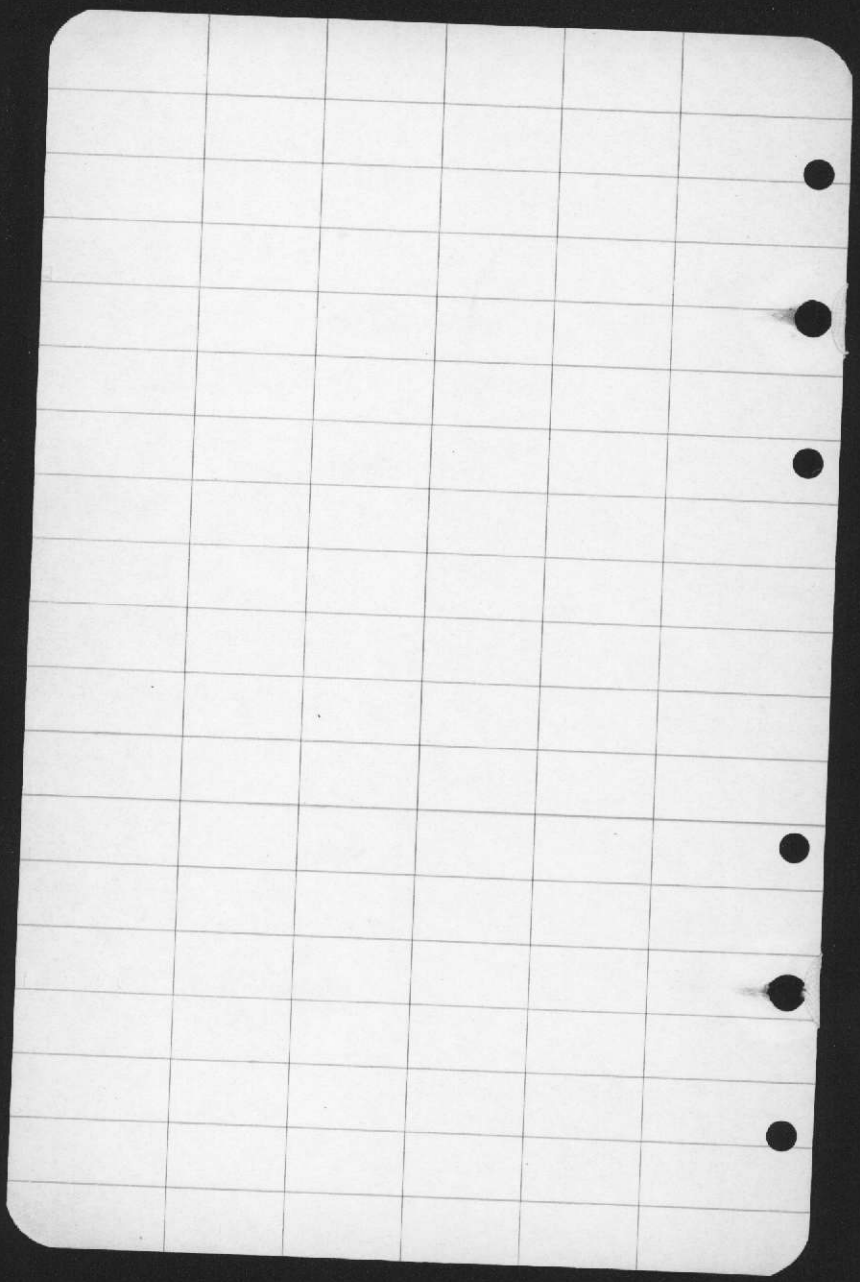
Kilowatts	x	1.34	=	H.P.	
Watts	÷	746	=	H.P.	
P.S.I.	Feet.	PSI	Feet	PSI - Feet.	
10.0	23.1	17	39.3	24 - 55.4	
10½	24.3	17½	40.4	24½ - 56.6	
11	25.4	18	41.6	25 - 57.8	
11½	26.6	18½	42.7	25½ - 58.9	
12	27.7	19	43.9	26 - 60.1	
12½	28.9	19½	45.0	26½ - 61.2	
13	30.0	20	46.2	27 - 62.4	
13½	31.2	20½	47.4	27½ - 63.5	
14	32.3	21	48.5	28 - 64.7	
14½	33.5	21½	49.7	28½ - 65.8	
15	34.7	22	50.1	29 - 67.0	
15½	35.8	22½	52.0	29½ - 68.1	
16	37.0	23	53.1	30 - 69.3	
16½	38.1	23½	54.3	30½ - 70.5	

1 psi = 2.31
¼ psi = .58

½ psi = 1.2
¾ psi = 1.7



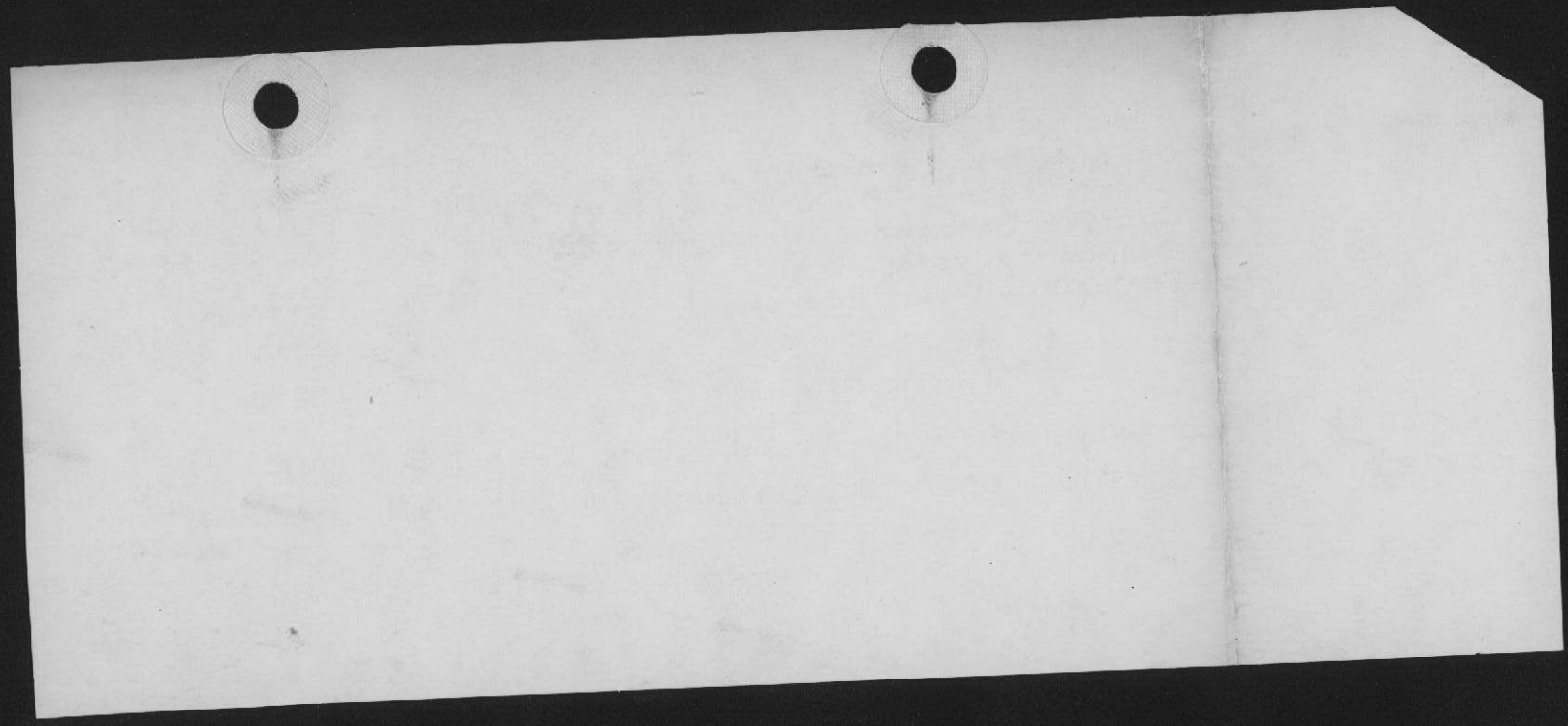
GENERAL NOTES

1 - Steel Casing - 18" O.D. - Standard Weight.
2 - Steel Tubing - 8" - Standard Weight.
3 - Shutter Screens - Silicon Bronze Unless Otherwise Noted.
4 - EL. ± 0.00 = Mean Sea Level.

NOTES FEB.-1945

Data marked * corresponds with Archit.-Engrs Report-Feb.-1945
Recommended maximum operating condition for each Well, shown

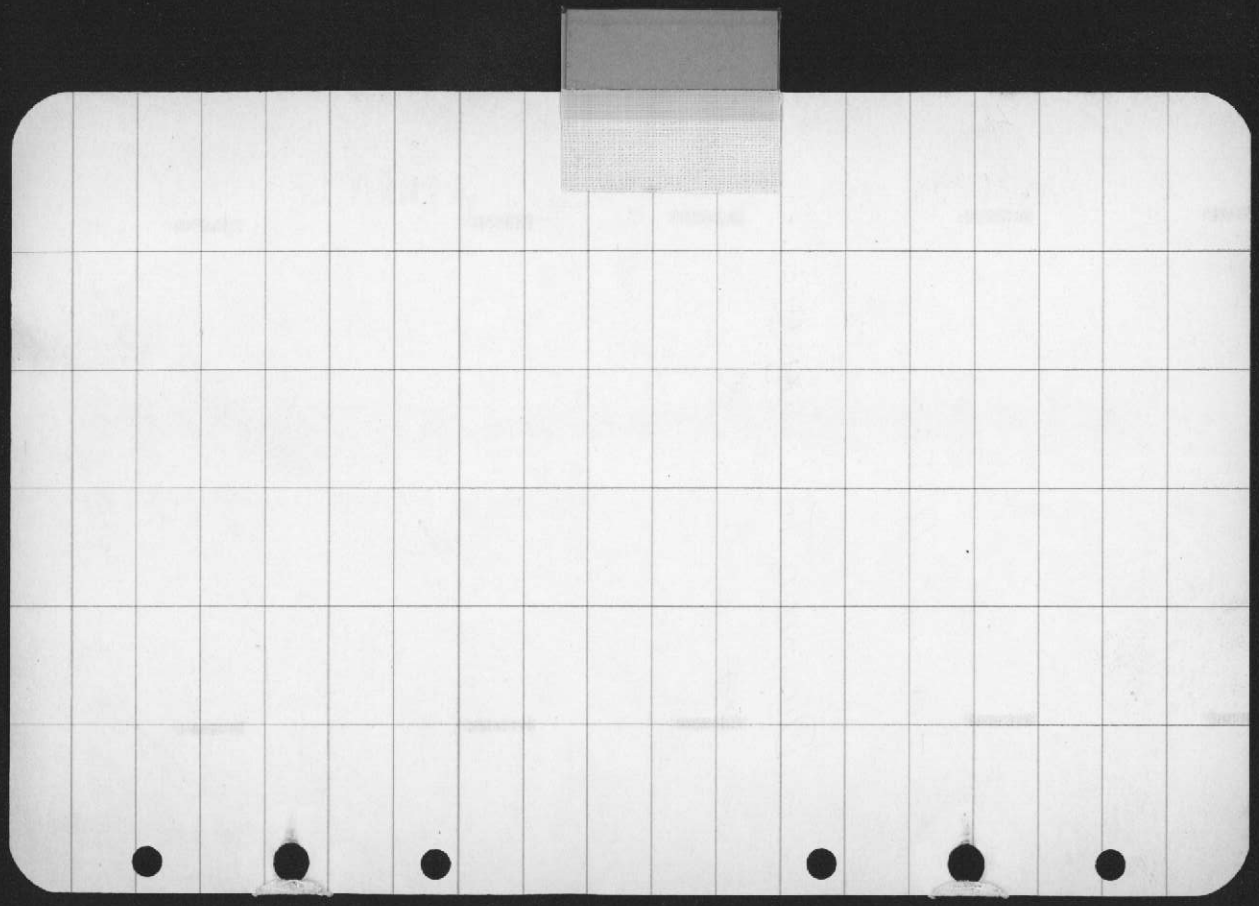
Max.
D. D.-16.9
300 G.P.M.

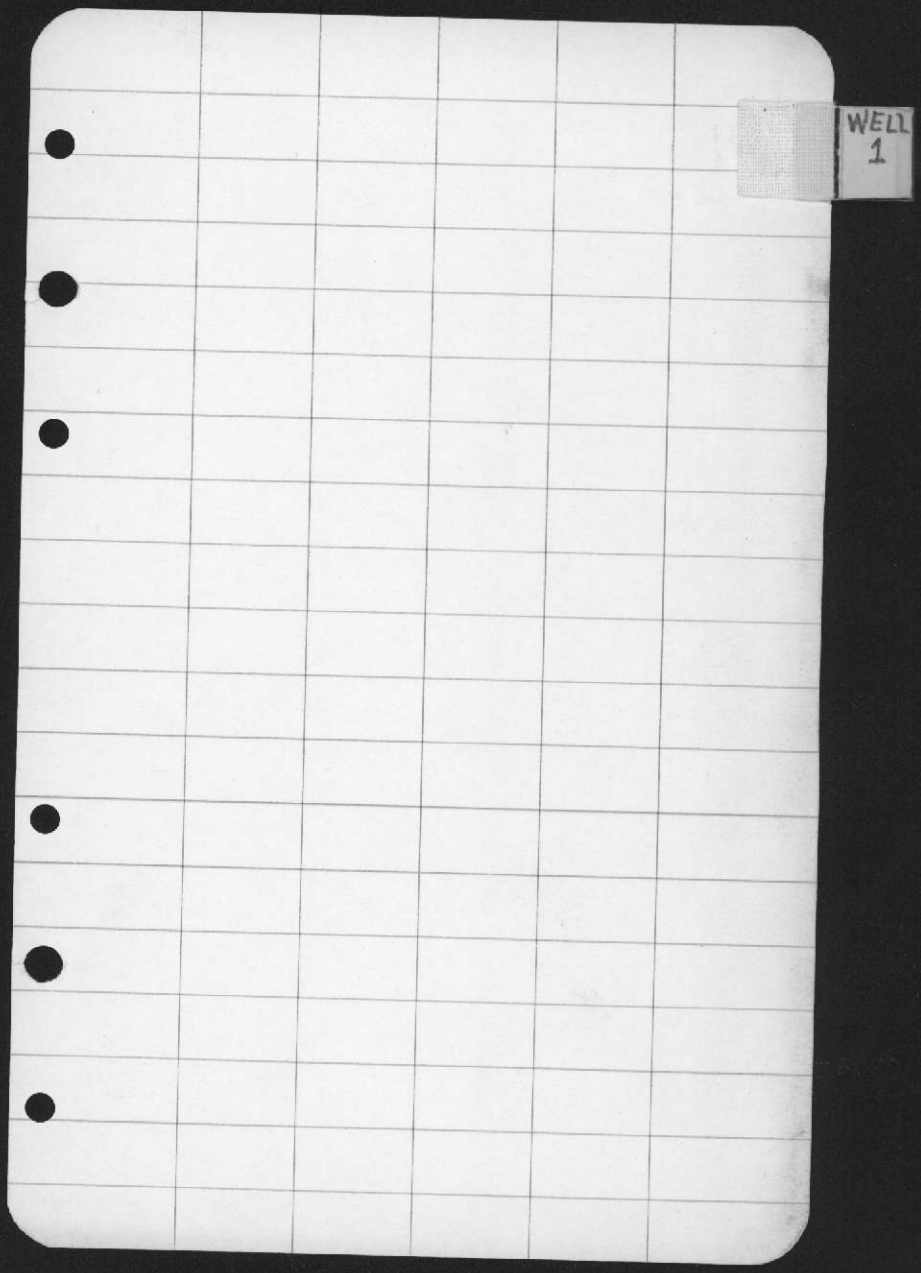


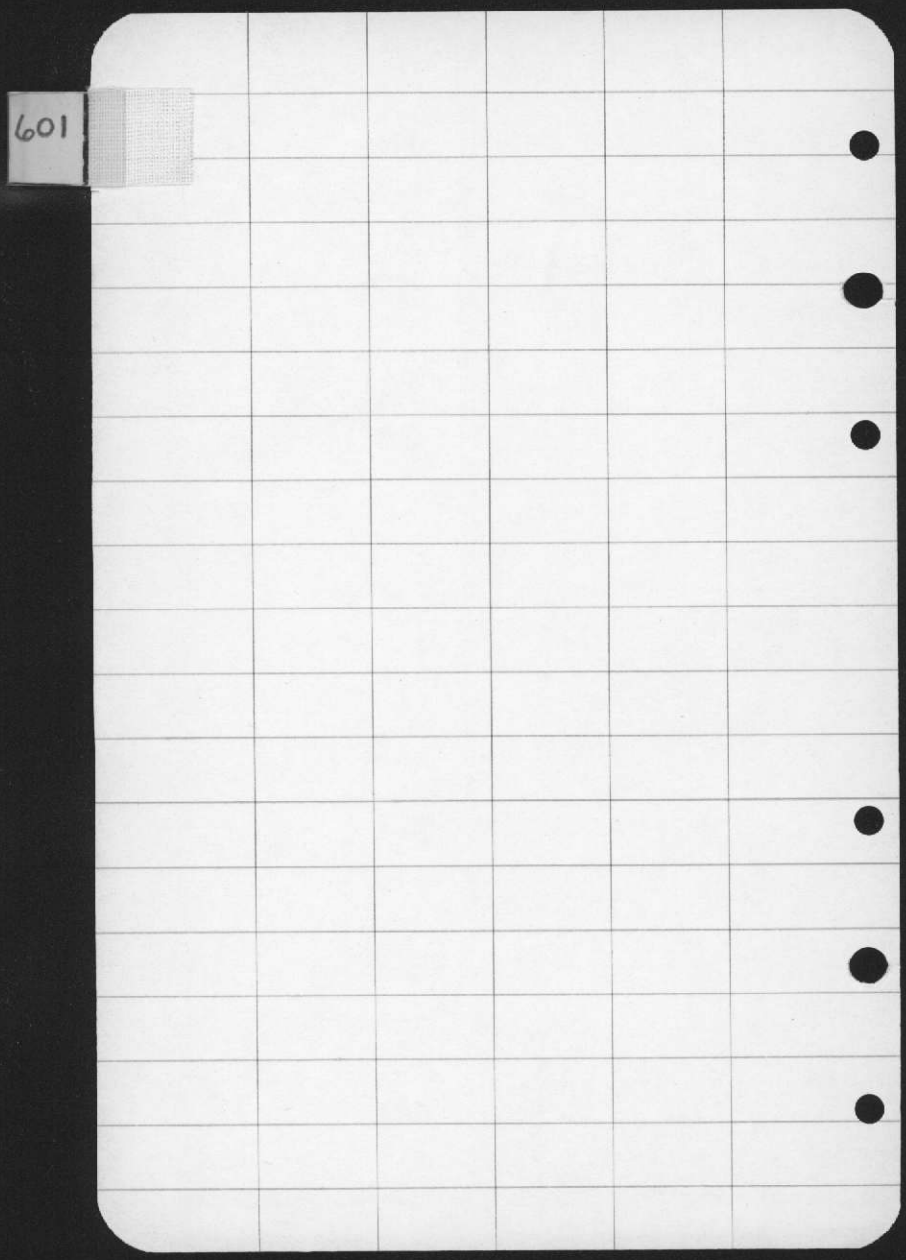
-WELL DATA-

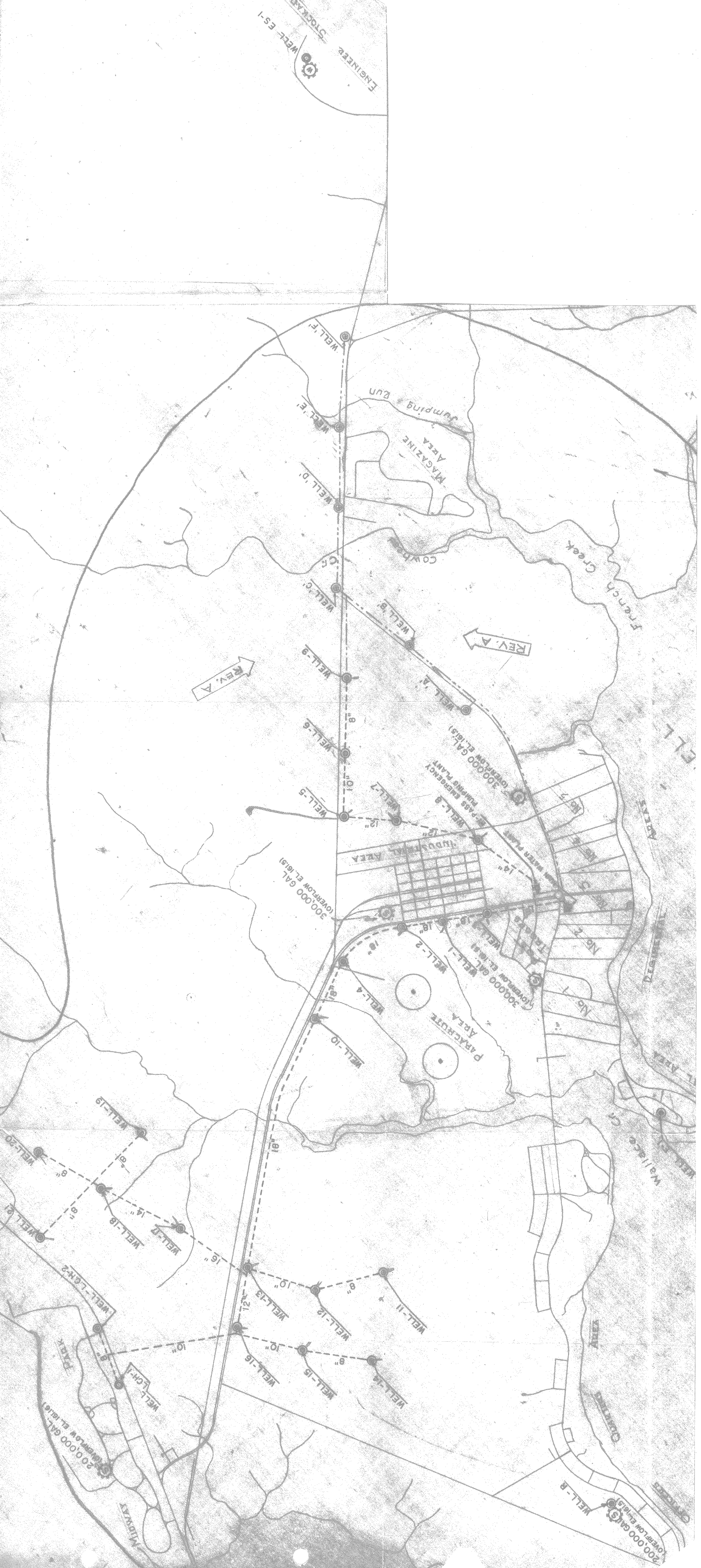
Division Training Area.

Division Training Area




WELL
1


601


WELL-1
WELL-2
WELL-3
WELL-4
WELL-5
WELL-6
WELL-7
WELL-8
WELL-9
WELL-10
WELL-11
WELL-12
WELL-13
WELL-14
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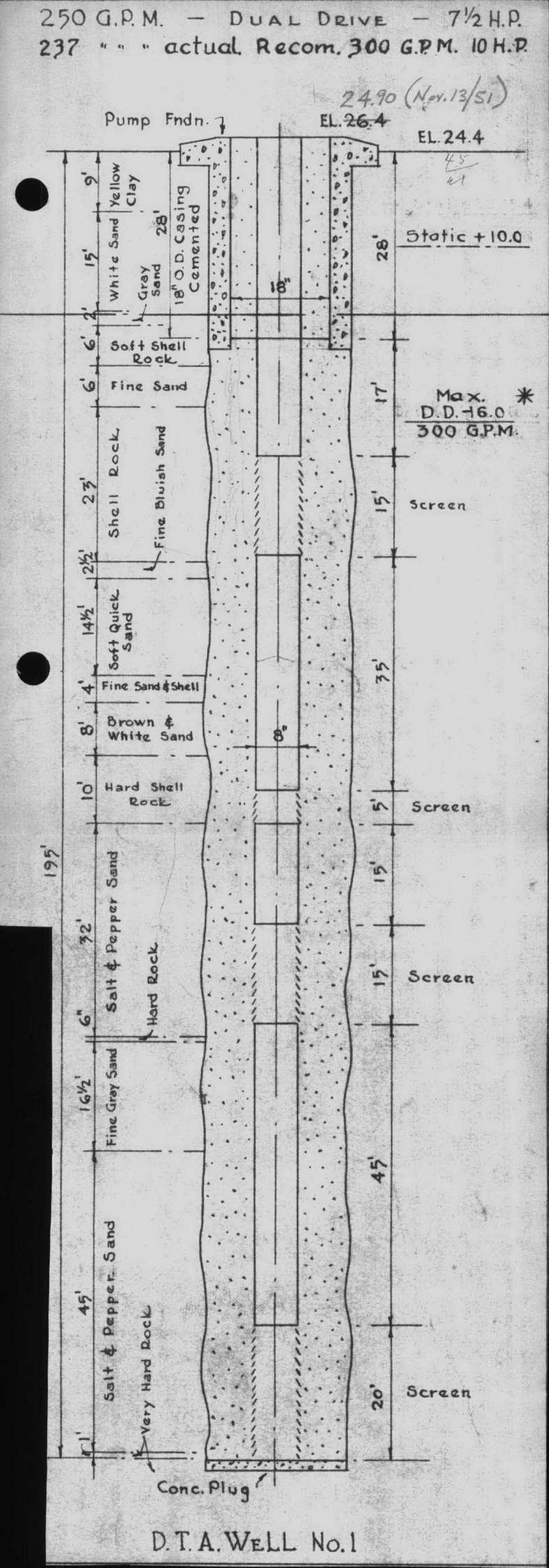
WELL-32
WELL-33
WELL-34
WELL-35
WELL-36
WELL-37
WELL-38
WELL-39
WELL-40
WELL-41

250 G.P.M. — DUAL DRIVE — 7½ H.P.
237 " " " actual. Recom. 300 G.P.M. 10 H.P.

24.90 (Nov. 13/51)



D.T.A. WELL No. 1

#1

Date	G.P.M.	Draw Down Elev.	Static Elev	Recovery 3m.	Recovery 6m.	Yield gal/ft dd.
1941	240	-4.5	+15.4	+9.0		12.05
1944	220	-8.0				
1949	180	-16.4	+6.0		-3.5	8.04

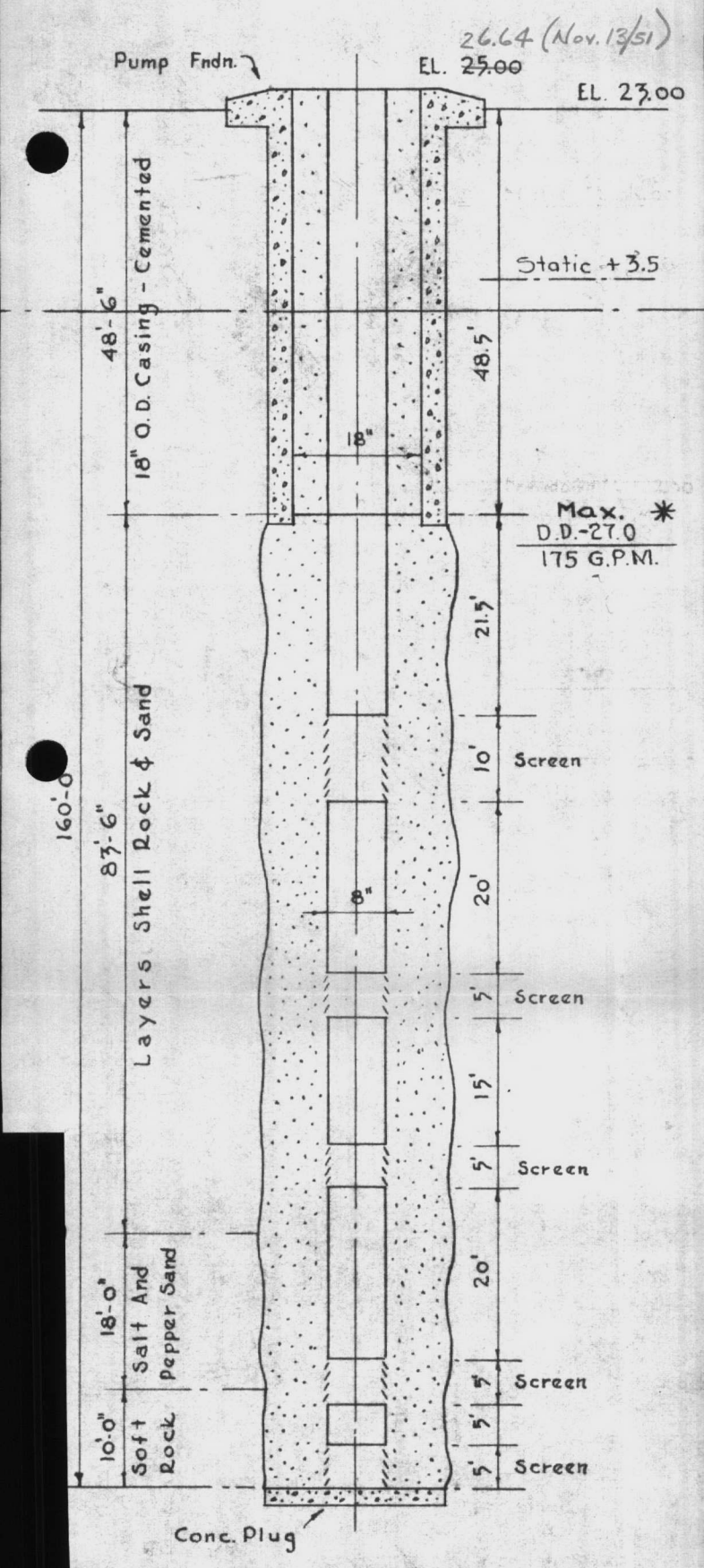
27.9	Rain	GPP	
26.4 + 1.5	22.1	21.8	
no gauge attached			

Date	G.P.M.	Draw Down Elev.	Static Water Elev.		

WELL 2

602

150 G.P.M. – SINGLE DRIVE – 5 H.P.
154 " " " actual. D.D.-20.3



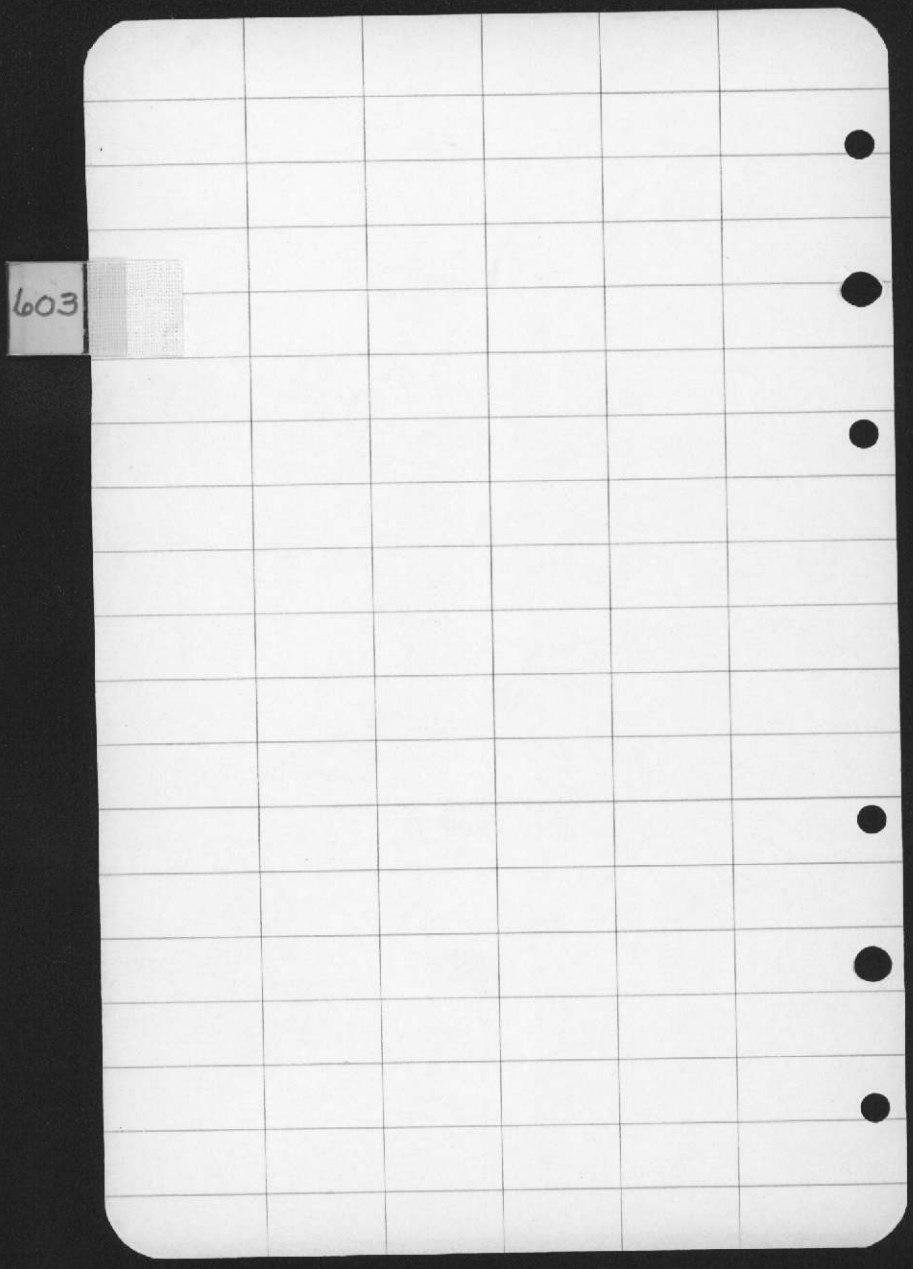
D.T.A. WELL No. 2

#2.

Date	G.P.M.	Drawn Down Elev.	Static Elev.	Recovery 3m 6m	Yield gal/ft.dd.
1941	140	-12.0	+11.0	+5.0	6.1
1944	150	-22.0	—		
1949	130	-25.9	0.0	-4.5	5.02

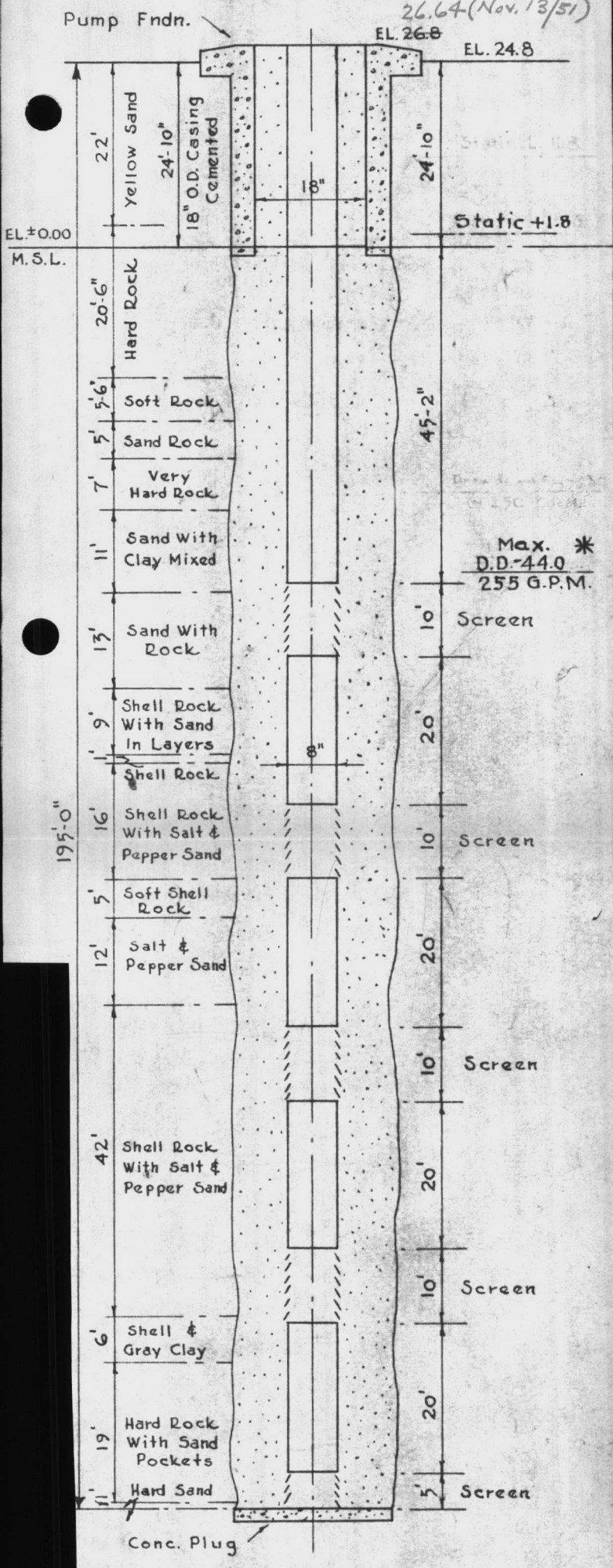
Perless Pump- 10 H.P.

