

BK 40 DR 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Drainage Survey

Co. Rd "C"

From Sta 286 
1/4 Mi East Rice St. Round Lake

Road Acc't. No.

Date Filed File

BK 40 DR 16

DRAINAGE SURVEY

Co. Rd. "C"

sta 286 to sta 293

Align - 1-2

Topog. - 3-5

Xsections - 6-9

Stadia - 10-15

TILE SURVEY

Align - 16-17

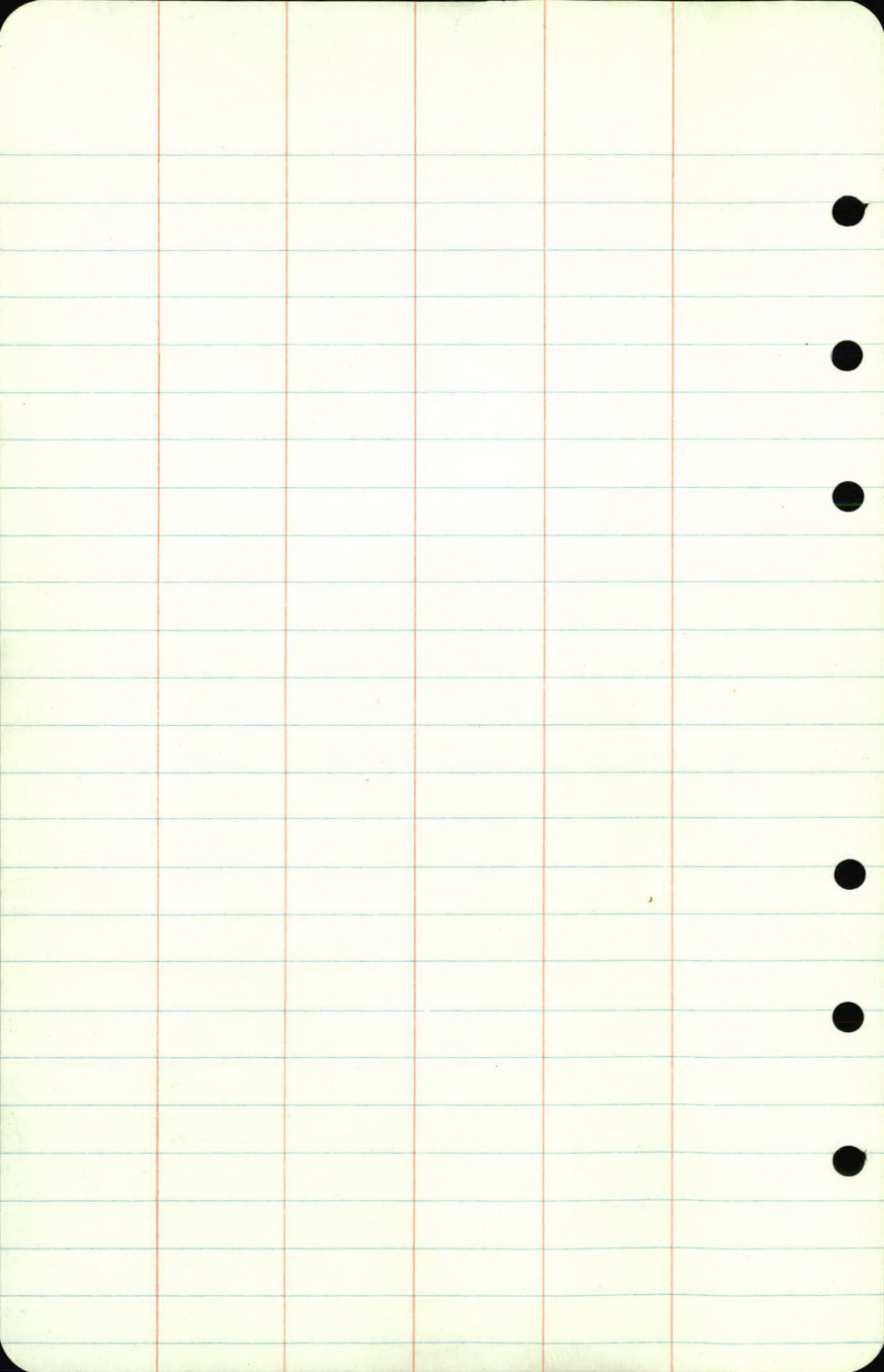
Topog. - 18-20

Xsections - 21-25

6-26-40

Completed

8/13/40



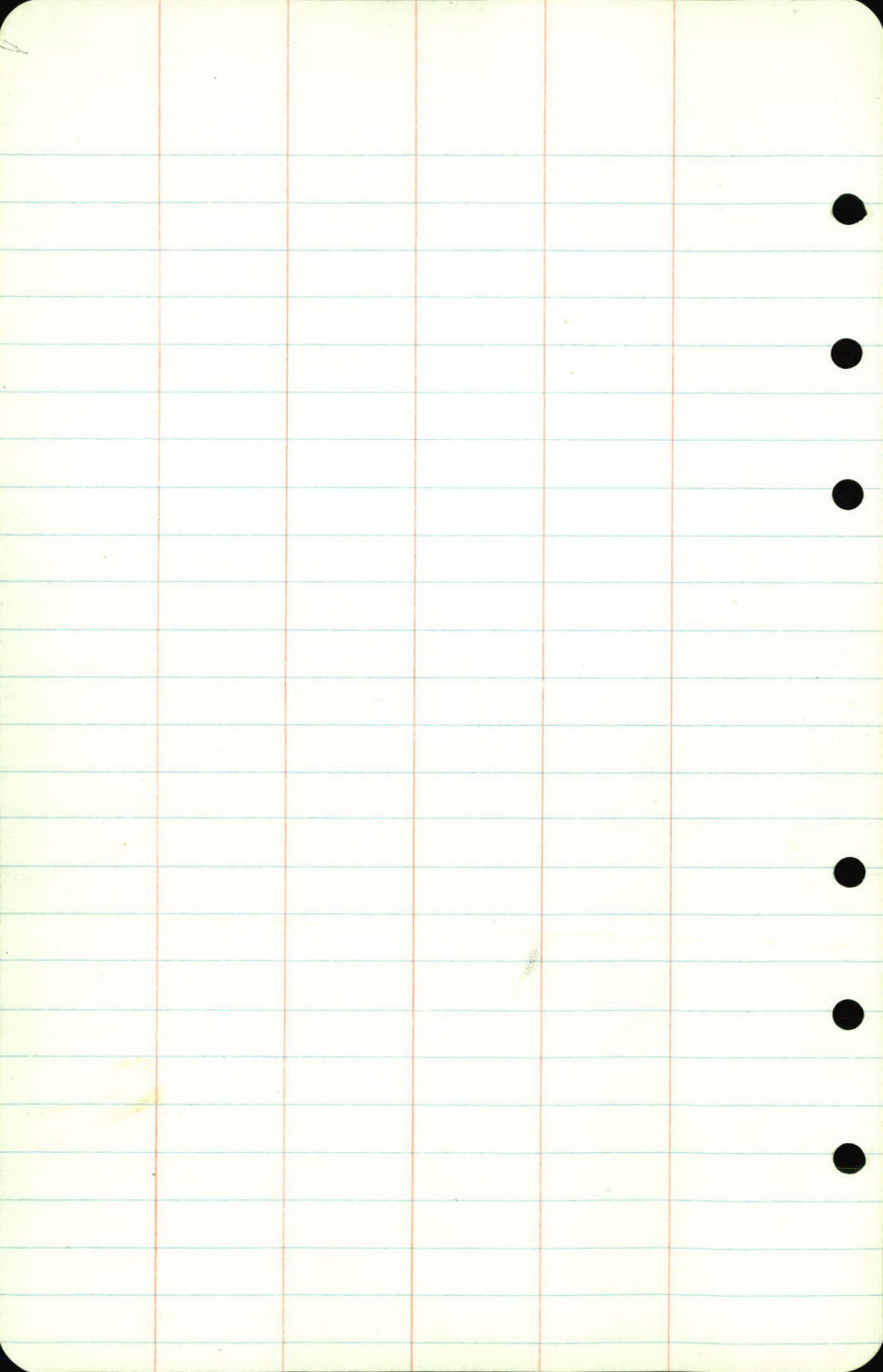
Alignment

Sta	Point	ΔL	ΔR
-----	-------	------------	------------

277 4976 = ϕ Rice St. + Cal Rd "C"

□ N. 1/4 Cor. Sec. 7

□ N.W. Cor. Sec. 7



Topography

+28-Ent. 12" X 20" Iron Pipe
35' dredge

291

16' 15'

W.E.-19'

+74-Swamp-61'

+67-T.P.-28'

+55-Swamp-18'-26'

+43-Ent. 12" X 20" Iron Pipe dredge Pipe
20'

+29-8' W.O.-39'

290

16' 14'

+91-N.W. Cor Ho.-55'

+65-"H" Pole-25'-31'

289

15'

+35-Swamp-22'-T.P.-28'

+35-W.E.-65'

+08-Swamp-72'

288

15' 15'

+92-Swamp-86'

+70-Swamp-44'

+60-Swamp-30'

+58-Swamp-88'

+32-4 Ditch-89'

+25-Swamp-100'

+10-Swamp-67'

287

24' 24'

+39-E 18" X 24" M. Swamp

+37-Swamp-91'

15' 15'

+08-Swamp-72'

+01-T.P.-27'

+90-800 Swamp-23'-50'

+62-800 Swamp-28'-40'

+36-10" O.-40'

286

+17-20" O.-39'

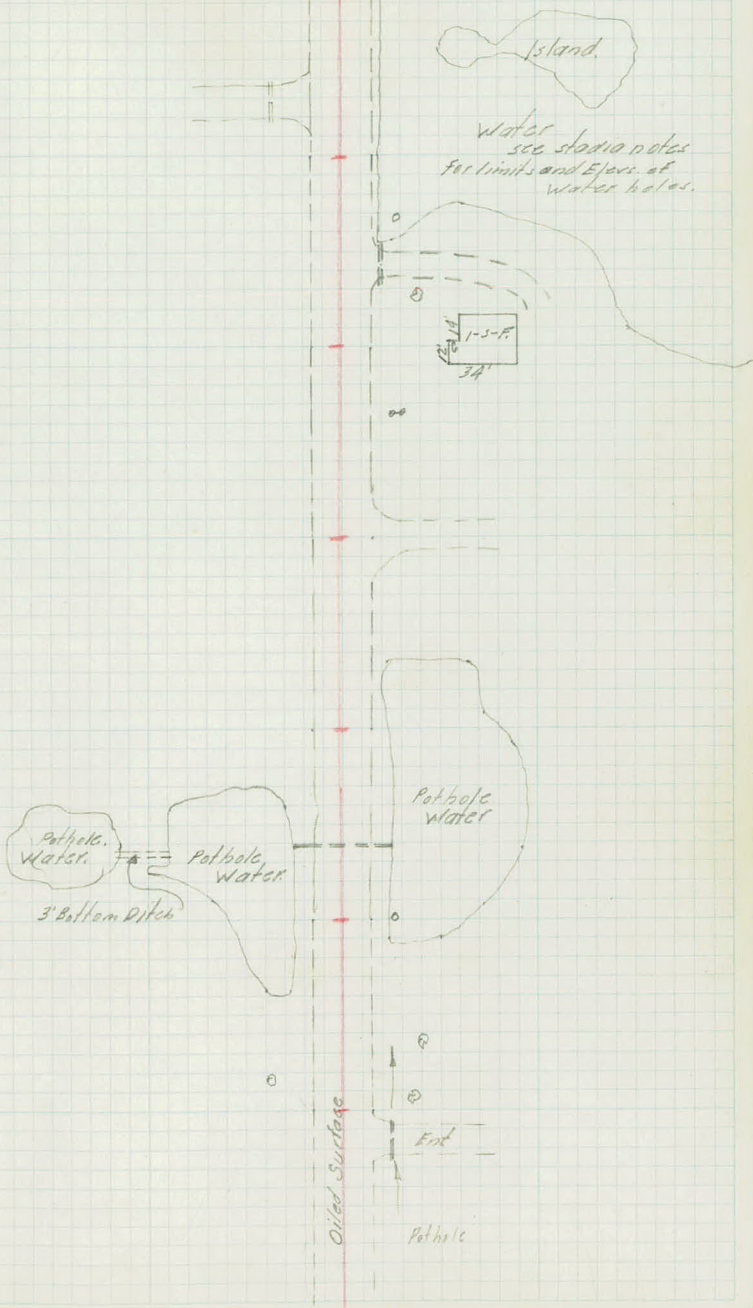
15' 16'

+08-8" O.-34'

+93-E End 12" X 20" M.-24'

6-21-40

4



293

17' 14'

135° Ent. $\frac{12' \times 20' \times 100' \times 100'}{28'}$

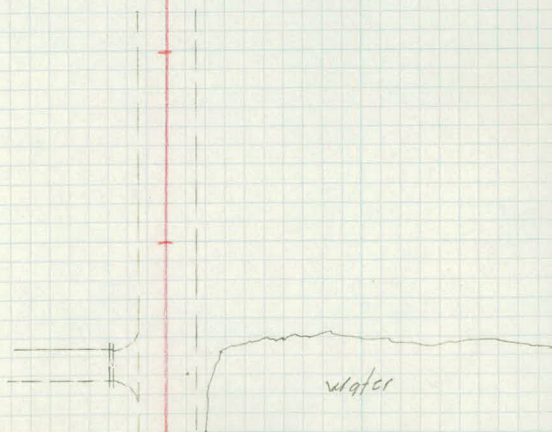
+47 W.E. - 60'
+41 W.E. - 28'

292

16' 15'

W.E. 20'

T.P. 28'





xsections

Sta	+	π	-	Elev	
B.M.	3.97	961.88			(957.91)
T.P.	1.18	954.67	8.39	953.49	
T.P.	3.04	948.80	8.91	945.76	
B.M.	3.62	948.58	3.84	944.96	
285	+93		6.20	42.38	
286				44.8	
	+50			44.5	
287				44.1	
	+39	4+67		43.8	✓
	+73	4+35		43.6	✓
288		4+08		43.5	✓
T.P.	4.49	948.00	5.07	943.51	
+50	3+58			43.5	✓
+85	3+23			43.5	✓
289		3+08		43.5	✓

44

氏

RA

Top Mont. Rice & Co. R.I.C.

Spk. in N. "H" Polc. 25th 289465

Flow Line E. End 12" C.M. Drain East

$\frac{42}{100} \quad \frac{35}{43} \quad \frac{45}{37} \quad \frac{53}{34} \quad \frac{63}{29} \quad \frac{61}{22} \quad \frac{45}{16} \quad \frac{31}{16} \quad \frac{45}{21} \quad \frac{56}{30} \quad \frac{57}{34} \quad \frac{33}{67} \quad \frac{42}{100} \quad \frac{27}{100}$

$\frac{44}{100}$	$\frac{54}{77}$	$\frac{53}{43}$	$\frac{70}{32}$	$\frac{66}{22}$	$\frac{51}{17}$	$\frac{41}{16}$	$\frac{52}{16}$	$\frac{64}{22}$	$\frac{64}{32}$	$\frac{53}{34}$	$\frac{44}{69}$	$\frac{35}{100}$
------------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	------------------

64	76	84	79	72	53	45	54	75	80	77	63	66	50
100	65	48	32	23	17		16	23	30	65	52	89	100

	m d 1/62										m d 1/62										m d 1/62															
	9.1										9.1										9.1															
	(FL 60.17)										(FL 60.17)										(FL 60.17)															
734	84	8.8	19	88	8.67	70	6.9	5.3	4.8	5.6	8.41	88	91	87	79	67	63	733	84	8.8	19	88	8.67	70	6.9	5.3	4.8	5.6	8.41	88	91	87	79	67	63	733
735	100	81	54	37	24	24	22	17	17	24	28	50	69	83	93	100	100	100	100	81	54	37	24	24	22	17	17	24	28	50	69	83	93	100	100	

3.6 6.0 7.0 7.0 6.9 7.7 7.7 7.2 5.4 5.0 5.6 7.5 9.1 9.0 9.5 9.0 8.5 7.5 6.8
100 84 64 50 33 32 28 22 16 16 22 27 32 39 44 72 92 100

$\frac{41}{100} \frac{58}{67} \frac{57}{50} \frac{55}{44} \frac{70}{17} \frac{68}{33} \frac{7.6}{30} \frac{74}{23} \frac{5.5}{16} \quad \frac{51}{17} \frac{59}{22} \frac{7.5}{28} \frac{71}{35} \frac{87}{52} \frac{96}{58} \frac{8.8}{76} \frac{84}{85} \frac{7.5}{89} \frac{64}{100} \frac{61}{100}$

$\frac{+36}{100}$	$\frac{+04}{78}$	$\frac{24}{47}$	$\frac{4.3}{36}$	$\frac{6.8}{31}$	$\frac{6.5}{22}$	$\frac{5.2}{16}$	$\frac{4.5}{16}$	$\frac{5.2}{22}$	$\frac{6.4}{34}$	$\frac{6.5}{41}$	$\frac{5.7}{54}$	$\frac{5.2}{76}$	$\frac{5.5}{100}$	$\frac{5.3}{100}$
-------------------	------------------	-----------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	-------------------	-------------------

$$\begin{array}{r} 40.5 \\ 100 \end{array} \quad \begin{array}{r} 20 \\ 58 \end{array} \quad \begin{array}{r} 3.0 \\ 38 \end{array} \quad \begin{array}{r} 65 \\ 30 \end{array} \quad \begin{array}{r} 68 \\ 26 \end{array} \quad \begin{array}{r} 6.2 \\ 20 \end{array} \quad \begin{array}{r} 5.1 \\ 16 \end{array} \quad \begin{array}{r} 45 \\ 15 \end{array} \quad \begin{array}{r} 47 \\ 28 \end{array} \quad \begin{array}{r} 5.2 \\ 34 \end{array} \quad \begin{array}{r} 3.0 \\ 72 \end{array} \quad \begin{array}{r} 27 \\ 100 \end{array} \quad \begin{array}{r} 3.0 \\ 100 \end{array}$$

$$\begin{array}{r} 45 \\ \hline \end{array} \quad \begin{array}{r} 4.7 \\ \hline 13 \end{array} \quad \begin{array}{r} 3.2 \\ \hline 53 \end{array} \quad \begin{array}{r} 16 \\ \hline 100 \end{array}$$

= 2 Road

Sta	+	T	-	Elev.
		948.00		
289	+12	2192		43.5 ✓
	+21	2187		43.5
	+59	2149		43.4 ✓
290		2108		43.4
	+16	1491		43.6 ✓
B.M.		4.15	949.10	3.05 944.95 (944.96)
	+33	1.75	7.12	41.98
	+37			43.7
	+50			43.7
	+53	1455	7.40	41.70
	+67			43.7 ✓
291				43.8

