

BLACK HAWK
COUNTY Drain #7

Book I
LEVEL BOOK

370
Topography

1076

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Tables for Excavations and Embankments.

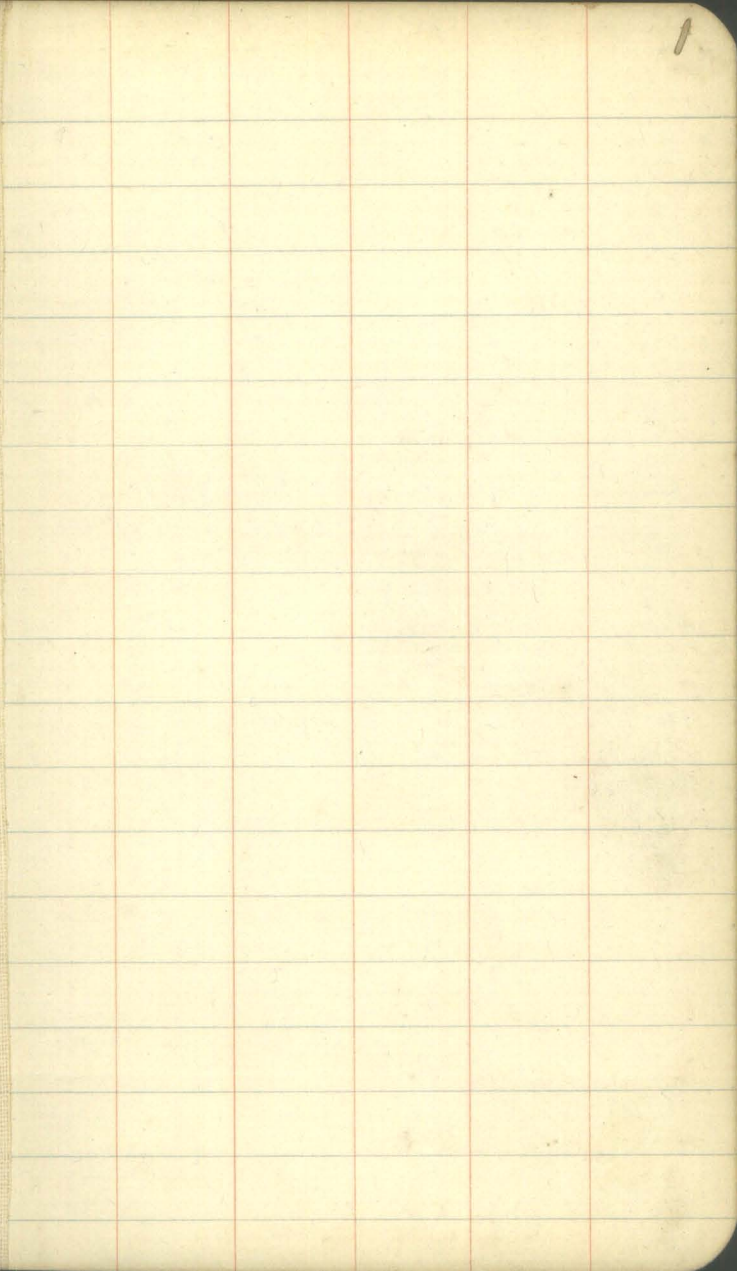
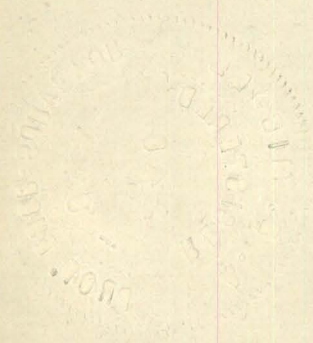
DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

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	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
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11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
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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
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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.

FILED
FEB 10 '20
COUNTY AUDITOR



2 Black Hawk County
Drainage Dis No. 7.
L Dis MB

40		
B5	0	N88 $\frac{1}{4}$ E
1 H	170 $\frac{1}{4}$	230
2 H	213	170
3 H	256	190
11 A	265 $\frac{1}{4}$	240
4 H	254 $\frac{3}{4}$	335-
12 A	274 $\frac{1}{2}$	300
5 H	242 $\frac{1}{4}$	370
13 A	289	285-
14 A	277	370
6 H	219 $\frac{1}{2}$	570
15 A	303 $\frac{1}{2}$	490
16 A	308 $\frac{1}{4}$	610
7 H	270 $\frac{3}{4}$	320
17 A	306 $\frac{3}{4}$	710
8 H	287 $\frac{1}{2}$	310

Oct 11, 1919 3
A. E. Michel Chief Eng } Cold & Hazy
R. W. Farrell Inst. }
H. Clark Rodman }

On S $\frac{1}{4}$ cor Sec 27

Along E road E

E end of bridge

E bank turn of creek

" " " "

Junction of creek & B.D. ditch

Creek

B.D.

Creek

B.D.

"

Creek runs due N from here

B.D.

"

W side B.D.

B.D.

¹⁸A 303 $\frac{1}{2}$ 820

B.D.

⁹H 297 $\frac{1}{2}$ 480

¹⁹A 308 880

B.D.

¹⁰H 300 $\frac{1}{4}$ 690

²⁰A 306 $\frac{3}{4}$ 1020

B.D.

H 293 $\frac{3}{4}$ 790

H 297 $\frac{3}{4}$ 860

²¹A 305 $\frac{1}{2}$ 1180

B.D.

H 304 $\frac{1}{2}$ 940

²²A 305 $\frac{1}{2}$ 1360

B.D.

H 304 1100

²³A 305 1600

B.D.

A 314 $\frac{1}{2}$ 1840

property corner

Δ I 319° 31' 1700 N 51 $\frac{1}{4}$ E

H 358 $\frac{1}{4}$ 460

on road right of way note

H 358 $\frac{3}{4}$ 635

" " " " " "

H 356 $\frac{3}{4}$ 740

L Dis M.B.

H 352 $\frac{1}{4}$ 780

H 342 640

H 327 $\frac{3}{4}$ 670A 359 $\frac{3}{4}$ 1320

H 324 820

H 323 1040

H 320 1320

H 338 $\frac{1}{4}$ 1340H 337 $\frac{1}{2}$ 1280H 343 $\frac{1}{2}$ 1120H 348 $\frac{1}{2}$ 940Tie 303° 30' N 35 $\frac{1}{4}$ EA 358 $\frac{3}{4}$ 1960On A L

BSAO 0 1690 S 51 W

H 309 $\frac{1}{4}$ 1100H 308 $\frac{1}{4}$ 810

on island

E road E fence N

close island

Chimney on white farm house

fence corner

near fence

Cor.

fence N & S & N fence E W road

N & S prop. fence

A 279 $\frac{3}{4}$ 1260

H 131 $\frac{3}{4}$ 215-

H 73 $\frac{1}{4}$ 450

H 25 270

H 59 215-

H 132 $\frac{3}{4}$ 140

H 218 100

H 288 $\frac{1}{2}$ 230

A 298 $\frac{1}{4}$ 1110

H 309 480

A 287 $\frac{3}{4}$ 990

H 318 $\frac{3}{4}$ 650

A 280 760

H 328 $\frac{1}{4}$ 990

A 272 1050

A 266 $\frac{1}{4}$ 930

A 260 810

same cor. given by A. page 6

fence corner

same as given by A. page 4.

prop. cor.

on island, Make this a part
of same island run from A-O

N&S fence & island

on top of connect with H shots
along road before starting island

N&S fence & island

Close with island from A-O

A 250 $\frac{3}{4}$ 740H 29 $\frac{1}{2}$ 720A 226 $\frac{1}{2}$ 780H 46 $\frac{1}{4}$ 620A 228 $\frac{3}{4}$ 1080

H 64 590

A 228 $\frac{1}{4}$ 1340A 232 $\frac{3}{4}$ 1500

H 86 550

A 236 1600

H 97 $\frac{3}{4}$ 620 ✓A 235 $\frac{1}{4}$ 1660H 91 $\frac{1}{2}$ 800A 230 $\frac{3}{4}$ 1660H 98 $\frac{1}{2}$ 930A 230 $\frac{1}{2}$ 1480A 224 $\frac{1}{2}$ 1400

F.S.

Resume topog on W side B.D.

