

1028

DATA
ON

MISSION VALLEY
WELLS

FIELD BOOK

1308

C.H.L. No. 2.

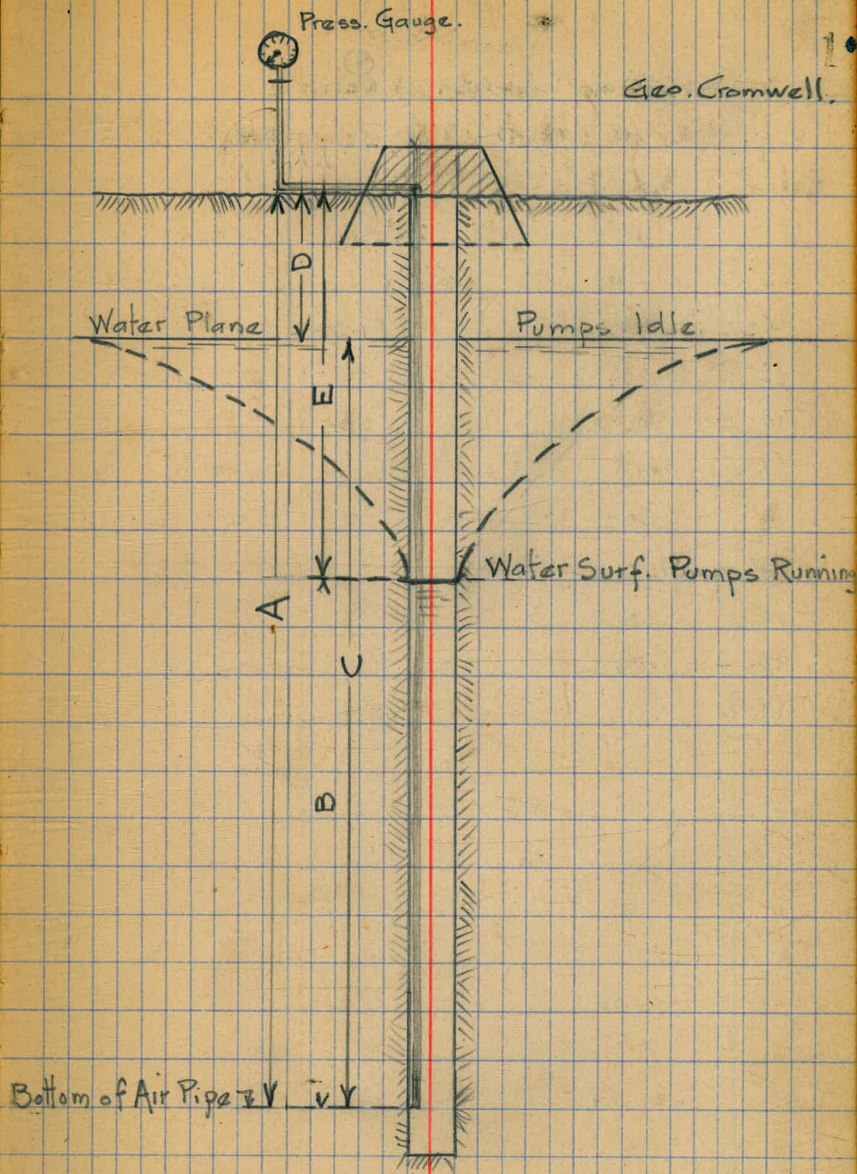
Data on Mission Valley Wells.
by Geo. Crumwell, City Engineer.

3 MICROFILMED
DEC 17 1964

Table Showing Location of Water Plane
 And
 The Pumping Head for Various Pressures

Press. Lbs.	Head Ft.	A - C		A - B		Remarks.
		C	D	E		
1	2.31					
2	4.62					
3	6.93					
4	9.24					
5	11.55					
6	13.86					
7	16.17					
8	18.48					
9	20.79					
10	23.10					
11	25.41					
12	27.72					
13	30.03					
14	32.34					
15	34.65					
16	36.96					
17	39.27					
18	41.58					
19	43.89					
20	46.20					
21	48.51					
22	50.82					
23	53.13					

Geo. Cromwell.



MISSION VALLEY WELLS

No.	A	B	C	D	E
1			20*		
2			20*		
3			-	-133'	
4			-		
5			23.2*		
6			24.5*		
7		15.5*	20.8*		
8			20.2		
9			21*		
10			18*		
11			22.2*		
12			22.8*		

- Note -

Pressures obtained by Cromwell
 while all wells were idle. Surface
 pump furnishing all water for sys.

G.C. (4-20-15)

Location	Pressure
Air Pipe	54.25 long.
"	60.00 "
Out of order Pipe stopp'd up..	60.00 "
" " " " " "	60.00 "
" " " " " "	60.00 "
" " " " " "	60.00 "
Elbow 6" Below Floor	53.08 "
" " " " " "	54.25 "
" " " " " "	55.17 "
" at elev. of "	56.00 "
" 10" below top of Pump base	56.00 "
" " " " " " "	56.00 "

MISSION VALLEY PUMPING PLANT

(From Huston's Notes) 4-21-15 G.C.

Well #	Ground El.	Floor El.	El. Top Pipe	El. Sump	El. Motor Found	Length of Pipe	Depth of Well	El. Bottom Air Pipe		
								City Datum	U.S.G.S.	
1	51.7	51.96	51.20 Approx.	55.62	54.53	54.25	80.00	-3.0	+3.17	(0.0 City Datum = +6.12 U.S.G.S. ")
2	50.3	50.80	50.00 Approx.	54.66	54.07	60.00	80.00	-10.0	-3.88	
3	49.0	49.31	48.39	No Sump	51.60	60.00	80.00	-11.6	-5.48	- Note -
4	46.6	45.94	45.14 Approx.	51.45	48.35	60.00	80.00	-14.9	-8.78	(0.0 U.S.G.S. Datum = -6.12
5	45.0	45.21	45.25	No Sump	48.07	60.00	80.00	-14.7	-8.58	City Datum. or in other
6	43.7	44.08	43.30 Approx.		46.55	60.00	80.00	-16.7	-10.58	words City Datum is
7	42.0	42.39	41.60 Approx.	49.55	44.65	53.08	82.00	-11.5	-5.38	6.12 ft above mean sea
8	40.53	41.49	40.70 Approx.	48.21	43.33	54.25	60.00	-13.5	-7.38	level or 1.17 ft above
9	38.90	39.34	38.50 Approx.	46.01	-	55.17	90.00	-16.7	-10.58	the highest tide observ-
10	36.70	36.76	36.75	46.98	40.28	56.00	59.00	-19.2	-13.08	ed
11	38.3	(Not in)	38.25	46.74	41.05	56.00	75.00	-17.7	-11.58	
12	36.9	(Not in)	36.88	46.64	40.00	56.00	45.00	-19.1	-12.98	

Sump on North Side of River	50.48
" " South " " "	49.22
" Opposite Well #7	48.39
" Near Main Sump	46.08
" on line to Well #11 on Riv. bank	47.20

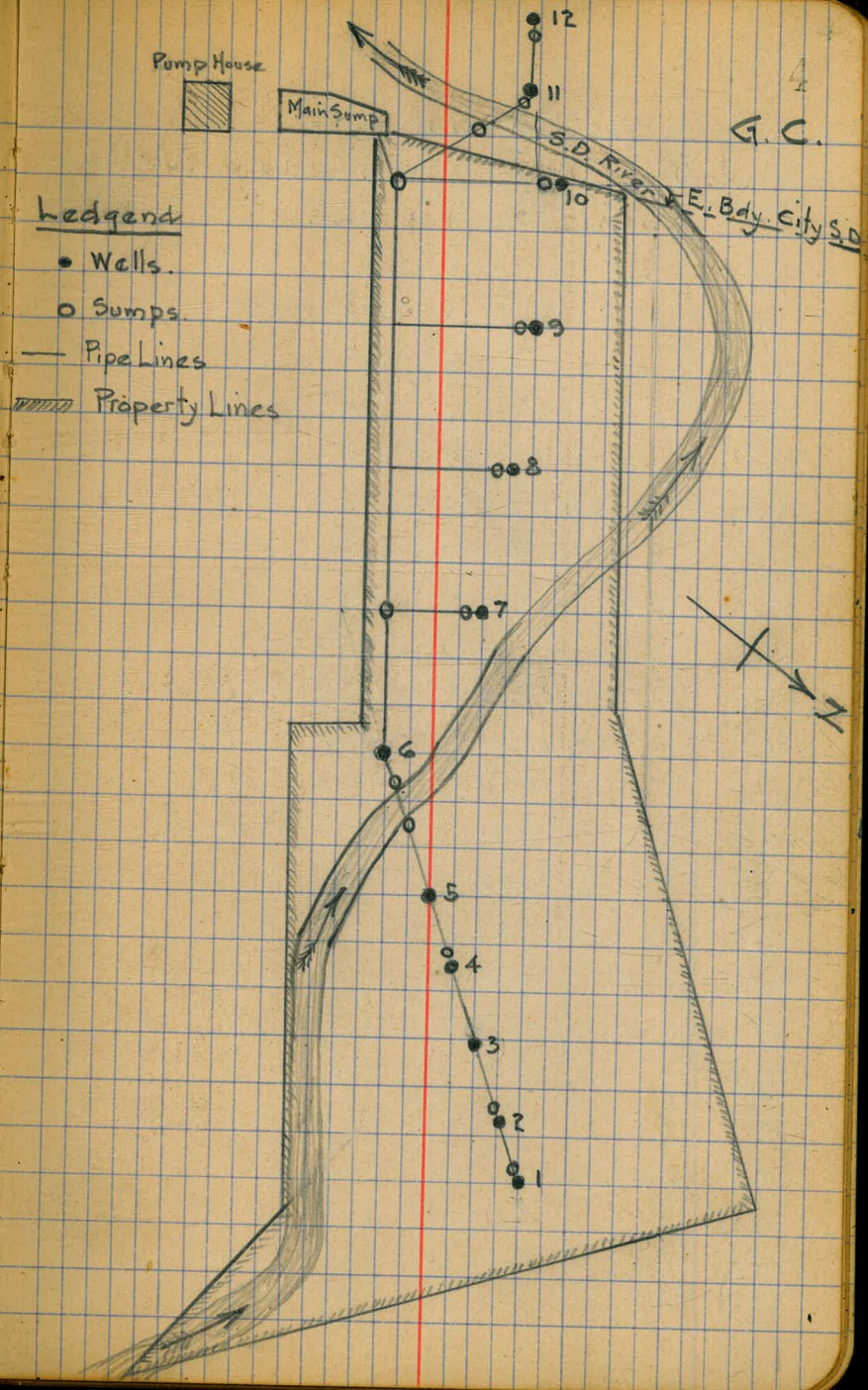
City Datum. -

- Note -

The elev. of elbow in 1/4" air pipe was taken at pt where same turns to enter well and in all cases where it was impossible to obtain same nearer than an inch it was marked approx. Elev. of Bottom of Air Pipe was obtained by subtracting length of pipe from Elev. of Top of Pipe. Elev. Sump taken at top of concrete wall.

See sketch on next page for location of Wells and Sumps.

Sketch Showing Location and Numbering of Mission Valley Wells and Sumps on Pipelines.



WELL No 1

City
Datum

Gauge Press. Lbs.	(Bor C) Depth of Water	(Dor E) Dist. to Water	Elev. W.S.	Gauge Press. Lbs.	(Bor C) Depth of Water	Dor E Dist. to Water	Elev. W.S.
0.5	1.1	53.1	-1.9	13.0	30.0	24.2	+27.0
1	2.3	51.9	-0.7	13.5	31.2	23.1	+28.1
1.5	3.5	50.8	+0.4	14.0	32.3	21.9	+29.3
2	4.6	49.6	+1.6	14.5	33.6	20.7	+30.5
2.5	5.8	48.5	+2.7	15.0	34.6	19.6	+31.6
3	6.9	47.3	+3.9	15.5	35.8	18.4	+32.8
3.5	8.1	46.2	+5.0	16.0	37.0	17.3	+33.9
4	9.2	45.0	+6.2	16.5	38.1	16.1	+35.1
4.5	10.4	43.9	+7.3	17.0	39.3	15.0	+36.2
5	11.5	42.7	+8.5	17.5	40.4	13.8	+37.4
5.5	12.7	41.6	+9.6	18.0	41.6	12.7	+38.5
6	13.9	40.4	+10.8	18.5	42.7	11.5	+39.7
6.5	15.0	39.2	+12.0	19.0	43.9	10.4	+40.8
7	16.2	38.1	+13.1	19.5	45.0	9.2	+42.0
7.5	17.3	36.9	+14.3	20.0	46.2	8.0	+43.2
8	18.5	35.8	+15.4	20.5	47.3	6.9	+44.3
8.5	19.6	34.6	+16.6	21.0	48.5	5.7	+45.5
9	20.8	33.5	+17.7	21.5	49.7	4.6	+46.6
9.5	21.9	32.3	+18.9	22.0	50.8	3.4	+47.8
10.0	23.1	31.2	+20.0	22.5	52.0	2.3	+48.9
10.5	24.2	30.0	+21.2	23.0	53.1	1.1	+50.1
11.0	25.4	28.8	+22.3	23.5	54.3	0.0	+51.2
11.5	26.6	27.7	+23.5				
12	27.7	26.5	+24.7				
12.5	28.9	25.4	+25.8				

A = 54.25 = length Air Pipe Elev. Top of Pipe = 51.20

Dor E = 54.25 - 2.31 p

p = press. in lbs.