Lt

K

Rt

$$\frac{4.5}{11} \frac{4.7}{32} \frac{4.5}{66} \frac{3.1}{100} \frac{2.7}{100}$$

$$\frac{3.1}{100} \frac{3.8}{80} \frac{2.2}{49} \frac{2.9}{35} \frac{6.2}{31} \frac{4.8}{25} \frac{6.5}{21} \frac{5.2}{17} \frac{4.5}{14} \frac{4.9}{24} \frac{4.6}{29} \frac{2.3}{33} \frac{+3.0}{65} \frac{+2.8}{100} \frac{+2.2}{100}$$

$$\frac{4.6}{100} \frac{4.1}{76} \frac{1.2}{45} \frac{1.5}{36} \frac{6.0}{29} \frac{6.7}{25} \frac{6.3}{21} \frac{5.2}{16} \frac{4.6}{13} \frac{5.1}{21} \frac{5.3}{21} \frac{+4.3}{33} \frac{+4.3}{65}$$

$$\frac{6.6}{100} \frac{2.3}{54} \frac{2.8}{36} \frac{6.3}{31} \frac{6.6}{25} \frac{6.3}{22} \frac{5.2}{17} \frac{4.6}{16} \frac{5.1}{21} \frac{5.5}{21} \frac{+4.4}{33} \frac{+4.7}{61.0}$$

$$\frac{6.4}{100} \frac{4.3}{72} \frac{4.1}{37} \frac{5.9}{32} \frac{6.6}{27} \frac{6.4}{22} \frac{5.2}{17} \frac{4.4}{15} \frac{5.1}{18} \frac{5.4}{23} \frac{5.4}{23} \frac{+4.0}{38} \frac{+4.5}{54}$$

Sph. in "H" Pole

Flow Line W. End East Culv.

$$\frac{8.9}{100} \frac{7.7}{76} \frac{6.3}{44} \frac{6.1}{36} \frac{7.8}{32} \frac{7.5}{22} \frac{6.2}{18} \frac{5.4}{14} \frac{6.0}{24} \frac{5.5}{24} \frac{4.2}{34} \frac{2.8}{48} \frac{1.8}{76} \frac{2.1}{100}$$

$$\frac{9.0}{100} \frac{7.4}{74} \frac{8.0}{68} \frac{8.3}{42} \frac{7.3}{33} \frac{7.8}{30} \frac{7.7}{22} \frac{6.0}{17} \frac{5.4}{17} \frac{5.9}{17} \frac{4.7}{33} \frac{3.5}{57} \frac{4.8}{69} \frac{5.9}{91} \frac{7.5}{100}$$

Flow Line E. End East Culv.

$$\frac{8.0}{100} \frac{8.2}{77} \frac{9.2}{66} \frac{8.9}{36} \frac{7.7}{29} \frac{7.4}{20} \frac{5.9}{16} \frac{5.4}{16} \frac{6.0}{23} \frac{7.7}{35} \frac{7.4}{46} \frac{6.7}{46} \frac{6.39}{46} \frac{6.39}{46}$$

942.71

$$\frac{6.1}{100} \frac{7.2}{82} \frac{9.0}{53} \frac{9.1}{38} \frac{8.7}{32} \frac{7.5}{28} \frac{7.0}{21} \frac{5.7}{16} \frac{5.3}{17} \frac{6.1}{17} \frac{9.1}{25}$$

40.0

Sta	+	π	-	Elev.
		94910		
291	+18		8.77	40.33
	+38		8.83	40.27
	+50			44.1
292				44.7
	+25		6.78	42.32
	+45		6.32	42.78
	+50			45.70
293				46.5
B.M.			4.15	944.95 (944.96)

LH

R

LH

Flow Line W. End Ent. Culv.

Flow Line E. End Ent. Culv.

$\frac{7.3}{100}$	$\frac{8.1}{82}$	$\frac{8.3}{51}$	$\frac{9.0}{47}$	$\frac{8.2}{46}$	$\frac{8.1}{32}$	$\frac{6.8}{23}$	$\frac{5.2}{17}$	$\frac{5.0}{16}$	$\frac{6.0}{24}$	$\frac{8.9}{24}$
-------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

$\frac{8.2}{100}$	$\frac{8.3}{73}$	$\frac{8.6}{68}$	$\frac{8.1}{65}$	$\frac{7.4}{53}$	$\frac{7.2}{30}$	$\frac{6.3}{21}$	$\frac{4.8}{18}$	$\frac{4.4}{17}$	$\frac{5.0}{17}$	$\frac{7.2}{27}$
-------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

Flow Line W. End Ent. Culv.

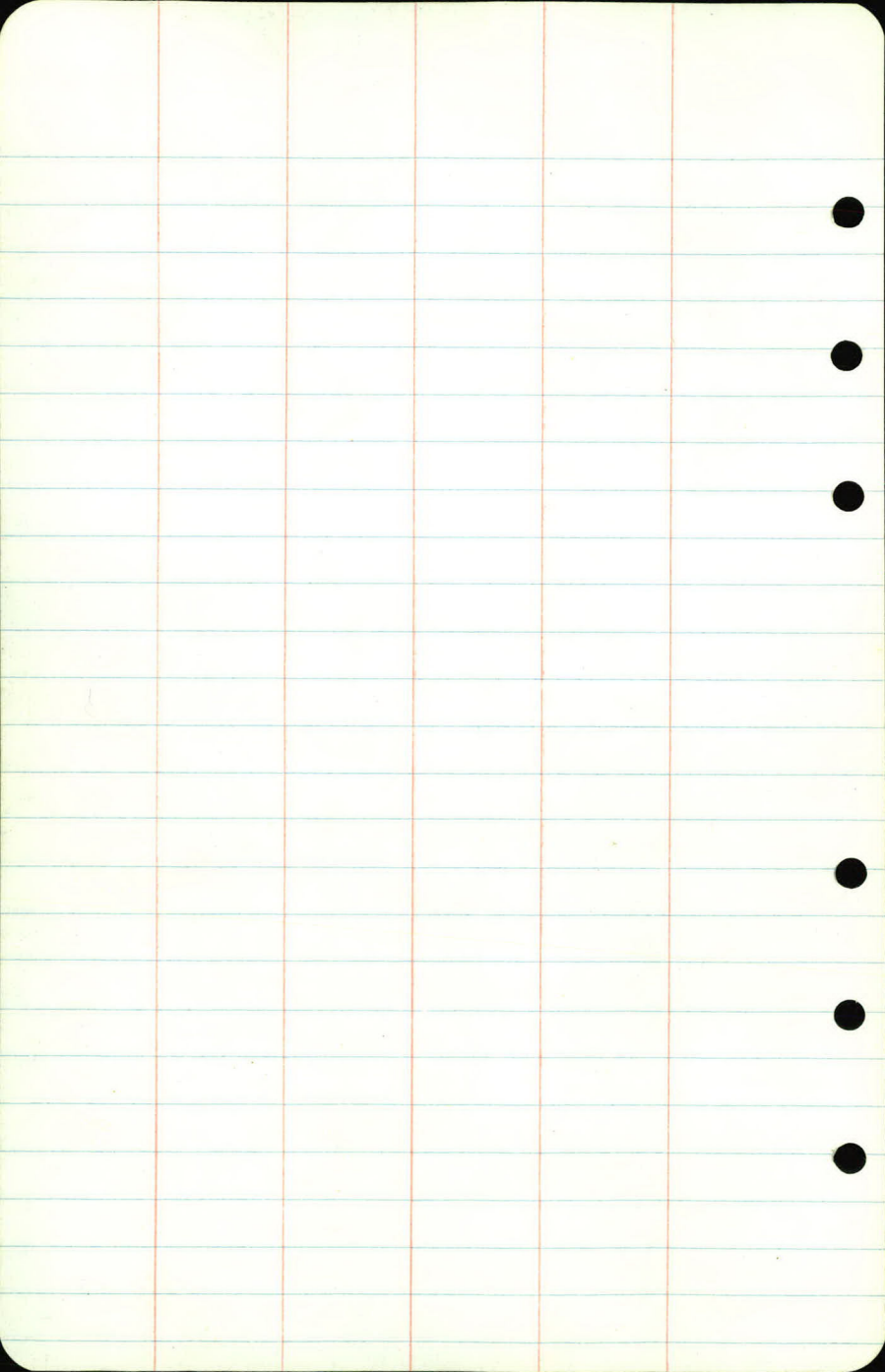
Flow Line E. End Ent. Culv.

$\frac{6.7}{100}$	$\frac{6.6}{69}$	$\frac{4.7}{34}$	$\frac{6.0}{31}$	$\frac{5.5}{22}$	$\frac{4.0}{17}$	$\frac{3.4}{17}$	$\frac{4.1}{21}$	$\frac{5.4}{41}$	$\frac{5.4}{74}$	$\frac{6.1}{100}$
-------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	-------------------

$\frac{6.2}{100}$	$\frac{4.4}{68}$	$\frac{3.5}{57}$	$\frac{2.8}{35}$	$\frac{5.0}{30}$	$\frac{4.7}{22}$	$\frac{8.1}{17}$
-------------------	------------------	------------------	------------------	------------------	------------------	------------------

$\frac{2.6}{16}$	$\frac{3.1}{21}$	$\frac{4.2}{30}$	$\frac{4.2}{33}$	$\frac{2.2}{36}$	$\frac{2.9}{64}$	$\frac{4.0}{100}$
------------------	------------------	------------------	------------------	------------------	------------------	-------------------

Spk. in "H" Pole.



Stadia Notes.

Sta	Azimuth	Dist	Red.	Elev.
-----	---------	------	------	-------

B.M.	5.14	H.I. = 950.10		
------	------	---------------	--	--

944.96

0 At Sta 292+00

0°00' = East or fore tang.

Elev. Water			7.68	942.42
-------------	--	--	------	--------

N. G.	165°56'	1.14	9.5	40.6
-------	---------	------	-----	------

" "	145°31'	0.58	9.5	40.6
-----	---------	------	-----	------

"	100°15'	0.35	10.3	39.8
---	---------	------	------	------

"	77°00'	0.84	9.9	40.2
---	--------	------	-----	------

"	97°36'	1.25	11.0	39.1
---	--------	------	------	------

"	92°30'	1.85	9.9	40.2
---	--------	------	-----	------

"	104°36'	1.75	11.0	39.1
---	---------	------	------	------

"	115°36'	2.15	11.0	39.1
---	---------	------	------	------

"	125°35'	2.40	10.9	39.2
---	---------	------	------	------

"	136°30'	2.72	10.5	39.6
---	---------	------	------	------

"	137°30'	2.15	10.1	40.0
---	---------	------	------	------

"	130°56'	1.68	10.9	39.2
---	---------	------	------	------

"	125°45'	1.47	10.8	39.3
---	---------	------	------	------

"	125°20'	1.08	10.8	39.3
---	---------	------	------	------

"	142°45'	1.22	10.0	40.1
---	---------	------	------	------

W. E.	139°30'	0.68		
-------	---------	------	--	--

"	124°00'	0.95		
---	---------	------	--	--

"	124°20'	1.30		
---	---------	------	--	--

"	119°30'	1.59		
---	---------	------	--	--

"	113°00'	1.57		
---	---------	------	--	--

"	109°15'	1.25		
---	---------	------	--	--

Description

W.E. = Water's Edge

N.G. = Natural Ground Elev.

Sta	Azimuth	Dist	Red	Elev.
W. E.	112° 15'	0.80		
"	124° 00'	0.60	121.7 - Hole	37.4

At sta 292+00

B.M.	5.09	950.05	= H/I.	944.96
	0° 00'	= East.		
W. E.	62° 30'	1.55	7.3	42.8
"	67° 30'	1.62	6.9	43.7
"	65° 15'	1.64	5.6	44.5
"	68° 30'	1.76	6.5	43.6
"	70° 30'	1.74	6.9	43.2
"	57° 15'	2.01	1.8	48.3
"	73° 00'	1.92	7.4	42.7
"	55° 15'	2.06	0.3	49.8
"	58° 30'	2.10	1.5	48.6
W. E.	77° 00'	2.42	7.3	42.8
"	81° 30'	2.83		
"	88° 00'	2.80		
"	92° 30'	2.25		
"	101° 45'	2.33		
"	111° 00'	2.53		
"	120° 30'	2.69		
"	125° 45'	3.15		
"	133° 30'	3.22		

W.E = Waters Edge

N.G = Natural Ground Elev.

Spk. in H Pole.

N.W. Cor. Shed.

N.E. Cor. Shed.

S.W. Cor. Shed

Cor. Fe. Pig Pen N.W. Cor.

At Fe. & N.W. Cor Pig Shed

Cor. Fe. Pig Pen S.W. Cor.

N.W. Cor Garage & Pig Shed 20' E & W.

S.W. Cor. Pig Shed & Fe.

Sta.	Azimuth	Dist	Red	Elev
------	---------	------	-----	------

W.E.	142°30'	290'		
------	---------	------	--	--

"	142°15'	212'		
---	---------	------	--	--

"	152°00'	156'		
---	---------	------	--	--

At Sta 291+00

B.M.	4.16	949.12 = H.I.		
------	------	---------------	--	--

944.96

0°00' = East

Edge Pot hole	235°30'	1.52		
------------------	---------	------	--	--

"	245°45'	1.95		
---	---------	------	--	--

"	268°30'	2.11		
---	---------	------	--	--

"	268°30'	187		
---	---------	-----	--	--

"	254°30'	148		
---	---------	-----	--	--

"	245°15'	145		
---	---------	-----	--	--

Top Ridge	265°00'	245	9.2	39.9
--------------	---------	-----	-----	------

Top Ridge	258°30'	240	8.3	40.8
--------------	---------	-----	-----	------

Entrance	275°00'	2.15	9.7	39.4
----------	---------	------	-----	------

Elev. Water = 11.8

At Pot hole	253°30'	1.73	15.5 N.G.	33.6
-------------	---------	------	-----------	------

37.3

At Sta 287+00 = Δ#1

B.M.	4.37	949.33		
------	------	--------	--	--

944.96

East = 0°00'

W.E.	285°45'	1.10		
------	---------	------	--	--

"	275°30'	2.26		
---	---------	------	--	--

"	281°30'	2.38		
---	---------	------	--	--

"	290°00'	2.35		
---	---------	------	--	--

*Description**Spk. in "H" Pole**Spk. in "H" Pole*

Sta.	Azimuth	Dist.	Red	Elev.
	H.I. = 949.33			
W.E.	295°30'	205'		
W.E.	296°00'	164'		
"	298°45'	115'		
to Ditch	288°15'	104'		
"	283°00'	144'		
N.G.	285°00'	172'	9.9	39.4
Bag. Ditch	275°45'	230'	9.9	40.4
In Ditch	274°00'	252'	9.4	39.9
" "	275°15'	278'	9.9	39.4
" "	278°00'	340'	9.8	39.5
" "	281°30'	348'	9.9	39.4
Δ #2	297°55'	324'		
T.P.	4.78	945. ³⁸ 48	8.73	940.60
At Δ #2		H.I. = 945.48		945.38
Δ #1	117°55'	325		
In Ditch	226°15'	73'	6.2	39.2
" "	252°15'	59'	6.6	38.8
" "	291°45'	60'	8.4	37.0
" "	325°00'	96'	10.1	35.3
" "	338°30'	141'	10.7	34.7
" "	345°15'	192'	11.0	34.4
" "	348°30'	221'	10.1	35.3
	349°15'	224'	11.30	34.1
to DRIVE	355°30'	259'	7.5	37.9

Description

2' Bottom Ditch

End Ditch

2' Bottom Ditch

Approx. Bcg. Metal Drain Tile 10" Dia. Hole in Tile

Sta.	Azimuth	Dist.	Red	Elev.
------	---------	-------	-----	-------

H.I. = 945.28 945.38

5°45'	3.18	12.28	33.1
-------	------	-------	------

Sta. 292100	39°35'	449'		
-------------	--------	------	--	--

T.P.	3.65	948.96	0.67	944.81	944.71
------	------	--------	------	--------	--------

949.36

3.43

945.03

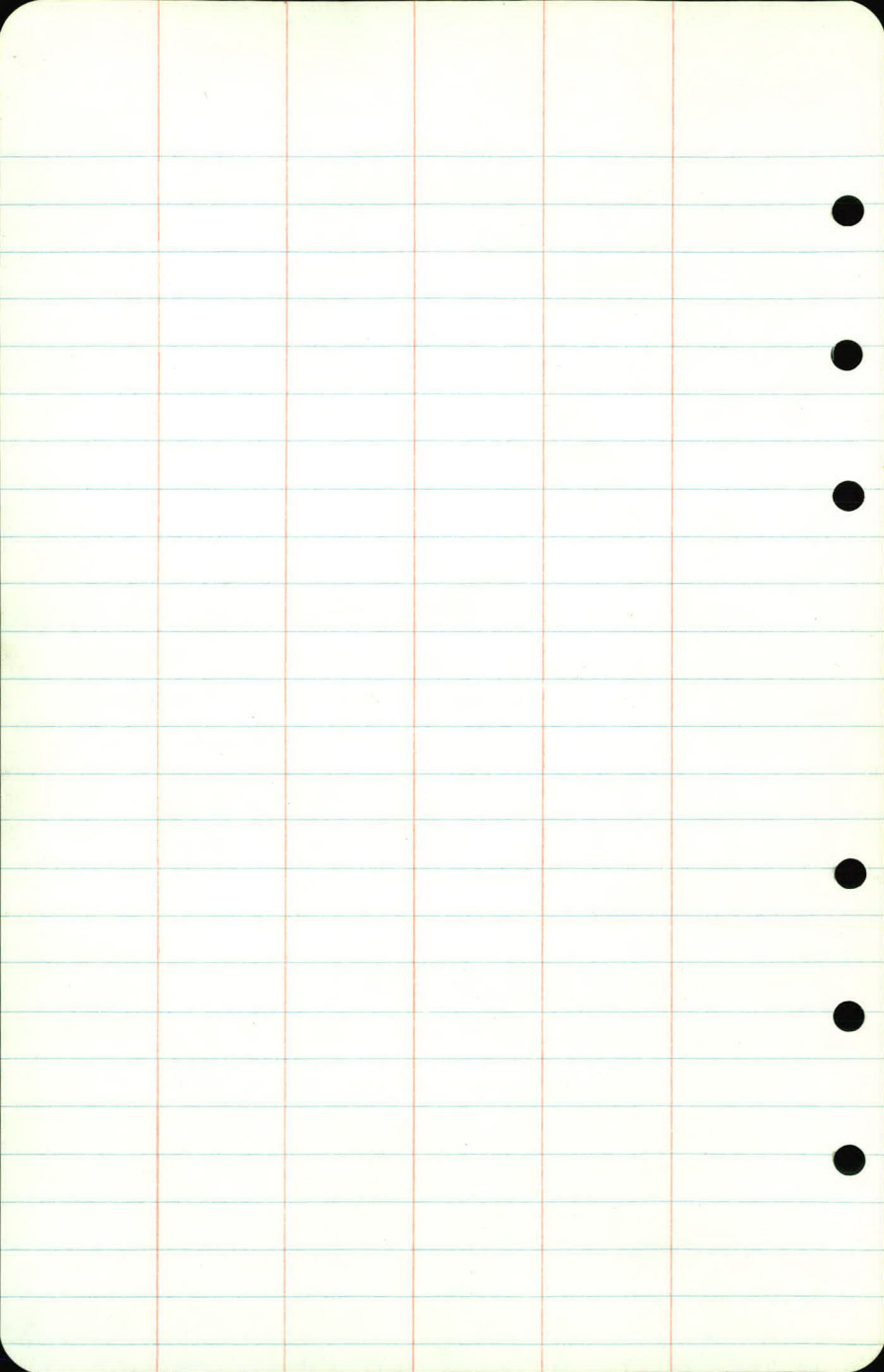
944.96

944.93

Description

End 10" Dia Metal Drain Tile.