F.S.

fence E&W

H	128 $\frac{3}{4}$	800
H	147 $\frac{1}{4}$	610
H	167 $\frac{3}{4}$	520
H	188	620
A	223 $\frac{1}{2}$	1560
H	186 $\frac{3}{4}$	820
A	218 $\frac{1}{2}$	1560
H	179 $\frac{1}{2}$	850
A	219 $\frac{1}{4}$	1360
H	171 $\frac{1}{2}$	960
A	216 $\frac{1}{2}$	1260
H	172 $\frac{1}{2}$	1100
A	211	1320
A	197 $\frac{1}{4}$	1400
H	185 $\frac{3}{4}$	1180
H	185 $\frac{1}{4}$	1400
X	185$\frac{1}{2}$	1260

fence cor ?

fence N 25

$\Delta 2$ 176°12' 1350 N 47½°E

On $\Delta 2$

354-1 0 1350 S 47½°W

H 314¾ 310

H 294¾ 210

H 250½ 240

H 221½ 240

H 192 300

H 163¾ 420

H 145¾ 440

H 130½ 495

H 123¾ 635

H 117½ 780

H 105 920

H 96 980

H 96½ 1120

H 88 1300

Start Sat afternoon Oct. 11

↔ large willows 100' E of here in

scattered row N.B.S. for 500'

H	82 $\frac{3}{4}$	1400
H	75 $\frac{1}{2}$	1420
H	72 $\frac{1}{4}$	1560
H	78 $\frac{1}{4}$	1460
A	267 $\frac{1}{4}$	470
H	89 $\frac{1}{4}$	1700
A	243 $\frac{1}{2}$	510
H	92 $\frac{1}{4}$	1440
H	101 $\frac{1}{2}$	1340
A	229 $\frac{3}{4}$	900
H	109 $\frac{3}{4}$	1240
H	113	1380
A	228	1208
H	123 $\frac{1}{4}$	1300
A	233 $\frac{1}{2}$	1360
H	129 $\frac{3}{4}$	1380
H	133 $\frac{1}{2}$	1440

prop fence

A 244 $\frac{3}{4}$ 1400 Δ -3 155°-59' 1460 N23 $\frac{3}{4}$ EA 254 $\frac{3}{4}$ 1520A 257 $\frac{3}{4}$ 1600A 249 $\frac{1}{2}$ 1640 Δ 4 239°-46' 1790 577 $\frac{1}{2}$ EOn Δ -4B5 Δ -2 0 1790 N77 $\frac{1}{2}$ W Δ -3 44°-43' N32 $\frac{3}{4}$ WH 3 $\frac{1}{4}$ 1260

starting on draw running E

H 8 $\frac{1}{4}$ 1020

H 19 930

Tie 166°-6' N22 $\frac{1}{2}$ E

chimney on white farm house

H 29 $\frac{3}{4}$ 920H 38 $\frac{1}{2}$ 790H 55 $\frac{3}{4}$ 660

H 74 475

N&S fence

A	281½	100
H	26¾	350
A	208	90
A	155¼	60
H	106	475
A	98	75
A	342¼	130
A	281½	100
A	290¾	440
A	269	420
H	114¾	590
H	110	690
A	260½	730
H	109¾	820
A	250¼	780
H	116¼	980
A	242½	860

NBS fence start island

NBS fence

close island

Resume topog

NBS fence

Cross over

crossed over

H 123 $\frac{3}{4}$ 1135A 243 $\frac{1}{4}$ 1090H 124 $\frac{1}{4}$ 1300A 240 $\frac{3}{4}$ 1030A 240 $\frac{3}{4}$ 920H 136 $\frac{1}{4}$ 1480A 237 $\frac{1}{2}$ 890H 136 $\frac{1}{4}$ 1520

A 224 1020

H 141 1060

A 219 1270

H 144 $\frac{1}{2}$ 1800A 215 $\frac{1}{2}$ 1240A 218 $\frac{1}{2}$ 960H 159 $\frac{1}{2}$ 1620A 224 $\frac{1}{2}$ 790

H 165 1580

CROSS over

ERW fence

A. CROSS

CROSS over

A. CROSS

A 237 $\frac{3}{4}$ 760

A 248 670

H 171 1460

A 253 $\frac{1}{4}$ 580H 175 $\frac{1}{4}$ 1440

A 251 490

A 232 $\frac{1}{2}$ 520

A 232 420

A 242 370

H 185 $\frac{1}{4}$ 1600A 210 $\frac{1}{2}$ 325A 188 $\frac{3}{4}$ 450

A 181 640

H 209 1560

A 184 $\frac{1}{4}$ 765A 189 $\frac{1}{4}$ 850

H 200 1220

A 194 900

750

A 5 223°-11' 1580 S 39½° E

870

A 6 163°-55' 1940 N 86½° E

On A 5

BS. A 4 0 1600 N 39½° W

A 3 0°-52' N 33½° W

A 329¾ 720

A 325 610

A 316½ 490

H 333¼ 700

A 306 215

H 332¾ 510

A 275 130

H 328¼ 310

A 271¼ 175

H 310¼ 110

A 199½ 330

close with A last reading

start at A's cross over

start same cross over

A 203 $\frac{1}{4}$ 450H 190 $\frac{3}{4}$ 225A 192 $\frac{3}{4}$ 590A 191 $\frac{1}{2}$ 680H 189 $\frac{1}{2}$ 520A 183 $\frac{1}{2}$ 635H 177 $\frac{1}{2}$ 560H 176 $\frac{3}{4}$ 570Tie
Point 199°55' 1070 569 $\frac{1}{2}$ EA-G 70°6' 1780 N 35 $\frac{3}{4}$ E

Start. Mon Oct. 13, 1919 ✓

O.A. 7

B.S. & G. 0 1440 N. 8° W

A 340 1280

H 344 1160

H 349 $\frac{3}{4}$ 1030H 7 $\frac{1}{4}$ 920

E road E & W

E road E & W

close with A's last reading

 $\frac{1}{4}$ cor E road E & W fence NBS
in E & W road

Set without fore sight

on narrow drain

H	358 $\frac{3}{4}$	910
H	6 $\frac{3}{4}$	830
H	13 $\frac{3}{4}$	770
H	18	680
H	41	560
H	56 $\frac{1}{4}$	575
H	65 $\frac{1}{4}$	520
H	74	590
H	83	560
H	93 $\frac{1}{4}$	560
H	98 $\frac{1}{4}$	590
H	109 $\frac{1}{4}$	600
H	121 $\frac{3}{4}$	680
H	127 $\frac{1}{2}$	820
H	129 $\frac{1}{4}$	1040
H	135 $\frac{1}{4}$	880
H	130 $\frac{1}{4}$	1100

narrow draw widens out next
shot on regular topog.

NBS fence

to road E & W

to road E & W & culvert not on
topog

H 133 $\frac{1}{2}$ 1160 $\Delta - 8$ 140° 51' 2080 547 $\frac{1}{2}$ EH 142 $\frac{1}{2}$ 1240H 139 $\frac{3}{4}$ 1180H 133 $\frac{1}{2}$ 980H 138 $\frac{3}{4}$ 870H 139 $\frac{1}{2}$ 800H 131 $\frac{3}{4}$ 650H 126 $\frac{1}{4}$ 590H 129 $\frac{3}{4}$ 540H 122 $\frac{3}{4}$ 590H 114 $\frac{1}{4}$ 550H 109 $\frac{1}{4}$ 485H 100 $\frac{1}{4}$ 530H 85 $\frac{3}{4}$ 500H 73 $\frac{1}{2}$ 480H 62 $\frac{1}{4}$ 440

cross over

a. cross

Road E & W

N & S fence

H 44 460

H 31 $\frac{3}{4}$ 490H 12 $\frac{3}{4}$ 610H 6 $\frac{3}{4}$ 680

H 4 790

 Δ 4 309° 10' N59W Δ 5 276° 45' S88 $\frac{3}{4}$ WOn Δ 8B507 0 2080 N47 $\frac{1}{2}$ WH 4 $\frac{1}{2}$ 870H 7 $\frac{3}{4}$ 790H 22 $\frac{1}{4}$ 650

H 40 570

H 55 $\frac{1}{2}$ 490H 75 $\frac{1}{4}$ 455H 80 $\frac{3}{4}$ 380H 91 $\frac{1}{4}$ 450

connect with narrow draw

start at cross over

large boulder (on top of)

to N & S road

to N & S road & culvert not on top of

H	$108\frac{3}{4}$	510
H	$122\frac{1}{2}$	690
H	$136\frac{1}{2}$	750
H	$138\frac{3}{4}$	810
H	$147\frac{3}{4}$	810
H	$150\frac{1}{2}$	740
H	148	620
H	$139\frac{1}{4}$	490
H	$122\frac{1}{4}$	370
H	93	290
H	$78\frac{1}{2}$	280
H	$43\frac{1}{4}$	350
H	$26\frac{1}{2}$	400
H	$13\frac{3}{4}$	550
H	$9\frac{1}{4}$	670
H	$0\frac{3}{4}$	770
H	$1\frac{3}{4}$	680

2 N 25 road

H 343½ 560

H 340¾ 540

H 333½ 500

H 320¾ 430

H 296¾ 380

H 268¾ 380

H 244 450

H 232½ 490

H 209¾ 610

H 210¾ 660

H 209¾ 740

H 212¾ 720

H 217¾ 680

H 234¾ 570

H 235½ 690

H 231¾ 830

H 225½ 750

E & W fence N.G.

4 N & S road, Cross over

4 N & S road Culvert 4" Tile
dumps E. of culvert

A - Cross.