City Datum.

for U.S.G.S. Datum

add. 6.12' to City Datum

Elev. Water Surf = 51.2 - (54.25 - 2.31 p)

= 2.31 p - 3.05

- Table -

Well No	Elev. W.S.	Gauge Press.	Depth Water.
1	0	1.3	3.0
2	0	4.8	10.0
3	0	5.0	11.6
4	0	6.4	14.8
5	0	6.4	14.8
6	0	7.2	16.7
7	0	5.0	11.5
8	0	5.8	13.5
9	0	7.2	16.7
10	0	8.3	19.2
11	0	7.6	17.7
12	0	8.3	19.1

WELL NO 2

Gauge	B or C	Dist. to Water	Elev. W.S.	Gauge	(B or C)	Dist. to Water	Elev. W.S.
Press Lbs.	Depth of Water			Press Lbs.	Depth of Water		
0.5	1.1	58.9	-8.9	12.0	27.7	32.3	+17.7
1.0	2.3	57.7	-7.7	12.5	28.9	31.1	+18.8
1.5	3.5	56.5	-6.6	13.0	30.0	30.0	+20.0
2.0	4.6	55.4	-5.4	13.5	31.2	28.8	+21.1
2.5	5.8	54.2	-4.3	14.0	32.3	27.7	+22.3
3.0	6.9	53.1	-3.1	14.5	33.5	26.5	+23.5
3.5	8.1	51.9	-2.0	15.0	34.7	25.3	+24.6
4.0	9.2	50.8	-0.8	15.5	35.8	24.2	+25.8
4.5	10.4	49.6	+0.3	16.0	37.0	23.0	+26.9
5.0	11.5	48.5	+1.5	16.5	38.1	21.9	+28.1
5.5	12.7	47.3	+2.6	17.0	39.3	20.7	+29.2
6.0	13.9	46.1	+3.8	17.5	40.4	19.6	+30.4
6.5	15.0	45.0	+5.0	18.0	41.6	18.4	+31.5
7.0	16.2	43.8	+6.1	18.5	42.7	17.3	+32.7
7.5	17.3	42.7	+7.3	19.0	43.9	16.1	+33.8
8.0	18.5	41.5	+8.4	19.5	45.0	15.0	+35.0
8.5	19.6	40.4	+9.6	20.0	46.2	13.8	+36.2
9.0	20.8	39.2	+10.7	20.5	47.3	12.7	+37.3
9.5	21.9	38.1	+11.9	21.0	48.5	11.5	+38.5
10.0	23.1	36.9	+13.0	21.5	49.7	10.3	+39.6
10.5	24.2	35.8	+14.2	22.0	50.8	9.2	+40.8
11.0	25.4	34.6	+15.3	22.5	52.0	8.0	+41.9
11.5	26.6	33.4	+16.5	23.0	53.1	6.9	+43.1
				23.5	54.3	5.7	+44.2
				24.0	55.4	4.6	+45.4

$$A = 60.0 \quad \text{Elev. top of pipe} = 50.00$$

$$\text{Dist. E} = 60.0 - 2.31p$$

$$p = \text{press. in lbs.}$$

$$\text{Elev. W.S.} = 50.0 - (60.00 - 2.31p)$$

$$= 2.31p - 10.0$$

WELL No 3

Gauge Press Lbs.	(B or C) Depth of Water	(D or E) Dist. Water	Elev. W.S.	Gauge Press. Lbs.	(B or C) Depth of Water	(D or E) Dist. to Water	Elev. W.S.
0.5	1.1	58.9	-10.5	12.5	28.9	31.1	+17.2
1.0	2.3	57.7	-9.3	13.0	30.0	30.0	+18.4
1.5	3.5	56.5	-8.2	13.5	31.2	28.8	+19.5
2.0	4.6	55.4	-7.0	14.0	32.3	27.7	+20.7
2.5	5.8	54.2	-5.9	14.5	33.5	26.5	+21.8
3.0	6.9	53.1	-4.7	15.0	34.7	25.3	+23.0
3.5	8.1	51.9	-3.6	15.5	35.8	24.2	+24.2
4.0	9.2	50.8	-2.4	16.0	37.0	23.0	+25.3
4.5	10.4	49.6	-1.3	16.5	38.1	21.9	+26.5
5.0	11.5	48.5	-0.1	17.0	39.3	20.7	+27.6
5.5	12.7	47.3	+1.0	17.5	40.4	19.6	+28.8
6.0	13.9	46.1	+2.2	18.0	41.6	18.4	+29.9
6.5	15.0	45.0	+3.4	18.5	42.7	17.3	+31.1
7.0	16.2	43.8	+4.5	19.0	43.9	16.1	+32.2
7.5	17.3	42.7	+5.7	19.5	45.0	15.0	+33.4
8.0	18.5	41.5	+6.8	20.0	46.2	13.8	+34.6
8.5	19.6	40.4	+8.0	20.5	47.3	12.7	+35.7
9.0	20.8	39.2	+9.1	21.0	48.5	11.5	+36.9
9.5	21.9	38.1	+10.3	21.5	49.7	10.3	+38.0
10.0	23.1	36.9	+11.4	22.0	50.8	9.2	+39.2
10.5	24.2	35.8	+12.6	22.5	52.0	8.0	+40.3
11.0	25.4	34.6	+13.7	23.0	53.1	6.9	+41.5
11.5	26.6	33.4	+14.9	23.5	54.3	5.7	+42.6
12.0	27.7	32.3	+16.1	24.0	55.4	4.6	+43.8

Dor E = 60 - 2.31 p

WELL No 4

Gauge	(B or C)	(D or E)	Elev.	Gauge	(B or C)	(D or E)	Elev.
Press Lbs.	Depth of Water	Dist. to Water	W.S.	Press Lbs.	Depth of Water	Dist. to Water	W.S.
0.5	1.1	58.9	-13.7	12.5	28.9	31.1	+14.0
1.0	2.3	57.7	-12.5	13.0	30.0	30.0	+15.2
1.5	3.5	56.5	-11.4	13.5	31.2	28.8	+16.3
2.0	4.6	55.4	-10.2	14.0	32.3	27.7	+17.5
2.5	5.8	54.2	-9.1	14.5	33.5	26.5	+18.6
3.0	6.9	53.1	-7.9	15.0	34.7	25.4	+19.8
3.5	8.1	51.9	-6.8	15.5	35.8	24.2	+20.9
4.0	9.2	50.8	-5.6	16.0	37.0	23.0	+22.1
4.5	10.4	49.6	-4.5	16.5	38.1	21.9	+23.2
5.0	11.5	48.5	-3.3	17.0	39.3	20.7	+24.4
5.5	12.7	47.3	-2.2	17.5	40.4	19.6	+25.6
6.0	13.9	46.1	-1.0	18.0	41.6	18.4	+26.7
6.5	15.0	45.0	+0.2	18.5	42.7	17.3	+27.9
7.0	16.2	43.8	+1.3	19.0	43.9	16.1	+29.0
7.5	17.3	42.7	+2.5	19.5	45.0	15.0	+30.2
8.0	18.5	41.5	+3.6	20.0	46.2	13.8	+31.4
8.5	19.6	40.4	+4.7	20.5	47.3	12.7	+32.5
9.0	20.8	39.2	+5.9	21.0	48.5	11.5	+33.7
9.5	21.9	38.1	+7.1	21.5	49.7	10.3	+34.8
10.0	23.1	36.9	+8.2	22.0	50.8	9.2	+36.0
10.5	24.2	35.8	+9.4	22.5	52.0	8.0	+37.1
11.0	25.4	34.6	+10.5	23.0	53.1	6.9	+38.3
11.5	26.6	33.4	+11.7	23.5	54.3	5.7	+39.4
12.0	27.7	32.3	+12.9	24.0	55.4	4.6	+40.6

$$\text{D or E} = 60 - 2.31p$$

9
WELL No 5.

0

Gauge	(B.or C)	(D.or E)	Elev.	Gauge	(B.or C)	(D.or E)	Elev.
Press. Lbs.	Depth of Water	Dist. to Water	W.S.	Press. Lbs.	Depth of Water	Dist. to Water	W.S.
0.5	1.1	58.9	-13.7	12.5	28.9	31.1	+14.0
1.0	2.3	57.7	-12.5	13.0	30.0	30.0	+15.2
1.5	3.5	56.5	-11.4	13.5	31.2	28.8	+16.3
2.0	4.6	55.4	-10.2	14.0	32.3	27.7	+17.5
2.5	5.8	54.2	-9.1	14.5	33.6	26.4	+18.6
3.0	6.9	53.1	-7.9	15.0	34.7	25.3	+19.8
3.5	8.1	51.9	-6.8	15.5	35.8	24.2	+20.9
4.0	9.2	50.8	-5.6	16.0	37.0	23.0	+22.1
4.5	10.4	49.6	-4.5	16.5	38.1	21.9	+23.2
5.0	11.5	48.5	-3.3	17.0	39.3	20.7	+24.4
5.5	12.7	47.3	-2.2	17.5	40.4	19.6	+25.6
6.0	13.9	46.1	-1.0	18.0	41.6	18.4	+26.7
6.5	15.0	45.0	+0.2	18.5	42.7	17.3	+27.9
7.0	16.2	43.8	+1.3	19.0	43.9	16.1	+29.0
7.5	17.3	42.7	+2.5	19.5	45.0	15.0	+30.2
8.0	18.5	41.5	+3.6	20.0	46.2	13.8	+31.4
8.5	19.6	40.4	+4.7	20.5	47.3	12.7	+32.5
9.0	20.8	39.2	+5.9	21.0	48.5	11.5	+33.7
9.5	21.9	38.1	+7.1	21.5	49.7	10.3	+34.8
10.0	23.1	36.9	+8.2	22.0	50.8	9.2	+36.0
10.5	24.2	35.8	+9.4	22.5	52.0	8.0	+37.1
11.0	25.4	34.6	+10.5	23.0	53.1	6.9	+38.3
11.5	26.6	33.4	+11.7	23.5	54.3	5.7	+39.4
12.0	27.7	32.3	+12.9	24.0	55.4	4.6	+40.6

D or E = 60 - 2.31p

WELL No 6.