Spk. in "H" Pole



Alignment

Tile Line

Sta	Point	ΔLt	ΔRt
10	+80	= Waters Edge Round Lake.	

8	+47.0	P.I.	32°18'
---	-------	------	--------

5	+30.25	P.I.	8°40'
---	--------	------	-------

4	+10.37	P.I.	85°35'
---	--------	------	--------

2	+82.20	P.I.	62°58'
---	--------	------	--------

0+00

292' +20.3 =

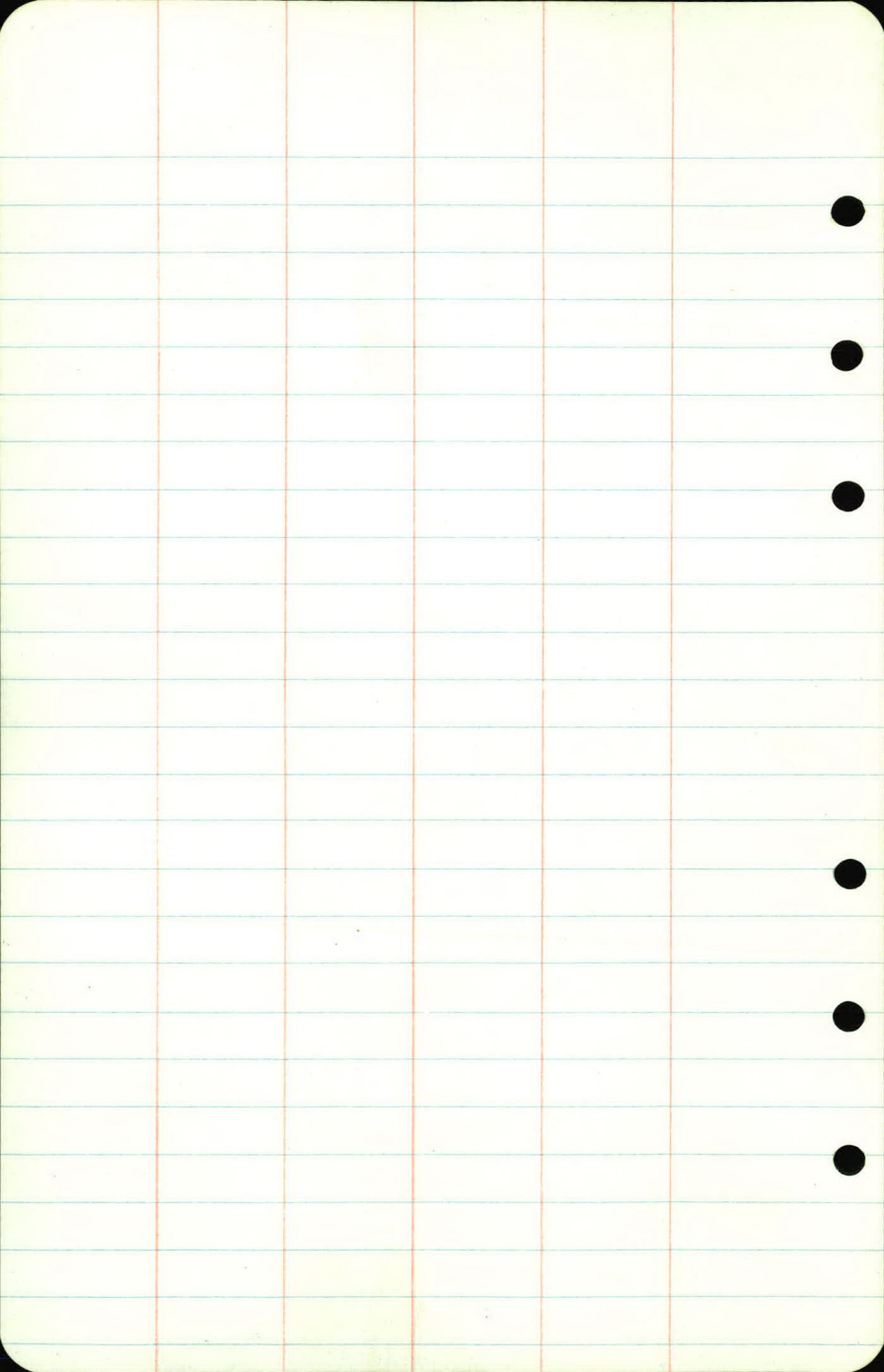
ctr. Rivet to End Cplx.

o 2" Iron Pipe

□ ctr. 125'x125' Wood M. H.

□ 2'x2' Hub

→ 90° 00' →



Topography

Title Line

+88-N.E. Cor. Barn. -52'
+77-Range Tie to Barn

+80-Tile-6'

+30-N.E. Cor. Duff Ho. -10' 4'x4' sq.

+27-S.E. Cor. Duff Ho. -11' +30-25' 2" Iron Pipe 1.4' High -0.0

+15-N.E. Cor. Har-H'

5

+76-S.E. Cor. Ho -17'

+30.9-Beg. 6" V.I. Tile-0.0
+29.9-End 11" Tile-0.0

4

3

+91-Beg. Fg-16'

+95-Drive 3x5 R

+92.8-Beg. 10" Hot Water Tank Tile -0.0

2

P. Drive -9'

1

F. Drive -13'

0+00

+22-12" Iron pipe -3.5-23.5'
+16-Shoulder Line

6-26-40

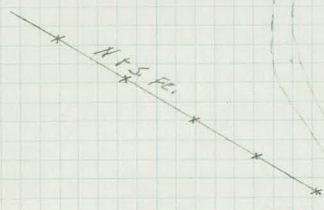
Note - People living in the
say Ceptic Tank drains
into tile

2 Holer
Ceptic Tank
Prop Owner says this is Tile Loc.



Uncult

1.2 in 2' M.H. with N.E. & S.W. sides open



Cult

Uncult



+80. Water Edge.

+57. Water Edge - 100

+42. End Ditch - 24'

+15. Ditch - 21'
Ditch - 12'

+87. Ditch - 104

+74. Ditch - 8'

+55. Ditch - 11'

+42. Ditch - 7'

+33. Ditch - 2' ~~2~~

+25. Ditch - 1'

+46. Step - 1'

+37. Step - 2'

+34. Step - 2'

9

Ditch - 5'

+98. Ditch - 1.5'

+93. Step - 5'

+65. Ditch - 5'

809. Draw.

+47. Fe. - 53' +47. End 11" Hot Water Tank Tile - 0.0

8

+95. Fe Cor. - 15'

+90. Cor. Raspberries - 20

7

Cor. Raspberries - 4'

+30. 15' Tr. a - 31'

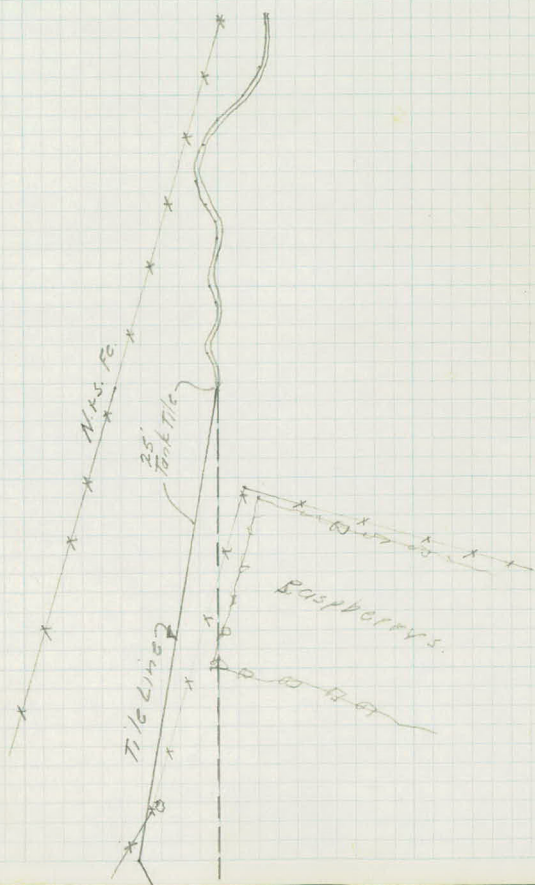
+25. Δ 10 Fe. - 36'

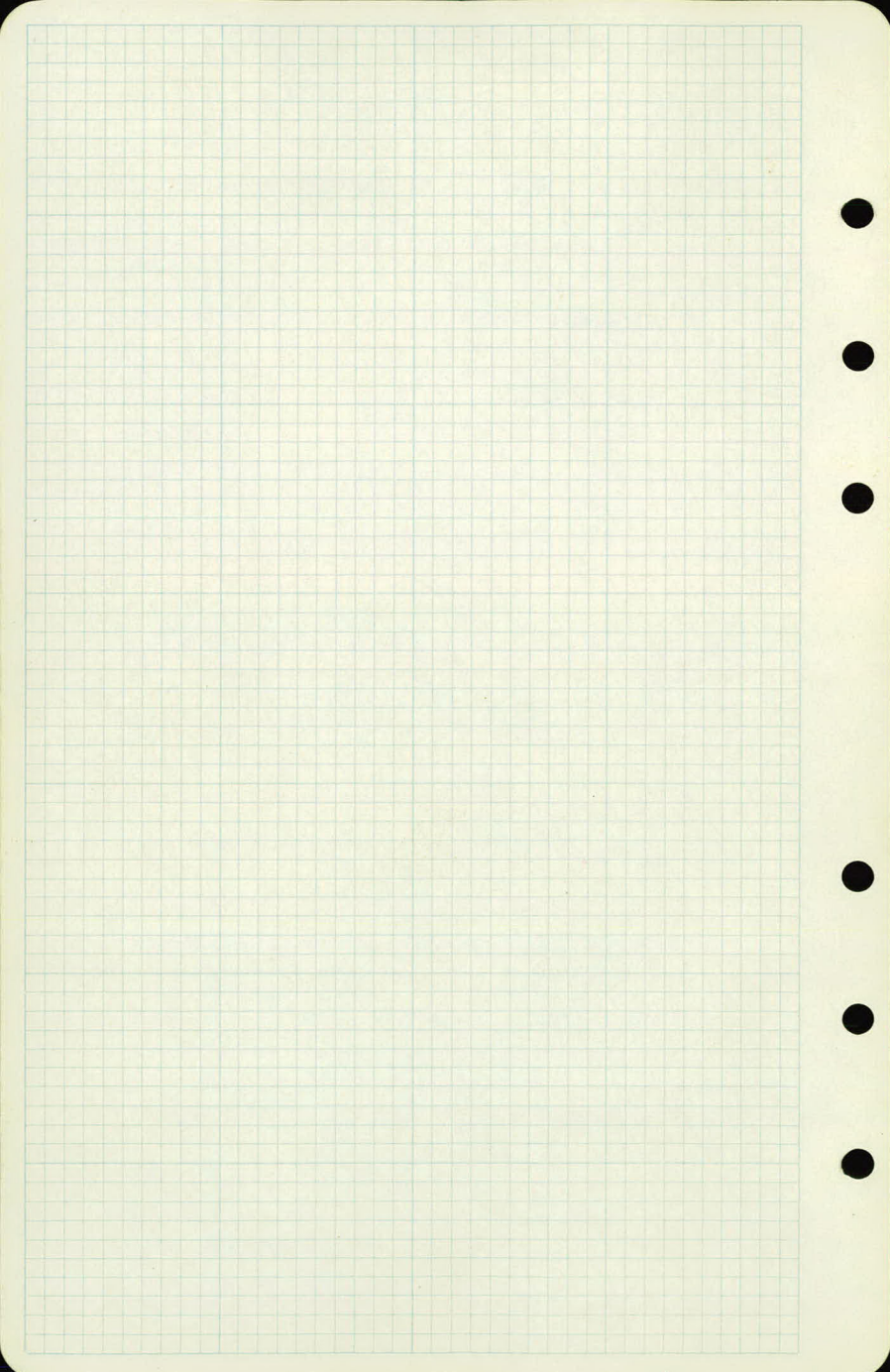
6

Tile - 42'

ROUND

LAKE





xsections

Tile King

Sta	+	π	-	Elev	
B.M.	2.45	947.41			944.96
0	+00		2.3	45.1	42.1
	+16		2.8	44.6	
	+22		4.5	42.9	
	+29		4.8	42.6	
	+35			43.1	
	+73			41.4	
1				41.6	
	+45			42.9	
	+75			42.6	
2				39.8	
	+35			35.9	

Lt

E

Rt

Spk in "H" Pole 25 Lt 289465

$$\frac{5.0}{15} \quad \frac{4.3}{6} \quad \frac{3.8}{6} \quad \frac{3.2}{9} \quad \frac{3.0}{15}$$

$$\frac{7.0}{24} \quad \frac{6.5}{15} \quad \frac{6.0}{8} \quad \frac{6.1}{10} \quad \frac{5.1}{15} \quad \frac{4.9}{15}$$

$$\frac{6.0}{15} \quad \frac{5.8}{7} \quad \frac{6.0}{7} \quad \frac{5.2}{9} \quad \frac{5.0}{15}$$

$$\frac{4.2}{15} \quad \frac{4.5}{5} \quad \frac{5.0}{5} \quad \frac{4.9}{15}$$

$$\frac{5.2}{15} \quad \frac{4.8}{3} \quad \frac{5.1}{7} \quad \frac{5.6}{7} \quad \frac{5.1}{15}$$

$$\frac{8.1}{15} \quad \frac{7.6}{5} \quad \frac{7.5}{5} \quad \frac{7.3}{15}$$

$$\frac{11.6}{15} \quad \frac{11.5}{5} \quad \frac{11.2}{5} \quad \frac{11.1}{15}$$

Sta	+	π	-	Elev.
		947.41		
2	165			33.5
T.P.	6.34	940.66	13.09	934.32
	+80			33.7
	+82.8 Flow Line 11" Tile		7.80	32.86
	+85			34.2
3				34.1
	+50			33.8
4				33.9
	+28			33.7
	+29.9 Flow Line Grate Inlet		7.30	33.36
	+29.9 Flow Line 11" Tile		8.66	32.00
	+30.9 Flow Line 6" Tile		8.17	32.49

Lt

E

Pt

$$\text{Chr Drow} \quad \frac{138}{26} \quad \frac{139}{3} \quad \frac{133}{5} \quad \frac{125}{5} \quad \frac{125}{15}$$

$$\frac{67}{15} \quad \frac{70}{5} \quad \frac{60}{5} \quad \frac{64}{15}$$

$$\frac{63}{15} \quad \frac{65}{4} \quad \frac{60}{4} \quad \frac{57}{15}$$

$$\frac{58}{15} \quad \frac{66}{5} \quad \frac{63}{15}$$

$$\frac{68}{15} \quad \frac{69}{5} \quad \frac{67}{15}$$

$$\frac{65}{15} \quad \frac{68}{5} \quad \frac{62}{15}$$

$$\frac{64}{15} \quad \frac{70}{5} \quad \frac{62}{15}$$

Sto.	+	π	-	E/GV
		940.66		
4	+33			33.8
	+69			35.7
5				35.6
	+80.25			35.6
	+70			33.9
6				33.7
	+31			35.6
	+71			34.9
T.P.	2.40	934.62	8.44	932.22
7				31.4
	+50			28.3
8				23.0
T.P.	2.80	925.29	12.13	922.49.

Lt

L

Rt

$$\frac{6.6}{15} \quad \frac{6.9}{15} \quad \frac{6.4}{15}$$

$$\frac{5.1}{15} \quad \frac{5.0}{15} \quad \frac{4.9}{15}$$

$$\frac{4.3}{15} \quad \frac{3.1}{15} \quad \frac{5.6}{15}$$

$$\frac{4.4}{15} \quad \frac{5.1}{15} \quad \frac{5.9}{15}$$

$$\frac{6.5}{30} \quad \frac{6.8}{15} \quad \frac{6.9}{15}$$

$$\frac{7.0}{50} \quad \frac{7.0}{33} \quad \frac{7.0}{15} \quad \frac{6.8}{15}$$

$$\frac{8.0}{50} \quad \frac{8.2}{40} \quad \frac{7.9}{36} \quad \frac{7.4}{25} \quad \frac{6.7}{19} \quad \frac{5.5}{8} \quad \frac{5.1}{15} \quad \frac{4.9}{15}$$

$$\frac{9.0}{50} \quad \frac{9.3}{42} \quad \frac{10.1}{35} \quad \frac{9.6}{27} \quad \frac{8.8}{24} \quad \frac{6.6}{13} \quad \frac{5.8}{15} \quad \frac{5.8}{15}$$

$$\frac{3.3}{50} \quad \frac{4.9}{42} \quad \frac{5.6}{32} \quad \frac{5.5}{22} \quad \frac{4.6}{14} \quad \frac{3.8}{10} \quad \frac{3.2}{15} \quad \frac{3.6}{15}$$

$$\frac{6.6}{50} \quad \frac{7.8}{20} \quad \frac{6.3}{15} \quad \frac{6.9}{15}$$

$$\frac{8.0}{38} \quad \frac{10.1}{22} \quad \frac{11.6}{5} \quad \frac{11.6}{17} \quad \frac{10.8}{17}$$

Sta.	+	π	-	Elev.
		925.29		
8	+43 Flow Line 11" Tile			18.68
	+33			18.5
9				17.3
	+50 2 Ditch			
T.P.	1.44	916.30	1243	914.86
10	2 Ditch			09.1
	+42 End Ditch			07.9
Elev. Round Lake			11.37	904.93
T.P.	13.28	929.49	0.09	916.21
T.P.	10.97	939.69	0.77	928.72
T.P.	8.42	947.62	0.59	939.10
T.P.			2.55	944.97
				(944.96)

Lt.

