

Book #61-Dr #8

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

----- PLAN ----- Survey

GERVAIS FISH SPAWNING POND

From ----- To -----

Road Acc't. No. -----

Date Filed 5-25-31 File L.I.

(Spawning Pond)

Location of.
Ctr. Line Co. Ditch #16.
From
West edge of Marsh
To
Water Wks. Wier.

— H —
GERVAIS FISH
SPAWNING POND.
— H —

Sta. Dist Δ Lt Δ Rt.

16+15 To Ctr of water fountain, in Wier.

13+50⁵ 107.0 26°22'

12+45⁵ 93.5 ✓ 16°0'

11+50 230.0 ✓ 19°30'

9+20. 146.5 ✓ 14°30'

7+73⁵ 273.5 ✓ 11°10'

5+00 55.0 ✓ 58°13' (58°13') ✓

4+45 70.0 ✓ 10°50'

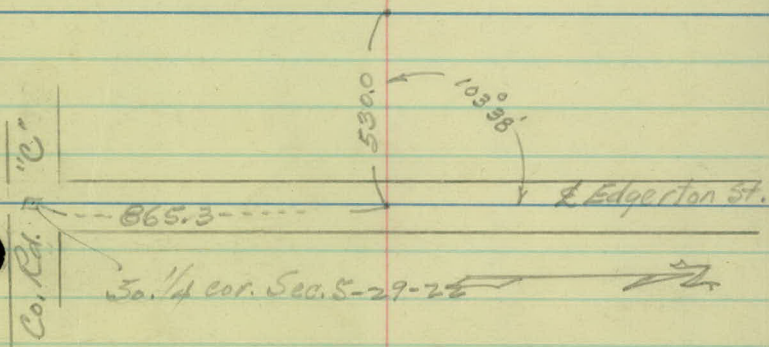
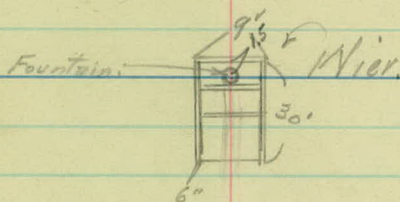
3+75 43.0 ✓ 45°50' ✓

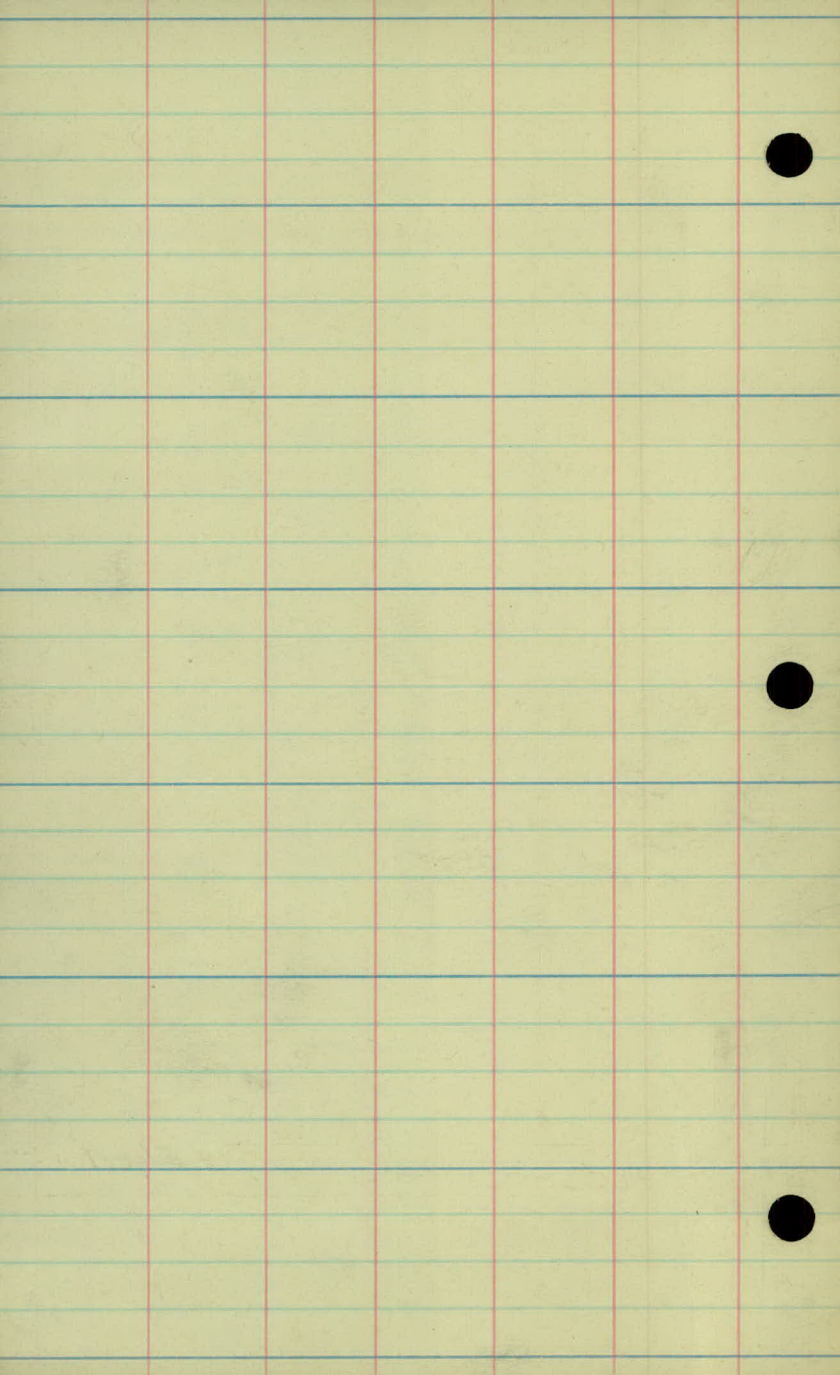
3+32 132.0 ✓ 32°30' ✓

2+00 100.0 ✓ 20°09' ✓

1+00 100.0 ✓ 52°22' ✓

0+00





Elev. of Ditch # 16
and cross Sections from Sta 0+00
To 11+00

B.M.	12.13	883.97 ✓		871.84
T.P.	0.64	883.90 ✓	0.71	883.26 ✓
B.M.	4.22	875.21 ✓	12.91	870.99 ✓
T.P.	8.30	876.40 ✓	7.11	868.10 ✓
0+00		632		863.20 ✓

+50 ~~±~~ Old Rd. Bed. 63.1 63.1

1+00 64.4 ✓

2 64.4 ✓

3 65.00 ✓

T.P. 6.86 873.12 ✓ 10.14 866.26 ✓

+32 ~~±~~ of over bent Bridge.

65.00 -

4 65.4 -

T.P. 5.33 873.12 ✓ 5.33 867.79 (Noon.)

+45 65.6

+45 65.6

5 65.9

6 66.3

7 66.4

Left & Right ^{3/31/31}
 Spike in T.P. #18515 Int. Egerton + G. Ref. G.

Spike in T.P. Rt. 9 + 75 Edgerton.

$\frac{4.8}{7.5}$ $\frac{8.0}{7.0}$ $\frac{10.8}{5.0}$ $\frac{12.3}{8}$ 13.2 $\frac{12.7}{5}$ $\frac{12.3}{2.5}$ $\frac{10.8}{5.0}$ $\frac{7.3}{10.0}$

$\frac{3.8}{7.0}$ $\frac{5.5}{1.3}$ $\frac{11.4}{9}$ $\frac{12.0}{4}$ 13.3 $\frac{11.2}{7}$ $\frac{6.6}{8}$ $\frac{6.2}{10.0}$

$\frac{6.0}{7.0}$ $\frac{7.8}{6.0}$ $\frac{11.0}{4.8}$ 12.0 $\frac{11.0}{4.0}$ $\frac{9.5}{6.0}$ $\frac{6.0}{11.0}$

$\frac{4.8}{4.5}$ $\frac{11.0}{2.0}$ 12.0 $\frac{11.0}{1.0}$ $\frac{8.2}{12.5}$ $\frac{4.8}{1.5}$

$\frac{6.4}{3.5}$ $\frac{10.8}{1.0}$ 11.4 $\frac{10.8}{7.0}$ $\frac{9.0}{4.0}$ $\frac{4.8}{9.5}$

Top Rock.