Gauge	B or C	D or E	Elev	Gauge	B or C	D or E	Elev
Press Lbs.	Depth of Water	Dist. Water	W.S.	Press Lbs.	Depth of Water	Dist. Water	W.S.
0.5	1.1	58.9	-15.6	12.5	28.9	31.1	+12.1
1.0	2.3	57.7	-14.4	13.0	30.0	30.0	+13.3
1.5	3.5	56.5	-13.3	13.5	31.2	28.8	+14.4
2.0	4.6	55.4	-12.1	14.0	32.3	27.7	+15.6
2.5	5.8	54.2	-11.0	14.5	33.6	26.4	+16.7
3.0	6.9	53.1	-9.8	15.0	34.7	25.3	+17.9
3.5	8.1	51.9	-8.7	15.5	35.8	24.2	+19.0
4.0	9.2	50.8	-7.5	16.0	37.0	23.0	+20.2
4.5	10.4	49.6	-6.4	16.5	38.1	21.9	+21.3
5.0	11.5	48.5	-5.2	17.0	39.3	20.7	+22.5
5.5	12.7	47.3	-4.1	17.5	40.4	19.6	+23.7
6.0	13.9	46.1	-2.9	18.0	41.6	18.4	+24.8
6.5	15.0	45.0	-1.7	18.5	42.7	17.3	+26.0
7.0	16.2	43.8	-0.6	19.0	43.9	16.1	+27.1
7.5	17.3	42.7	+0.5	19.5	45.0	15.0	+28.3
8.0	18.5	41.5	+1.7	20.0	46.2	13.8	+29.5
8.5	19.6	40.4	+2.8	20.5	47.3	12.7	+30.6
9.0	20.8	39.2	+4.0	21.0	48.5	11.5	+31.8
9.5	21.9	38.1	+5.2	21.5	49.7	10.3	+32.9
10.0	23.1	36.9	+6.3	22.0	50.8	9.2	+34.1
10.5	24.2	35.8	+7.5	22.5	52.0	8.0	+35.2
11.0	25.4	34.6	+8.6	23.0	53.1	6.9	+36.4
11.5	26.6	33.4	+9.8	23.5	54.3	5.7	+37.5
12.0	27.7	32.3	+11.0	24.0	55.4	4.6	+38.7
				24.5	56.5	3.5	+39.8

D or E = 60 - 2.31 p

WELL No 7

Gauge Press Lbs.	B or C Depth of Water	D or E Dist. to Water	Elev. W.S.	Gauge Press. Lbs.	B or C Depth of Water	D or E Dist. to Water	Elev. W.S.
0.5	1.1	52.0	-10.4	12.5	28.9	24.2	+17.3
1.0	2.3	50.8	-9.2	13.0	30.0	23.1	+18.5
1.5	3.5	49.6	-8.1	13.5	31.2	21.9	+19.6
2.0	4.6	48.5	-6.9	14.0	32.3	20.8	+20.8
2.5	5.8	47.3	-5.8	14.5	33.5	19.6	+21.9
3.0	6.9	46.2	-4.6	15.0	34.7	18.4	+23.1
3.5	8.1	45.0	-3.5	15.5	35.8	17.3	+24.2
4.0	9.2	43.9	-2.3	16.0	37.0	16.1	+25.4
4.5	10.4	42.7	-1.2	16.5	38.1	15.0	+26.5
5.0	11.5	41.6	0.0	17.0	39.3	13.8	+27.7
5.5	12.7	40.4	+1.1	17.5	40.4	12.7	+28.9
6.0	13.9	39.2	+2.3	18.0	41.6	11.5	+30.0
6.5	15.0	38.1	+3.5	18.5	42.7	10.4	+31.2
7.0	16.2	36.9	+4.6	19.0	43.9	9.2	+32.3
7.5	17.3	35.8	+5.7	19.5	45.0	8.0	+33.5
8.0	18.5	34.6	+6.9	20.0	46.2	6.9	+34.7
8.5	19.6	33.5	+8.0	20.5	47.3	5.8	+35.8
9.0	20.8	32.3	+9.2	21.0	48.5	4.6	+37.0
9.5	21.9	31.2	+10.4	21.5	49.7	3.4	+38.1
10.0	23.1	30.0	+11.5	22.0	50.8	2.3	+39.3
10.5	24.2	28.9	+12.7	22.5	52.0	1.1	+40.4
11.0	25.4	27.7	+13.8	23.0	53.1	0	+41.6
11.5	26.6	26.5	+15.0	23.5	54.2		
12.0	27.7	25.4	+16.2	24.0	55.3		

$$D \text{ or } E = 53.1 - 2.31p$$

WELL No 8

Gauge Press Lbs.	(Bar C) Depth of Water	(Bar E) Dist. to Water	Elev. W.S.	Gauge Press Lbs.	"Bar C" Depth of Water	Bar E Dist. to Water	Elev. W.S.
0.5	1.1	53.1	-12.4	12.5	28.9	25.3	+15.3
1.0	2.3	51.9	-11.2	13.0	30.0	24.2	+16.5
1.5	3.5	50.7	-10.1	13.5	31.2	23.0	+17.6
2.0	4.6	49.6	-8.9	14.0	32.3	21.9	+18.8
2.5	5.8	48.4	-7.8	14.5	33.5	20.7	+19.9
3.0	6.9	47.3	-6.6	15.0	34.7	19.5	+21.1
3.5	8.1	46.1	-5.5	15.5	35.8	18.3	+22.2
4.0	9.2	45.0	-4.3	16.0	37.0	17.2	+23.4
4.5	10.4	43.8	-3.2	16.5	38.1	16.1	+24.5
5.0	11.5	42.7	-2.0	17.0	39.3	14.9	+25.7
5.5	12.7	41.5	-0.9	17.5	40.4	13.8	+26.9
6.0	13.9	40.3	+0.3	18.0	41.6	12.6	+28.0
6.5	15.0	39.2	+1.5	18.5	42.7	11.5	+29.2
7.0	16.2	38.0	+2.6	19.0	43.8	10.4	+30.3
7.5	17.3	36.9	+3.7	19.5	45.0	9.2	+31.5
8.0	18.5	35.7	+4.9	20.0	46.2	8.0	+32.7
8.5	19.6	34.6	+6.0	20.5	47.3	6.9	+33.8
9.0	20.8	33.4	+7.2	21.0	48.5	5.7	+35.0
9.5	21.9	32.3	+8.4	21.5	49.7	4.5	+36.1
10.0	23.1	31.1	+9.5	22.0	50.8	3.4	+37.3
10.5	24.2	30.0	+10.7	22.5	52.0	2.2	+38.4
11.0	25.4	28.8	+11.8	23.0	53.1	1.1	+39.6
11.5	26.6	27.6	+13.0	23.5	54.3	0	+40.7
12.0	27.7	26.5	+14.2				

Bar E = 54.25 - 2.31 p

WELL No 9

Gauge	(Bar C)	(Dor E)	Flev	Gauge	(Bar C)	(Dor E)	Flev
Press. Lbs.	Depth of Water	Dist. to Water	W.S.	Press. Lbs.	Depth of Water	Dist. to Water	W.S.
0.5	1.1	54.1	-15.6	12.5	28.9	26.3	+12.1
1.0	2.3	52.9	-14.4	13.0	30.0	25.2	+13.3
1.5	3.5	51.7	-13.3	13.5	31.2	24.0	+14.4
2.0	4.6	50.6	-12.1	14.0	32.3	22.9	+15.6
2.5	5.8	49.4	-11.0	14.5	33.5	21.7	+16.7
3.0	6.9	48.3	-9.8	15.0	34.7	20.5	+17.9
3.5	8.1	47.1	-8.7	15.5	35.8	19.4	+19.0
4.0	9.2	46.0	-7.5	16.0	37.0	18.2	+20.2
4.5	10.4	44.8	-6.4	16.5	38.1	17.1	+21.3
5.0	11.5	43.7	-5.2	17.0	39.3	15.9	+22.5
5.5	12.7	42.5	-4.1	17.5	40.4	14.8	+23.7
6.0	13.9	41.3	-2.9	18.0	41.6	13.6	+24.8
6.5	15.0	40.2	-1.7	18.5	42.7	12.5	+26.0
7.0	16.2	39.0	-0.6	19.0	43.9	11.3	+27.1
7.5	17.3	37.9	+0.5	19.5	45.0	10.2	+28.3
8.0	18.5	36.7	+1.7	20.0	46.2	9.0	+29.5
8.5	19.6	35.6	+2.8	20.5	47.3	7.9	+30.6
9.0	20.8	34.4	+4.0	21.0	48.5	6.7	+31.8
9.5	21.9	33.3	+5.2	21.5	49.7	5.5	+32.9
10.0	23.1	32.1	+6.3	22.0	50.8	4.4	+34.1
10.5	24.2	31.0	+7.5	22.5	52.0	3.2	+35.2
11.0	25.4	29.8	+8.6	23.0	53.1	2.1	+36.4
11.5	26.6	28.6	+9.8	23.5	54.3	0.9	+37.5
12.0	27.7	27.5	+11.0				

$$\text{Dor E} = 55.17 - 2.31p$$

WELL No 10

Gauge Press Lbs.	(B or "C") Depth of Water	(D or E) Dist to Water	Elev. W.S.	Gauge Press Lbs.	(B or "C") Depth of Water	(D or E) Dist to Water	Elev. W.S.
0.5	1.1	54.9	-18.1	12.5	28.9	27.1	+9.6
1.0	2.3	53.7	-16.9	13.0	30.0	26.0	+10.8
1.5	3.5	52.5	-15.8	13.5	31.2	24.8	+11.9
2.0	4.6	51.4	-14.6	14.0	32.3	23.7	+13.1
2.5	5.8	50.2	-13.5	14.5	33.5	22.5	+14.2
3.0	6.9	49.1	-12.3	15.0	34.7	21.3	+15.4
3.5	8.1	47.9	-11.2	15.5	35.8	20.2	+16.5
4.0	9.2	46.8	-10.0	16.0	37.0	19.0	+17.7
4.5	10.4	45.6	-8.9	16.5	38.1	17.9	+18.0
5.0	11.5	44.5	-7.7	17.0	39.3	16.7	+20.0
5.5	12.7	43.3	-6.6	17.5	40.4	15.6	+21.2
6.0	13.9	42.1	-5.4	18.0	41.6	14.4	+22.3
6.5	15.0	41.0	-4.2	18.5	42.7	13.3	+23.5
7.0	16.2	39.8	-3.1	19.0	43.9	12.1	+24.6
7.5	17.3	38.7	-2.0	19.5	45.0	11.0	+25.8
8.0	18.5	37.5	-0.8	20.0	46.2	9.8	+27.0
8.5	19.6	36.4	+0.3	20.5	47.3	8.7	+28.1
9.0	20.8	35.2	+1.5	21.0	48.5	7.5	+29.3
9.5	21.9	34.1	+2.7	21.5	49.7	6.3	+30.4
10.0	23.1	32.9	+3.8	22.0	50.8	5.2	+31.6
10.5	24.2	31.8	+5.0	22.5	52.0	4.0	+32.7
11.0	25.4	30.6	+6.1	23.0	53.1	2.9	+33.9
11.5	26.6	29.4	+7.3	23.5	54.3	1.7	+35.0
12.0	27.7	28.3	+8.4	24.0	55.4	0.6	+36.2

D or E = 56. - 2.31 P

WELL No. 11

Gauge	(B or C)	(D or E)	Elev.	Gauge	(B or C)	(D or E)	Elev.
Press Lbs.	Depth of Water	Dist. to Water	W.S.	Press Lbs.	Depth of Water	Dist. to Water	W.S.
0.5	1.1	54.9	-16.6	12.5	28.9	27.1	+11.1
1.0	2.3	53.7	-15.4	13.0	30.0	26.0	+12.3
1.5	3.5	52.5	-14.3	13.5	31.2	24.8	+13.4
2.0	4.6	51.4	-13.1	14.0	32.3	23.7	+14.6
2.5	5.8	50.2	-12.0	14.5	33.6	22.4	+15.7
3.0	6.9	49.1	-10.8	15.0	34.7	21.3	+16.9
3.5	8.1	47.9	-9.7	15.5	35.8	20.2	+18.0
4.0	9.2	46.8	-8.5	16.0	37.0	19.0	+19.2
4.5	10.4	45.6	-7.4	16.5	38.1	17.9	+20.3
5.0	11.5	44.5	-6.2	17.0	39.3	16.7	+21.5
5.5	12.7	43.3	-4.1	17.5	40.4	15.6	+22.7
6.0	13.9	42.1	-3.9	18.0	41.6	14.4	+23.9
6.5	15.0	41.0	-2.7	18.5	42.7	13.3	+25.0
7.0	16.2	39.8	-1.6	19.0	43.9	12.1	+26.1
7.5	17.3	38.7	-0.5	19.5	45.0	11.0	+27.3
8.0	18.5	37.5	+0.7	20.0	46.2	9.8	+28.5
8.5	19.6	36.4	+1.8	20.5	47.3	8.7	+29.6
9.0	20.8	35.2	+3.0	21.0	48.5	7.5	+30.8
9.5	21.9	34.1	+4.2	21.5	49.7	6.3	+31.9
10.0	23.1	32.9	+5.3	22.0	50.8	5.2	+33.1
10.5	24.2	31.8	+6.5	22.5	52.0	4.0	+34.2
11.0	25.4	30.6	+7.6	23.0	53.1	2.9	+35.4
11.5	26.6	29.4	+8.8	23.5	54.3	1.7	+36.5
12.0	27.7	28.3	+10.0	24.0	55.4	0.6	+37.7