E

Rt.

18.68

$$\frac{24}{15} \quad \frac{47}{3} \quad \frac{57}{0.5} \quad \frac{66}{0.5} \quad \frac{661}{\text{Holding}} \quad \frac{66}{0.5} \quad \frac{57}{0.5} \quad \frac{48}{3} \quad \frac{23}{15}$$

$$\frac{39}{15} \quad \frac{73}{3} \quad \frac{80}{3} \quad \frac{80}{2} \quad \frac{72}{2} \quad \frac{68}{9} \quad \frac{37}{9} \quad \frac{26}{15}$$

$$\frac{48}{15} \quad \frac{68}{7} \quad \frac{74}{6} \quad \frac{90}{5} \quad \frac{89}{4} \quad \frac{89}{4} \quad \frac{83}{3} \quad \frac{80}{1} \quad \frac{74}{6} \quad \frac{56}{12} \quad \frac{51}{12} \quad \frac{40}{15}$$

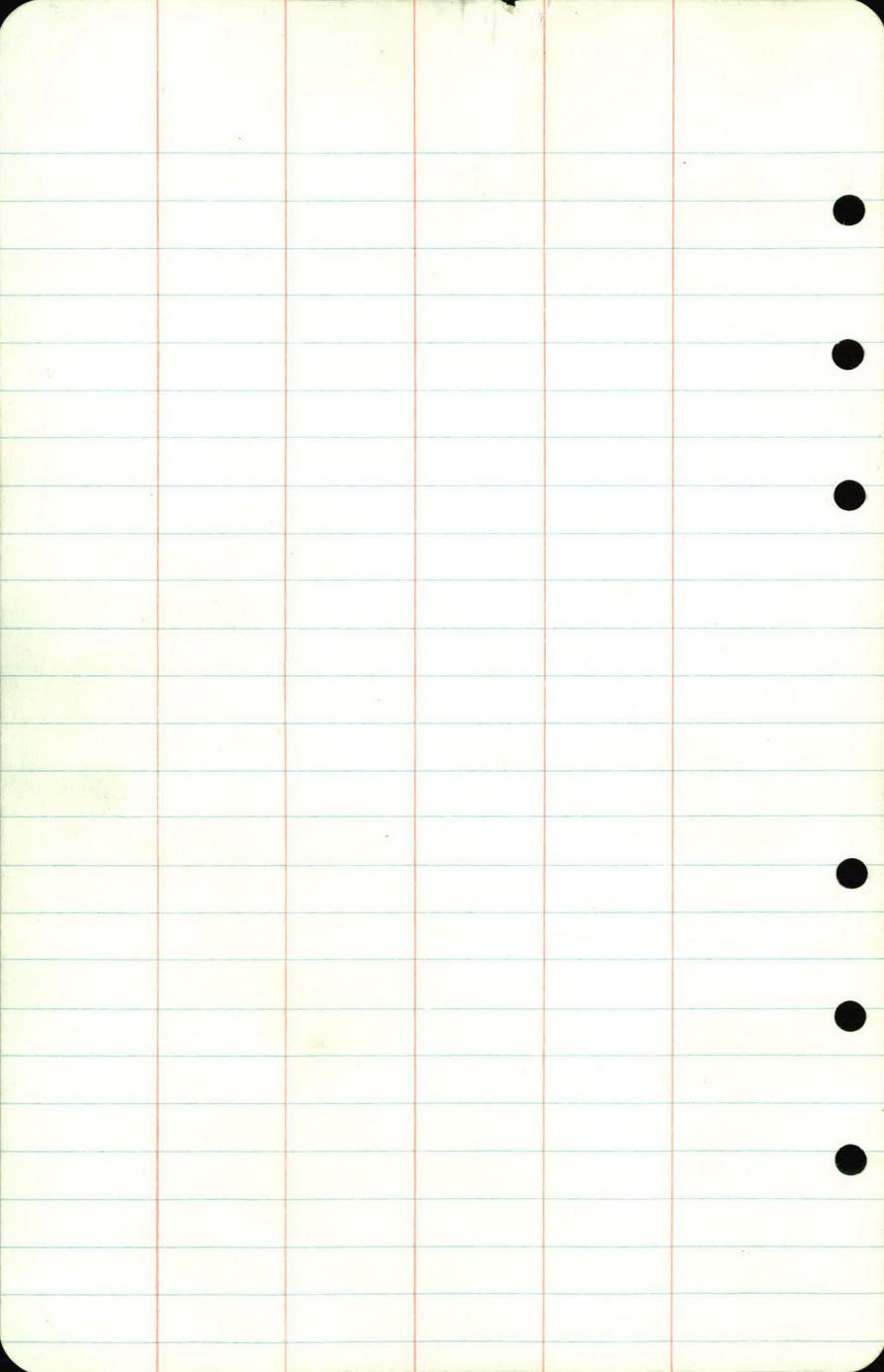
13.3

$$\frac{12.0}{7}$$

$$\frac{72}{12}$$

$$\frac{8.40}{24}$$

Sph. in "H" Pole



①

Drainage Situation

Co. Rd. "C" East of Rice

Index

Alignment - 1-3

Bench Levels - 4-5

Cross Sections - 6-11

Party:

R. Pease

A. Moeschler

L. Goldberg

G. Fewer

Drawn up

6/17/41

MMW (WJB).

9+58³ P.1.

8+29³ P.1

5+17.4 P.1

1+76.7 P.1

1+15.7 P.1

0+00 P.1

(2)

87.28

Fence Line

15.0

92°32'

8458

95°02'

9134

88°24'

90°

1401.85 to Mon Rice St

92°

See Line

T.P.

T.P. 0...
26.75

30°

86.98

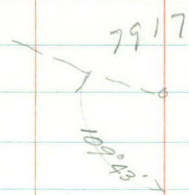
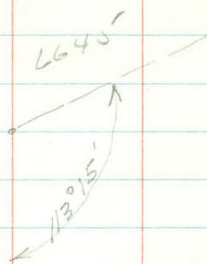
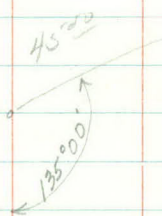
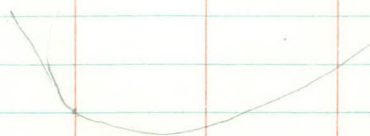
18432 Lake Shore Round Lake.

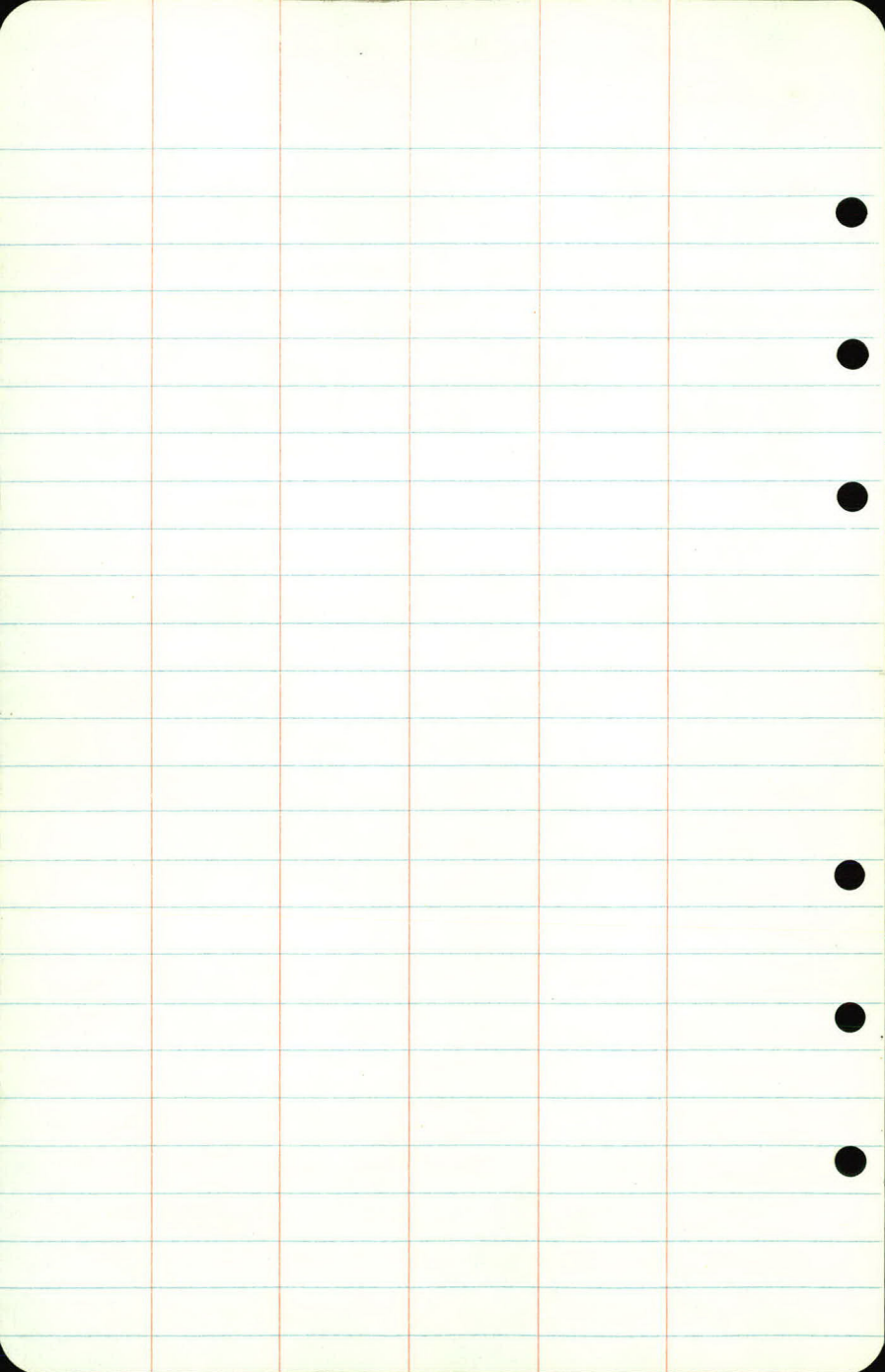
17137.5 P.I.

16441.4 P.I.

15455.2 P.I.

13456.5 P.O.T.





Drainage Situation

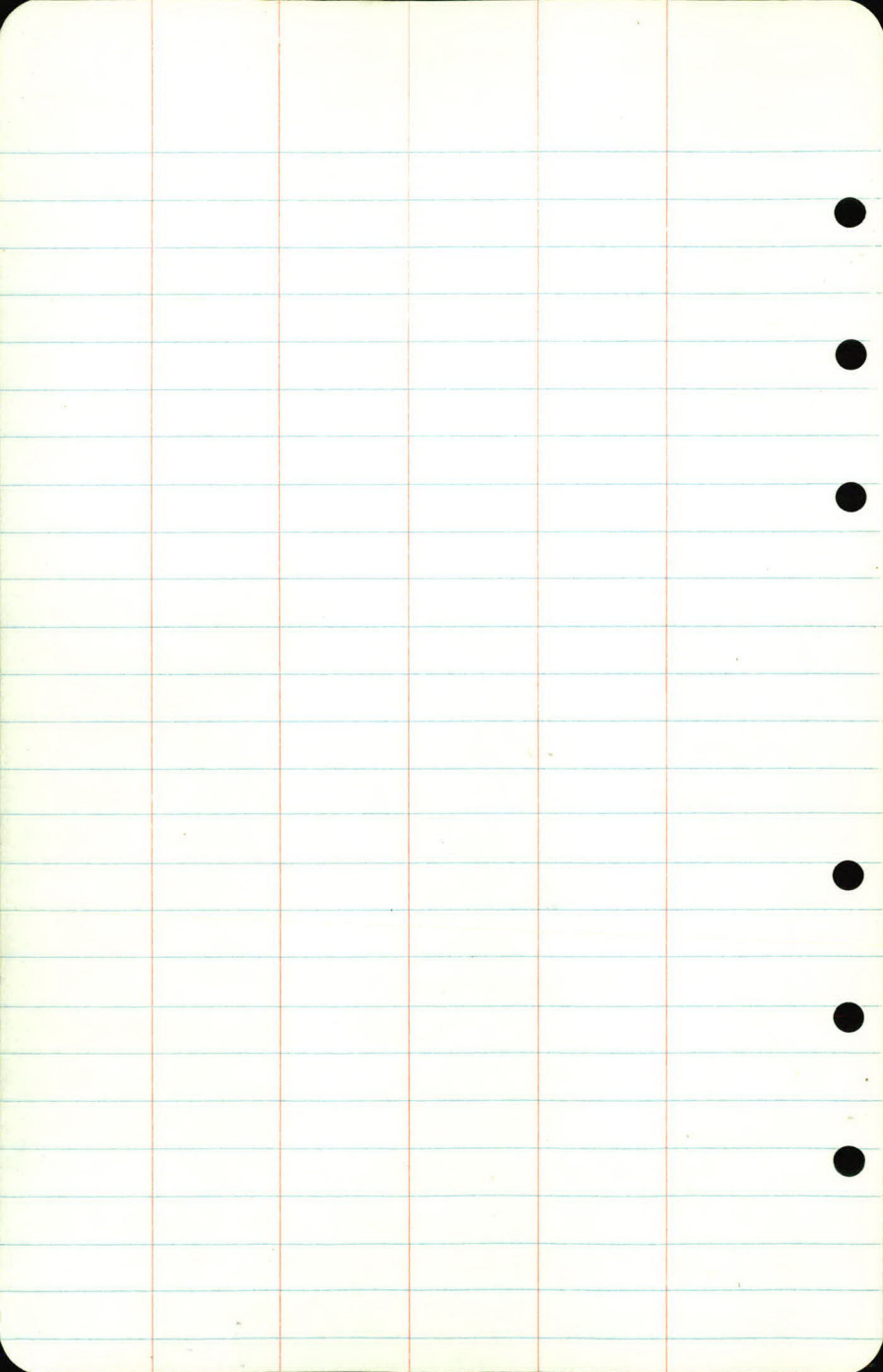
Co. Rd. "C" East of Rice

Bench Levels.

pt.	+	π	-	Elev.
B.M.	5.92	950.88		944.96
T.P.	0.45	942.26	9.07	941.81
T.P.	1.02	930.39	12.89	929.37
B.M.			12.68	917.71

Spike No. H. Pole 25' Lh 289+65

Sph 15" Oak 20' Rt. 16+85



Drainage Situation

Co. Rd "C" East of Rice

Cross Sections

B.M. 957.91

B.M. 4.05 949.01 944.96

2+66
0+00 9.0 40.0

2+91
+25 9.6 39.4

3+16
+50 9.8 39.2

3+41
+75 9.4 39.4

~~3+66~~
1 9.1 39.9

~~4+~~
+15.7 8.4 40.6

+20 8.4 40.2

B.M. 5.38 950.34 4.05 944.96

+28 shldr 7.6 42.7

+45 $\perp$ "C 6.6 43.7

+63 shldr 7.1 43.2

+72 8.6 41.7

Top Mon Rice and "C"

Spike No. 4 Pole 25' L 289+65

98	100	83	66	5.0	4.4
35	18	90	5	10	13
					30

11.0	10.1	87	73	5.6	4.7
40	18	96	5	10	13
					30

(Flood plain
Sag)

7.2	6.8	8.6		7.6	5.8	4.9
30	20	4	98	70	13	30

10.3		7.5	5.9	5.1
12	90	70	13	30

8.9		7.4	6.0	5.3
25	9.1	11	13	30

8.2	7.5	8.1		7.6	6.1	5.3
50	30	15	80	8	14	30

6.4	7.1	8.2		9.0	9.6
25	19	9	80	12	25

7.1	7.5		7.2	7.3
25	12	7.6	76	25

6.5	6.5	6.5	6.5
25	11	66	15
			25

7.1	7.1	6.9	6.8
25	13	7.1	13
			25

1

6.6	7.1	8.2	8.7	10.3	low Spd	10.5
26	9	5	86	3	7	16
						25

Site	T	π	-	Elev.
		950.34		

2			9.0	41.3
---	--	--	-----	------

+29			8.9	41.4
-----	--	--	-----	------

+58			9.0	41.3
-----	--	--	-----	------

3			9.0	41.3
---	--	--	-----	------

+50			9.0	41.3
-----	--	--	-----	------

4			9.2	41.1
---	--	--	-----	------

+50			9.3	41.0
-----	--	--	-----	------

5			9.3	41.0
---	--	--	-----	------

+17	Sec thru 18" x 48' CM	10.1		40.2
-----	-----------------------	------	--	------

+30		10.3		40.0
-----	--	------	--	------

+60		10.5		39.8
-----	--	------	--	------

+85		9.8		40.5
-----	--	-----	--	------

$$\begin{array}{r} \pounds \\ 65 \quad 71 \quad 86 \quad 90 \quad 87 \quad 100 \\ 26 \quad 9 \quad 5 \quad 4 \quad 6 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 66 \quad 77 \quad 89 \quad 90 \quad 70 \quad 76 \quad 76 \\ 26 \quad 9 \quad 5 \quad 6 \quad 10 \quad 18 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 67 \quad 76 \quad 86 \quad 88 \quad 52 \quad 44 \\ 26 \quad 10 \quad 5 \quad 4 \quad 9 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 68 \quad 74 \quad 87 \quad 87 \quad 39 \quad 36 \quad 45 \\ 26 \quad 11 \quad 8 \quad 90 \quad 4 \quad 9 \quad 20 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 68 \quad 73 \quad 87 \quad 87 \quad 54 \quad 48 \\ 26 \quad 10 \quad 6 \quad 90 \quad 5 \quad 9 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 68 \quad 75 \quad 88 \quad 90 \quad 65 \quad 61 \quad 44 \\ 26 \quad 10 \quad 6 \quad 92 \quad 5 \quad 9 \quad 13 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 70 \quad 72 \quad 89 \quad 93 \quad 85 \quad 86 \quad 74 \quad 76 \\ 26 \quad 10 \quad 6 \quad 93 \quad 5 \quad 7 \quad 13 \quad 17 \quad 25 \end{array}$$

$$\begin{array}{r} \pounds \\ 109 \quad 113 \quad 99 \quad 75 \quad 67 \quad 72 \quad 89 \quad 98 \quad 100 \quad 100 \\ 75 \quad 67 \quad 50 \quad 43 \quad 26 \quad 9 \quad 6 \quad 93 \quad 9 \quad 12 \quad 25 \end{array}$$