WELL 3


603

250 G.P.M. — Dual Drive — 10 H.P.

236 " " " actual. D.D.-39.7

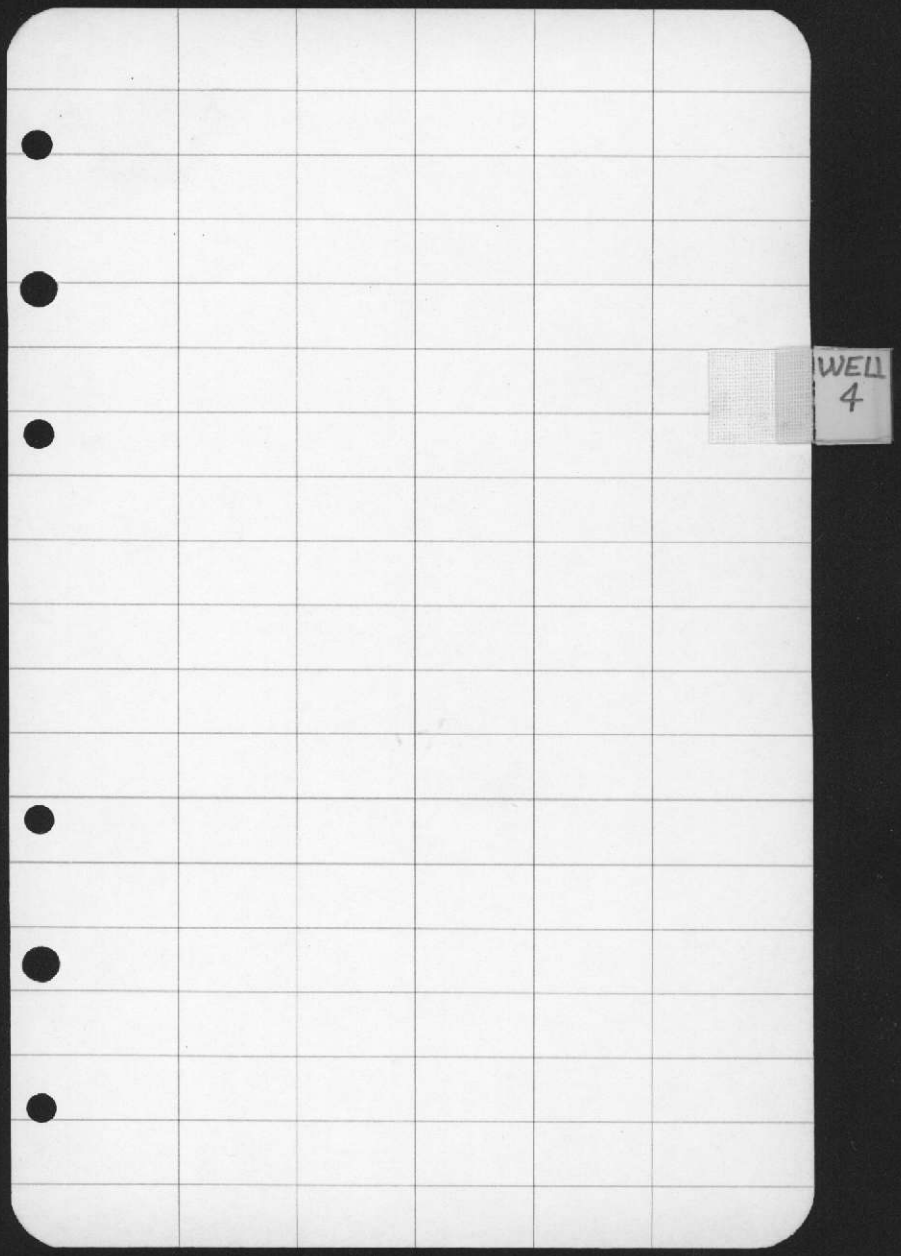


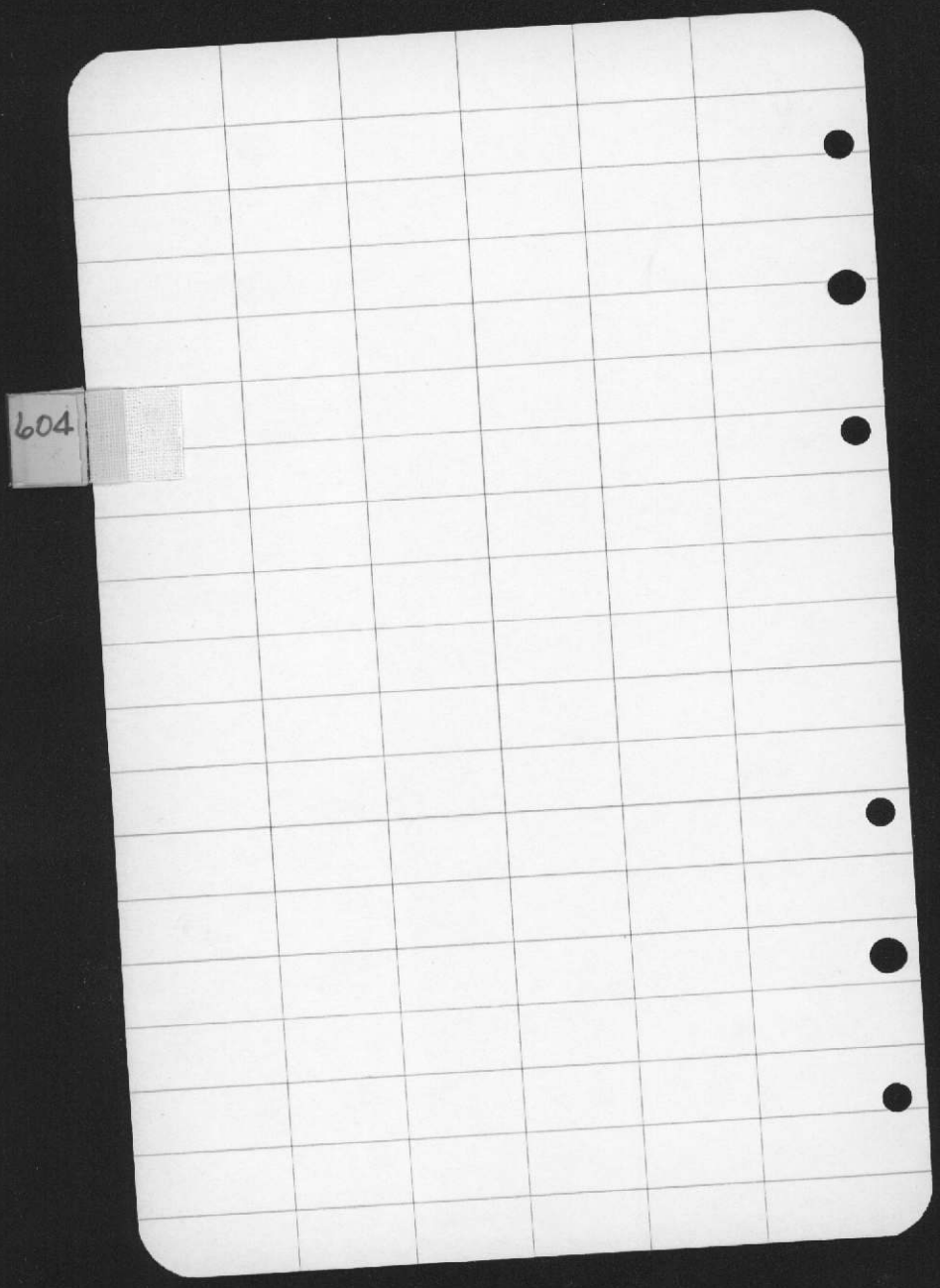
D.T.A. Well No. 3

#3

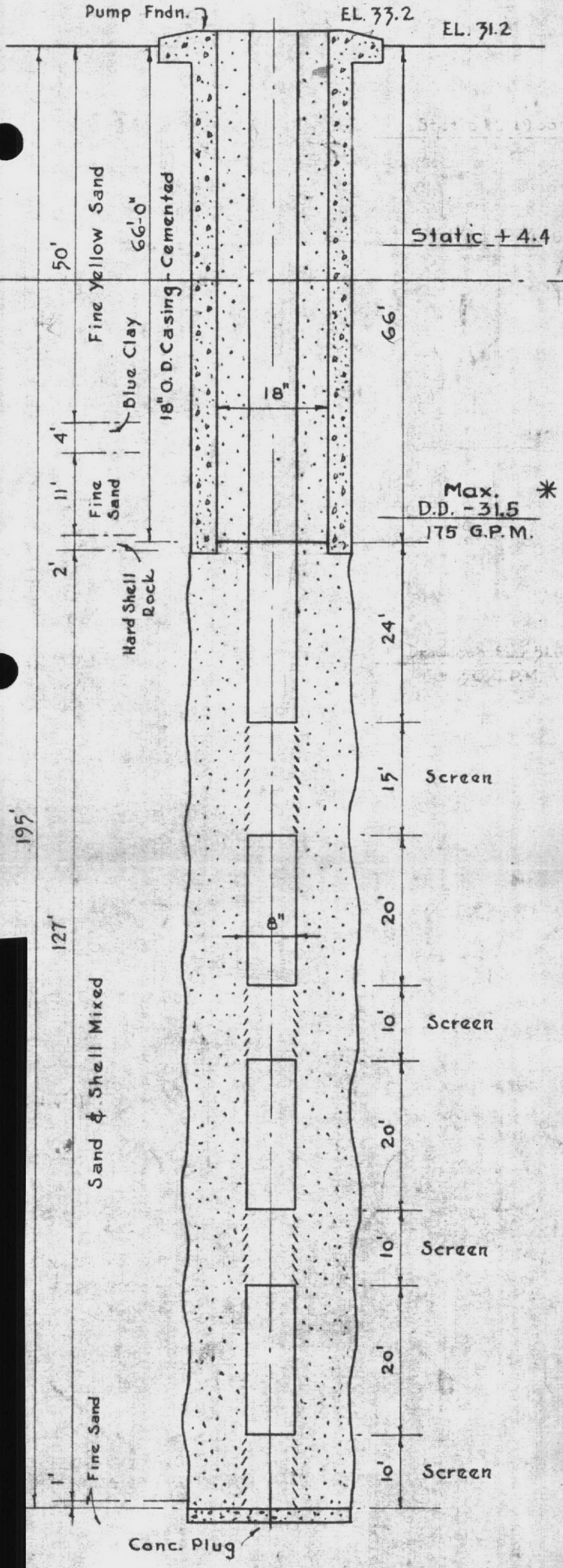
Date	GPM	Drawdown Elev.	Static Elev.	Recovery 3m. 6m.	Yield gal/ft.dd.
1941	265	-14.2	+11.8		10.2
1944	220	-37.5			
1949	175	-30.9	+9.0	+1.5	4.4

			Old	New Ron	New off
gage	26.8	+1.6	21.2	19.2	18.2


WELL
4

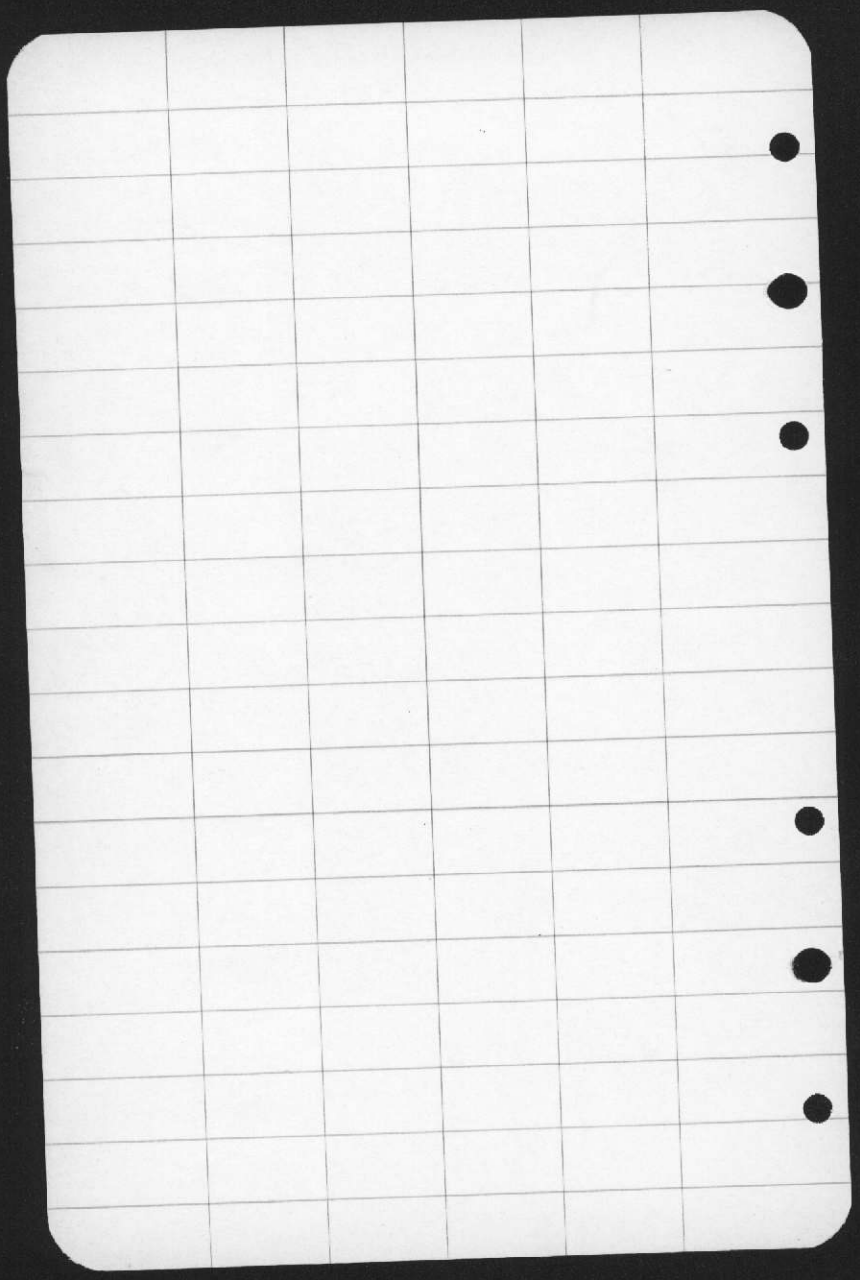

604

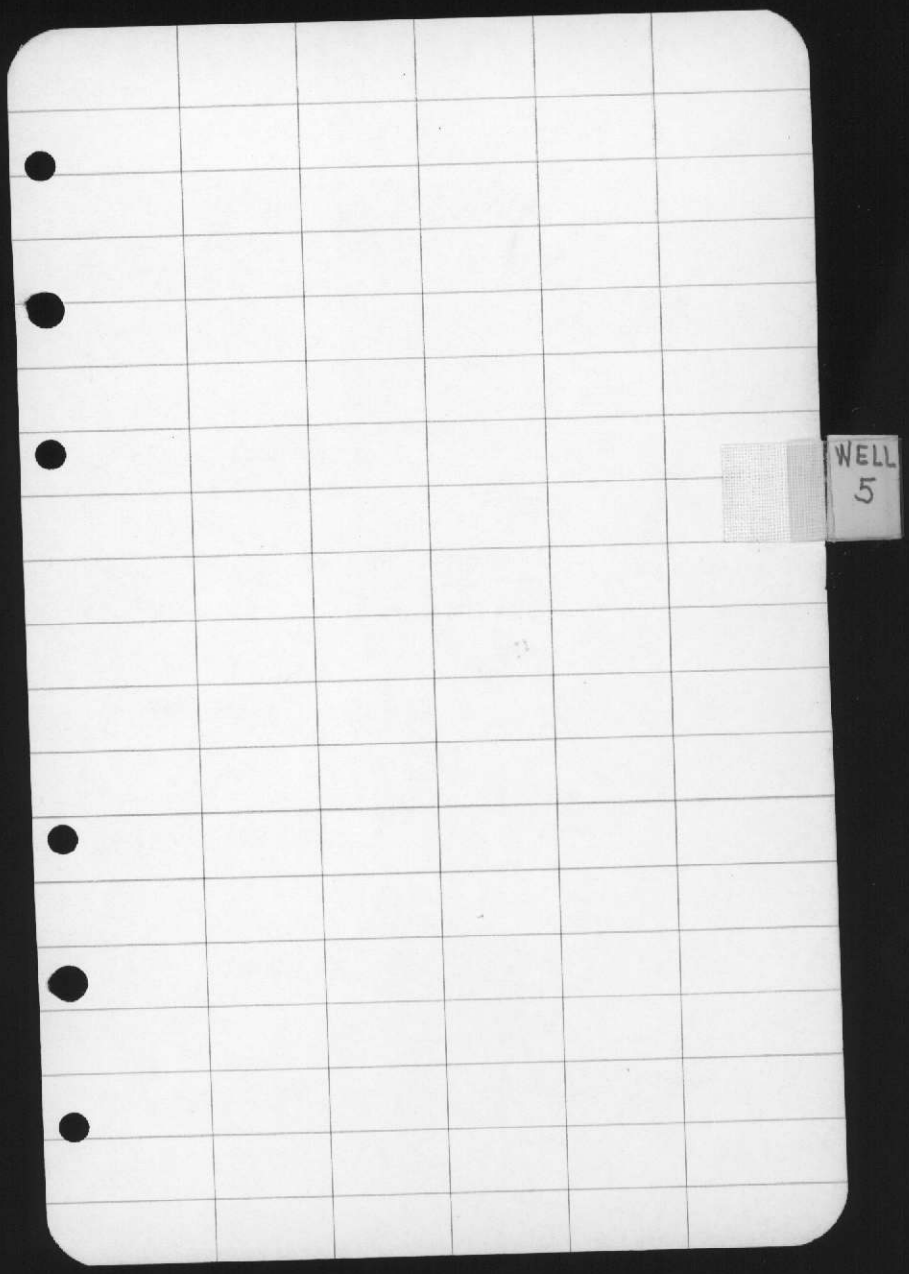
150 G.P.M. – SINGLE DRIVE – 7½ H.P.
160 " " " actual. D.D.-25.0

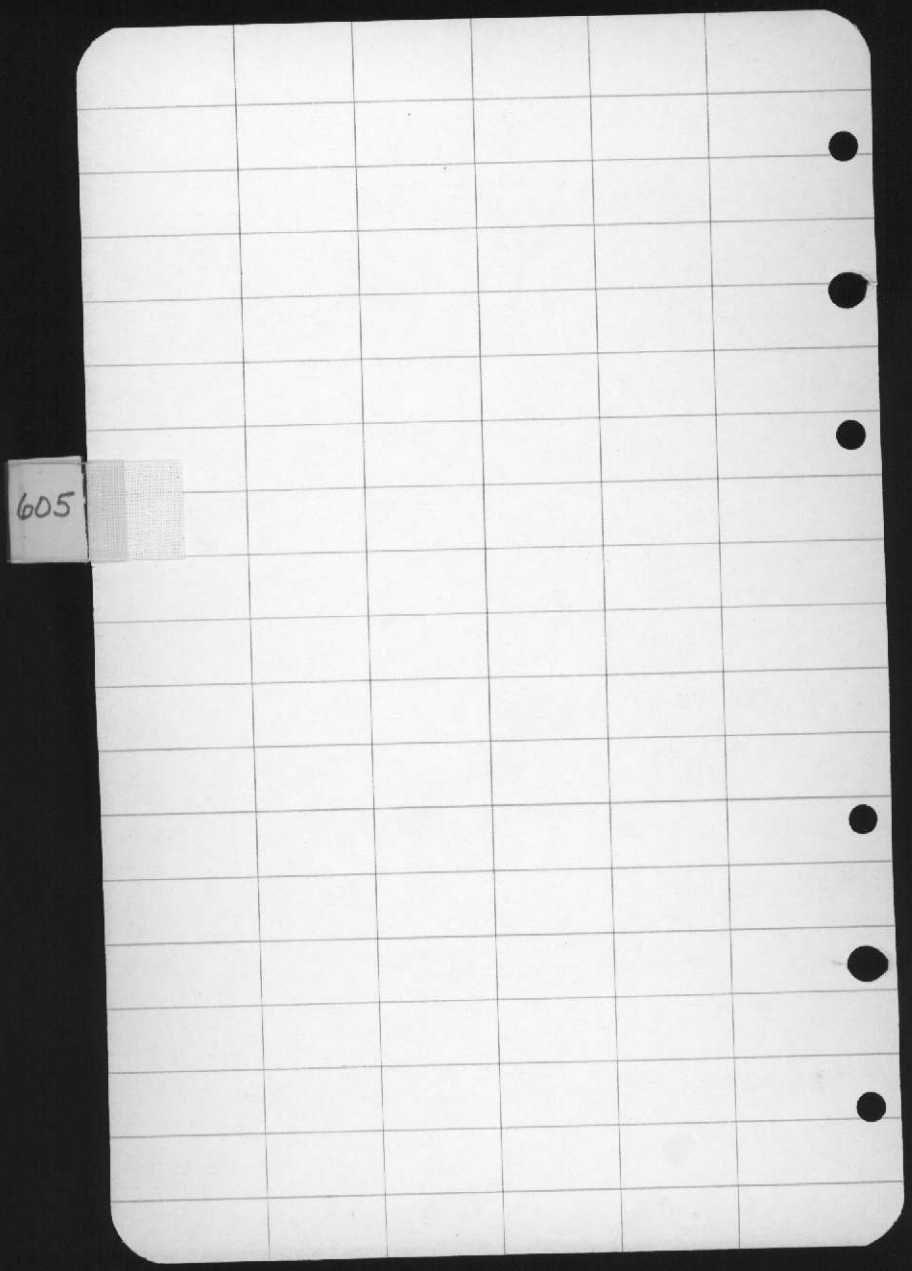


D.T.A. WELL No. 4

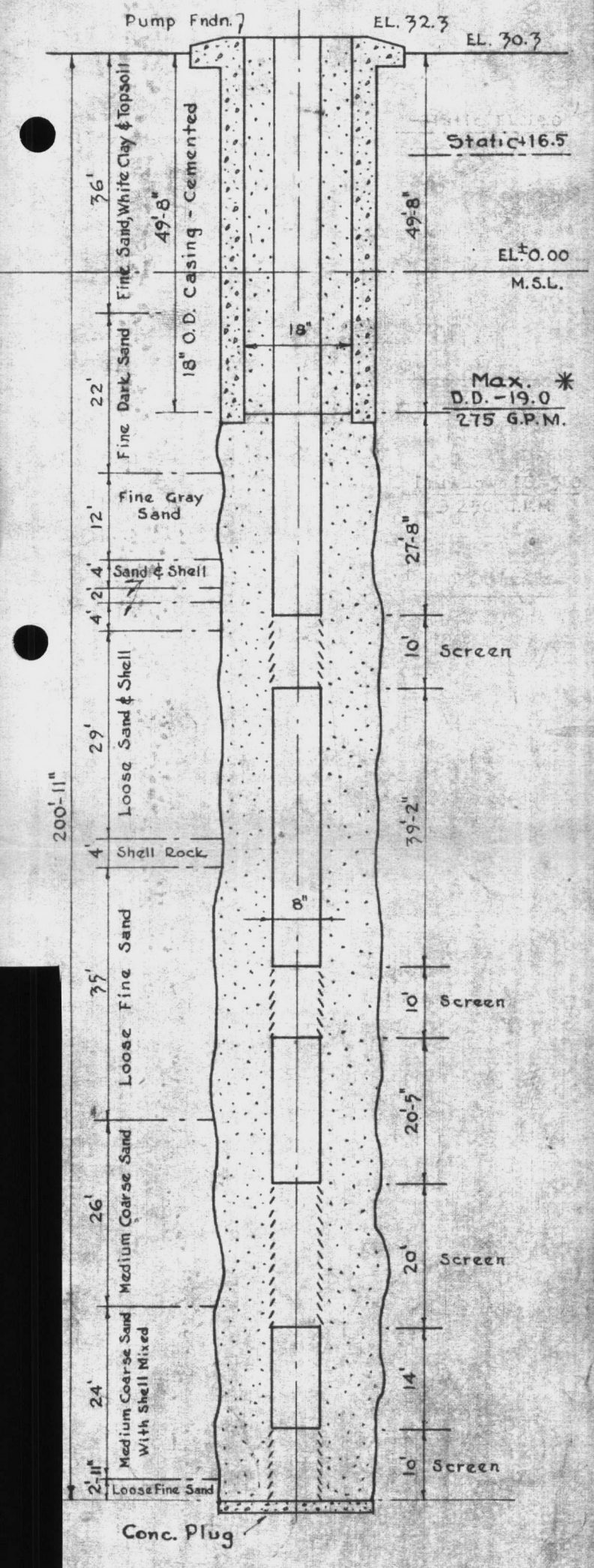
#4 Date	G.P.M.	Draw Down Elev.	Static Elev.	Recovery 3m 6m	Yield gal/ft. dd.
1941	150	-20.8	+19.0		3.75
1944	155	-23.0			
1949	190	-21.5	+1.5	+1.5	8.25




WELL
5

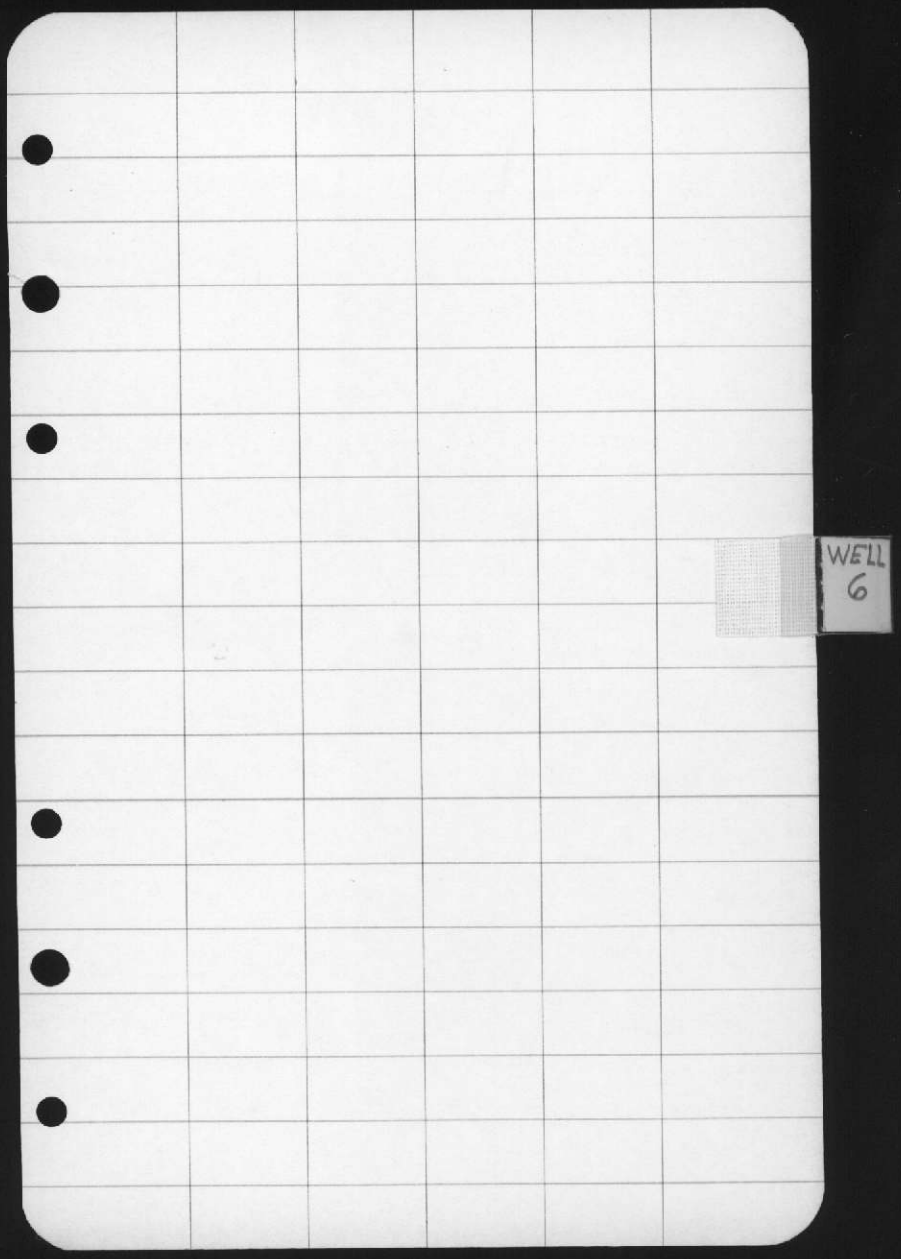

605

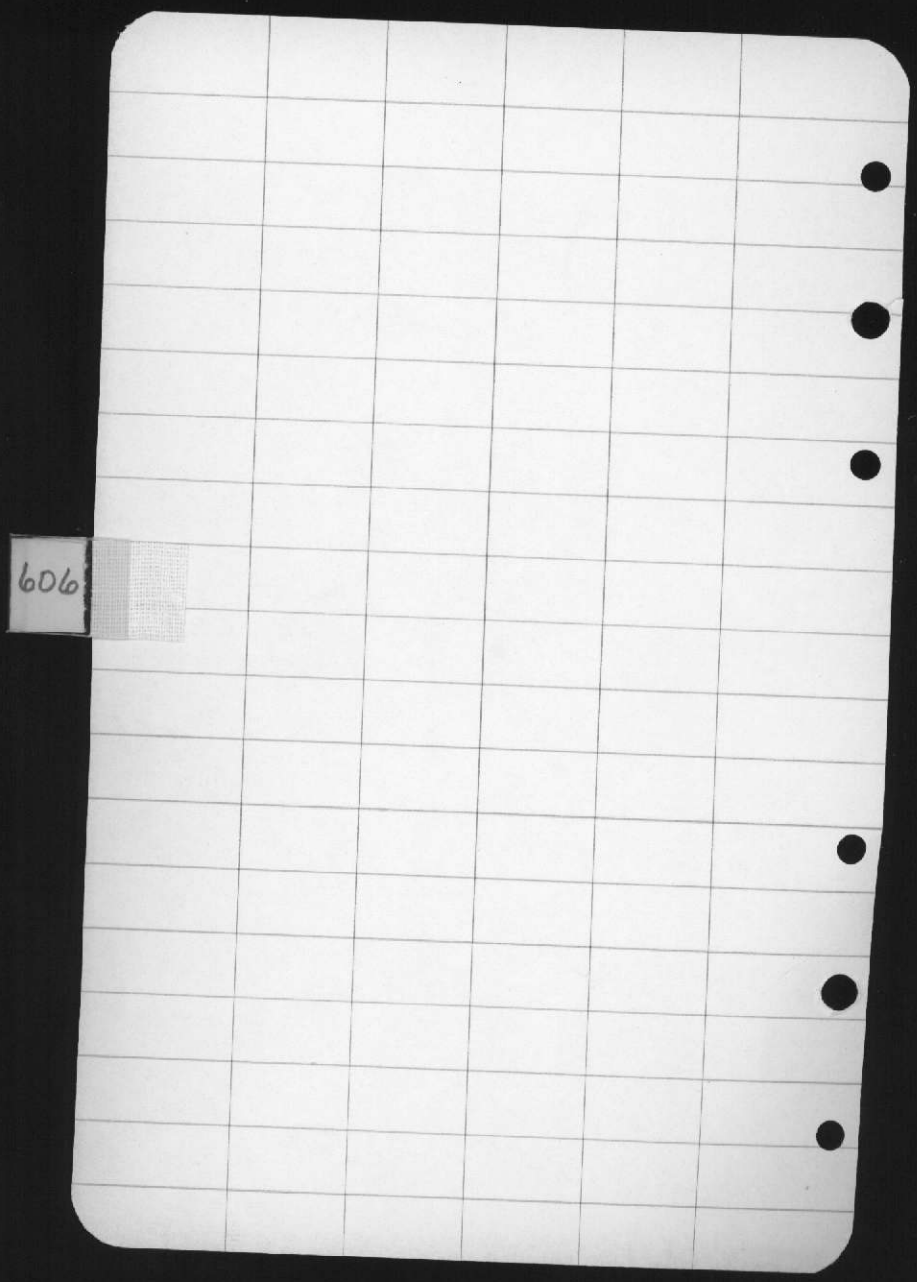
250 G.P.M. - SINGLE DRIVE - 10 H.P.
270 " " " actual. D.D.-18.0

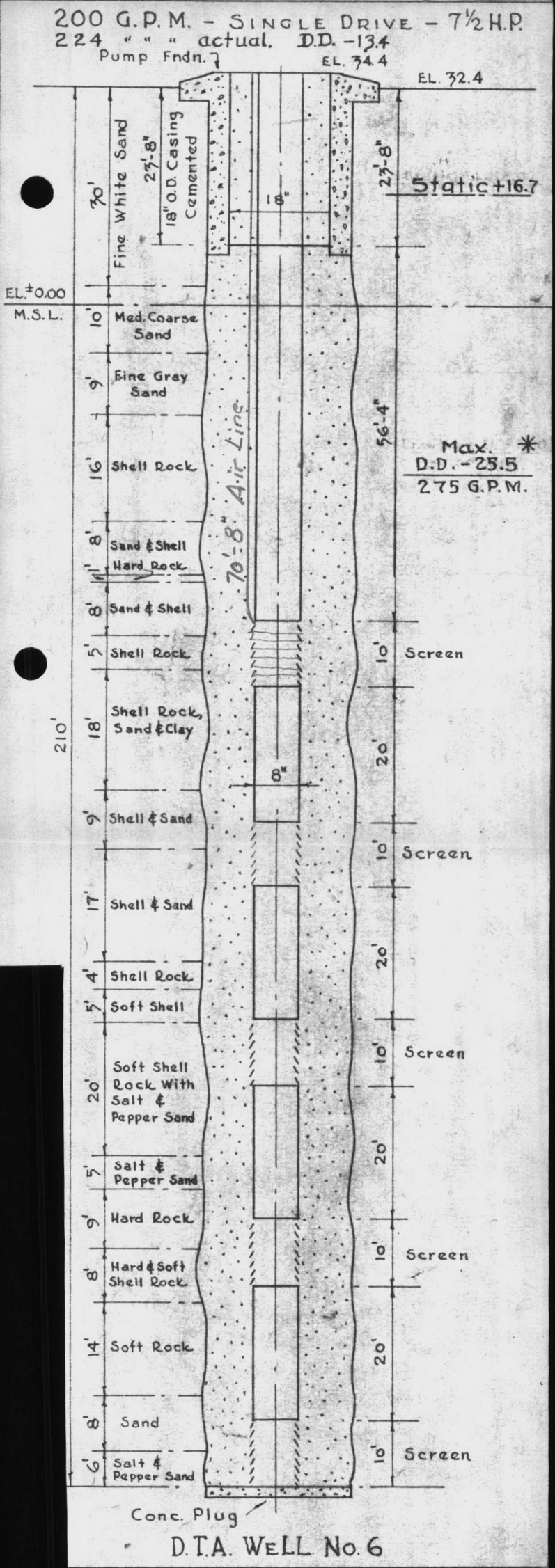


D.T.A. WELL No. 5

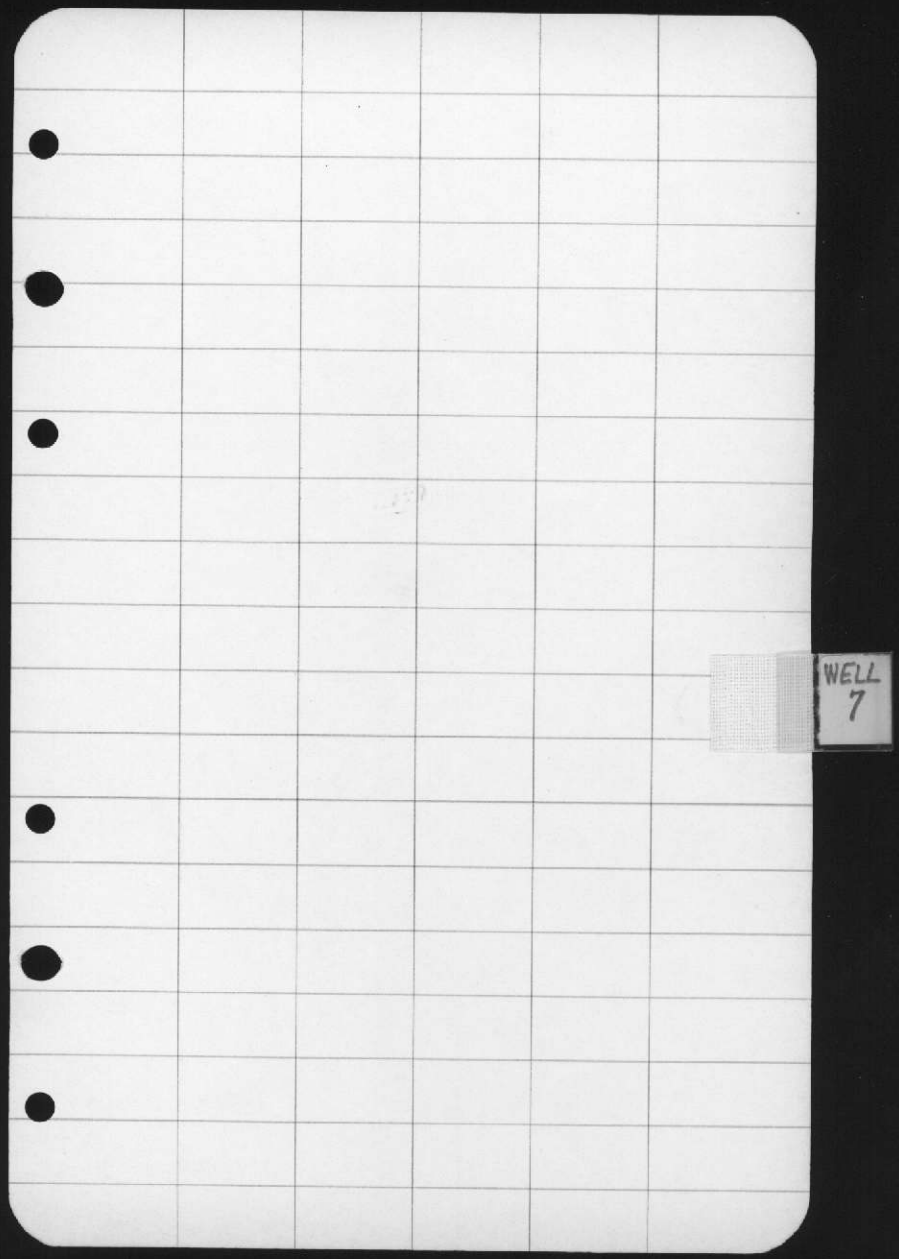
#5 Date	GPM	Drawdown Elev.	Static Elev.	Recovery 3m. 6m.	Yield gpm/ft dd.
1941	250	-24.7	+19.0	+12.3	5.7
1944	270	-18.0			
1949	305	-19.8	+7.0	+5.5	11.4


WELL
6


606


200 G.P.M. - SINGLE DRIVE - 7½ H.P.
224 " " " actual. D.D. -13.4
Pump Fndn.
EL. 34.4
EL. 32.4
Static +16.7
23'-8"
18" O.D. Casing Cemented
Fine White Sand
30'
EL. ±0.00
M.S.L.
Med. Coarse Sand
10'
Fine Gray Sand
9'
Shell Rock
16'
Sand & Shell
8'
Hard Rock
1'
Sand & Shell
8'
Shell Rock
5'
Shell Rock, Sand & Clay
18'
210'
Shell & Sand
9'
Shell & Sand
17'
Shell Rock
4'
Soft Shell
5'
Soft Shell Rock With Salt & Pepper Sand
20'
Salt & Pepper Sand
5'
Hard Rock
9'
Hard & Soft Shell Rock
8'
Soft Rock
14'
Sand
8'
Salt & Pepper Sand
6'
70'-8" Air Line
8"
8"
56'-4"
Max. *
D.D. - 25.5
275 G.P.M.
10' Screen
20'
10' Screen
20'
10' Screen
20'
10' Screen
20'
10' Screen
20'
10' Screen
Conc. Plug
D.T.A. WELL No. 6

#6 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	250	-7.0	+18.0	3 min 19.4	10.0
1944	210	-12.4			
1949	275	-9.6	+21	6 min +21.0	9.0

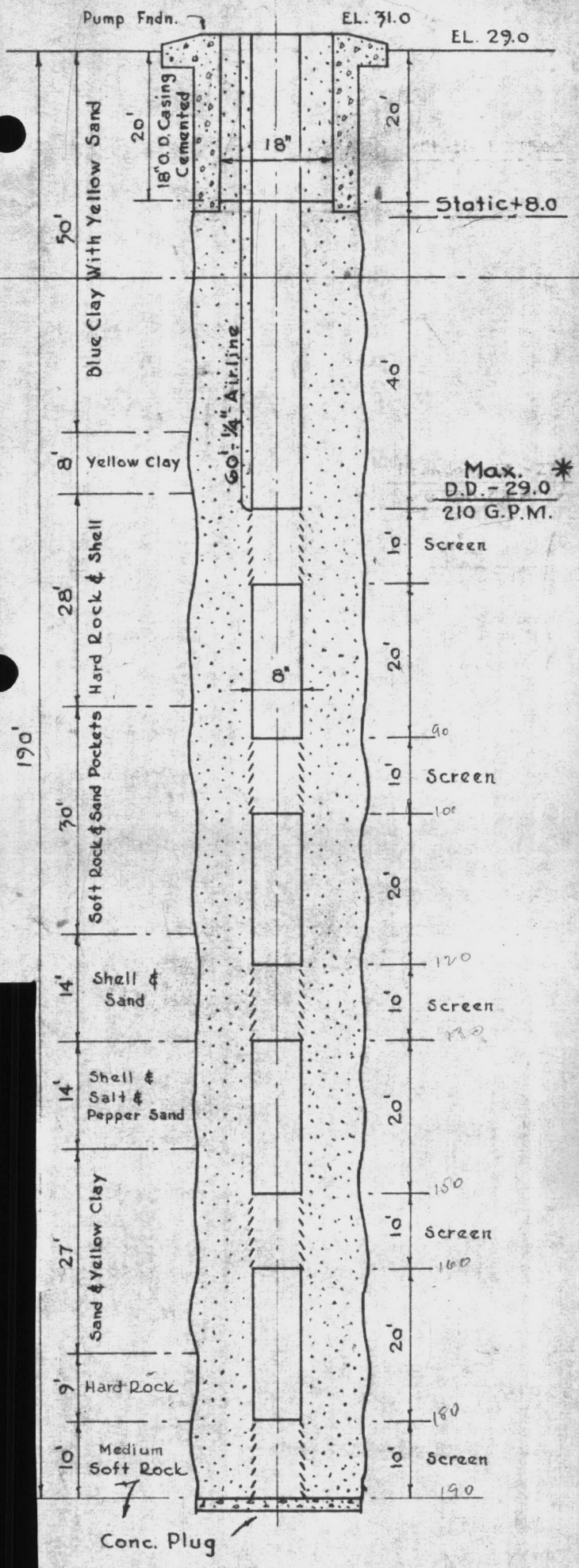

WELL
7

60
31

2.31
4
9.24

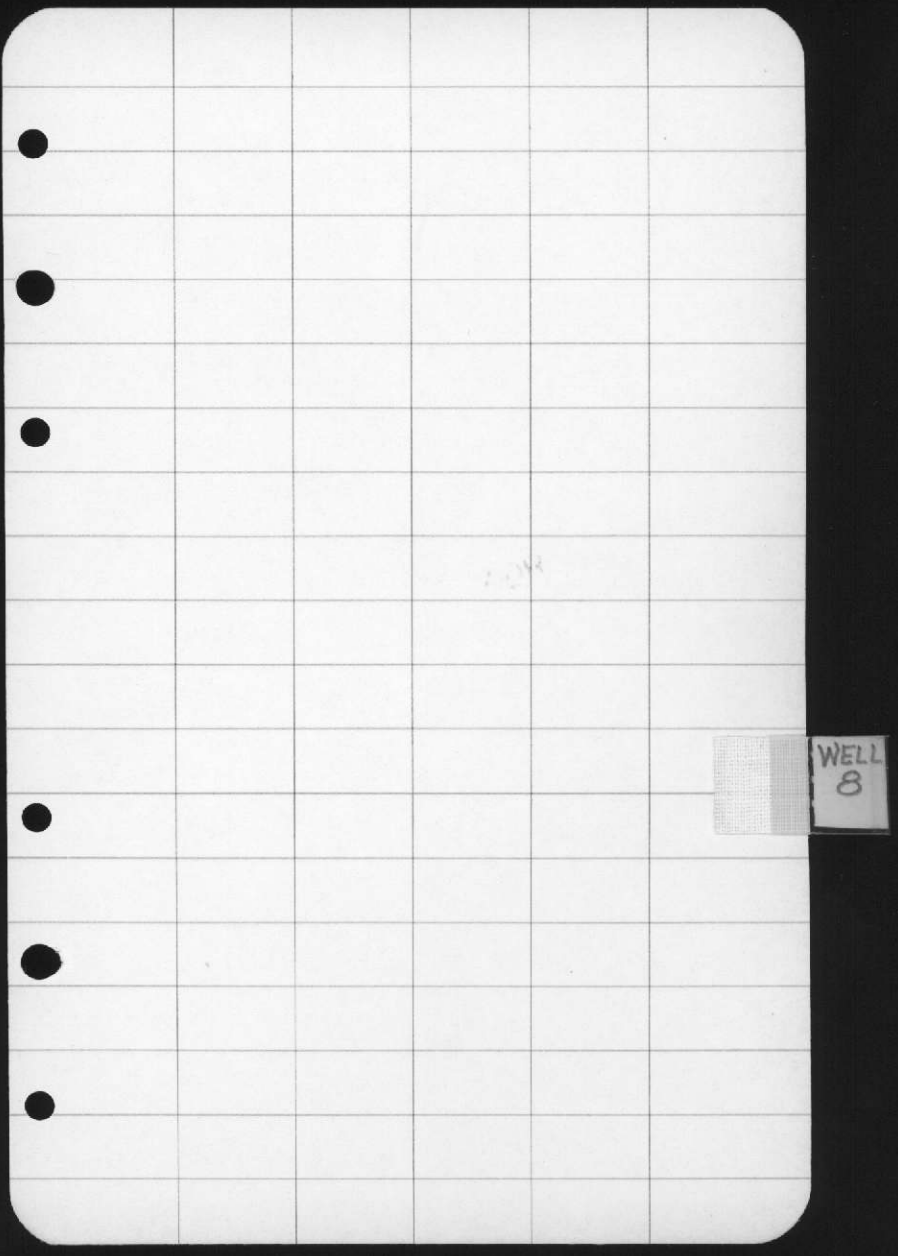
607

200 G.P.M. - Sing Drive - 7½ H.P.
186 " " " actual. D.D. - 22.5



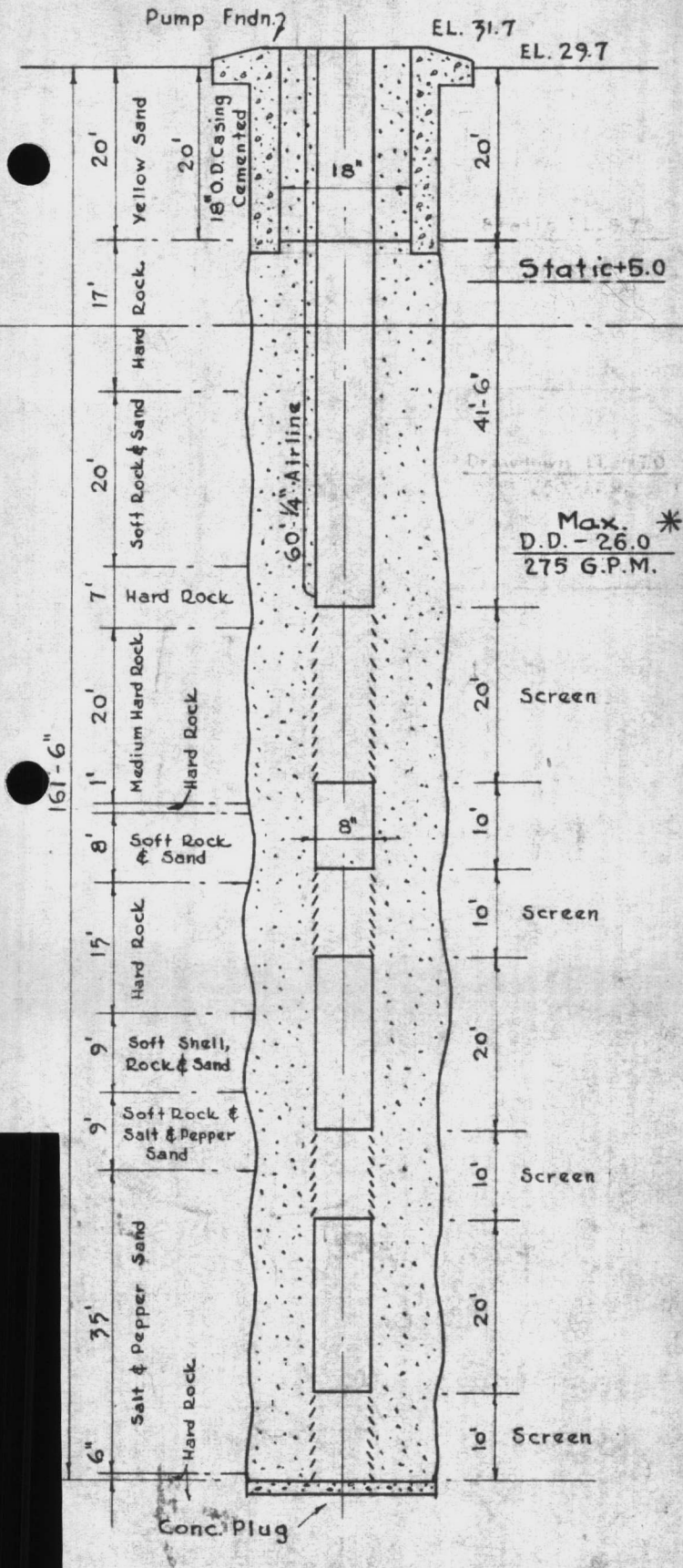
D.T.A. WELL No. 7

#7 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	200	-24.0	+15.0		5.13
1944	170	-17.0			
1949	85	- 3.0	+14.0	6 min. +14	5.0


