

W

408

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6 + (20 - 16) \div 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

Copyright, 1914, by Eugene Dietzgen Co.

M. D. Elliott

408

MICROFILMED

JAN 12 1965

Index

Core Wall - Elevs top of steel	1
Stripping - X sections - Final	3-5
Upstream Rock - Toe points	6
Upstream Rock - Location of toe forest,	8-9
Core Wall - Elevs top of steel	10-12
Diversion Tunnel - Profile of concrete crown	13
Middle Core Bench - Elevs.	14
Profile of So. Abutment on E. 5320	15
Diversion Tunnel - Profile of invert sides	17-18
Core Wall - Profile of sides	19-20
Core Wall - Add. trench excavation slope stakes	21-23
Exploration Tunnels 1 & 2 - X sections	24
coords. Toe of upstr. blanket	27
Final X sections Tail	31-32-33
Coords of Toe Trench So. abutment	
Downstream Toe	34
Slope Stakes N end Core Trench.	35
" " S "	36, 67
Toe Contour Axis East	37
Coord of Top of Blankets + Sections Same	38-41, 48
" " Coord 31/33	42
Final X Sec Item 11	43
Location Grout Holes	44
Core Wall Grades on Steel	45, 52, 83
Profile of Spillway	61, 64, 47, 53-57
Grout Holes Located	58, 66
Typical Section 3/12/33 3/29	60, 62, 65
Final profile Core Wall	63, 68, 70
Wells - Location To be drilled in Hy Sec.	66, 71
Inventory Survey Equipment 6/6/33	87

Core Wall Elevs. of Top of Steel

Dec 23-1932

See Page 10.

B.M.	5.75	545.14		539.39
N3572			+12.74	557.88
N3564			+12.76	557.90
N3556			+12.82	557.96
N3548			+12.84	557.98
T.P.	7.58	550.77	1.95	543.17
		4.77		
N3540			+8.19	558.96
N3532			+8.17	558.94
N3524			+8.25	559.02
N3516			+8.22	558.99
N3508			+8.24	559.01
N3500			+8.23	559.00
N3492			+8.17	558.94
N3484			+8.14	558.91
N3476			+7.15	557.92
N3468			+7.11	557.88

← when plumbed the elev. will be this.

X Sections of Stripping
 Dec 24 - 1932

N3470

Toe Wall	3.41	578.41	57500
	464	571.57	566.93
5300		9.9	
290		10.8	
80		10.5	
70		9.2	
60		10.5	
50		12.1	
40		10.0	
30		9.8	
20		15.1	
10		16.3	
5200		17.2	

*See P.P. 395-10
 same note*

*These notes same as 395
 and reduced to 10' ated according to W.*

N3460

5140	20.0
150	18.9
160	18.8

N3460

571.57

5170	14.9
180	13.2
190	15.0
200	14.2
210	14.2
220	10.7
230	0.2
240	4.6
250	6.2
260	7.4
270	8.1
280	8.7
290	9.8
5300	97

*See FB 395-10
Same notes*

*These notes in FB 395 and
Dornick*

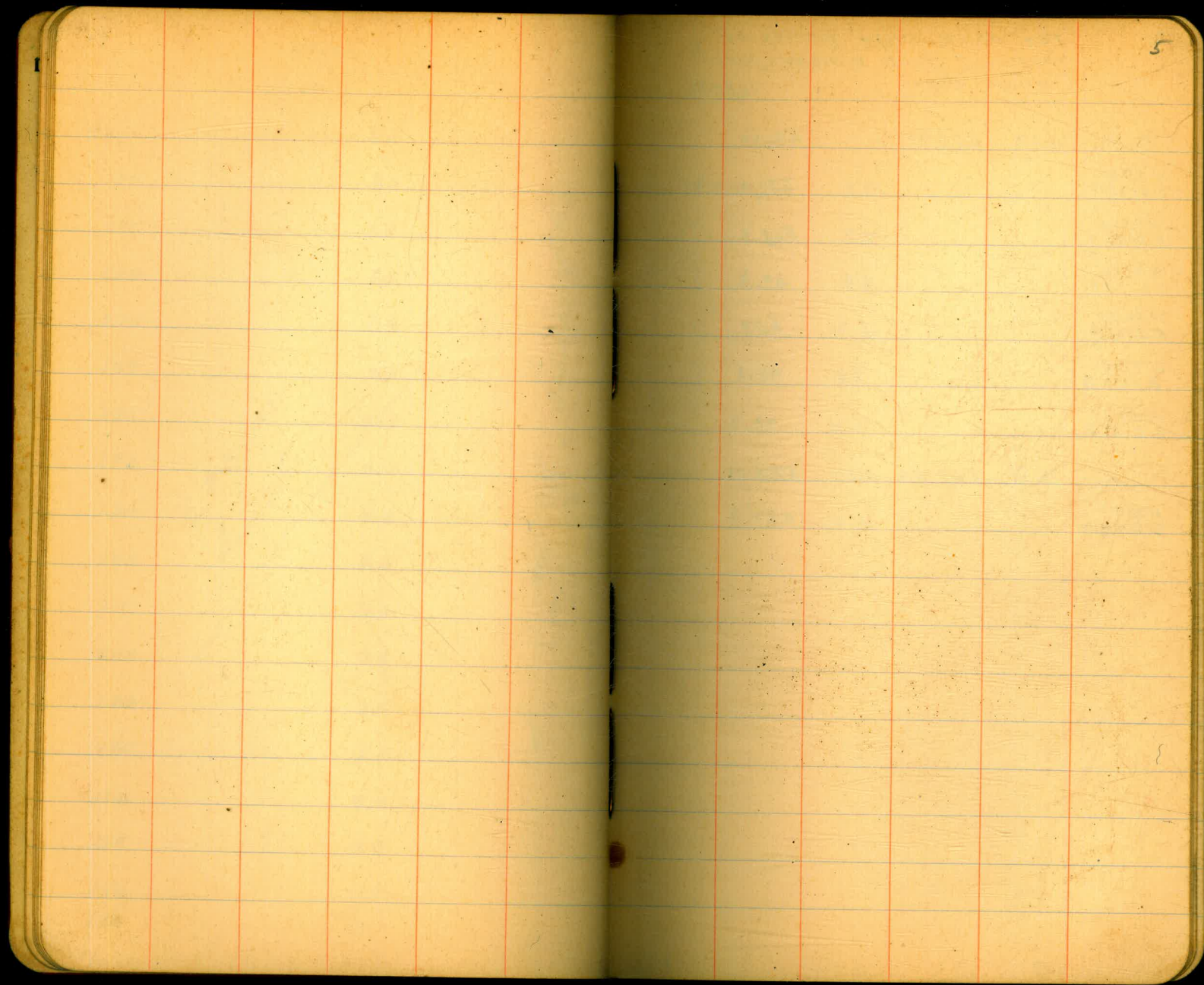
N3450

571.57

5310	5.9
300	8.3
290	7.9
280	8.3
270	7.6
260	7.1
250	6.8
240	6.1
230	4.6
220	5.5
210	7.3
200	9.3
190	7.5
180	6.8
170	9.4
160	13.3
150	16.8
140	19.7

See FB 395-1
 same notes

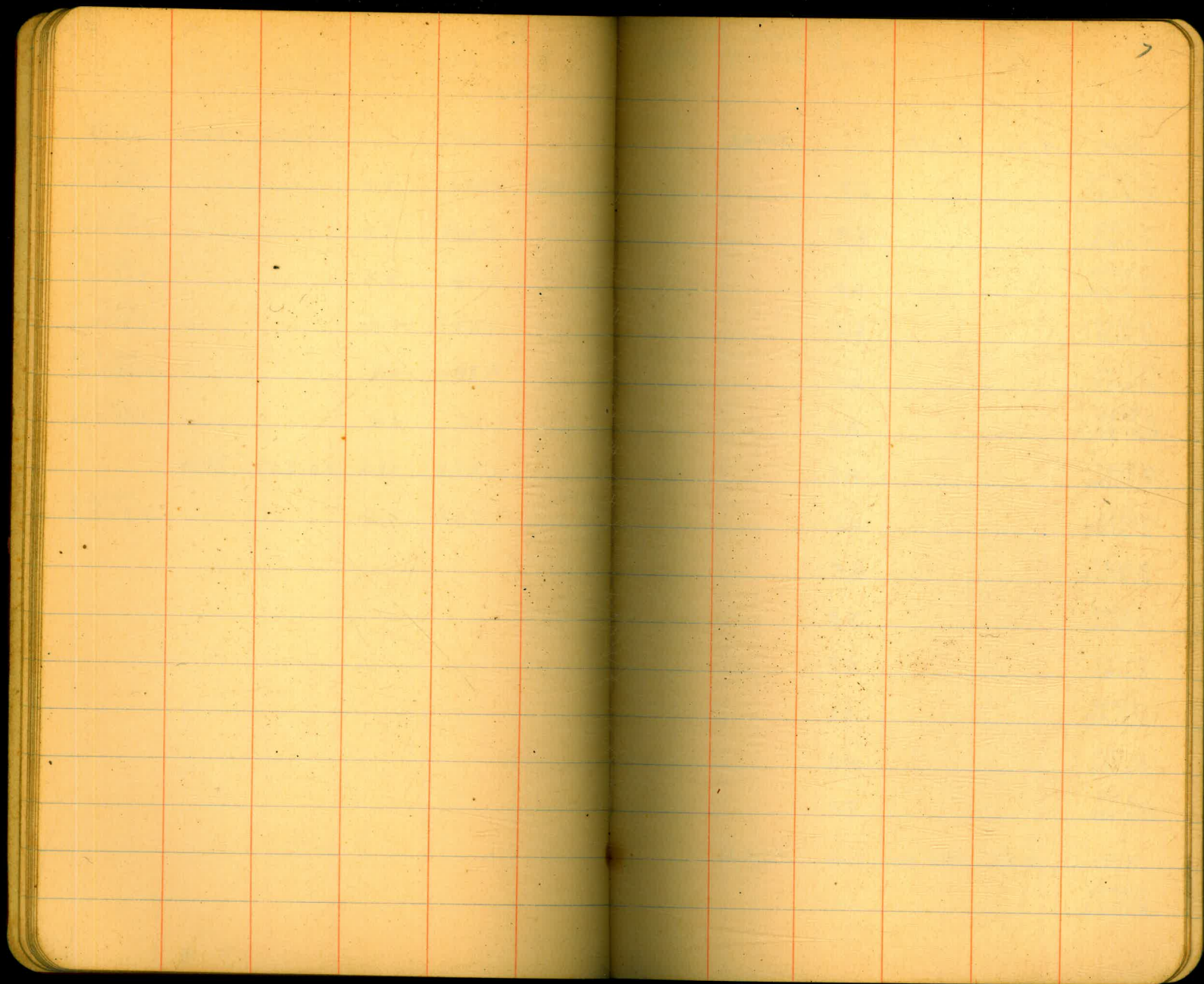
These notes on FB 395, Redwood, collected
 around 1917.