FL. 40.15 $\pounds 438$ FL. 39.98

$$\begin{array}{r} 110 \quad 112 \quad 103 \quad 1019 \quad 74 \quad 65 \quad 72 \quad 85 \quad 1036 \quad 10.2 \quad 10.4 \\ 71 \quad 64 \quad 50 \quad 49 \quad 43 \quad 26 \quad 9 \quad 5 \quad 11 \quad 101 \quad 10 \quad 25 \end{array}$$

$$\begin{array}{r} 102 \quad 102 \quad 103 \quad 103 \quad 98 \\ 25 \quad 22 \quad 9 \quad 10.3 \quad 12 \quad 25 \end{array}$$

$$\begin{array}{r} 101 \quad 10.2 \quad 108 \quad 100 \\ 25 \quad 11 \quad 10.5 \quad 9 \quad 25 \end{array}$$

$$\begin{array}{r} 86 \quad 89 \quad 100 \quad 99 \quad 94 \quad 86 \\ 25 \quad 10 \quad 8 \quad 98 \quad 6 \quad 15 \quad 25 \end{array}$$

Sta.	+	π	—	Elev
		950.30		
6			10.2	40.1
+25			10.3	40.0
+50			11.0	39.3
+75			11.0	39.3
7			10.9	39.4
+19			9.6	40.7
+50			9.3	41.0
8			10.0	40.3
+29 ³			10.8	39.5
+50			10.9	39.4
9			10.5	39.8
+50			12.5	37.8
T.P.	5.65	945.36	10.63	39.71

$$\frac{8.4}{25} \frac{9.0}{10} \frac{10.0}{8} \quad 10.2 \quad \frac{9.9}{7} \frac{9.4}{17} \frac{8.3}{25}$$

$$\frac{8.2}{25} \frac{8.1}{20} \frac{9.1}{13} \frac{9.5}{9} \frac{10.1}{8} \quad 10.3 \quad \frac{10.0}{16} \frac{9.0}{25}$$

$$\frac{8.9}{25} \frac{9.0}{16} \frac{10.2}{13} \quad 11.0 \quad \frac{11.0}{10} \frac{10.2}{25}$$

$$\frac{8.8}{25} \frac{8.9}{19} \frac{10.2}{16} \quad 11.0 \quad \frac{10.9}{11} \frac{10.3}{25}$$

$$\frac{8.8}{25} \frac{9.2}{20} \frac{10.2}{18} \frac{10.7}{11} \quad 10.9 \quad \frac{11.0}{10} \frac{10.5}{25}$$

$$\frac{9.0}{25} \frac{9.0}{22} \frac{9.7}{18} \frac{9.6}{11} \quad 9.6 \quad \frac{9.5}{10} \frac{8.9}{25}$$

$$\frac{9.6}{25} \frac{10.1}{24} \frac{9.4}{22} \frac{9.3}{10} \quad 9.3 \quad \frac{9.1}{11} \frac{8.4}{25}$$

$$\frac{9.5}{25} \frac{9.8}{11} \frac{10.8}{9} \frac{9.9}{8} \frac{9.5}{3} \frac{10.0}{2} \quad 10.0 \quad \frac{10.0}{11} \frac{9.8}{25}$$

$$\frac{10.0}{25} \frac{10.1}{9} \frac{10.2}{1} \quad 10.8 \quad \frac{10.3}{2} \frac{10.1}{11} \frac{10.2}{25} \quad (\text{0.1 R. Angls fwd})$$

$$\frac{10.1}{25} \frac{10.1}{16} \frac{9.8}{10} \frac{9.6}{2} \frac{10.9}{1} \quad 10.9 \quad \frac{10.9}{1} \frac{9.1}{3} \frac{9.4}{13} \frac{9.6}{25}$$

$$\frac{10.1}{25} \frac{10.1}{15} \frac{9.8}{9} \frac{9.3}{4} \frac{11.3}{3.1} \quad 10.5 \quad \frac{9.6}{1} \frac{9.8}{13} \frac{9.3}{25}$$

$$\frac{12.3}{25} \frac{12.3}{15} \frac{12.0}{9} \quad 12.5 \quad \frac{12.7}{3} \frac{12.0}{25}$$

Sto.	+	A	-	Elev
		145.36.		
9+60			7.9	37.5
10			7.7	37.7
+22	at Fe X E		7.9	37.5
+34			6.6	38.8
+70			5.0	40.6
11			5.7	39.7
+50			7.3	38.1
12			7.1	38.3
	12+11 Fe Xs E			
+40			9.6	35.8
+65			9.9	35.5
13			8.9	36.5
+50			9.2	36.2
T.P	2.31	938.65	9.02	936.34

$$\begin{array}{cccccccccccc} \frac{6.4}{25} & \frac{7.4}{19} & \frac{8.1}{6} & 7.9 & \frac{8.7}{13} & \frac{9.6}{21} & \frac{9.7}{35} & \frac{9.9}{56} & \frac{10.2}{73} & \frac{10.4}{100} \end{array}$$

Low Spent

$$\begin{array}{ccccccc} \frac{5.7}{25} & \frac{6.2}{18} & \frac{7.2}{5} & 7.7 & \frac{8.4}{7} & \frac{8.9}{20} & \frac{8.9}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{5.3}{25} & \frac{5.9}{19} & \frac{7.3}{7} & 7.9 & \frac{7.5}{8} & \frac{8.8}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{4.3}{25} & \frac{5.2}{18} & \frac{6.0}{9} & 6.6 & \frac{8.0}{12} & \frac{8.5}{18} & \frac{8.8}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{3.1}{25} & \frac{3.6}{19} & \frac{4.3}{9} & 5.0 & \frac{5.5}{13} & \frac{6.0}{18} & \frac{7.0}{22} & \frac{7.0}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{3.5}{25} & \frac{4.2}{19} & \frac{5.2}{9} & 5.7 & \frac{5.8}{12} & \frac{6.0}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{4.8}{25} & \frac{6.9}{10} & 7.3 & \frac{7.4}{13} & \frac{6.9}{19} & \frac{7.0}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{5.1}{25} & \frac{6.2}{13} & 7.1 & \frac{7.6}{10} & \frac{8.1}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{8.8}{25} & \frac{9.3}{7} & 9.6 & \frac{10.0}{11} & \frac{9.7}{15} & \frac{10.2}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{9.2}{25} & \frac{9.7}{10} & 9.9 & \frac{10.3}{15} & \frac{10.2}{25} & \frac{11.4}{46} & \text{Low Spent} \end{array}$$

$$\begin{array}{ccccccc} \frac{10.3}{25} & \frac{9.4}{10} & 8.9 & \frac{8.6}{15} & \frac{8.8}{25} \end{array}$$

$$\begin{array}{ccccccc} \frac{10.0}{25} & \frac{9.7}{17} & \frac{9.3}{8} & 9.2 & \frac{8.8}{7} & \frac{8.6}{15} & \frac{8.4}{25} \end{array}$$

Sta.	+	$\bar{A}$	-	Elev
		938.65.		
13+77			2.2	36.5
14			3.5	35.2
+50			8.3	30.4
T.P.	0.24	926.53	12.36	926.29
15			1.0	25.5
+50			7.3	19.2
16			7.6	18.9
141			11.3	15.2
+66	at $E_2 \times E$		13.3	13.2
B.M.	0.39	918.13.	8.79	917.74.
17			5.3	12.8
+50			8.4	09.7
18			11.1	07.0
+32	W.S.	6-7.41	12.58	905.55

917.71

$$\frac{2.2}{25} \quad \frac{2.4}{70} \quad 2.2 \quad \frac{2.4}{75} \quad \frac{2.4}{25}$$

$$\frac{4.0}{25} \quad \frac{2.5}{11} \quad 3.5 \quad \frac{4.7}{15} \quad \frac{5.8}{25}$$

$$\frac{7.6}{25} \quad \frac{8.2}{11} \quad 8.3 \quad \frac{8.4}{15} \quad \frac{8.5}{25}$$

Stump

$$\frac{2.5}{25} \quad \frac{2.6}{75} \quad 1.0 \quad \frac{1.2}{75} \quad \frac{0.3}{25}$$

$$\frac{7.4}{25} \quad \frac{7.4}{73} \quad 7.3 \quad \frac{6.6}{75} \quad \frac{6.0}{25}$$

$$\frac{7.3}{25} \quad \frac{7.6}{70} \quad 7.6 \quad \frac{6.4}{75} \quad \frac{5.7}{25}$$

$$\frac{6.3}{25} \quad \frac{10.3}{5} \quad \frac{10.9}{4} \quad 11.3 \quad \frac{10.7}{6} \quad \frac{2.8}{21} \quad \frac{2.3}{25} \quad \text{at 2' & Fwd.}$$

$$\frac{6.0}{25} \quad \frac{9.7}{12} \quad \frac{11.7}{6} \quad \frac{13.3}{2} \quad 13.3 \quad \frac{13.3}{7} \quad \frac{11.4}{3} \quad \frac{8.8}{12} \quad \frac{6.6}{25}$$

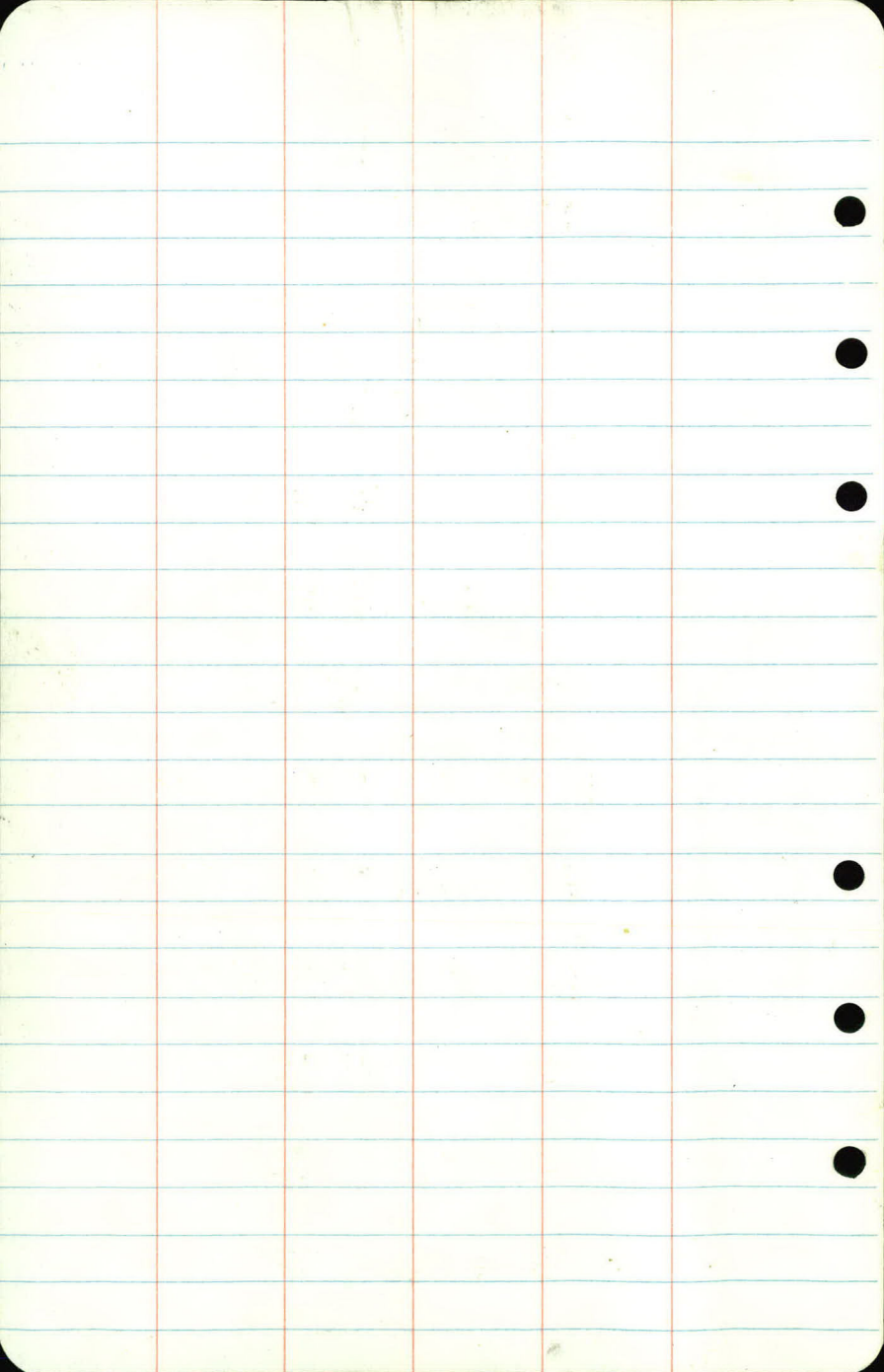
3pk 15" Oak 20' R 1/6 + 85

$$\frac{1.1}{25} \quad \frac{4.0}{70} \quad \frac{4.5}{2} \quad 5.3 \quad \frac{6.3}{1-4} \quad \frac{5.1}{6} \quad \frac{3.3}{25}$$

$$\frac{8.2}{25} \quad \frac{8.4}{7} \quad 8.4 \quad \frac{7.7}{13} \quad \frac{7.2}{25}$$

$$\frac{4.0}{25} \quad \frac{10.8}{12} \quad 11.1 \quad \frac{10.5}{76} \quad \frac{9.9}{25}$$

$$\frac{12.4}{25} \quad \frac{12.9}{13} \quad 12.6 \quad \frac{11.9}{75} \quad \frac{11.5}{25}$$



Drainage Situation

Co. Rd. "C" East of Rice

Line Change
Profile Levels

Sto.	2	π	-	Sto.
B.M.	3.53	948.49		944.96
5+17.4	= 5+17.4		8.52	39.97
+10			5.3	43.2
4+96			4.7	43.8
+76			5.4	43.1
+68			8.28	40.21
+50			8.1	40.4
+25			8.4	40.1
4+00			8.2	40.3
+75			8.0	40.5
+68			6.7	41.8
+58			7.0	41.5
+50			6.7	41.8
5+91.35	+25		5.7	42.8
5+73	+07		4.9	43.5
5+66	+00		5.0	43.5
3			5.7	42.8
5+41	+75		5.8	42.7
5+16	+50		5.9	42.5
4+91	+25		5.9	42.5
4+66			6.1	42.4
2			5.4	43.1
4+41	+75		5.3	43.2
4+21	+55		6.3	42.2
4+21	+55		6.6	41.9
4+16	+50			

Spike H. Pole

N. End 18" Culv. under "C"

shldr

E

shldr

S. End 18" Culv. Under "C"

shldr Ent.

E. Ent

shldr Ent

shldr ent

shldr Ent.

$$3+91$$

$$1+25$$

$$3+66$$

$$1+ =$$

$$948.49$$

$$7.1$$

$$41.4$$

$$8.0$$

$$40.5$$

LINE Revision

Sta 54 to 9158.5

Drainage Co. Rd. "C" East of Rice St.

Sta	Point	ΔL	ΔG
-----	-------	----	----

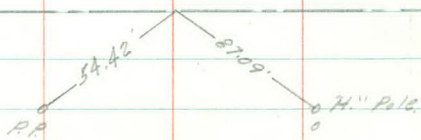
9	+58.50	P.I.	
9	+58.50	P.O.T.	

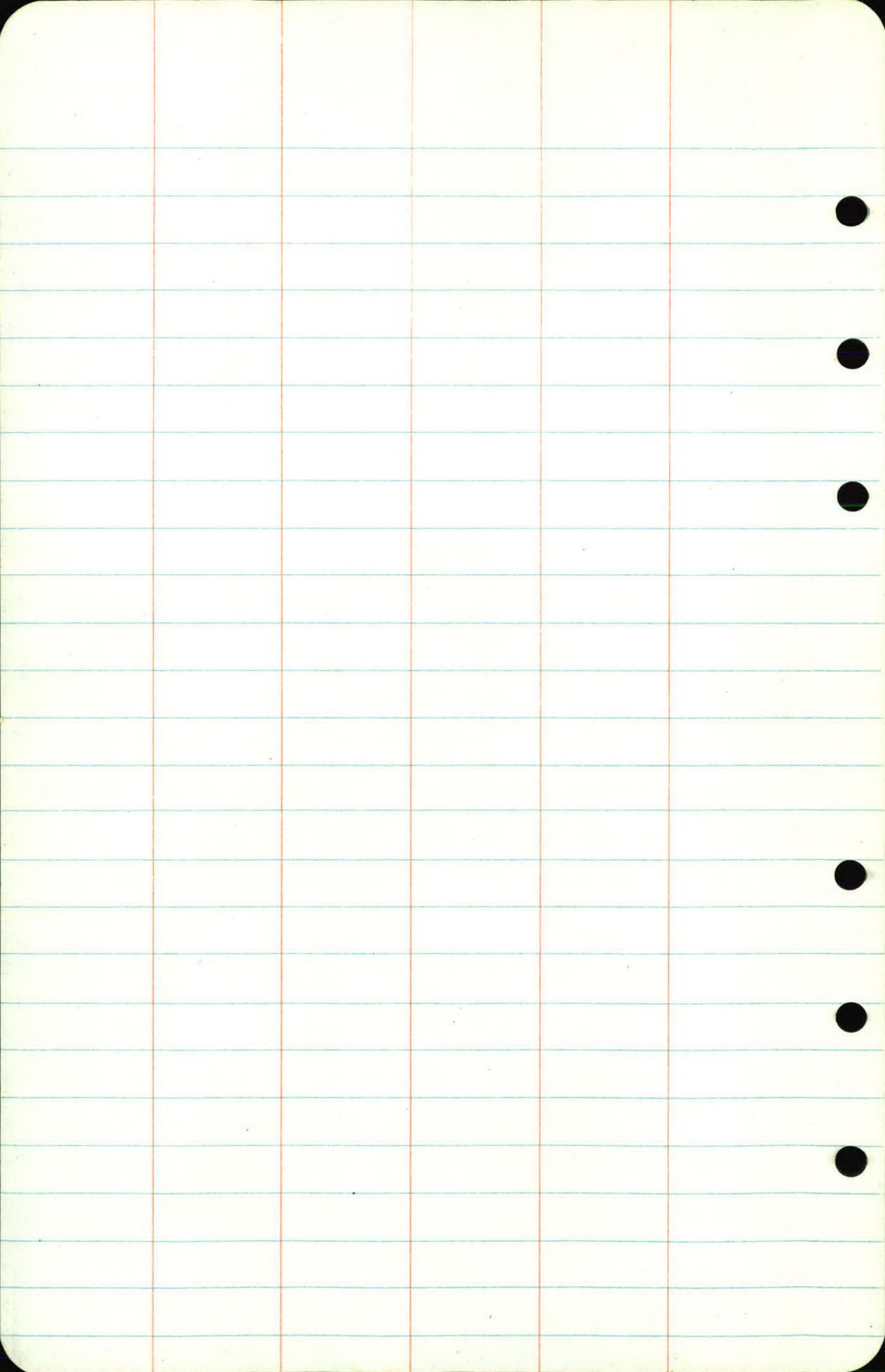
6	+13.95	P.O.T. - E. Co. Rd C.	
---	--------	-----------------------	--

7-27-91
K.A.
H.W.
C.F.