WELL
8

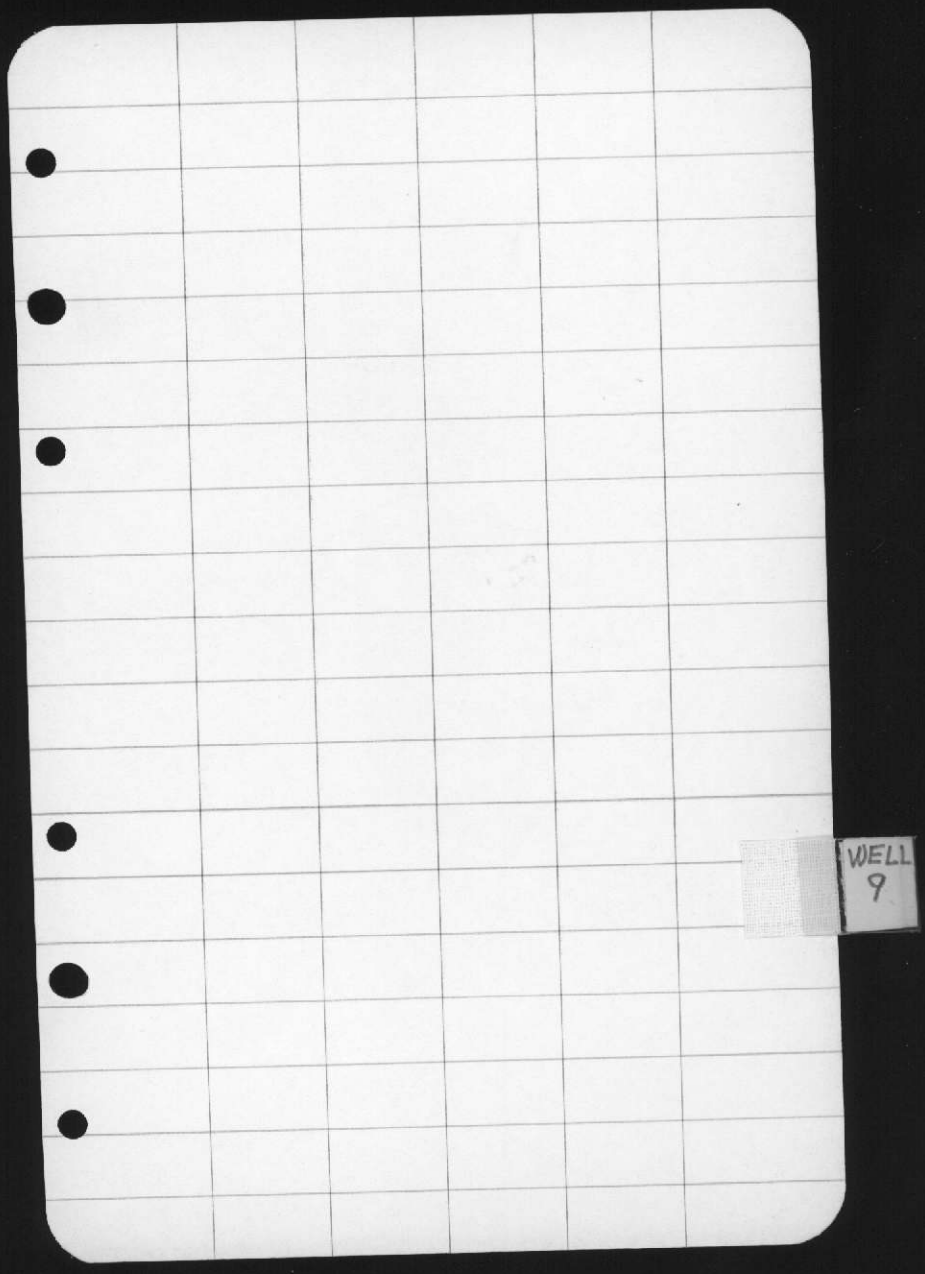
608

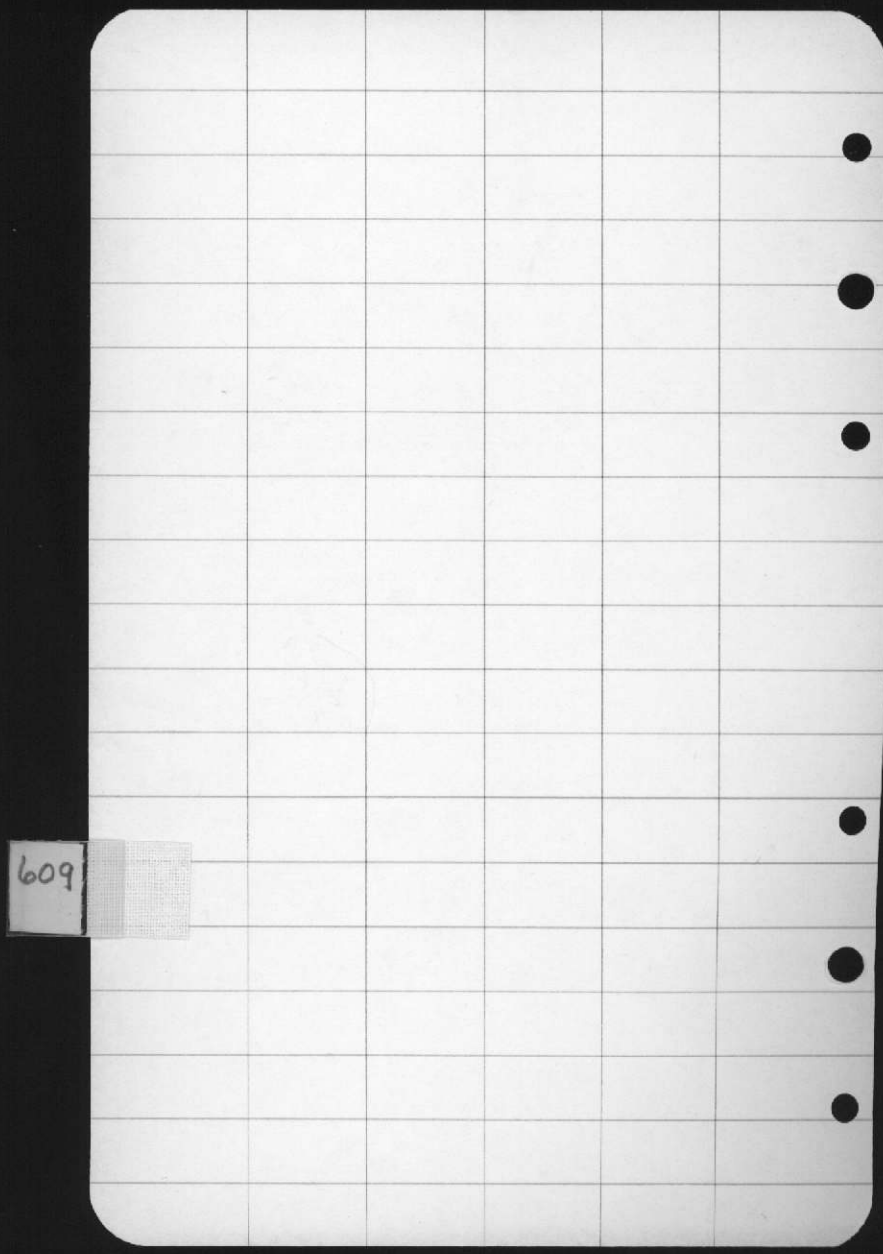
250 G.P.M. – DUAL DRIVE – 7½ H.P.
250 " " " actual. D.D.-22.0



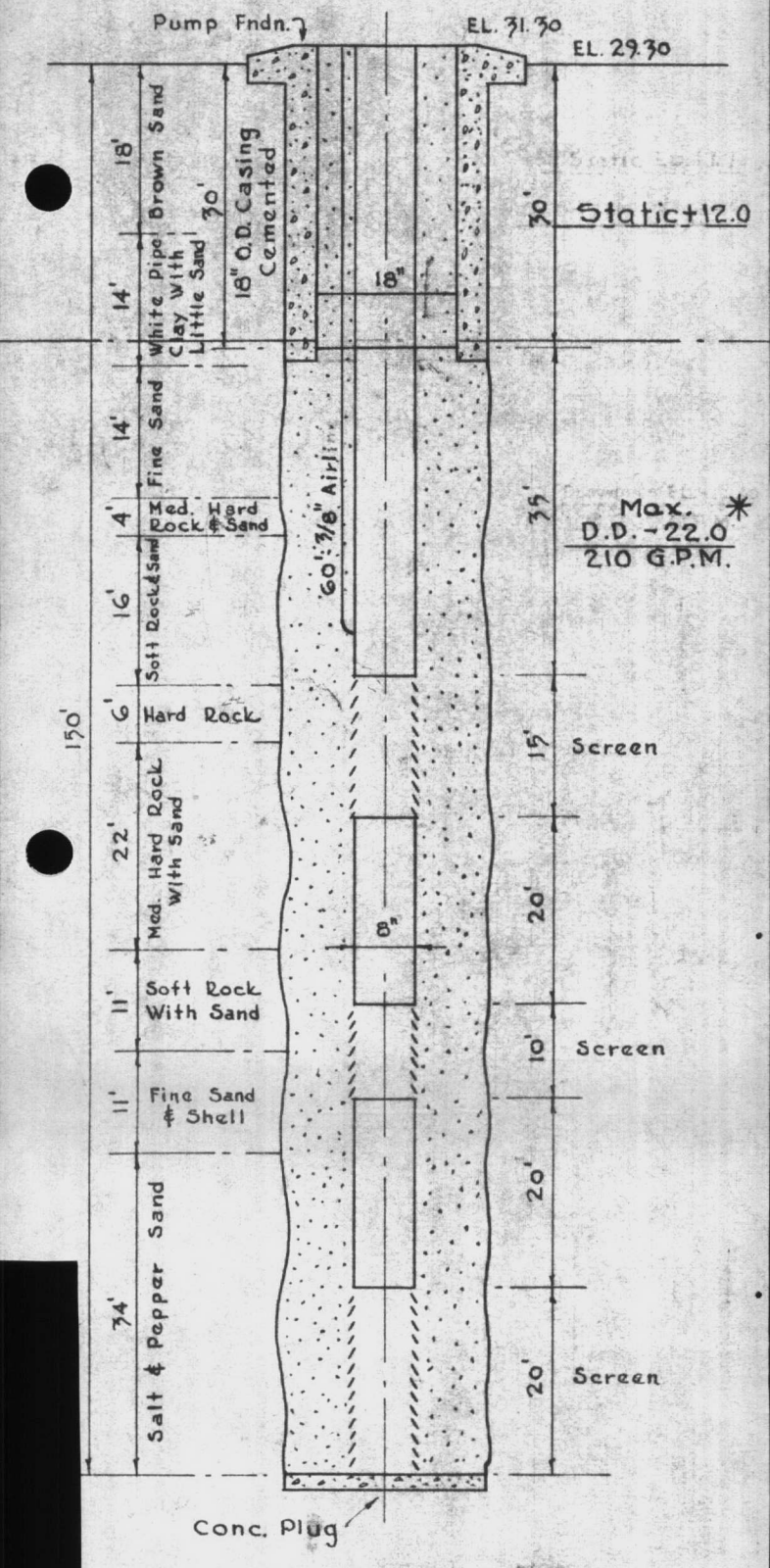
D.T.A. WELL No. 8

#8 Date	GPM	Draw Down Elev.	Static Elev	Recovery	Yield gal/ft D.D.
1941	190	~~-11.9~~ -9	+9.7	3 min +4.0	8.8
1944	205	-20.0			
1949	185	-19.3	+5.5	6 min. +5.5	8.5


WELL
9

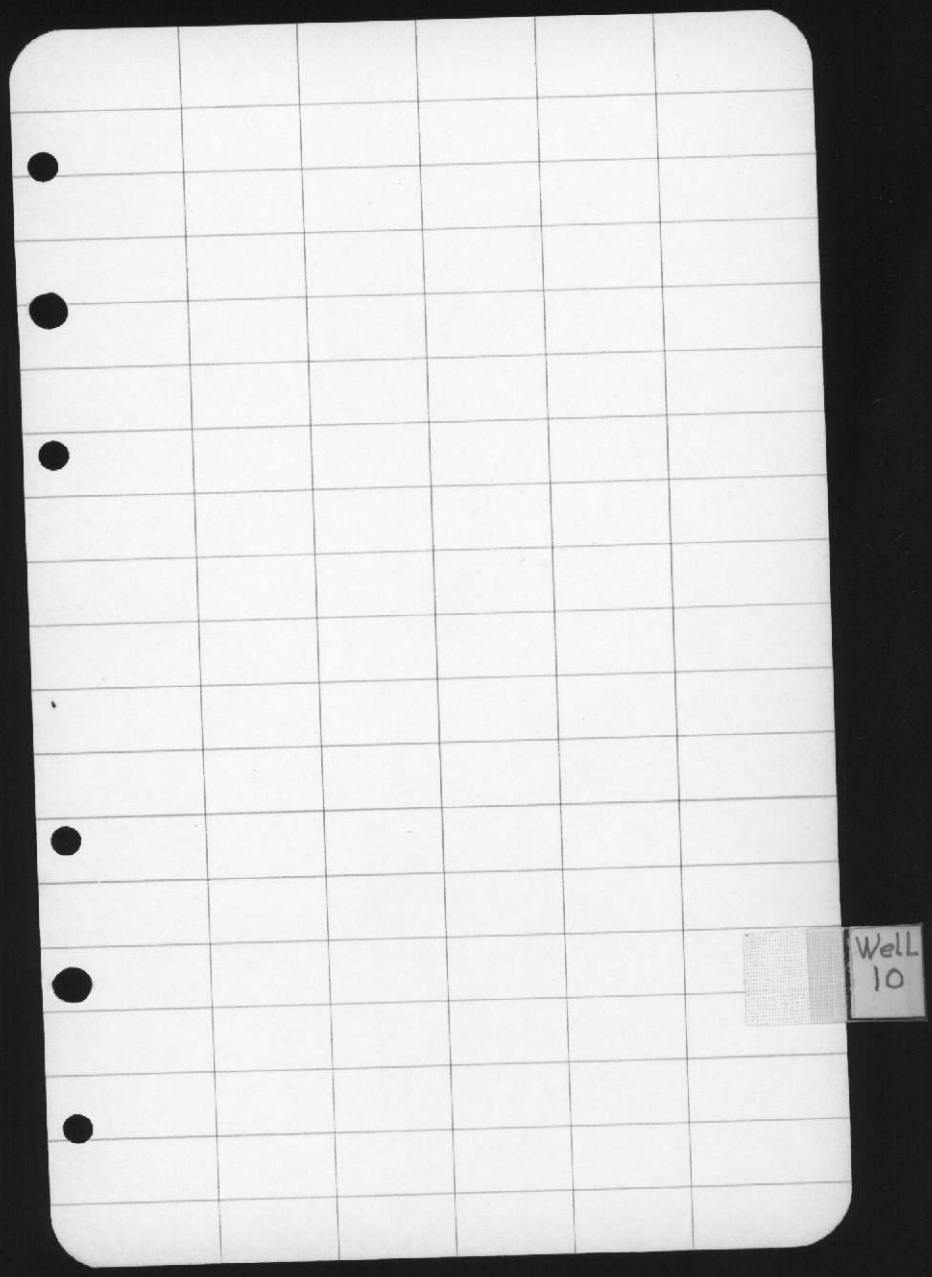

609

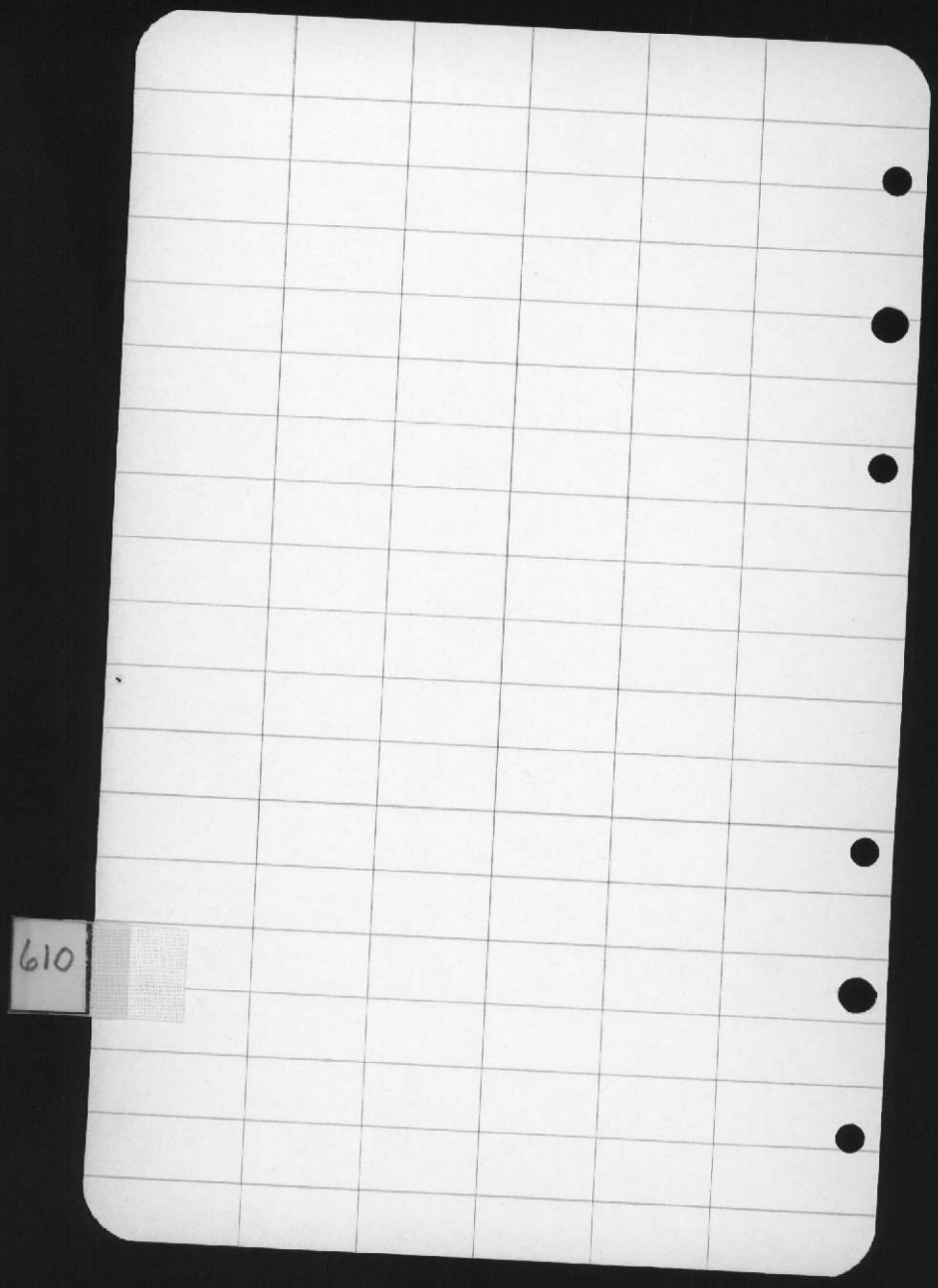
200 G.P.M. – SINGLE DRIVE – 7½ H.P.
200 " " " actual. D.D. – 19.7



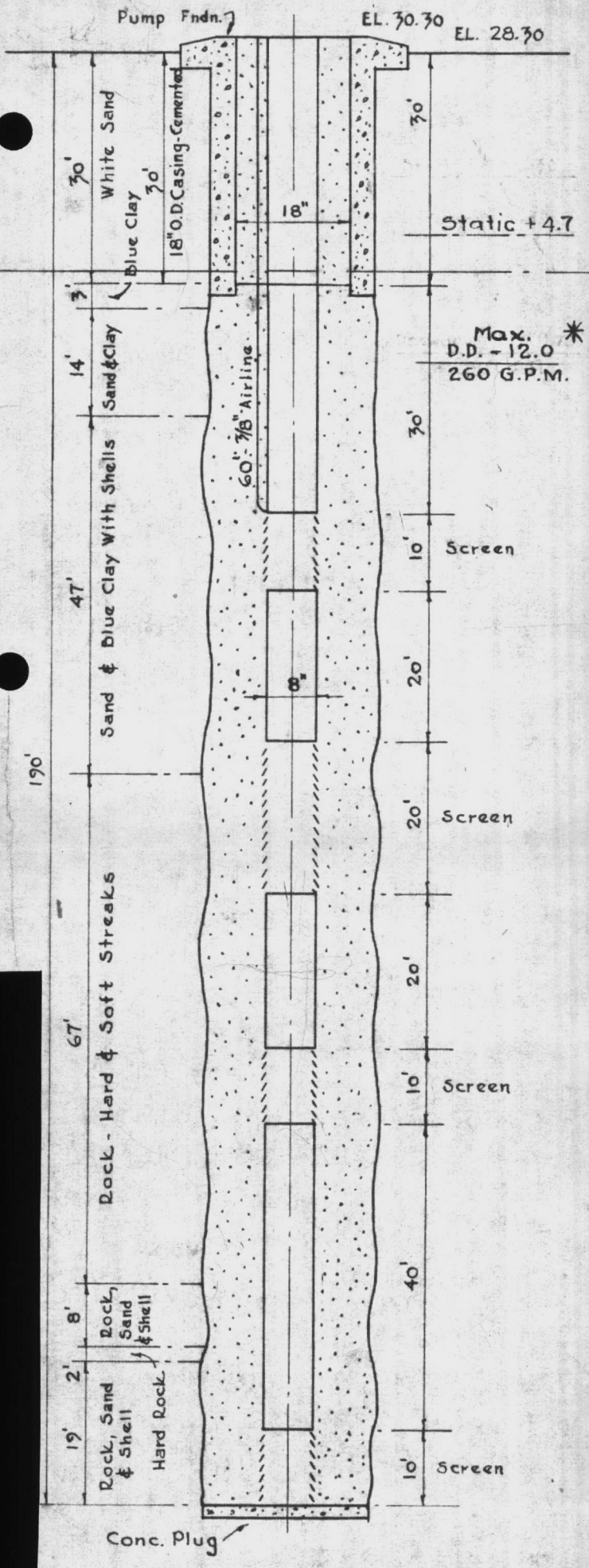
D. T. A. WELL No. 9

#9 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft. D.D.
1941	205	-14.5	+17.7		6.37
1944	210	-17.0			
1949	235	-13.7	+18.0	6 min +18.0	7.4


Well
10


610

250 G.P.M. – Dual Drive – 7½ H.P.
260 " " " actual. D.D.-11.6



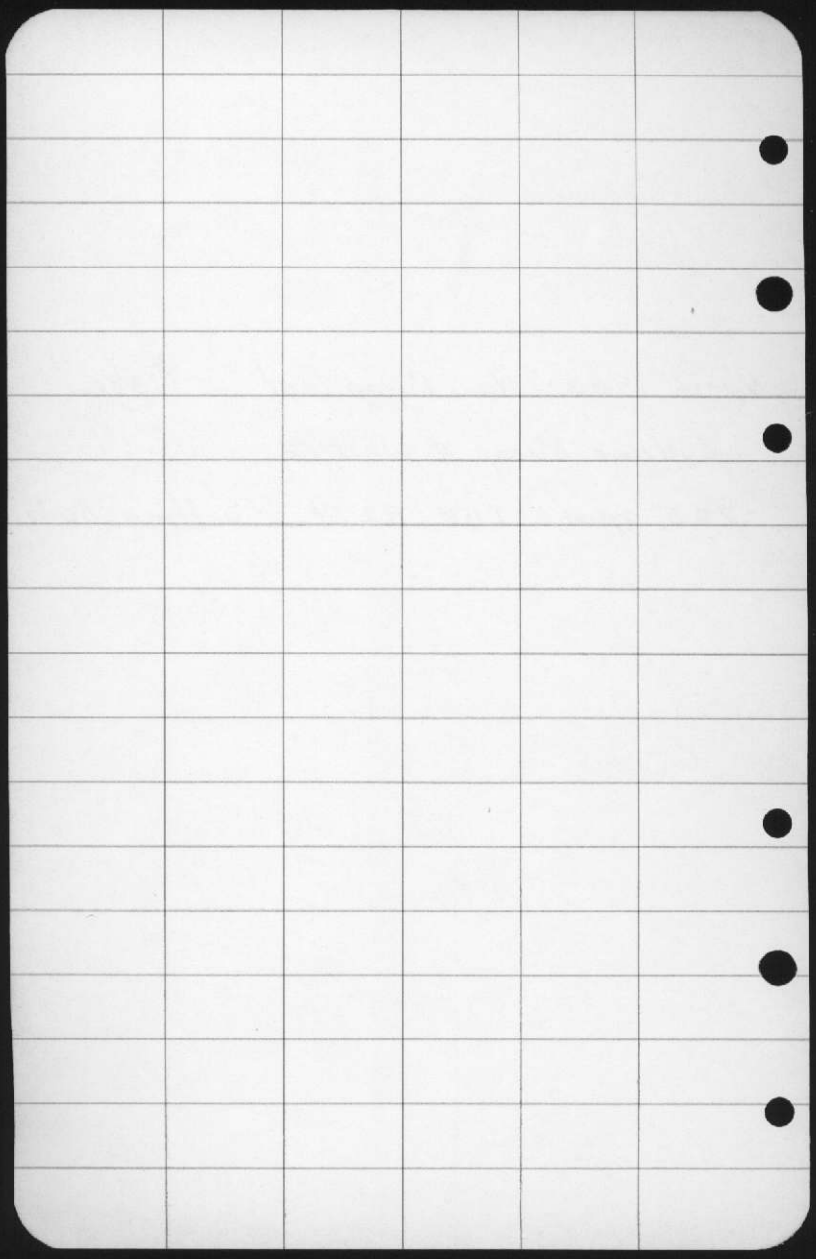
D.T.A. Well No. 10

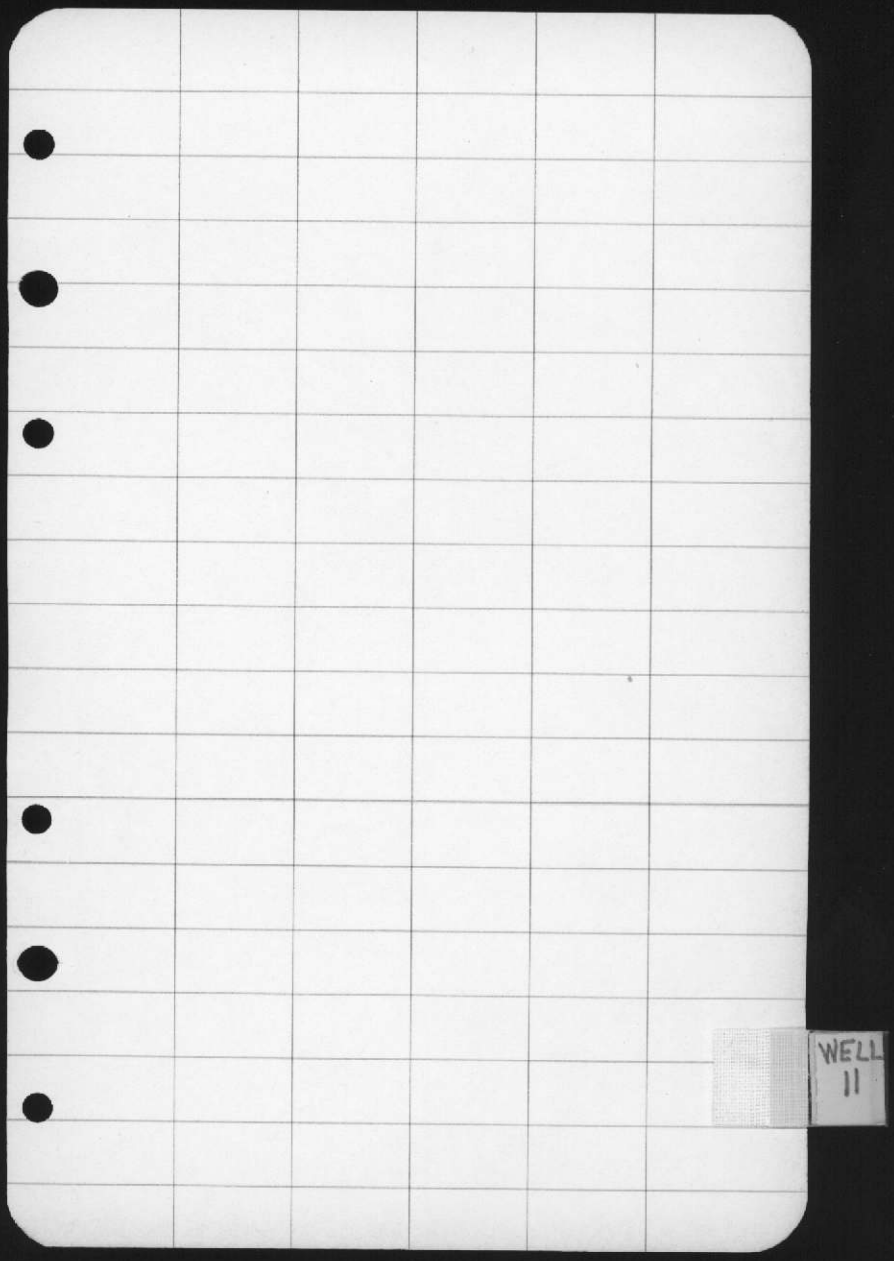
#10 Date	GPM	Drawn D. Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	250	-7.2	+12.3	3 min. +10	12.82
1944	265	-12.0	—		
1949	215	-21.5	-1.0	6 min -4.0	10.5

April 1953 New Pump Inst. #1386

Sydnor Pump & Well Co.

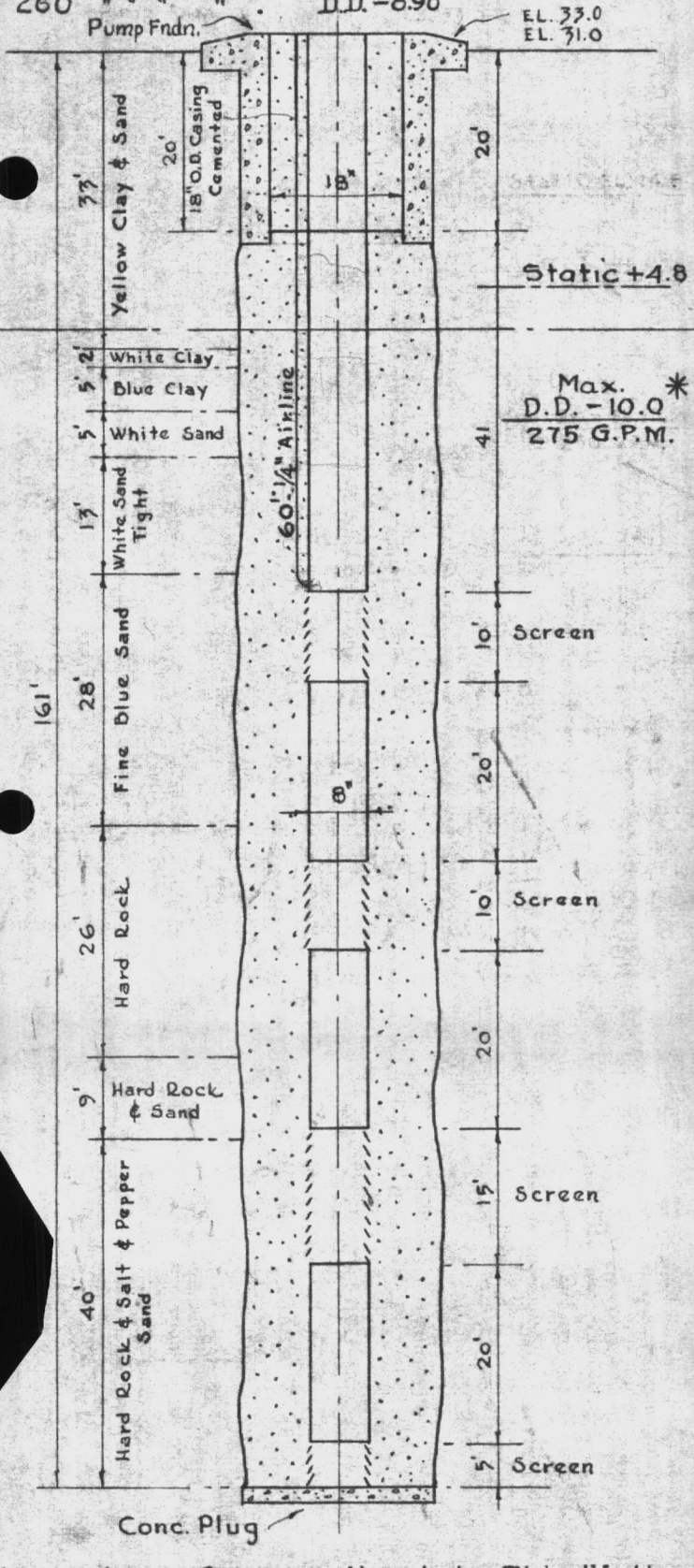
225 gpm TDH 92 Ft. Setting 50 ft.