$\frac{2.3}{1.5}$ 8.1 $\frac{2.3}{1.5}$

$\frac{2.1}{6.0}$ $\frac{5.8}{7}$ 7.7 $\frac{6.8}{1.4}$ $\frac{4.3}{2.5}$ $\frac{0.4}{3.0}$

Top Rock.

7.5 $\frac{6.5}{5}$ $\frac{0.0}{2.7}$ Back Ten

7.5 $\frac{6.5}{5}$ $\frac{0.0}{4.2}$ Fwd. Ten.

$\frac{2.0}{10.6}$ $\frac{5.0}{5.0}$ $\frac{6.4}{8}$ 7.2 $\frac{6.4}{1.5}$ $\frac{6.0}{4.7}$ $\frac{1.7}{6.7}$ Back Ten

$\frac{1.0}{2.33}$ $\frac{3.2}{20.0}$ $\frac{5.3}{15.0}$ $\frac{6.0}{10.0}$ $\frac{6.2}{5.0}$ $\frac{6.0}{7}$ 6.8 $\frac{6.2}{6}$ $\frac{1.5}{4.2}$

$\frac{2.0}{19.0}$ $\frac{4.2}{1.50}$ $\frac{5.2}{1.00}$ $\frac{5.0}{5.0}$ $\frac{5.5}{3}$ 6.7 $\frac{5.4}{3}$ $\frac{3.7}{4.2}$ $\frac{0.7}{6.0}$

873.12 ✓

8+00

B.M.

5.71

875.05 ✓

378

869.34 ✓

9

66.5 ✓
67.6

10

68.3

11

68.3

12

T.P.

6.42

876.97 ✓

4.50

870.55 ✓

13

8.4

68.6

14

8.3

68.7

15

8.2

68.8

16+15

5.65

871.32 ✓

B.M.

3.44

873.53 ✓

Left. & Right

$\frac{1.2}{10.3}$ $\frac{4.4}{8.5}$ $\frac{5.4}{6.0}$ $\frac{4.4}{1.0}$ 6.6 $\frac{5.3}{4}$ $\frac{0.0}{1.5}$

Spike in 14" Pop. & Sto. 7 + 35-

$\frac{2.6}{10.0}$ $\frac{5.0}{8.6}$ $\frac{6.6}{1.5}$ $\frac{8.3}{8}$ 7.5 $\frac{6.3}{9}$ $\frac{3.0}{17}$

$\frac{2.5}{4.3}$ $\frac{6.0}{3.4}$ $\frac{6.2}{1.0}$ 6.8 $\frac{6.0}{5}$ $\frac{5.5}{4.7}$ $\frac{2.2}{6.0}$

$\frac{3.3}{5.5}$ $\frac{6.0}{4.5}$ $\frac{6.0}{5}$ 6.8 $\frac{6.0}{5}$ $\frac{1.5}{6.5}$

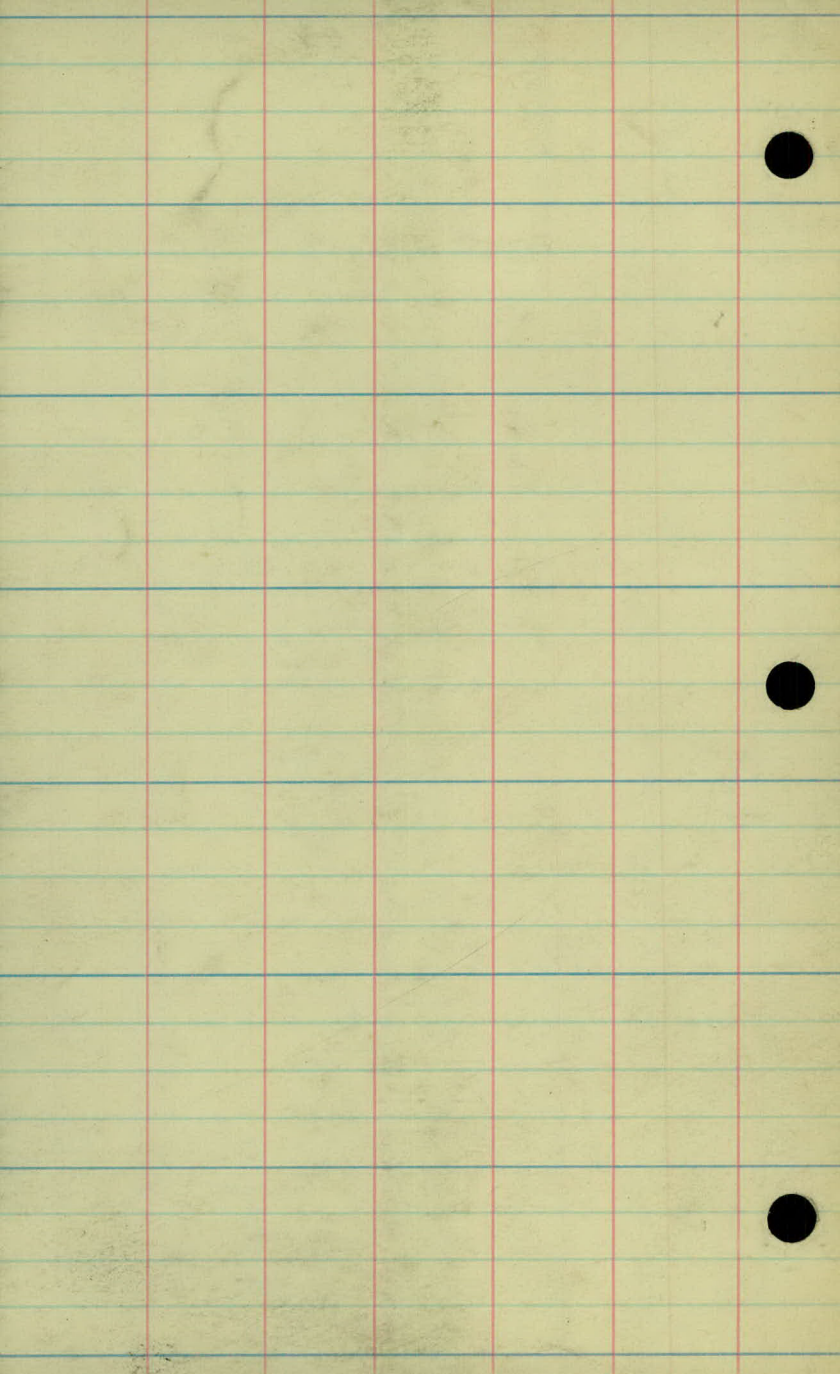
6.5

8.4

8.3

8.2

S.M. Cor. Conc. wall on pier.



Object Azimuth Stadia Vert Rod

At B 1 = $14\frac{1}{4}$ cor. 1315.55 M from S. $\frac{1}{4}$ Cor. N. on Sec. 5-29-22

To North

180° 0'

Chk 131 E top cross church

302° 06'

To B 2

302° 50'

663

8.35

Elev = 873.34 @

H I = 5.33 - 878.69 m

1 ✓ E Edgerton

180° 00'

1440

2.00

2 ✓ Toe Shoulder W.

190° 06'

1442

5.6

3 ✓ Top ditch on fence

193° 00'

1445

3.3

4 ✓ E. Eken W. slope Knell

202° 48'

160

6.0

5 ✓ Toe W. slope back-edge fence

219° 30'

192

10.9

6 ✓ Gravel over plots

231° 10'

2050

12.2

7 ✓ E Edgerton

000° 00'

321

5.5

8 ✓ Toe Shoulder W.