S.W. $\frac{1}{4}$ Cor.
Sec. 6

S $\frac{1}{4}$ Cor.
Sec. 6





Xsections
Ling Revision

Sta	+	π	-	Elev	
B.M.	8.11	953.07			944.96
5	+88		10.5	42.6	
6			9.9	43.2	
	+13		9.5	43.6	
	+30		10.1	43.0	
	+35		11.6	41.5	
	+44		11.6	41.5	
	+56			45.8	
7				47.7	
	+50			48.4	
8				48.3	
	+27			47.9	

lt

k

et

Spt in H^y Polc 25 lt sta 289465

$$\frac{11.8}{25}$$

$$\frac{11.6}{25}$$

$$\frac{11.5}{25}$$

$$\frac{8.1}{25}$$

$$\frac{7.3}{25}$$

$$\frac{7.7}{25}$$

$$\frac{3.9}{25}$$

$$\frac{5.4}{25}$$

$$\frac{5.4}{10}$$

$$\frac{7.4}{25}$$

$$\frac{6.1}{25}$$

$$\frac{4.7}{25}$$

$$\frac{4.0}{9}$$

$$\frac{3.8}{25}$$

$$\frac{7.1}{25}$$

$$\frac{4.0}{25}$$

$$\frac{3.9}{9}$$

$$\frac{3.7}{25}$$

$$\frac{7.8}{25}$$

$$\frac{6.4}{17}$$

$$\frac{5.2}{16}$$

$$\frac{5.4}{16}$$

$$\frac{7.1}{25}$$

sta

+

π

-

953.07,

8 +50

44.7

9

39.5

+ 27

37.9

+58.5

37.0

B.M.

8.11

944.96.

(944.96)

Lt.

R

Rt

$$\begin{array}{r} 84 \\ 25 \end{array} \quad \begin{array}{r} 84 \\ 25 \end{array} \quad \begin{array}{r} 90 \\ 16 \end{array} \quad \begin{array}{r} 104 \\ 22 \end{array}$$

$$\begin{array}{r} 125 \\ 25 \end{array} \quad \begin{array}{r} 136 \\ 18 \end{array} \quad \begin{array}{r} 146 \\ 21 \end{array} \quad \begin{array}{r} 143 \\ 25 \end{array} \quad \begin{array}{r} 143 \\ 25 \end{array}$$

$$\begin{array}{r} 141 \\ 25 \end{array} \quad \begin{array}{r} 152 \\ 25 \end{array} \quad \begin{array}{r} 165 \\ 25 \end{array}$$

$$\begin{array}{r} 141 \\ 25 \end{array} \quad \begin{array}{r} 161 \\ 25 \end{array} \quad \begin{array}{r} 171 \\ 25 \end{array}$$

Sph. in "N" Pole 25' Lt. 289465

$$\begin{array}{r} 277 + 97.4 \\ 14 \quad 61.85 \\ \hline 9.9 \times 5 \end{array}$$

Align

Drainage Co Rd @
To Round Lake.

File With County Rd C
East of Rice St.

9-4-42

HAW

AM

CF

L.L

Sta

Pt

Δ Lt

Δ Rt

5+09.40

P.O.T

End 18" C.M. X Drain

81

1

4+84.20 = P.O.T

287+37.80 ~~±~~ C.O. Rd "C" over X Drain

4+61.00

P.D.T

End 18" C.M.

4+57.20

P.I

89°50

0+0+04 = 0+00

Original Align

Section 1401.85 From Rio S'

27'

291 + 99.45
Cord "C"

574

P.1

$\Delta L+$

$\Delta R+$

10412

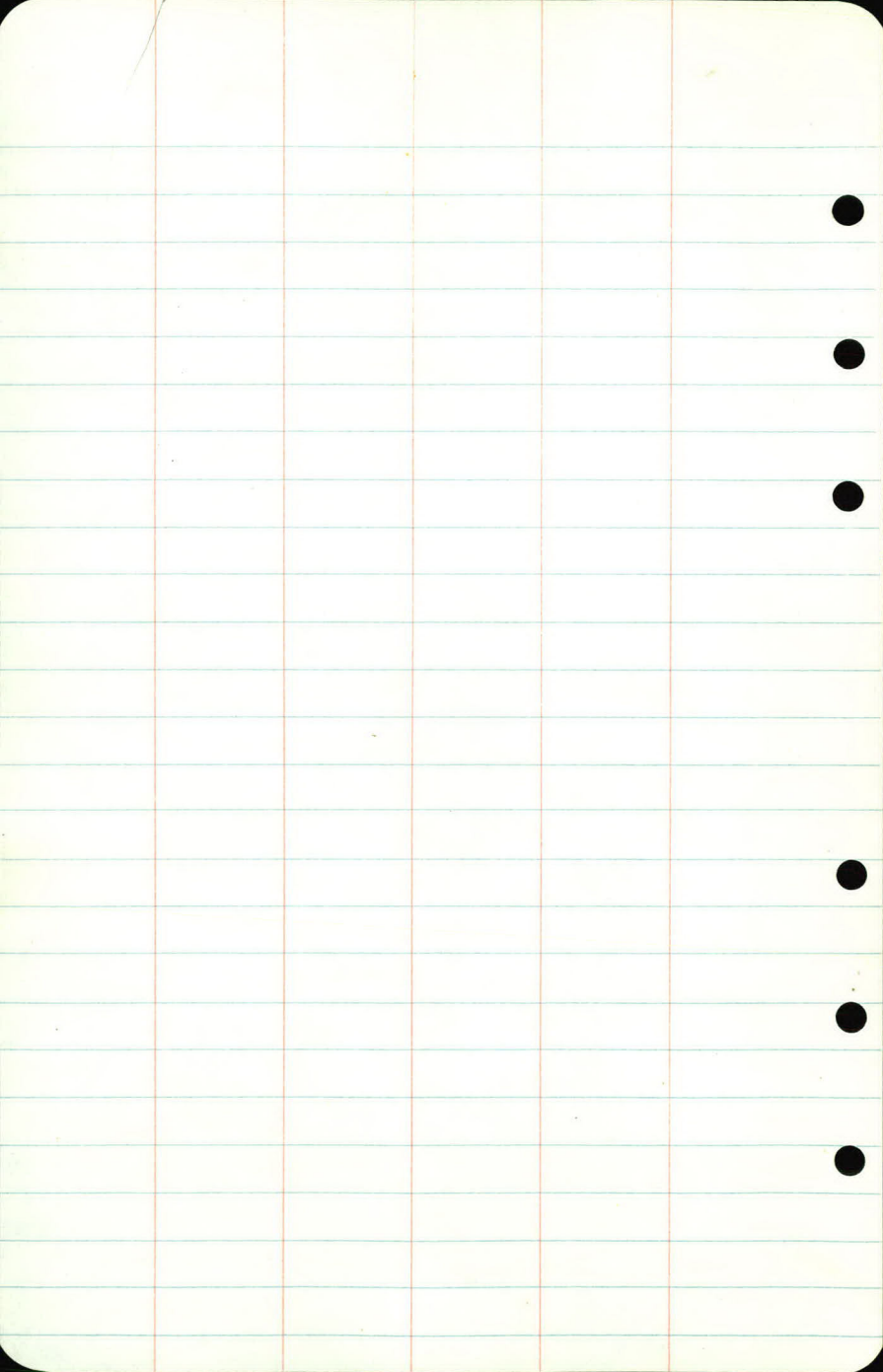
P.1

$86^{\circ}24'$

8772²⁵

P.1

85046



X Sections

Line Revision

Sta	+	Δ	-	Elev
B.M	4.77	949.73		944.96
0+0+04 = 0+00		Beg Proj		40.3

0+00				40.2
------	--	--	--	------

+50				40.2
-----	--	--	--	------

1				40.2
---	--	--	--	------

+40				41.9
-----	--	--	--	------

+46				43.7
-----	--	--	--	------

+61				44.0
-----	--	--	--	------

+65				42.9
-----	--	--	--	------

+76				43.1
-----	--	--	--	------

2				46.3
---	--	--	--	------

+50				46.2
-----	--	--	--	------

+78				44.2
-----	--	--	--	------

L1

Z

Rt

Spk in X Pole 25' Rt Sta 289 + 65

9.4

9.5

9.5

9.5

7.8

6.0

5.7

6.8

6.6

3.4

3.5

5.5

Sta	+	$\bar{A}$	-	Elev
		949.73		

2+82				43.5
------	--	--	--	------

3				43.6
---	--	--	--	------

+11				43.1
-----	--	--	--	------

+50				41.4
-----	--	--	--	------

+60				41.5
-----	--	--	--	------

+77				40.0
-----	--	--	--	------

4				39.9
---	--	--	--	------

+50				39.4
-----	--	--	--	------

157	P.1			39.9
-----	-----	--	--	------

+61		End 18" CM		40.17
-----	--	------------	--	-------

+69				43.0
-----	--	--	--	------

+84 ⁷⁰		* CORD C		
-------------------	--	----------	--	--

Lt

±

Rt

6.2

6.1

6.6

8.3

8.2

9.7

39.2
Low spot
10.5/15

9.8

10.3

9.8

9.56
Inv

6.7

Sta	+	Δ	-	Elev
-----	---	----------	---	------

949.73

5+02

43.1

+09.40

End 18" CM 39.98

+50

39.7

6

40.2

+50

39.5

7

39.5

+50

39.9

8

40.4

T.P.

6.07

950.29

5.51

944.22

+50

40.8

+73

P.I

Rt Angles to Back Tan 41.9

+73

P.I

" " to For. Tan 41.9

9

41.7

L1

R

R1

6.6

$$\frac{8.4}{30} \quad \frac{8.3}{3} \quad \frac{9.8}{1} \quad \underline{9.75} \quad \frac{9.8}{1} \quad \frac{8.4}{3} \quad \frac{8.7}{30}$$

$$\frac{9.8}{25} \quad 10.6 \quad \frac{9.2}{30}$$

$$\frac{7.7}{25} \quad \frac{8.2}{9} \quad \frac{9.8}{6} \quad 9.5 \quad \frac{9.3}{14} \quad \frac{8.3}{25}$$

$$\frac{8.2}{25} \quad \frac{8.4}{14} \quad \frac{9.4}{9} \quad 10.2 \quad \frac{10.4}{25}$$

$$\frac{8.4}{25} \quad \frac{8.4}{16} \quad \frac{9.7}{13} \quad 10.2 \quad \frac{9.9}{25}$$

$$\frac{9.9}{25} \quad \frac{9.8}{14} \quad \frac{8.9}{11} \quad 9.8 \quad \frac{8.6}{15} \quad \frac{8.2}{25}$$

$$\frac{8.7}{25} \quad \frac{9.7}{10} \quad 9.3 \quad \frac{9.8}{4} \quad \frac{8.9}{6} \quad \frac{9.4}{25}$$

$$\frac{7.9}{25} \quad \frac{9.5}{6} \quad 9.5 \quad \frac{9.9}{25}$$

$$\frac{8.6}{25} \quad 8.4 \quad \frac{8.4}{6} \quad \frac{6.8}{25}$$

$$\frac{6.8}{25} \quad \frac{7.0}{15} \quad \frac{7.7}{11} \quad 8.4 \quad \frac{9.5}{25}$$

$$\frac{6.7}{25} \quad \frac{7.3}{14} \quad \frac{8.4}{10} \quad 8.6 \quad \frac{9.9}{25}$$

Sta	+	π	-	Elev
-----	---	-------	---	------

950.29

9+50

41.8

10

38.5

+12

12.1

Rt A. To Back Tan

37.0

+12

Rt A to For. Tan

37.0

T.P.

5.35

949.12

6.52

943.77

B.M

4.15

944.97

944.96

B.M

1.39

959.30

957.91

6+00

46.1

+22

47.1

+32

47.1

Lt

E

Rt

$$\frac{7.1}{25} \quad \frac{7.5}{11} \quad 8.5 \quad \frac{8.8}{2} \quad \frac{9.7}{25}$$

$$\frac{10.4}{25} \quad 11.8 \quad \frac{12.4}{25}$$

$$\frac{11.4}{25} \quad \frac{12.8}{13} \quad 13.3 \quad \frac{13.2}{25}$$

$$\frac{10.9}{25} \quad 13.3 \quad \frac{14.0}{18} \quad \frac{14.0}{25}$$

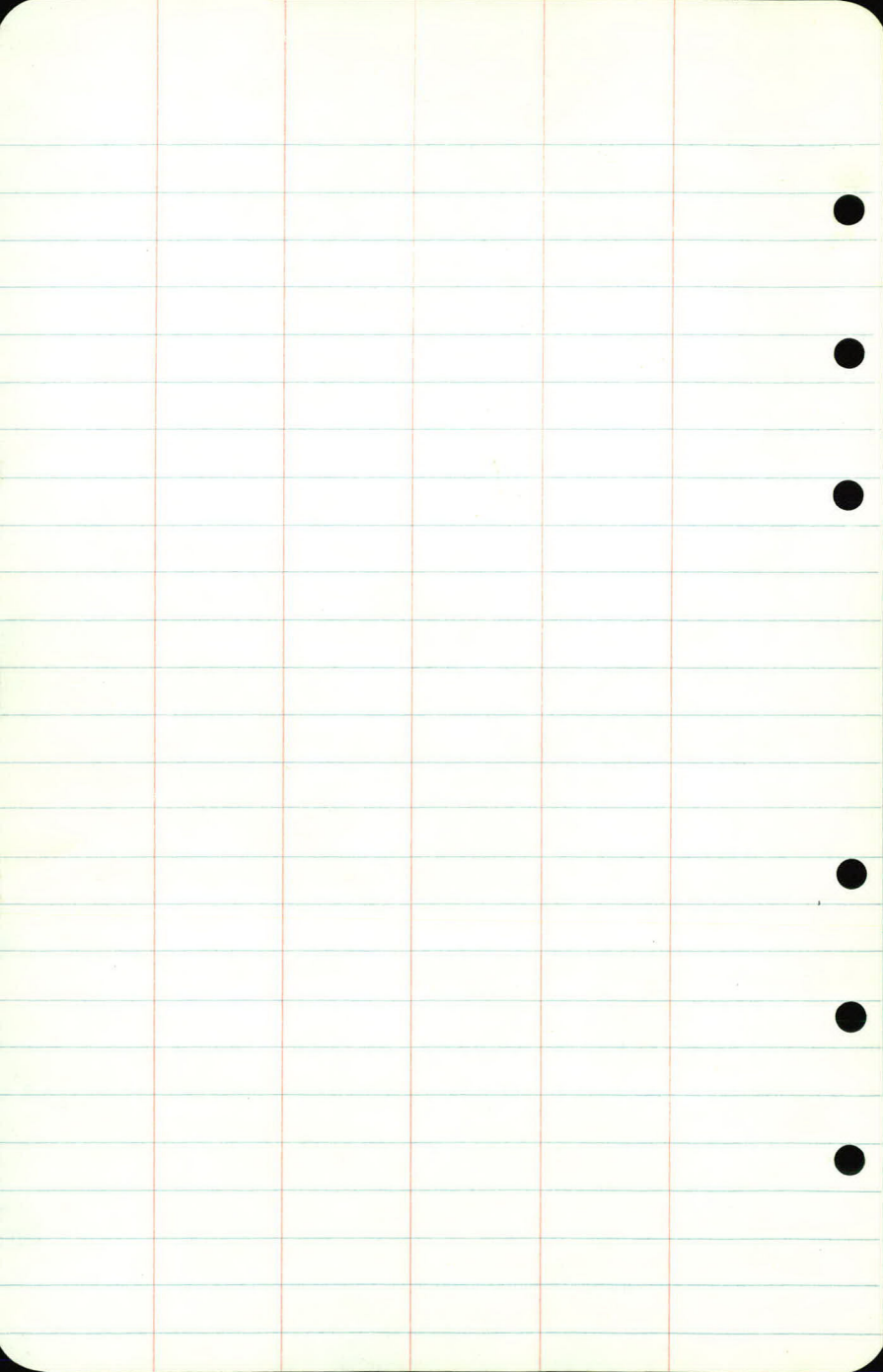
Spr in P.P 25' Rt Sta 289+65

Top Mon River & Co Rd 'C'

13.2

12.2

12.2



Elev
Potholes

West of Rice 500' S of C

Sta	+	Δ	-	Elev
B.M	1.23	959.14		957.91

Top Man Rice & Co Rd 6

W.S

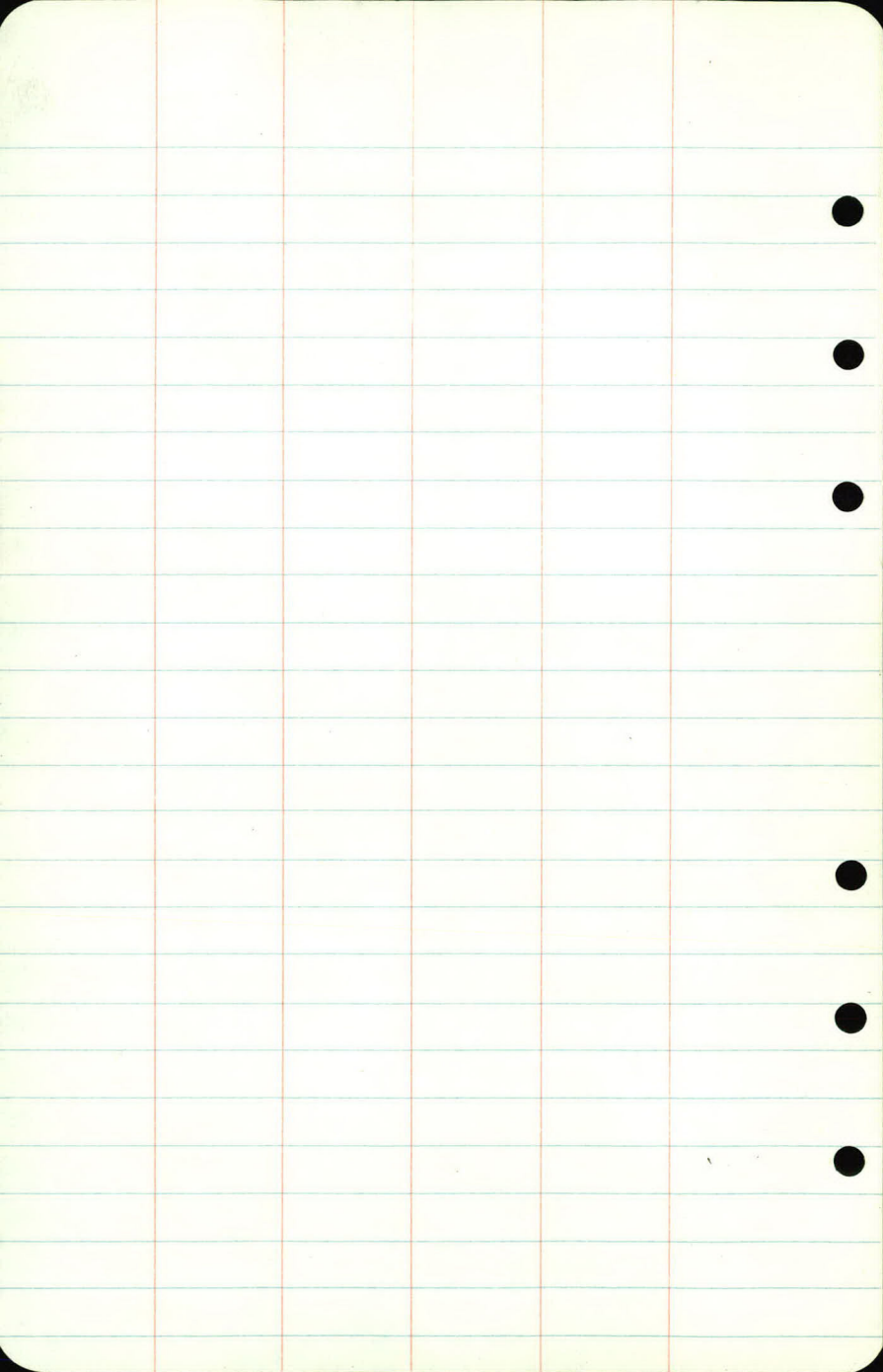
11.1

48.04

Low spot

133

45.84



1

Traverse

A Line

8-25-42

HAW

AM

B.F

LL

Sta

Pt.