WELL
11


161
146
15
611

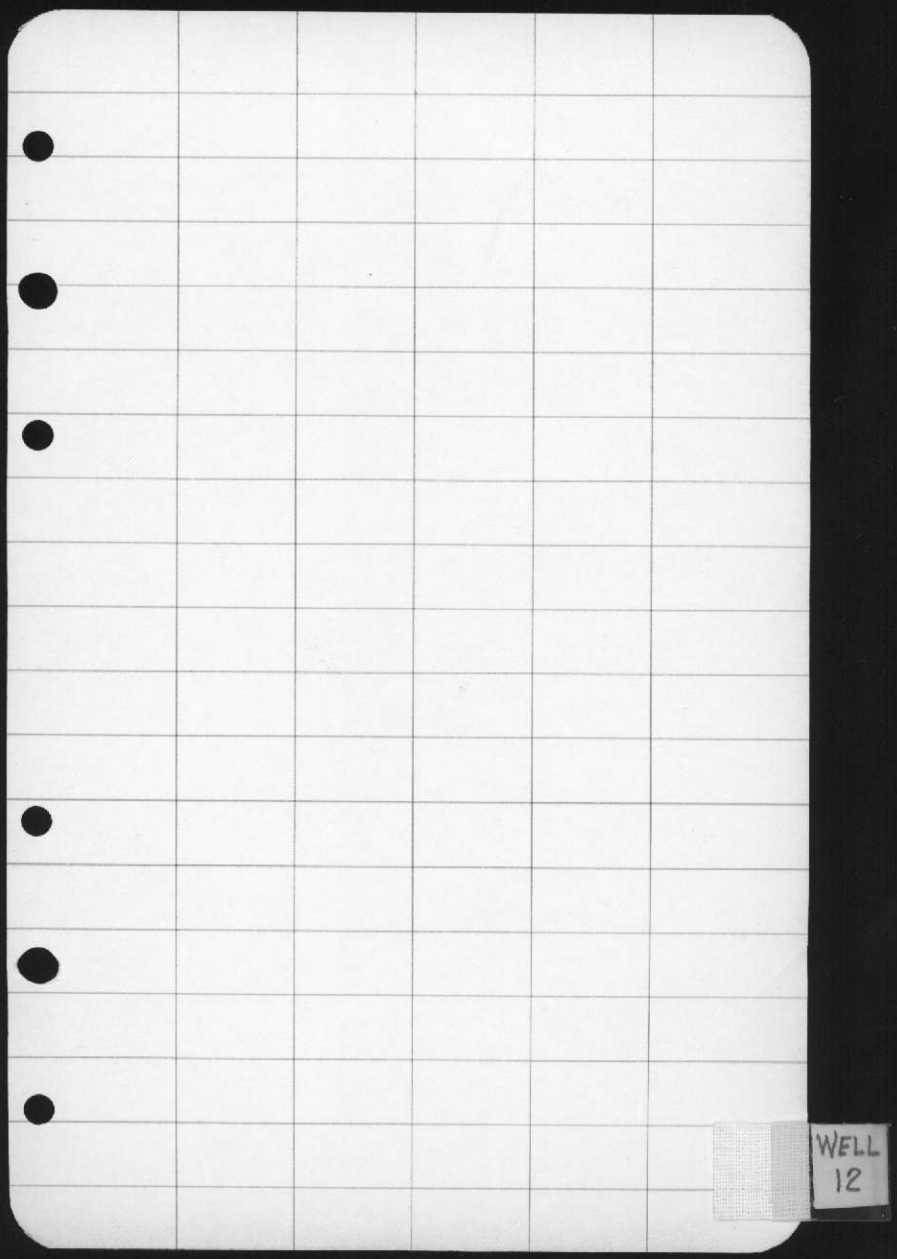
250 G.P.M. – SINGLE DRIVE – 10 H.P.
253 " " " actual. D.D. – 8.35
260 " " " " D.D. – 8.90

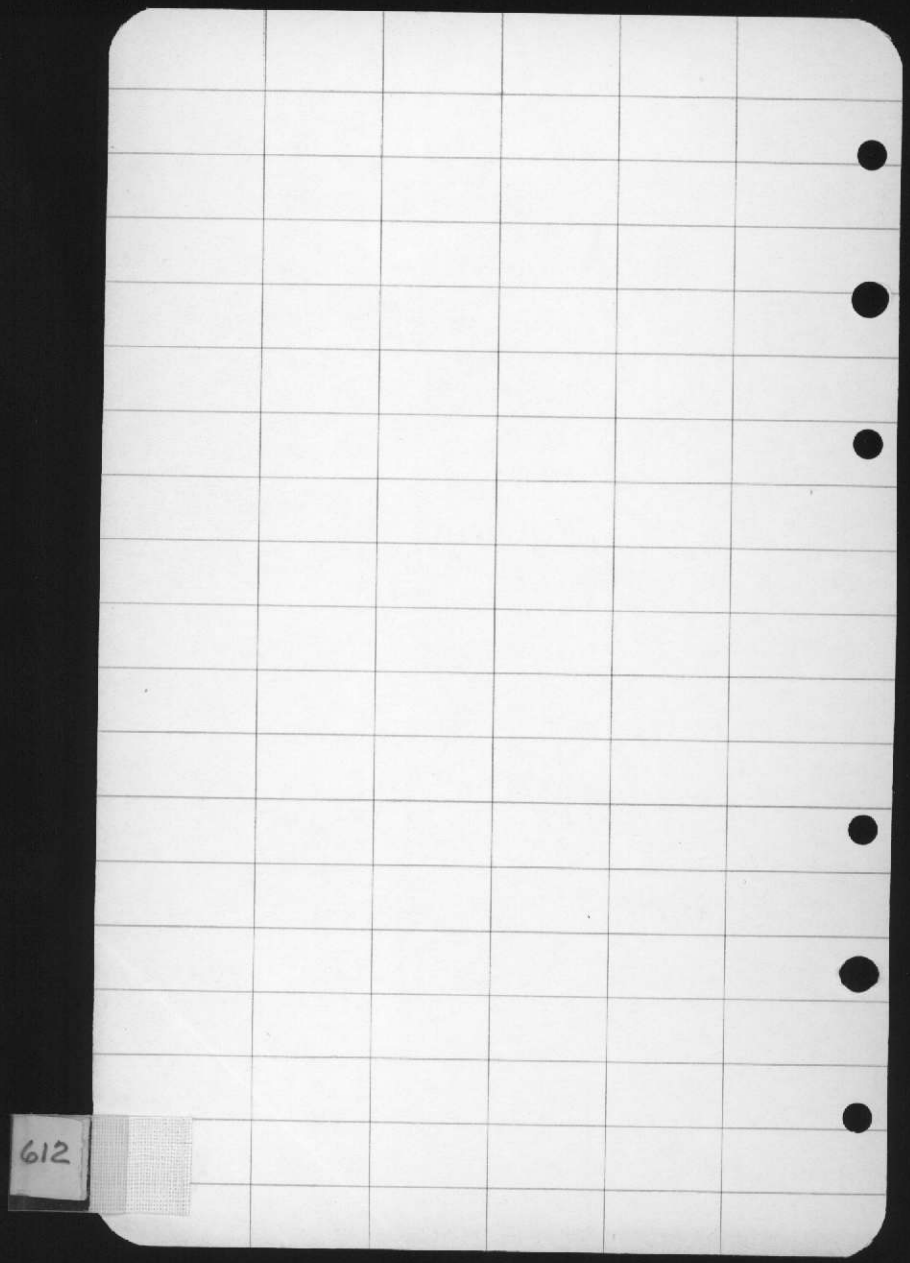


Armco Iron Screen Used In This Well

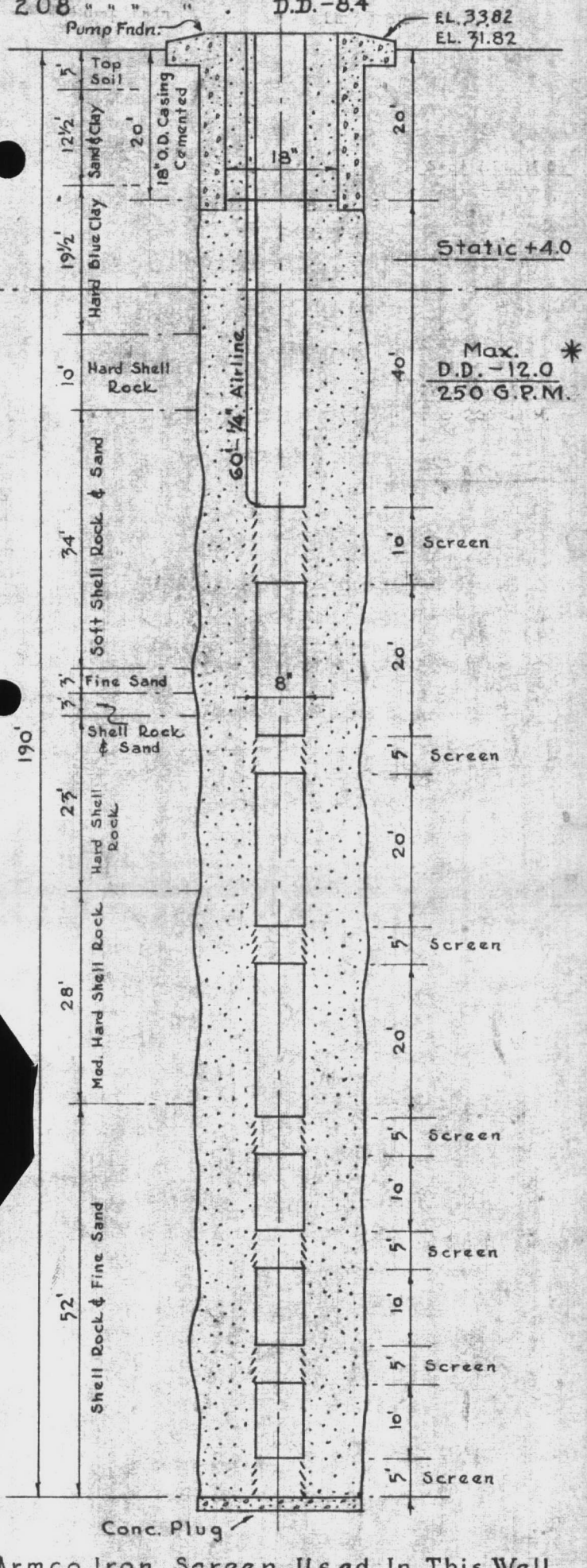
D. T. A. WELL No. 11

#11 Date	GPM	Drawn Down Elev.	Static Elev.	Recovery	Yield gal/ft. D.D.
1941	280	+7.0	+14.8 ~~+8.5~~	3 min +12.6	36.0
1944	270	-0.2	—	—	—
1949	235	-5.5	+8.5	6 min. +8.5	16.8


WELL
12


612

200 G.P.M. – SINGLE DRIVE – 7½ H.P.
199 " " " actual. D.D.–7.9
208 " " " " D.D.–8.4



Armco Iron Screen Used In This Well

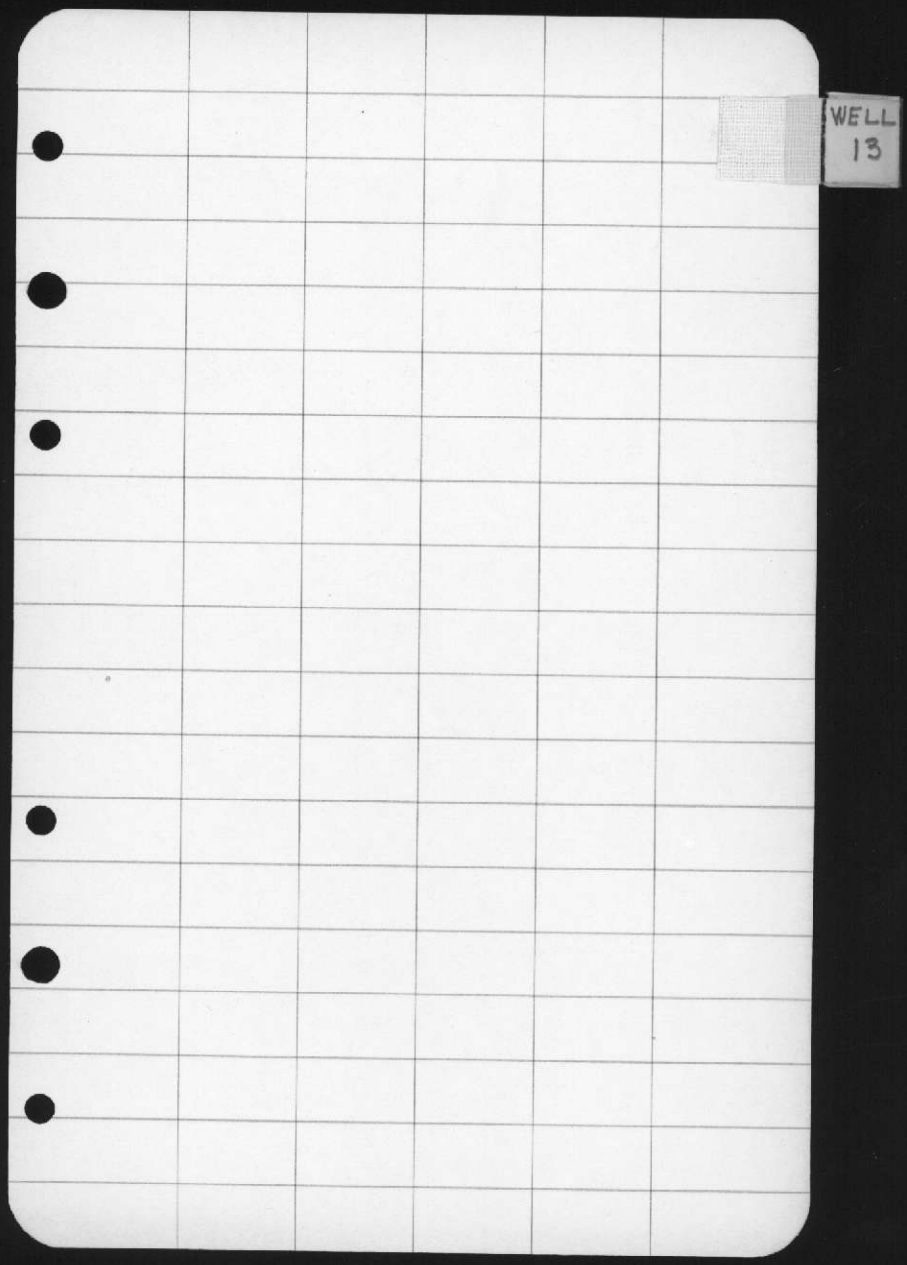
D.T.A. WELL No. 12

#12 Date.	GPM	Drawdown Elev.	Static Elev	Recovery.	Yield gal/ft D.D.
1941	220	-1.3	+15.0	3min +13.0	13.5
1944	240	-11.0	~~+11.0~~	—	—
1949	180	-6.4	+11.0	6min +6.0	10.35

Apr 1953 New Pump Installed #1602

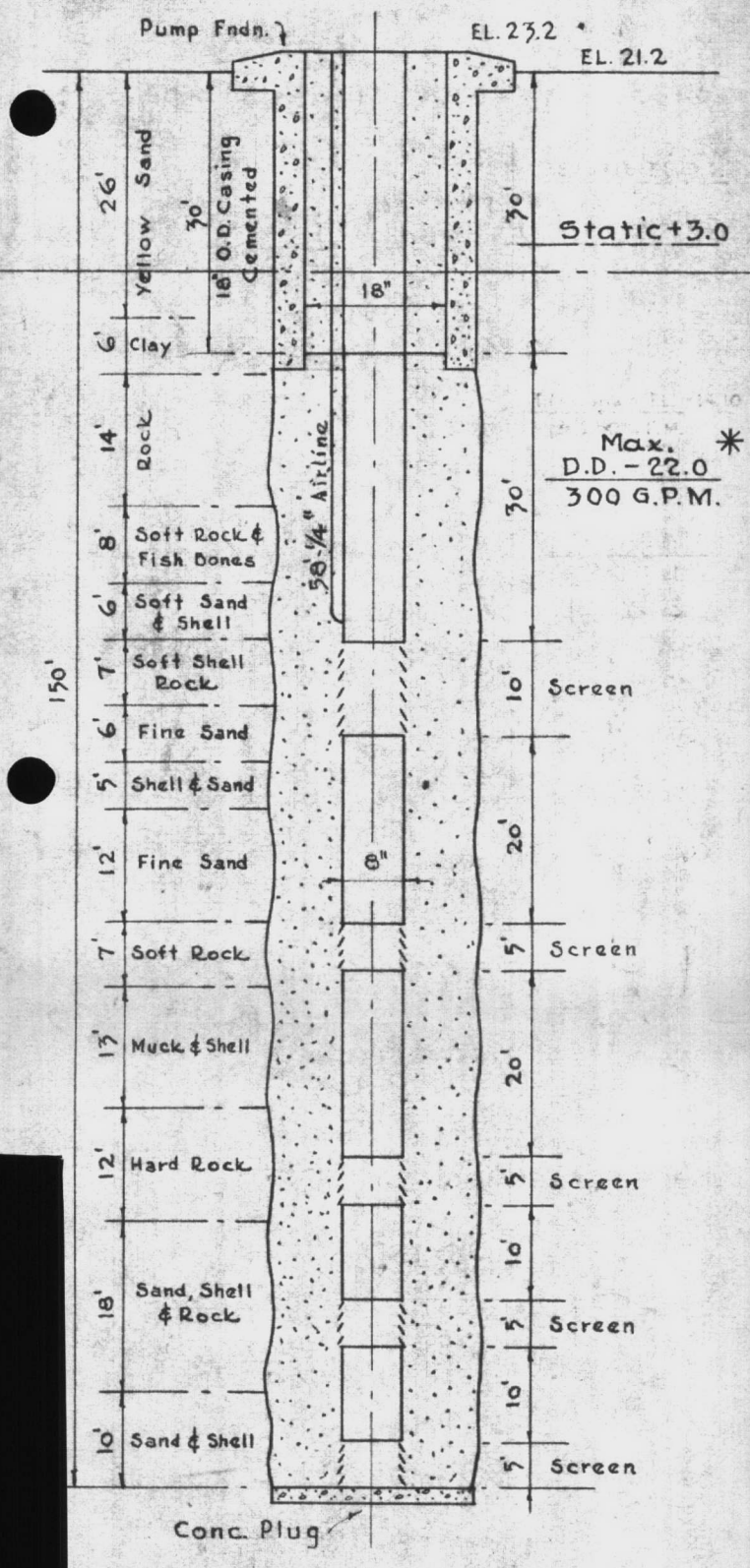
Sydnor Pump & Well Co.

200 gpm TDH 105 Ft Setting 50 Ft.


WELL
13

613

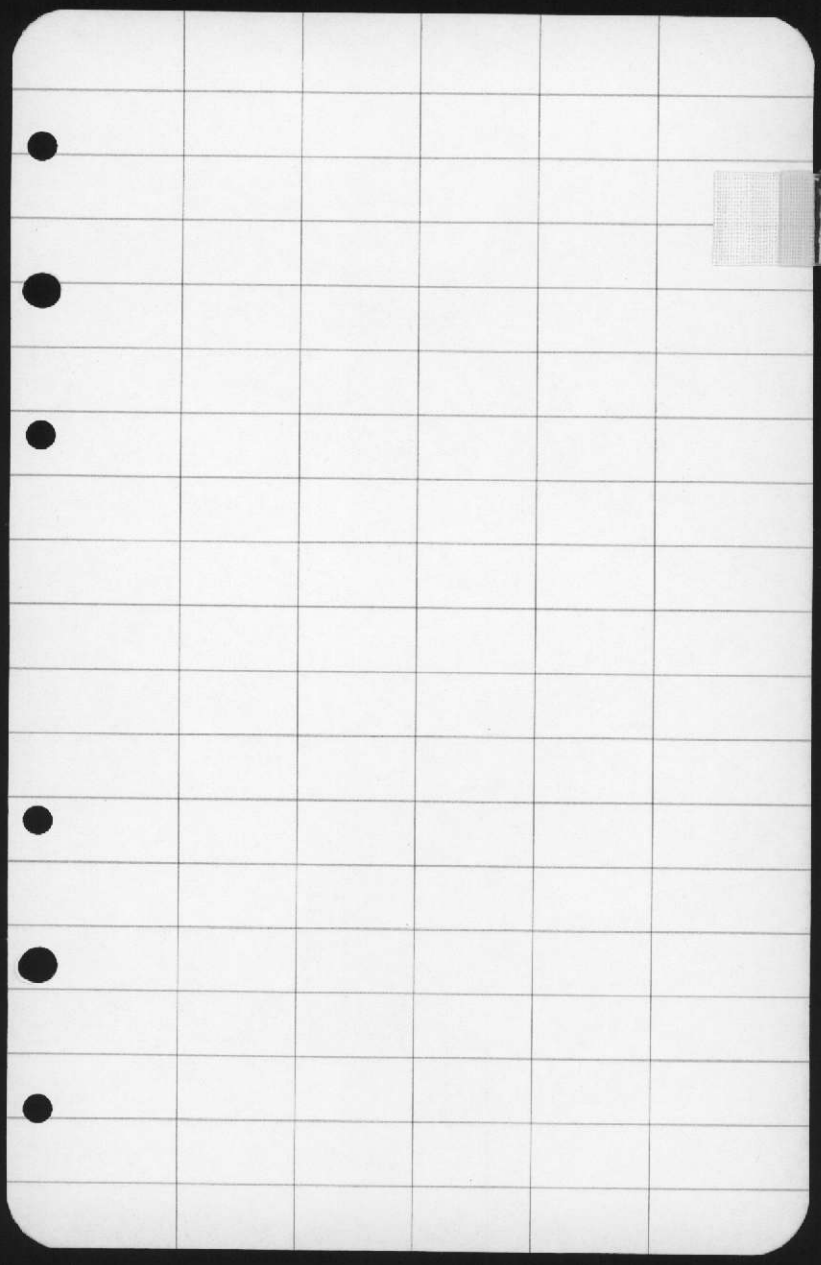
250 G.P.M. – DUAL DRIVE – 10 H.P.
228 " " " actual. D.D. – 14.4
242 " " " " . D.D. – 15.9



D.T.A. WELL No. 13

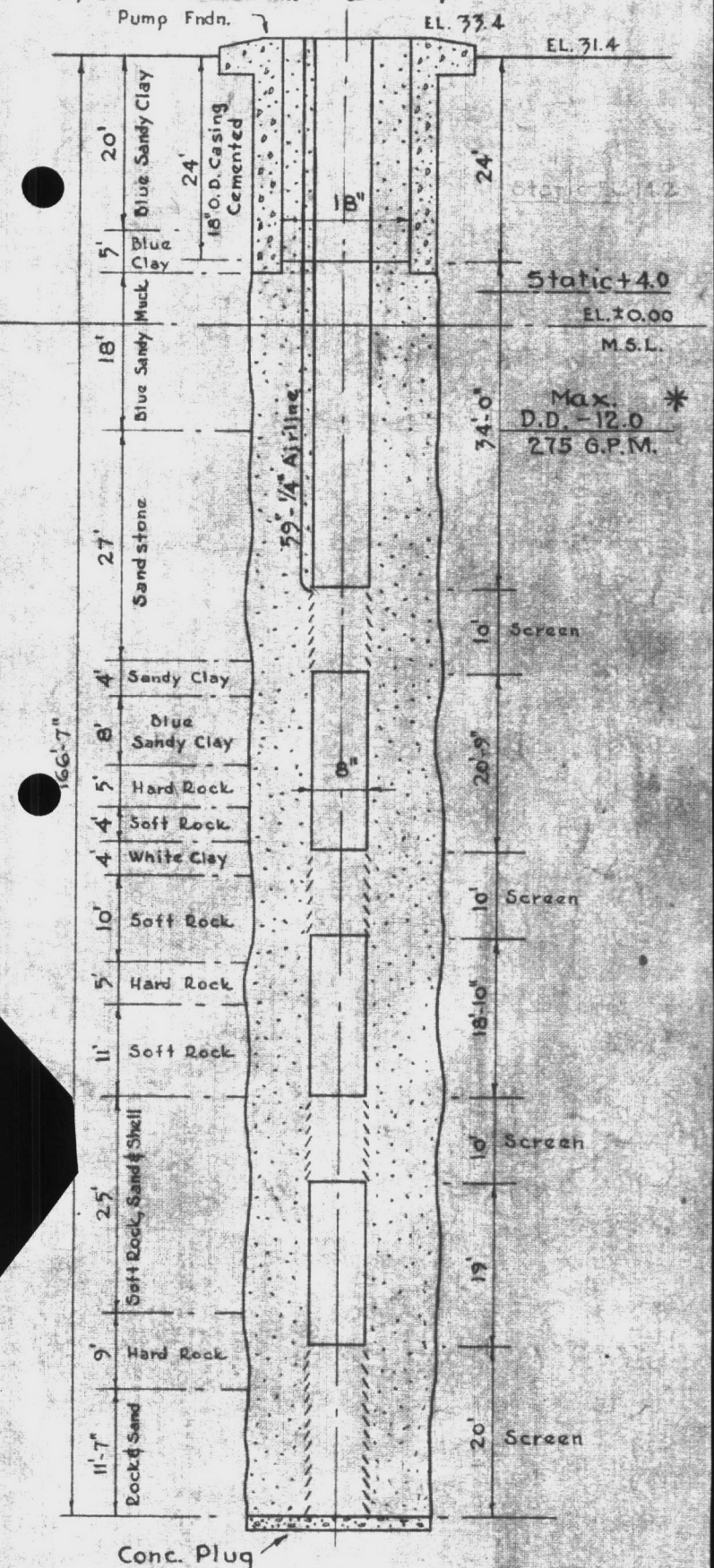
#13 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	290	-13.8	+9.2	3 min +8.5	12.6
1944	305	-24.0			
1949	195	-10.8	+9.0	6 min +9.0	9.85

New Pump Installed Apr 1953
Sydnor Pump & Well Co.
250 gpm TDH 105 Ft. Setting 45 Ft.


WELL
14


614

250 G.P.M. — SINGLE DRIVE — 10 H.P.
239 " " " actual. D.D.-9.5

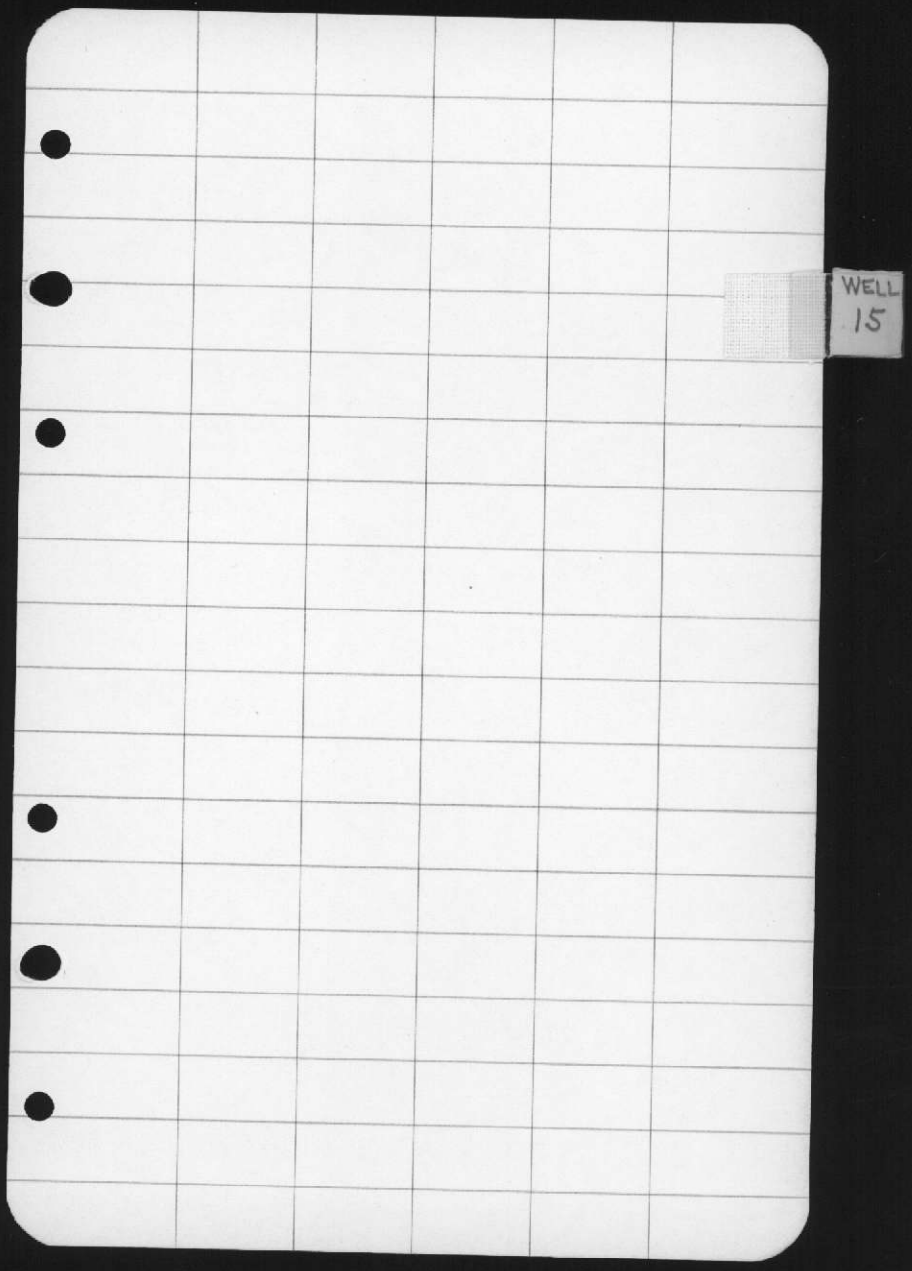


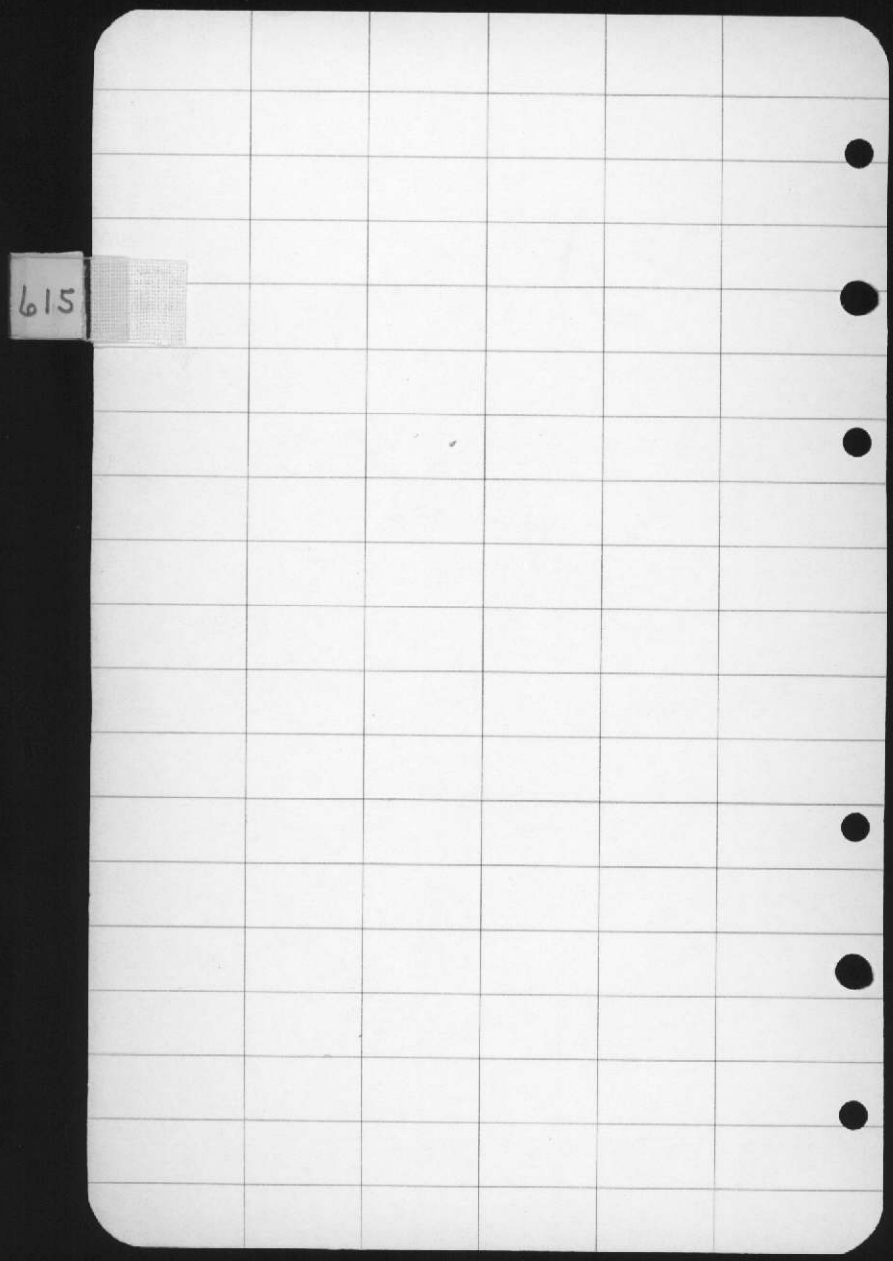
Conc. Plug

Armco Iron Screen Used In This Well

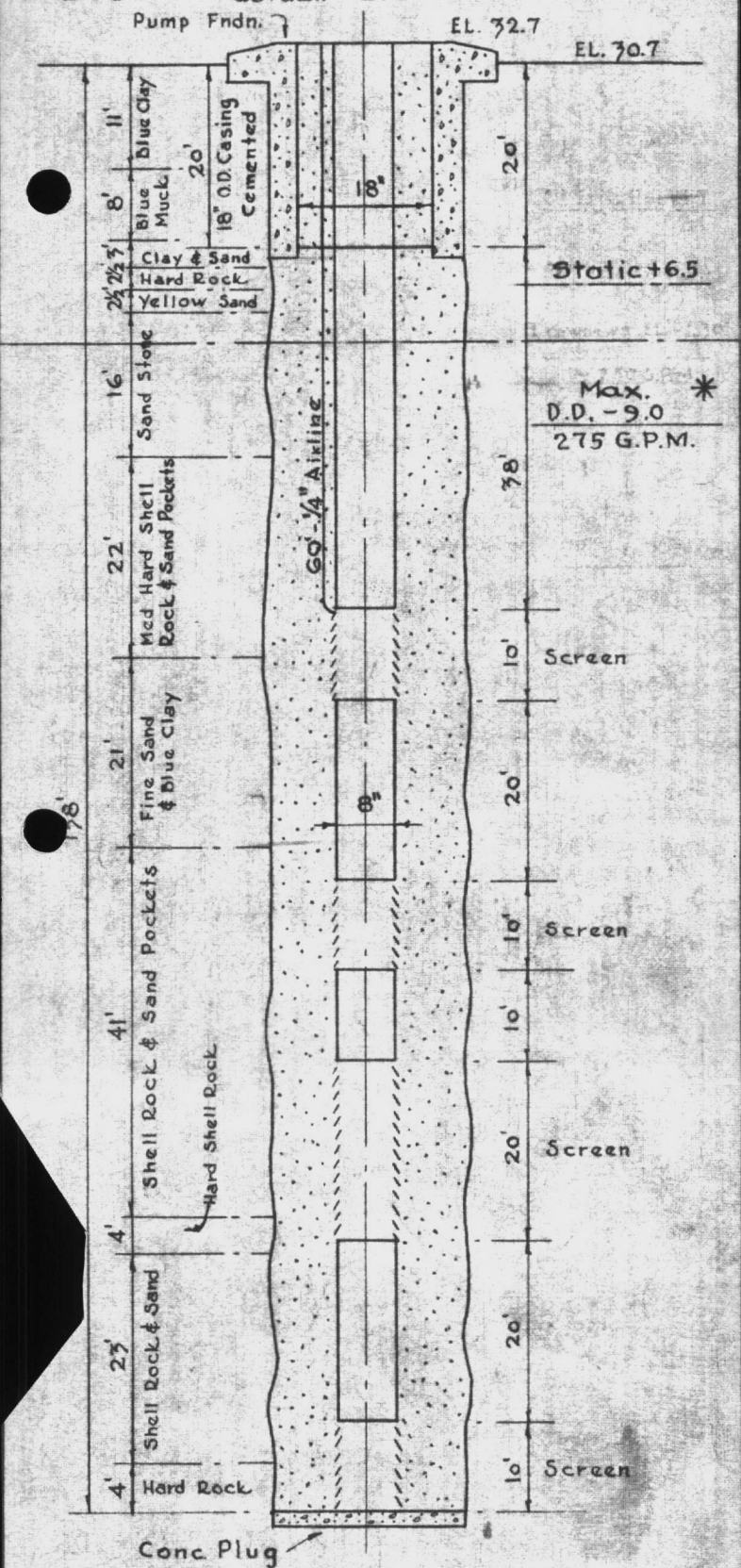
D.T.A. WELL No. 14

#14 Date	G.P.M.	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	275	-4.5	+14.2	3 min +13.4	14.7
1944	245	-11.2	—	—	—
1949	245	-9.2	+8.0	6 min. +8.0	14.2


WELL
15


615

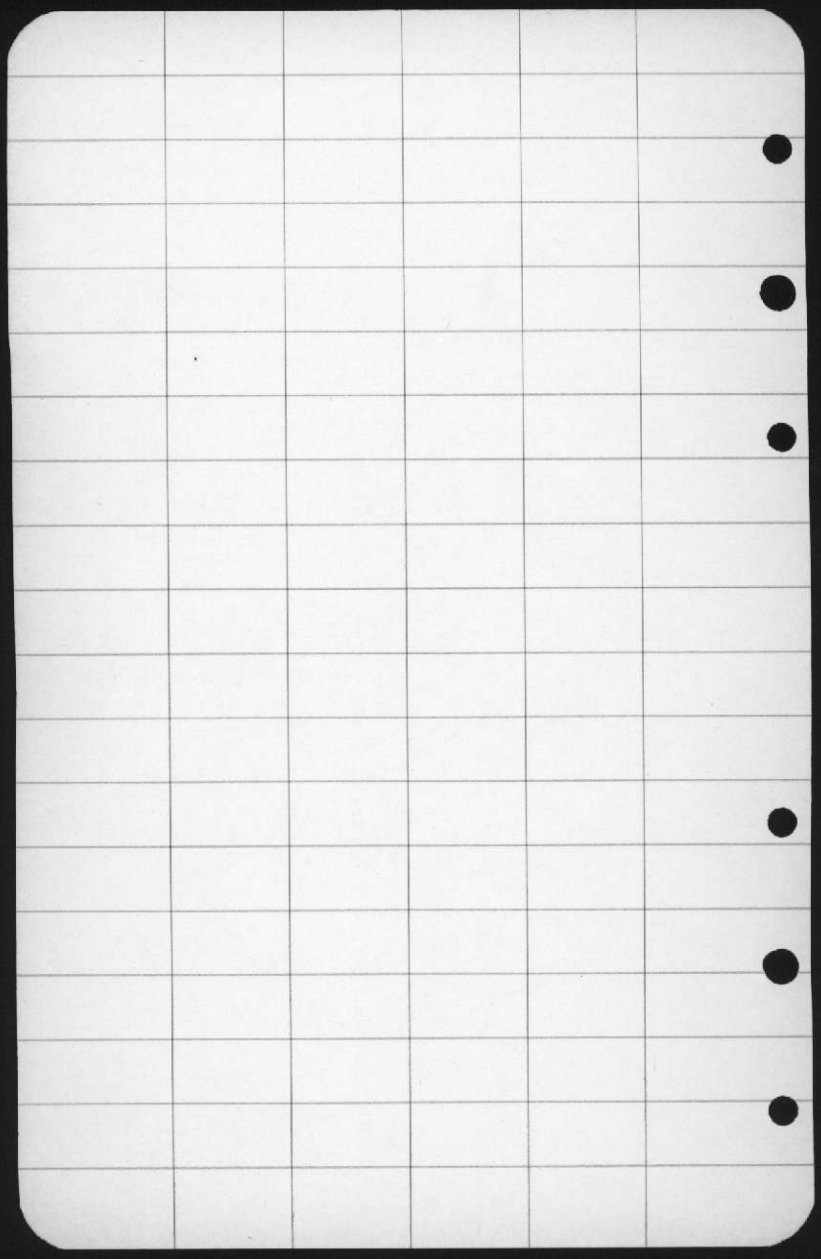
250 G.P.M. – SINGLE DRIVE – 7½ H.P.
200 " " " actual. D.D. – 4.0

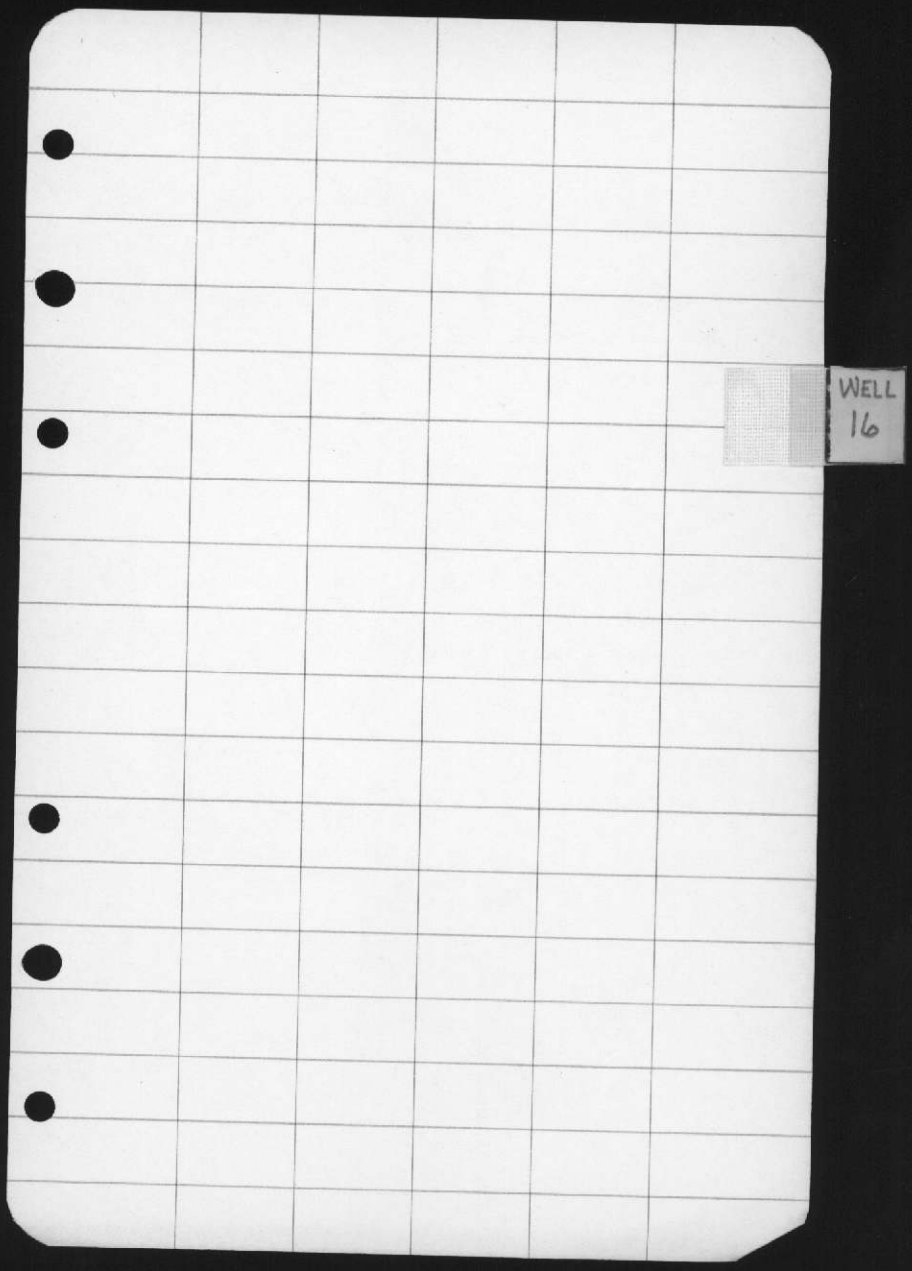


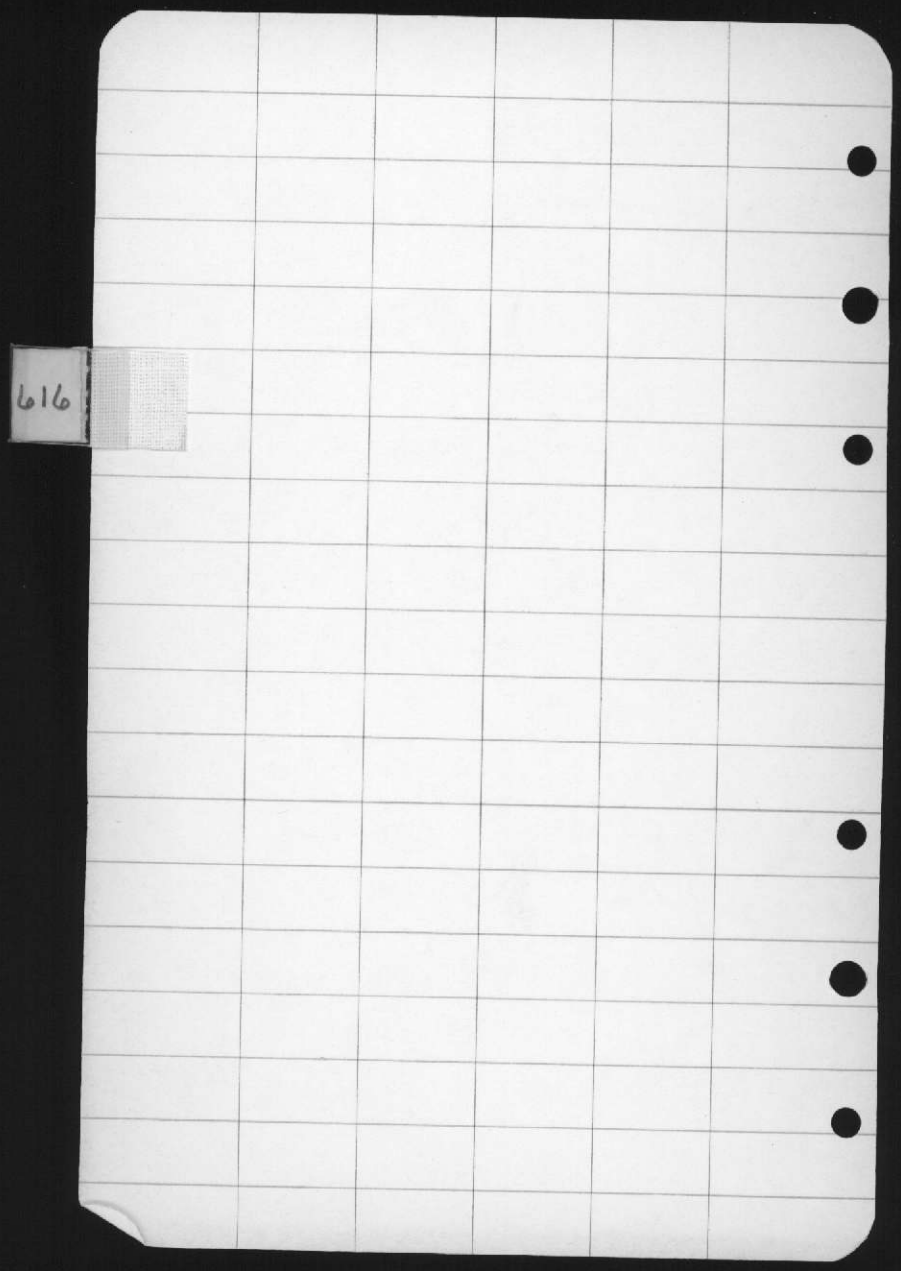
Armco Iron Screen Used In This Well

D.T.A. WELL No. 15

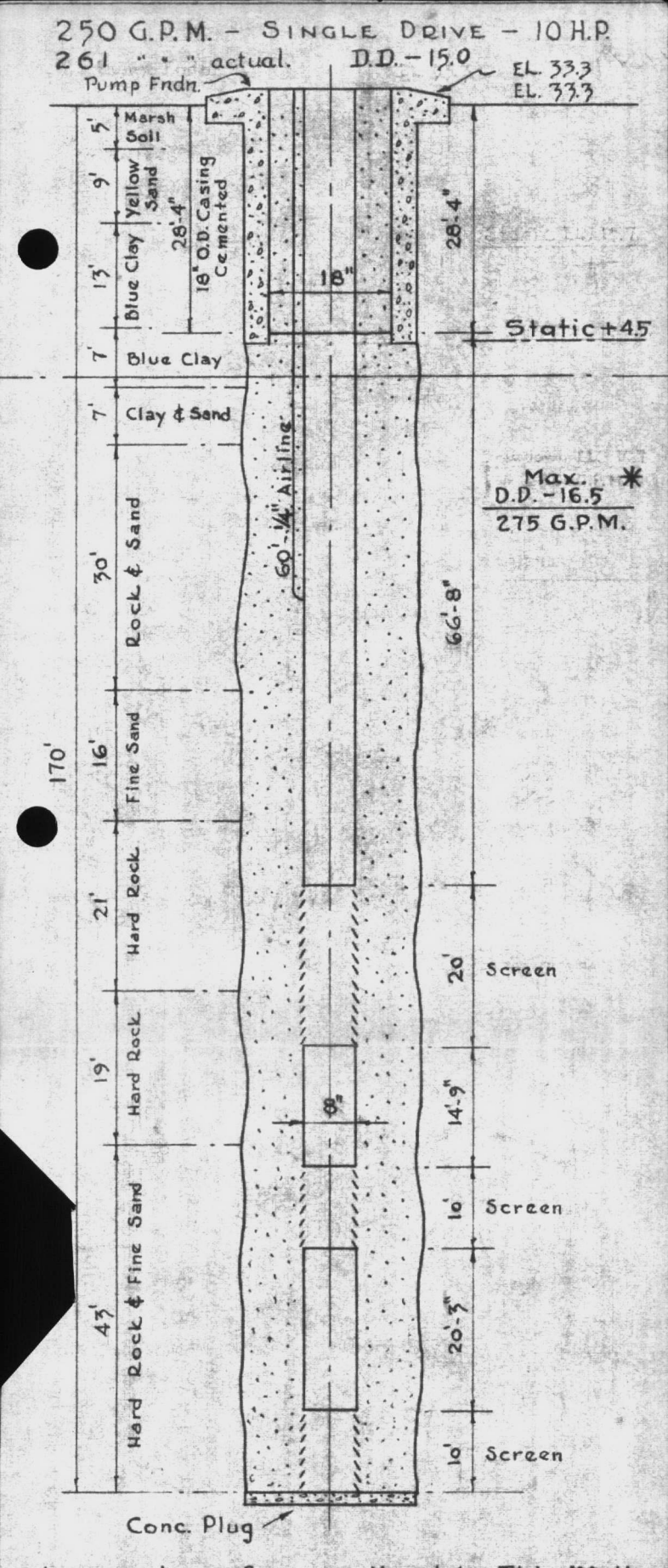
#15 Date	G.P.M.	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	260	-3.5	+14.7	3 min +14.7	14.3
1944	255	-17.8	—	—	—
1949	165	-3.6	+11.2	6 min. +9.3	11.15