354° 20'

325

6.6

9 ✓ Toe S.W. slope Knell edge

226° 30'

135

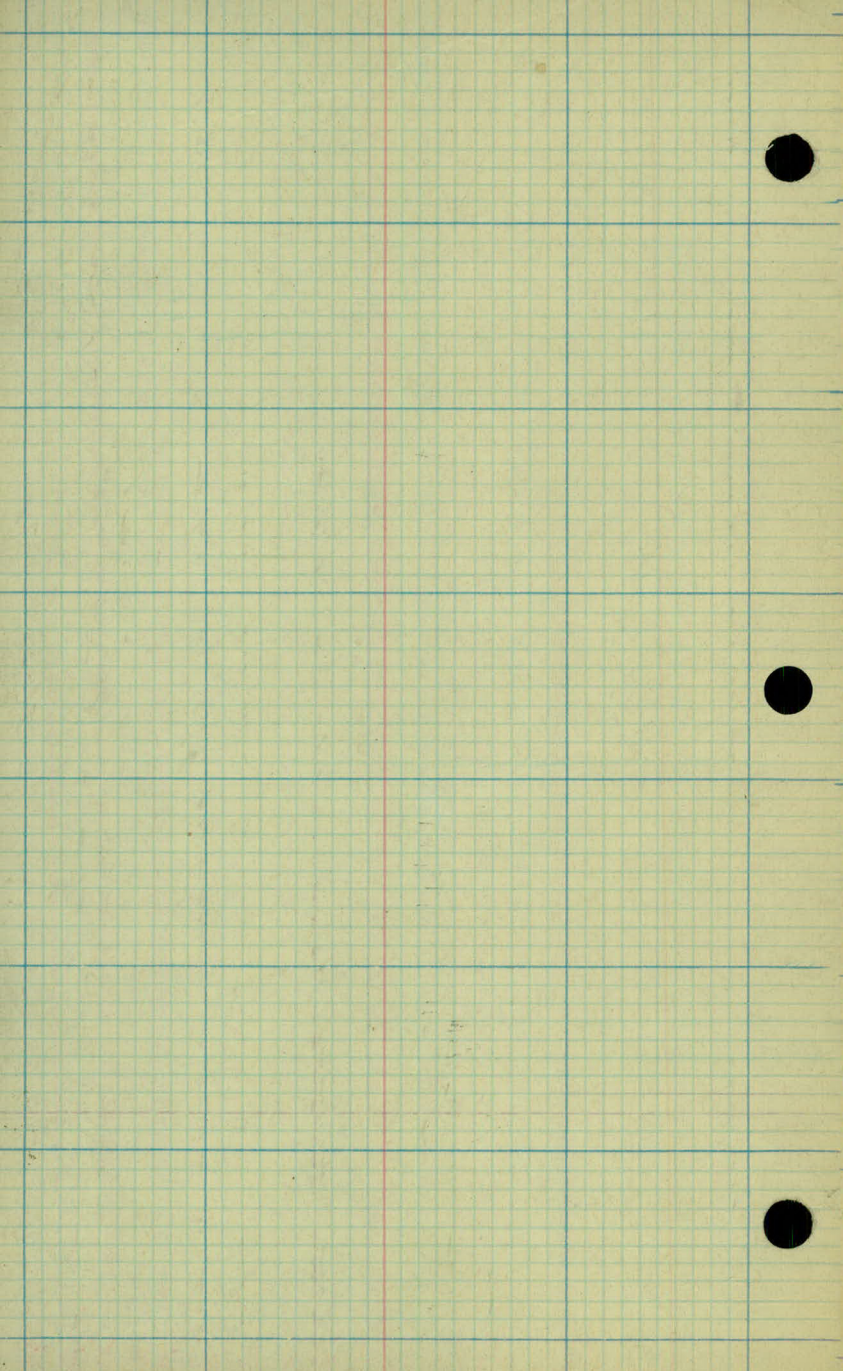
5.7

10 ✓ Edge plots fence line

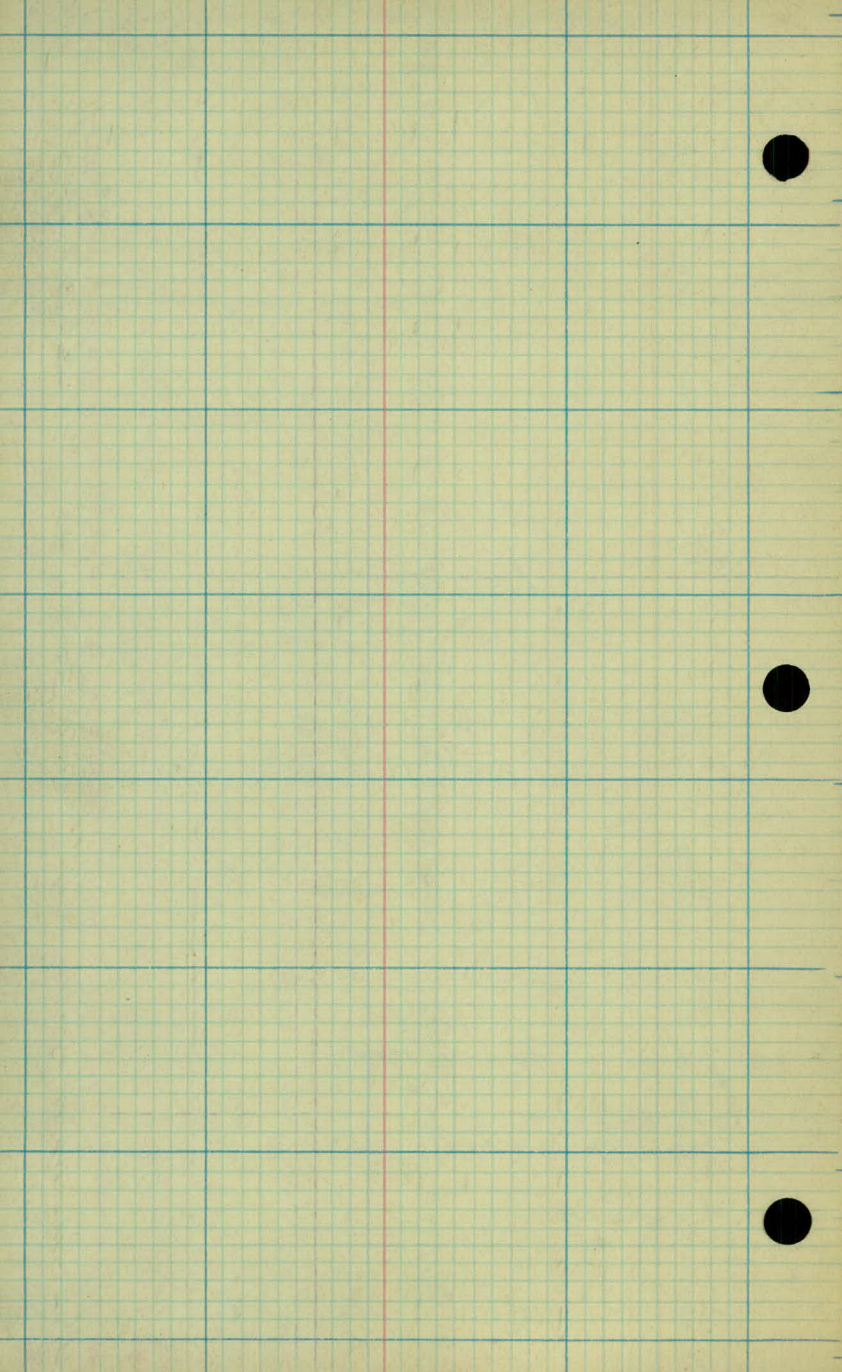
215° 25'