4 N & S road

H 223½ 1080

H 225 1200

H 231½ 1200

H 236 1100

H 239¾ 910

H 247½ 750

H 250 1100

H 249 1220

H 249 1300

H 251½ 1280

H 253 1200

H 254 1070

H 248½ 800

A 71¾ 930

H 247¼ 700

H 254½ 570

A 9 82°-4' ^{57°} 980 N 35 E

Tile

Cor road E & W & road N

H 270½ 510

A 62 880

H 293½ 500

H 298¾ 530

H 317¾ 530

H 330¾ 580

H 326¾ 690

Tie
Point 344°-18' 2040 N63W

Δ G 15°-49' N31½W

H 336 680

H 342½ 690

H 351½ 770

H 358½ 880

H 3 760

A 205 700

A 202¼ 820

A 209¼ 800

Road E & W & road S

Tie running SW from draw

in E & W road same as on page 28

E & W fence

Close with cross over

on H's cross over page 38

Start Mon afternoon

On A 6

BS 49 0 ⁹⁸⁴ 1960 S 86½ W

Δ 5 309°-24' S 35¾ W

Δ 7 265°-32' S 8 E

Δ 8 242°-12' S 31½ E

A 327¾ 630

A 331 570

A 300½ 370

A 266 340

A 259¼ 170

A 218¾ 360

A 217¾ 480

A 219¼ 690

H 52 1020

A 217½ 730

H 55½ 800

A 205¾ 710

start on draw H crossed over
between these readings and
inst. point is partially cultivated

cor fence E W & N S

start on draw H crossed over

N. S. fence

H 70 675

A $197\frac{1}{2}$ 630A $197\frac{3}{4}$ 675H $91\frac{1}{4}$ 590A $199\frac{1}{4}$ 840H $108\frac{1}{2}$ 510A $200\frac{1}{4}$ ⁴⁷⁰ 940H $122\frac{1}{2}$ 590A $196\frac{1}{4}$ 950H $131\frac{1}{2}$ 750A $193\frac{3}{4}$ 840H $127\frac{1}{2}$ 870A $190\frac{1}{2}$ 800H $121\frac{1}{2}$ 720A $180\frac{3}{4}$ 660H $115\frac{3}{4}$ 1040

A 160 615

N.S. fence

cross over

a. cross

E W fence

N.S. fence

H ⁵⁰⁰ 115½ 1120

A 152¼ 735

H 121¾ 1160

A 165½ 800

H 125½ 1130

A 174½ 820

H 134½ 1140

A 183½ 890

H 137 985

A 185¼ 1000

H 137½ 1140

H 142 1240

H 142¼ 1400

Δ 10 ⁷⁵⁰ 179:51' 1560 N 86¼ E

H 148 1900

On Δ 10

B.S. Δ 6 0 ⁷⁵⁰ 1560 S 86¼ W

Cross over

cor EW & N.S. fence ^{not on} topog

H	49½	850
H	53½	680
H	61¼	610
H	78¾	610
H	81½	710
H	95¾	690
H	110½	860
H	114	830
H	129	670
H	131¾	630
H	140	680
H	148	740
H	140½	815
H	131¾	730
H	155	690
H	161	760
H	156¾	790

E.W fence

E.W fence

E.W fence

E N.S road

cor. road S & road W

" " N & " E

E N.S road & colvert

Tile

N

School

H 162 $\frac{1}{4}$ 920H 168 $\frac{1}{4}$ 1140

H 177 1120

H 174 $\frac{1}{4}$ 1080H 172 $\frac{1}{4}$ 940H 169 $\frac{1}{4}$ 810H 165 $\frac{1}{4}$ 630H 162 $\frac{3}{4}$ 550

H 157 450

H 164 $\frac{3}{4}$ 330

H 84 270

H 59 $\frac{1}{2}$ 280H 35 $\frac{1}{2}$ 340H 20 $\frac{1}{2}$ 340H 3 $\frac{3}{4}$ 280H 4 $\frac{1}{4}$ 350H 13 $\frac{1}{2}$ 400

cross over

a-cross

Tile

N.S. road

H	10 $\frac{1}{4}$	460
H	0 $\frac{1}{2}$	520
H	350 $\frac{1}{2}$	570
H	337	700
H	330	600
H	313 $\frac{1}{2}$	520
H	305 $\frac{1}{4}$	530
H	291 $\frac{3}{4}$	570
H	272 $\frac{3}{4}$	580
H	258 $\frac{3}{4}$	730
H	252 $\frac{1}{4}$	840
H	264 $\frac{1}{2}$	940
H	269 $\frac{1}{4}$	850
H	275 $\frac{3}{4}$	770
H	288 $\frac{3}{4}$	720
H	309 $\frac{1}{4}$	630
H	320 $\frac{1}{2}$	650

close with As readings
start at As ^{N side of draw} cross over

EW fence

Cross over

a-cross

N.S. fence

H 329½ 710

H 333¾ 740

Δ 11 159°-34' 1220 N66E

P35

Δ 12 250°-15' 1670 S23½E

On Δ 12

BS Δ 10 0 1670 N23½W

H 358 850

H 2½ 730

H 6½ 640

H 19¼ 540

H 12 495

H 23 410

H 41½ 360

H 48½ 325

H 89 390

H 102¼ 500

H 106¼ 570

close with A's readings

Note:

Topog taken from Δ 12 and lying
E of N 65 road and N of E & W road
is not slough land but is low land
overflowed from above

starting at cross over

Δ N.S. road

Δ N.S. road & culvert

Tile

Tile

166+29 = field gate N-Ridge
158+55 = 5/4 cor 22-89-1
185+73 = cor sec 22-23-26-2
187+78 = ϕ 14'x16' Br.
199+91 = ϕ 16'x16' Br. ✓
225+63 = ϕ 16'x16' " ✓
238+45 = cor sec 23-24-25
257+81 = 2'x2' Conc. Box
264+90 = 1/4 Cor 24+25 ✓
277+93 = 2'x2' Conc. Box
283+02 = 2'x2' " "
291+26 = Typ Line
306+72.5 = 1 1/2 x 2 Conc. Culv.
271 = Ridge

J W Brandt

629 Cedar Rapids
Savings Bank.

Sat ^{1/2} 22-23 | 24-^{1/2} 19

$$185 + 39 = \text{fence f.}$$

$$185 + 74 = \text{" N.}$$

$$172 + 20 = \text{" S}$$

$$172 + 07 = \text{" N}$$

$$172 + 20 = \text{" S}$$

$$225 + 21.5 = \text{" N + S}$$

$$252 + 08 = \text{" N}$$

$$278 + 07 = \text{" N}$$

$$304 + 57 = \text{" S}$$

$$318 + 36 = \text{" S}$$

$$318 + 53 = \text{" N}$$

H	110 $\frac{1}{4}$	670
H	104 $\frac{1}{4}$	910
H	118	1090
Δ 13	132°-19' ^{59"} 1190	571 $\frac{1}{4}$ E
H	125	680
H	129 $\frac{3}{4}$	500
H	130 $\frac{3}{4}$	460
H	144 $\frac{1}{2}$	640
H	146	830
H	150 $\frac{3}{4}$	820
H	149 $\frac{1}{4}$	1010
H	152 $\frac{3}{4}$	930
H	147 $\frac{3}{4}$	1190
H	149 $\frac{3}{4}$	1260
H	150 $\frac{3}{4}$	1280
H	152	1300
H	151 $\frac{1}{2}$	1160

Note:-

The tile shots up to this point are in a small ditch which is outlet for low land above ditch is so small no topog was run

Tile

Tile

Q road E & W

Q road E & W & Culvert

N&S fence
cross over
N&S fence
a cross

Note. This draw runs SE from this cross over for 250'. 3" tile outlet at head draw is narrow ditch

H 153½ 900

H 152¼ 770

H 147 590

H 124¾ 320

H 49 225-

H 31¼ 230

H 6¼ 315-

H 355¼ 355-

H 351¾ 550

H 342¾ 800

H 214¼ ²⁵⁰ 560

Δ 9 197°10' 610 S6¼E

ON Δ 13

BS Δ 12 0 N71¼W

Δ 9 329°25' 1080 S78¼W

H 112¼ 330

H 142½ 430

E & W road

Close with H cross over
cor E & W road & road NH on Topog to be connected
to narrow drain shown by tile
line run from Δ 12

H 154³/₄ 625H 151³/₄ 730

H 159 850

H 163¹/₂ 950

H 170 910

H 169 620

H 163 500

H 197¹/₄ 350H 112³/₄ 300

Start Tues. Oct. 14 1919 ✓

On 11

BSΔ 10 O 1220 S66W

A 290¹/₂ 150A 289¹/₄ 240H 357¹/₂ 455A 287³/₄ 420

A 259 350

N&S fence. Topog E of
this fence is cultivated but
needs drainage W of
fence is pasture

N&S fence

close with narrow draw noted
above

start on H's cross over

10" Tile outlet.