D or E = 56 - 2.31p

WELL No 12

 Press Gauge 16
 Inside 43
 .335

Gauge	(B" or C")	(D or E)	Elev.	Gauge	(B" or C")	(D or E)	Elev.
Press. Lbs.	Depth of Water	Dist to Water	W.S.	Press. Lbs.	Depth of Water	Dist to Water	W.S.
0.5	1.1	54.9	-18.0	12.5	28.9	27.1	+9.7
1.0	2.3	53.7	-16.8	13.0	30.0	26.0	+10.9
1.5	3.5	52.5	-15.7	13.5	31.2	24.8	+12.0
2.0	4.6	51.4	-14.5	14.0	32.3	23.7	+13.2
2.5	5.8	50.2	-13.4	14.5	33.6	22.4	+14.3
3.0	6.9	49.1	-12.2	15.0	34.7	21.3	+15.5
3.5	8.1	47.9	-11.1	15.5	35.8	20.2	+16.6
4.0	9.2	46.8	-9.9	16.0	37.0	19.0	+17.8
4.5	10.4	45.6	-8.8	16.5	38.1	17.9	+18.9
5.0	11.5	44.5	-7.6	17.0	39.3	16.7	+20.1
5.5	12.7	43.3	-6.5	17.5	40.4	15.6	+21.3
6.0	13.9	42.1	-5.3	18.0	41.6	14.4	+22.4
6.5	15.0	41.0	-4.1	18.5	42.7	13.3	+23.6
7.0	16.2	39.8	-3.0	19.0	43.9	12.1	+24.7
7.5	17.3	38.7	-1.9	19.5	45.0	11.0	+25.9
8.0	18.5	37.5	-0.7	20.0	46.2	9.8	+27.1
8.5	19.6	36.4	+0.4	20.5	47.3	8.7	+28.2
9.0	20.8	35.2	+1.6	21.0	48.5	7.5	+29.4
9.5	21.9	34.1	+2.8	21.5	49.7	6.3	+30.5
10.0	23.1	32.9	+3.9	22.0	50.8	5.2	+31.6
10.5	24.2	31.8	+5.1	22.5	52.0	4.0	+32.8
11.0	25.4	30.6	+6.2	23.0	53.1	2.9	+34.0
11.5	26.6	29.4	+7.4	23.5	54.3	1.7	+35.1
12.0	27.7	28.3	+8.5	24.0	55.4	0.6	+36.3

D or E = 56 - 2.31p

 Chord = 2.63 ins.
 Diam Grad 4.5 ins
 Grad .23 ins
 Diam Dial 5.2 ins
 Graduated 30 Lbs.

Owners Mission Valley

Mabilda Guglielmetti (Modern Creamery 5th & Univ.)

Total area 65 ac in Lot 43 Ex.M.

Irrigates 20.9c Alfalfa

4 Driven Wells 28'-65'

Water Level is now 5 ft. below surf.

Last Summer W.L. 14' below surf.

Runs pumps 12 Hrs. a day for 5 mo. each year.

1-5" Cent. Pump 15 H.P. Gas Engine

Costs about 1⁰⁰ per day 5 a.m. to 6 p.m.

Plant cost about (3) Estm.

{	Engine	700 ⁰⁰	}	Say \$1500 ⁰⁰
	Pump	100 ⁰⁰		
	Wells	500		
		1300		

Mrs. Agnes Gillen

Total area 56 ac. Lot 44 Ex.M.

Irrigates about 20 ac.

10x10" Wood Cribbed Well. Water stands about 7' below the surface
Well about 20' deep from top of
crib and 17' below Ground surface
West Coast 16 H.P. Gas Engine. Jackson
Cent. Pump. Belt Comec. Some time
idle about week or more after
one to three days pumping

H.D. Allen Lot 42 Ex M 91.85 ac. —
 12.9 ac in Alfalfa South of Road
 8.11 not in " " "
 31 " in Alfalfa North of Road.
 8 wells (7 in use) (1 dead) at S. End Tract.
 1 well for House on W. Side Can. Tract.

Use 50 mil. gals. per year.

Irrigation Head 870 gals per. min. (pumping now)

Wells 35'-42' Water 8' below surf.

35 H.P. Motor 8" single stage Byron Jackson.

145,000 gals. per ac. per irrigation on checked area.

4 ac. inches per crop req. Ave. 6 Crops. Irrigated

7 times 1914. Cut 8 crops.

156,000 gals. per ac. with surf. pipes.

Ave 90 min inches now. 170 last year.

Cost at present 3¢ per 1000 gals power alone.

Approx. \$4500⁰⁰

(F. Silver gave above information)

↑

June 1st -

Pumping 96 min. in. = ^{250,000} 1300,000. approx.

per 24 Hrs. lowered 8" in 8 hrs. Water Surf. about
 7 ft. below surf ground. F. Silver says that he
 does not see any difference in Water Level yet.

145
 3
 1.35

96
 9
 864

51840
 24
 207360
 103680
 1244160

- Tom Ying -

26 ac. vegetable garden.

2" Pump

6 HP Gas Engine

Estm.

4 Wells = 400

50⁰⁰ } 50

{ say 250⁰⁰ } = 250 700⁰⁰

4 Wells - 10" Casing - 45-50' Deep. (one well 150' deep)

- Chris Ohre -

Lot 33 Ex M. 35 ac.

Irrigating 10-12 ac. Alfalfa.

3" Byron-Jackson Pump. 5 H.P. Motor.

Using 20-25 inches of water.

2 Well - 20' deep. Water plane lowered 4 ft. last fall after city started pumps.

2 Irrigations per crop. Pays 3¢ Kw. Hr. Minimum Chg. = 101⁰⁰ per year. Pumping Plant Cost \$600⁰⁰

G. W. Peck 28 ac. No alfalfa.

Just a few vegetables Just E. of Ohre Place.

E. Hoff 28 ac. Just E of Peck Place

(Big Plant second hand - not a success.) Approx 10 ac. can be put in alfalfa.

- Chris Ohre -

Windmill well at house on hill.

Dug well 72' Deep. Struck strata of gravel at 52' ^{17' deeper} where all water comes from. No water from 72' level then in sand stone formation that could be picked. Could pump about 40 or 5 hundred gallons a day then well dry well not used now.

21

13

Hong Far

$109.5 - 33.0 = 76.5$ Vegetable

Uses about 60 inches water all time.

1-5 H.P. - 1-10 H.P.

Water from Sumps.

Power costs 15° per mo min.

E. J. Baughman

40 ac. N.W. 1/4 P.L. 1108.

Expects to irrigate 30 ac.

5" Pump 10 H.P. Motor. Pumping from
a pool about 8" below surf.

6" Outlet - About 10' lift. Waters about an acre an hour.

Pumps fills flume 9 sq. ft. area with 1/2" fall per 20'.

Says that he is willing to pay \$5⁰⁰ per ac. per year.

5" Pump	Costs say	100 ⁰⁰
10 HP Motor		200 ⁰⁰
Wiring etc		100 ⁰⁰
		<u>400⁰⁰</u>

E. J. Allen

A.L. Gottesburen

Lot 36 Ex.M. 90. ac.

Irrigates 40 ac. 24 ac. Alfalfa (?)

16 ac. Truck Gardens. (?)

4 Wells 20' deep. ave.

Water Level 10' below Surf.

Pump 10' below ground " almost dry.

About 4' below usual level.

Former supply 1000 gals. per min. (?)

Cost approx. -

Says he would be glad to pay 3¢ per 1000

gals. Wants 30. miners ins. anyway must have water
by two weeks time. Will be satisfied if city will put
in two wells which will furnished 30 ins.

N.J.

(9.35ac) (L.N.) Gibson
 lots 45 - lot 31 Ex M. 74 ac.

Irrigates about 6 ac. alfalfa & truss.

4 Wells at engine 35-39' deep.

1 Well at Windmill 14' deep

3' Centrifugal American. rated capacity 45 m/s

Has not noticed any diff this year.

Water level last fall went down 3' lower
 than ever before

6 HP. Gas Engine Costs $7\frac{1}{2}^c$ per hour.

Cost approx 20^{00} per mo. for pumping during
 irrigation season.

Wells 150⁰⁰

Pump 75⁰⁰

Engine 200⁰⁰

425⁰⁰

June 1st W.S. at open ^{well} ~~sump~~ near wind mill stood
 6' below surf. of ground

W.S. in open well near main pump stood
 3 $\frac{1}{2}$ ' below surf. of ground

T.H. Cox

Portion of Lot 45 Ex.M. (163' strip on E. side 6 ac.)

4 ac. to be irrigated

1 1/2 Pump 6 H.P. Engine

Uses 4200 gals per hr.

Wells 13' and 21'

Pump	35 ⁰⁰	
Engine	200 ⁰⁰	
Wells	50 ⁰⁰	\$ 285 ⁰⁰

G.A. McDermott. 4-2

4 ac. Lot 1

1 - 10" Well - 40' deep. Water about 4' from surf now

1 - Open Well 18' "

2" Pump 5 H.P. Motor

Well	75 ⁰⁰
Pump	40 ⁰⁰
Motor	70 ⁰⁰
	<u>185⁰⁰</u>

Uses about 10 ins. 125 gals. per. min

Says Water plane almost 6' lower last fall after city pumps.

Mrs. Ferrari

23 ac. in all.

Well 12' in diam. 18' deep.

3 4" Pump 12 H.P. Gas Eng.

Well	100 ⁰⁰
Pump	75 ⁰⁰
Engine	425 ⁰⁰
	<u>600⁰⁰</u>

- Peter Ricard -

All of Lots 2, 3, 4, 5, 6 of Lot 32 Ex.M. about 12 ac.

1 - Well - open - 20' deep. 10' to water.

2 1/2" Pump 5 H.P. Gas Eng.

4" pipe full.

About 9 ac. irrigated.

Says Open Sump last Aug 3' deep now less than a foot of water.

Well	50.00
Pump	50.00
Engine	200.00
Total	300.00

T.H. Slingsby

Lot 7 P.L. 1113. 7 ac. 29 ac. in all.

Irrigates 3 ac + 7 ac on S. + 5 ac. = 15 ac. in all.

1 - 6'-3" Open Well 32' deep on upper level about 4' of water at present. Usual depth of water 18'. On upper bench.

Irrigates once every 4 wks.

4" Deep Well piston pump

Uses about 1000 gals. per day for domestic and stock.

— Jacob Japson — Phone Hillcrest 1385 J

10 ac. in N.W. Cor PL. 1113.

Irrigates 7 ac Truck garden.

Open Well 6' x 28' deep.

2" Cent Pump 5 H.P. Motor.

Water 10' below surf. No change noticed in water level.

Uses \$60⁰⁰ worth a year.

Well	175. ⁰⁰
Pump	50. ⁰⁰
Motor	75. ⁰⁰
	<hr/>
	\$ 200. ⁰⁰

June 1st Examination by Cromwell, Lockwood & Cosgrave.

Well 20' deep. Depth of water 5' after pumping nearly all day.

June 2nd 1915. 4 P.M. Slingsby's Place.

Depth of water in well 4' after running pump most of day.

Water surface in well 8' below water level in river at nearest point to well.

E.H. Lusher

32 1/2 ac.

Maichel Ranch

10 ac. under irrigation in alfalfa.

Lusher says that his well has not been affected
by city pumps. Water stands 5' from surface.

Fight on between Lusher & Gard

Round 1

Gard leads for head, jabs Lusher
on jaw with left. Gard lands right swing on
behind Lusher's ear. Lusher lands right to
body and Gard drops to knees.

Gard draws gun and fight stops.

MEASUREMENT OF STREAM FLOW
SAN DIEGO RIVER

AT FOOT BRIDGE NEAR WELLS #10 & #11

Sta. Depth

0+00	0
+03	0.6
+10	0.7
+15	0.75
+20	0.2
+25	0.3
+30	0.4
+35	0.25
+40	0.25
+45	0.30
+50	0.3
+55	0.6
+60	0.6
+65	0.4
+70	0.75
+75	1.3
+80	1.4
+85	0.6
+90	0.5
+95	0.2
1+00	0.2
+05	0.2
+10	0.1
+15	0.1
+20	0.4

+23 0
Total

VELOCITY MEASUREMENT BY FLOAT

Sta	Dist	Time	Velocity Ft. per. Sec.
0+10	100	.67 sec.	1.5 ✓
+30	"	64 "	1.57 ✓
+50	"	70 "	1.43 ✓
+70	"	57 "	1.76 ✓
+90	"	80 "	1.26 ✓
1+00	"	84 "	1.20 ✓

8.72

4 PM. June 2nd 1915 20

Geo. Cromwell
Frank Huston, Childs etc

← Sta 0 is at pt. on edge of River bank on
East end of Bridge.

Av. Surface Vel. = 1.45 Per Sec.