WELL
16


616

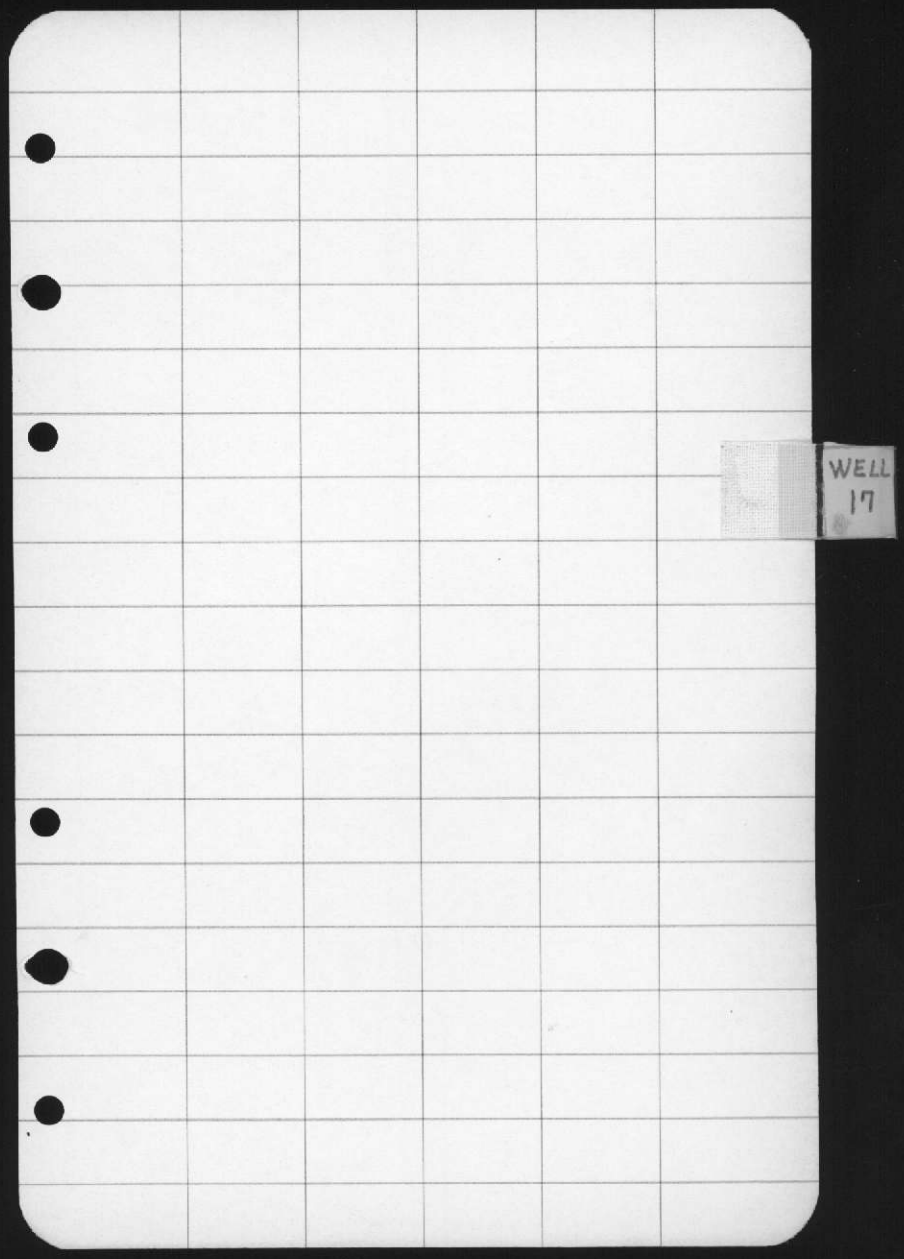
250 G.P.M. – SINGLE DRIVE – 10 H.P.
261 " " " actual.

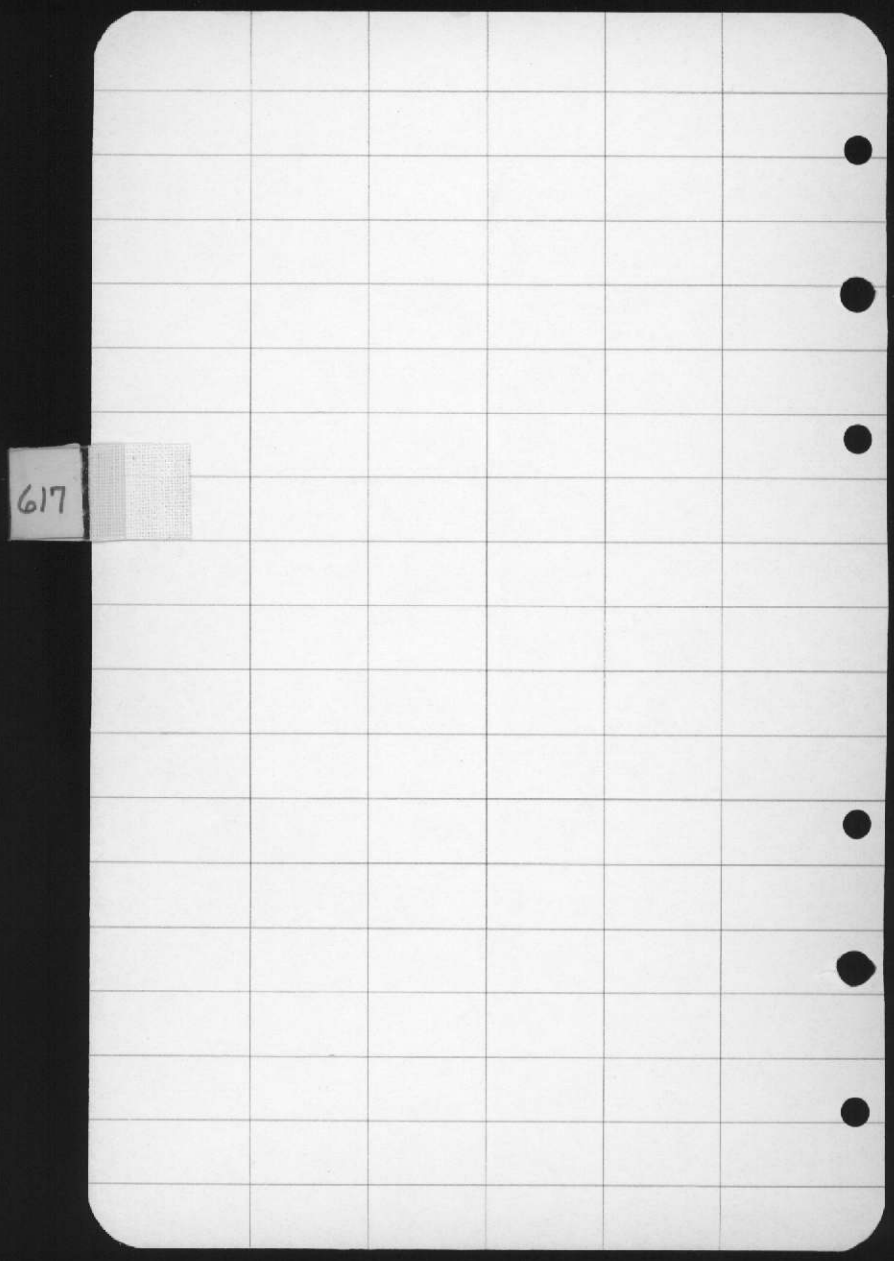


Armco Iron Screen Used In This Well

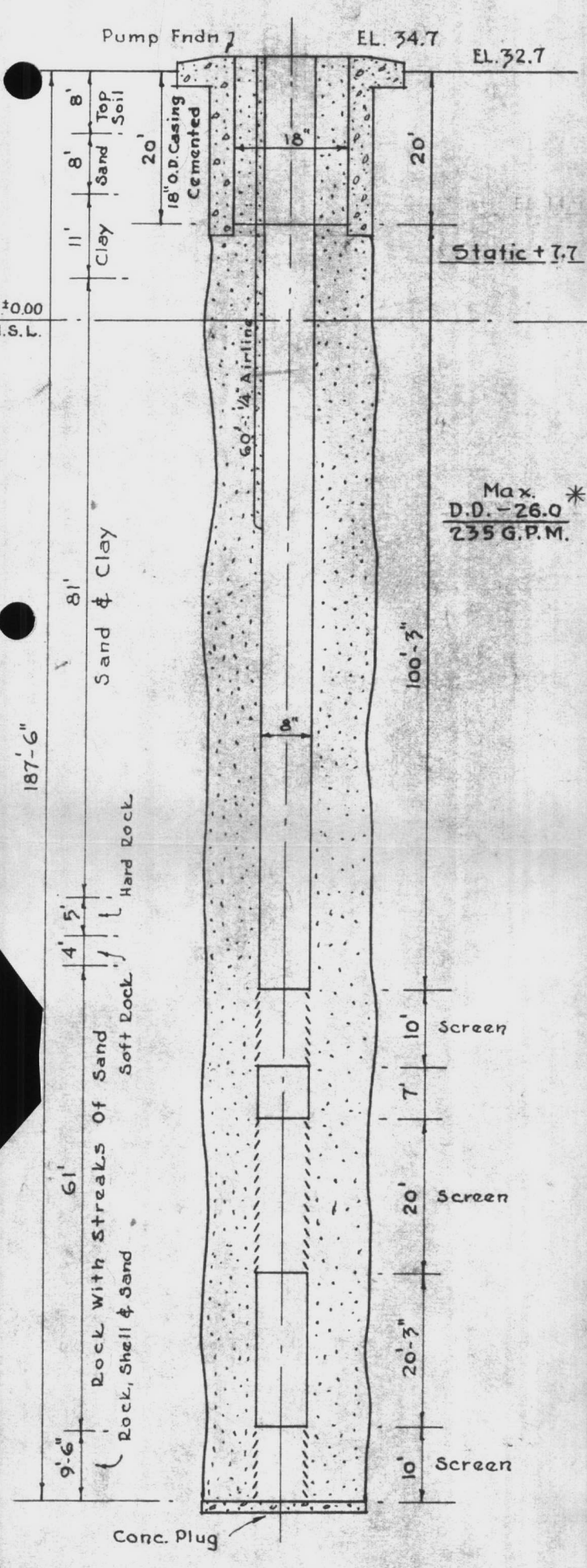
D.T.A. WELL No. 16

#16 Date	GPM.	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft.D.D.
1941	275	-0.3	+15.7	3 min. +9.0	17.2
1944	280	-10.6	—	—	—
1949	235	-15.7	+9.0	6 min. +9.5	9.5


WELL
17


617

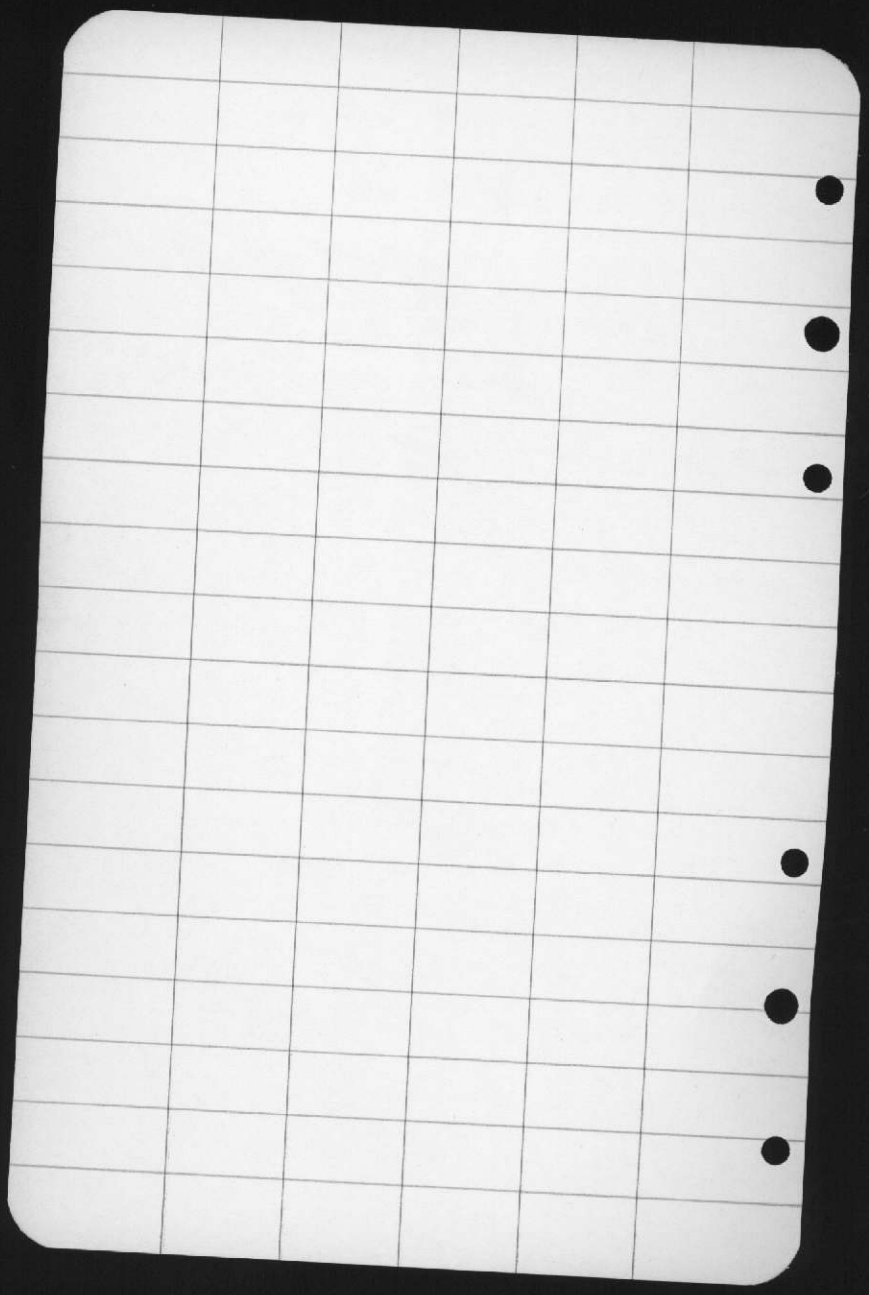
250 G.P.M. - DUAL DRIVE - 10 H.P.
178 " " " actual. Recom. 235 G.P.M. 10 H.P.

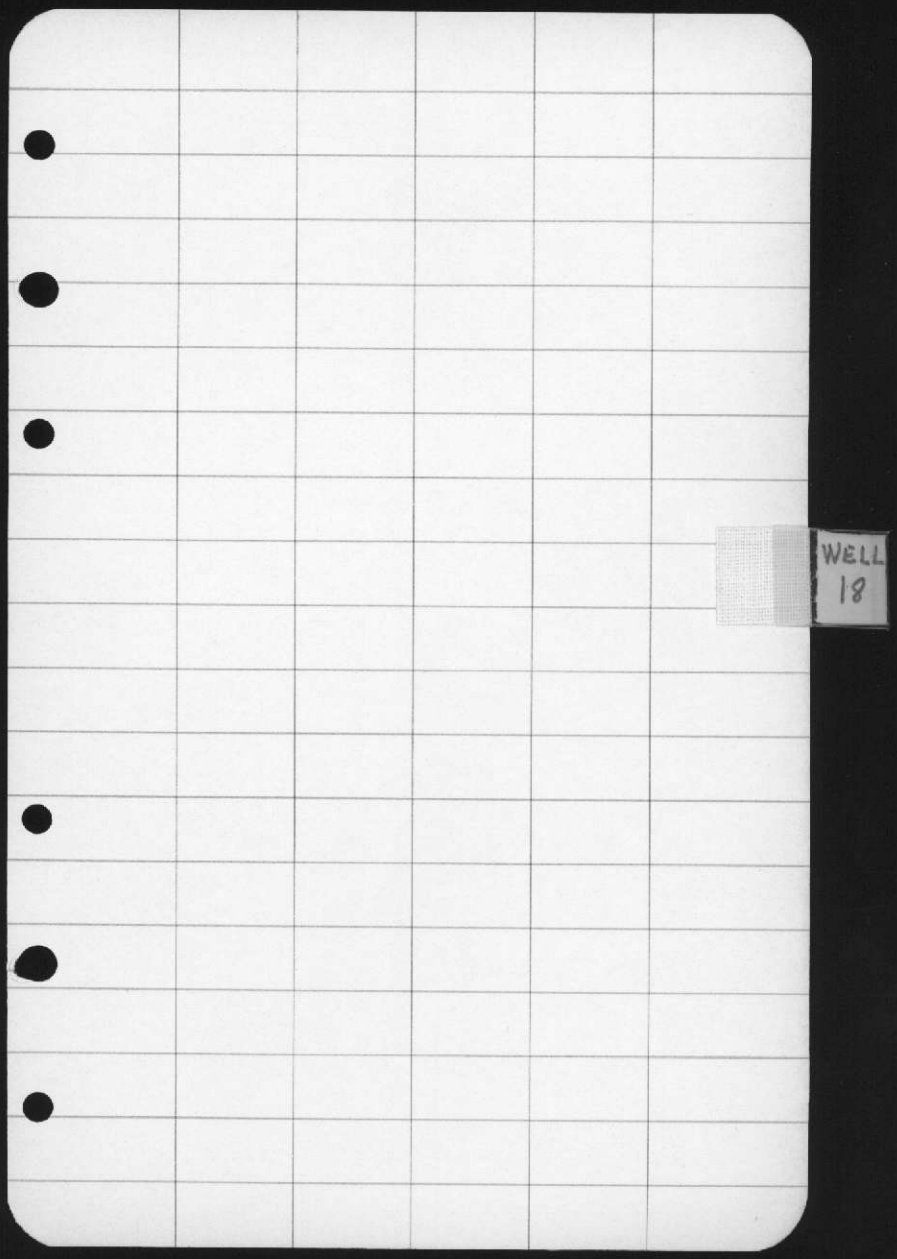


Armco Iron Screen Used In This Well

D. T. A. WELL No. 17

#17 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft DD.
				3 min.	
1941	300	-31.0	+14.0	+7.7	6.8
1944	180	-17.0	—	—	
1949	—	—	—	—	

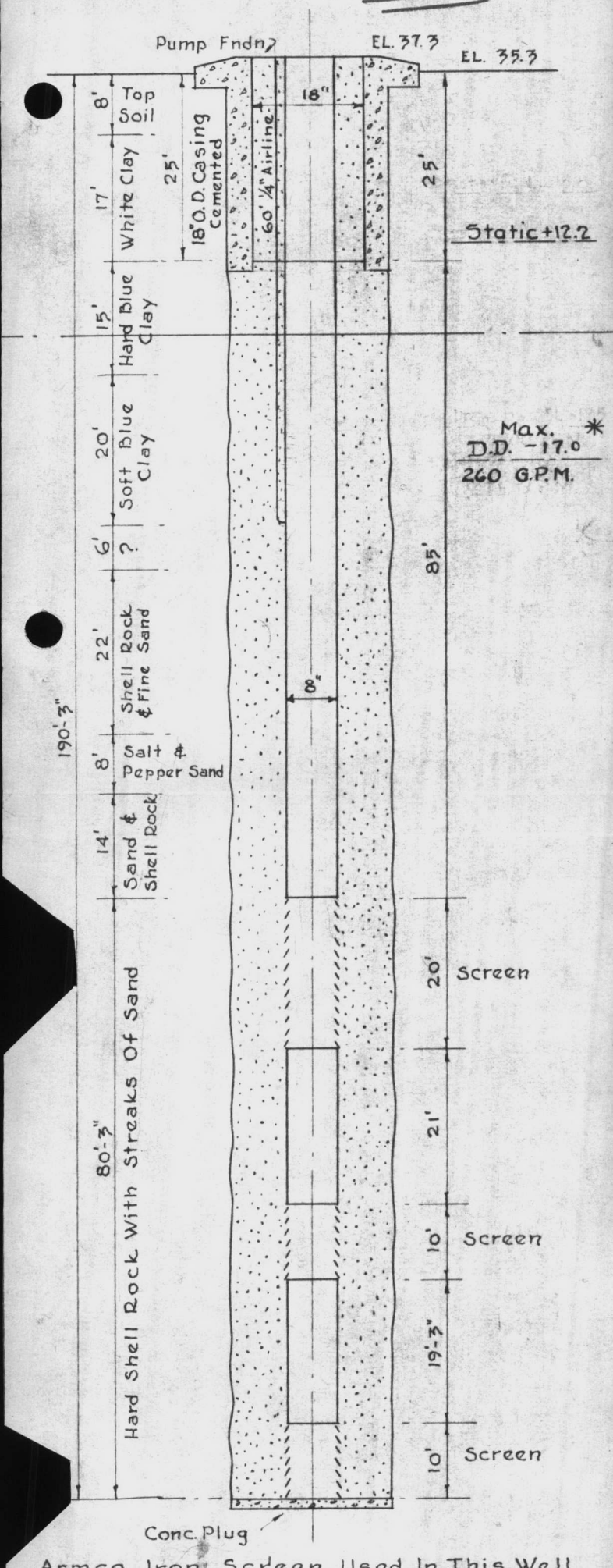



WELL
18


618

200 G.P.M. — SINGLE DRIVE — 7½ H.P.
75 " " " actual. Recom. 260 G.P.M. 10 H.P.

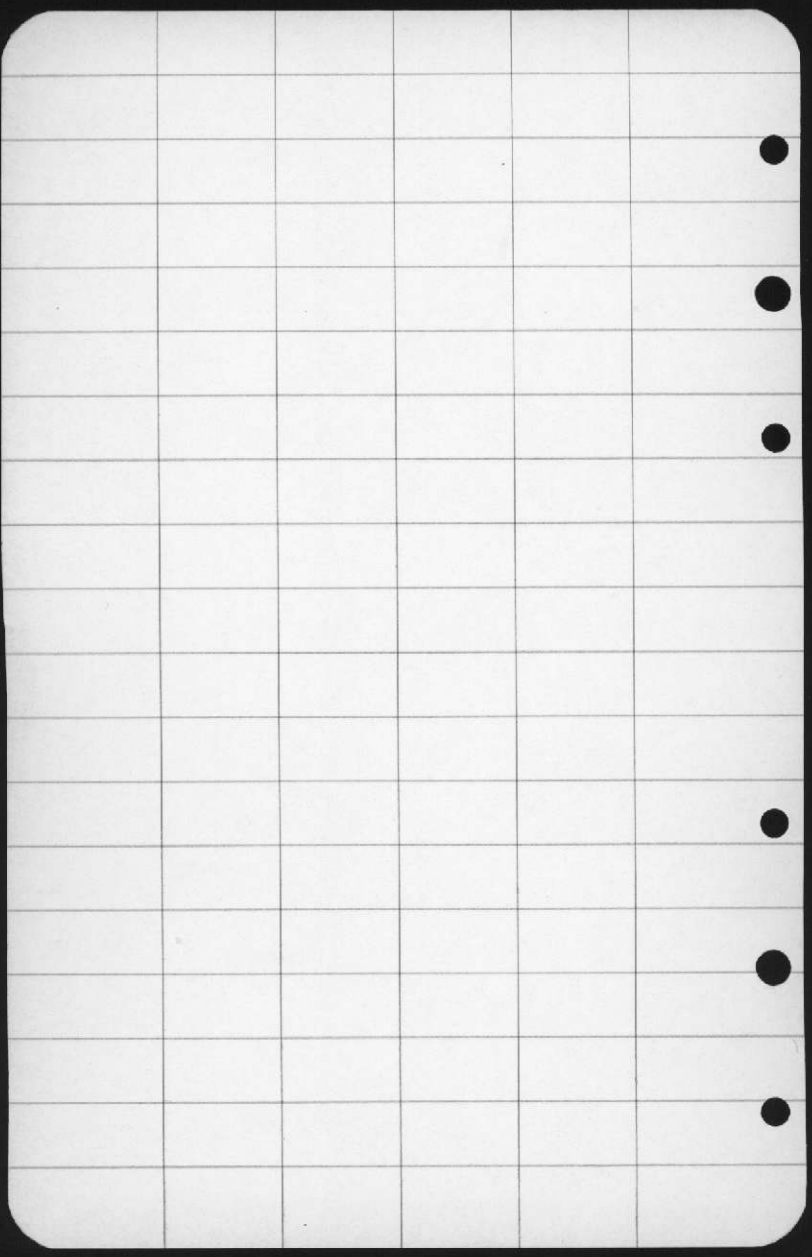
Pumps Sand

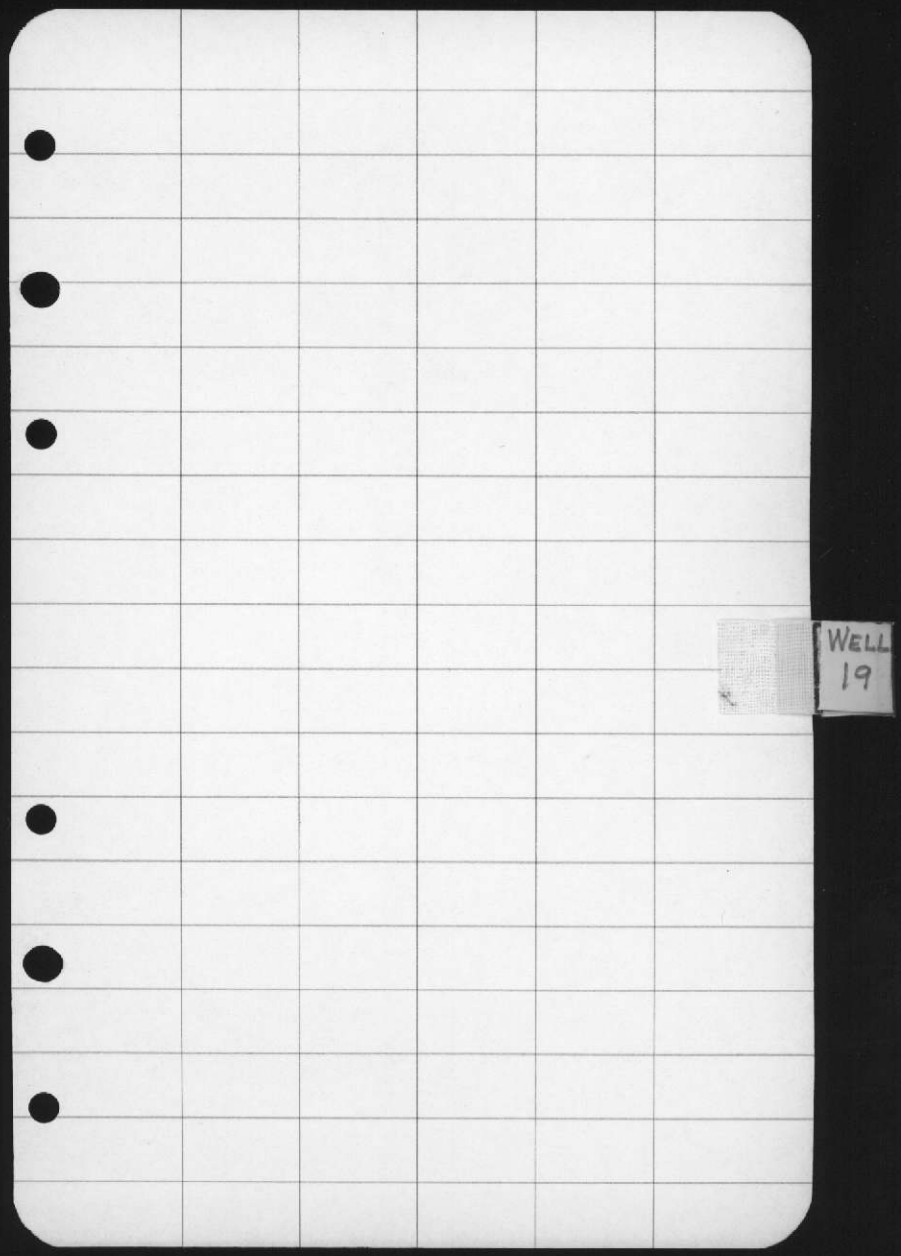


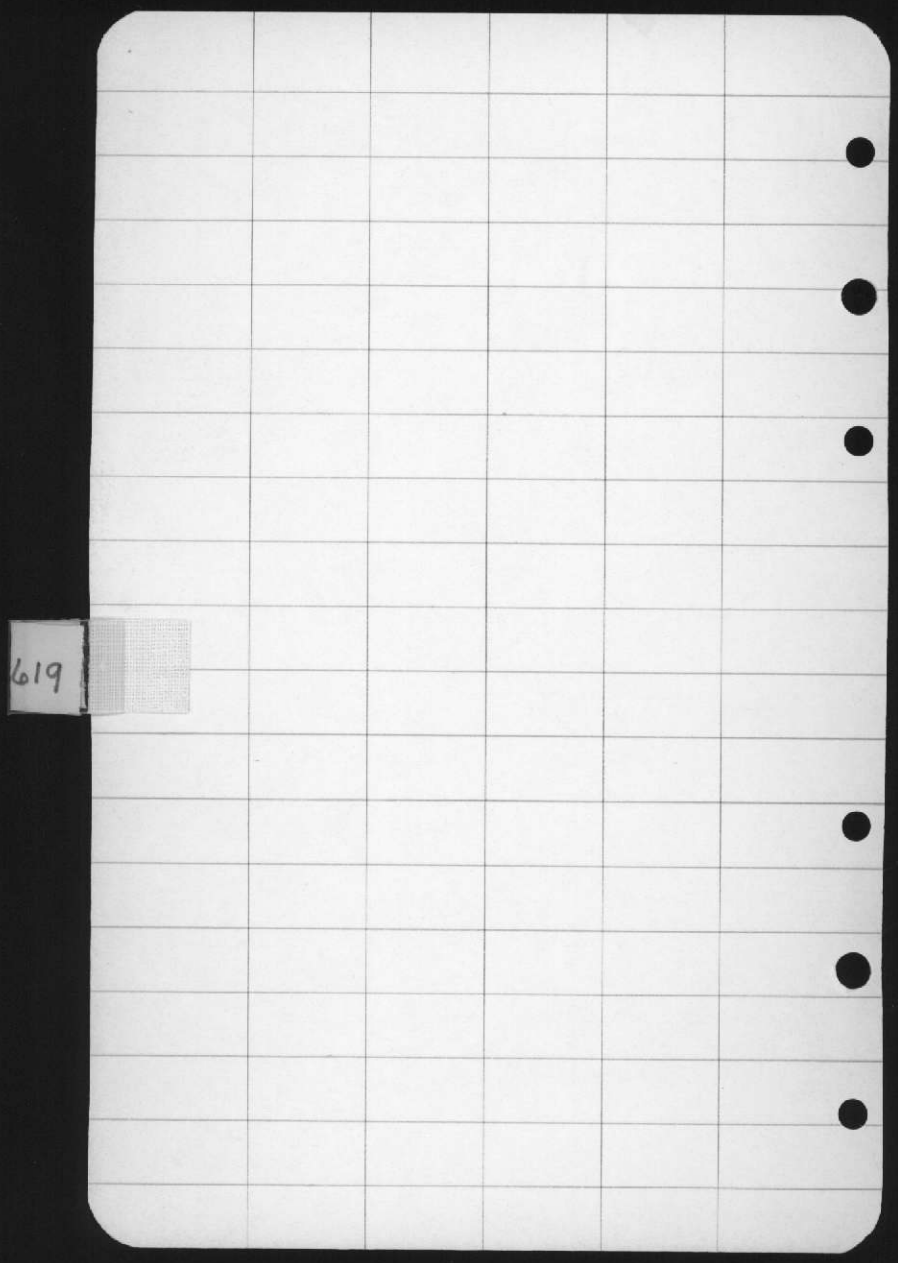
Armco Iron Screen Used In This Well

D.T.A. WELL NO. 18

#18 Date	GPM	Drawdown Elev	Static Elev	Recovery	Yield gal/ft D.D.
1941	260	-18.2	+18.8	3min +8.3	7.04
1944	115	-11.0			
1949	26	+9.2	+17.0	6min. +14.0	3.34

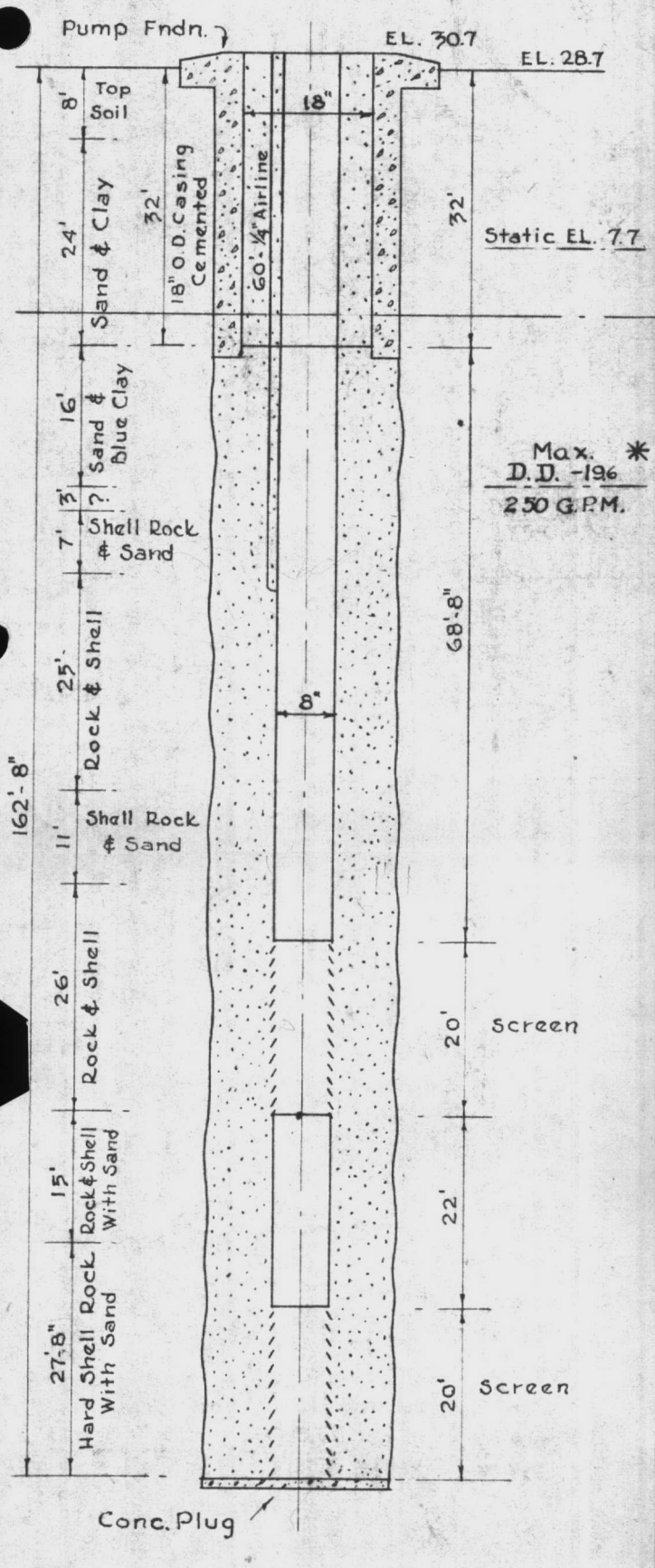



WELL
19


619

200 G.P.M. — SINGLE DRIVE — 7½H.P.
94 " " " actual. Recom. 250 G.P.M. 10 H.P.

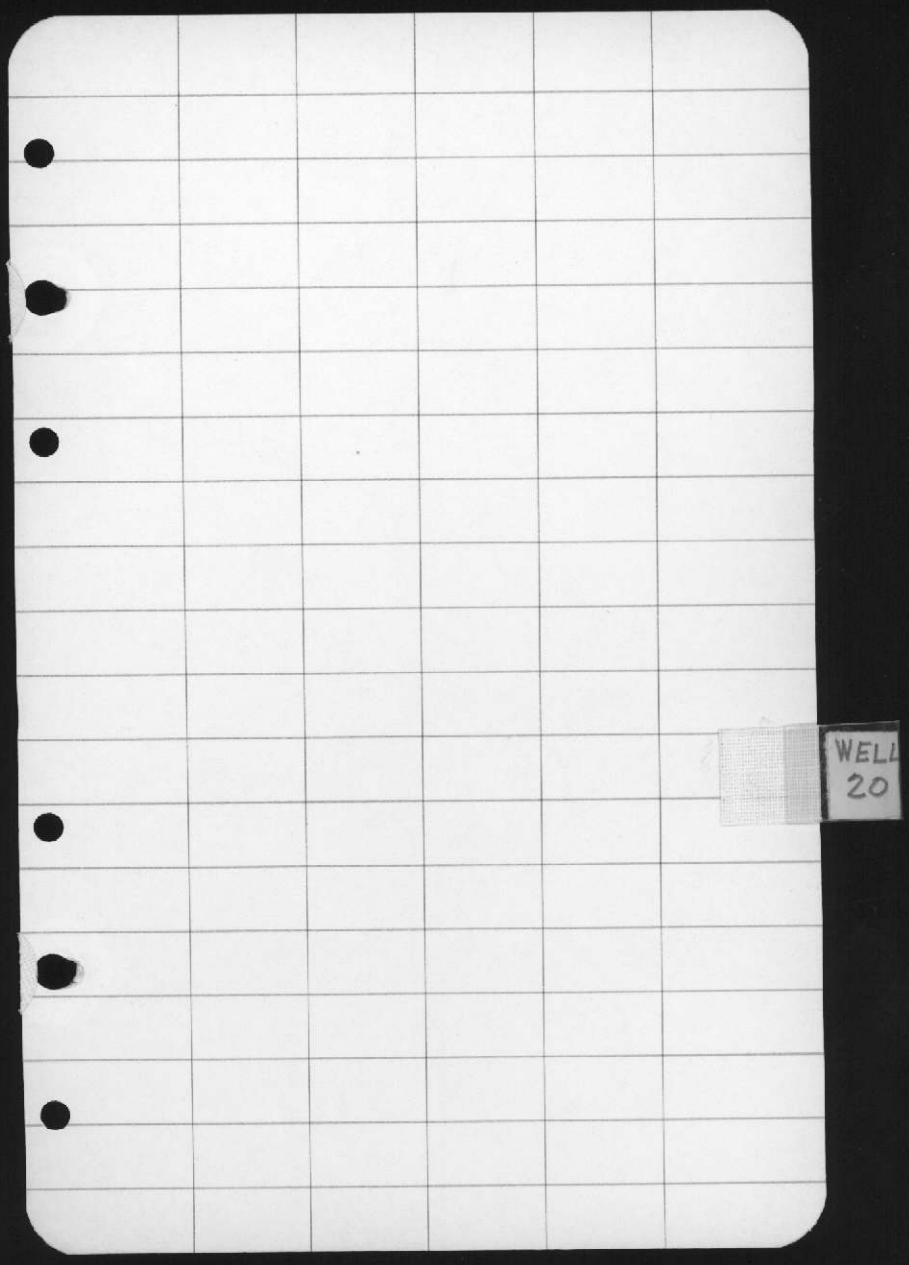
Pumps - Sand

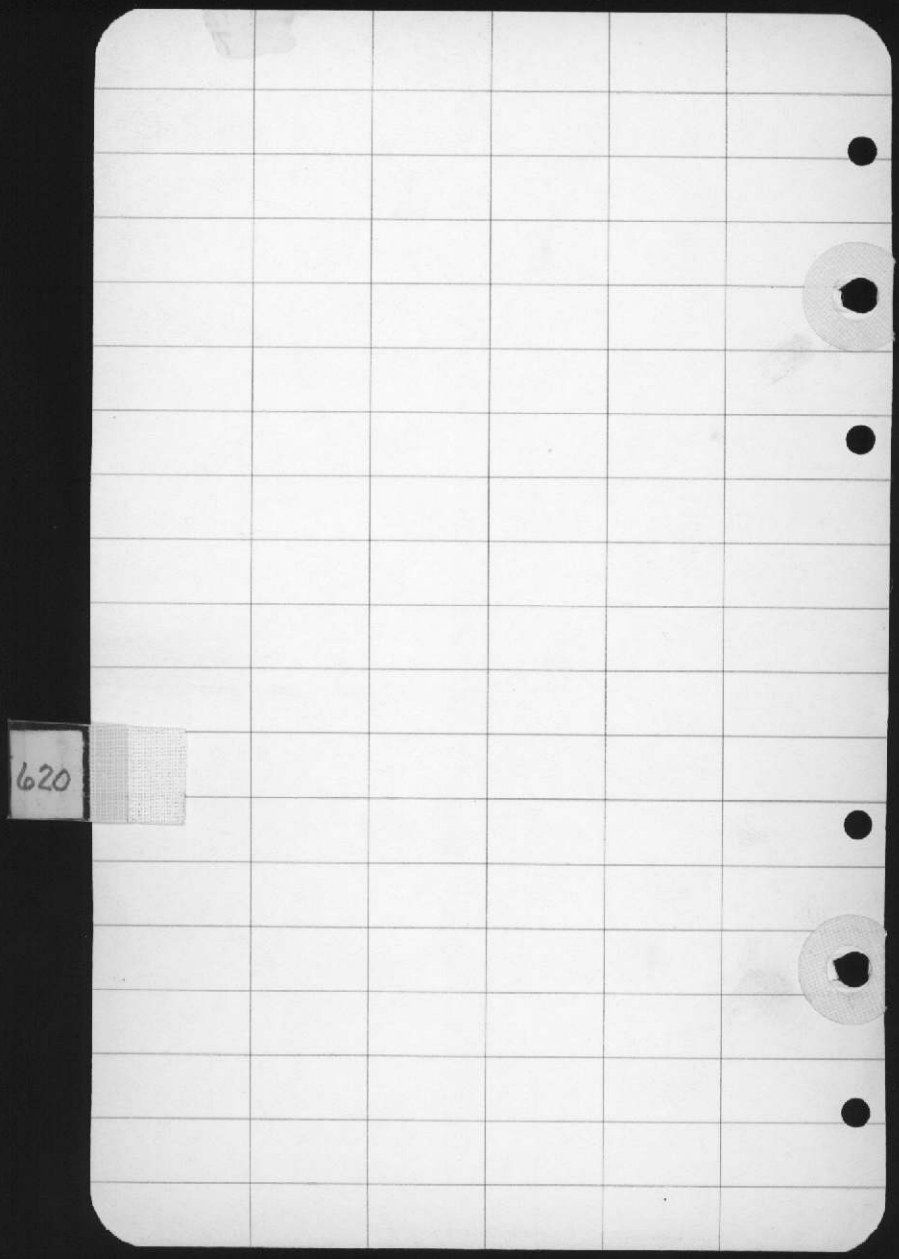


Armco Iron Screen Used In This Well

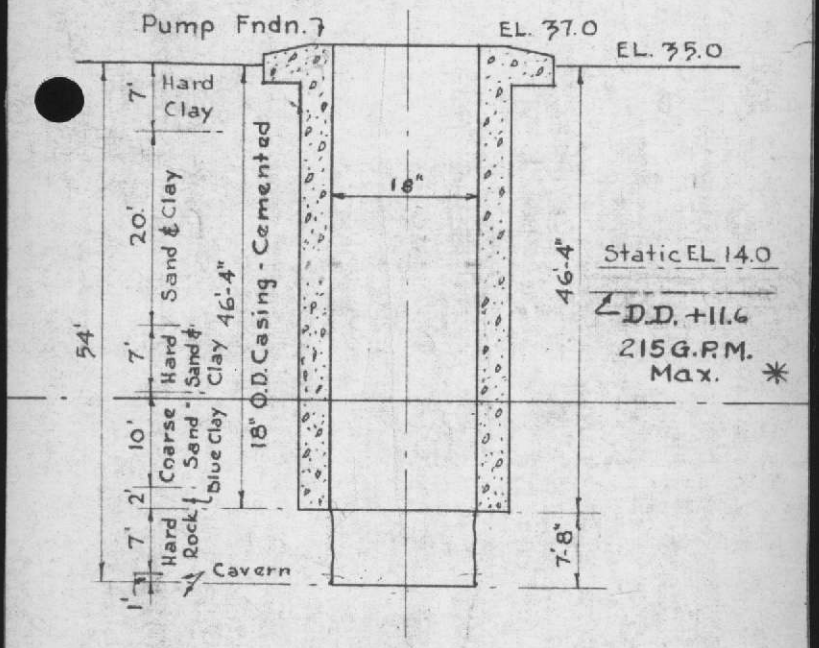
D.T.A. WELL No. 19

#19 Date	GPM	Drawdown Elev	Static Elev	Recovery	Yield gal/ft DD
1941	250	-25.3	+7.7	3 min. +7.7	7.6
1944	165	-9.0	—		
1945	60	+4.7	+15.0	+14.5 6 min.	5.83