 ΔL ΔR

0+00

7+88.00

P. 1

15°23'

6+32.50

P. 1

46°33'

4+21.70

P. 1

90°00'

Bearing 6°00'

0+00

0°00' Mom

C + R. 10

✓

Rice

Sta

Pt

 ΔL ΔR

$$15769.65' = 287 + 37.60 \text{ Cu Rd "C"}$$

X Prain Cu Rd C

$$15747.30$$

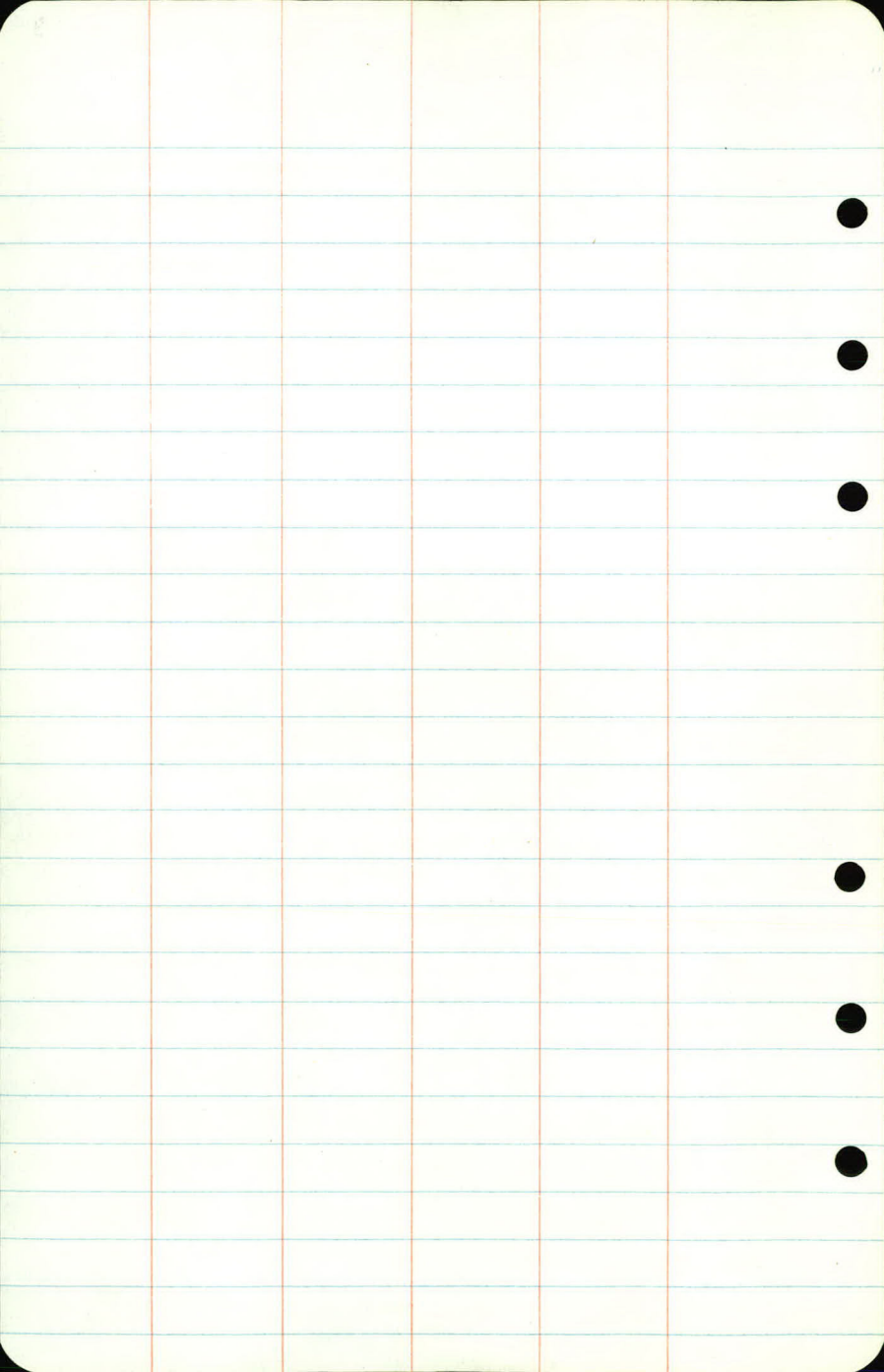
$$89^{\circ}20'$$

$$11778.00$$

$$67^{\circ}52'$$

$$10709.00 \text{ P.1}$$

$$36^{\circ}43'$$



Align

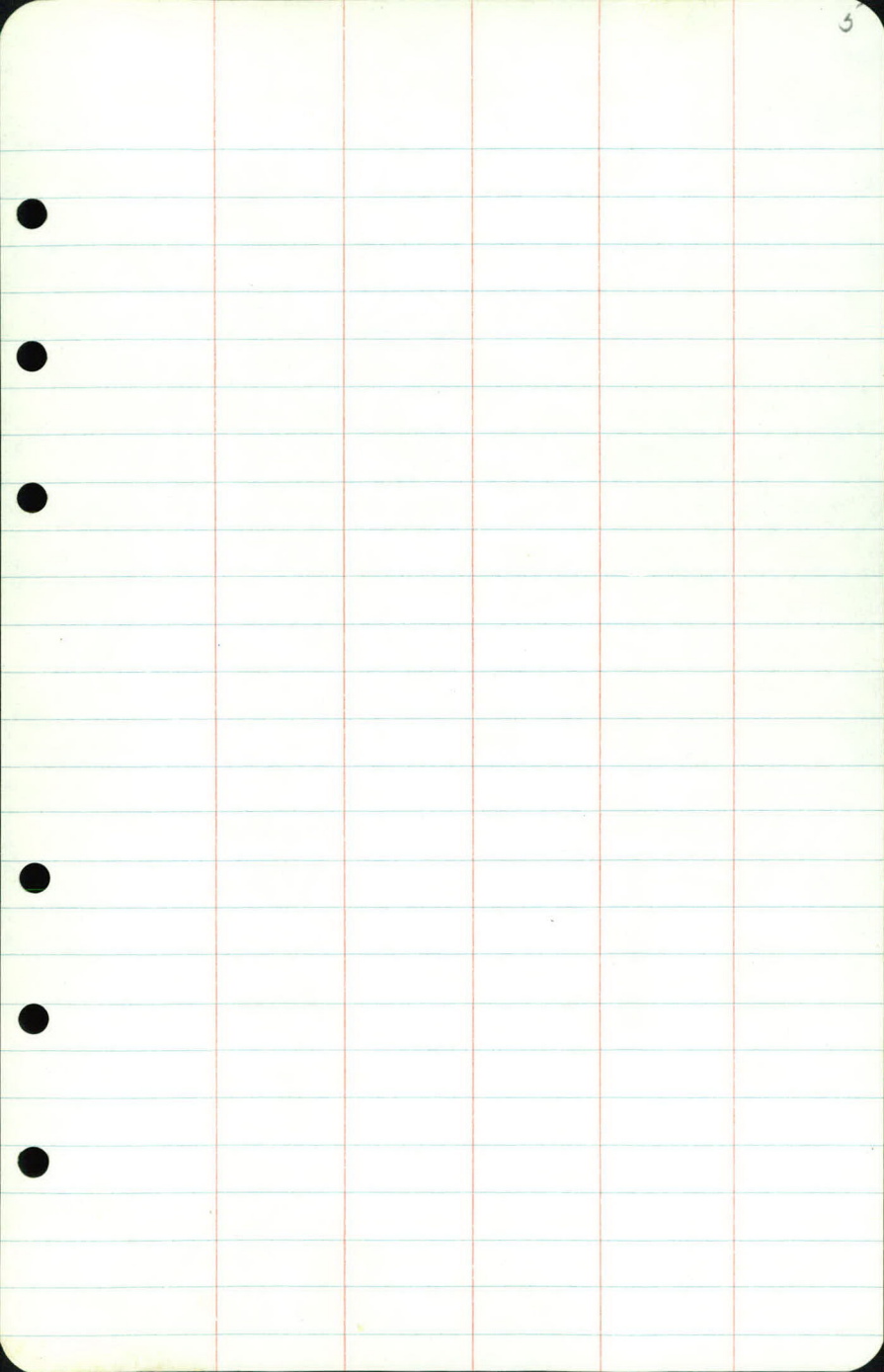
"B" Line

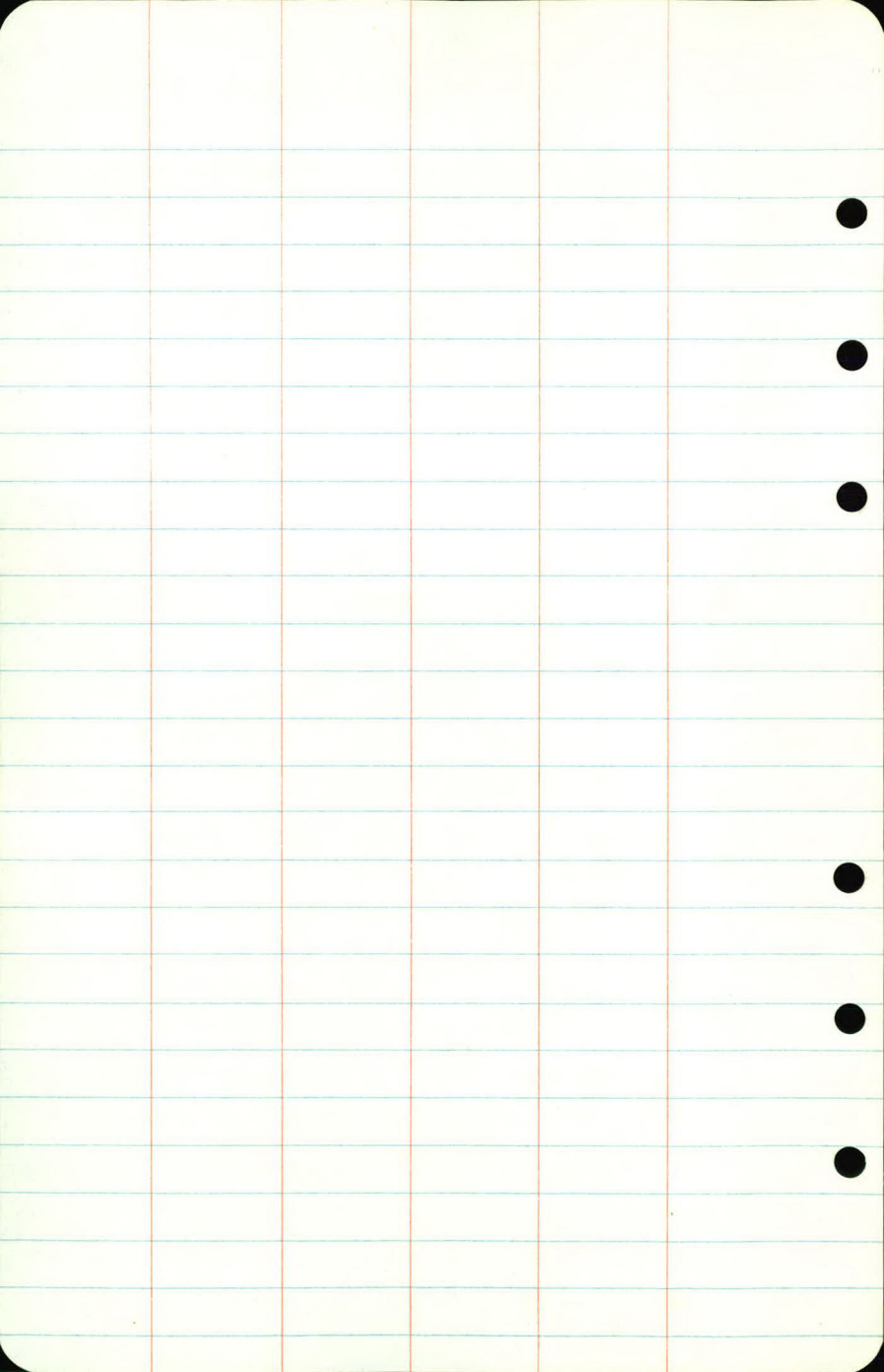
Sta Pt

1+00

9+50 = P.O.T
0+00

103°30'





Stadia

Location of Potholes
On Rice

Rice =

Azi Dist
0° 00'

Backsight Co Rd 'C' x Rice

At Sta. 4+00

	Az.	Dist
1	68°30'	125'
2	127°45'	117'
3	51°00'	146'
4	111°20'	129'
5	37°30'	263'
6	100°20'	160'
7	49°00'	224'
8	100°00'	202'
9	60°50'	340'
10	106°00'	224'
11	74°30'	334'
12	107°30'	232'
13	115°40'	300'

Stg

At. 6450 Backsight to Mon C & R 1 C & R 1 C

Az. Dist

119°30' 345'

1 30°00' 39'

46°22' 346

151°00' 68'

43°40' 311'

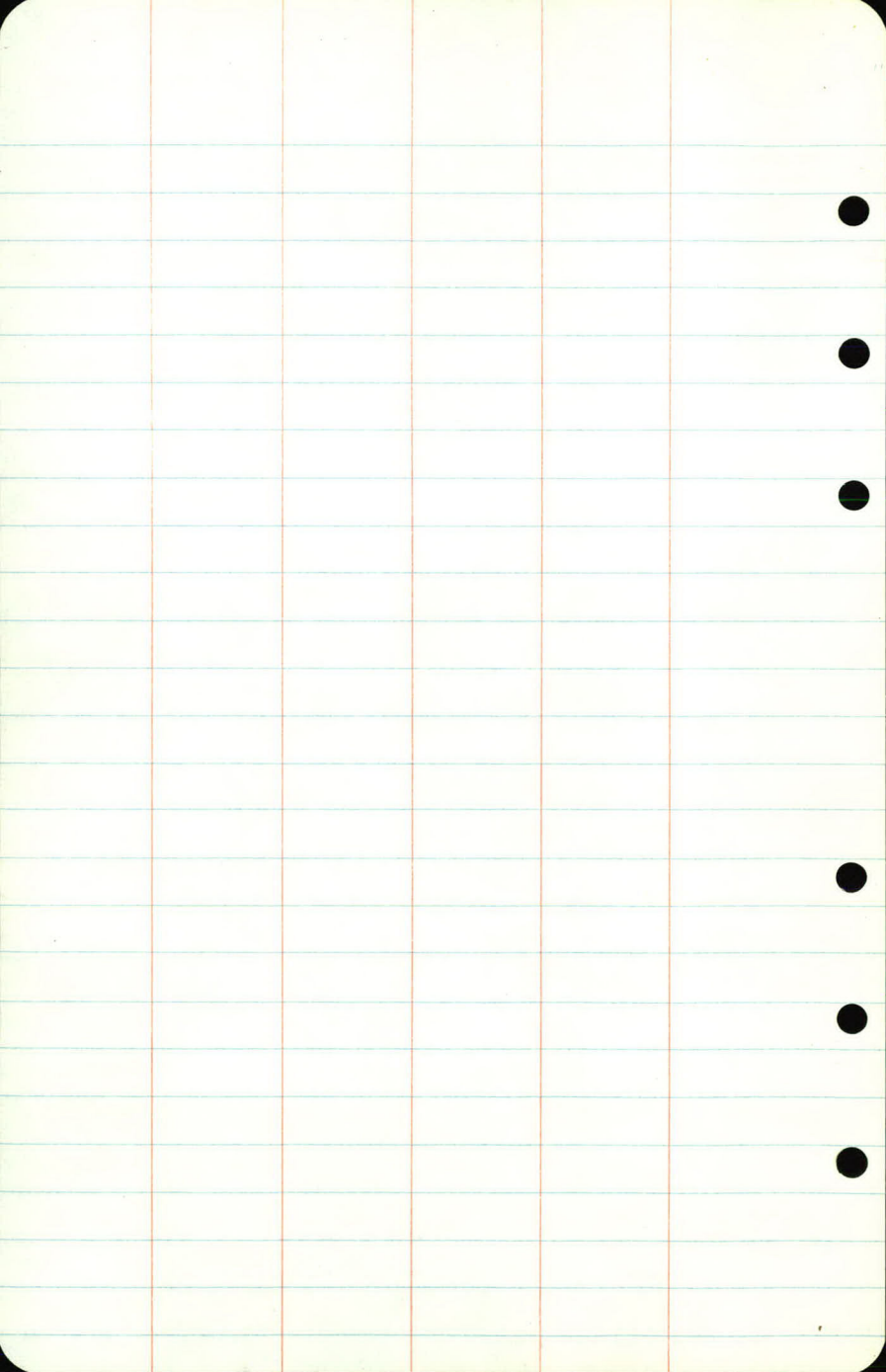
167°40' 180'

88°25' 360

129°40' 272'

107°50' 355'

108°15' 318'



stadia

Water hole

Sta	Pt	Azi.	Dist
AT 277+77L		0°00'	
To Sta 283+06L		90°00'	509'