5

Toe Rock Slope points at
upstream Rock Embankment
(inside slope) 12/29/32

B.M.	4.48	555.91	551.43	
N 3460 E 5135.9			9.8	551.1 - Toe slope, set flag.
N 3520 E 5132.7			7.3	548.6 " " "
N 3580 E 5133.8			6.4	49.5 " " "
N 3640 E 5128.9			10.2	457 " " "
N 3700 E 5132.3			7.6	48.3 " " "
N 3760 E 5139.3			2.2	53.7 " " "
	12.89	568.00	0.80	555.11
N 3840 E 5144.2			10.5	557.5 " " "



Top Rock Slope upstream Rock
Emb. for monthly estimate 12/29/32

8

B.M.	4.48	555.91		551.43
N 3520 E 5145			6.7	
N 3540 E 5143			6.9	
N 3560 E 5140			6.4	
N 3580 E 5138			6.6	
N 3600 E 5135			6.4	
N 3620 E 5136			7.7	
N 3640 E 5140			5.5	
N 3660 E 5140			5.8	
N 3680 E 5143			6.5	
N 3700 E 5143			7.2	
N 3720 E 5143			6.8	
N 3740 E 5143			7.2	
N 3760 E 5140			4.9	
N 3780 E 5140			3.1	
T.P.	12.89	568.00	0.80	555.11
N 3800 E 5143			14.1	

568.00

N3820
E5145
N3840
E5148
N3860
E5160

11.9
10.1
1.7

12/29/32 Elevs. of Top steel Columns
core wall

10

B.M.	12.00	551.39 ✓		539.39
T.P.	7.19	554.78 ✓	3.80	547.59 ✓
N 3452			+3.70	58.48 ✓
3460			+4.22	59.00 ✓
3468			+3.12	57.90 ✓
3476			+3.17	57.95 ✓
3484			+4.21	58.99 ✓
3492			+4.29	59.07 ✓
3500			+4.29	59.07 ✓
3508			+4.28	59.06 ✓
3516			+4.27	59.05 ✓
3524			+4.31	59.09 ✓
3532			+4.21	58.99 ✓
3540			+4.30	59.08 ✓
3548			+3.29	58.07 ✓
3556			+3.24	58.02 ✓
3564			+3.23	58.01 ✓

554.78 ✓

N 3572	+3.25	58.03 ✓
3580	+3.67	58.45 ✓
3588	+3.69	58.47 ✓
3596	+3.66	58.44 ✓
3604	+3.60	58.38 ✓
3612	+3.59	58.37 ✓
3620	+3.61	58.39 ✓
3628	+3.60	58.38 ✓
3636	+3.62	58.40 ✓
3644	+3.62	58.40 ✓
3652	+3.73	58.51 ✓
3660	+3.67	58.45 ✓
3668	+3.84	58.62 ✓
3676	+3.91	58.69 ✓
3684	+3.65	58.43 ✓
3692	+3.71	58.49 ✓
3700	+3.75	58.53 ✓

11

554.78 ✓

N 3708	+3.55	58.33 ✓
3716	+3.56	58.34 ✓
3724	+3.71	58.49 ✓
3732	+3.75	58.53 ✓
3740	+3.85	58.63 ✓
3748	+4.01	58.79 ✓
3756	+3.63	58.41 ✓
3764	+3.71	58.49 ✓
3772	+3.70	58.48 ✓
	6.62	548.16 - B.M.

E 6548.18

Converse
Elliott
Soper
Kernick
Osborn

B.M.	5.77	556.37	550.60	
7+00			+21.38	577.75 Rock
7+00			+21.18	577.57 Top Con.
7+00			+19.34	575.71 Bottom Con.
6+90			+19.52	575.89 "
6+80			+19.67	576.04 "
6+70			+19.87	576.24 "
6+60			+20.08	576.45 "
6+50			+20.22	576.59 "
6+40			+20.36	576.73 "
				Bottom of
6+30			+20.43	576.82 Form
+20			+20.69	577.08 "
+10			+20.85	577.24 "
6+00			+21.01	577.40 "
5+90			+21.21	577.60 "

Elevations for Beach

14

E 4750	562.0					
4800	558.8					
4840	556.2					
4890	553.0					
B.M.	7.66	557.84		548.18		
N 3660.0						
E 4890			4.84	553.00	553.00	Grade
N 3680.						
			4.24	53.60		C. 0 ⁶
N 3700.						
			3.24	54.6		C 1 ⁶
N 3720						
			3.5	54.3		C. 1 ³
T.P.	3.68	558.71	2.81	555.03		
N 3660						
E 4840			5.4	53.3	556.2	F. 2 ²
N 3680			5.6	53.1	56.2	F 3 ¹
N 3700			3.5	55.2	56.2	F 1 ⁰
T.P.	5.08	560.11		555.03		
E 4800			1.3	558.8		
T.P.	5.75	560.78		555.03		
			+ 1.22	562.0		
B.M.	12.09	563.52		551.43		
E 4890			10.62	553.0		
E 4840			7.3	556.2		
E 4800			4.7	558.8		
	7.32	569.36	1.48	562.04		
E 4750			7.36	562.0		
			^{11.16}			
E 4800			10.56	558.80		

Profile of So. Abutement on E 5320

Jan 5 - 1933

15

Elliott
Osborn
Soper
Remmen

B.M.	8.55	583.53		574.98
3450			14.2	69.3
40			7.5	76.0
30			1.3	82.2
B.M.	11.58	602.17		590.61
20			14.8	87.4
15			12.0	90.2
10			12.4	89.8
3400			11.5	590.7
90			0.7	601.5
T.P.	12.37	613.52	1.06	601.13
80			9.4	94.1
70			7.0	06.5
60			4.9	08.6
50			+1.0	14.5
40			+2.7	16.2
30			+4.3	12.8
20			+10.0	623.5
3310				

Orig. Gr. X

Tot of down stream Rock.

1001 from El. 600 from E4676.9

T.P. 2.90 557.9 555.03

T.P. 2.16 577.22 575.06
 12.61 588.76 1.07 576.15

B.M. 12.92 600.77 0.91 587.85
 4.94 580.00 575.06

B.M. 13.4 564.8 551.4

12.7 576.0 1.5 563.3

4676.9
 42.1
 0.0 = 4719.0

4676.9
 22.8
 0.0 = 4699.7

4676.9
 11.7
 0.0 = 4688.1

0.77 = 4676.9

Profile of edges of invert
in outlet Tunnel

Jan. 14, 1933

B.M.					invert Grades
3.87		564.80	560.93		
2+40	South	4.43	560.37	560.39	.02 Low
"	North	4.43	60.37	60.39	.02 Low
2+60	South	4.75	60.05	60.06	.01 Low
"	North	4.79	60.01	60.06	.05 Low
2+80	South	5.09	59.71	59.72	.01 Low
"	North	5.08	59.72	59.72	Grade
3+00	South	5.41	59.39	59.39	Grade
"	North	5.44	59.36	59.39	.03 Low
3+20	South	5.69	59.11	59.06	.05 High
"	North	5.78	59.02	59.06	.04 Low
3+40	South	6.06	58.74	58.72	.02 High
	North	6.10	58.70	58.72	.02 Low
3+60	South	6.32	58.48	58.39	.09 High
	North	6.41	58.39	58.39	Grade

564.80

3+80	South	6.76	58.04	58.06	.02 Low
"	North	6.61	58.19	58.06	.13 high
4+00	South	7.29	57.51	57.73	.22 Low
"	North	7.16	57.64	57.73	.09 Low

Profile of sides of core wall
South Abutement

H.I. 587.32

Jan 21 - 1933
Elliott
Simpson
Saper
Remmen

19

N				Dr. Ground
3321			70.5	87.8
3336			0.7	86.6
3352			11.5	75.8
T.P.	0.36	575.45	12.23	575.09
3375			5.7	69.7
T.P.	0.34	563.53	12.26	563.19
3389			8.9	54.6
3404			10.6	51.9
3414			13.7	49.8
T.P.	0.70	551.92	12.31	551.22
3430			3.2	48.7
3442			6.9	45.0
3453			19.0	37.9

Profile of Sides of Core Wall
North Abutment.
West Side

B.M.	13.19	561.37	548.18
N 3765 out 10°		21.7	39.7
3790 out 10°		14.4	47.0
3792 out 10°		7.2	54.7
3804 out 10°		2.9	58.5
3805 out 10°		+0.2	61.6
3816 out 10°		+7.0	68.4
3820 out 10°		+16.5	77.9
3824 out 10°		+18.4	79.8
3838 out 10°		+20.0	81.4

Elliot
Soper
Paramer

Jan 21 - 1933

Profile of E. Side

→		559.0	
N 3765 out 6°		19.1	39.9
3784 out 6°		14.4	44.6
3786 out 6°		8.1	50.9
3796 out 6°		6.6	52.4
3804 out 6°		4.2	54.8
		561.4	
3812 out 6°		+11.0	72.4
3828 out 6°		+19.4	80.8
3844 out 6°		+19.6	81.0

Slope Stakes on Core Wall
West Side

			Elev	Grade	
B.M.	12.87	552.26	539.37		
3460 W			21.1	31.1	530.0
E.			21.2	31.1	"
N3450 west side			14.0	38.3	534.0
" E.			9.1	43.2	"
3440 W.			6.9	45.4	538.5
" E.			6.0	46.3	"
3430 W.			4.3	48.0	542.6
" E.			4.7	47.6	"
3420 W.			2.8	49.5	547.0
3414 W.			2.5	49.8	498
" E.					0.0 on form
	12.67	564.37	0.56	551.70	
N3389			7.9	54.5	554.6
					Grade out 3°
3380			4.6	59.7	559.7
					" "
T.P.	12.87	576.72	0.52	563.85	
3370			6.2	70.5	565.5
					Cut 5° out 8°
3360			5.5	71.2	571.2
					Grade out 3°
T.P.	12.62	588.53	0.81	575.91	
3336 W.			2.0	86.5	581.8
3336 E.					Cut 42 out 72
3320 W.			0.7	87.8	587.8
					Cut 48 out 76
					Grade out 3°
3325 E.			2.5	86.0	86.0
					Grade out 3°

Slope stakes on Core Wall. Cont.

22

588.53

3340 E.			1.8	86.7	580.3	Cut 6" out 9"
	0.87	576.78	12.62	575.91		
3370 E.			6.4	70.4	565.5	Cut 4" out 7"
3375 E			6.9	69.9	562.5	Cut 7" out 10"
B.M.	0.19	574.24	2.75	574.03	574.05	check
3378			13.4	60.8	560.8	Grade out 3"
T.P.	6.0	552.3		546.3		

West side

B.M.	12.08	560.26		548.18		
3760, W.			20.8	39.5	529.5	0.0
3780			18.0	42.3	542.3	0.0
3800			7.7	52.5	552.5	0.0
3810			+ 3.2	63.5	561.5	Cut 22" out 52"
B.M.	3.62	582.1		578.5		
3820			6.0	571.1	570.5	Cut 54" out 82"
3830				575.2		Cut 32" out 62"

East side


Core wall slope stakes - Cont.

E. side


23

3840	582.12			580.0	6.02 out 32
3830				575.2	Cut 54 out 84
3820		3.8	78.3	570.5	Cut 73 out 108
T.P.	12.62		569.50		
3810				561.5	Cut 94 out 124
3804	559.0			554.5	Cut 102 out 132
3790	546.0			547.0	Cut 98 out 128
3780		4.0	42.0	542.0	Grade out 32

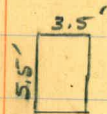
Tunnel #2
Length and Section

12 ft  Section at Face


323 Cu. ft.

26 ft  Section 17' From Face


293.8 Cu. ft.

19.2 ft  Section 30' From Face

1065.3 Cu. ft.

21 ft  Section 83' From Face

315.3

27.5 ft  Section 96' From Face
at Portal.

73.78 Cu. Yds.

Tunnel #1
Length and Section

24

Average Section  Length ~~98~~⁹⁶

Not showing portion over diversion tunnel.
98 Cu. Yds.
96

Coords. Top of Blanket

Feb 4 - 1933

25

B.M.	3.49	632.12	628.13
N 3900			
E 5231			
N 3860			
E 5224			
N 3820			
E 5221			
N 3780			
E 5219			
N 3740			
E 5214			
N 3700	7.2	624.9	Top
E 5216			
N 3660			
E 5215			
N 3620			
E 5220			
N 3580			
E 5219			
N 3540			
E 5220			
N 3500			
E 5220			

635
53.7
76.3
1.3
228.9
76.3
99.19
46.

N 3740
E 5120

Elev = 551.1 Bottom

Typical
Section

D. M. 11.32 599.22 587.90
N 3360
E 5184.0 11.1 88.1 Toc. P.
N 3340

26

625.0

577.2

25.8

1.3

774

258

5232.0

33.54

00 = 5198.5

10.3

25.0

88.1

36.9

1.3

1107

369

47.97

5232

48

5184.

Feb. 6, 1933 Coordinates of toe of Blanket
on upstream Rock emb.