WELL
20

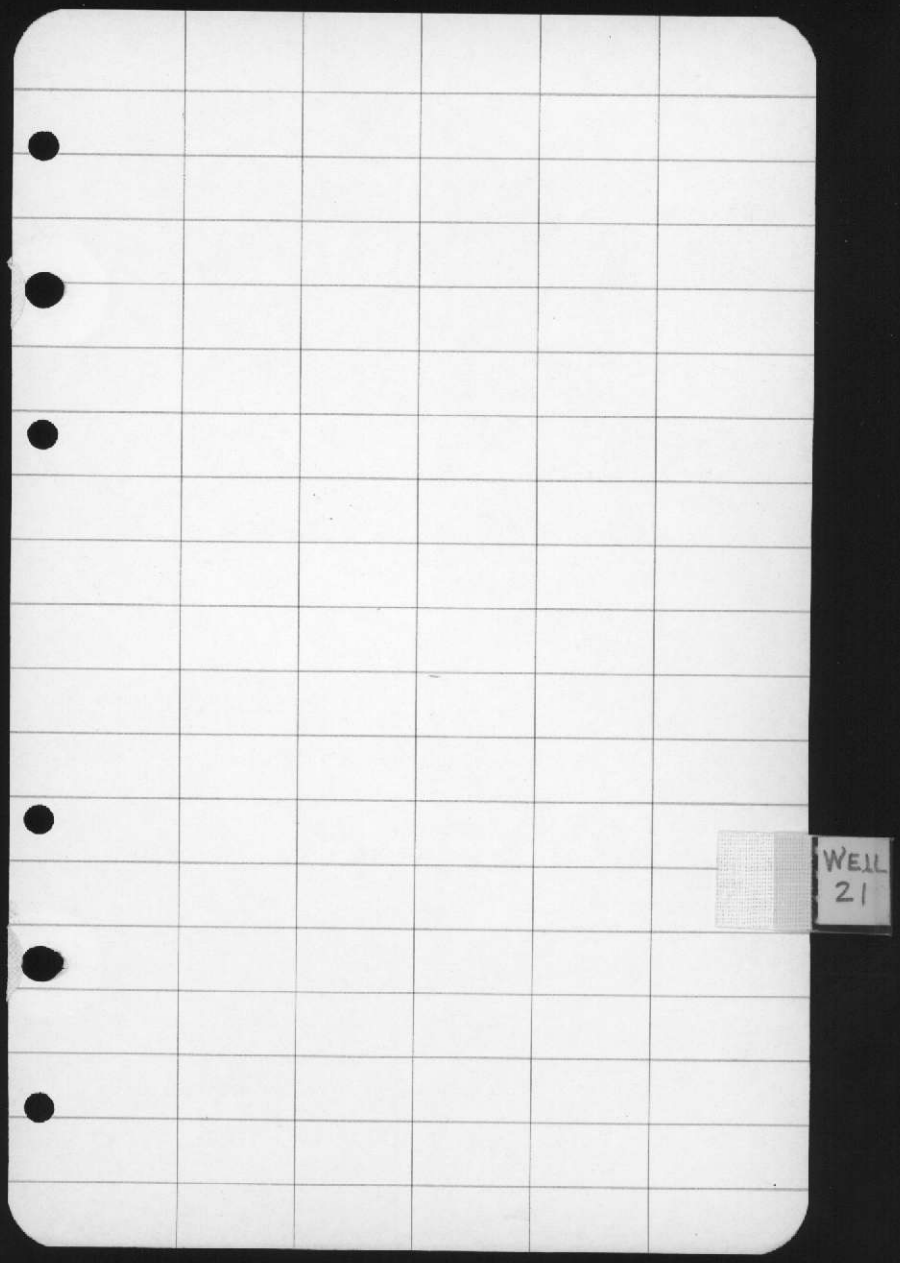

620

200 G.P.M. — SINGLE DRIVE — 7½ H.P.
183 " " " actual. Recom. 215 G.P.M. 7½ H.P.



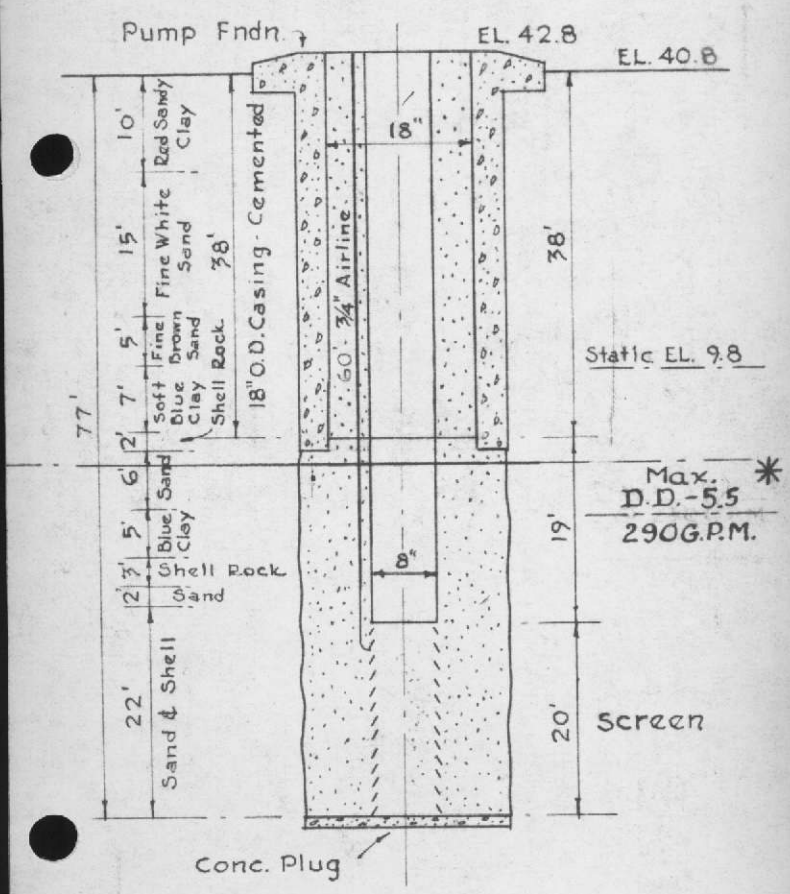
Division Training Area Well No. 20

#20 Date	GPM	Elev. Drawndown	Static Elev	Recovery	Yield gal/ft D.D.
1941	265	+8.7	+14.0	3 min +14	50.0
1944	185	+12.0	——	——	——
1949	155	+22.5	+31	6 min +31	18.2


WEIL
21


621

250 G.P.M. — DUAL DRIVE — 7½ H.P.
125 " " "actual. Recom. 290 G.P.M. 10 H.P.



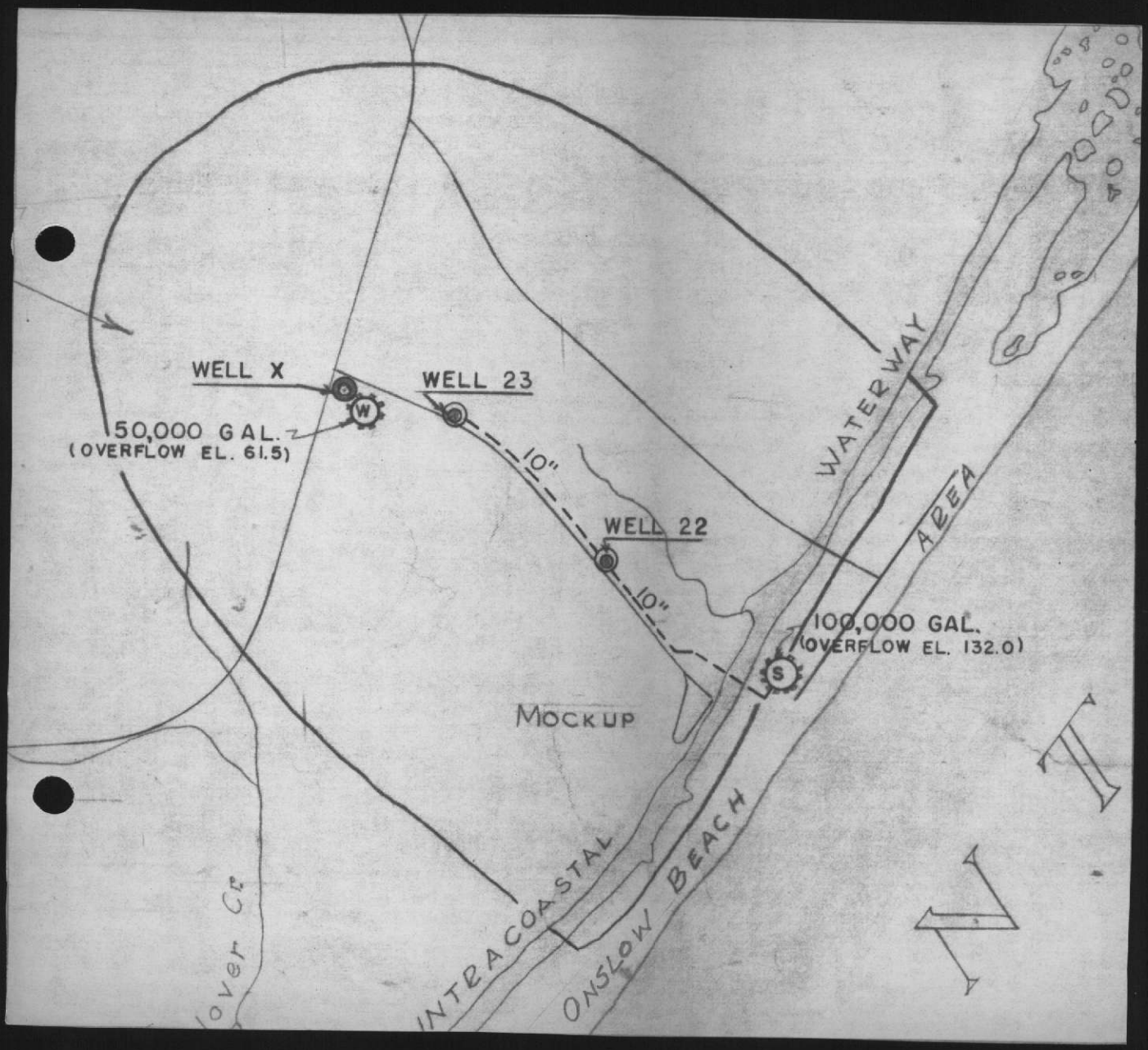
Armco Iron Screen Used in this Well

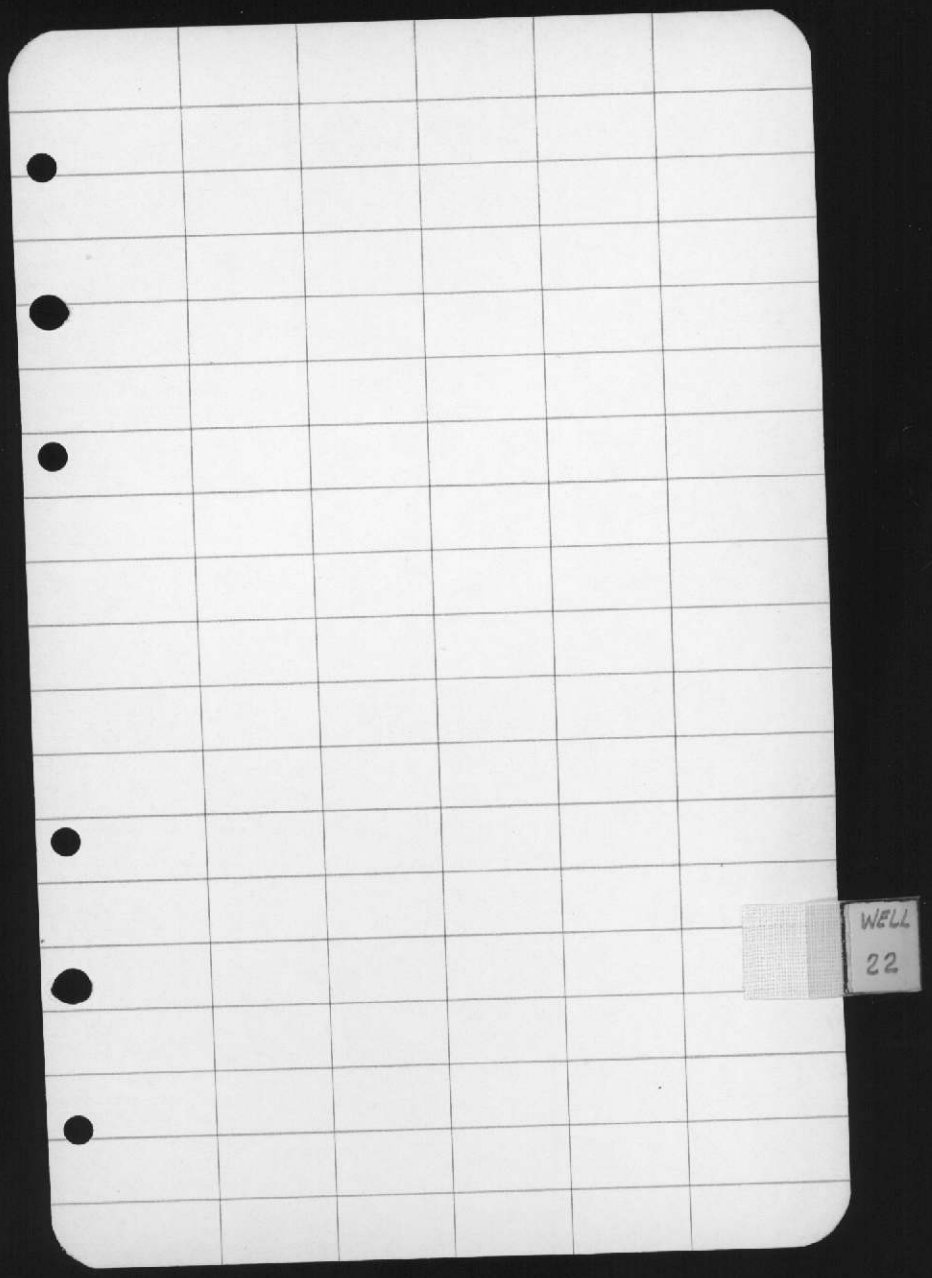
Division Training Area Well No. 21

#21 Date	GPM	Drawdown Elev.	Static Elev.	Recovery	Yield gal/ft D.D.
1941	275	-5.5	+9.8	—	18.0
1944	155	+7.0		—	
1949	48	+11.2	+27.0	6 min. +19	3.4

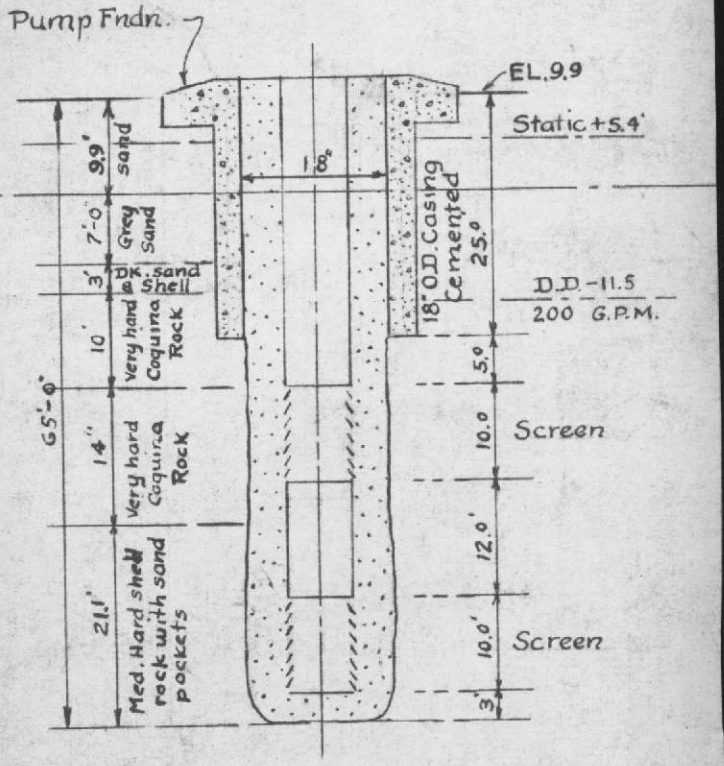
WELL DATA

Onslow Beach Area

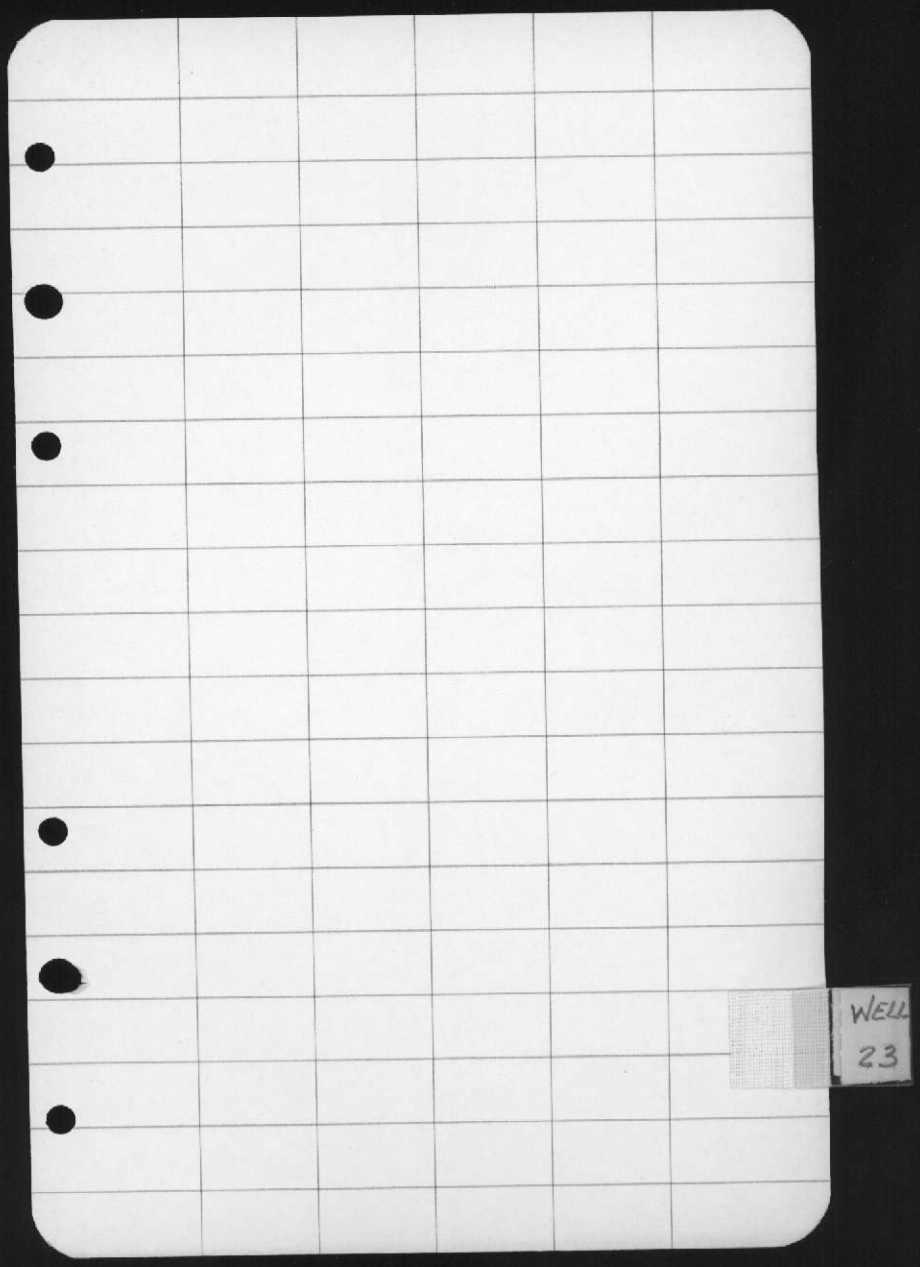

WELL X
WELL 23
WELL 22
50,000 GAL.
(OVERFLOW EL. 61.5)
10"
10"
100,000 GAL.
(OVERFLOW EL. 132.0)
WATERWAY
AREA
MOCKUP
INTRACOASTAL
ONSLOW BEACH
over Cr