59

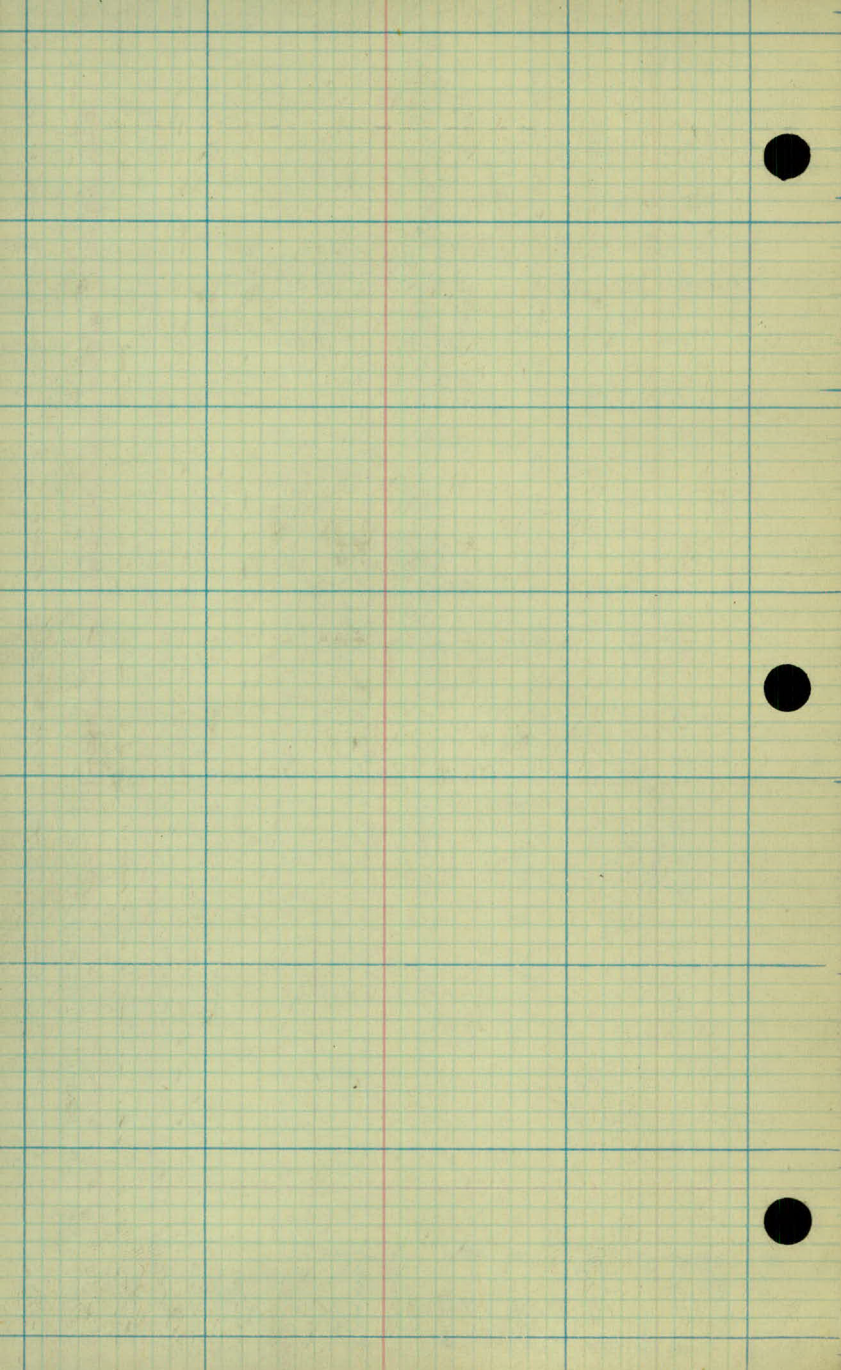
5.3



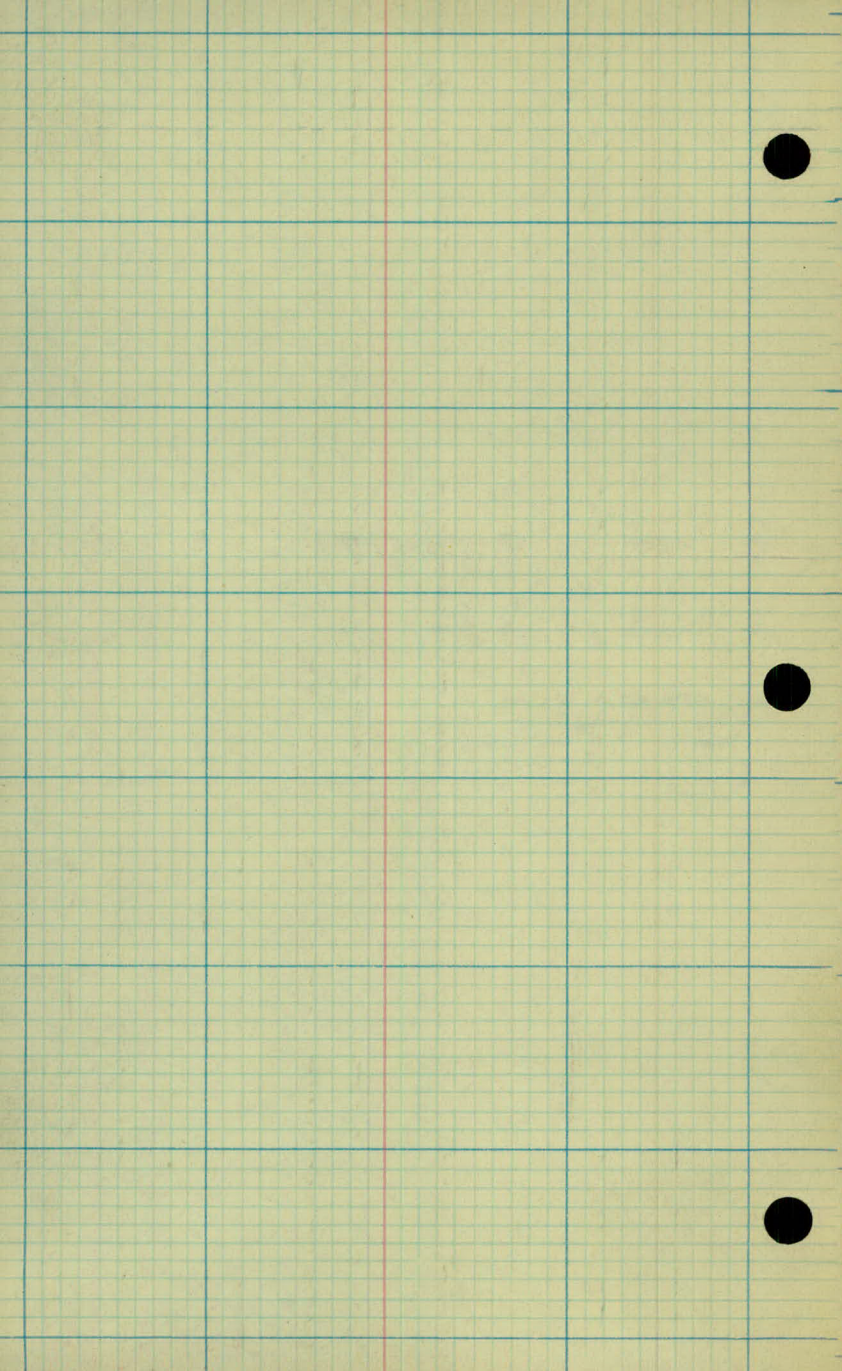
Object	Azimuth	Station	Vert	Red
Front culvert	234° 45'	274	-1° 30'	10.4 ^{6.11}
Edge	00° - 0'	114		6.65 ^{72.0}
Top shoulder W-facing line	344° 12'	121	-3° 30'	5.6 ^{74.25}
Edge flats	329° 35'	133	-4° 00'	5.2 ^{79.3}
Δ in crack	341° 45'	290	-2° 15'	5.5 ^{71.4}
Panel in flat	309° 45'	184	-3° 15'	4.9 ^{70.4}
"	331° 30'	325	-1° 45'	5.6 ^{79.9}
"	297° 05'	285	-2° 00'	5.4 ^{79.9}
"	318° 50'	405	-1° 20'	6.0 ^{79.4}
"	293° 35'	370	-1° 15'	5.8 ^{78.1}
"	311° 05'	485	-1° 10'	5.4 ^{79.9}
"	290° 30'	472	-1° 05'	6.4 ^{78.9}
"	305° 55'	580	-0° 45'	5.9 ^{74.5}
"	302° 35'	406	-1° 00'	6.0 ^{71.6}
"	315° 025'	291	-2° 00'	5.5 ^{70.2}
"	325° 55'	250	-2° 40'	5.2 ^{71.6}
"	350° 35'	205	-2° 30'	5.0 ^{79.2}
Edge to H	00° 0'	205		6.45 ^{72.1}