Tile

H	$294\frac{3}{4}$	390
H	286	410
A	293	680
H	$268\frac{1}{4}$	530
A	$291\frac{1}{4}$	790
H	270	690
A	235	1050
H	$259\frac{3}{4}$	690
A	230	1200
H	$250\frac{1}{4}$	800
A	$223\frac{1}{2}$	1300
H	$245\frac{1}{4}$	960
H	$244\frac{3}{4}$	1000
A	$219\frac{1}{2}$	1400
H	$240\frac{1}{4}$	1130
A	226	1360
H	$239\frac{1}{4}$	1320

start at cross over

Tile

Tile runs south

Tile

A 231½ 1320

Δ 14 231°-3' 1480 S63¼E

On Δ 14

BS Δ 11 0 1480 N63¼W

A 356 170

A 339¼ 160

A 275½ 40

A 208¾ 130

A 194¼ 230

H 311¾ 250

A 190 370

H 269½ 180

A 188½ 530

H 240¾ 270

A 171½ 675

H 206 410

A 174¼ 740

N.S fence & Cross over

Tile

H 204½ 560

A 175¾ 690

H 203½ 700

A 176¾ 650

H 203 720

A 190½ 400

H 198 875-

H 202¼ 880

A 178¾ 650

H 202¾ 960

A 191 640

H 203¾ 1030

A 199 840

H 205¾ 1200

H 203 1360

A 199¾ 1020

H 201½ 1560

tile

tile

tile

tile

crossed over

NS fence

fence

H 202 $\frac{3}{4}$ 1640
 A 190 1420
 H 204 1780
 H 201 $\frac{3}{4}$ 1800
 A 181 $\frac{3}{4}$ 1580
 H 193 $\frac{3}{4}$ 1840
 A 187 $\frac{3}{4}$ 1720
 H 200 920

On $\Delta 10$

BSA 6 0 586 $\frac{1}{4}$ W
 $\Delta - 15$ 117°-48' 1060 N 24 E

On $\Delta 15$

BSA 10 0 1060 524 W
 A 334 170
 A 37 $\frac{1}{2}$ 35
 A 65 220
 A 64 $\frac{3}{4}$ 360

Close

Cor. N5 & EW fence

Draw N. of school house
 on topog.
 & N. road & N. side school prop.

A 56 $\frac{3}{4}$ 450A 56 $\frac{1}{2}$ 570A 57 $\frac{3}{4}$ 660A 64 $\frac{1}{4}$ 690A 72 $\frac{1}{4}$ 700A 74 $\frac{3}{4}$ 730A 84 $\frac{1}{2}$ 980

A 85 1080

A 87 $\frac{1}{4}$ 1200A 90 $\frac{1}{2}$ 1260A 89 $\frac{1}{2}$ 1420 Δ G 37° 39' 561 $\frac{1}{2}$ WH 67 $\frac{3}{4}$ 390A 71 $\frac{1}{2}$ 600H 68 $\frac{1}{4}$ 600A 72 $\frac{3}{4}$ 400H 72 $\frac{1}{2}$ 600

single shots on narrow draw

draw connects with main draw

Tide

Tide

A 83 $\frac{1}{4}$ 200

Tile 6"

H 78 $\frac{1}{4}$ 350H 75 $\frac{3}{4}$ 310

H 126 260

H 159 290

4 N S road

H 148 $\frac{3}{4}$ 350

A 178 415

Tile 6"

A 162 $\frac{1}{2}$ 100

4 road & culvert

H 199 $\frac{1}{4}$ 460

H 211 690

A 317 180

H 215 $\frac{1}{2}$ 800

Tile

A 295 $\frac{1}{2}$ 230A 282 $\frac{1}{2}$ 250H 222 $\frac{3}{4}$ 750A 242 $\frac{1}{4}$ 350

H 217 880

A 242 $\frac{3}{4}$ 530A 243 $\frac{3}{4}$ 700H 220 $\frac{1}{4}$ 1140

A 239 870

H 232 $\frac{3}{4}$ 1120

A 233 1300

A 231 $\frac{1}{4}$ 1480A 229 $\frac{3}{4}$ 1660

1040

 Δ -16 239°-39' 2080 N78 $\frac{1}{2}$ EOn Δ 16BS Δ 15 0 2090 578 $\frac{1}{2}$ WA 18 $\frac{1}{4}$ 450A 31 $\frac{1}{2}$ 340A 69 $\frac{1}{4}$ 80

A 303 60

A 206 $\frac{1}{4}$ 80A 197 $\frac{1}{2}$ 300

EVI fence

A	201 $\frac{1}{4}$	440
H	161 $\frac{3}{4}$	1750
A	224	540
H	99 $\frac{1}{2}$	1880
A	238 $\frac{1}{4}$	670
A	236 $\frac{1}{2}$	730
H	97	1760
H	99	1760
A	231	780
H	94 $\frac{1}{2}$	1600
A	234 $\frac{1}{2}$	825
H	90 $\frac{3}{4}$	1400
A	238 $\frac{1}{2}$	920
H	86 $\frac{1}{2}$	1050
H	77 $\frac{1}{2}$	720
H	79 $\frac{1}{2}$	780
H	71	490

£ EN road backward on
topog

£ EN road

£ EN road & culvert

N.S. fence

350

 $\Delta 17$ 210° 46' 1160 590½ E

H 40½ 490

NS fence

H 37¼ 580

H 26 830

H 20¼ 870

EW fence

H 19½ 980

EW fence

H 16½ 1020

Close with H's topog from $\Delta 15$

A 158¾ 730

N.S. fence x

A 136¾ 590

A 114¾ 490

A 96¼ 610

A 89¾ 820

A 93¾ 1100

A 94½ 1420

A 99¼ 1590

A 103¾ 1760

E EW road close with H's

On A 17

BS. A 16 0 11 60 N 70 $\frac{1}{2}$ W

A 309 550

H 38 $\frac{1}{2}$ 930A 288 $\frac{1}{4}$ 500H 48 $\frac{1}{4}$ 850A 267 $\frac{1}{2}$ 510H 55 $\frac{1}{4}$ 1080A 236 $\frac{1}{4}$ 610

H 55 1180

A 233 $\frac{3}{4}$ 840A 231 $\frac{3}{4}$ 950H 59 ⁹⁵⁰ 1560A 234 $\frac{3}{4}$ 1080

H 61 1840

A 225 1360

H 65 $\frac{3}{4}$ 1780

EW fence

760

A 222 $\frac{3}{4}$ 1520

750

H 64 $\frac{3}{4}$ 1560A 221 $\frac{1}{4}$ 1580H 63 $\frac{1}{4}$ 1300A 215 $\frac{3}{4}$ 1640H 61 $\frac{3}{4}$ 1160

H 58 1070

A 211 $\frac{1}{2}$ 1340H 56 $\frac{3}{4}$ 840A 211 $\frac{3}{4}$ 1170H 66 $\frac{3}{4}$ 870A 215 $\frac{1}{2}$ 1060H 80 $\frac{1}{2}$ 960

A 220 860

H 71 $\frac{1}{4}$ 1020

A 222 730

A 211 $\frac{1}{4}$ 790

NS fence

N.S. fence

A 20 1/2 870

A 193 760

A 193 1/2 560

A 215 340

A 242 3/4 250

A 349 3/4 290

A 359 360

A 4 1/2 480

A 8 3/4 545

EW fence

NS fence

Δ 18 102° 36' 550 N 32 E

A 19 1/2 580

A 26 1/4 580

A 38 3/4 510

A 44 1/2 410

A 46 1/4 350

A 51 3/4 310

A 51 3/4 450

A 59 $\frac{3}{4}$ 510A 68 $\frac{3}{4}$ 540

Ond 18

BS 17 0 550 5.32W

A 16 59 $^{\circ}$ 37' 586 $\frac{3}{4}$ W

A 72 320

A 109 220

H 156 500

A 161 $\frac{1}{4}$ 130H 163 $\frac{3}{4}$ 590A 231 $\frac{1}{4}$ 100

H 166 680

A 248 $\frac{3}{4}$ 190A 259 $\frac{1}{2}$ 250H 173 $\frac{3}{4}$ 910A 266 $\frac{1}{2}$ 480H 177 $\frac{3}{4}$ 990

A 279 $\frac{3}{4}$ 610H 183 $\frac{3}{4}$ 1140A 272 $\frac{1}{4}$ 660H 177 $\frac{1}{4}$ 1200

H 176 1340

A 262 $\frac{3}{4}$ 940

A 19 251°-3' 10.80 S 77 E

H 173 $\frac{3}{4}$ 1340A 248 $\frac{1}{2}$ 900H 190 $\frac{1}{2}$ 1100A 248 $\frac{3}{4}$ 760H 187 $\frac{1}{4}$ 875A 232 $\frac{3}{4}$ 770H 188 $\frac{3}{4}$ 680

H 192 420

A 229 $\frac{3}{4}$ 790H 222 $\frac{1}{4}$ 430

EW fence cross over

cross over

a cross

a cross

A 227 $\frac{1}{4}$ 616H 226 $\frac{3}{4}$ 490.

