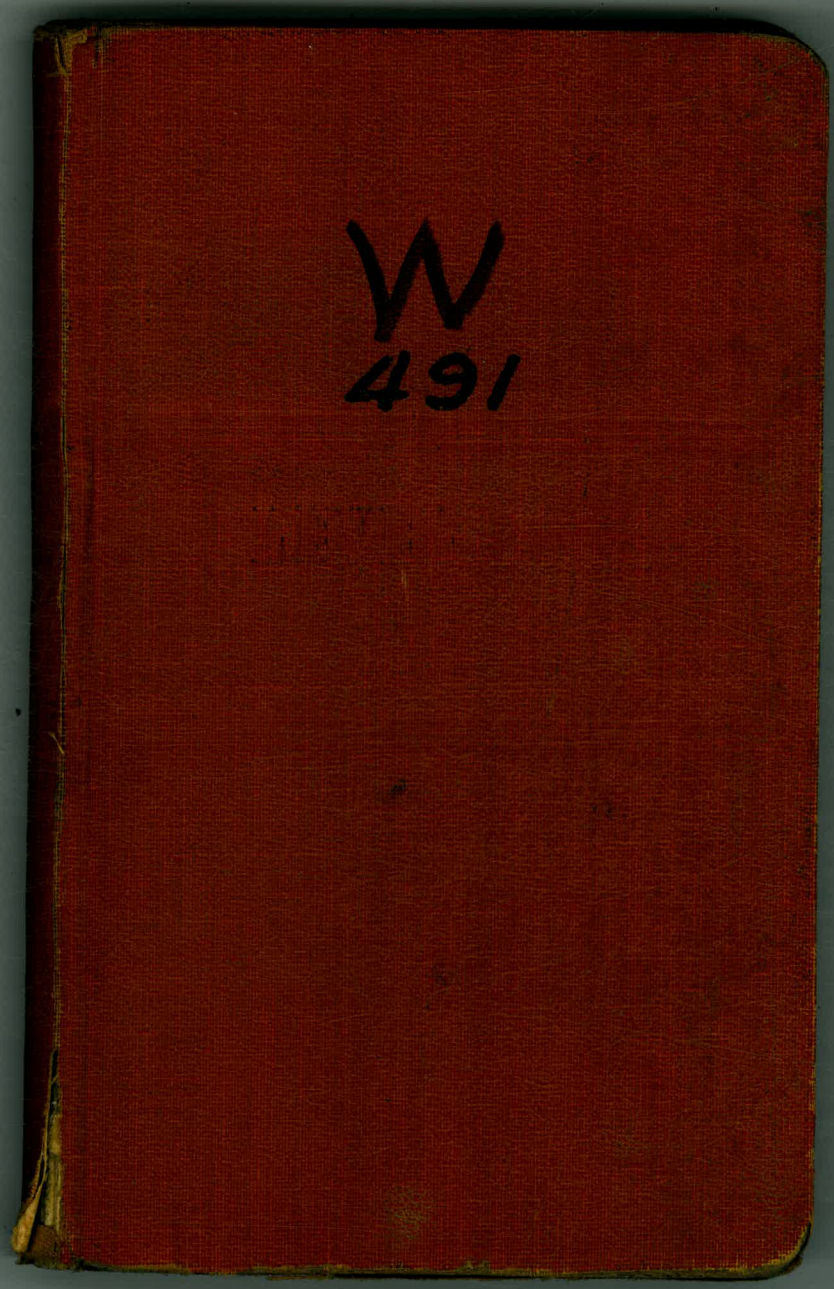
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KEUFFEL & ESSER CO.
DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.
NEW YORK.
CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

MICROFILMED
JAN. 1965

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

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

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H.L. Harper Insp.

491 H. Harper.

Puddle Core Test Wells Log etc 1-14

General Notes 83-85

Blank 15-82

Puddle Core - Test Well

Sept. 6, 1934

1 Finn (Hayward) + 3 Men with truck + equipmt. Preparing to sink well in puddle core at:

N - 3166

E - 5008

Puddle Core - Test Well

Sept. 7, 1934 - Elev. Puddle - 737.0

1 Finn & 3 men with Truck #481 arrived on job 10:30 AM. Re-rigging tripod, etc. and preparing to sink casing. Started sinking at 12:30 P.M.

#1

Log of Test Well #1 (cont'd.)