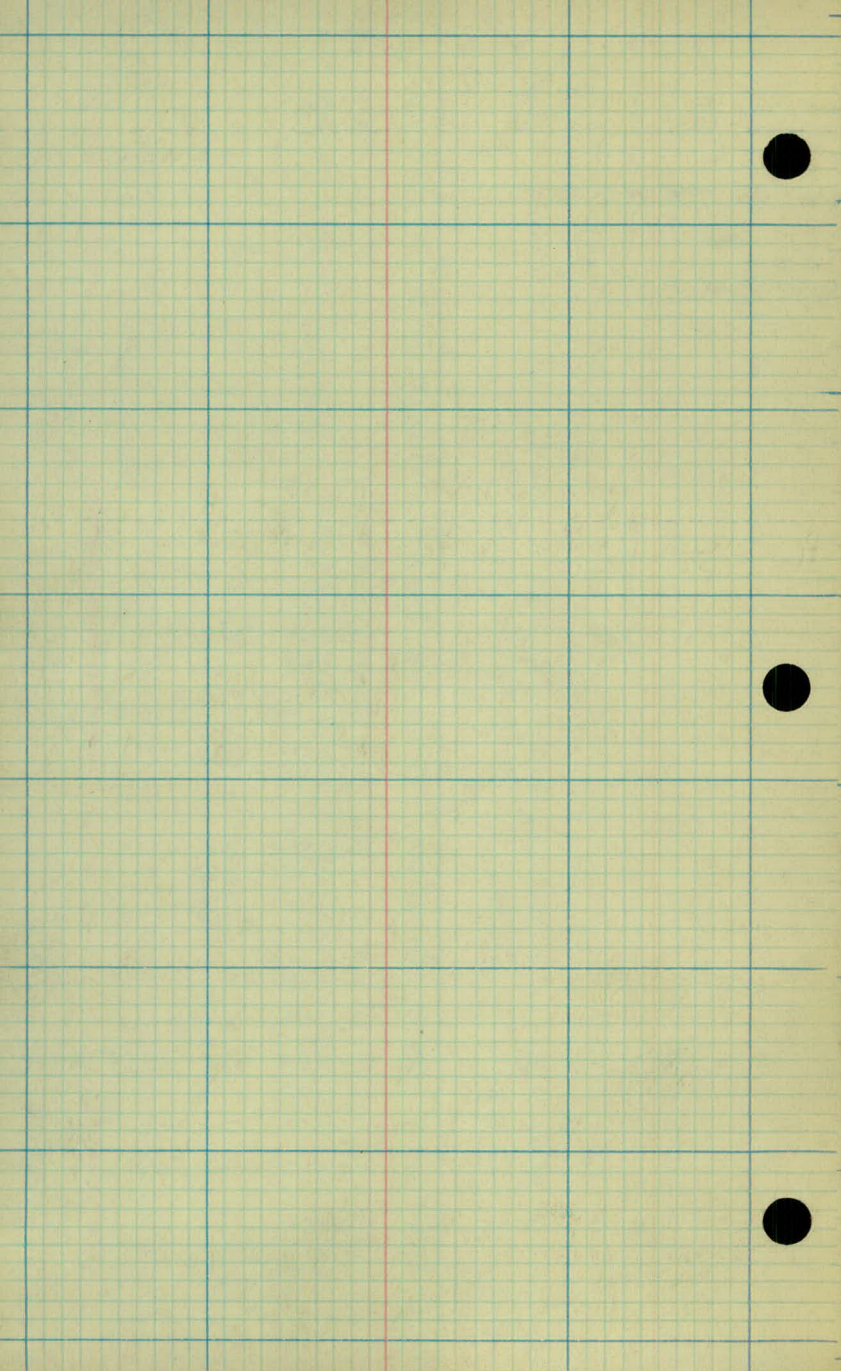
Page 3	Object	Azimuth	Stadia	Vert	Red
29	Edge of Edge of	00°-0'	380		4.60
30	Fence on N.S. & W fence	345°-00'	442	-1°-10'	5.2
31	for N shoulder fence-edge	355°-15'	380	-1°-15'	5.9
32	Edge swamp (flat)	352°-10'	492	-1°-05'	5.5
33	Point	348°-20'	400	-1°-30'	5.0
34	Edge of Plots	339°-30'	540	-1°-05'	5.7
35	Point in creek	344°-35'	255	-1°-55'	4.8
36	" " "	340°-20'	425	-1°-25'	6.1
37	E-W fence line	345°-05'	457	-1°-15'	5.2
38	Fence Car	325°-40'	535	-1°-00'	5.7
39	Point in creek	334°-50'	390	-1°-15'	4.4
40	Elev. on N. slope to Plots	352°-35'	540		9.5
41	Gravel in Plots	330°-25'	386	-1°-30'	5.9
42	Elev. on N. slope to Plots	344°-30'	565		9.2
43	Point in Plots	339°-25'	415	-1°-00'	5.6
44	Elev. on N. slope to Plots	351°-50'	517	-0°-55'	5.6
45	for N. slope-edge Plot	308°-05'	590	-0°-45'	7.0
46	Elev. on N. slope to Plot	340°-00'	600		8.0



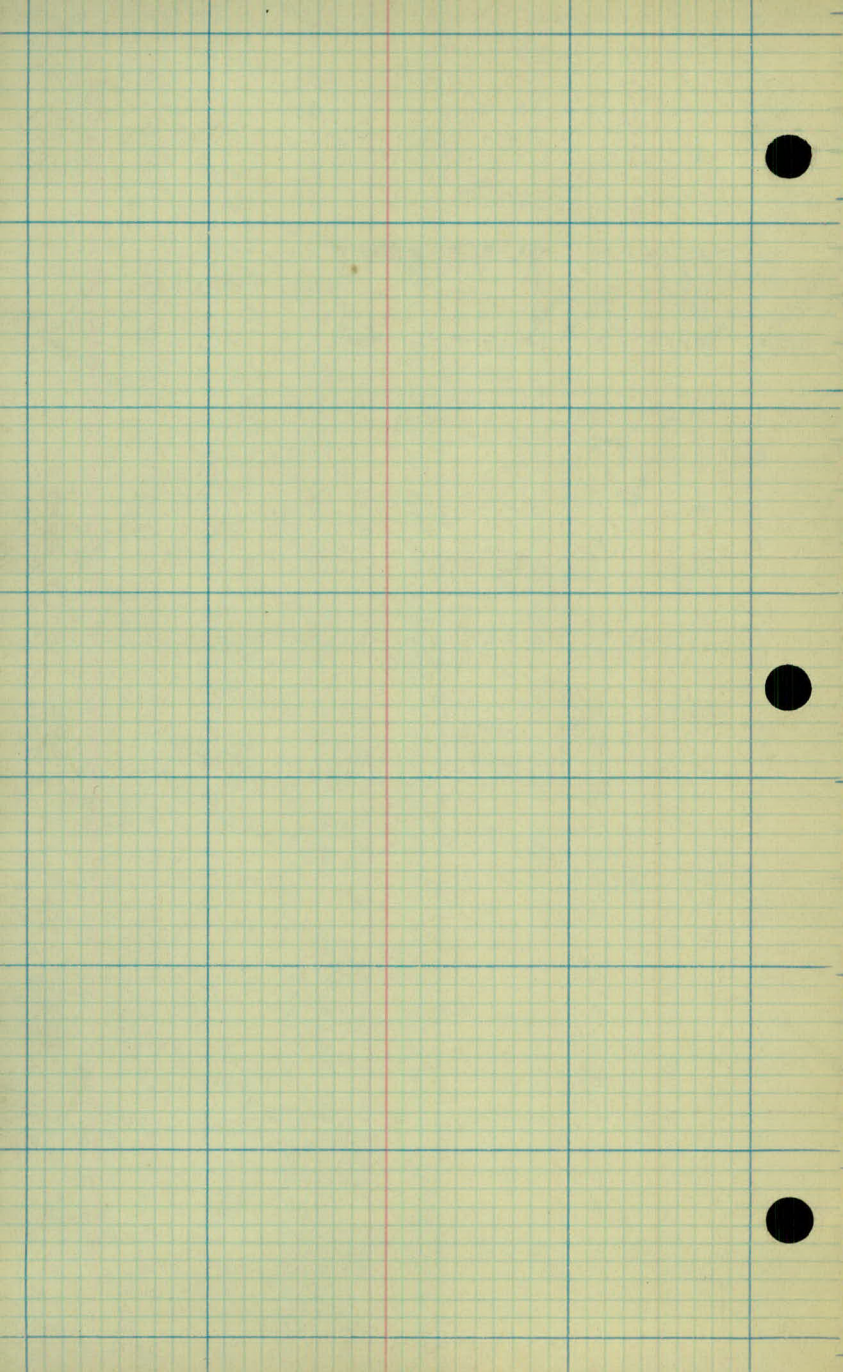
Object	Azimuth	Stadia	Vert	Red
At 0 2				
To 0.1		662		
To 0 3	181° 12'	681		7.20
Elev 870.34				
H.I. = 5.20				895.54
1 Edge Flats on N.S. fence	52° 35'	320		11.2 63.8
2 Elev. on N. slope To Flats	48° 55'	340		5.8 69.7
3 Grail in Flat	88° 30'	150		11.4 64.1
4 Elev. on N. slope To Flats	40° 10'	340		1.8 77.7
5 Grail in Flats	48° 00'	212		11.5 64.0
6 Edge Flat to N. slope	39° 50'	295		11.3 64.2
7 Δ in creek	44° 40'	235		13.0 62.5
8 Edge Flats to N. slope	32° 20'	280		10.8 64.7
9 Δ in creek - on N.S. fence	66° 30'	275		13.0 62.5
10 Elev. on N. slope To Flat	25° 45'	320		2.4 73.1
11 Δ " " " "	19° 00'	285		11.0 71.5