620

 Δ 20 263°-8' 1290 N55 $\frac{1}{4}$ EOn Δ 19BS. Δ 18 0 1080 N77WA 316 $\frac{3}{4}$ 250

A 300 340

H 24 90

A 268 $\frac{1}{4}$ 470A 259 $\frac{3}{4}$ 540H 138 $\frac{3}{4}$ 180A 247 $\frac{1}{4}$ 560H 165 $\frac{3}{4}$ 430A 247 $\frac{1}{2}$ 310

A 240 220

H 171 780

A 208 $\frac{1}{4}$ 330

Close

EW fence

connect to A's cross-over

H 171 $\frac{1}{4}$ 815A 199 $\frac{1}{2}$ 530H 173 $\frac{3}{4}$ 880A 185 $\frac{1}{4}$ 700H 181 $\frac{1}{2}$ 880H 182 $\frac{1}{4}$ 890

A 180 830

On A 20

N.B.

B.S. A 18 350

S 55 $\frac{1}{4}$ WA & H 220 $\frac{1}{2}$ 890A 224 $\frac{1}{4}$ 960H 218 $\frac{1}{2}$ 600A 225 $\frac{3}{4}$ 1080

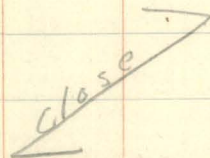
H 213 410

A 218 $\frac{3}{4}$ 1160

H 179 211

A 206 $\frac{3}{4}$ 1030

N.S. fence



Cor N.S. & E.W. fence

Start on upper end of drain

Note: Inst. set on 350 instead
of 0 all readings from this
point 10° off

✓

H	111½	190
A	203¼	1180
H	69	240
A	196¼	1120
H	47	290
A	193¼	1020
A	189½	1120
H	75½	680
A	188½	1260
H	80½	860
A	183¾	1260
H	81½	1080
A	181	960
H	88¼	1010
A	160¾	1230
H	82½	1300
H	83¼	1460

connect to Hicross over

Start at same cross over other side

⊥ EW road

⊥ NS road

⊥ EW road & Culvert

sec cor NS & EW road

H	89 $\frac{1}{4}$	1440
A	181 $\frac{3}{4}$	790
H	88 $\frac{1}{4}$	1240
A	154 $\frac{3}{4}$	490
H	92 $\frac{3}{4}$	970
H	87 $\frac{1}{2}$	790
A	112 $\frac{1}{2}$	480
H	91	670
A	115	600
H	102 $\frac{3}{4}$	690
A	124	730
H	111 $\frac{3}{4}$	890
A	135	860
H	118 $\frac{3}{4}$	890
A	141 $\frac{1}{4}$	980
H	119 $\frac{3}{4}$	1020
A	143 $\frac{1}{4}$	1070

£ E W road

£ E W road

£ E W road & culvert

H 118½ 1090

A 136¾ 1180

H 128½ 1180

A 133¾ 1240

H 124¼ 1340

A 132½ 1320

H 127¾ 1420

Close

Note

Setting corrected for these A

set on O

Δ 16 16° 40' S 71¾ W

Δ 15 19° 46' S 75 W

On Δ 3

BS Δ 2 0 194° 0' N 28½ E

Δ 4 303° 30' S 32¾ E

A 313½ 1200

A 314 1100

H 357¼ 670

A 301¾ 950

H 19¾ 690

Start on main topog where H
started on draw E.Start on island vs fence
E in fence

H	32	570
A	291½	1120
H	44½	415
A	287	1040
H	45	240
A	281¼	970
H	32	110
A	269¼	880
H	108	90
A	263½	980
H	166¼	250
A	263½	980
H	195¼	290
A	258½	960
H	208½	210
A	252½	820
H	215¼	110

EW fence

NS fence

H 277 110

A 240 $\frac{1}{2}$ 960H 335 $\frac{3}{4}$ 200

A 235 1100

H 15 $\frac{3}{4}$ 360 ✓A 237 $\frac{1}{4}$ 1140H 8 $\frac{1}{2}$ 430H 355 $\frac{1}{2}$ 460H 358 $\frac{3}{4}$ 620
830

Δ 21 234°-8' 1670 N78E

Δ 6 274°-0' 562 $\frac{1}{2}$ E

On Δ 21

BS Δ 3 1670 577 $\frac{3}{4}$ WA 353 $\frac{1}{2}$ 540Tie 126°-56' N24 $\frac{3}{4}$ EA 347 $\frac{1}{2}$ 510

A 330 570

NS prop fence

Small run crosses island E & W here
course of extreme high water

NS fence close island

Start Wed. 1426

chimney on farm house

H 38 $\frac{1}{4}$ 740A 318 $\frac{1}{2}$ 680H 78 $\frac{1}{4}$ 390A 296 $\frac{1}{2}$ 550H 92 $\frac{1}{4}$ 400A 296 $\frac{3}{4}$ 350

A 265 490

H 87 $\frac{3}{4}$ 1020A 258 $\frac{1}{4}$ 520H 88 $\frac{3}{4}$ 1180A 268 $\frac{1}{4}$ 730A 281 $\frac{1}{4}$ 740

A 289 680 V

A 293 $\frac{1}{4}$ 780

A 308 960

A 308 $\frac{1}{2}$ 1100Δ 22 82° 45' 1580 N 19 $\frac{1}{2}$ W

On semi wet island

Note:

Everything S of line run by A
is partially wet

A 311 $\frac{1}{4}$ 1320

A 307 1260

H 82 $\frac{1}{2}$ 1260H 75 $\frac{1}{4}$ 1200

H 66 1100

H 53 $\frac{3}{4}$ 910H 40 $\frac{1}{2}$ 730A 270 $\frac{1}{2}$ 1200A 264 $\frac{1}{4}$ 960A 263 $\frac{1}{4}$ 900

A 256 950

A 253 $\frac{3}{4}$ 1080A 250 $\frac{1}{2}$ 1220H 105 $\frac{1}{4}$ 1480H 104 $\frac{3}{4}$ 1320A 238 $\frac{1}{4}$ 980H 105 $\frac{3}{4}$ 1150

Property corner

close island

EW fence

EW road start E side main drain

A 235 1080

H $111\frac{3}{4}$ 970

A 227 950

H $118\frac{3}{4}$ 830

H 121 990

A $235\frac{1}{2}$ 860H $128\frac{1}{4}$ 1150A $246\frac{1}{4}$ 820H $135\frac{3}{4}$ 1090

A 249 700

H $143\frac{1}{4}$ 1200

A 243 620

H $146\frac{3}{4}$ 1200

H 148 1080

A $221\frac{1}{2}$ 760

H 139 1000

A $216\frac{1}{4}$ 880

H 135 $\frac{3}{4}$ 800A 214 ⁹⁵ 960H 125 $\frac{3}{4}$ 720A 219 $\frac{1}{4}$ 1000H 142 $\frac{1}{2}$ 620A 225 $\frac{3}{4}$ ⁴⁰⁰ 980H 159 $\frac{3}{4}$ 760A 229 $\frac{1}{2}$ 1060H 159 $\frac{1}{2}$ 870A 217 $\frac{3}{4}$ 1200H 154 $\frac{1}{2}$ 1040

H 150 1240

A 211 $\frac{1}{4}$ 1590

H 156 1300

A 210 $\frac{1}{4}$ 1660H 159 $\frac{1}{4}$ 1380H 163 $\frac{1}{4}$ 1400

990

H 166 $\frac{1}{4}$ 1540H 188 $\frac{1}{4}$ 1760

990

 Δ 23 182°-22' 1970 N80EH 183 $\frac{3}{4}$ 1060

H 172 840

H 150 520

H 134 $\frac{1}{4}$ 410H 109 $\frac{1}{4}$ 300

H 81 210

H 40 $\frac{1}{2}$ 250H 53 $\frac{1}{2}$ 40

H 258 100

H 226 $\frac{1}{4}$ 220H 220 $\frac{1}{4}$ 340

H 215 410

H 201 $\frac{3}{4}$ 420H 202 $\frac{1}{2}$ 280Creek^x course of high water

Creek

"

"

"

"

"

"

On island

H 201 $\frac{1}{4}$ 160H 145 $\frac{1}{2}$ 40H 50 $\frac{1}{2}$ 30

A 7 256° 23' 526 E

A 5 275° 41' 56 $\frac{3}{4}$ E

On A 23

BS A 21 0 1970 580 W

A 7 284° 51' 55 E

A 344 $\frac{1}{4}$ 1280H 33 $\frac{1}{4}$ 720

A 334 1080

H 40 $\frac{1}{2}$ 540A 326 $\frac{1}{4}$ 960H 63 $\frac{1}{2}$ 520

A 302 760

H 68 $\frac{1}{2}$ 570A 302 $\frac{3}{4}$ 930

Close island

not sure this is lathe

Tile 14"

Tile

Tile

H. 75 $\frac{3}{4}$ 660A 293 $\frac{3}{4}$ 990

H 68 830

A 288 $\frac{3}{4}$ 1100H 77 $\frac{1}{4}$ 850A 288 $\frac{1}{2}$ 1160H 82 $\frac{1}{4}$ 670

A 279 1160

H 94 $\frac{1}{2}$ 580H 100 $\frac{1}{4}$ 690A 277 $\frac{3}{4}$ 880H 104 $\frac{1}{4}$ 900A 268 $\frac{3}{4}$ 870A 262 $\frac{1}{4}$ 860H 104 $\frac{3}{4}$ 1080A 258 $\frac{1}{4}$ 880H 112 $\frac{1}{4}$ 1105

E W road.