N - 316d

E - V008

Elev. Puddle Surface - 732.0

Sample Number	Elev. Surface	Feet Cable	Elev. Top Casing
	732.0		73V.7V
3071 3110	732	75.7	735.7V
3072 3111	732	2V.0	733.7V
3073 311V	732	78.0	734.00
3074 3113	732	36.2V	738.2V
3078 3114	732	38.2V	73F.2V
3079 311V	732	40.2V	73F.2V
3080 3081 3116	733	40.0	737.0
3117	733	40.0	73V.V
3118	733	41.0	734.0
3119			
3120			
3121			

#1

Log of Test Well #1 cont'd.

Elevation Sample	
7	
720.0	
708.7V	
706.2V	
702.2V	
700.00	Sand
698.00	Stopped at 4 P.M. - 9/7/34
697.00	Started 8 AM - 9/8/34
69V.V	
693.0	Finished 9:40 AM - 9/8/34

Log of Test Well No. 2 at:

N - 3700

E - 7000

	Sample Number	Elev. Surface	Feet Cable	Elev. Top Casing
1	3128	735	10	725
2	29		15	720
3	30		20	715
4	31			
5	32			
6	33			
7	34			
8	35			
9	36			
~~10~~	~~37~~			

11 81
12 18

Elevation Sample

1 - 8

- 12.5

- 15.0

- 18.0

- 20.0

- 21.6

- 22.5

- 25.0

- 27.5

- ~~30.0~~ ~~Stopped~~ Discarded 3 PM - Sept 11, 1934

- ~~32.5~~ owing to fractured casing

Test Well No. 2 A.

		Elev. Pool
#1	3139	736.5
#2	3140	
3	3141	
4	3142	
5	3143	
6	3144	
7	3145	
8	3146	
9	3147	
10	3148	
11	3149	
12	3150	

Elev. Sample

-12.5 Started: 2:30 P.M. Sept. 12, 1934

-15.0

-17.5 stopped at 3 PM. - 9/12/34

-20.0

-22.5

-25.0

-27.5

-30.0

-32.5

-35.0

-37.5

-40.0

Test Well No. 3

At - N3500 - E5017

Started Sept. 14, 1934

Sample		Puddle	Flank	Sample Elev.	
#1	3171	737.5	740.0	737.5	
#2				735.0	
#3				732.5	
#4				730.0	
#5				727.5	
#6				725.0	
#7				722.5	Auger to here only - Casing on down.
#8				720.0	
#9				717.5	
#10				716.0	
#11				715.0	Stopped at 4 PM - 9/14/34
#12				714.0	Started at 9 AM - 9/15/34
#13				712.5	Casing examined - no leaks -
#14				710.0	
#15				709.0	11:00 AM

Well No. 4

N 3500 - E 5025

		Flask	Sample	
#1	3186	742.0	737.0	
#2			734.5	
#3			732.0	
#4			729.5	✓
#5			727.0	
#6			724.5	
#7			722.0	
#8			719.5	✓
#9			717.0	✓
#10			714.5	
#11			712.0	
#12			709.5	✓
#13			707.0	
#14			704.5	✓
#15			702.0	
			4.5	

Started 12 M. 9/15/34

Stopped - 2:45 P.M. - 9/15/34

712
702
10

702
695
7

702
2.5
697.5

Well. No. 5

793.0

#		
1	3209	740.5
2		738.0
3		735.5
4		733.0
5		730.5
6		728.0
7		725.5
8		723.0
9		720.5
10		718.0
11		715.5
12		713.0
13		710.5
14		708.0
15		705.5
16		703.0

793
705.5
37.5

705.5
685.0
20.5

12

9/30/31

Well #6

No.	Jar No	Elev	Lab. No	Carton No	Elev.
1A	1094	735			
1	3171	735	3263	1	744
2A	1169	732.5			
2	3172	"	3264	2	742
3A	3170	730.			
3	3173	"	65	3	735.
4A	3221	727.5			
4	3170	"	66	4	732.
5A	3223	725.			
5	3177	"	67	5	725
6A	3225	720.			
6	3178	"	68	6	718.0
7A	3197	717.5			
7	3179	"	69	—	
8A	3206	715.0			
8	3186	715.0	70	—	
9A	3200				
9	3187	712.5	71	#7	712-13
10A	3198				
10	3180	709.5	72	#8	709-10
11A	3207				
11	3185	707.0	73	—	
12A	3208				
12	3181	704.5	74	#9	705-06
13A	3189				
13	3143	702.0	75	—	
14A	3190				
14	3202	700	76	#10	701-02
15A	3191				
15	3213	697.5	77	—	
16A	3214	695.0		#11	695-96
16		~~698~~	78		
17A	3199	692.5			
17	3218	~~687.5~~	79	—	

Elev Emb. 750.