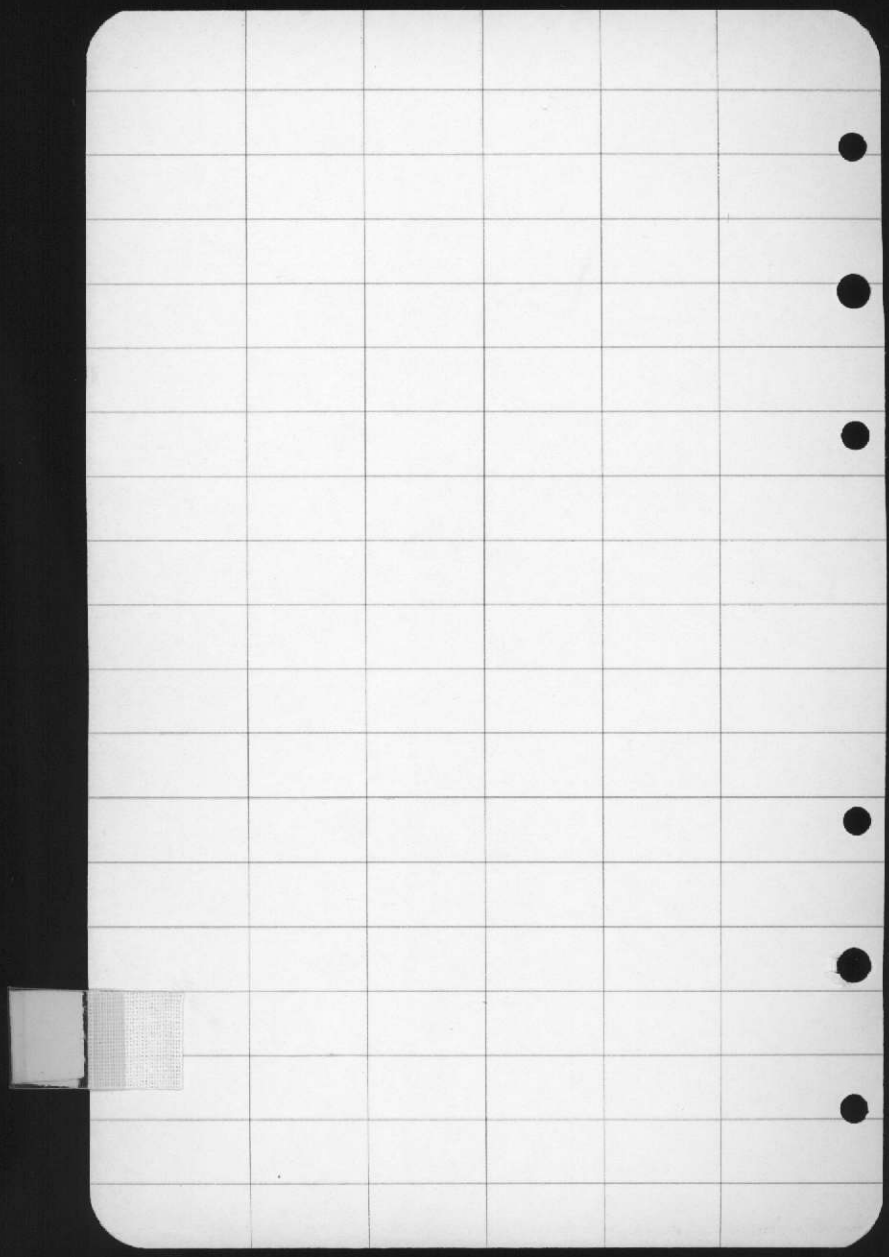

WELL
22

No information on Pump

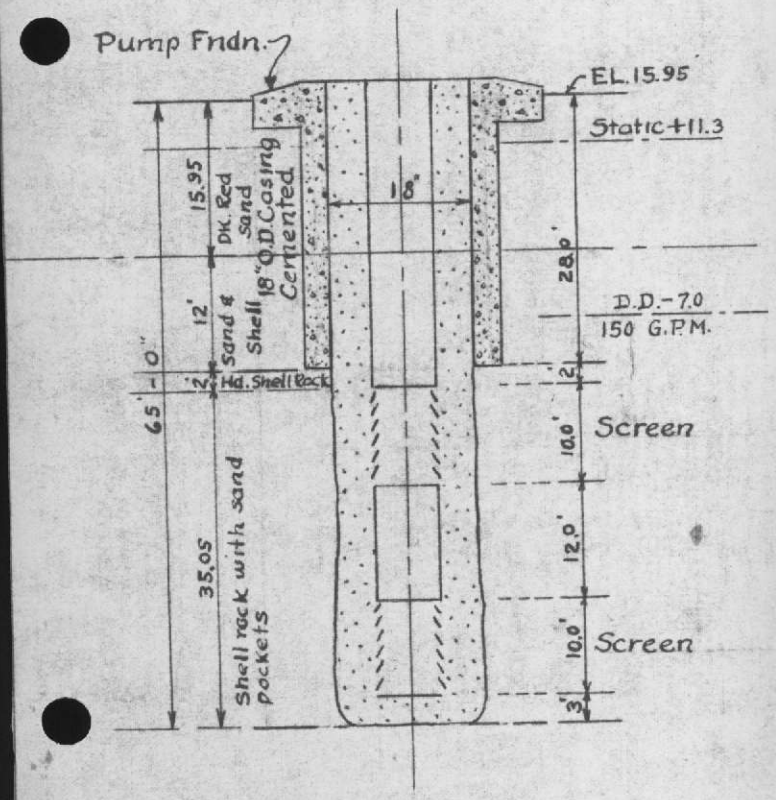


Beach Area Well No. 22

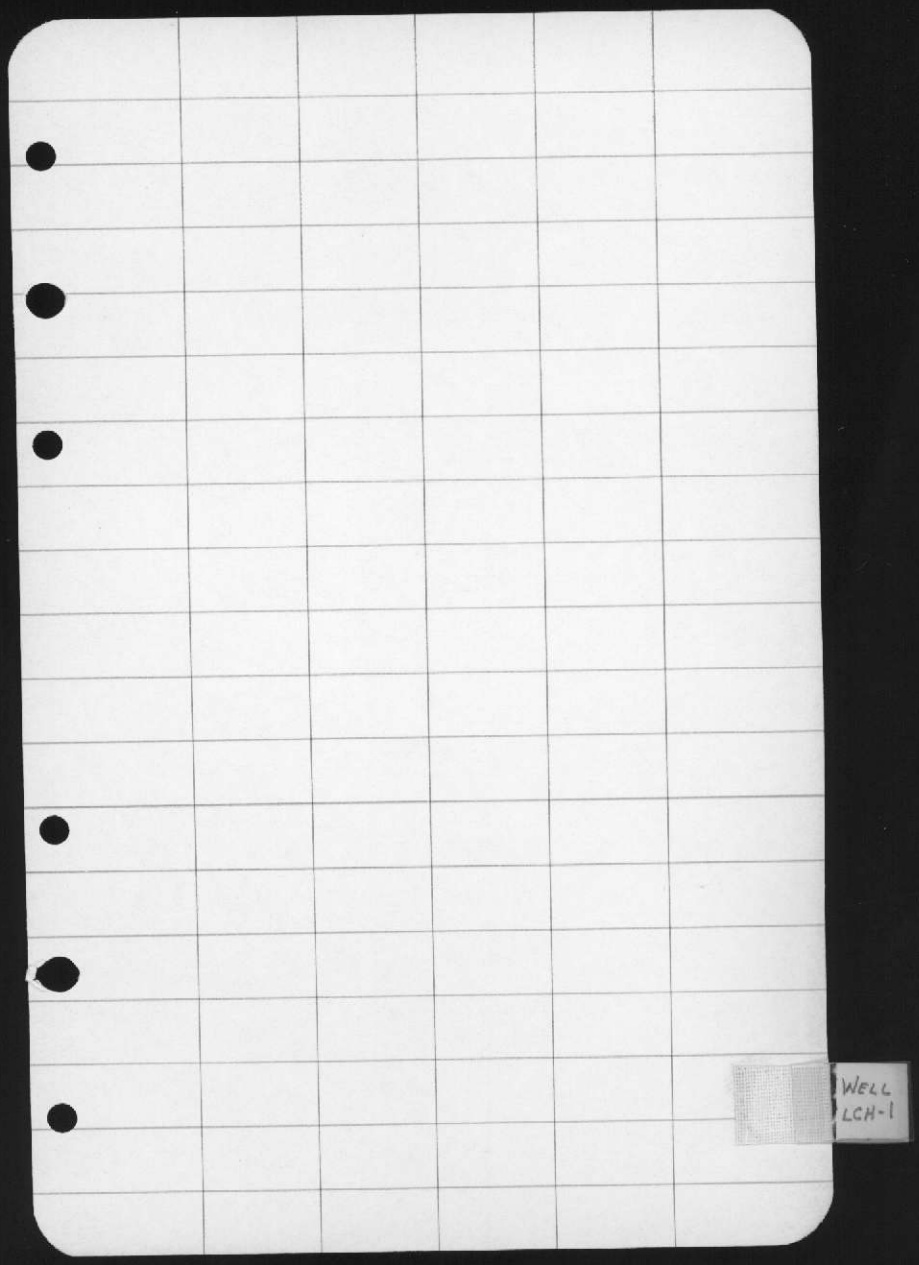

WELL
23

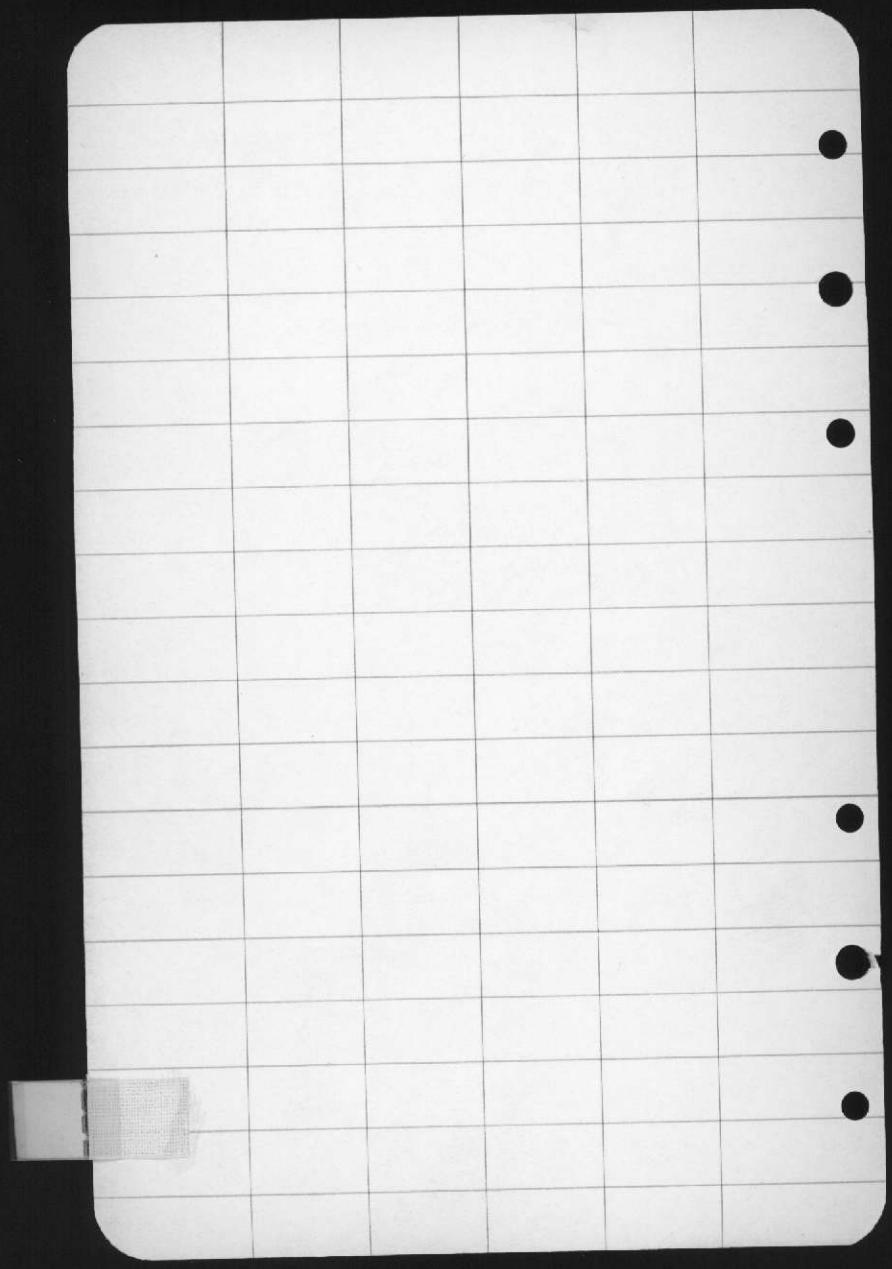


No information on Pump

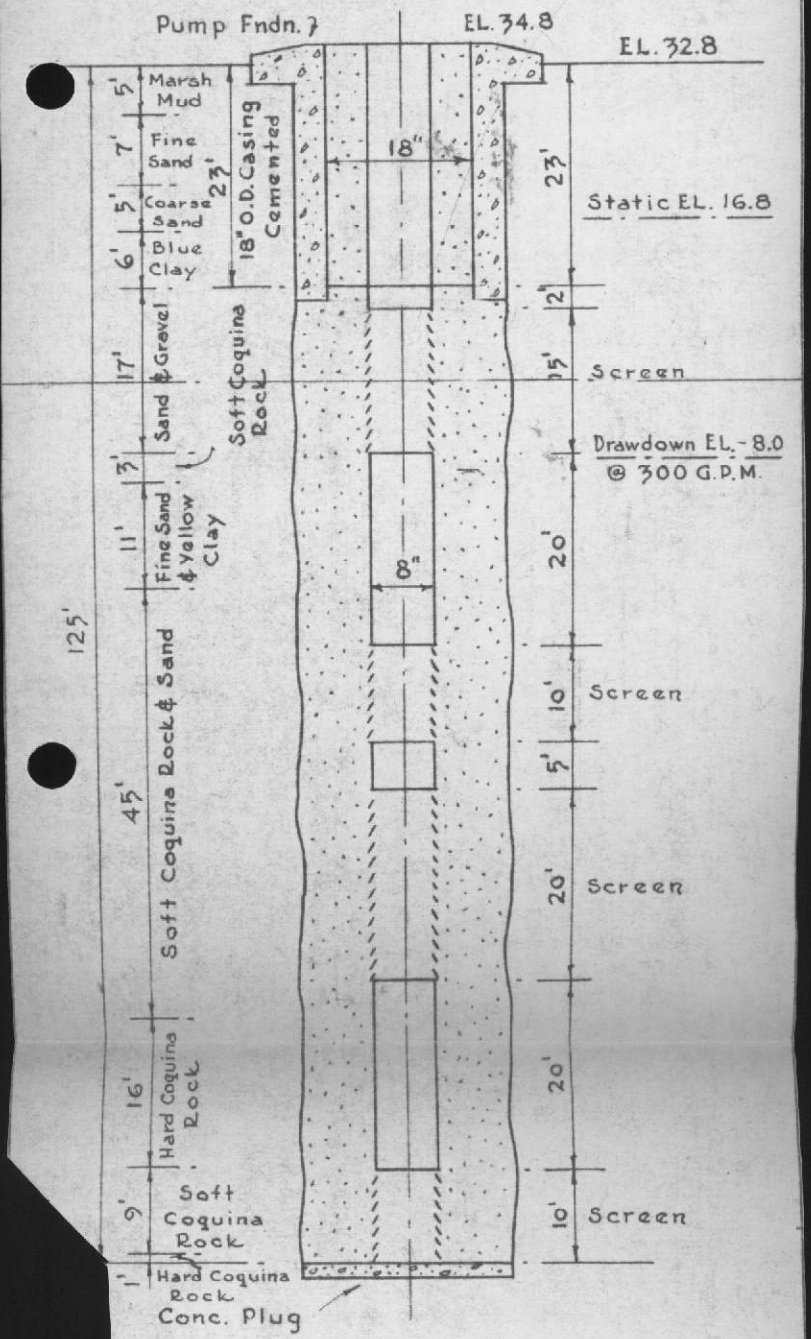


Beach Area Well No. 23

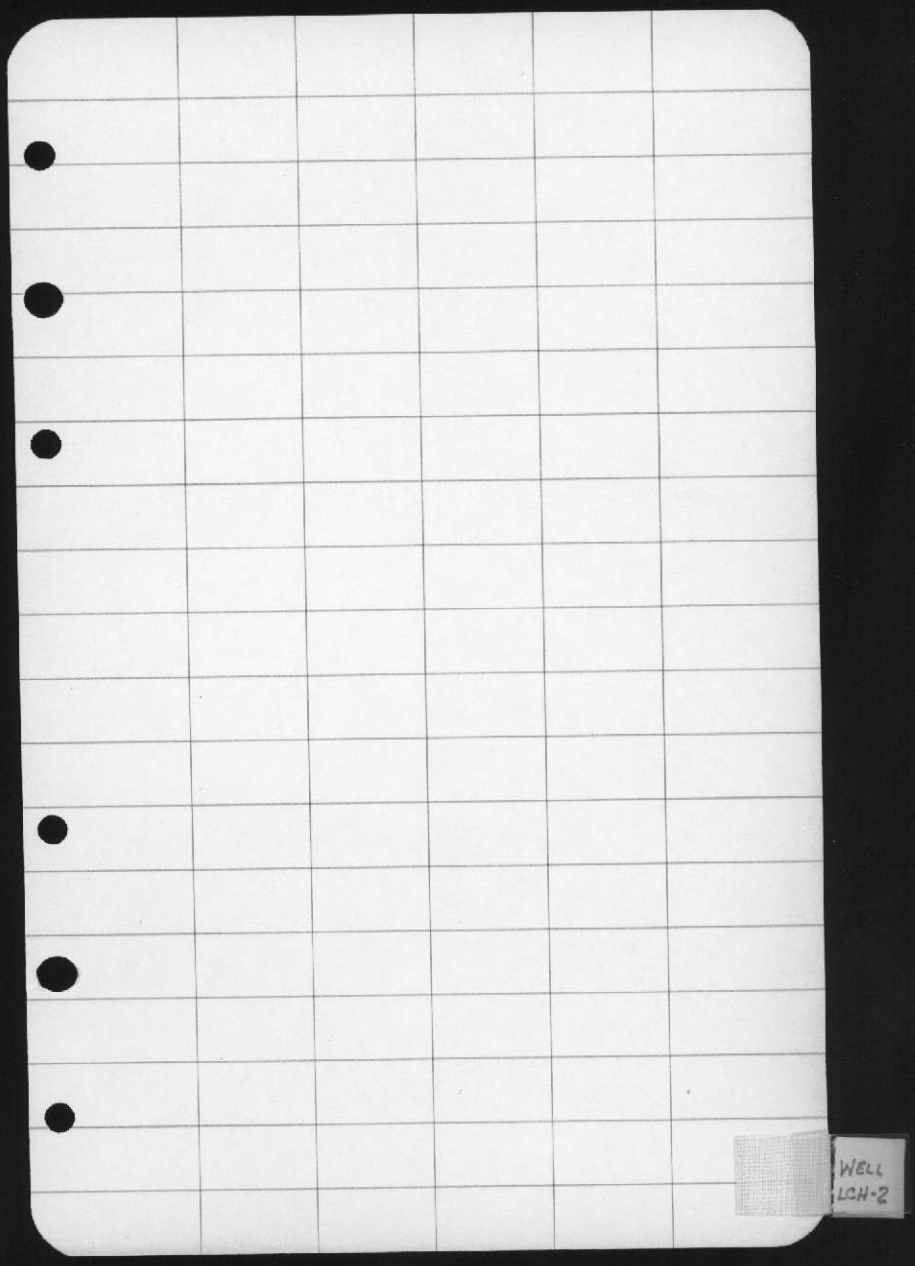

WELL
LCH-1

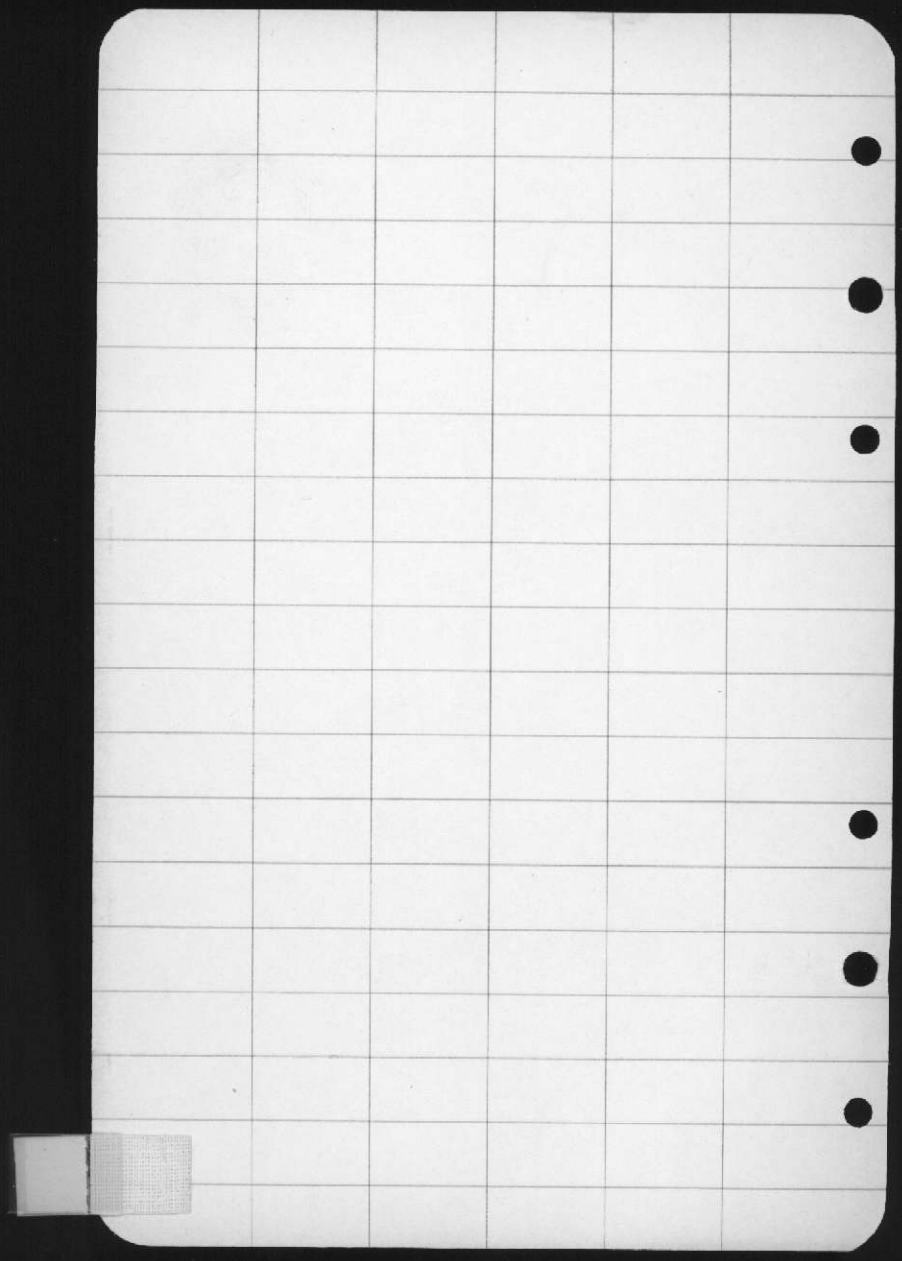


300 G.P.M. – SINGLE DRIVE –

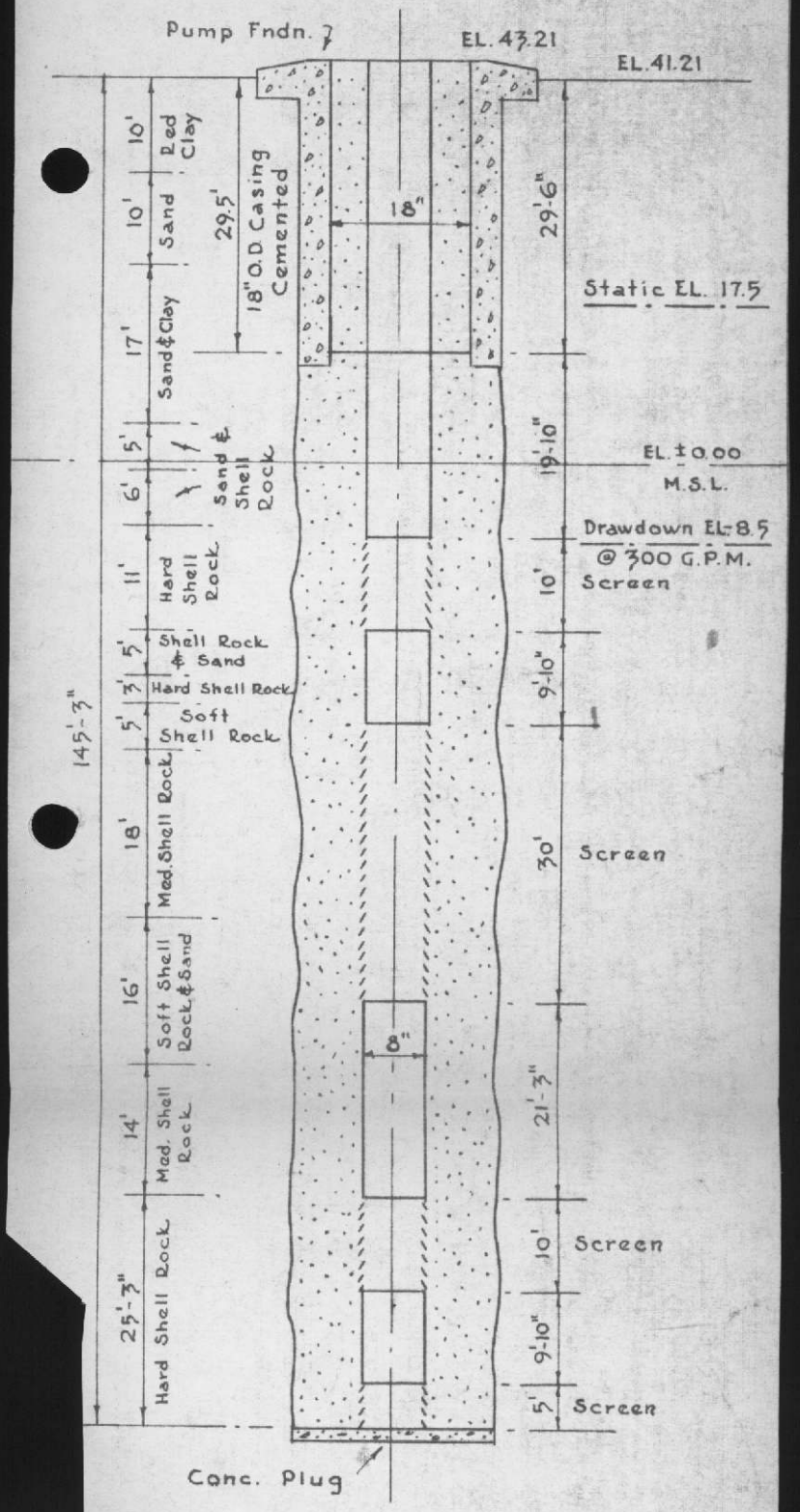


Midway Park Well No. 1 (LCH-1)

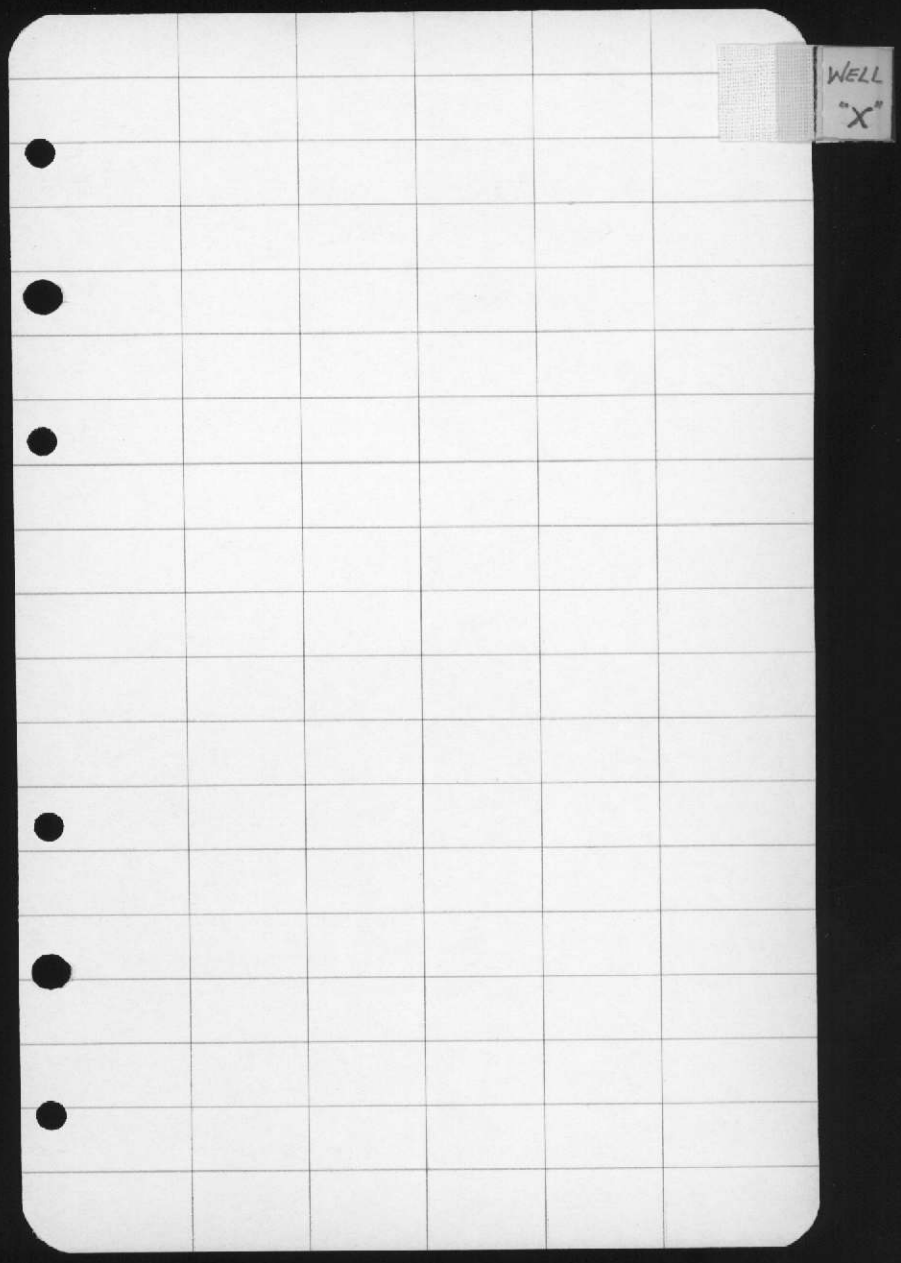

WELL
LCH-2

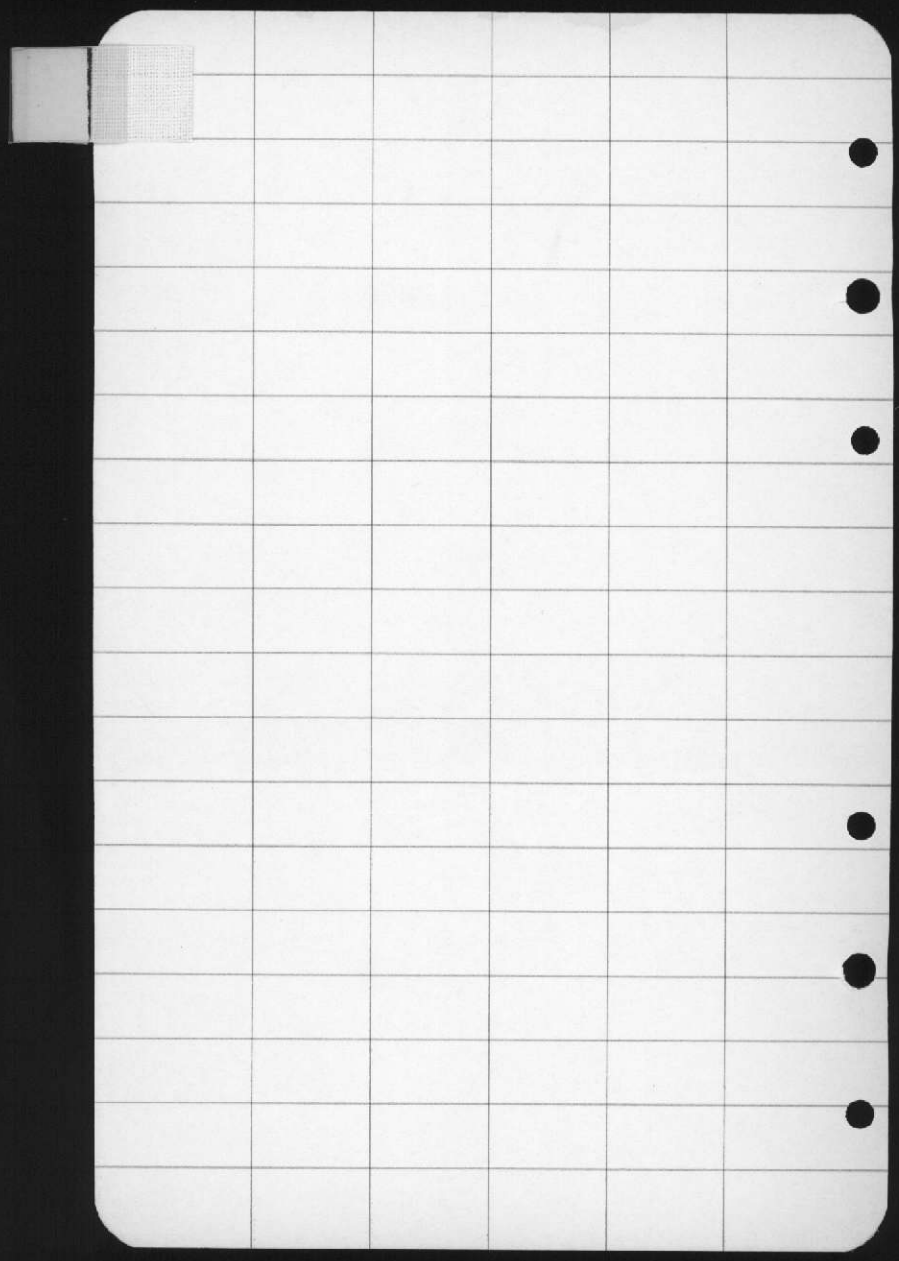


300 G.P.M. – DUAL DRIVE – 20 H.P.

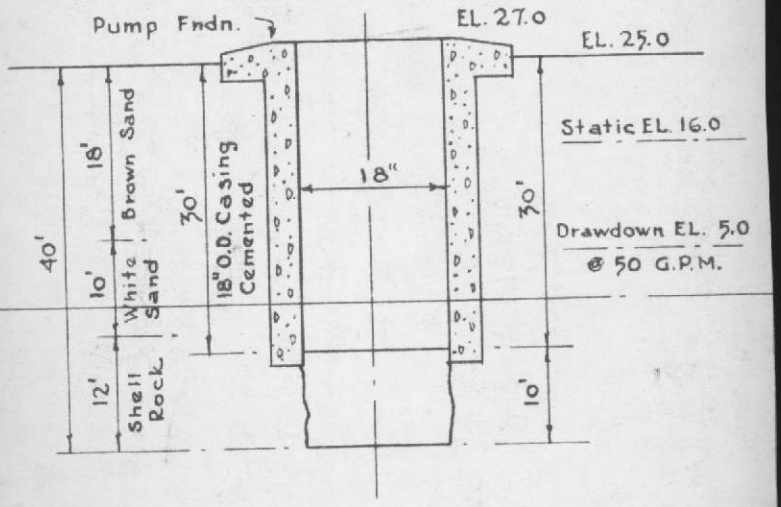


Midway Park Well No. 2 (LCH-2)

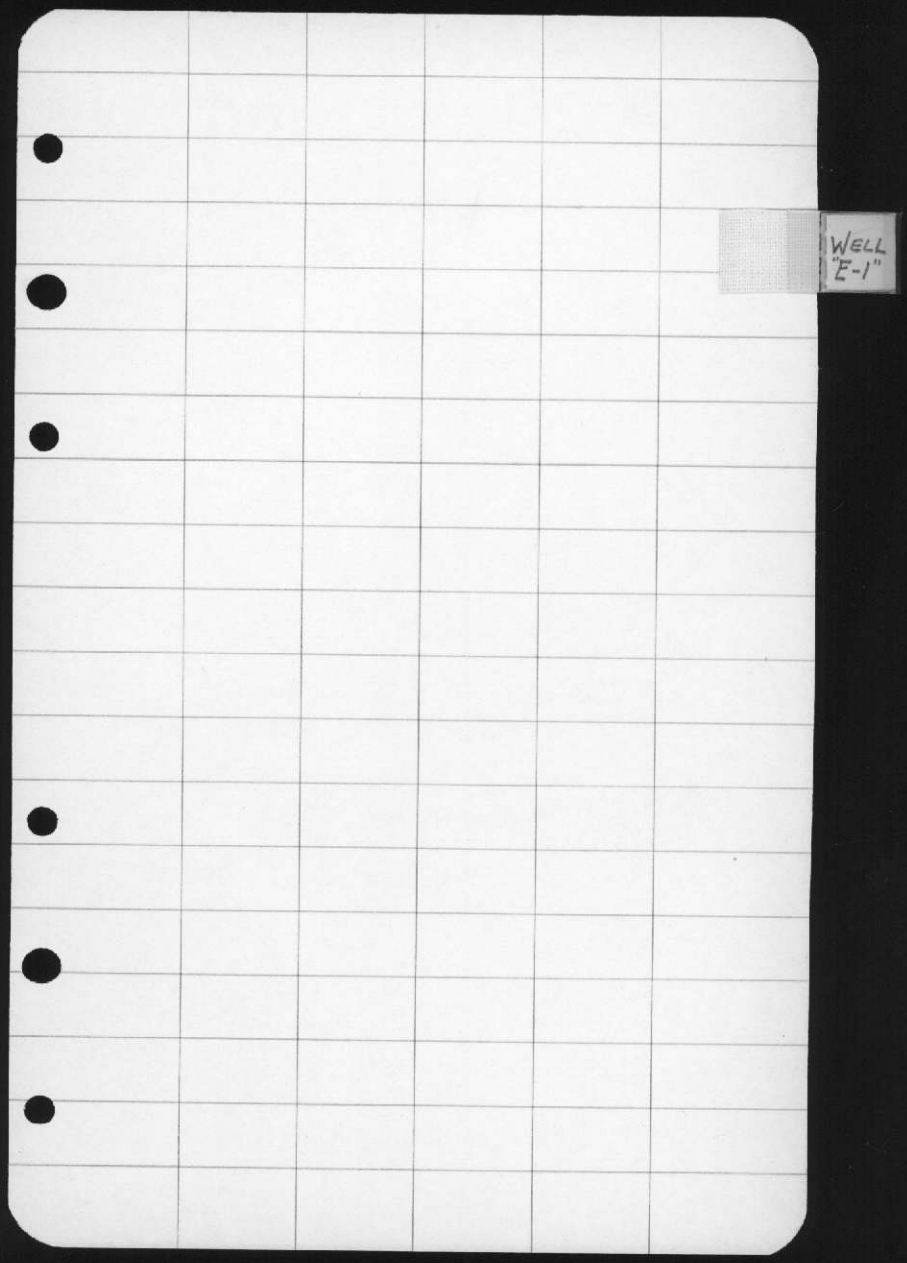

WELL
"X"

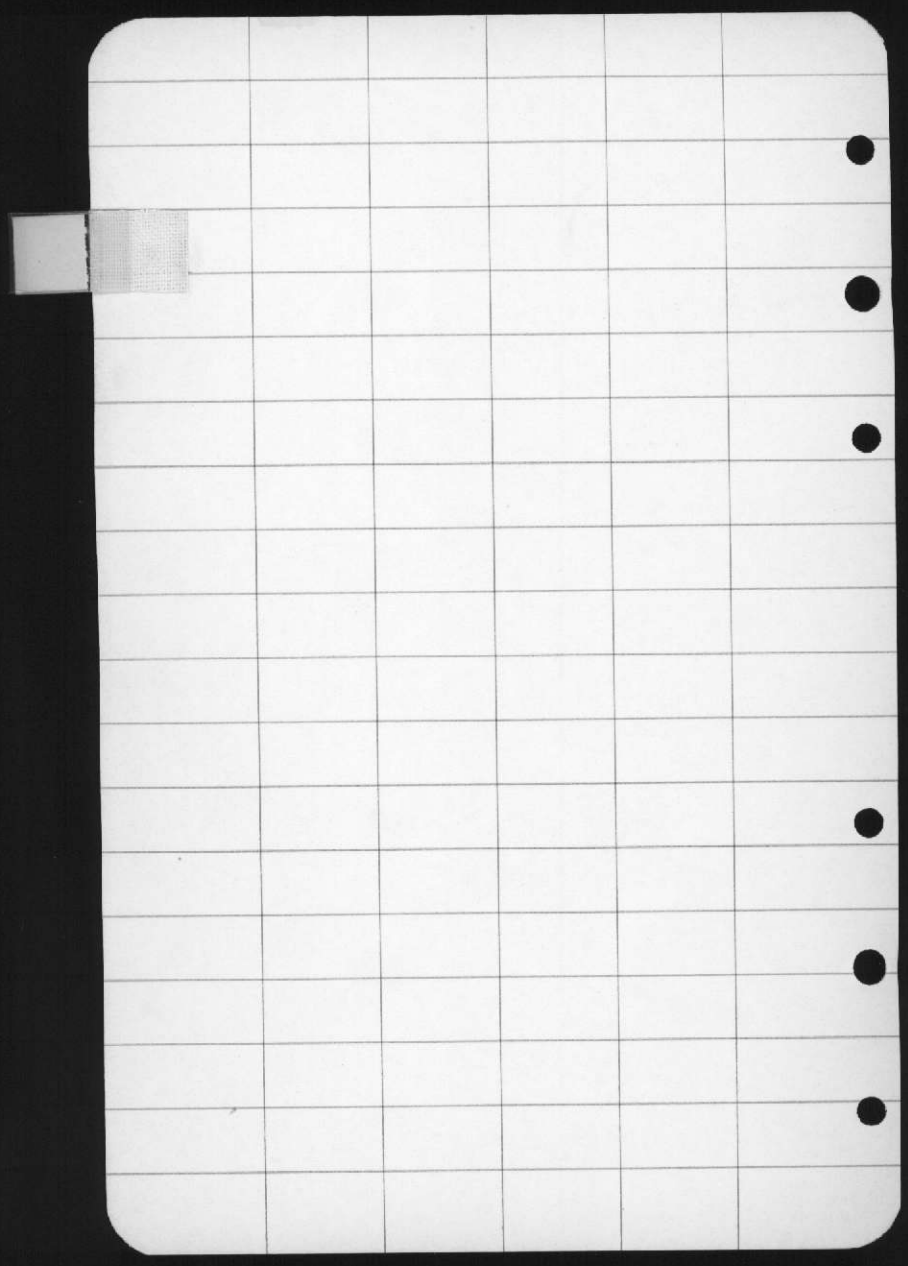


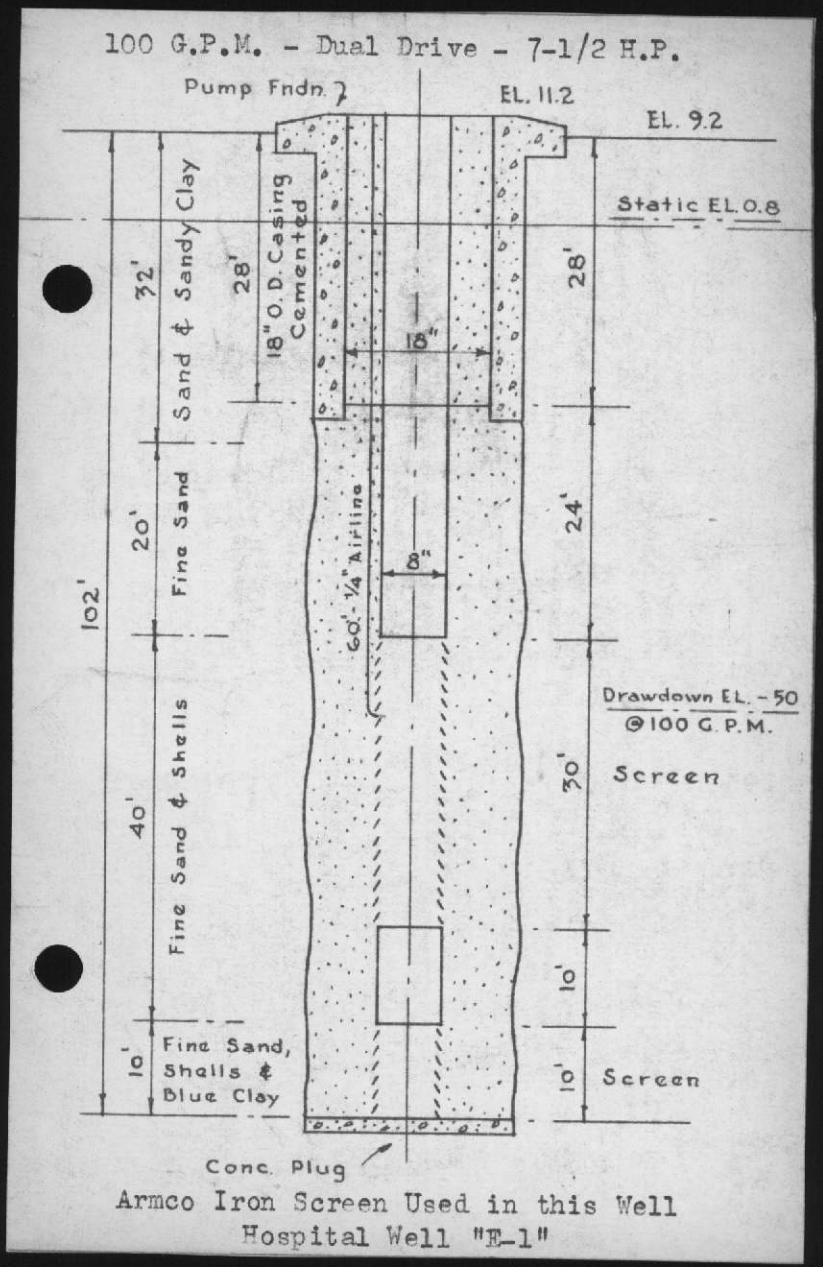
50 G.P.M. - SINGLE DRIVE - 2 H.P.



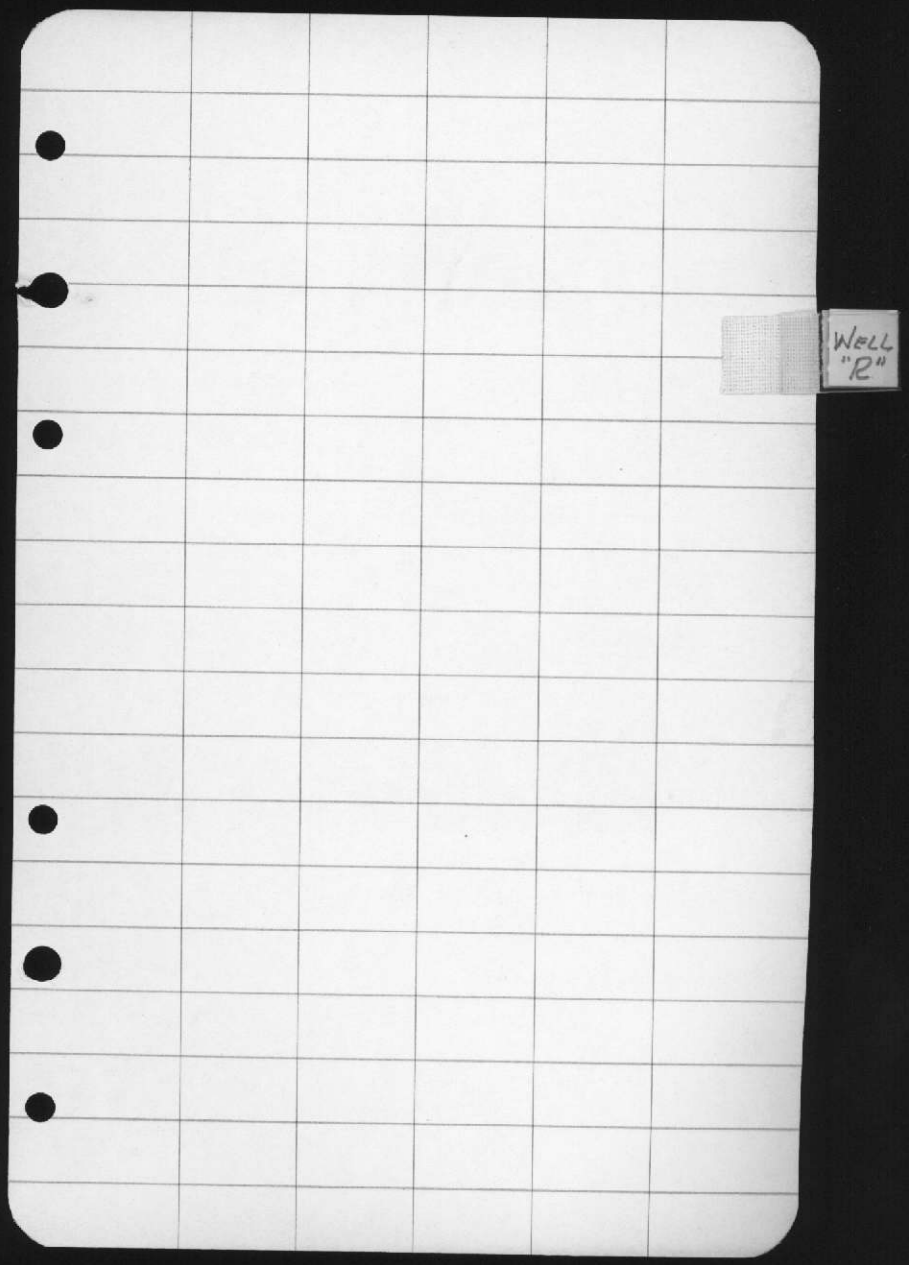
U.S.S. Mockup Well "X"

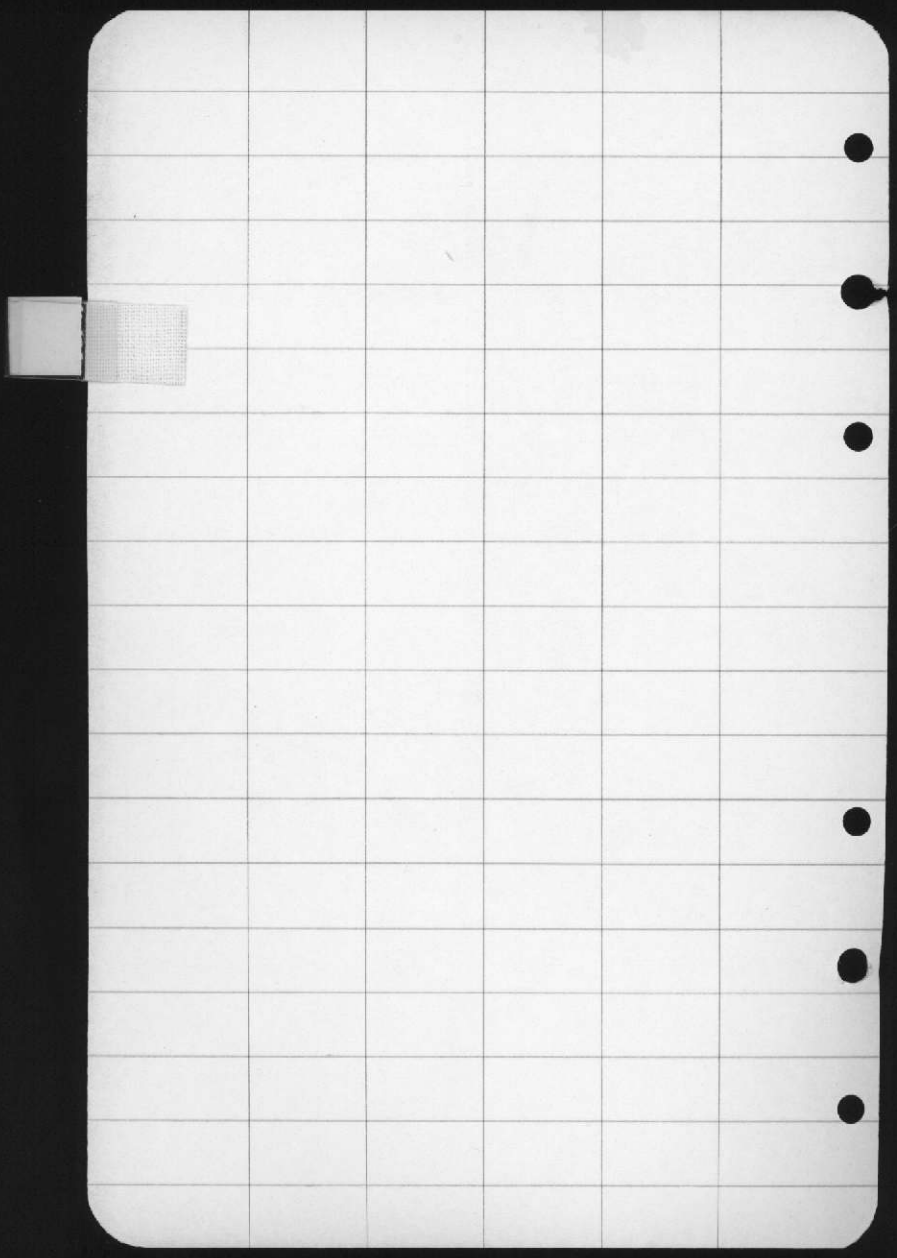

WELL
"E-1"

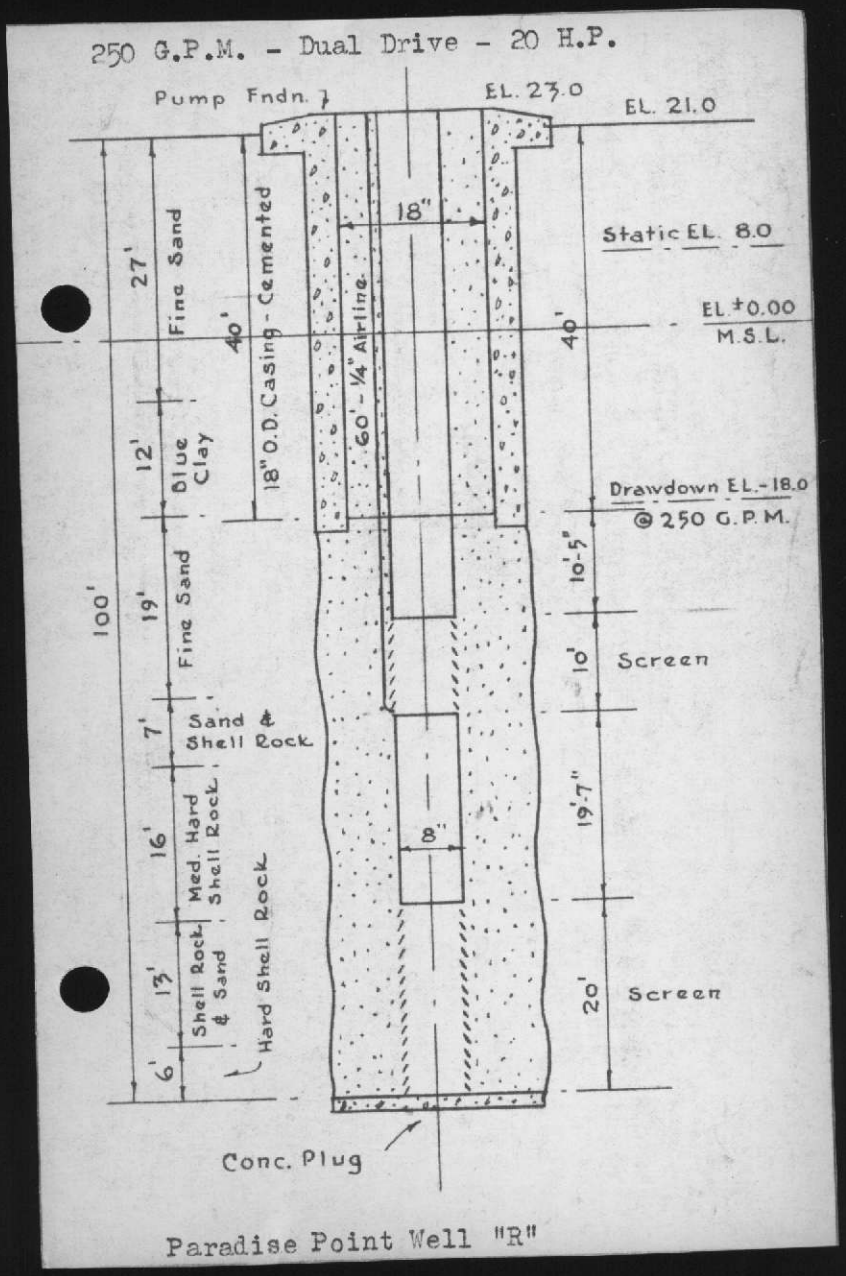




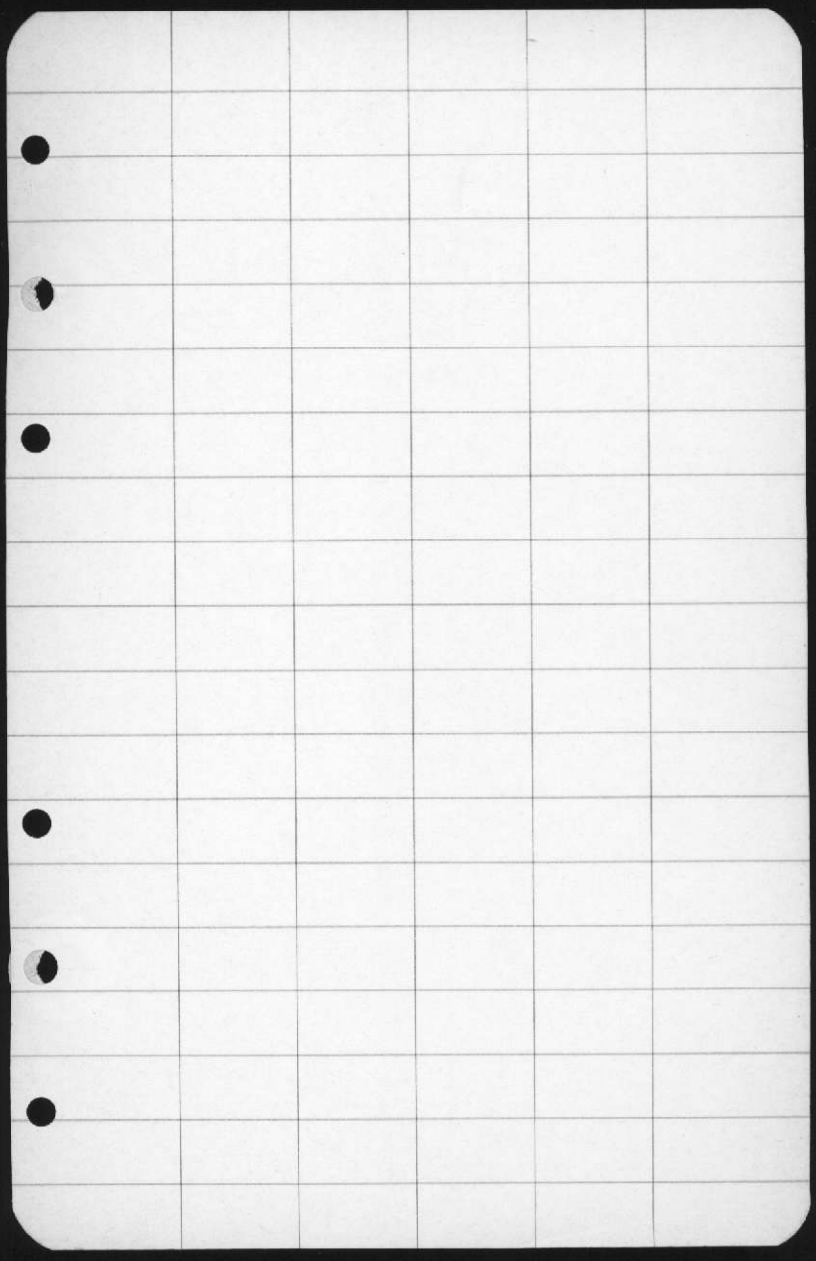
Armco Iron Screen Used in this Well
Hospital Well "E-1"