N 3400
E 5172

N 3420
E 5149

N 3440
E 5128

N 3460
E 5125

N 3480
E 5124

N 3500
E 5123

N 3520
E 5123

N 3540
E 5120

N 3560
E 5120

N 3580
E 5120

N 3600
E 5122

N 3620
E 5118

N 3640
E 5116

N 3660
E 5111

N 3680
E 5121

N 3700
E 5115

N 3720
E 5118

N 3740
E 5120

N 3760
E 5121

N 3780
E 5120

N 3800
E 5127

N 3820
E 5130

N 3840
E 5135

N 3860
E 5142

N 3880
E 5163

N 3900
E 5171

27

Feb. 6, 1933

28

B.M. 3.58 578.63 575.05

T.P. 10.66 576.86 12.43 566.20

N 3810
E 4692 - Toe Rock 48.0 584.9

N 3780
E 4705 - toe Rock 5.0 571.9

N 3720
E 4726⁴ - toe Rock 26.4 550.5

T.P. 1.19 566.01 12.04 564.82

N 3680
E 4726.9 - Toe Rock 16.0 550.0

N 3650
E 4728⁹ - toe Rock 17.5 548.5

set Red flag E 4703 = 10' East of toe Rock

" " " E 4715 = " " " "

set Red flag E 4736⁵ = 10' East of toe Rock

" " " = 4736⁹ = " " " "

" " " = 4738⁴ = " " " "

Feb. 6, 1933

Toe slope upstream Rock Emb.
(Stripping complete)

29

B.M. 4.80 626.00 621.20

T.P. 2.50 615.64 12.86 613.14

N 3320
E 5197.5^s Toe Rock 9.4 606.2set flag E 5197^s = toe blanket

T.P. 1.48 604.48 12.64 603.00

N 3340
E 5193^s Toe Rock 8.9 595.6set red flag E 5193^s = toe blanket,N 3360
E 5184^s " " 16.0 588.5" " E 5174^s = "N 3380
E 5177^s " " 21.2 583.3

Inside toe Slope of Rock Emb.
Before stripping.

B.M.	10.10	660.10		650.00
N3180 E5168.2	Rock toe		2.1	658.0
T.P.	12.99	672.49	0.60	659.50
N3160 E5155.6			6.5	666.0
T.P.	13.10	685.15	0.44	672.05
N3140 E5140.1			9.3	675.9
T.P.	12.60	697.56	0.19	689.96
N3120 E5123.8			11.3	686.3
N3100 E5106.2			0.1	697.5

Feb. 6, 1933

30

1 on 1.571

Final X sections
 Bottom Item 3
 (Top was O.G.)

N3980

B.M. 3.48 632.11 628.63

5190 1.7

200 4.8

210 7.3

220 9.2

N3970

5175 +1.3

80 0.7

90 6.7

5200 9.3

N3960

5145 +4.2

50 72.7

60 1.8

70 3.1

80 5.1

90 8.9

5200 12.0

Feb 8 - 1933

31.

632.11 N3950

5140 +1.0

50 3.1

60 6.3

70 8.3

80 10.0

5190 12.0

N3940

5190 16.0

80 13.0

70 12.3

60 10.3

50 7.8

5140 4.3

N3930

5140 9.3

50 10.6

T.P. 0.71 620.88 11.94 620.17

See Book 421
 P. 55

620.88

N3930

5160	2.8
70	4.6
80	7.1

N3920

5180	11.8
70	9.9
60	6.6
50	4.2
5140	4.1

N3910

5140	11.5
50	11.8
60	12.2
70	15.2

N3900

5160	18.3
50	21.4
40	19.8

End Feb 8-1933

Final X Sections
Under rock Emb.
Feb 9-1933

32

N3280

B.M.	12.05	615.05		603.00
	12.17	625.79	1.43	613.62
5180			5.0	20.8
190			6.3	19.5
5200			8.8	17.0
10			8.7	17.1
20			6.5	19.3
30			5.8	20.0
40			4.0	21.8
50			1.7	24.1

Additional Structure Excavation
along Core Wall,

B.M.	0.11	575.36		575.25
N3360			5.0	70.4
E5003				
N3370			5.3	70.1
E5009				
N3370			9.1	66.3
E5003				

See Book 421-P. 56

Transferred to book 422
Page 2

Additional Trench Exc. Cont.

33

N3380		575.36			
E5003			16.7	558.7	
T.P.	0.38	563.70	12.04	563.32	
N3390					
E5003			10.2	53.5	
N3400					
E5006			10.8	52.9	
N3400					
E5003			13.6	50.1	
T.P.	1.15	551.75	13.10	550.60	
N3410					
E5006			3.3	48.5	
N3410					
E5003			5.0	46.8	
N3420					
E5003			6.4	45.4	
N3420					
E5008			4.1	47.7	
N3430					
E5003			8.5	43.3	
N3430					
E5006			8.3	43.5	
N3430					
E5008			4.6	47.2	

N3440		551.75			
E5003					
			10.5	41.3	
N3450					
E5003					
			16.0	35.8	
N3460					
E5003					
			20.1	31.7	
B.M.	6.39	560.80			554.41
N3790					
E5012					5.3
N3790					
E5003					17.6
S-1 B.M.					
			7.08	553.72	

See Book 421-P. 56

Flags set on Downstr. Toe
Trench. Feb 11-1933

West Side East Side

N 3440	
E 4523.5	- 4548.5
N 3420	
E 4533.7	- 4558.7
N 3400	
4547.8	- 4572.5
N 3380	
4573	- 4598.
N 3362	
4602	- 4627
N 3340	
4612	- 4637
N 3320	
4625?	- 4650?

37

Slope Stakes No. End
of Core wall

Feb 15, 1933 35
Elliott-Simpson - Soper - Remmen

				Elev.	Grade		
B.M.	12.84	637.23		624.39			
N3900 E. side			3.4	33.8	27.0	C. 68'	out 98'
N3890 W.			+2.8	40.0	21.7	C. 18'	out 21'
N3880 W.			8.2	29.0	615.9	C. 13'	out 16'
	4.49	628.88		624.39			
N3890 E.			4.9	24.0	21.9	C. 2'	out 5'
N3880 E.						Vertical cut	out 3°
3870 W.			10.2	18.7	26.7	C. 12°	out 15°
T.P.	0.81	617.07	12.62	616.26			
3870 E.					06.7	Vertical cut	out 3°
3860 W.			9.7	607.4	597.8 599.8	C. 11.5'	out 14.5'
T.P.	1.79	606.08	12.78	604.29		C. 16'	out 10.6'
3860 E.					599.8	Vertical cut	out 3°
3850 W.			2.7	603.4	588.2	C. 14.6'	out 17.5'
3840 W.			10.4	95.7	80.6	C. 15'	out 18'

17.3

Slope Stakes
So. End of Core Wall

Feb 17-1933
Elliott, Simpson, Soper, Remmen. 36

			Elev.	Grade	
B.M.	12.06	591.96	579.90		
3320 w. side			4.0	88.0	582.7 C 53 out 83
3320 E.			1.7	90.3	82.8 G 74 out 106
T.P.	13.17	604.84	0.29	591.67	
3300 E.				92.5	Vertical
3300 W.				92.5	"
T.P.	12.81	616.81	0.84	604.00	
3260 W			1.1	15.7	13.1 C 26 out 50
3260 E.			0.5	16.3	13.1 C 33 out 62
T.P.	11.91	627.49	1.23	615.58	
3240 W.			2.8	24.7	22.1 G 22 out 56
3240 E.			5.4	22.1	22.1 Vertical cut out 30

770 Contour Between Axis
and south side of Spillway

37

B.M.	2.60	778.05		775.45
	9.09	776.63	10.51	767.54
check			6.63	770.00
Sta. 7+00 S.I. Stk.			13.0	63.6

Feb. 21, 1933

B.M.	12.70	679.98		667.28
T.P.	11.63	690.94	0.67	679.31
T.P.	9.88	699.22	1.60	689.34
Set B.M.			2.86	696.36 on Boulder N 4380 [±] E 4692 Δ
B.M.	12.22	768.38		756.16
Set B.M.			2.00	766.38 on Boulder
B.M.	2.53	760.87		758.34
Set B.M.			7.33	753.54 on Boulder N 4135 [±] E 4810 Δ

Coords. of Top of Blanket over Rock

Feb 23 - 1933

Dnstrm.	Upstrm.
N 3377	N3280
E 4677	E 5196
N 3400	N 3300
E 4716	E 5193
N 3430	N 3350
E 4726	E 5191
N 3460	N 3390
E 4726.5	E 5200
N 3500	N 3450
E 4720	E 5197
N 3530	N 3500
E 4727	E 5197
N 3560	N 3550
E 4739	E 5200
N 3600	N 3600
E 4741	E 5203.5
N 3650	N 3650
E 4739	E 5200
N 3700	N 3700
E 4740	E 5196
N 3730	N 3750
E 4735	E 5194
N 3760	N 3800
E 4718	E 5196
N 3790	N 3850
E 4711	E 5200
N 3830	N 3900
E 4677	E 5200.5
	N 3950
	E 5196
	N 3980
	E 5197

Flag
in picture.

Section over Dnstr. Blanket

Feb 24 - 1933

38

		N 3600	
B.M.	6.38	606.38	600.00
E 4680		3.2	03.1
4705		3.0	03.4
4740		4.4	02.0
4771		4.7	601.7
	0.47	594.52	12.33 594.05
	1.23	583.46	12.29 582.23
4812		12.9	570.6
4850		15.1	68.4
4900		18.2	65.3

Water
Surface

Section over Upstr. Blanket
Feb 24-1933

N 3760

B.M.	2.46	631.09	628.63	
5230		6.1	625.0	
5197		6.4	24.7	
5193		5.4	25.7	
	00	571.3	571.3	
5128		0.7	70.6	
5120		4.0	67.3	
5097		6.0	65.3	Water Surface

Section over distr. Blanket 39
Maximum Feb 27-1933

N 3630

B.M.	8.61	608.61	600.00	49.17
4720		5.7	602.9	
	0.62	596.76	12.47	596.14
4727		6.7	590.1	
	2.55	586.67	12.64	584.12
4777		8.6	78.1	
4837		13.6	73.1	
4917		18.8	67.9	Water Surface

Section over Upstr. Blanket
Maximum on Feb 27 1933

N3760

B.M.	1.94	630.57	628.63
5230		5.5	675.1
5195		6.1	24.5
	0.0	573.0	573.0
5131		2.1	571.9
5125		3.7	69.3
5109		5.1	67.9

Water
Surf.

Section over Downstream Blanket
Maximum Feb 28 - 1933

40

N3600

B.M.	8.32	608.32	600.00
E4677		5.1	
4689		5.2	
4690		9.9	
T.P.	0.44	595.67	13.09 595.23
T.P.	0.16	583.18	12.65 583.02
4745		2.5	
4800		6.8	
4850		9.9	
4920		13.4	569.8

Water
Surface

Section over Upstr. Blanket
Maximum Feb 28 - 1933

N 3760

41

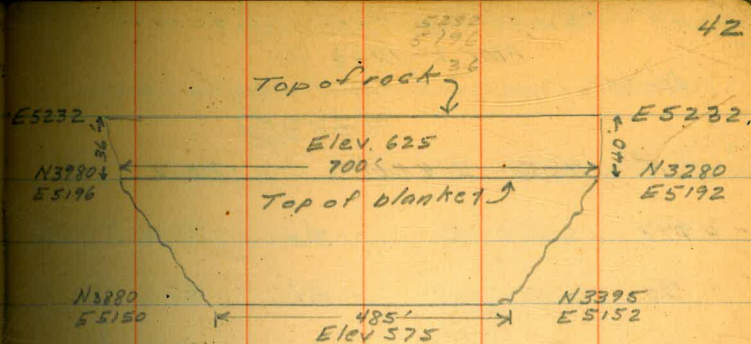
B.M.	2.09	630.72		628.63
5230			5.4	
5208			6.8	
5197			5.3	
	0.0	576.6		576.6
5129			6.6	
5122			7.7	568.9

Mar 1 - 1933 Elliot-Simpson Super Remm.
 Data required on sketch by H.W. 2-28-33

- ① Length of top shoulder at elev.
 $625 \pm = 700'$
- ② Length of beach at Elev $575 \pm$
 $= 485'$
- ③ Width of blanket at N. end = $36'$
 Width of blanket at S. end = $40'$
- ④ Average Section at
 N3760

B.M.	2.65	631.28	628.63
E5232		6.2	
5210		7.3	
5200		7.0	
5197		6.0	
	0.0	584.7	584.7
5150		4.2	
5135		7.4	
5096		13.1	

Water
 Surf



43 Final X sections Item 11
Mar 2 - 1933

(Note: copy into final X sections book)

N3830

B.M.	4.32	584.84	580.52
4997		4.6	80.2 ✓
90	plotted C.E.L.	4.6	80.2 ✓
80		5.3	79.5 ✓
75		5.0	79.8 ✓
70		2.0	82.8 ✓
4958		+13.5	98.3 ✓

N3840

4997		4.8	80.0 ✓
4990		+5.0	89.8 ✓

Steps on So. end Core Wall 44

Mar 2 1933

Elliott-Simpson-Soper - Remmen

B.M.	-1.69	593.31	595.00	Cut off on steel N3348
3320		7.31	586.0	
3296		7.31	586.0	