Page 5	Stadia	Vent
Edge flats to N. slope	19° 00'	20.5
in creek E	11°-25"	21.8
Edge flats to N.E. slope to flat	14°-00	25.5
Top of old Rd. fill	359°-00	29.0
Elev on N.E. slope to flats	80°-00'	22.5
Top of old Rd. fill	359°-30'	19.8
Elev on N.E. slope to flat	3°-35'	29.0
Top E. slope fill	3°-35'	19.4
Gravel in flat	15°-0-30'	18.6
"	44°-20	16.2
Top of old Rd. fill	0°-20'	11.0
Gravel in flat	69°-10'	12.5
N.E. to slope Rd & knoll	7°-35'	11.0
Gravel in flat	97°-10	12.3
Top of old Rd. top knoll	350°-35'	4.3
Gravel in flat	124°-05'	16.1
Elev on N.E. slope to flat	38°-00'	5.9
Top N.E. slope Rd & knoll	171°-35"	7.3
		9.5
		66.0
		11.0
		12.4
		10.8
		3.2
		3.3
		5.5
		3.4
		10.7
		11.8
		11.6
		6.0
		11.2
		8.9
		11.6
		4.3
		11.4
		7.4
		9.5
		66.0

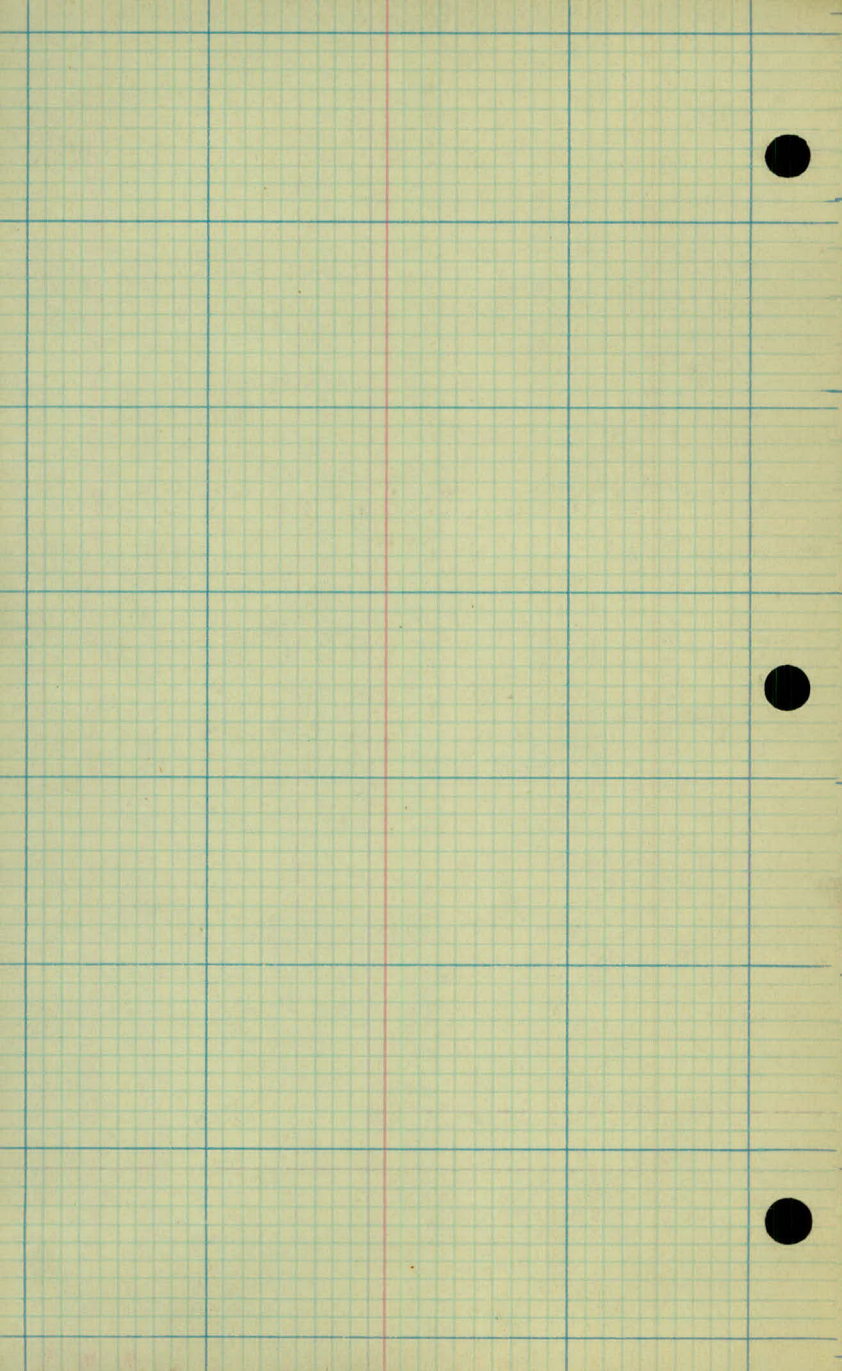


		Azi	mate	Page Stadia	Vert	Red
129	top E slope Knoll	75°30'	112			10.6 64.9
130	top old Rd fill	187°50'	74			6.3 69.2
131	top E slope Knoll	126°00'	42			9.0 66.5
132	Elev on NE slope to Rd	205°-20'	71			6.9 68.6
133	old Rd	287°-35'	9			4.1 71.4
134	Elev on NE slope to Rd	230°-30'	96			3.2 72.3
135	" " " At Rd	232°-00'	50			4.1 71.4
136	Elev on E slope to old Rd	222°-45'	179			2.3 73.2
137	" " " " " "	213°-50'	123			2.5 68.0
138	" " " " " "	211°-10'	260			4.2 71.3
139	" " " " " "	202°-50'	221			8.5 67.0
140	" " " " " "	203°-00'	390			3.1 72.9
141	" " " " " "	196°-45'	340			9.7 65.8
142	" " " " " "	200°-30'	445			4.0 71.5
143	" " " " " "	192°-45'	426			10.0 65.5
144	" " " " " "	196°-30'	545			3.3 72.2
145	" " " " " "	190°-30'	528			9.6 65.9
146	top fill on W. old Rd	183°-00'	490			11.7 63.8