Av Velocity = 1.45 x 80% = 1.16

Area of Cross Section of River = 55 Sq ft.

Cu ft per Sec = 55 x 1.16 = 63.80 Sec. ft.

= 41,235,024 Cals per day

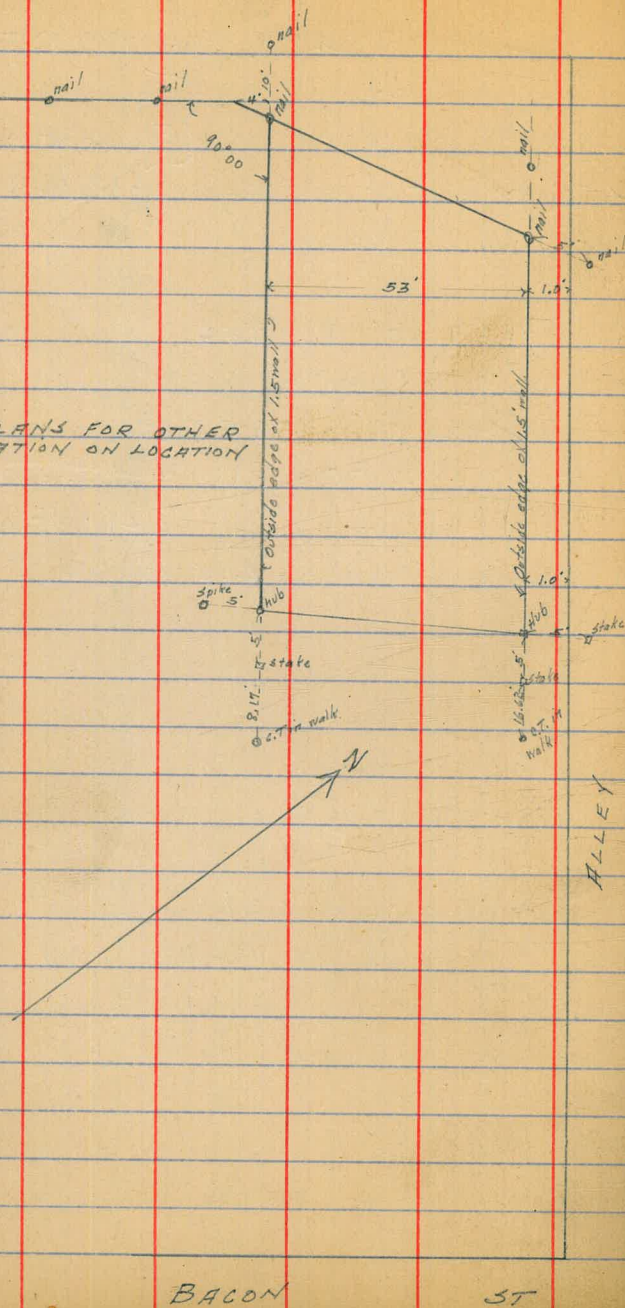
Total Discharge in 10 days = 412,350,240 Cu ft.

10.90 x 5 = 54.5 say 55.0 sq ft

30

Ties on Ocean Beach Bathing
Plunge in BK 71

11/24/18 Gregory



2	8.5
2	1.0
4	0.8
4	1.8

13.17 to 30 track
31.62 - No ✓

12.5
3.40

142
3.06
281
1.87

3.02
2.4
2.81
1.87
1.9
1.68

2.6
4.2

3.45 = 2.45
old walk @
5 sec tank
3.800 tier of
600 word

11/27/18 Gregory

Peg Levels for Powder House Canyon
Dam

07 B.M.	0.34	107.48		107.14	Bolt Hyd. 55175
	2.34	96.78	13.04	94.44	
	6.78	100.86	2.70	94.08	
	3.32	95.70	8.48	92.38	
	3.91	89.02	10.59	85.11	
			0.09	88.93	etc. joint on No. rail on Bridge
	7.77	96.59	2.20	86.82	
	6.73	101.17	0.15	94.44	
	13.05	110.87	3.35	97.82	
			9.83	101.04	Key notch on P.M.H.
	10.84	114.78	6.93	103.94	
			9.04	105.74	Key notch on at Dam site
	12.61	126.79	0.60	114.18	Elev. 98.75
	11.27	137.67	0.39	126.40	

$$\begin{array}{r} 98.3 \\ + 1.2 \\ \hline 100.5 \\ + 0.5 \\ \hline 101.0 \end{array}$$

31

11/27/18 Gregory, CROSS SECTION OF
DAM SITE
Powder House Canon

32

Station	Dist. from preceding page	Height	Notes	Station	Height	Notes
				2+37	2.9	
	137.67		ℓ = No. Edge dam top	2+50	1.27	114.45 on hub
0+00		4.67	133.0	T.P.	12.91	128.30
0+03.0		4.8	-edge road	2+75	11.61	116.69 on hub
0+07.0		6.8		2+88	9.6	
0+25.0		10.44	127.22 on hub	3+00	6.51	121.79 on hub
0+27.0		12.0		T.P.	11.85	139.26
T.P.	0.39	126.01	12.05	125.62	3+30	9.26
0+40		4.1		3+55	3.5	
0+50		9.37	116.64 on hub	T.P.	7.27	145.34
0+55		11.8		3+80	4.4	
T.P.	2.74	115.72	13.03	112.98		
0+67		6.1				
0+75		7.64	108.08 on hub			
1+00		8.98	106.74 ✓ ✓			
1+14		8.5				
1+15		9.5				
1+25		8.80	106.92 on hub			
1+50		9.01	106.71 ✓ ✓			
1+75		9.07	106.65 ✓ ✓			
1+84		8.7				
1+93		9.2	bank			
1+95		11.5				
2+00		11.93	103.77			
2+07		12.7	rock			
2+25		8.66	107.06 on hub			

11/27/8 Gregory. CROSS SECTION OF DAM SITE Continued

0 = No. edge of crest

	So.				No.			
0+00	35.0	24.0		10.0				
	137.9	132.3	133.0	133.0				
0+25	40.0	32.0	24.0	10.0	8.7	15.0		
	126.7	126.7	126.5	126.5	127.2	126.2	125.7	
0+50	50.0	50.1	34.0	24.0	11.0	23.7	46.0	35.0
	113.2	114.6	116.9	118.1	117.9	116.6	116.2	115.9
0+75	100.0	61.9	24.0		45.0	33.2	40.0	
	106.9	106.7	104.8	108.1	107.2	104.9	110.4	
1+00	80.0	62.4	24.0		25.0	34.6	50.0	
	106.1	106.4	107.7	106.7	108.3	108.9	109.3	
1+25	75.0	63.6	24.0		45.0	37.1	46.0	
	105.8	105.6	106.5	106.9	107.0	107.3	107.5	
1+50	75.0	64.4	24.0		45.0	36.8	47.0	
	105.0	105.1	106.5	106.7	107.5	107.5	107.6	
1+75	75.0	63.9	24.0		45.0	37.1	47.0	
	105.2	105.4	106.1	106.7	107.0	106.6	107.1	
2+00	75.0	63.2	24.0	14.0	25.0	32.2	35.0	39.2
	105.6	105.9	106.1	105.9	103.8	103.7	104.0	105.5
2+25	80.0	69	24.0	24.0	20.0	33.5	45.0	
	102.3	102.0	103.0	105.4	107.1	109.0	109.7	110.8
2+50	63.0	56.8	24.0		14.0	24.5	30.0	
	110.3	110.7	112.8	114.5	114.6	115.7	115.0	
2+75	61.0	51.9	24.0		40.6	30.0		
	112.8	113.4	114.9	116.7	115.2	118.6		
3+00	53.0	44.3	24.0		15.2	25.0		
	117.4	118.5	120.5	121.8	121.8	122.0		
3+20	35.0	24.0		15.0				
	131.5	131.9	132.0	132.3				

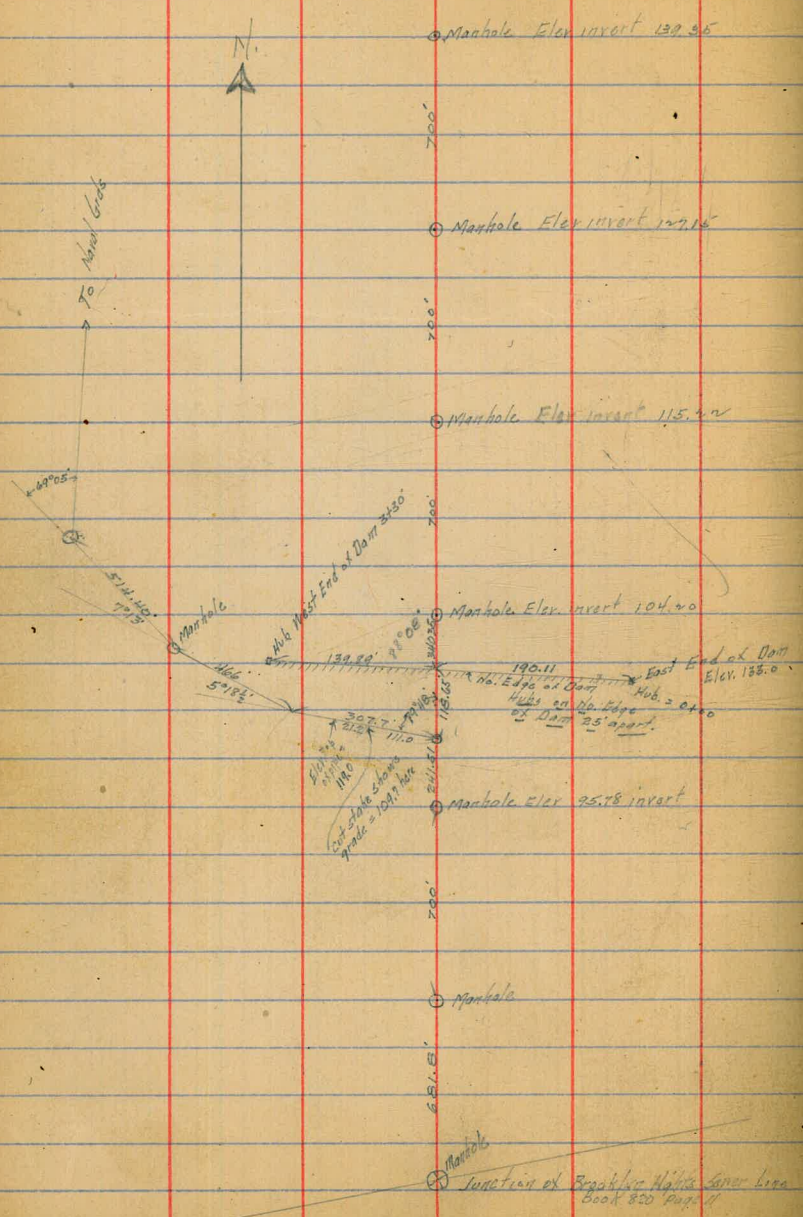
CROSS SECTION OF SPILLWAY SITE

00 = No. End Spillway

	So. Spillway			
130.0	18.0	25.0	40.0	50.0
	132.0	135.8	138.7	140.9
131.9	13.0	25.0		
	136.4	138.0		
131.5	13.4	25.0	40.0	
	136.5	141.2	151.0	150.0
135.5	13.0		26.0	51.7
	135.9		141.0	150.0
			141.0	150.0
	13.0		25.0	50.0
	133.0		141.0	150.0
			141.0	150.0

145.24
147.7
147.7
147.7

Gregory LOCATION OF DAM IN
Powder House Canon



2/28/25
Moore

Sewer Construction La Jolla Ave Estudillo to Courts

WRIGHT + LAJOLLA

35

	H.I.	2' OFFSETS		
Ex. MH 493 Nef Estudillo = 00 = 00	80.24	13.03	73.21	73.00 73.21
13.87' N		82.6	77.88	73.27 +4.61
277' = EG		82.4	78.00	73.33 +4.67
50'		79.8	78.26	73.43 +4.83
100'		75.2	78.72	73.66 +5.06
150'		70.5	79.19	73.90 +5.29
200'		65.1	79.73	74.15 +5.59
250'		59.6	80.28	74.37 +5.91
296.0 = MH & Wright		54.6	80.78	74.60 +6.18
350' N		47.7	81.47	75.08 +6.39
400'		42.6	81.98	75.52 +6.46
450'		37.6	82.48	75.97 +6.51
500'		32.5	82.99	76.42 +6.57
550'		27.6	83.48	76.86 +6.62
600' N		23.3	83.91	77.31 +6.60
650'		17.4	84.50	77.76 +6.74
675.8 = MH & Bendini		15.0	84.74	78.0 +6.74
725.8		0.87	85.37	78.50 +6.87
775.8 = DE		0.52	85.72	79.0 +6.72