Grout Holes Located

Mar 4 - 1933

April 3

N3840	E	3905 W
3845	W	3910 E
3850	E	3915 W
3855	W	3920 E
3860	E	3925 W
3865	W	3930 E
3870	E	
3875	W	
3880	E	
3885	W	
3890	E	
3895	W	
3900	E	

Mar 4 - 1933
 So. end Core Wall
 Concrete Grades on Steel

4.64 599.64 595.00 Grade

3340 45.36 605.00 606.00 Fill 12

3332 45.36 605.0 606.0 Fill 12

3324 45.36 605.0 606.0 Fill 12

3316 41.36 611.0 612.0 Fill 12

3308 41.36 611.0 612.0 Fill 12

3300 41.36 611.0 612.0 Fill 12

47 Profile & Spillway
Mar 4 - 1933

B.M.	1.18	620.18		619.00
10+79.29			13.6	606.6
10+34			14.8	605.4
	12.44	631.98	0.64	619.54
9+96			1.4	630.6
	6.66	638.05	0.59	631.37
+50			6.3	631.7
9+00			4.9	633.1
8+75			5.7	637.3
8+55			+4.0	642.0
B.M.	0.54	696.90		696.36
8+30			17.7	679.2
7+63			17.7	679.2
	12.80	709.35	0.35	696.55
7+50			+1.0	710.4
7+20			+2.1	711.5
7+10			+17.5	726.9

Coords. of Upstr. Blanket 48
Mar 6 - 1933

Top	Toe			
N 3280				
E 5196	625.0			
3300				} Toe Same as for No. Estimate
5195	"			
3320	"			
5193	"			
3340	"			
5191	"			
3360	"			
5193	"			
3380	"			
5201	"			
3400		H.I. 588.6		
5206	"	5155	-6.8	581.8
3420	"			
5210	"	5163	6.7	81.9
3440	"			
5214	"	5163	8.0	80.6
3460	"			
5215	"	5160	9.5	79.1
3480	"			
5218	"	5165	9.9	78.7
3500	"			
5220	"	5163	9.6	79.0
3520	"			
5221	"	5164	9.2	79.4
3540	"			
5222	"	5165	8.5	80.1
3560	"			
5221	"	5166	8.5	80.1
3580	"			
5217	"	5172	7.7	80.9
3600	"			
5212	"	5162	8.6	80.0

Water Surface 577.0 at 9 A.M.

Top		Toe		
N3620		N1. 538.6		
5204	625.0	5161	8.7	79.9
3640				
5202	"	5160	7.8	80.8
3660				
5206	"	5162	7.9	80.7
3680				
5206	"	5160	8.2	80.4
3700				
5203	"	5157	7.3	81.3
3720				
5201	"	5158	7.4	81.2
3740				
5208	"	5172	7.8	80.8
3760				
5213	"	5180	6.1	82.5
3780				
5214	"	5182	6.0	82.6
3800				
5213	"	5178	7.9	80.7
3820				
5210	"	5175	8.9	79.7
3840				
5220	"	5171	9.0	79.6
3860				
5209	"	5168	9.1	79.5
3880				
5207	"	5160	9.5	79.1
3900				
5203				
3920				
3940				
3960				
3980				

} Same as
for Monthly
estimate



hd + TK. in Wall
N 3826.47

Hub on Upper Rd.
N 3907.37

B.M.	4.23	584.75	580.52
Steel N3836		6.75	578.0 Grade
steel N3844		6.73	578.0
Concrete grade N3832		0.75	
Concrete grade N3848		0.75	Bottom of 6 th step

Mar 9 - 1933

Grade

B.M.	5.26	603.62	598.36	
Steel point N3860			9.90	593.72 594.00
Step N3864			5.62	598.0
Step N3872			5.62	598.0
B.M.	6.76	605.12	598.36	
Top Grade 3836			-2.12	603.0 604.0 F1
3844			-2.12	603.0 604.0 F1
3852			+3.88	609.0 610. F1

Mar 11 - 1933

B.M.	8.39	606.75	598.36	
Steel Point N3868			6.85	599.90 598.00
Step N3872			2.75	604.0 604.0
Step N3880			2.75	604.0 604.0
"				610.0

53

Profile of Spillway Produced

west.

54

Stake at 9+99.29	1.60	617.80		616.20 ±
10+06			4.2	613.6
+35			3.8	14.0
+50			11.5	06.3 16.3
+80			11.3	06.5 16.5
+87			10.7	07.1 07.1
T.P.	0.35	605.59	12.56	605.24
11+00			9.9	595.7
+28			9.8	95.8
	0.31	592.81	13.09	592.50
+40			14.1	578.7
12+00			14.4	78.4
+50			13.6	79.7
Check			12.75	580.06 580.0

B.M.	0.66	767.04		766.38	10+06
6+35			3.6	763.4	+35
+60			13.2	753.8	+50
B.M.	0.92	732.24		731.32	+80
T.P.	0.0	720.8	11.4	720.8	+87
6+80			8.4	712.4	11+00
7+50			10.9	709.9	B.M. 4.69 584.69
7+61				679.9	11+17
8+15				679.9	11+30
8+25				662.9	12+00
8+40				663.2	+50
8+50				657.5	13+00
8+85				633.0	Tel. Pole Sta. 13+27
9+00				633.0	13+50
9+50				631.7	14+00
9+80				631.3	14+50
9+99.29				616.2	14+72

plotted 3/11/33
F.O. R.E.L.

					613.6
					614.0
					606.3
					616.3
					606.5
					616.5
					607.1
					617.1
					595.7
					580.0
					595.8
					6.2 78.5
					6.2 78.5
					5.5 79.2
					3.3 81.4
					2.9 81.8
					7.4 77.3
					10.1 74.7
					9.7 75.0

see page
53

57

Profile Continued
Mar 11-1933
584.69

14+79	14.5	570.2
15+00	16.6	68.1
+25	20.7	64.0
+45	20.3	64.4
+62	17.7	67.0
+75	13.1	71.6
16+00	13.6	71.1
+50	14.2	70.5

Changes on Mar 13

6+18		770.0	0.6
6+60		715.2	

Changes on Mar 15

0.0	724.8	724.8
-----	-------	-------

6+90	10.9	713.9	} Slough
6+34		743.6	
6+02		773.0	0.6

Continued on page 61

Grout Holes Located
So. End Core Wall - Mar 16-1933

58

Mar 16-1933	April 13, 1933
3277 E last	3230 W
3271 W	3225 E
3265 E	3220 W
3260 W	3215 E
3255 E	3210 W
3250 W	3205 E
3245 E	3200 W
3240 W	3194 E
3235 E	3188 W

Flags Set on downstr. Puddle

Core Mar 17-1933 (ordered by H. Wood)
N3310
E 4961
Elev 603.5 (Marked cut 65 cut 62)

59 Typical Section
upstream Hydraulic Fill
Mar 18 - 1933 N3650

B.M.	1.30	630.14	628.84
5232			5.3
5209			4.5
	0.0	605.2	605.2
5175			5.9
5150			9.2
5100			12.8
5075			14.2
			591.0 w.s.
B.M. + (-0.63)	620.92		621.55
4660			18.2
4674			14.2
4688			5.1
4737			5.2
4757			20.0
4900			591.0 w.s.

Rock Emb.
Mar 18

B.M.	0.72	629.56	370	60
			32.80	
			36.50	
			628.84	
N3380			4.3	625.3
5243.17				
N3420			4.0	625.6
N3480			3.7	625.9

61

Profile of Spillway
Mar 20-1933

Stake 540	0.0	792.9	792.9	
6+07 slope stake			18.3	774.6 0.6
6+87 ²⁹	0.8	726.6	725.8	
6+50			9.1	717.5
7+48			16.0	710.6
B.M.	0.22	696.6	696.38	
7+60			16.7	679.9
8+18 slope stake			16.1	680.5
8+50	9.9	664.1	654.2	
8+20			1.4	662.7
8+38			1.2	662.9
B.M.	4.6	637.2	632.6	
8+60			5.1	632.1
9+10			4.5	632.7
	0.00	607.1	607.1	
	(For 9+10 to 11+00 see p. 53)			
11+00			27.8	579.3

Profile of Spillway
Mar 24-1933

61

12.31	743.63	731.32	
7+48		710.6	
6+83	27.5	716.1	
6+39	+2.5	746.1	
5+95	+1.7	745.3	
5+85		783.9	0.6

Profile Rock, Hydr. Fill + Puddle Core
Mar 29-1933

N 3740

62

B.M.	0.93	629.77	628.84	4926	600.5
E 5232		4.4	625.4	4915	601.3
5209		3.2	626.6	4898	602.2 W.S.
T.P.	1.33	618.38	12.72 617.05	4896	
5186		6.3	612.1	4814	611.1
40th 5086				4784	633.7
5083		16.2	602.2 W.S.	4753	633.4
5074	60.2	596.2	596.2	4740	629.0
5064	7.7	594.5	594.5	4713	616.2
5050	10.1	592.1	592.1	4666	616.0
5038	14.0	588.2	588.2	4647	601.8
5028	17.5	584.7	584.7	4617	601.0
5012		585.2	585.2	4591.9	596.4
5000	17.0	584.2	584.2		
4979	18.0	590.5	590.5		
4968		592.6	592.6		
4958		596.2	596.2		
4944		598.3	598.3		
4934					

Final Profile - Core Wall
April 13 - 1933

B.M.	+11.88			
Steel point on N 3244	627.88	616.00		
3232	11.9	616.0	Top of Concrete	
3232	15.7	612.2	✓	
3224	15.4	612.5	✓	
3223 ⁵	9.1	618.8	✓	
3219	8.4	619.5	✓	
3218	4.7	623.2	✓	
3209	4.5	623.4	✓	
3204	0.3	627.6	✓	
3197	+0.7	628.6	✓	
3194	+3.3	631.2	✓	
3188	+3.6	631.5	✓	
3186	+9.7	637.6	✓	
3185	+10.0	637.9	✓	
3184	+17.3	645.2	✓	

FINAL PROFILE CORE WALL
April 13 - 1933

63

B.M.	0.35	637.77	637.42	
B.M.	4.43	628.82	624.39	
3932		8.3	620.5	✓
3924		8.3	620.5	✓
3920		13.1	615.7	✓
3920		19.0	609.8	✓
3914		19.0	609.8	✓
3915		20.3	608.5 608.8	✓
3911		27.7	601.1	✓
3901		27.4	601.4	✓
3900		4.8	624.0	Top of Concrete

Profile of Spillway

April 16 - 1933

No. side on toe line

B.M.	0.99	732.31		731.32	
6+8729			9.6	722.7	Cut 10' Toe wide
6+60			6.2	726.1	
6+20			2.0	730.3	Cut 9' Toe wide
5+80			0.9	731.4	
4+75				835.0	Dr. Ground
					Center line
7+47			21.3	711.0	
6+70			17.1	715.2	
T.P.	13.04	745.20	0.15	732.16	
6+31			1.2	744.0	
6+05			1.5	743.7	
5+35				792.5	O.G.

Section on Sta 5+80
North Side

64

B.M.	3.9	735.2		731.3	
Sideline			3.0	732.2	
16 out			3.0	732.2	
B.M.	4.6	771.0		766.4	
					Hump
					35' out
			0.0	771.0	O.G.
					Grade = 710.0
					to Elev.

April 24-1933
 Elliott-Simpson-Soper
 Section of Hydr. Fill & Fudelle Core
 N3740

65
 12.9

B.M.	0.0	627.5	627.5
5232		3.1	624.4
5218		5.5	622.0
5204		4.2	623.3
5194		9.0	618.5
5123		12.9	614.6 W.S.