AT Sta 283+06L		90°00°	
----------------	--	--------	--

To Hub # 1		180°00	3.01'
------------	--	--------	-------

At Hub # 1

1		258°45	18'
---	--	--------	-----

2		153°10	52'
---	--	--------	-----

3		193°30	69'
---	--	--------	-----

4		163°50	102'
---	--	--------	------

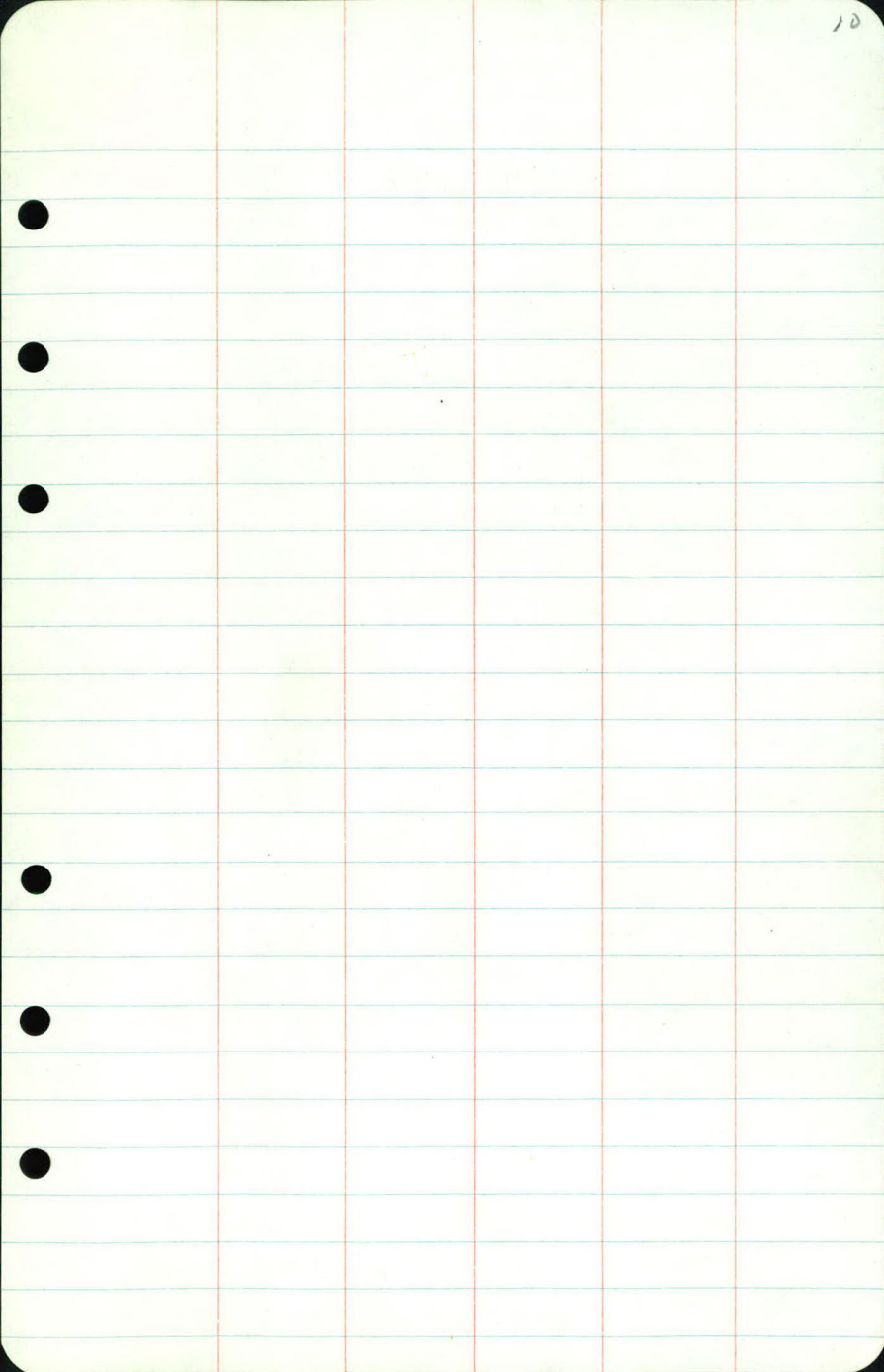
5		185°20	112'
---	--	--------	------

6		164°55	133'
---	--	--------	------

7		192°20	156'
---	--	--------	------

8		149°00	161'
---	--	--------	------

9		199°40	192'
---	--	--------	------



		DIST
10	127°40	183'
11	197°45	190'
12	128°00	231'
13	195°40	260'

To Hub #2

119°14' 115'

Backsight To #1

119°14' 115'

At #2

1 206°10' 300'

2 124°35' 146'

3 194°50' 350'

4 102°20' 170'

5 187°10' 371'

91°11' 253'

6 96°30' 233'

DIST

7

178° 10' 410'

8

95° 20' 370'

9

145° 15' 265'

10

100° 10' 308'

11

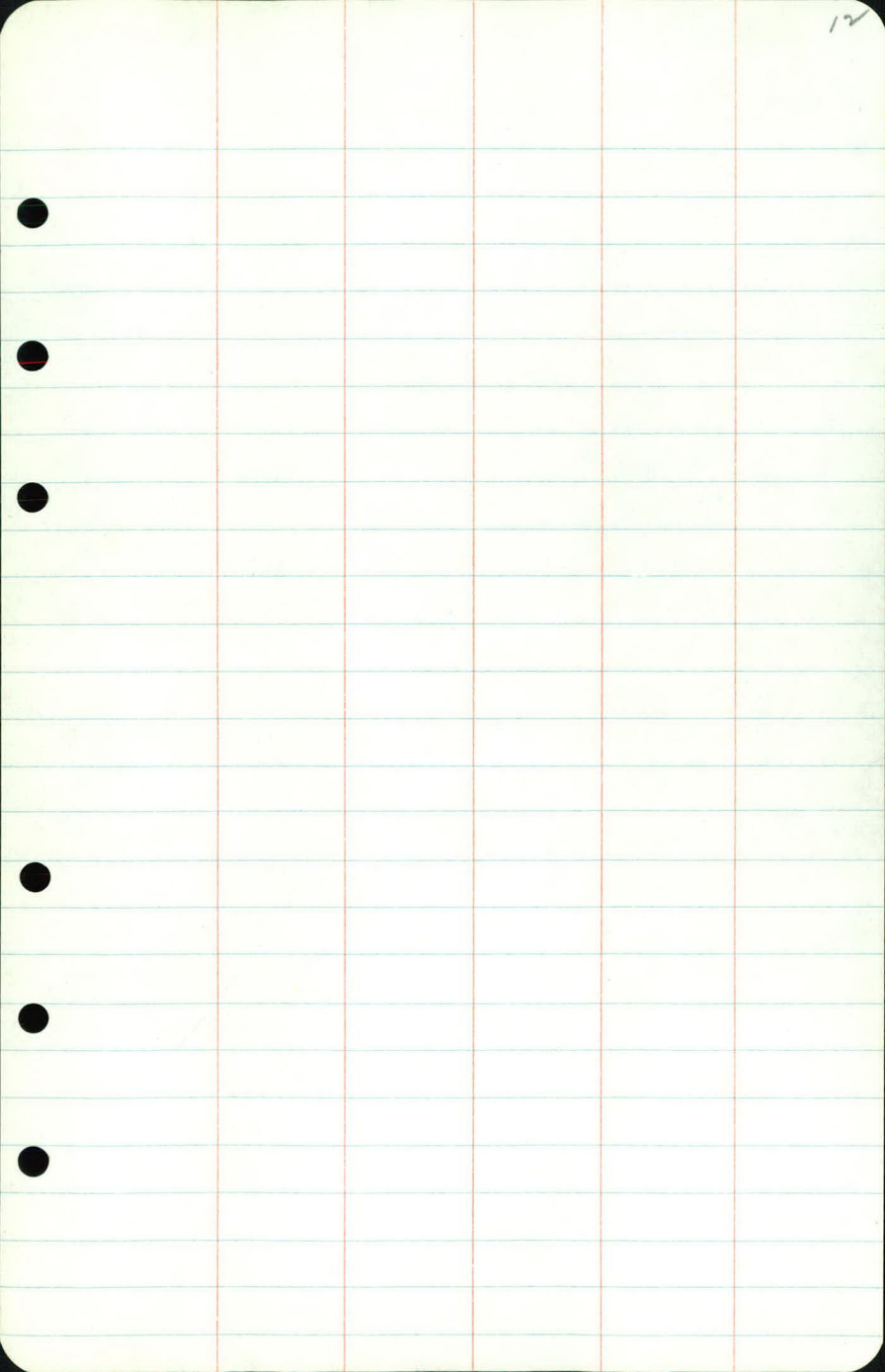
105° 25' 262'

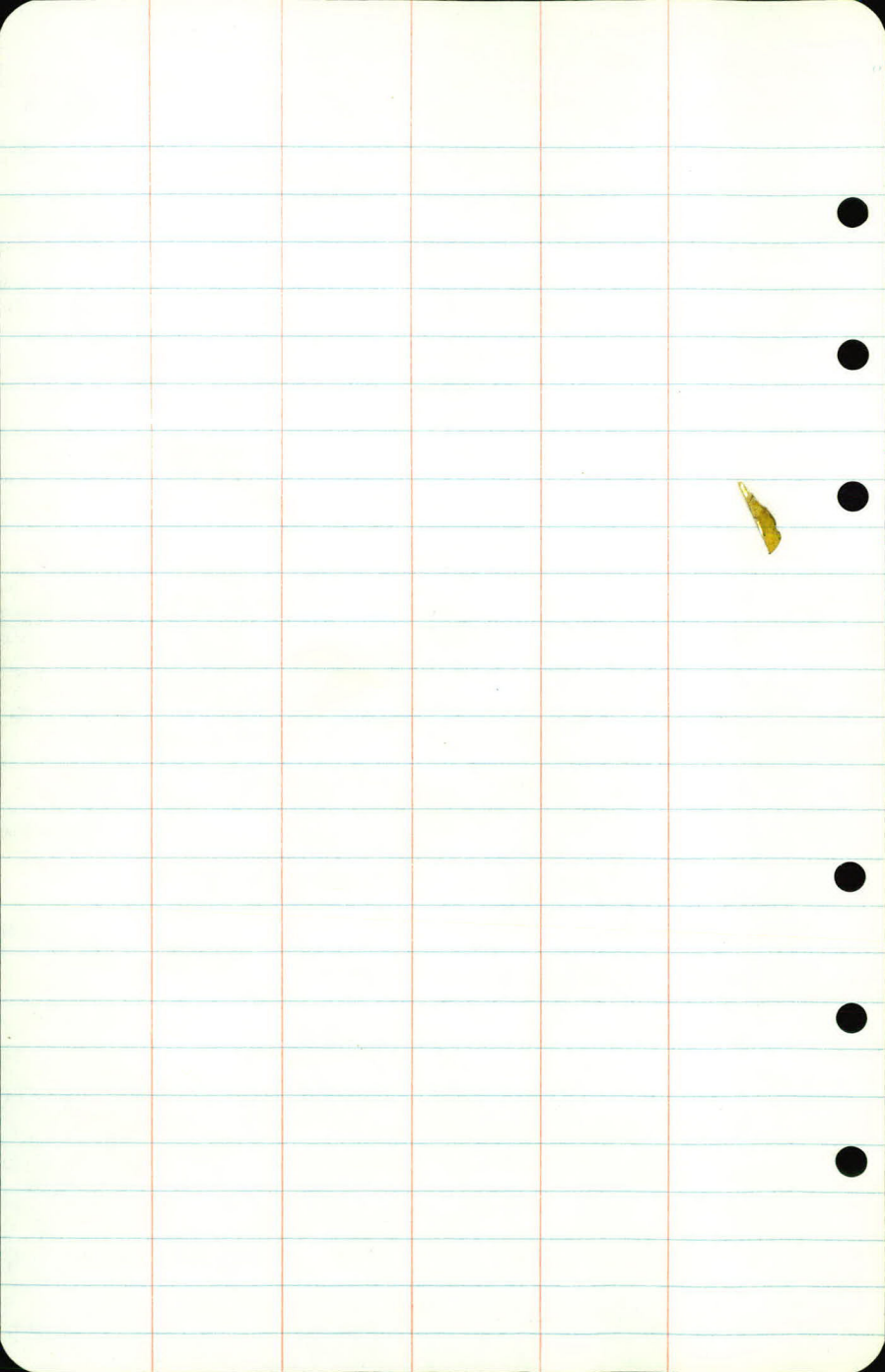
12

111° 00' 214'

13

122° 15' 205'





Profile

Traverse Line
"A" Line

Sta	+	Δ	-	Elev
B.M	2.48	96039		957.91
	4.54	958.58	635	954.64

Apposite (D)

T.P	2.69	953.86	4.41	951.17
-----	------	--------	------	--------

432				47.1.
-----	--	--	--	-------

+60				46.4.
-----	--	--	--	-------

7				45.7.
---	--	--	--	-------

+50				45.3.
-----	--	--	--	-------

+95				46.0.
-----	--	--	--	-------

+88	P.1			46.9.
-----	-----	--	--	-------

8				47.4.
---	--	--	--	-------

+25				46.4.
-----	--	--	--	-------

+50				45.9.
-----	--	--	--	-------

Lt £ R+

Top Man C + R. in

Elev in Water hole 14.3 - 944.3
 Top Water 11.50 - 947.1

6.8

7.5

(2)

Top Water
 7.70

LOW SPOT

91

8.2

(946.2)

(944.80)

8.6

7.9

7.0

6.5

7.5

8.0

Sta + π - Elev

953.86

8+75 44.9.

9 45.9.

+50 46.5.

T.P. 5789 95210 7.65 546.21

10700 45.5.

+09 P.1 45.5.

+50 45.3.

11 44.2.

+21 44.8.

+50 45.2.

+70 45.1.

+71 44.6.

+78 44.3.

$\frac{1}{2}$

9.0

8.0

7.4

6.6

6.6

6.8

7.9

7.3

6.9

7.0

7.5

7.8

Sta	+ 95210	-	Elev
-----	------------	---	------

12			44.0.
----	--	--	-------

+34	12" Side Drain		43.85.
-----	----------------	--	--------

+57	" "		44.05.
-----	-----	--	--------

13			43.6.
----	--	--	-------

+50			42.8.
-----	--	--	-------

+83	12" Side Drain		42.71.
-----	----------------	--	--------

14+03	"		42.51.
-------	---	--	--------

+50			42.4.
-----	--	--	-------

15			41.4.
----	--	--	-------

+47	18" X Drain		40.18
-----	-------------	--	-------

B.M	714	94496	944.96
-----	-----	-------	--------

$\frac{A}{L}$

8.1

8.25

8.05

8.5

9.3

9.39

9.59

9.7

10.7

40.6

39.4

Top Water

Lowspot

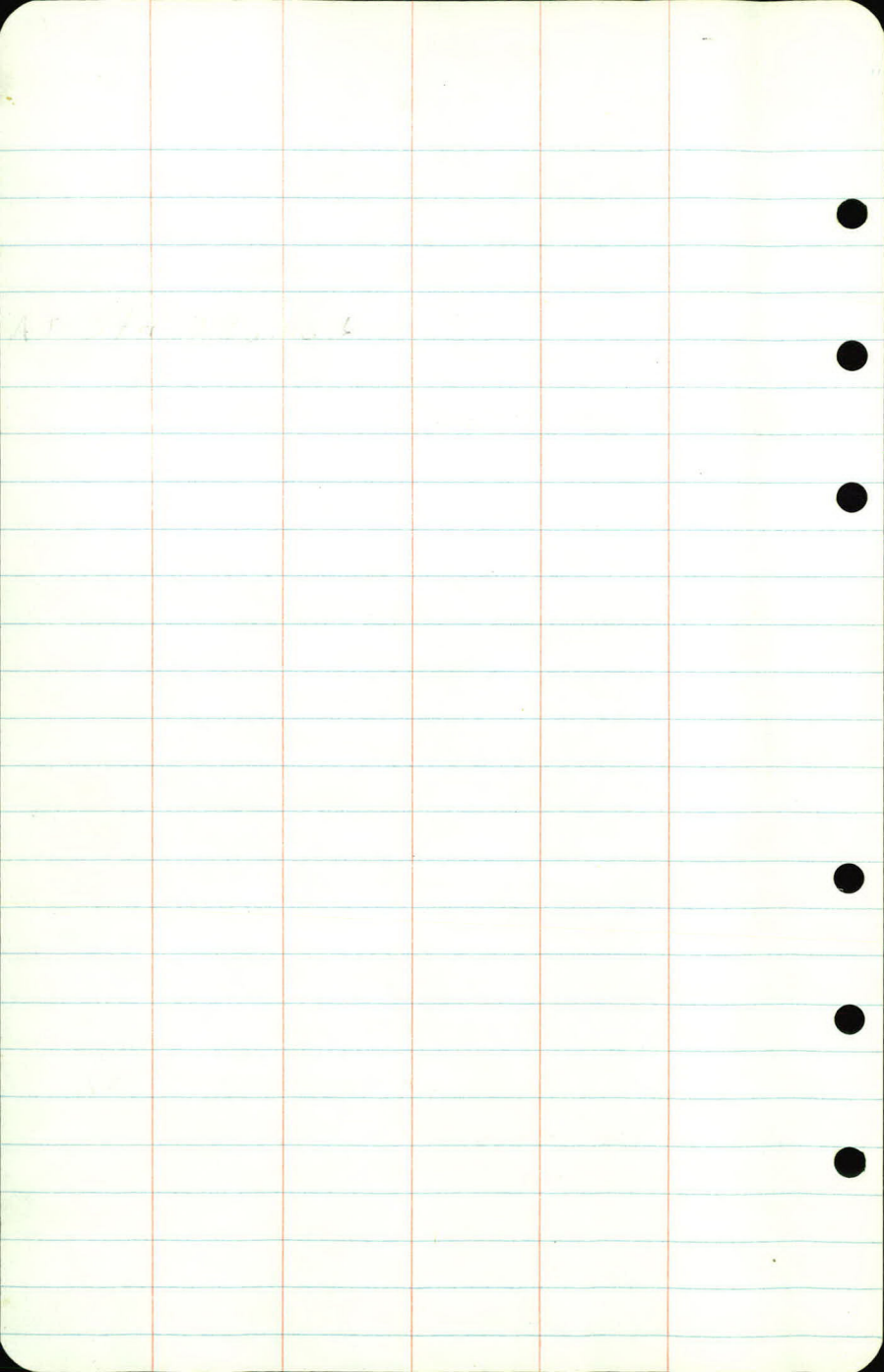
11.92

11.5

12.7

Sp K in H. Polr

Rt Sta 289 + 65



Profile

"B" Line

Sta	+	Δ	-	Elev
T.P	5.60	951.81		946.21
0+00 - 9+50		A L. 5r		46.6 .
+30				46.0 .
+50				46.8 .
+83				47.1 .
1+00				46.0 .

2

Top Stake 9450

5.2

5.8

5.0

4.7

5.8

W.S 4.80

947.0