E W road & wooden bridge

A 266 $\frac{1}{4}$ 730A 267 $\frac{1}{4}$ 760H 110 $\frac{1}{4}$ 1180A 265 $\frac{3}{4}$ 680

H 118 1300

A 256 $\frac{1}{4}$ 590H 122 $\frac{3}{4}$ 1560A 250 $\frac{3}{4}$ 350H 127 $\frac{1}{2}$ 1600A 262 $\frac{1}{4}$ 600

A 259 680

A 243 600

A 234 700

A 226 $\frac{1}{2}$ 630

A 219 560

 Δ 29 159°-59' 1740 N 65 $\frac{1}{4}$ E Δ 205 $\frac{1}{4}$ 740

Tile

Not on topog. fence corner
tie readingin draw which runs north of
School house

same draw

" "

cultivated, partially wet from
hereon.

H	153	1720
A	204 $\frac{3}{4}$	940
A	207 $\frac{1}{2}$	1100
A	206 $\frac{3}{4}$	1300
A	203 $\frac{3}{4}$	1160
H	113 $\frac{1}{2}$	1100
A	199 $\frac{1}{4}$	960
H	112 $\frac{1}{2}$	1040
H	111 $\frac{1}{2}$	940
A	194 $\frac{1}{4}$	750
H	95 $\frac{3}{4}$	410
A	186 $\frac{1}{2}$	640
H	73 $\frac{1}{2}$	190
A	210 $\frac{1}{2}$	350
H	318	300
A	212 $\frac{1}{2}$	240
A	155	290

on creek

creek

creek

creek

creek

creek

End of cultivated semi wet land

creek runs W from here

E. of here semi wet cultivated

A 171½ 520

A 166¾ 620

A 153¾ 550

A 134¾ 390

A 124½ 440

Δ 12 255°-19' 524½ E

On Δ 24

BS Δ 23 0 ⁵⁷⁰ 1740 555½ WH 8¾ ⁶⁹⁰ 1380

H 13½ 1300

H 38¾ 1220

H 14¾ 1040

H 15 880

A 4¾ 770

H 17½ 760

H 343¾ 1000

H 327¾ 1000

end of semi wet cultivated

H & A trade sides of topog

intersection N.S. prop fence & EW road

H 312 $\frac{1}{4}$ 11 10H 312 $\frac{1}{4}$ 860A 62 $\frac{3}{4}$ 950H 335 $\frac{1}{2}$ 770A 75 $\frac{1}{4}$ 1080

A 77 1130 cross over

H 352 $\frac{1}{4}$ 650H 2 $\frac{1}{2}$ 760H 14 $\frac{1}{2}$ 760 $\Delta 25$ 79°24' 135° N 95 $\frac{1}{4}$ WH 15 $\frac{3}{4}$ 500A 79 $\frac{3}{4}$ 1060 a. crossH 349 $\frac{1}{4}$ 420A 69 $\frac{3}{4}$ 870H 335 $\frac{3}{4}$ 260A 64 $\frac{1}{4}$ 730

A 80 630

A 95 $\frac{1}{4}$ 510

H	290 ³ / ₄	370	E NS road
H	285 ¹ / ₄	780	
H	276 ¹ / ₄	540	
A	117 ¹ / ₂	570	
H	268 ¹ / ₄	450	
A	134 ¹ / ₄	740	E NS road
H	281 ¹ / ₄	235	
A	139 ³ / ₄	920	
H	283 ¹ / ₄	120	
A	143 ¹ / ₂	1100	
H	196° 6'	105	NS 2 EW road
A	138 ³ / ₄	1180	
H	157 ¹ / ₂	200	E NS road & culvert
H	217 ¹ / ₄	100	" " " "
H	203 ¹ / ₄	165	E EW road & topog
A	148 ¹ / ₄	1320	
H	173 ¹ / ₂	410	

		L D.S.	
A 26	192° 8'	1450	N 17 ¹ / ₂ E
H	174 ³ / ₄	680	
A 21	13° 29'		568 ³ / ₄ W
On A 26			
B 5124	0	1460	S 17 ¹ / ₄ W
H	340	980	
H	330 ³ / ₄	920	
H	324	940	
H	320 ³ / ₄	700	
H	305 ¹ / ₄	630	
H	296	670	
H	286 ¹ / ₄	850	
H	275 ³ / ₄	1130	
H	270 ¹ / ₄	1360	
H	263 ¹ / ₂	1380	
H	260 ¹ / ₂	1960	
H	258	1500	cultivated draw in plowing 100' wide outlet end

Game called on
account of rain

Thur Morning 15th

On A26

BS A24 O 517 $\frac{1}{4}$ W

A 313 190

A 270 $\frac{1}{4}$ 130

A 226 110

A 173 $\frac{3}{4}$ 130

H 258 1700

A 208 $\frac{1}{2}$ 380

H 258 1960

A 197 $\frac{1}{2}$ 600

A 198 $\frac{3}{4}$ 740

A 164 900

A 27 255° 14' 2380 N 87 $\frac{1}{4}$ E

A 181 $\frac{1}{4}$ 960

A 191 $\frac{1}{2}$ 1020

single shots represen
ing draw

A 189 $\frac{1}{2}$ 1130

H 257 $\frac{3}{4}$ 1360

A 181 $\frac{1}{4}$ 1350 EW fence

H 265 1000

H 266 900

H 260 $\frac{1}{2}$ 700

A 199 $\frac{3}{4}$ 1580 EW fence

H 244 $\frac{1}{4}$ 910

H 226 $\frac{1}{2}$ 850

H 219 1070

1 28 205° 58' 2250 N 93 $\frac{1}{4}$ E

H 220 $\frac{1}{4}$ 1320

On A28

BS A26 O 2260 S 43 $\frac{1}{4}$ W

A 46 490

A 46 650

A 52 670

A	58 $\frac{3}{4}$	480	
H	341 $\frac{3}{4}$	1090	
A	88 $\frac{1}{2}$	530	
H	327 $\frac{3}{4}$	950	
A	109 $\frac{1}{2}$	660	
H	307 $\frac{1}{2}$	760	
H	303 $\frac{3}{4}$	1010	
A	122 $\frac{1}{4}$	810	
H	295 $\frac{3}{4}$	910	
A	122 $\frac{1}{2}$	1040	
H	281 $\frac{1}{2}$	950	
A	119 $\frac{1}{2}$	1180	
H	270	1140	NS fence cross over
A	112 $\frac{3}{4}$	1340	
A	108 $\frac{1}{4}$	1580	
A	105 $\frac{1}{4}$	1740	
			501
A 29	299 $\frac{1}{4}$	1680	567 $\frac{3}{4}$ E

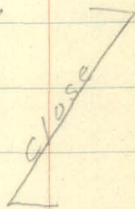
A	104 $\frac{3}{4}$	1960	
A	110	1700	
H	255	950	Cor. NS & EW fence across
A	115	1410	
H	252 $\frac{1}{4}$	880	
A	120 $\frac{1}{4}$	1420	
H	257 $\frac{1}{4}$	690	
A	128 $\frac{1}{4}$	1180	
H	245 $\frac{3}{4}$	560	
A	129 $\frac{3}{4}$	1380	
H	243	560	
A	128 $\frac{1}{4}$	1560	
H	266 $\frac{1}{4}$	450	
A	121 $\frac{3}{4}$	1840	
H	289	400	
H	332 $\frac{3}{4}$	330	
A	121	2080	

H	2°	460	
A	125½	1960	
H	28	390	
H	69¾	300	
H	101¾	350	
H	140	560	EW fence. drain between this and H's fence roading at (A. cross) is cultivated
H	144	620	
H	156¼	720	
H	164	850	
A	128¼	1860	
A	131¼	1660	
A	133½	1980	
A	134	2240	to EW road
A	136¼	2240	to EW road
H	165¾	920	CROSS over
A	133¼	1600	
H	148½	960	across