Lab. No. Started 5:30 A.M.

Pipe sec. #1 20'10"

" " 2 10'6"

750
705.5
44.5

Grd - 749.5

9.0

T.C - 758.5

749.5
6.5

756.0
7.0
763.5

Added pipe - 10'-6"
Total - 41'-10"

Added pipe T.C. - 753.0
10'-4" 7.0
Total - 52'-2" 46

751.5
7
44.0

Added pipe -
10 - 5
Total - 62'-7"

Well 46 - Contd.

	Jar No	Elev	Lab No	Carton No.	Elev	
18A	3195			#12	692-93	
18	3217	691.0	3280			
19A	3194					Added pipe
19	3216	688.5	81	—	—	10'-6"
20A	3193					Total 73'-1"
20	3215	686.0	82	#13	686-87	
21A	3205					
21	3219	683.0	83	#14	683-84	
22A	3209					
22	3226	680.5	84	—	—	
23A	3210					
23	3222	678.0	85	#15	678-79	
24A	3212					Added pipe
24	3224	675.5	86	—	—	10'-2"
25A	3163					
25	3141	673.0	87	#16	673-74	Total - 83'-3"
26A	3161					
26	3144	670.5	88	#17	671-72	
27A	1306	668.5		#18	669-70	
27	3145		89			
28A	1300					
28	3146	666.0	3290	—	—	Added pipe
29A	3175					
29	3184	663.5	91	#19	664-65	10'-5"
30A	3201					
30	3162	661.0	92			Total 93'8"
31A	3163	658.5				
31	3142		93	#20	658-	
32A	3149					
32	3164	656.	3294			
33A	3196					
33	3168	653.5	95			
34A	3183					
34	3167	650	96	21	650-51	

756
670.5
85.5

754
668
86

749.5
1.5
751.0
666
85.0

Sun. Sept. 29

Shovel #7, 2 trucks excav. for rock fill, N. abut.

Rock fill 2 cat. opers overhauling cats.

Spw. 1 carp. fore, 1 lab. wetting down & removing forms

Quarry 2 labs on coyote
3 labs gathering up pipe

Shop. 1 fore 8 labs

4.6
4.5
28

1:2:5 – 18 Btls 108 Ex.
1:2:4 – 28 168 Ex.
4 Grout – 4 " 20 Ex.
296 Ex

750.0
663.5
86.5

72.5

749.5
4.5
754.0
700
54.0

754
697.5
56.5

751
675.5
75.5

759
673
86

749.5
1.5
751.0
697.5
53.5

749.5
9.0
758.5
695.0
63.5

756
65
686

759
683.5
75.5

755
665
690

753
687.5
65.5

751.0
675.5
75.5
62.7
63.0

751
60
691

749.5
4.5
754.0
680.5
73.5

750
60
690.

751
60
691

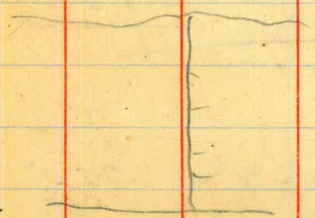
750
63
687

758
75
683

#3 - N 3500 - E 5017 737.5

To El.

El. Jct. R.F. + Hy.F = 716



#9 - 7

#6 - 4

~~#11~~ 1 8

#9 8

#4 6-2

752
96
656

5 - Grout - 4 - 20

6 - 1-2-4 - 44 - 264

7 - 1-2-4 - 36 - 252

6 - 1-2-5 - 28 - 168

108 704

2 Sx taken for Grout.

Gal

45 - 7

41 - 6

754
95
659

749.5
663.5
86.0

95
8
87

758
95
663.

756
96

E. 732.12
W 733.73
W.S. 731.8

~~Lengths~~
111

#- 7
#9 - 12
#6 - 6
19.6 water
24.6
L - 14
#10 - 1
~~#7 - 7~~
L - 12
#9 - 8 - 8
#6 - 5 - 6

20.8
2.8
18.

742
707
35

736
27
709

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.

MADE IN GERMANY.