This Line Located in Center of Street instead of 5' E of Center

$\begin{array}{r}
 82.62 \\
 - 2.62 \\
 \hline
 80.00 \\
 + .52 \\
 \hline
 80.52
 \end{array}$
 BM NE Spike

270
1875
207

Sewer Construction BANDINI

LA JOLLA AVE EAST

575 2 OFFSETS

Bandini = 00 MH

78.0

35 E	B	998	88.64	82.0	+6.64
75	B	1004	100.51	95.0	+5.51
100		504	105.51	99.16	+6.35
150		820	114.63	107.50	+7.13
195	B	325	119.58	115.0	+4.58
232.5		662	129.00	123.5	+5.50
270	DMA	1015	137.42	132.0	+5.42
310		351	144.06	139.0	+5.06
350	B	797	148.86	146.0	+2.86
407.5	MH	617	150.66	146.5	+4.16
				147.0	

857
1270
98.62
0.82
95.04
12.51
10.56
0.82
110.22
12.71
122.93
0.11
120.82
10.80
105.62
0.65
104.97
12.60
117.57
0.14

JEFFERSON

127.43
249
250.83
0.17
150.66 TP

BANDINI



ST

ST

SEWER CONSTRUCTION
JEFFERSON - WRIGHT to COUTS

1120
1378
1718

37

	3.91	15 457	15066	TP from 1036	
202 DE. Not WRIGHT			3.47	151.10	147.0 + 4.10
50' N			1.91	152.66	145.89 + 6.77
90' N B			3.45	151.12	145.0 + 6.12
100			4.22	150.35	144.25 + 6.10
150	4.50%		7.97	146.60	140.50 + 6.10
200			12.32	142.25	136.75 + 5.50
250 B			17.18	137.39	133.0 + 4.39
300 DMH & BAUDINI				132.0	
✓ ✓ ✓				135.0	
340 N B			11.60	142.97	138.5 + 4.47
370			10.00	144.57	138.67 + 5.90
400			9.82	146.75	138.84 + 5.91
450	0.57%		9.98	144.59	139.13 + 5.46
500			9.64	144.93	139.42 + 5.51
550			9.65	144.92	139.72 + 5.20
600			10.44	144.13	140.0 + 4.13

3/2/21 Gregory

Sewer Construction CONGRESS ST.

	1281		15066	T.P. page 63	
	465	17863	17398	stake @ 0.00	
25' S. of 5 L. Couts in Middletown Rd			465	17398	170.0 + 3.98
= 0+00			337	175.26	169.25 + 6.01
+ 50		17471	097	173.74	168.5 + 5.24
1 break			483	169.88	165.75 + 4.13
+ 60			645	168.26	163.0 + 5.26
2+40 break			974	164.97	158.80 + 6.17
+ 68.73			1281	15066	TP page 66
3+17.46	0.43	163.47	346	160.01	154.63 + 5.38
3+66 = A			810	155.37	150.44 + 4.93
4+06.15 = M.H. & Banding			1130	152.17	147.0 + 5.17