A	132¾	1240	
H	135¾	910	
A	129¾	1060	
H	129	990	
A	127¾	990	center of drain everything N of here is semi wet
A 23	356°-56'	540 W	
A 30	192°-11'	1550 N 55½ E	
On A 30			
BSA 28	0	1560	55½ W
A 26	352°-49'	548¼ W	
A	26¼	960	Start at H's cross over
A	32¾	720	EW fence rocks
H	43¾	1010	
H	49¼	910	
A	57¾	650	
H	68½	780	
A	76	540	NS fence

H	86 $\frac{3}{4}$	650	NS fence
A	105	360	
A	130 $\frac{1}{2}$	380	
H	105 $\frac{1}{2}$	640	
H	126 $\frac{3}{4}$	690	
A	170 $\frac{1}{4}$	590	
H	133	640	
A	174 $\frac{1}{4}$	640	not on topog NS fence
H	141 $\frac{3}{4}$	630	
A	186	560	
A	188	540	cor NS EW fence
H	157	680	
A	193 $\frac{1}{2}$	690	
A	185 $\frac{1}{2}$	710	
A	176	680	
H	164 $\frac{1}{4}$	780	NS fence
A	174 $\frac{3}{4}$	920	

H	170 $\frac{1}{2}$	890	
A	172 $\frac{1}{2}$	1170	NS fence
H	172 $\frac{1}{4}$	1260	
H	175 $\frac{1}{4}$	1390	
H	175 $\frac{1}{4}$	1200	
A	161 $\frac{1}{2}$	1580	EW road
Tic	73° 0'		chimney on N61 $\frac{1}{2}$ W. farm house E EW road & center of pond runs 100' N. 175' W. 125' E & 300' S
A	145 $\frac{3}{4}$	1380	
A=H	274 $\frac{1}{4}$	340	pasture & cult. drain south west
H	277	370	
A	265 $\frac{1}{4}$	460	
H	293	480	
A	284 $\frac{1}{4}$	640	
H	307 $\frac{3}{4}$	700	
A	284 $\frac{1}{2}$	780	
H	315 $\frac{1}{4}$	870	



A	293½	790	
H	325¼	960	
A	300	920	
H	325½	1100	
H	321½	1180	close with H's cross over
A	300¾	1240	
A	299	1300	
Δ 29	299.49'		possibly not accurate S9½E unable to see A
On Δ 29			
B.S. Δ 28	0	1680	N67½W
H	327¼	750	
H	323	600	
H	296½	310	
H	278	280	
H	236¼	360	
H	211¾	480	
H	197	550	

H	188¾	700	
H	206¾	900	
A	37¾	275	
H	220	1100	
A	60¼	320	
A	83¼	390	
A	119¼	410	
H	225	1920	
A	135	410	EW fence
H	220	1580	
A	154½	600	N.S. fence
A	149	615	cor. EW & N.S. fences
H	206¼	1200	
Δ 31	148.7'	720	N80½E
H	201¾	1090	
On Δ 31			
B.S. Δ 29	0	720	S80½W

H	276 $\frac{1}{4}$	850	
H	274	720	
A	333 $\frac{1}{4}$	145	NS fence
H	269 $\frac{3}{4}$	570	
A	232 $\frac{1}{2}$	60	
H	254 $\frac{3}{4}$	600	
A	167	55	EW $\frac{1}{4}$ Fence
H	245 $\frac{1}{4}$	680	
A	113 $\frac{3}{4}$	210	
H	246	860	
A	97 $\frac{1}{4}$	430	
H	252 $\frac{3}{4}$	1100	
A	93 $\frac{1}{2}$	630	
H	244 $\frac{3}{4}$	1280	
A	100	700	
H	242 $\frac{1}{4}$	1400	
A	105 $\frac{3}{4}$	810	

H	244 $\frac{1}{4}$	1800	
A	106 $\frac{3}{4}$	1200	
H	241 $\frac{1}{2}$	1860	
A	104 $\frac{3}{4}$	1360	
H	239 $\frac{3}{4}$	1820	NS fence
A	106 $\frac{1}{4}$	1500	Between these fence readings of H's a draw run SE thro corn for about 600' Semi-wet.
A	106 $\frac{3}{4}$	1680	
H	230 $\frac{1}{4}$	1540	NS fence
A	111 $\frac{3}{4}$	1740	
H	225 $\frac{1}{4}$	1490	
H	223	1230	
A	110 $\frac{1}{4}$	1560	
H	222 $\frac{1}{4}$	1000	
A	109 $\frac{1}{4}$	1340	
H	225 $\frac{1}{4}$	710	
A	116	1030	
H	214	600	

A 124 1110

H 206 $\frac{3}{4}$ 670

A 120 940

A 120 $\frac{1}{2}$ 830H 200 $\frac{3}{4}$ 870

H 198 990

A 134 $\frac{1}{2}$ 560H 189 $\frac{1}{2}$ 1200

A 161 560

A 166 $\frac{1}{2}$ 790A 164 $\frac{3}{4}$ 1240

A 32 168°-15' 1270 N 69° E

ON A 32

B 5 A 31 0 1280 569 $\frac{1}{4}$ W

A 59 80

A 119 150

A 115 $\frac{1}{2}$ 320H 289 $\frac{1}{4}$ 485' Cor. E W N.S. fence

A 114 550

H 288 440

A 101 $\frac{3}{4}$ 700H 258 $\frac{1}{2}$ 580A 108 $\frac{3}{4}$ 760H 251 $\frac{1}{2}$ 640 E W fence

A 116 670 N.S. fence

A 119 $\frac{1}{2}$ 660

H 251 980

H 249 $\frac{1}{2}$ 1070A 135 $\frac{1}{4}$ 560H 244 $\frac{1}{4}$ 1000A 150 $\frac{3}{4}$ 590H 236 $\frac{3}{4}$ 480A 154 $\frac{1}{2}$ 600A 152 $\frac{1}{2}$ 840 CROSS OVER

H 229 $\frac{1}{4}$ 540

H 216 760

H 212 $\frac{1}{4}$ 850

H 206 930

H 204 $\frac{1}{2}$ 800

A 33 157° 37' 1390 N47E

H 207 $\frac{1}{4}$ 550H 194 $\frac{3}{4}$ 540A 161 $\frac{3}{4}$ 960 acrossH 182 $\frac{3}{4}$ 650A 164 $\frac{3}{4}$ 880H 174 $\frac{1}{4}$ 690 3" TileA 173 $\frac{3}{4}$ 800A 177 $\frac{1}{2}$ 900

H 182 740

A 181 $\frac{1}{4}$ 1020

H 181 830 Tile

A 183 1000 Tile

H 189 $\frac{1}{2}$ 1080A 184 $\frac{1}{2}$ 1160H 192 $\frac{3}{4}$ 1200

H 184 1360

H 192 $\frac{1}{4}$ 1440H 189 $\frac{1}{2}$ 1380 NS fenceH 184 $\frac{3}{4}$ 1160 close with AS
1st reading

On A 33

BS A 32 0 1400 549 $\frac{1}{4}$ WA 73 $\frac{1}{4}$ 560A 18 $\frac{1}{4}$ 500

A 30 500

single shots in
narrow draw 10' wideA 41 $\frac{1}{2}$ 580H 35 $\frac{1}{4}$ 480A 46 $\frac{3}{4}$ 680

H 346 360

A	55 $\frac{3}{4}$	760	
H	328 $\frac{1}{4}$	250	
A	57 $\frac{3}{4}$	840	end of narrow draw
H	298 $\frac{1}{4}$	230	
H	258 $\frac{3}{4}$	410	
H	252 $\frac{3}{4}$	520	
H	247	660	
A	20 $\frac{3}{4}$	460	
H	241 $\frac{1}{2}$	890	
A	22 $\frac{1}{2}$	410	
H	237 $\frac{3}{4}$	950	
A	35 $\frac{1}{2}$	370	
H	234 $\frac{1}{4}$	920	
A	62 $\frac{1}{4}$	400	
A	73 $\frac{1}{2}$	460	
H	228 $\frac{3}{4}$	660	
A	84 $\frac{3}{4}$	550	

H	214	640	
A	97 $\frac{1}{2}$	700	
H	201 $\frac{3}{4}$	700	
H	195	650	
A	115 $\frac{3}{4}$	790	
H	208	560	
A	123 $\frac{1}{2}$	780	
A	122 $\frac{1}{4}$	650	
H	239 $\frac{1}{2}$	360	
H	240 $\frac{1}{4}$	230	
A	102	440	
H	276 $\frac{1}{2}$	70	
A	71 $\frac{3}{4}$	240	
H	39 $\frac{3}{4}$	150	
H	3 $\frac{1}{2}$	385	Tile 5" outlet
H	13	400	Tile outlet
H	59 $\frac{3}{4}$	360	2 parallel strings Tile

H	63	310	Tile
H	95½	470	Tile
H	97¾	550	Tile
H	108¾	840	Tile end
A	76½	1500	seg. Car
H	113	820	Tile end
04A27			
BSA26	0		587¼W
A	12°	30	NS fence
H	13¼	30	
A	204½	140	Topog to be connected to narrow draw run by H from A 26
H	347¾	125-	
H	320¼	190	
A	218	320	
H	287	230	
A	223	460	
H	275	330	NS fence