614.6 W.S.

5110	0.3	614.3
5100	1.1	613.5
5090	1.7	612.9
5080	3.2	611.4
5060	6.3	608.3
5040	8.0	606.6
5020	8.5	606.1
5010	8.8	605.8
5000	9.3	605.3
4990	6.4	608.7
4980	6.4	608.7
4970	5.4	609.7
4960	4.3	610.3
4950	1.7	612.9

B.M.	0.93	638.35	637.42
4946		614.6	W.S.
4840		16.9	621.5
4785		9.7	628.7
4780		5.4	633.0
4740		5.6	637.8

Wells to be drilled in Hyd. Fill

No.	E.	Bottom Elev.	Ground Elev.
No. 1	3620	4760 ✓	552
2	3620	4840 ✓	553
3	3620	4920	546 615.9
4	3620	5092 5080 ✓	539 615.3
5	3620	5140 ✓	554 617.1
6	3450	4840	559
7	3740	4840	593

Grout Holes

May 9 - 1933

66

31845	W.	3935 W
3180	E	
31745	W.	3940 E
3170	E	39435 W
3165	W	3950 E
3160	E	3955 W
3155	W	3960 E
3150	E	3965 W
3145	W	3970 E
3140	E	3974 W
3135	W	
3130	E	
3126	W	
3122	E	

Slope Stakes on Core Wall
May 3 - 1933

B.M.	12.79	671.31		658.52	
3180 E.					C 11 $\frac{1}{2}$ out 14 $\frac{1}{2}$
3180 W.			6.3	665.0	652.0
3170 E			6.0	665.3	660.2
3170 W			6.5	664.8	660.2
3160 W			6.6	664.7	659.5
3160 E			6.2	665.1	659.5
3150					665.2
3150					Vertical cut
3140					
3140				671.0	Vertical cut

T.P.	7.92	676.24	2.99	668.32	
3130					
3130					678.8

B.M.	4.31	690.03		685.72	
	1.86	679.59	12.30	677.73	
	5.12	674.85	9.86	669.73	
	2.61	674.96	2.50	672.35	
3970					671.4
					Vertical cut
3960 E			5.0	670.0	665.1
" W			4.7		665.1
3950 W			4.0	671	
" E			2.0	667.0	660.0

C 11 $\frac{1}{2}$ out 14 $\frac{1}{2}$
 C 13 out 16
 C 5L out 8 $\frac{1}{2}$
 C 4E out 7 $\frac{1}{2}$
 C 5Z out 8 $\frac{1}{2}$
 C 5E out 8 $\frac{1}{2}$
 Vertical cut
 Vertical cut
 C 49 out 7 $\frac{1}{2}$
 C 5Z out 8 $\frac{1}{2}$
 C 11 $\frac{1}{2}$ out 14 $\frac{1}{2}$
 C 7 $\frac{1}{2}$ out 10 $\frac{1}{2}$

REGISTRATION No.

7

020

Outline of top
cut - Borrow Pit
Areas "A" & "B."

STATE FUND

By

Purchasing Department

Final Profile
Core Wall
May 9 - 1933 (Rain)

B.M.	2.20	670.52	668.32	
Set E.R.V.		0.57	669.95	✓
3120		9.96	660.56	✓
3120		+3.6	674.1	✓
31215		7.4	663.1	✓
7.7	2.83	663.39	9.96	660.56 ✓
3139		7.9	55.5	✓
3141		10.1	53.3	✓
3152		10.5	52.9	✓
3157		12.2	51.2	✓
3170		12.6	50.8	✓
3176		14.8	48.6	✓
3181		24.4	39.0	✓
31845		24.6	38.6	✓
3185		23.8	39.6	Core ✓
		6.36	657.03	✓

stakes No. endcore wall 64

B.M.	7.77	645.19	637.42	
3945		7.5	637.7	628.0 C97
step		4.5	640.7	628.0 C128
3945		4.5	640.7	636.0 C47
3960		+3.1	648.3	646.0 C23

Rock Removal

B.M. 12.70 600.70 588.00

T.P. 12.55 612.96 0.29 600.41

12.0 601.00 600.8 6.03

12.11 600.85 600.85

T.P. 10.33 622.88 0.41 612.55

.67 616.2 600.85 6.153 out 192

600.35

T.P. 12.63 635.49 -(1.02) 622.86

11.81 644.76 2.54 632.95

7.36 637.40

Final Profile Core Wall

May 12 - 1933

Elliott
Simpson
Soper - Remmen

B.M.	7.50	644.92	637.42	Top of
3931 ⁵			7.3	637.6
B.M.	7.61	645.03	637.42	
3932 ⁰			16.9	28.1
3944			16.6	28.4
B.M.	7.50	644.92		
3945 ⁵			7.7	637.2
3952			5.7	29.2
3954			1.6	43.3
3968			14.1	49.0
3969			16.0	50.9
3975			17.6	57.5

Peachlieval's May 22 - 1933

B.M.	12.23 ^{1/2}	619.81 ⁵⁴		30 ^{1/2}
				607.37 ^{1/2}
	13.04	632.27 ²⁰	0.38	16
				619.23
Sub B.M.			5.79	41
				626.49
	13.11	644.97 ^{1/2}		86 ^{1/2}
		645.04 ^{1/2}	0.33 ^{1/2}	631.93 ^{1/2}
	12.52 ^{1/2}	657.53 ²⁶	0.04	644.93 ^{1/2}
				645.00 ^{1/2}
	12.83 ^{1/2}	670.12 ^{1/2}	0.24	22
				657.29
Old B.M.			5.49	56
				667.63 ^{1/2}
	4.91	674.73 ⁶⁶	0.30 ^{1/2}	75
				669.82
B.M.				22
			2.44	672.29
				672.22
B.M.	11.01 ^{1/2}	707.04 ^{1/2}		696.03
Old B.M.			3.54 ^{1/2}	703.50
				703.50
B.M.	7.14	644.58		637.44
	0.75 ^{1/2}	634.09 ^{1/2}	11.24	633.34
			7.06 ^{1/2}	626.43

May 26, 1933
Simpson
Seper -

Ground elevations at Wells.