Page	7	Stadio	Var	Rad
47	old	Rad		
48	toe W slope	Fi //		
49	" E "	" "		
50	old	Rad		
51	toe E slope	Fill		
52	old	Rad		
53	toe E slope	Fi //		
54	W "	" "		
55	Gen' in	Flat		
56	" "	" "		
57	" "	" "		
58	" "	" "		
59	" "	" "		
60	" "	" "		
61	" "	" "		
62	" "	" "		
63	" "	" "		
64	" "	" "		
65	" "	" "		
66	" "	" "		
67	" "	" "		
68	" "	" "		
69	" "	" "		
70	" "	" "		
71	" "	" "		
72	" "	" "		
73	" "	" "		
74	" "	" "		
75	" "	" "		
76	" "	" "		
77	" "	" "		
78	" "	" "		
79	" "	" "		
80	" "	" "		
81	" "	" "		
82	" "	" "		
83	" "	" "		
84	" "	" "		
85	" "	" "		
86	" "	" "		
87	" "	" "		
88	" "	" "		
89	" "	" "		
90	" "	" "		
91	" "	" "		
92	" "	" "		
93	" "	" "		
94	" "	" "		
95	" "	" "		
96	" "	" "		
97	" "	" "		
98	" "	" "		
99	" "	" "		
100	" "	" "		

///



At 0.3

to 0.2

to 0.4

HI = 5.15'

Elev = 868.34

= 873.49

1 for E slope old fill

2 ϕ old Road

3 for W. slope old fill

4 Elev on E slope = 7° 16' Rd

5 " " " " " "

6 ϕ old Rd

7 Elev on E slope to old Rd

8 ϕ old Rd

9 Elev on E slope to old Rd

10 " on SE slope to flat

11 ϕ old Rd

12 Edge of lot

68.2

441

111° 02'

102

101

108

130

151

12

62

70

24

121

28

123

9.0 64.5

7.4 66.1

8.8 64.7

7.3 66.2

2.3 71.2

5.6 67.9

2.0 71.5

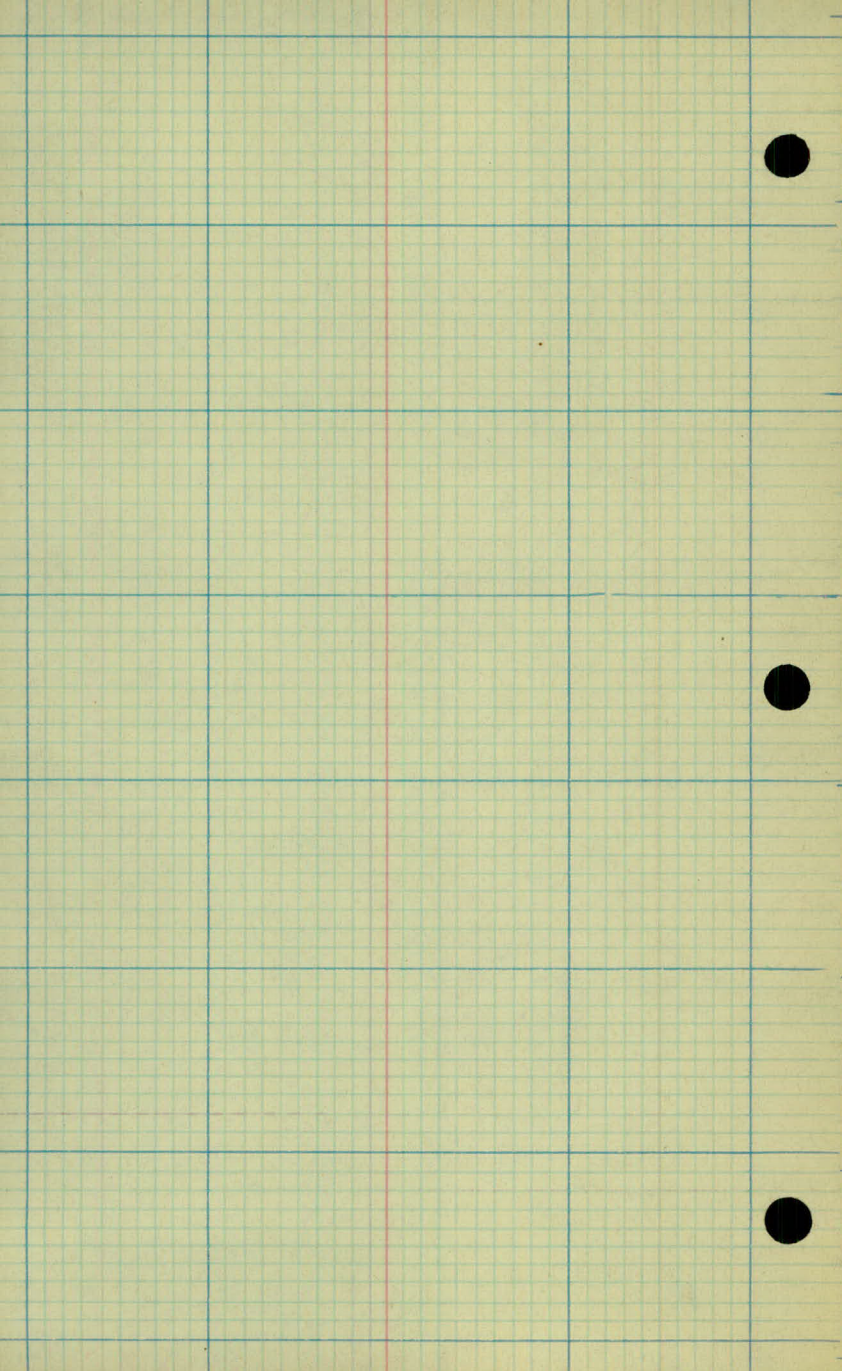
3.3 70.2

6.4 67.1

2.3 71.2

6.1 67.4

6.3 67.2



Age	Stadia	Vert	Pod
10.2 633	71		
9.0 645	23		
6.2 673	122		
9.7 688	120		
2.4 711	196		
7.9 656	186		
5.3 682	200		
7.5 660	266		
1.2 723	250		
8.7 648	310		
5.0 683	263		
5.4 681	310		
6.1 674	308		
5.0 683	300		
5.4 681	246		
6.1 674	347		
5.7 678	302		
/			