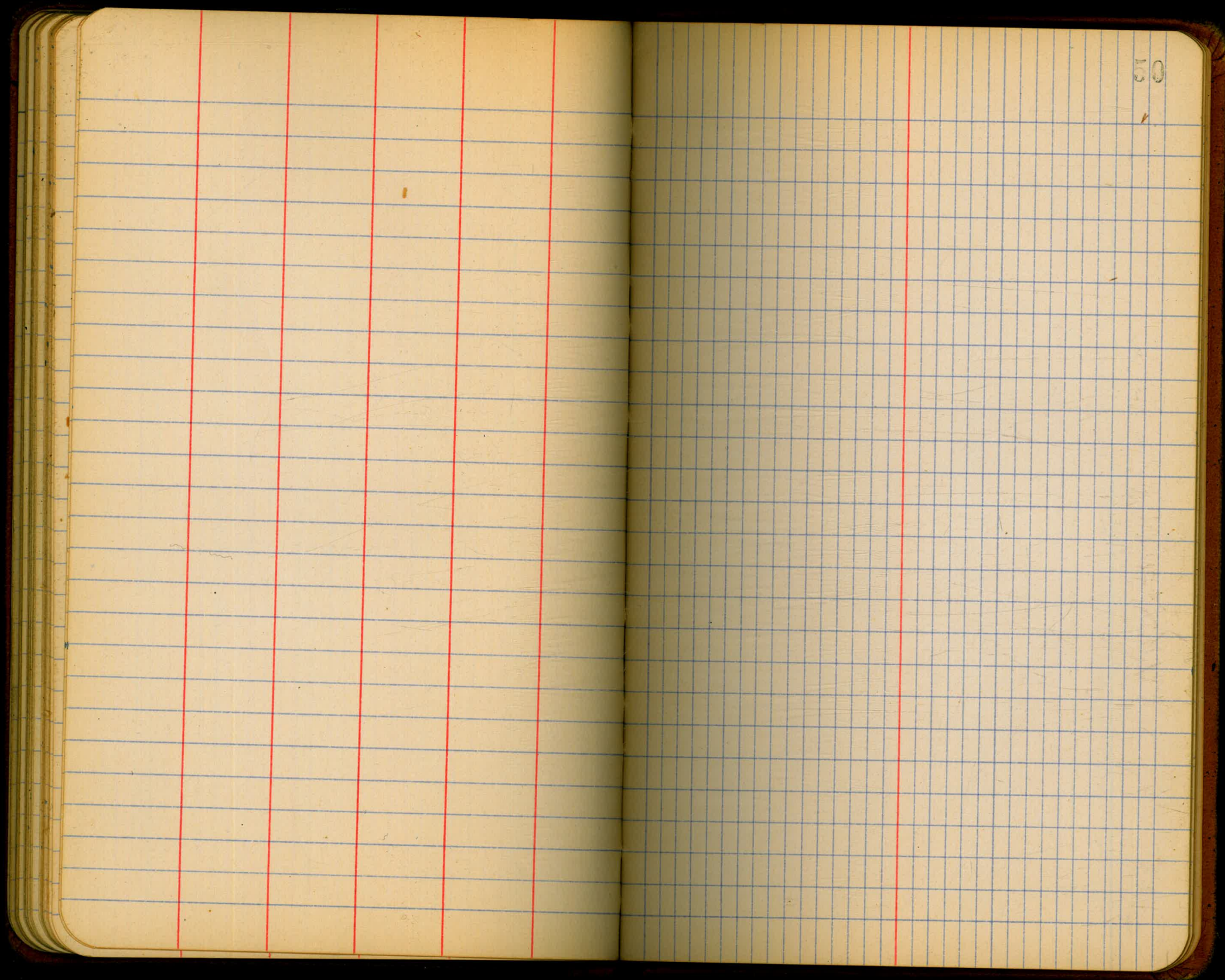
SEE SHEET 227 D

and

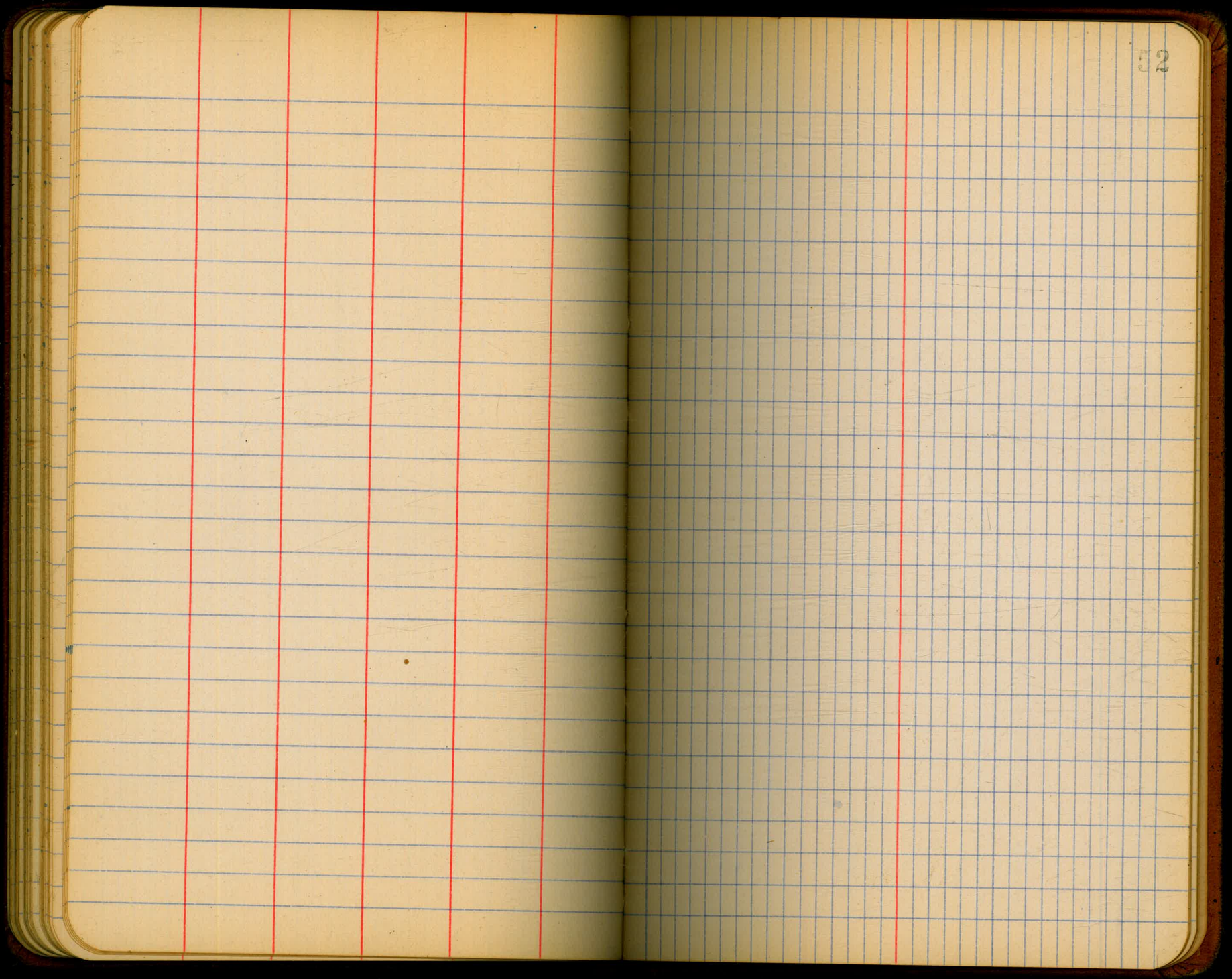
✓ 1535 L for location

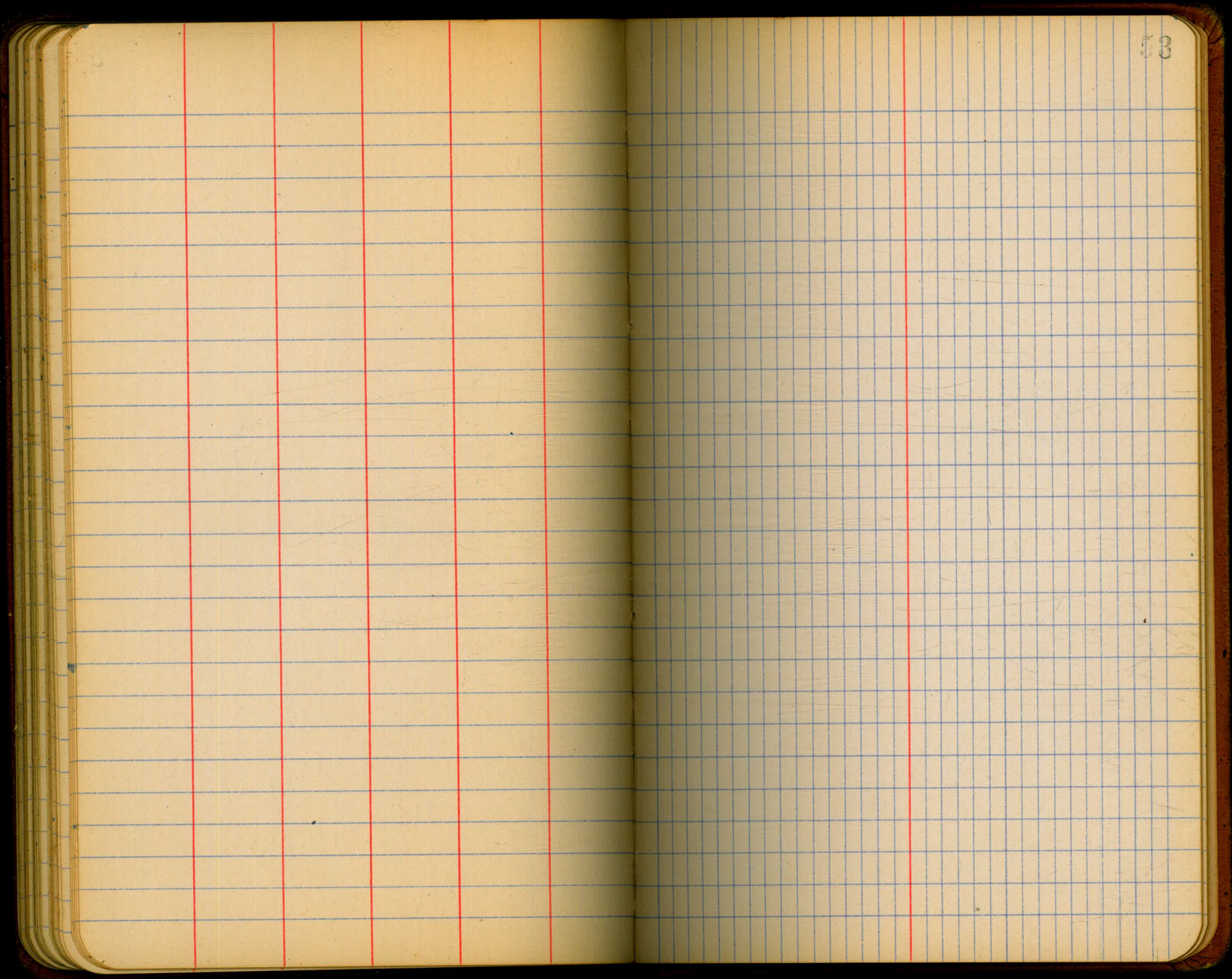
~~163.47~~
~~163.00~~
~~174.71~~
~~178.63~~
~~173.98~~
~~170.00~~
~~169.25~~
~~168.50~~
~~165.75~~
~~163.00~~
~~158.80~~
~~154.63~~
~~150.44~~
~~147.00~~