B.M. 0.68 626.93 626.25

2 5.6 621.3

3 10.7 16.2

4 11.7 15.2

5 9.7 17.2

6 6.5 20.4

7 4.2 22.7

B.M. 1.19 638.62 637.43

1 4.9 33.7

B.M. 6.88 702.91 696.03

N3980

N3990

N4000

W

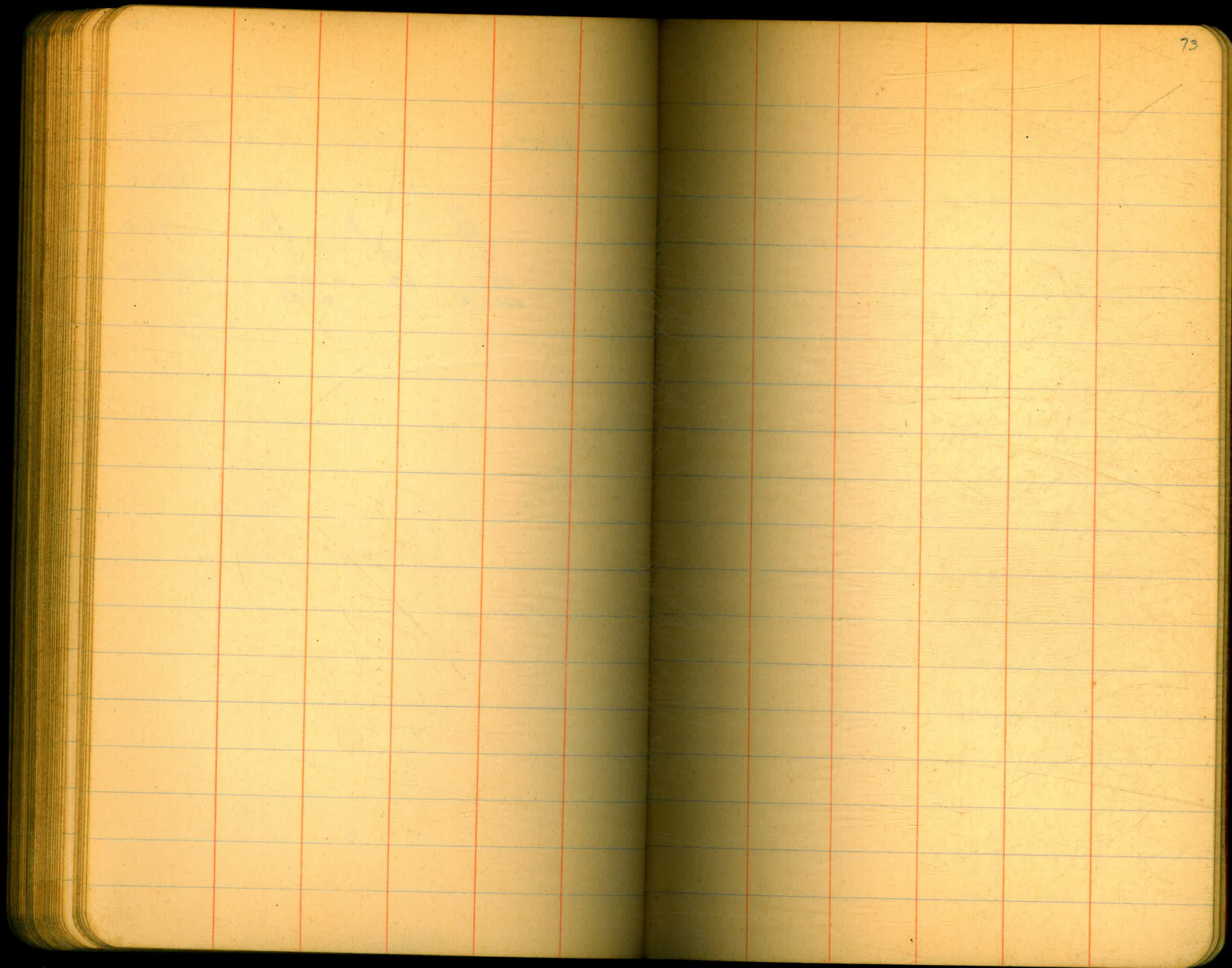
Q

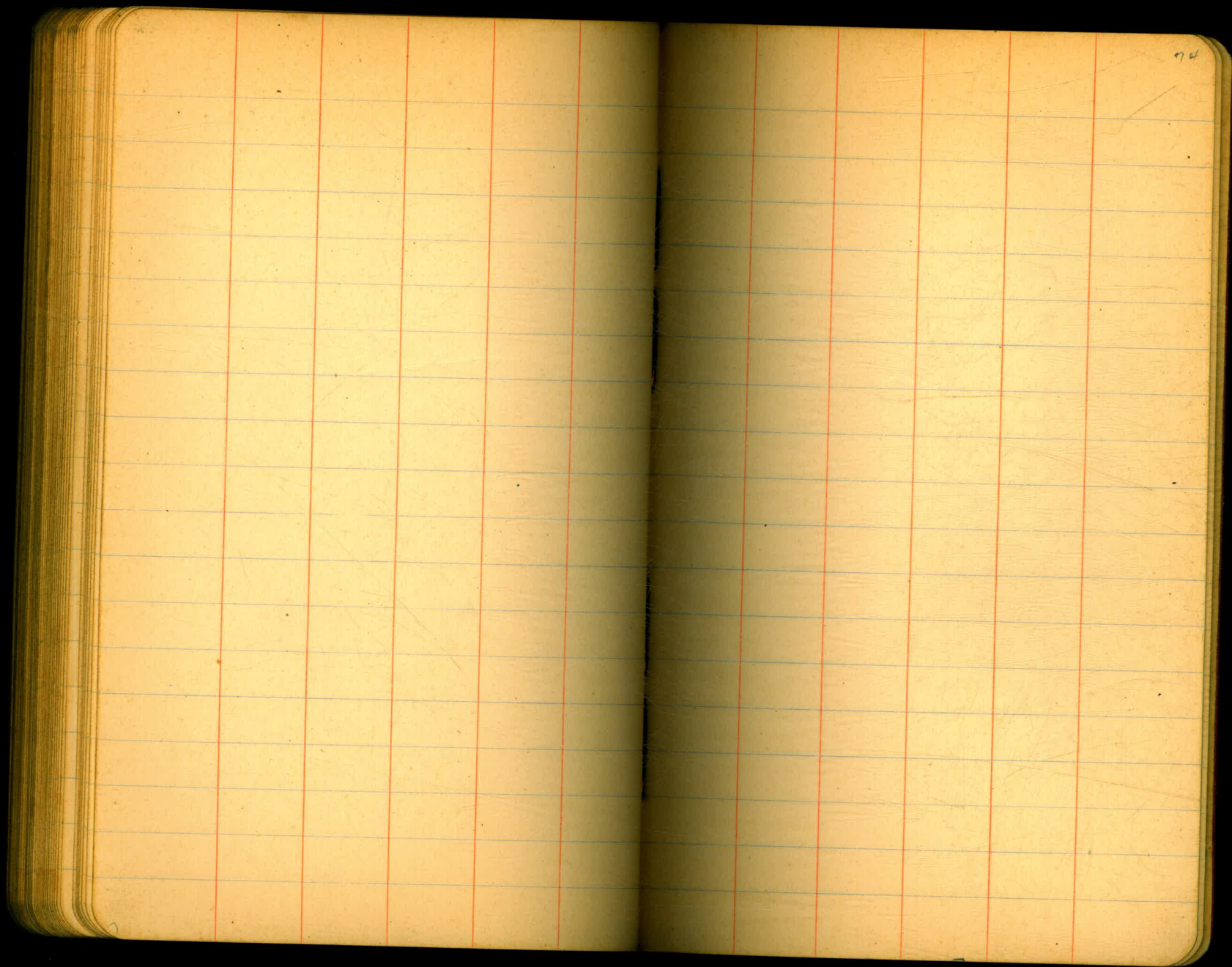
E

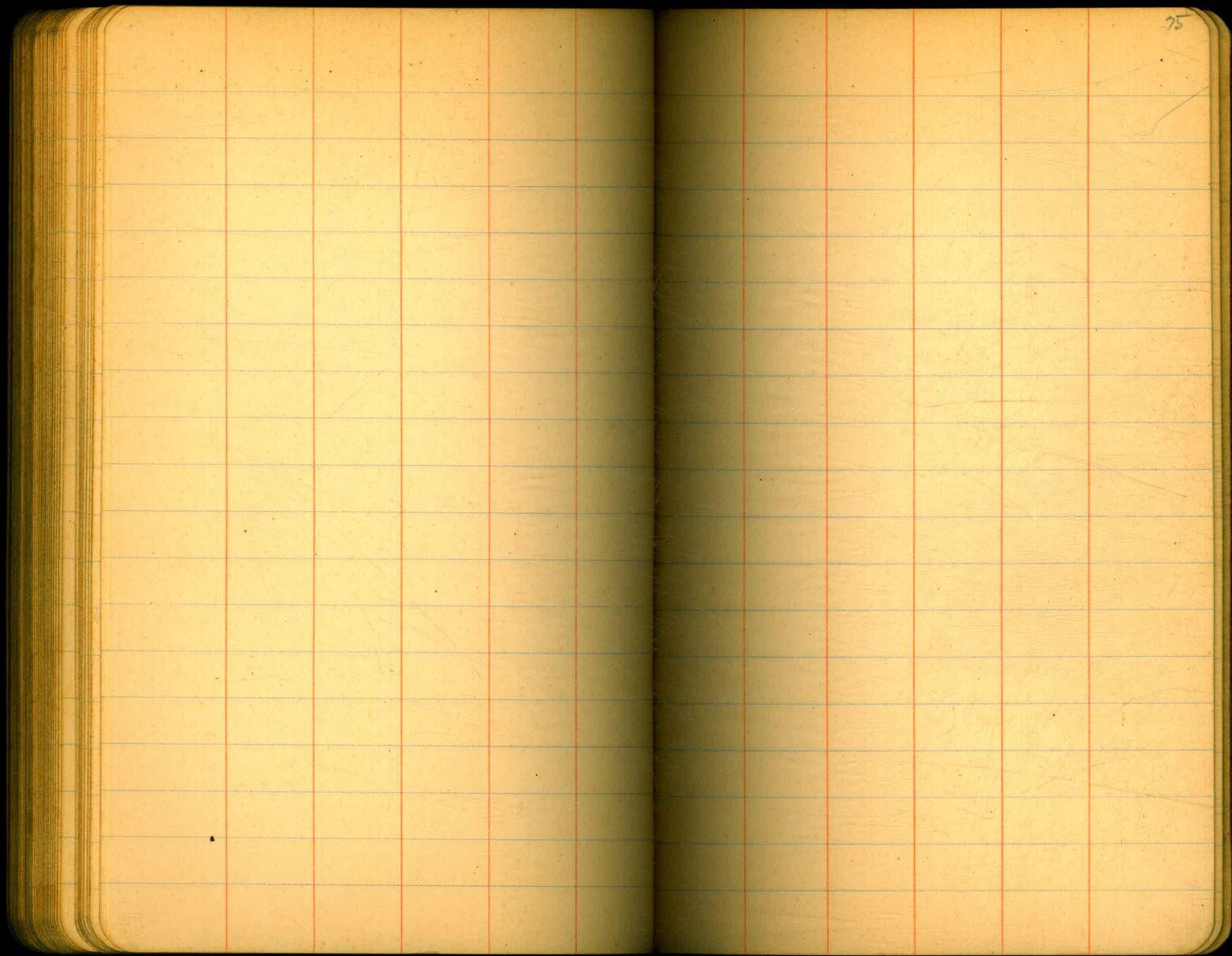
cut 23.2
+53
out 26.2

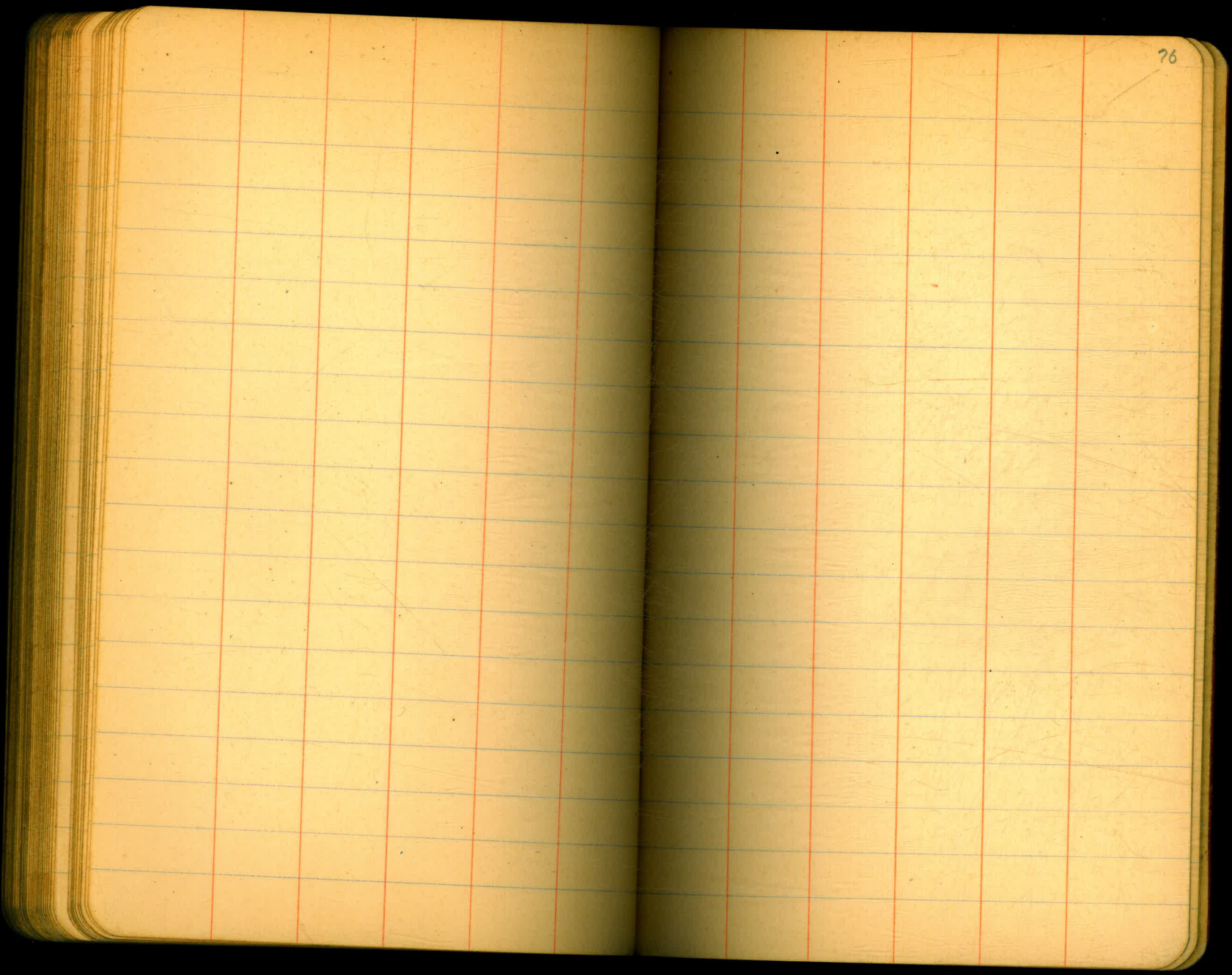
cut 17.9
6.9
E

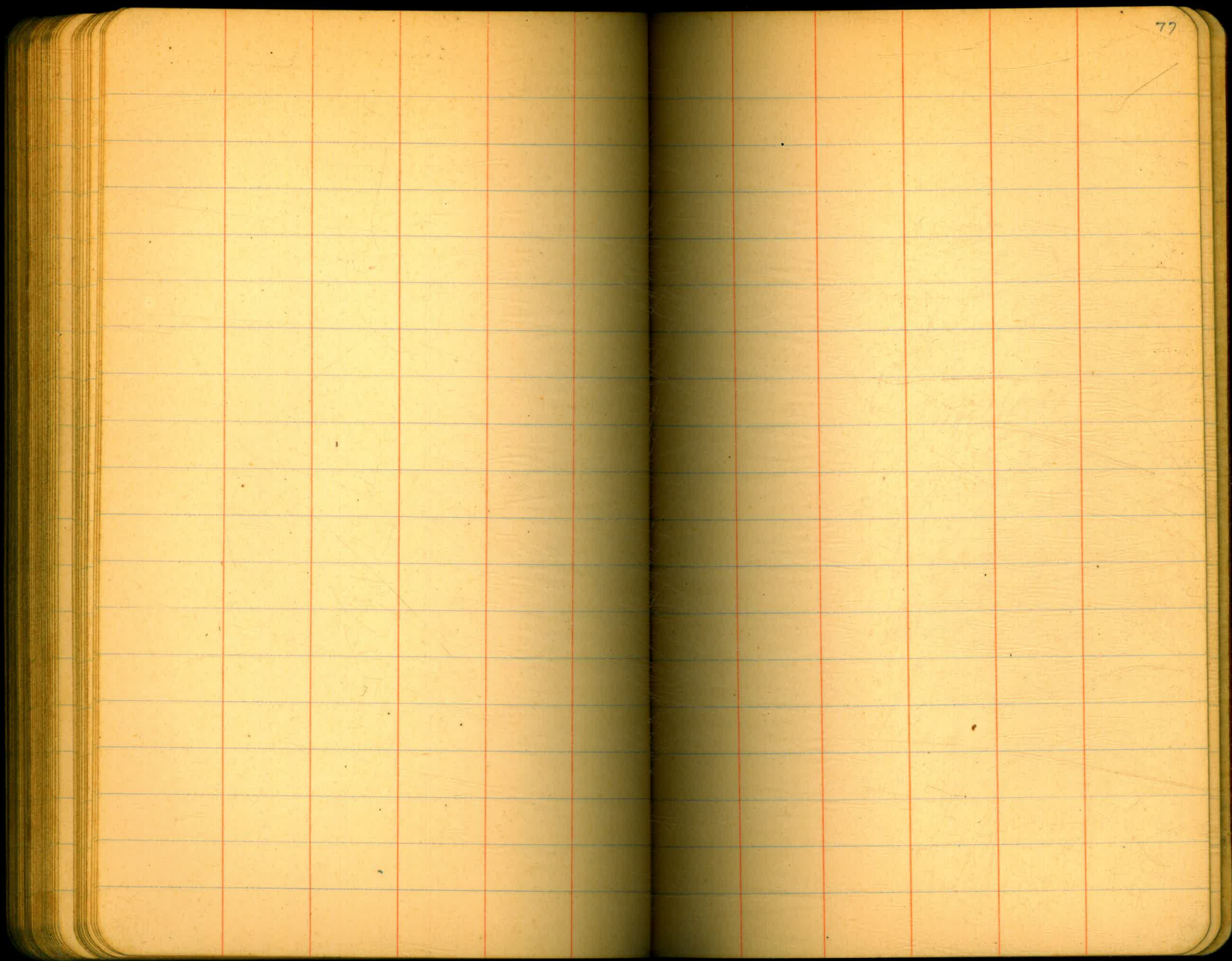
cut 7.5
10.4
out 10.5

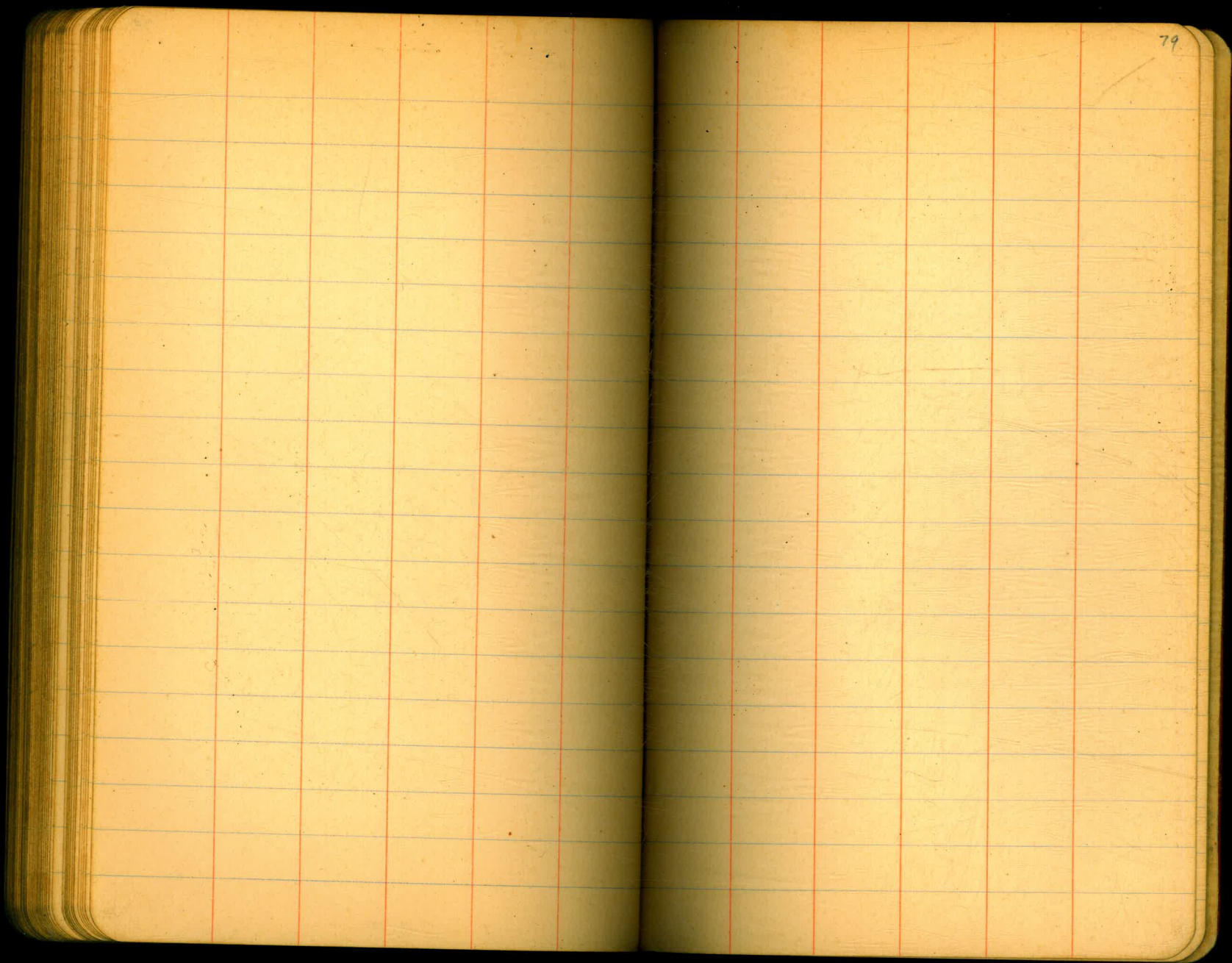


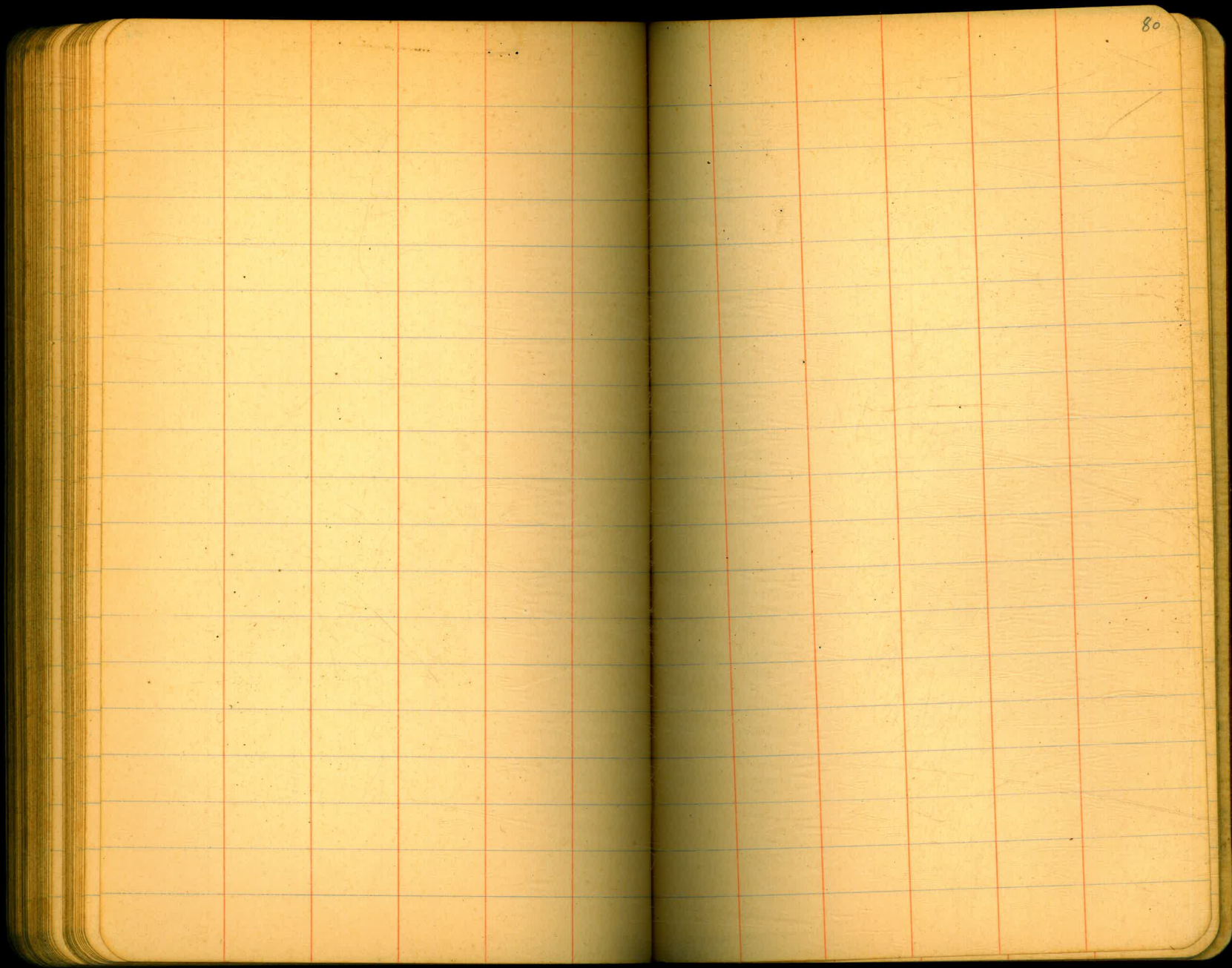


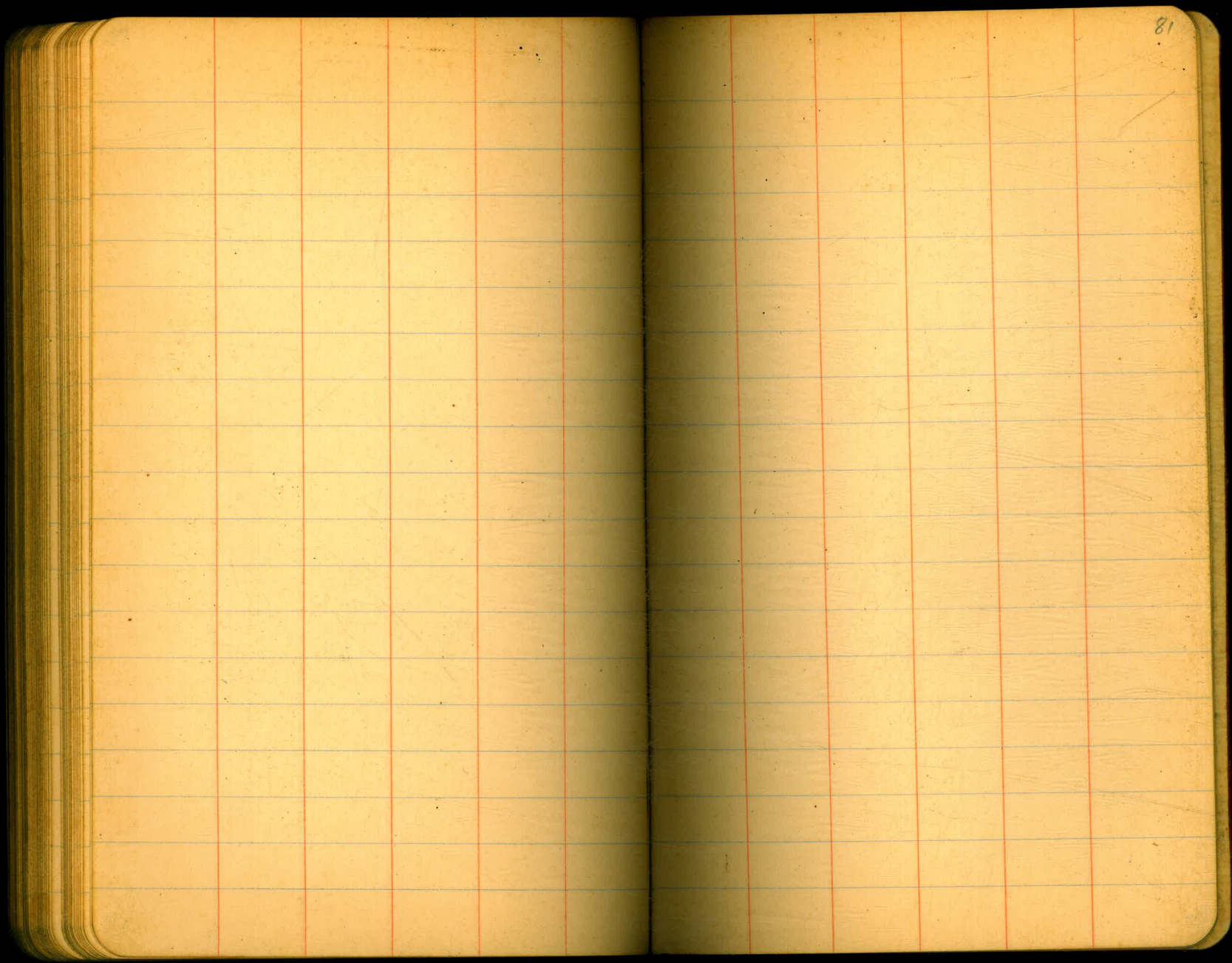


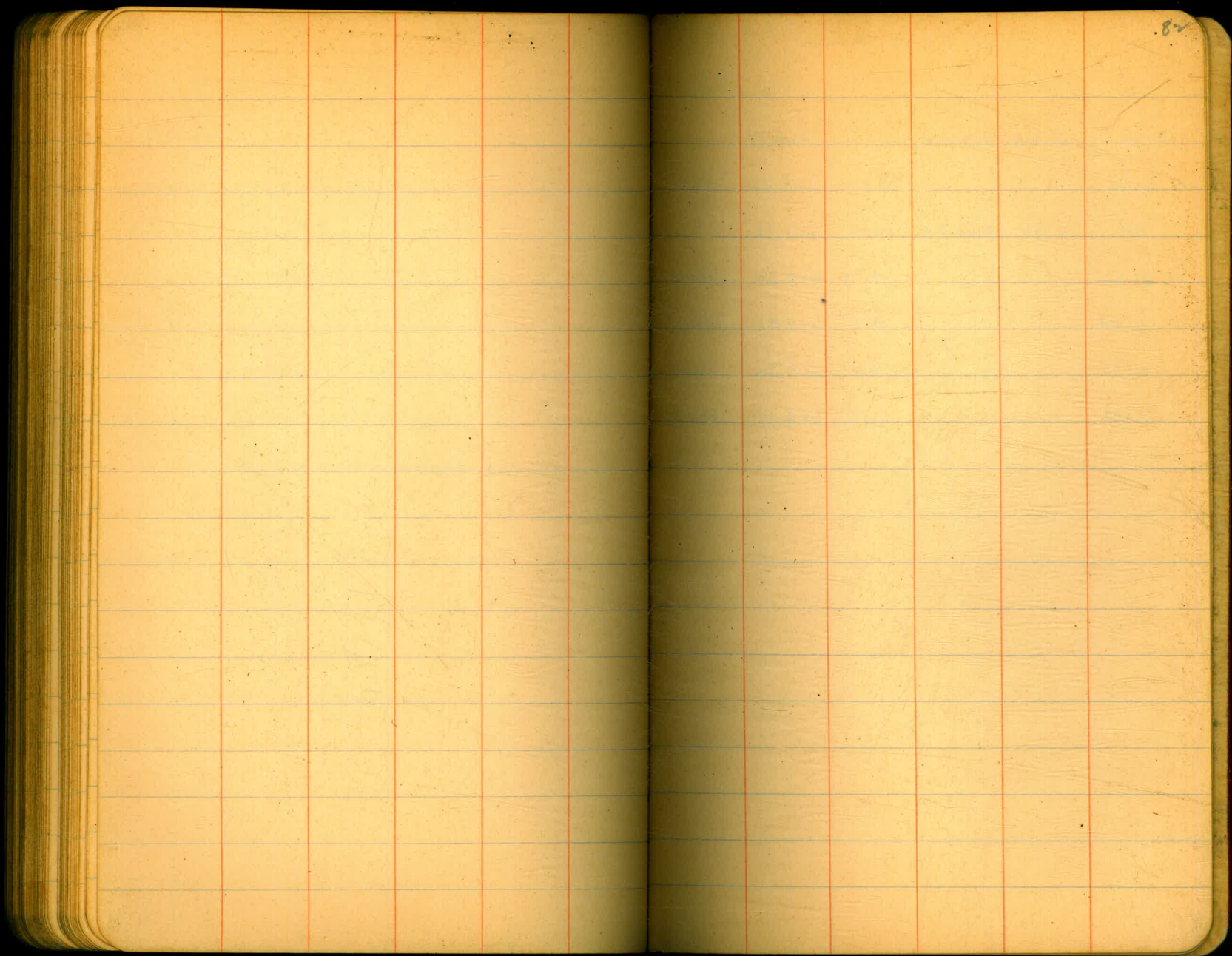












82

Steel Point Grades.

B.M.	2.33	670.65		668.32	
N 3148			11.34	659.31	660.0 F. 0' 8 3/4"
T.P.	2.56	660.26	12.95	657.70	
N 3156			4.36	655.90	656.0 F. 0' 1 1/2"
3164			4.35	655.91	656.0 F. 0' 1 1/2"
3172			6.50	653.76	654.0 F. 0' 3"
3180			11.99	648.27	648.0 210' 3 1/4"

May, 15, 1933

Simpson
Soper
Remmen

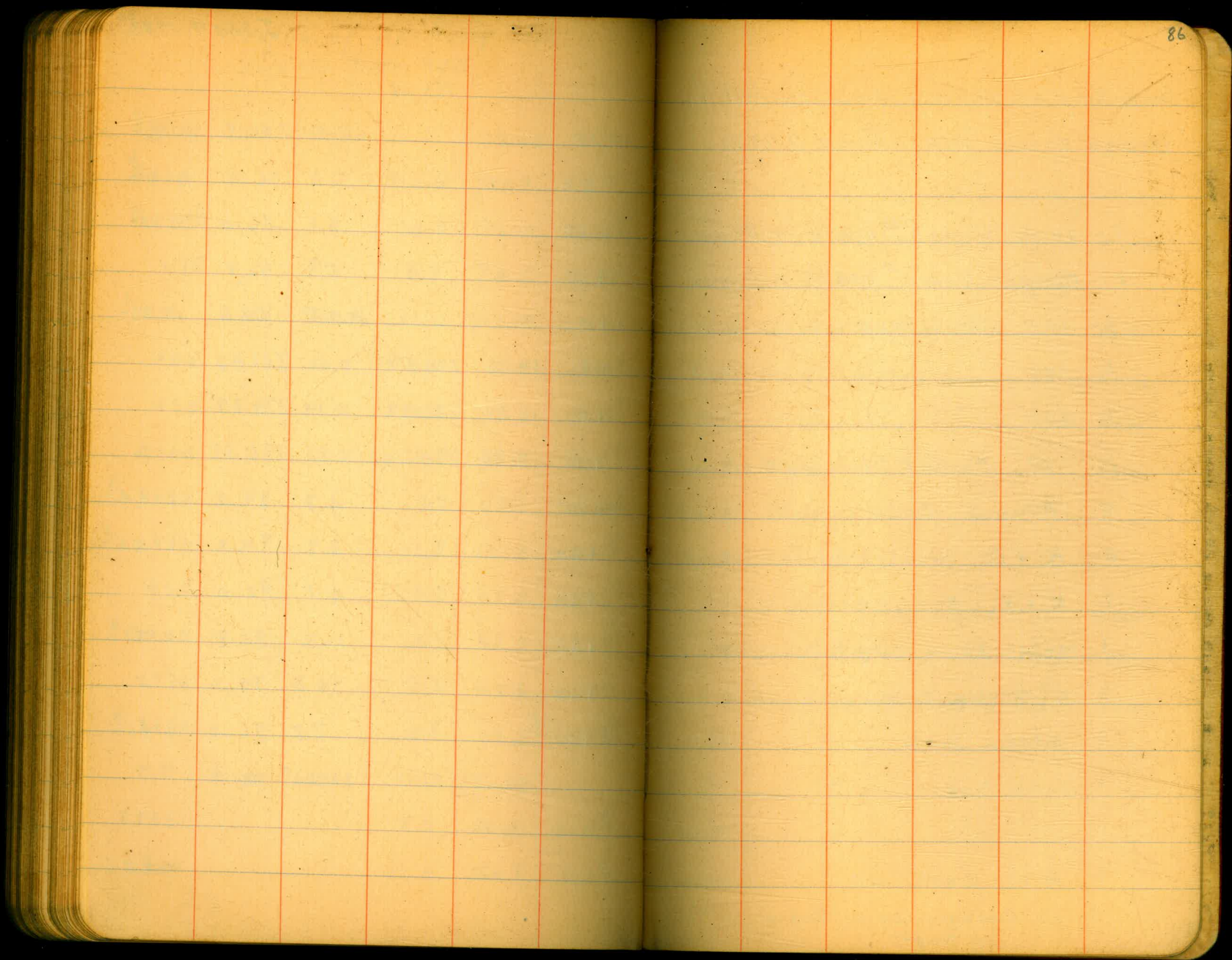
83

Profile of Spittway Lip
Cuts to Elev. 745

June 9, 1933.⁸⁵

762.08

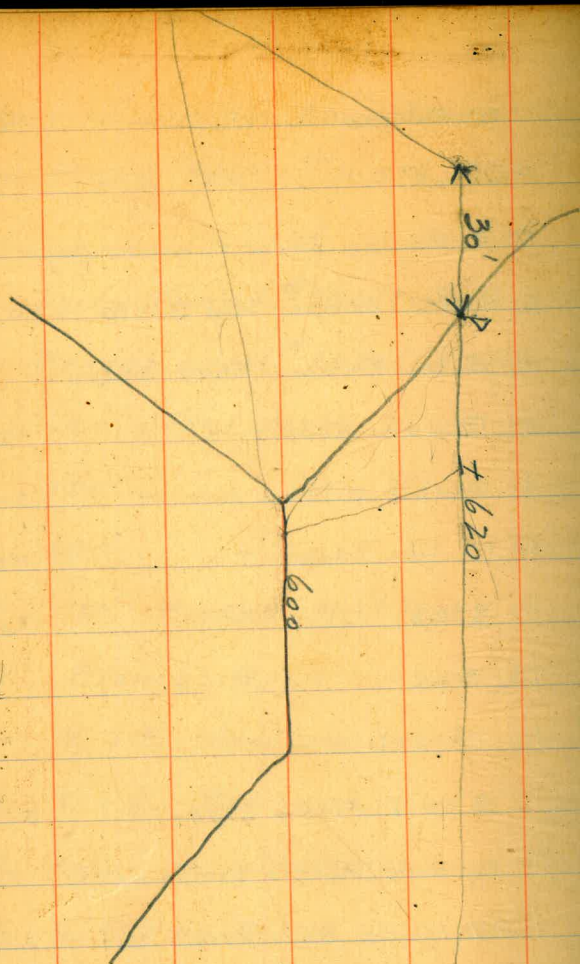
B.M.	9.24	780.30		771.06	1+75		5.5	756.6	c-11 ⁶