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/			

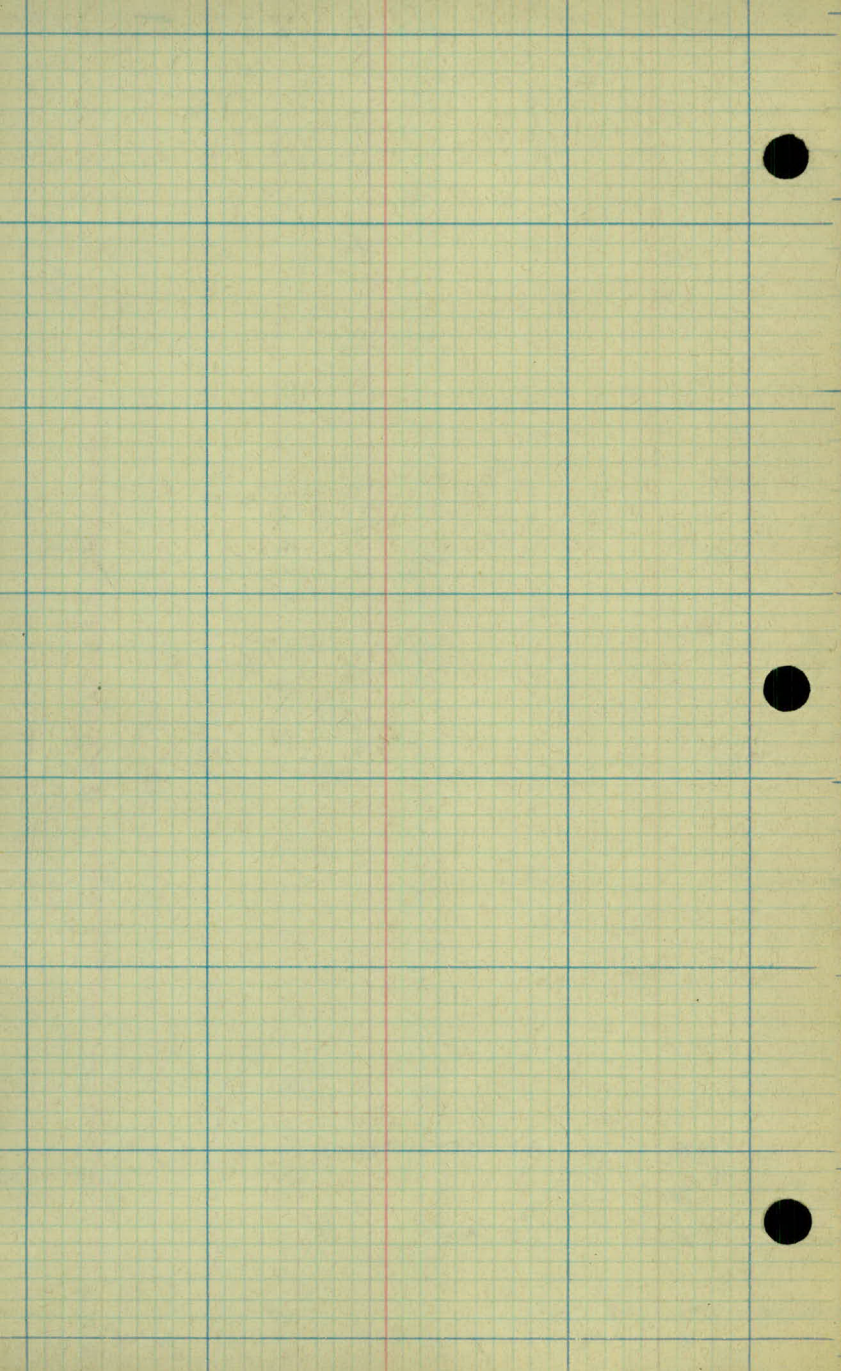
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8.7 648	310		
5.0 683	263		
5.4 681	310		
6.1 674	308		
5.0 683	300		
5.4 681	246		
6.1 674	347		
5.7 678	302		
/			



Azimuth Station Vert

Rod

At 0 4

to 0 3

to 0 1

HI = 5.10

Elev = 870.99

876.09

1 Elev on S. slope to flat

Edge flat

2 Elev on S. slope to flat

Edge flat

3 Elev on S. slope to flat

Edge flat

4 Elev on S. slope to flat

Edge flat

5 Elev on S. slope to W. slope Edge

also fence line

6 Elev on S. slope to W. slope Edge

442

504

18°-01'

3.0

107

95

111

125

62

72

61

121

68

196

124

3.0

8.4

2.7

9.0

1.6

8.2

1.8

6.8

2.7

4.6

1.0

73.1

67.7

73.4

67.1

74.5

67.9

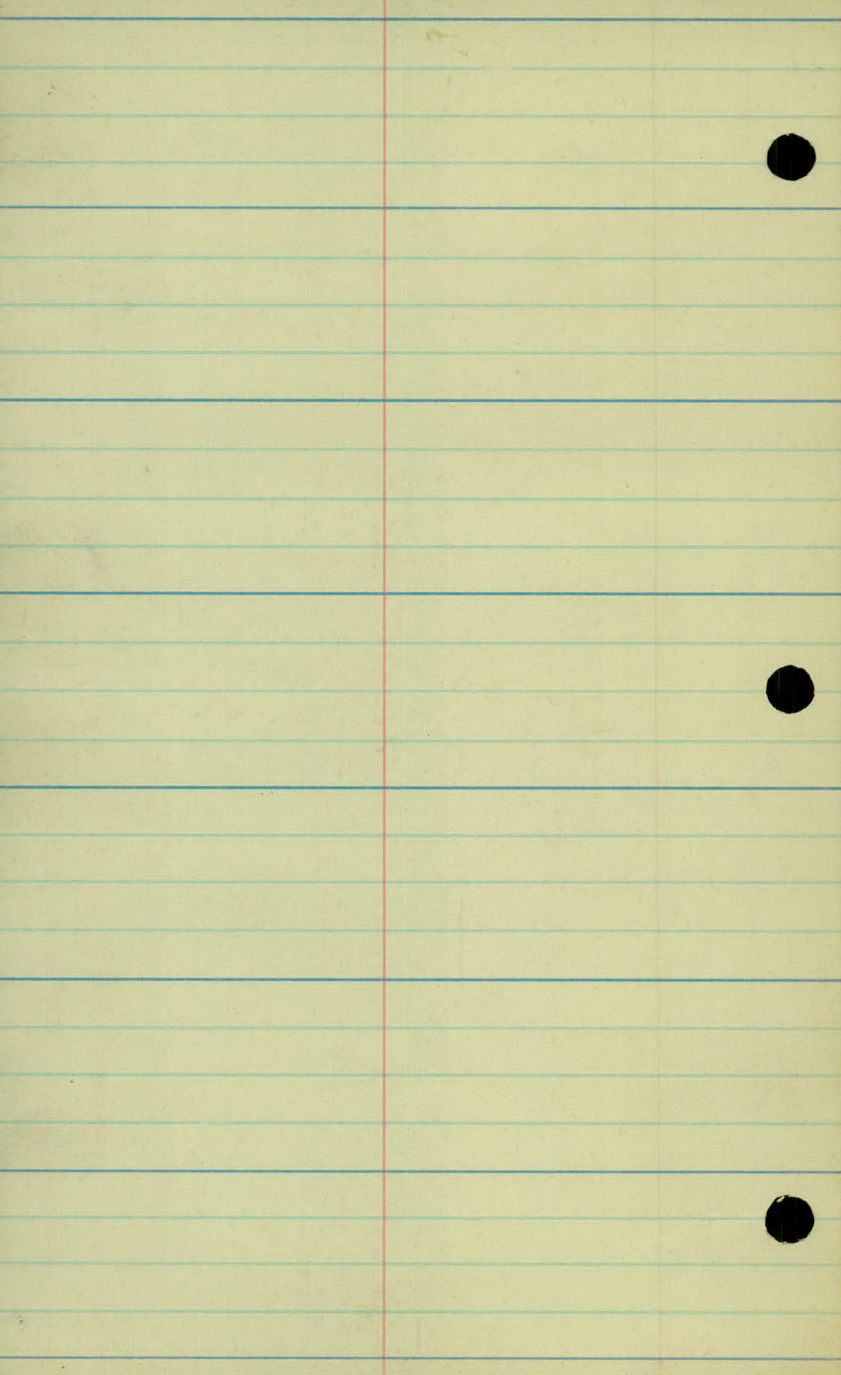
74.5

69.3

73.4

69.5

75.1



Page 11		Azimuth	Stacks	Vert	Pod
13	for N. slope	Edge to fence	28°-00	260	5.1 71.0
14	A/SO	N. slope	Knoll →		
15	Elev on S. slope	to flat	71-00	39	6.4 69.7
16	Edge flat		22-55	245	8.4 67.7
17	Elev on S. slope	to flat	321-10	39	5.9 70.2
18	" " "	" "	230-00	25	4.0 72.1
19	Knoll in flat		5°-25	284	8.3 67.8
20	" " "	" "	337-05	189	8.4 67.7
21	" " "	" "	356-45	305	9.0 67.1
22	" " "	" "	335-15	261	7.8 68.3
23	" " "	" "	342-40	203	8.5 67.6
24	" " "	" "	338-30	335	11.3 64.8

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