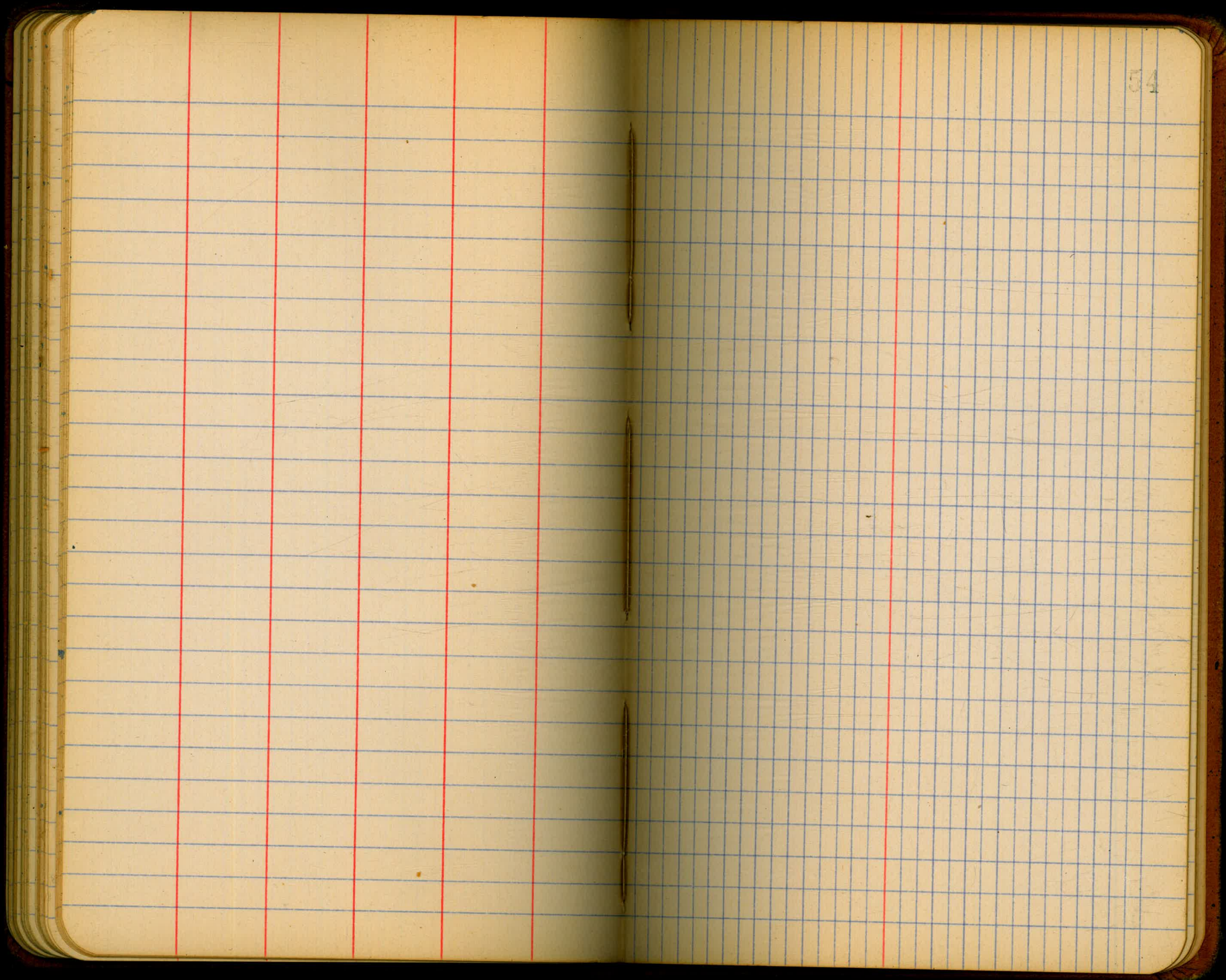
40

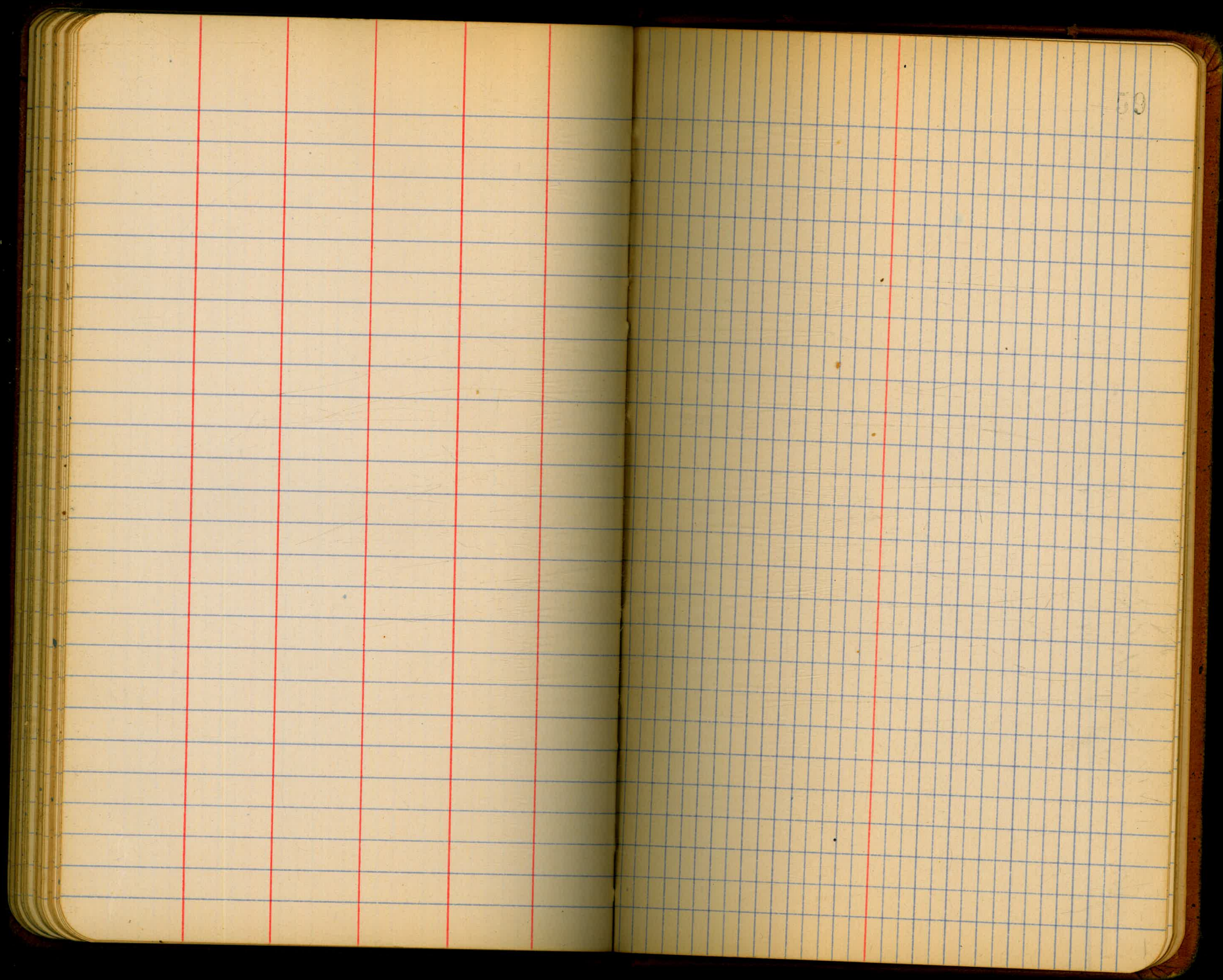


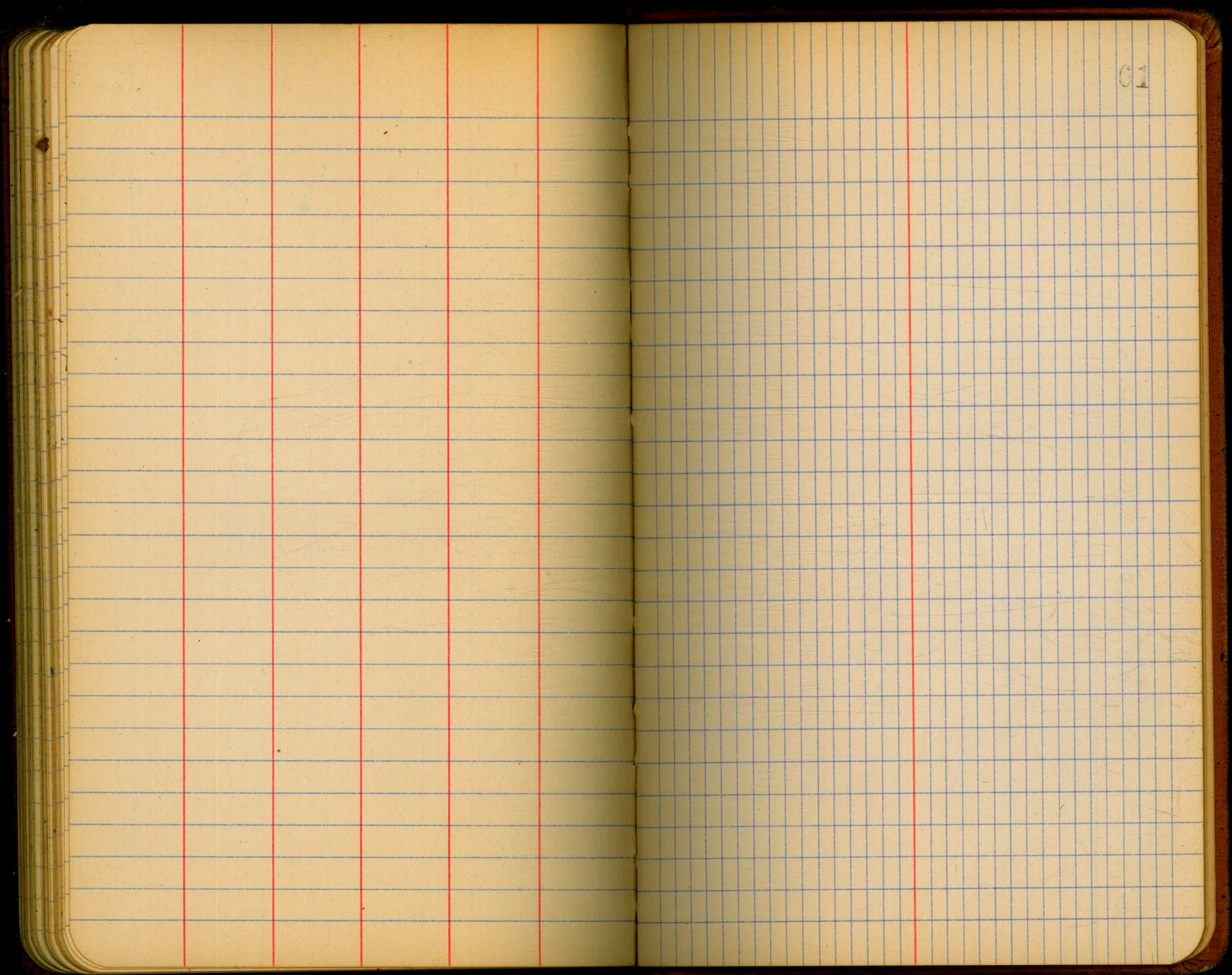
50



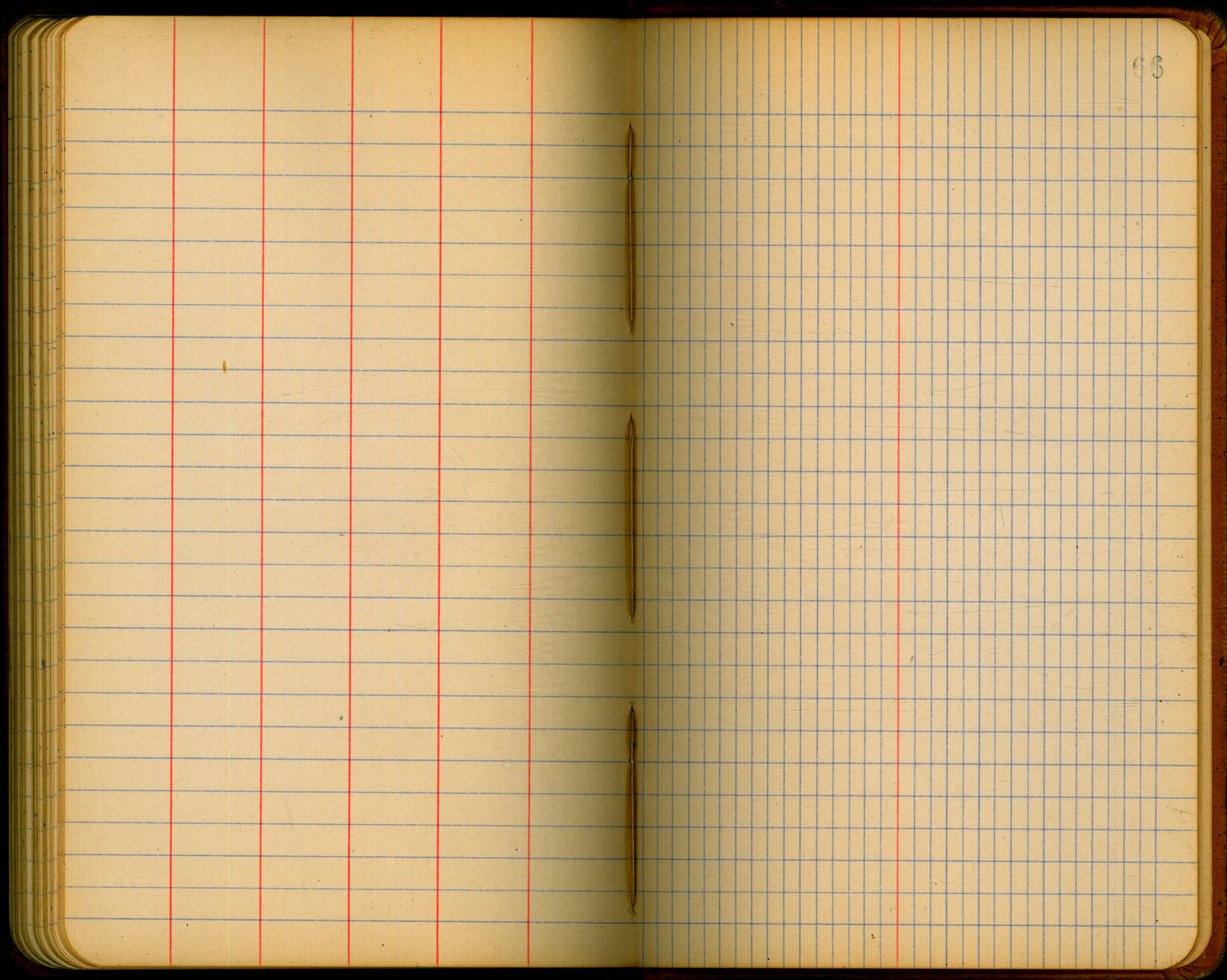




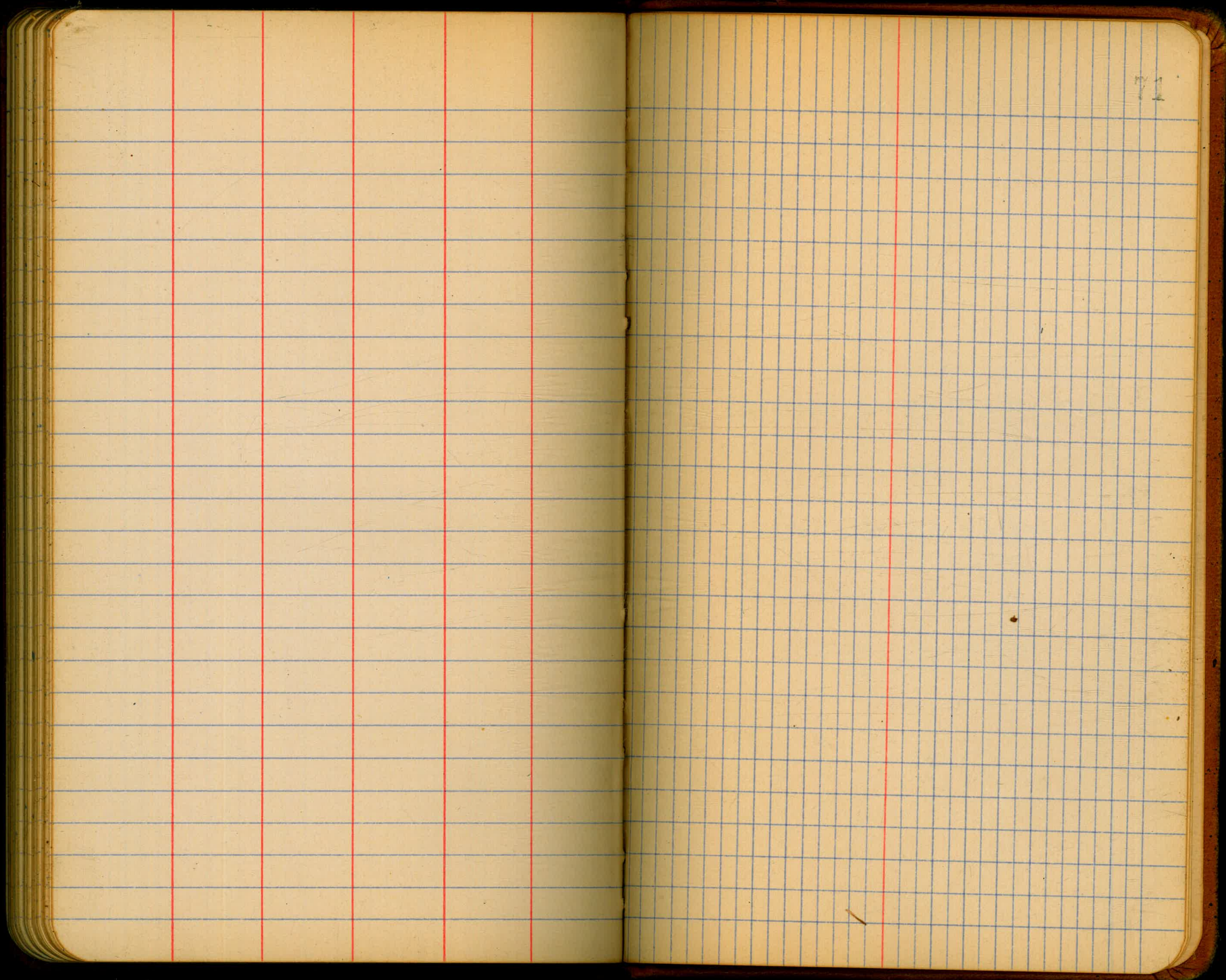




01



70



Test well #2

6-16-5 10.00 6.5

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.
Distance of slope stake from side or shoulder
stake for any width roadway, slope 1% to 1
If ground is nearly level, the cut or fill at side
stake is located by the double entry method in
left column and top row. The number in body

of table in same row and column gives distance

IMPROVED TABLES
AND
INFORMATION

TABLE No. 2.

To find Tangent and External for curve of
any other degree, divide by degree of curve and
add correction found in column of corrections.
Degree of curve with a given L may be found
by dividing tangent (or external), opposite L by
given tangent (or external).

The distance from a point on the tangent to
the curve is very nearly the square of the tangent
length divided by twice the radius.

86 400
7 1/2
604 800
482 000
648 000. gals per 24 Hrs.

370
220
3 156
52
111
100 11 30
200 24 30
100 11 10
11
179 60
79 48

142
5
6.95
110.18
121.13
119.0

219
050
169

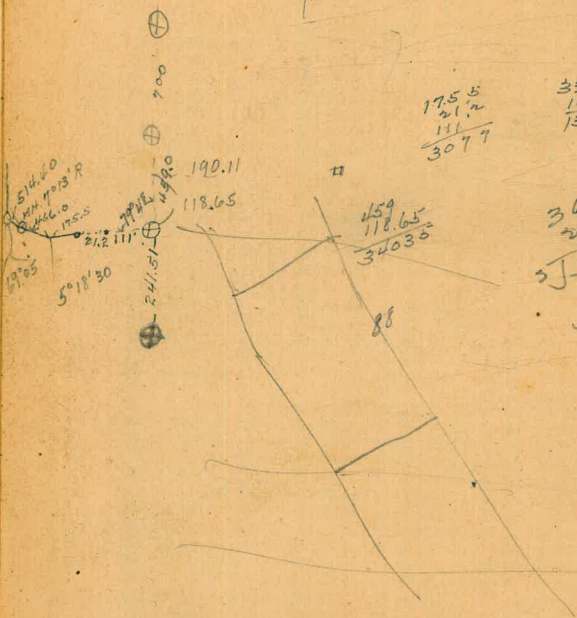
78.96
48.83
30.83
107.14
137.67

59
5
11
109.7

175.5
21.2
11
307.7

330
190.11
139.89

366
220
3 146
48.73
317.46



15
131.5
132
67
25.3
12.6
37.9

1218
102
51

102.2
29.8
11.9
22.7
2.2
60.7

22
103.9
23.7
11.5
34.6

106.6
25.4
12.7
38.1
3.4
363
24

102.4
25.6
12.8
38.4
3.4
64.4

19
102.4
22.6
11.3
33.7

154
77
231

118.4
23.6
11.8
35.4
5.1

116.2
25.8
12.9

106.5
17.4
8.9
26.1
50.1

107.5
24.5
12.3
36.8

106.9
25.7
12.6
37.4

109.7
27.2
13.6
33.5

106.0
26
39
25

115.5
16.4
8.3

117.7
14.3
7

118.1
15.5
7.7
13.3
2.2
20.2
20.2

33
116.8
15.2
7.6
2.2
24.8
7.4
15.3

34
118.4
15.6
8.3
2.2
20.8
2.2
111.3
20.7
10.4
3.4
3.4
10.57
2.8
13.2
37.5

106.6
106.7
25.3
12.6
37.9
6.7

102
30
4.5
69

106.5
5.5
2.8
8.3

119.3
13.7
6.9
26.7
5.3
2.7
8.0

105.6
26.4
13
39.6
2.4
6.6

105.1
26.9
13.6
20.4
6.4

105.1
26.6
13.2
39.7
2.4
6.9

106.6
25.4
12.7
37.1

115.7
16.8
8
24.5

110.4
21.6
10.8
10.8
32.8
5.8
2.7
8.7

126
6
125.7

110.7
21.5
10.7
32.0

17.1
21.1

120.5
17.8
5.8
17.8