A	250¼	410	
H	260¼	400	
A 27-A	270°-56	700	S 3½ E
04A27A			
BSA27	0		N 3½ W
A=H	181¾	180	NS fence
H	207¾	190	
A	139	250	
H	226¼	240	
A	118	300	
H	229¾	300	Single shots on narrow draw
A	135¾	400	
H	243	350	Draw runs NW from here and connects to main draw
A	161½	350	
A	180	310	NS fence
H	208	290	Back on topog
H	180½	300	NS fence close

A 179 $\frac{1}{4}$ 655 Road R IV S fence
 A 26 285°-33' N 70 $\frac{3}{4}$ W

Friday Oct. 17 1919

On A 22 in Highway

B 5021 0 1580 519 $\frac{1}{2}$ E

Tile 80 20 12" Tile outlet
 290 $\frac{1}{4}$

A 286 1360

A 3 50°-24' 2140 530 $\frac{3}{4}$ W

A 256 $\frac{1}{2}$ 800

A 250 $\frac{1}{2}$ 810

H 60 $\frac{1}{2}$ 2200

A 242 $\frac{1}{2}$ 920

A 245 $\frac{1}{4}$ 980

H 62 $\frac{3}{4}$ 1920 N.S. fence

H 62 $\frac{1}{2}$ 1760

H 56 $\frac{1}{2}$ 1580

A 221 $\frac{1}{2}$ 1180 semi-wet island

A 218 1260

H 58 $\frac{1}{4}$ 1500

A 222 1390

H 63 $\frac{1}{4}$ 1600

A 226 $\frac{1}{2}$ 1340

H 64 1740

A 225 1220

A 221 $\frac{1}{2}$ 1180 close island

H 67 $\frac{1}{2}$ 1880

A 232 $\frac{1}{4}$ 1020 center of island
 same size as just run

H 73 $\frac{1}{2}$ 2060 cross over

~~H 75 $\frac{1}{2}$ 1980~~

~~H 70 $\frac{1}{2}$ 1720~~

A 34 218°-55' 1550 N 19 $\frac{1}{2}$ E

H 80 $\frac{3}{4}$ 1800 across

H 80 $\frac{3}{4}$ 1620

A 231 $\frac{3}{4}$ 1420 Tile

H	87 $\frac{3}{4}$	1660	
A	229 $\frac{1}{4}$	1220	Tile
A	226 $\frac{1}{2}$	1150	Tile
A 35	86°-43'	1800	SG 7 W
A	220 $\frac{1}{2}$	1080	Tile
H	88 $\frac{3}{4}$	1660	cross over
A	215 $\frac{3}{4}$	970	Tile
H	95 $\frac{1}{4}$	1580	2 cross
A	207 $\frac{3}{4}$	860	Tile
H	95 $\frac{1}{2}$	1400	
H	95 $\frac{3}{4}$	1340	
H	99 $\frac{1}{4}$	1170	
H	109	1220	
H	112	1290	EW road
H	122 $\frac{1}{4}$	1340	
A	288	155	EW road & culvert
A 36	139°-9'	1460	N 60 $\frac{1}{2}$ W

A	175	610	Highest point of slough
H	121 $\frac{1}{4}$	1320	Cross over
H	128 $\frac{1}{4}$	1320	NS fence. 2 cross
Tie	232° 42'		chimney on farm house N 33 $\frac{1}{4}$ E
H	120 $\frac{1}{2}$	1000	
H	112 $\frac{1}{2}$	710	EW road
H	116 $\frac{1}{4}$	680	
H	128 $\frac{3}{4}$	780	
OA 34			point is an island same size as one run by A from 122
BSA 22	0	1550	S 19 $\frac{1}{2}$ W
Tie	192° 21'		chimney on farm house N 36 $\frac{3}{4}$ E
A 36?	47° 55'		SG 7 $\frac{1}{2}$ W
H	26 $\frac{1}{2}$	1720	
H	38 $\frac{1}{2}$	1600	
H	51 $\frac{1}{2}$	1440	
H	58 $\frac{3}{4}$	1380	
H	64 $\frac{1}{4}$	1320	EW fence

A 327½ 820

H 84¾ 1520

A 319 900

H 91½ 1620

A 319½ 1140

H 98¾ 1760

A 302¾ 1340

H 106 1740

A 294 1320

H 110¼ 1580

A 288 1460

A 280½ 1380

A 285 1160

H 116¼ 1660 cross over

A 280 1120

A 273¾ 1420

H 123¾ 1480 a-cross

A 273¾ 1500

A 270¾ 1480

A 271¼ 1400

A 266¾ 1260

H 132¾ 1260

A 268½ 1160

H 139 1100

A 271¼ 1120

H 133½ 900 island

A 274 940

H 131 740

H 123¾ 740

A 262¼ 880 fence cor. tenag

H 120¾ 940

H 126¾ 1040

H 130¾ 1060 close island

A 257½ 1000

H	148 $\frac{1}{4}$	1020	
A	250 $\frac{3}{4}$	1220	
H	153 $\frac{1}{4}$	860	
A	248 $\frac{1}{2}$	1940	
H	168 $\frac{3}{4}$	770	
A	254	1720	
H	195	670	
A	257 $\frac{1}{4}$	1800	
H	192 $\frac{1}{4}$	820	
H	195	915	
A	257 $\frac{1}{4}$	1860	EW fence & Tile
H	184 $\frac{1}{2}$	1120	
A	252 $\frac{1}{2}$	1940	Tile junction
H	181 $\frac{3}{4}$	1280	
A	245 $\frac{1}{4}$	1390	Tile
Δ 37	183°-55'	1630	N23 $\frac{1}{2}$ E
A	240 $\frac{1}{4}$	1140	Tile junction

H	182	1300	
A	249	880	Tile & N.S. fence
A	256 $\frac{3}{4}$	690	Tile
A	270 $\frac{3}{4}$	470	Tile & EW fence
A	275 $\frac{1}{2}$	300	ridge dividing water ways. con. to island
A	254 $\frac{1}{4}$	410	ridge
A	234 $\frac{1}{2}$	600	"
A	230	720	"
Δ 38	201°-9'	1320	N40 $\frac{1}{2}$ E
On Δ 38			
BSA 34	0	1320	S40 $\frac{3}{4}$ W
Δ 22	349°-34'		S29 $\frac{1}{4}$ W
Δ 37	115°-43'	540	N23 $\frac{1}{2}$ W
Tie	175°-8'		chimney on farm house
A	321 $\frac{1}{4}$	640	same ridge
H	340 $\frac{1}{2}$	160	island
A	318	530	ridge runs N from here connects with island Δ 38 is on

H	309	230	NS fence
H	290 $\frac{3}{4}$	410	
H	264 $\frac{3}{4}$	350	
A	295	810	Main tile & junct. of line SE
H	207 $\frac{3}{4}$	350	
A	289	790	Tile not on topog
H	160 $\frac{1}{4}$	145	Cor. NSEW fence
A	267 $\frac{3}{4}$	700	Main tile and junction of line SE
H	156	190	NS fence
A	256	700	Tile
H	119 $\frac{1}{2}$	150	EW fence
A	243 $\frac{3}{4}$	775	Tile
H	41 $\frac{1}{4}$	130	
H	345 $\frac{1}{4}$	160	close island
A	227	900	Tile end
H	223 $\frac{3}{4}$	960	
Δ	25 276°-39'	2280	S 42° E

H	71 $\frac{3}{4}$	420
H	98 $\frac{3}{4}$	380
H	146 $\frac{1}{4}$	530
H	130 $\frac{1}{2}$	770
A	255 $\frac{1}{2}$	1970
H	116 $\frac{1}{4}$	840
A	251	1340
H	104 $\frac{1}{2}$	820
A	250 $\frac{1}{2}$	1240
A	255 $\frac{3}{4}$	1200
H	88 $\frac{1}{4}$	940
A	256 $\frac{1}{4}$	1060
A	250	1070
A	248	1170
A	249 $\frac{1}{2}$	1390
H	81	990
A	248 $\frac{1}{4}$	1540

H 80 $\frac{1}{2}$ 1160H 88 $\frac{1}{4}$ 1180

A 243 2180

H 89 1360

H 93 $\frac{1}{4}$ 1320

A 234 1960

H 99 $\frac{1}{2}$ 1260A 230 $\frac{1}{2}$ 1780

H 107 1160

A 230 $\frac{1}{4}$ 2000H 118 $\frac{1}{2}$ 1200A 229 $\frac{1}{4}$ 2120H 125 $\frac{1}{4}$ 1440A 226 $\frac{1}{4}$ 1800A 224 $\frac{1}{2}$ 2000A 223 $\frac{3}{4}$ 2240

Δ 39-123°-47' 1580 N 15 $\frac{1}{2}$ W
 " "

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES $1\frac{1}{2}$ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

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