5+10			+0.6	780.9	+50		5.3	56.8	c-11 ⁸
4+89 ⁶			4.3	76.0	c-31 ⁰	+25	6.1	56.0	c-11 ⁰
+75			6.7	73.6	c-28 ⁵	+15	5.9	66.7	
T.P.	0.57	767.76	13.11	767.19	1+00		+0.5	62.6	c-17 ¹
+50			2.4	65.4	c-20 ²	T.P.	13.10	774.58	0.60 761.48
+25			10.7	57.1	c-12 ¹	T.P.	12.60	786.99	0.19 774.39
4+00			17.5	50.3	c-5 ³	T.P.	7.98	794.14	0.83 786.16
3+75			8.7	59.1	c-14 ¹	0+75	4.8	89.3	c-44 ³
+50			11.3	56.5	c-11 ⁵	+50	3.9	90.2	c-45 ²
+25			6.8	61.0	c-16 ⁰	+40	4.1	90.0	
3+00			4.1	63.7	c-18 ²	+25	11.3	82.8	c-37 ²
2+75			3.2	64.6	c-19 ⁶	+10	14.8	79.3	
2+50			5.8	62.0	c-17 ⁰	0+01 ⁸⁸	7.8	86.3	c-41 ³
T.P.	5.45	762.08	11.13	756.63			13.2	780.9	
2+25			5.7	56.4	c-11 ⁴				
2+00			12.0	750.1	c-5 ¹				



Inventory of Survey Equipment in
Dodge Truck #466, June 6, 1933.

1- Leitz Transit #10278, + Tripod
 1- Berger Level #15808, + Tripod
 1- 100' Steel tape - New.
 1- 100' " " - N.G.
 1- 200' " " - Good
 1- 50' Pocket steel tape - Good
 5- Plumb Bobs - Good
 4- K. + E. Hand Levels - Good
 1- K. + E. Rod Level - "
 1- Metal string target - "
 2- 6' Folding Rulers - "
 1- Stake sack - Fair
 1- Hand Axe - "
 1- " " - Good
