 76.5'

We find Goumit bearing trees  
w.p. lying on ground

Fr 10 S 23 E 13 $\frac{1}{2}$  = 8.58'

w.p. 18 N 31 E 19 $\frac{1}{2}$  = 12.54'

Take new B.T.s as follows.

w.p. stump 8 S 68° W 10.5' 12 dwt nail w/flag

w.p. stub 24 N 39° E 71.6' 12 dwt nail w/flag

We quit work at 5 PM

F.H. Wilson

Thursday July 13/16

F.H. Wilson, J.H. Slater, Harry  
Slater, Ed.

We search for B.T.s to 1/4 Cor  
between 5 + 32. on shore of Taylor Lake  
where goumit notes call for

Aspen 12 N 67 E 13 $\frac{1}{2}$  = 8.58'

Birch 8 S 33 E 17 $\frac{1}{2}$  = 11.2'

We find the stumps of same  
and place 1/4 Cor.

1/4 Cor stands S 89° E 171.8'  
from Hub 2837' on line Run N thro'  
Centre of Sec. 5.

We take new Bearing Trees  
as follows

w.p. 12 N 13° 42' E 80.8' 12 dwt nail

Norway 12 S 74° E 81.8' <sup>in place</sup>

We then go E to sta. 2743.3  
and place post 38.2' N as the  
true Cor. to see. 45, 32, 33  
and take new B.T.s as follows



56

July 13/16

Poplar 5" N 40° 41' E 10.5 feet  
Basswood 6" S 55° W 10.3 feet  
Maple 10" S N 40° 10' W 65.3 feet

We quit work at 5:30 PM

J. Wilson

57

Friday July 14/16

I spend the day writing notes etc.  
at D. H. Slatter's  
My helpers take the day to  
cultivate their root crops.

J. Wilson



58

County Dike No 5

Saturday July 15/16

Very Hot

J. Wilson, D. Slater, Harry Slater  
Dewey Slater Ed. Jonstenson

We cut line N from sta 2523.2E

L 900

200 Hub. 2523.2

912 road along W

2600 Hub.

3300 Hub.

We quit work at 5 P.M.  
Today was so hot we are all in.

J. Wilson

59

July 16/16

Hot.

We do not work



July 17/14

J. J. Wilson & H. Slater Harry  
 Slater Dewey Slater Bert  
 Fredrick Ed. Torstenson

We continue running line N  
 from Sta 2523.2 E

3300 sub

4900 enter Cedar Swamp

5300 leave " "

5334.5 sub. Sec. Cor.

stands S 90°10'W 178.2 ft.

I.M. here

We run W. along line run by Flynn

1000

178.2 Sec cor.

Defl. 3°37' Left

2404 1/4 cor stands S. 3'

2435.7 sub.

defl. 4°44' Right

5002 Sec Cor.

We run S from 1/4 cor.

L 90°56'

000 1/4 Cor. N by 32

755.5 sub.

800 enter meadow

4300 sub leave meadow

We quit work at 5<sup>30</sup> PM  
 today at

J. J. Wilson



Hot.

July 18/14

Continue  $\frac{1}{4}$  line S thro 32.F. Wilson Harry Slater Bert Fodick  
Dewey Slater Eld. Jonstenson

4300 Hub. leave meadow

4504.2 Hub.

5238 Hub.

 $\frac{1}{4}$  Cor stands E T.S.we. New go to  $\frac{1}{4}$  Cor between 445  
142-26  $\frac{1}{4}$  run line S.000..  $\frac{1}{4}$  between 4451688 Hub.  $\angle S. 88^{\circ} 16' E$ we quit work at 5 pm

F. Wilson

Hot

July 19/14

F. Wilson Harry Slater D. H. Slater  
Bert Fodick Dewey Slater  
we continue line S from  $\frac{1}{4}$  Cor between  
Secs. 4+5.

1688 Hub.

2670 Hub.

we search for sec. Cor. but can  
find no trace of Gasmit. Seeing trees  
we go to lake W of  $\frac{1}{4}$  Cor between 445  
and locate ditch line to head  
of main ditch

we quit at 5 P.M.

F. Wilson



July 20/16

J. Wilson, Dewey Slater, Harry Slater  
John Anderson, Bert Fodick

begin to the N.W. Cor. Sec. 7  
and run line West.

000 ~~see~~  
17 See Cor. 6, 7  
stands 8.3'  
Cedar Swamp  
1724 Sub.  
874 bush ground  
990 leave Island.  
1950 leave Swamp  
2028.2 Sub.  
2753.3 Sub.

We search for  $\frac{1}{2}$  Cor. between 14-12  
but can find no trace of East B.T.S.

We quit at 5 P.M.

J. Wilson

July 21/16

J. Wilson, D.H. Slater, Harry Slater  
Dewey Slater, Bert Fodick, John Anderson  
we find old cutting at same place  
same.

2753.3 Sub.  
16 N 90° 00' E 8.1' Sub.  
L W 85° 48' S.  
8548' 9000  
8.1'  
3202 Sub.  
Cedar Swamp  
5372 Sub. See Cor.  
1-2-11-12  
all B.T.S. here

We run line S from See. Cor.

000 See Cor. 1, 2, 11, 12  
L S 91° 00' E

1900 poplar ridge  
2100 leave ridge

We quit work at 5 P.M.

J. Wilson



July 22/  
 F. F. Wilson, D. H. Slater, Dewey Slater, 1/4  
 John Anderson, Bert Foadick.

We continue running S.

2100 low poplar ridge

3749.2 Hub. hog wood Run SW.

4125 Creek runs NW.

5000 Poplar Brist ridge

5300. leave ridge

5475.7 sec Cor 11, 12, 13, 14

Stands W  $73^{\circ}45'N$  237'

We continue line to Railway

000. Sta. 5475.7

610.7 Railway

N  $133^{\circ}28'E$

000

3622 Hub. on Railway

L

We quit at 5:30 pm.

F. F. Wilson

Sunday July 23/  
 1/4

F. F. Wilson, Dewey Slater, John  
 Anderson, Bert Foadick.

000 Hub. 1/4 Cor. between 7 & 18

of Slater Road.

L  $14^{\circ}53'$  Right

2281 Hub

L  $10^{\circ}07'$  Right

3869.7 Hub.

1/4 Cor. between 12 & 18

L  $32^{\circ}11'$  Right

5868.5 Hub

L  $56^{\circ}40'$  Right

6394.5 Hub. Railway 3622'

L  $W 80^{\circ}35'N$

F. F. Wilson