 1- 4 Lb. Single Jack - Good
 1- 13' Dietzgen Level Rod - "
 + Target.

1- 2 Gallon canteen - Fair
 1- 1 " " - "
 1- 2 Gallon "Desert" Water Bag - Good
 2- pairs Rubber Hip Boots - Good
 1- pair Rubber Knee Boots - "
 2- Brush Hooks - Fair
 1- Double Bitted Axe - Good
 1- 10 Lb. Maul - New
 1- 8 Lb. " - Fair
 1- Pick - "
 1- Shovel - "
 1- 5 cell Flash Light - Good
 4- Carbide Miners Lamps + Caps - Fair
 1- Mulford Anti-Venin Kit - New



545.1
 .14
 TOP 543.7

77.71
 730.36
 11.27
 741.63
 71
 752.63

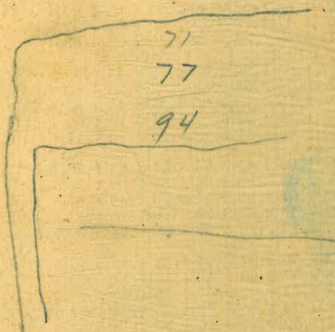
B.M 539.39

5.75
 545.14
 7.3

537.8
 5.8
 532.0

545.1

543.2



CALCULATION OF EARTHWORK.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if $w = 16.2$ and $h = 5.3$, cu. yds. $= 1.48 + .028 + .089 = 1.597$ cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) $= h$, and $\frac{1}{2}$ the roadbed $= w$, add the triangles formed by taking the distance out to each break in turn ($= w$'s) by the difference between the cuts (or fills) on each side of it ($= h$'s) always subtracting the outer from the inner.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

Made in Germany.