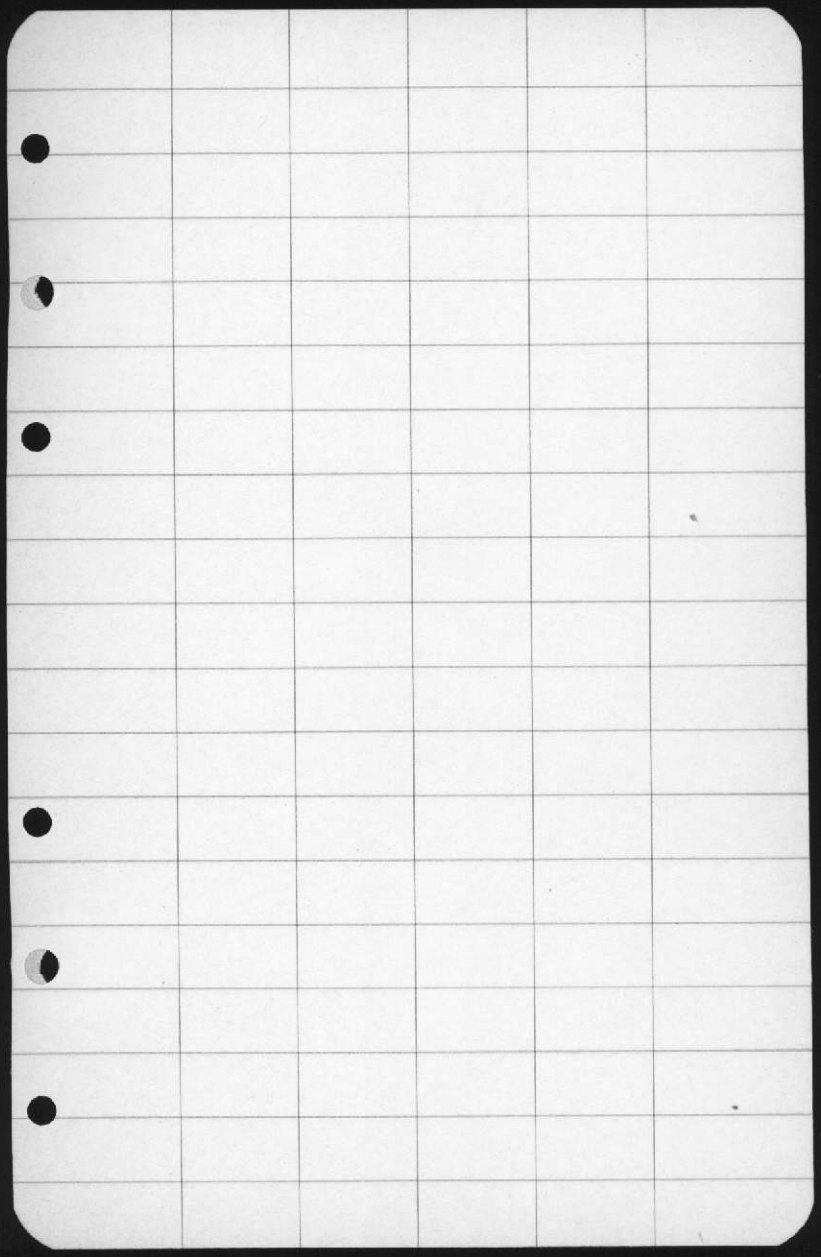

WELL
"2"

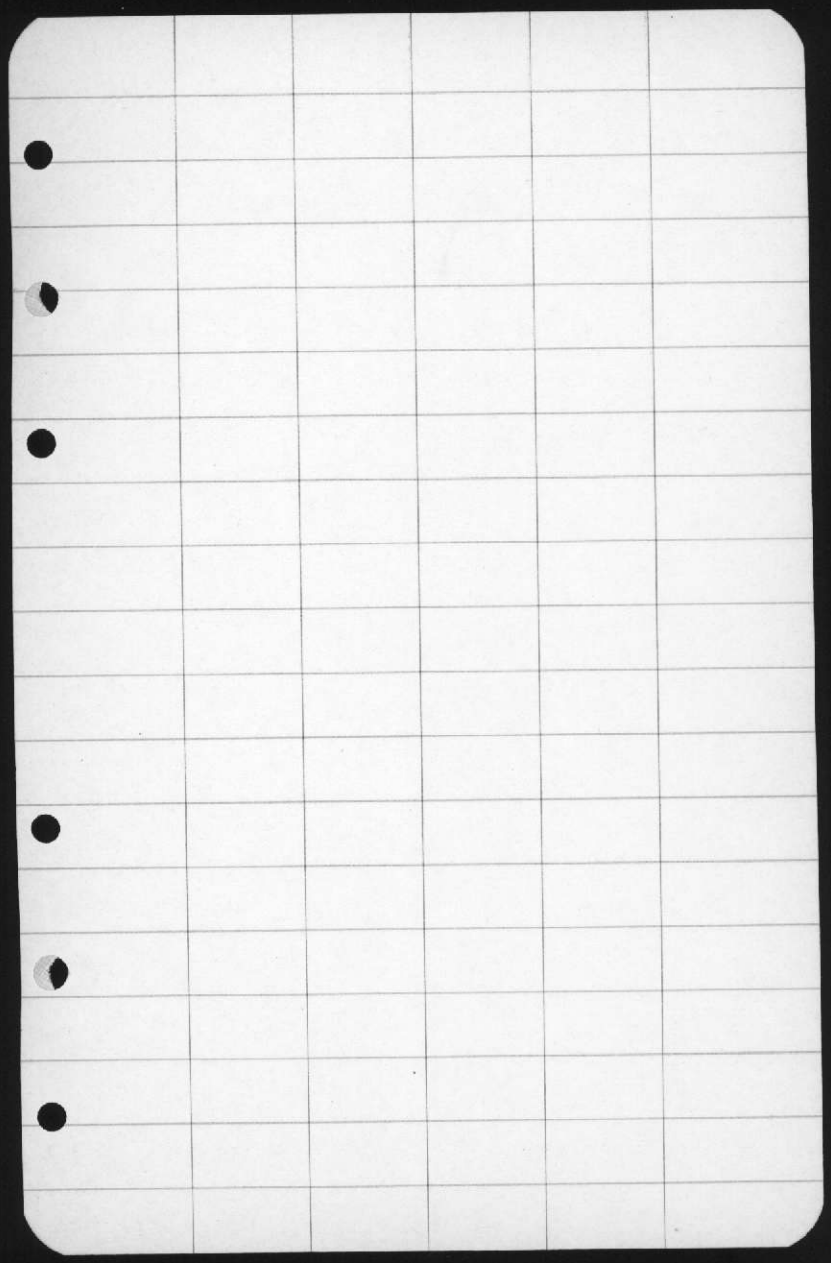


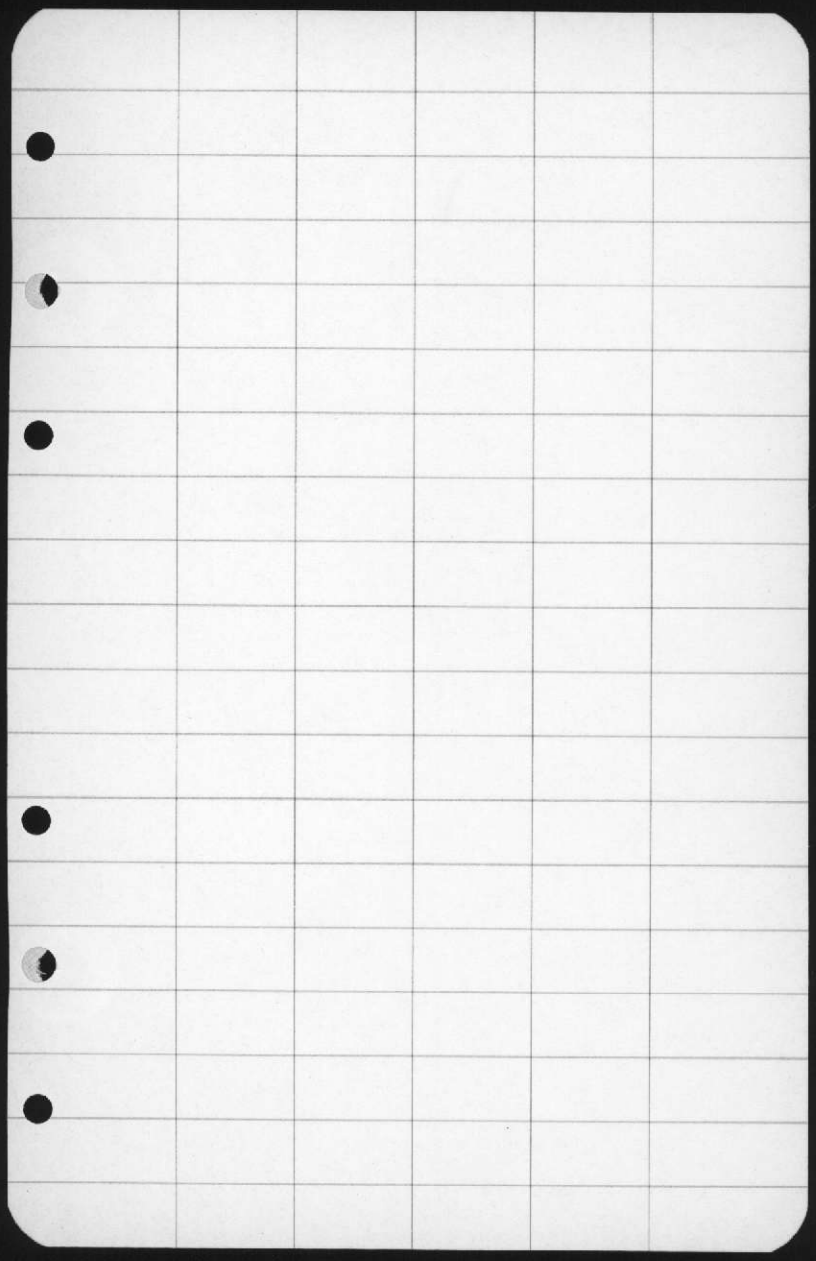


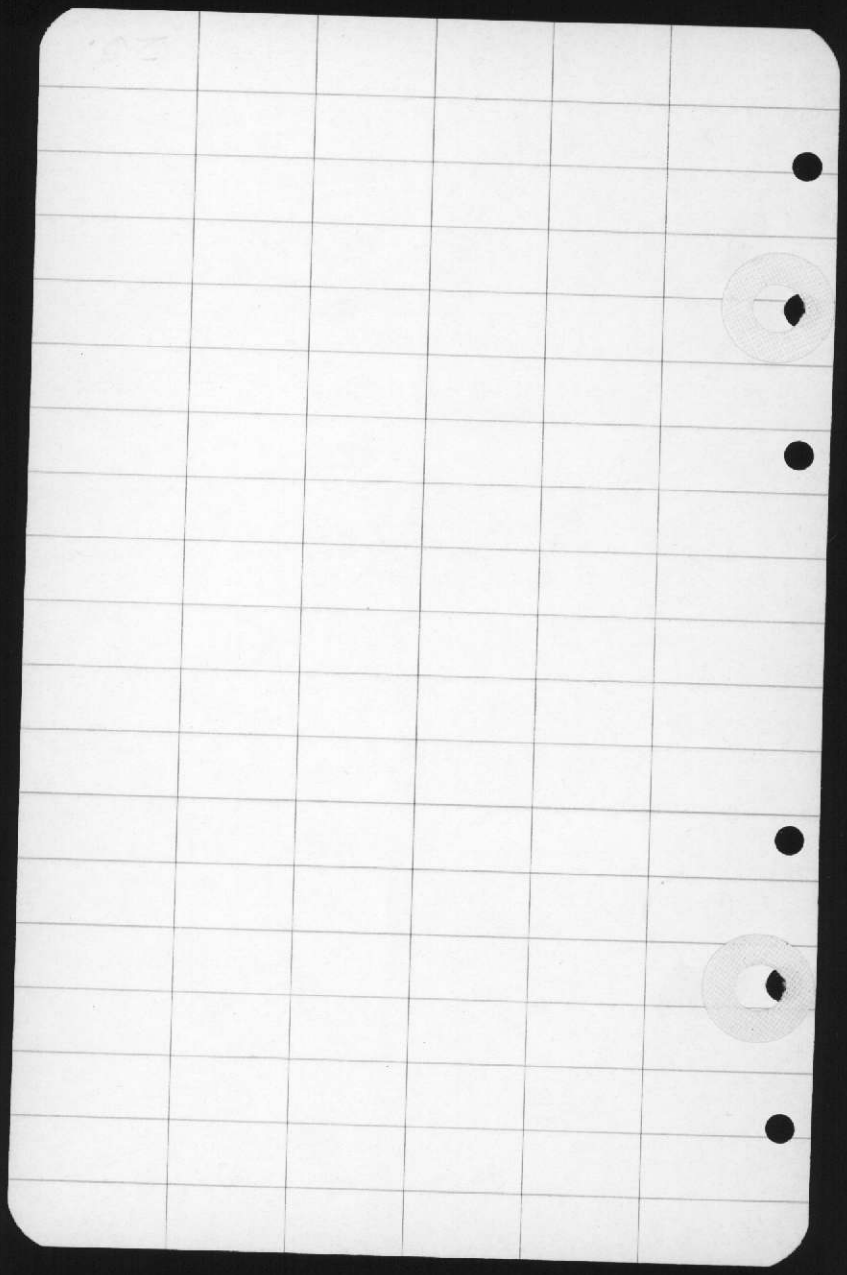
Paradise Point Well "R"

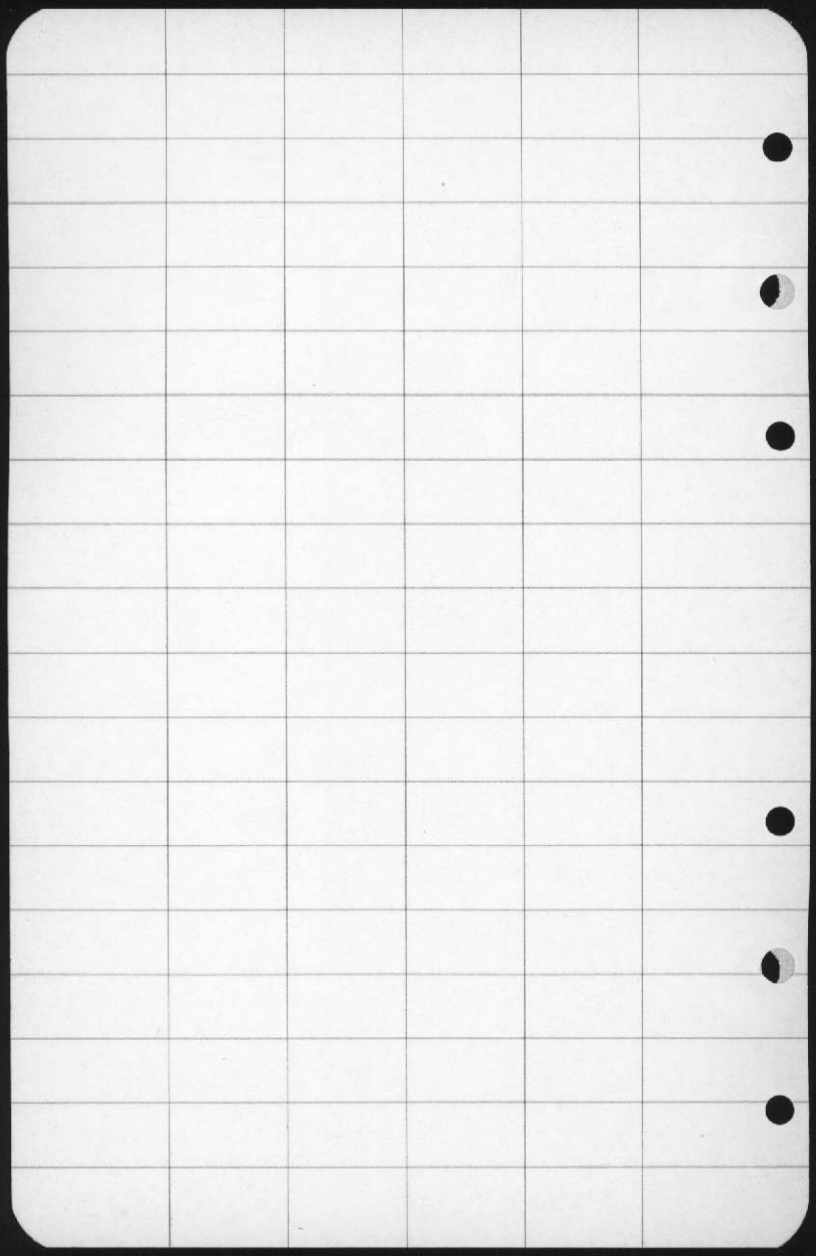


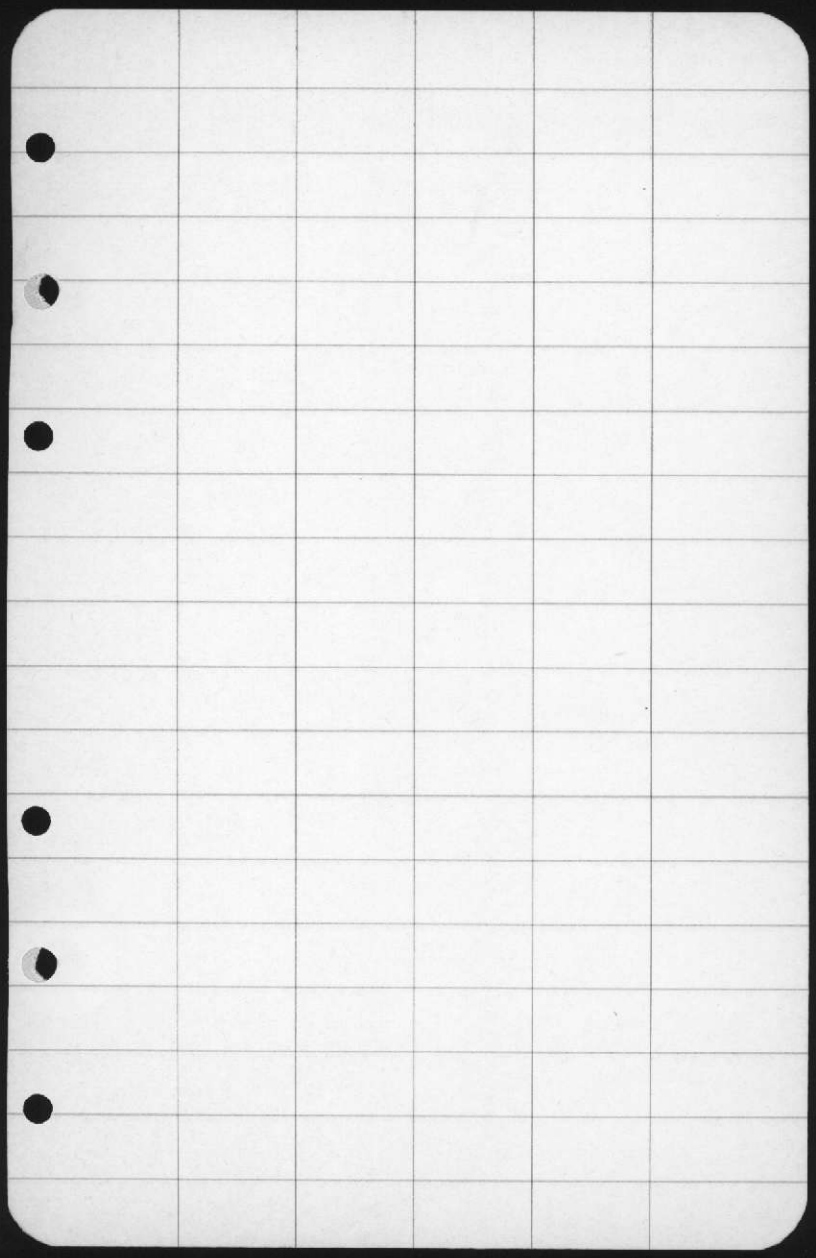


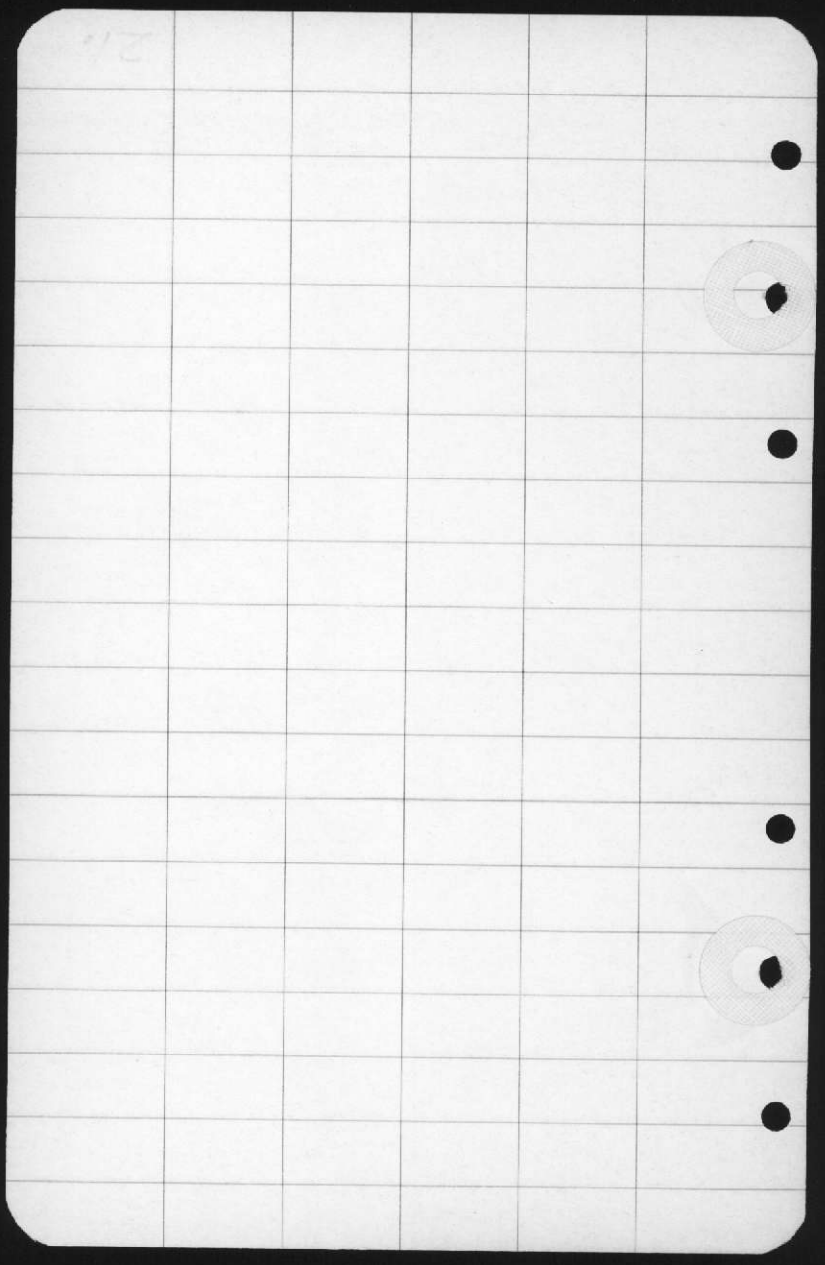


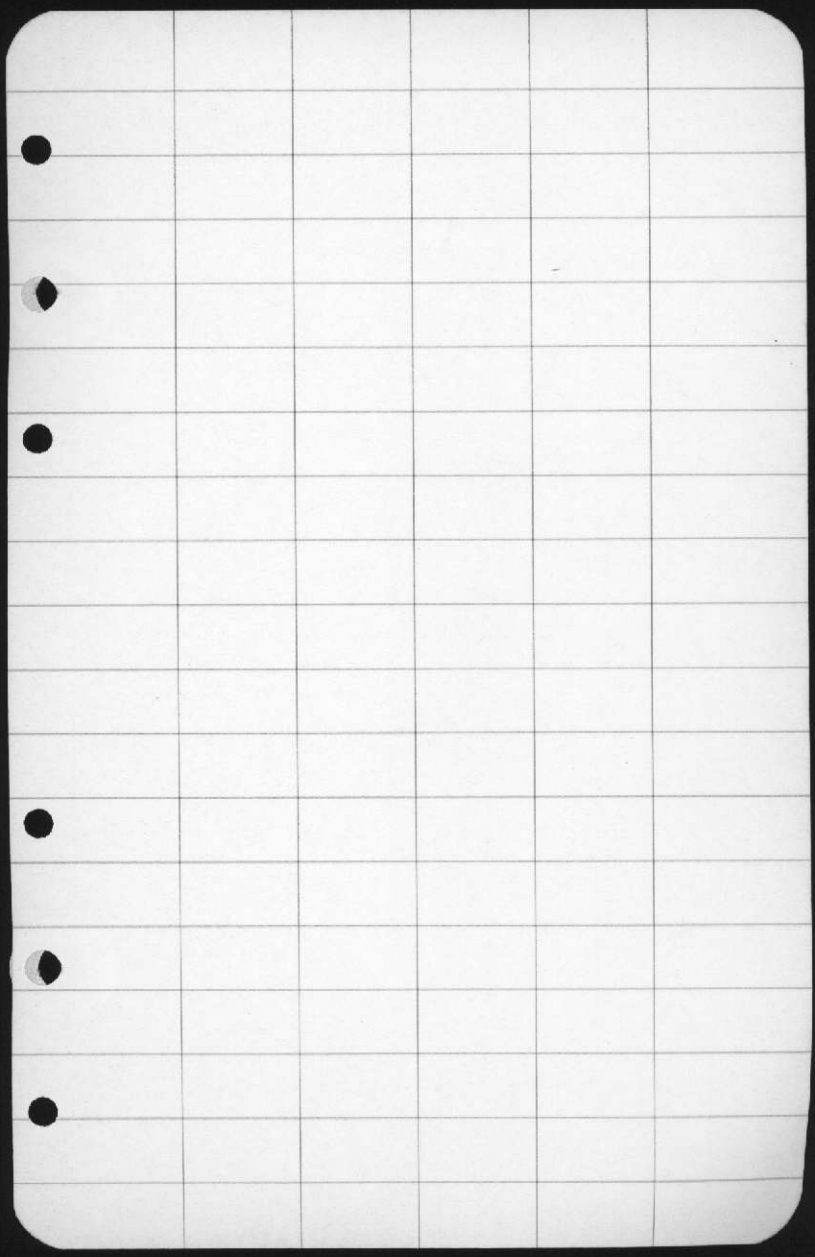


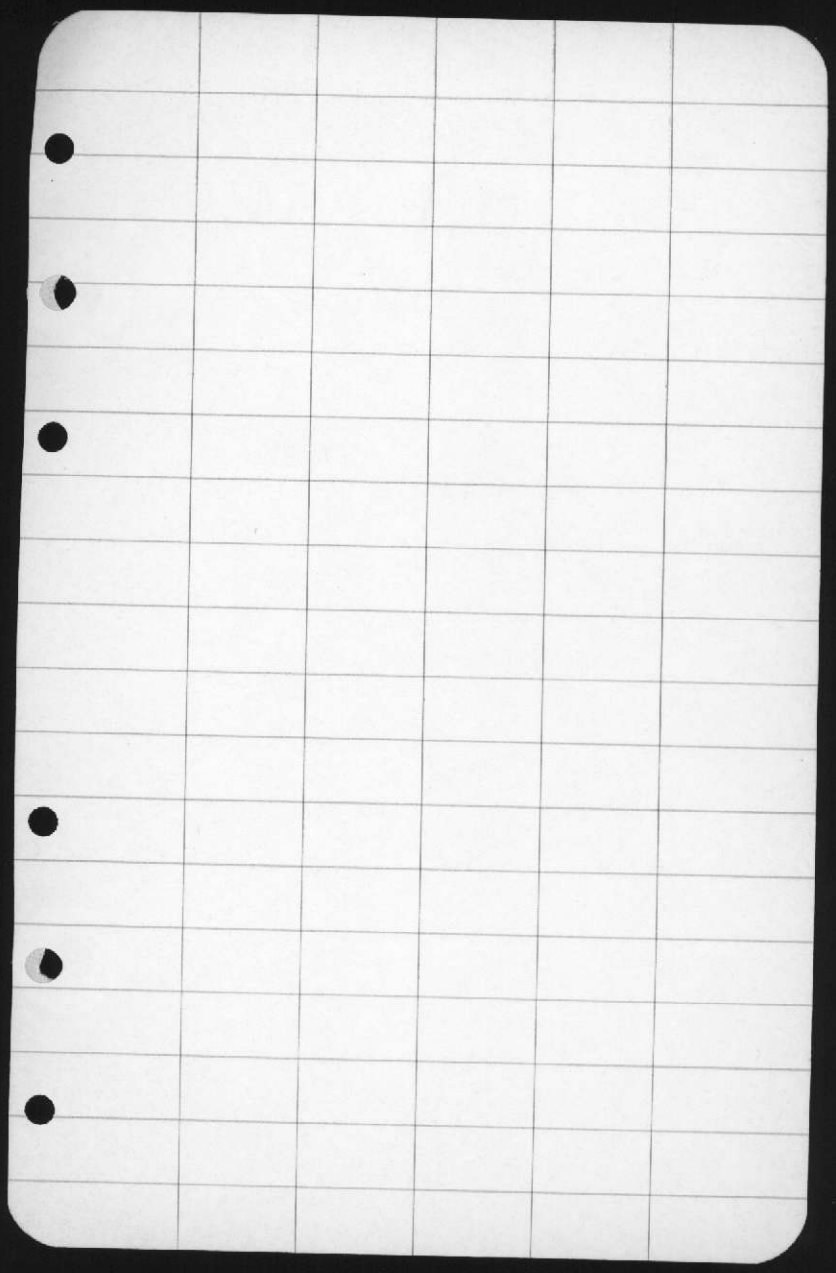


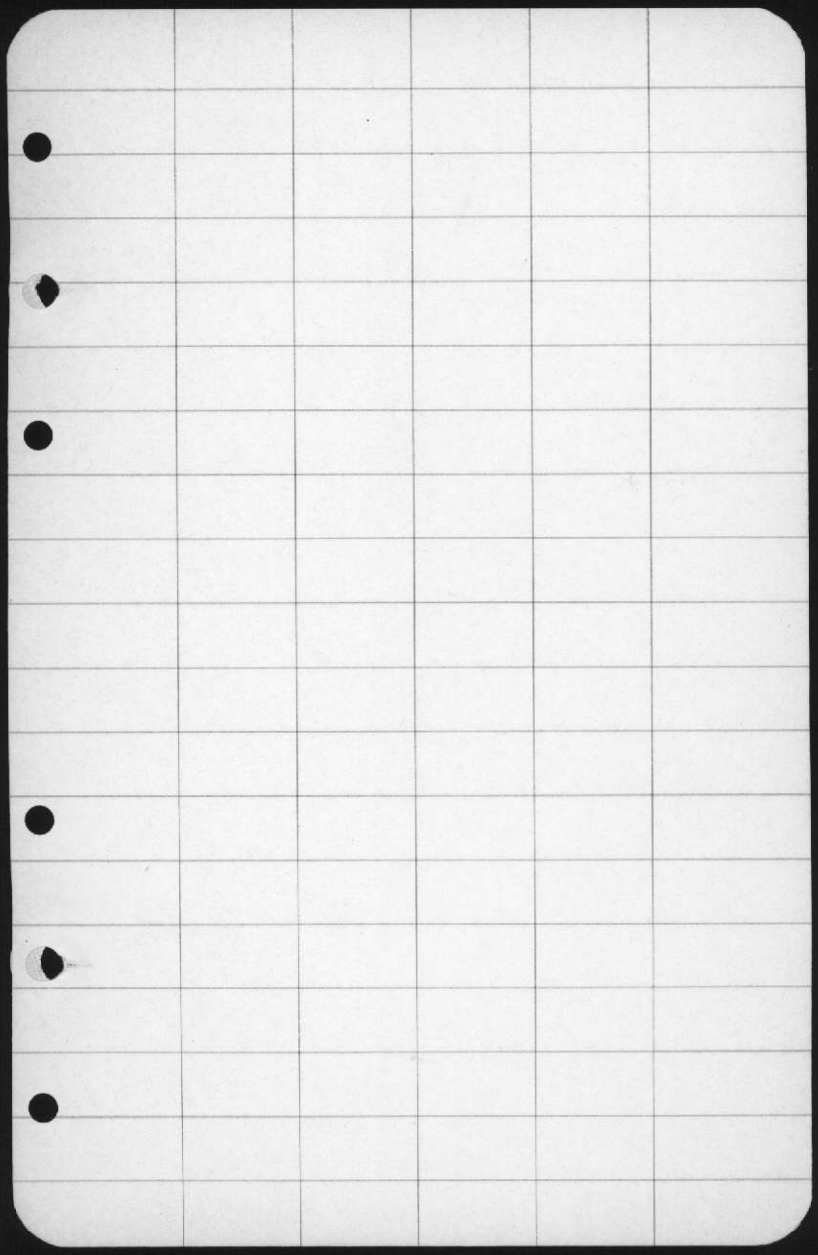


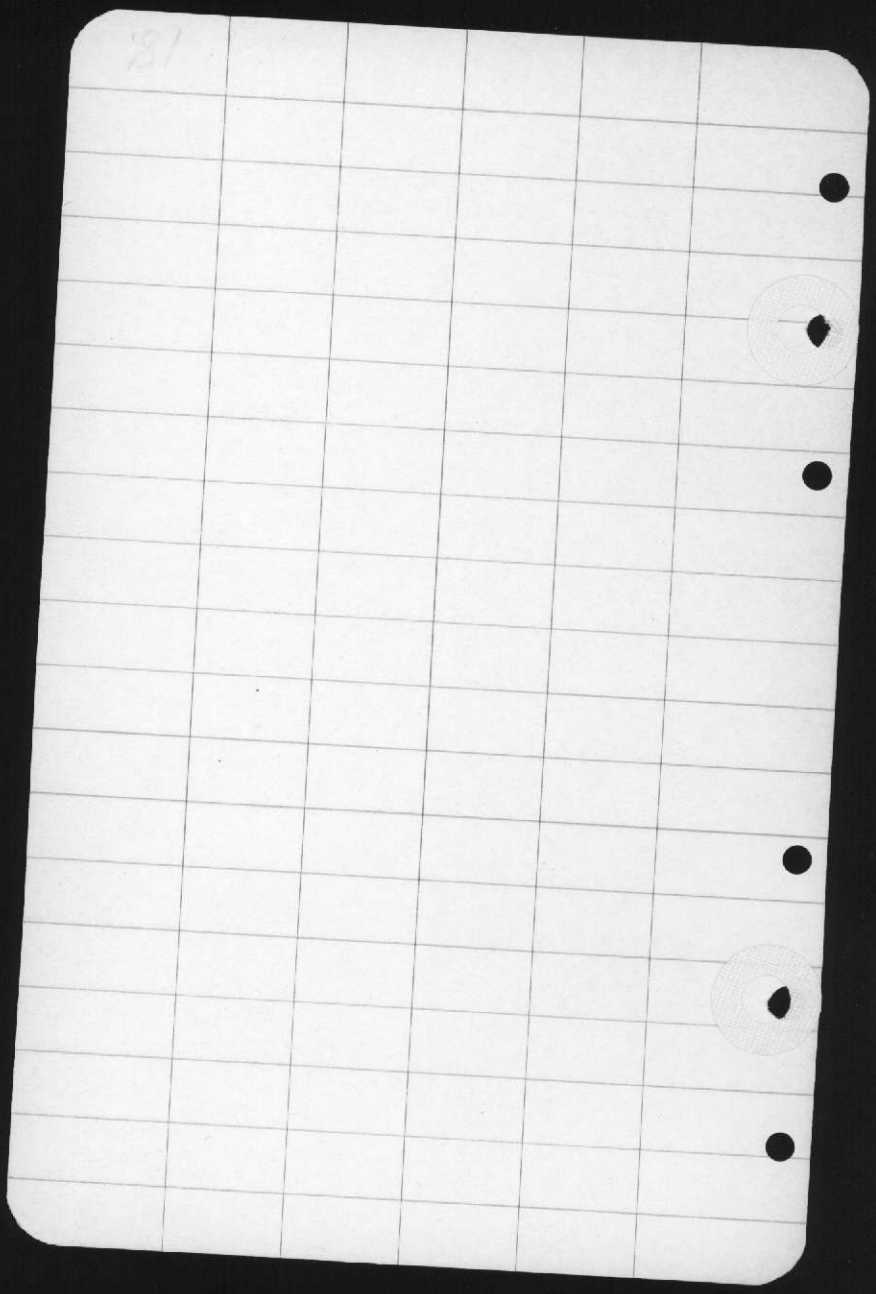


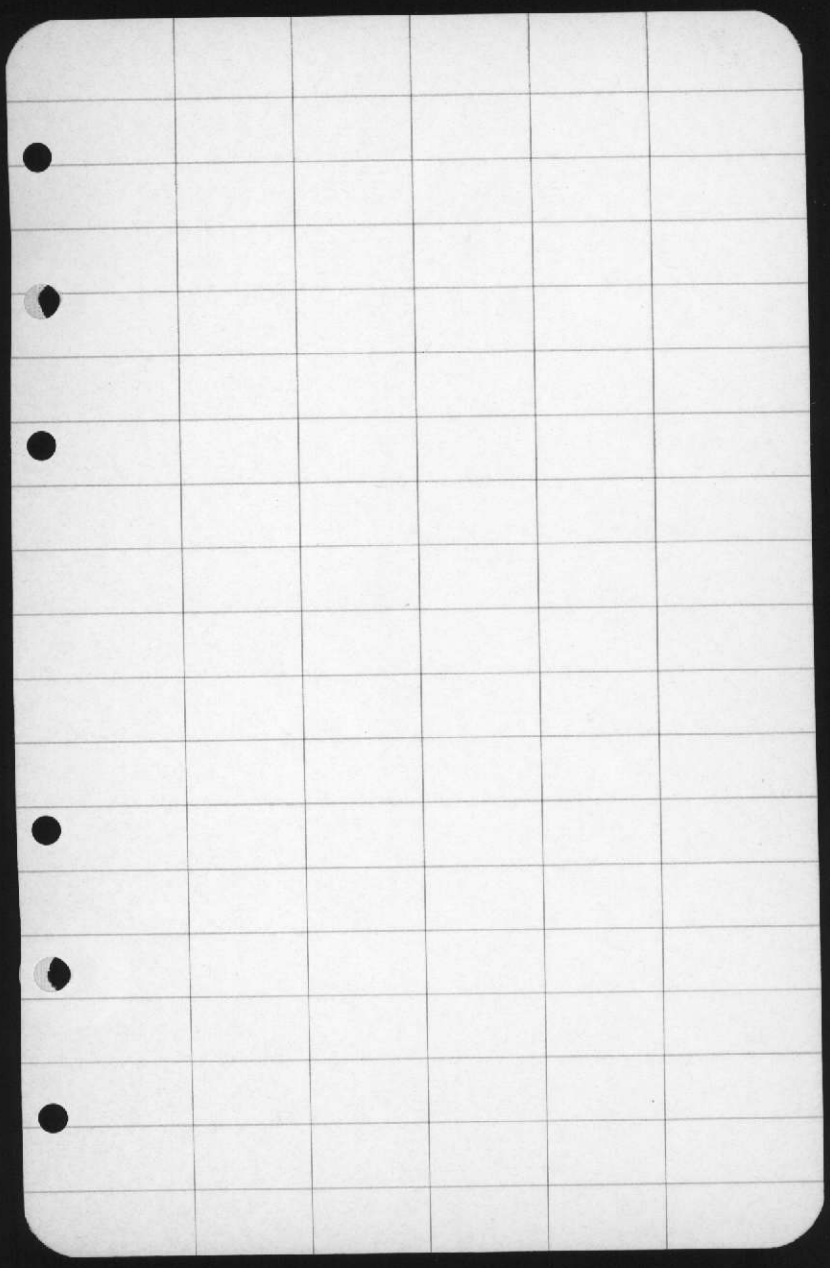


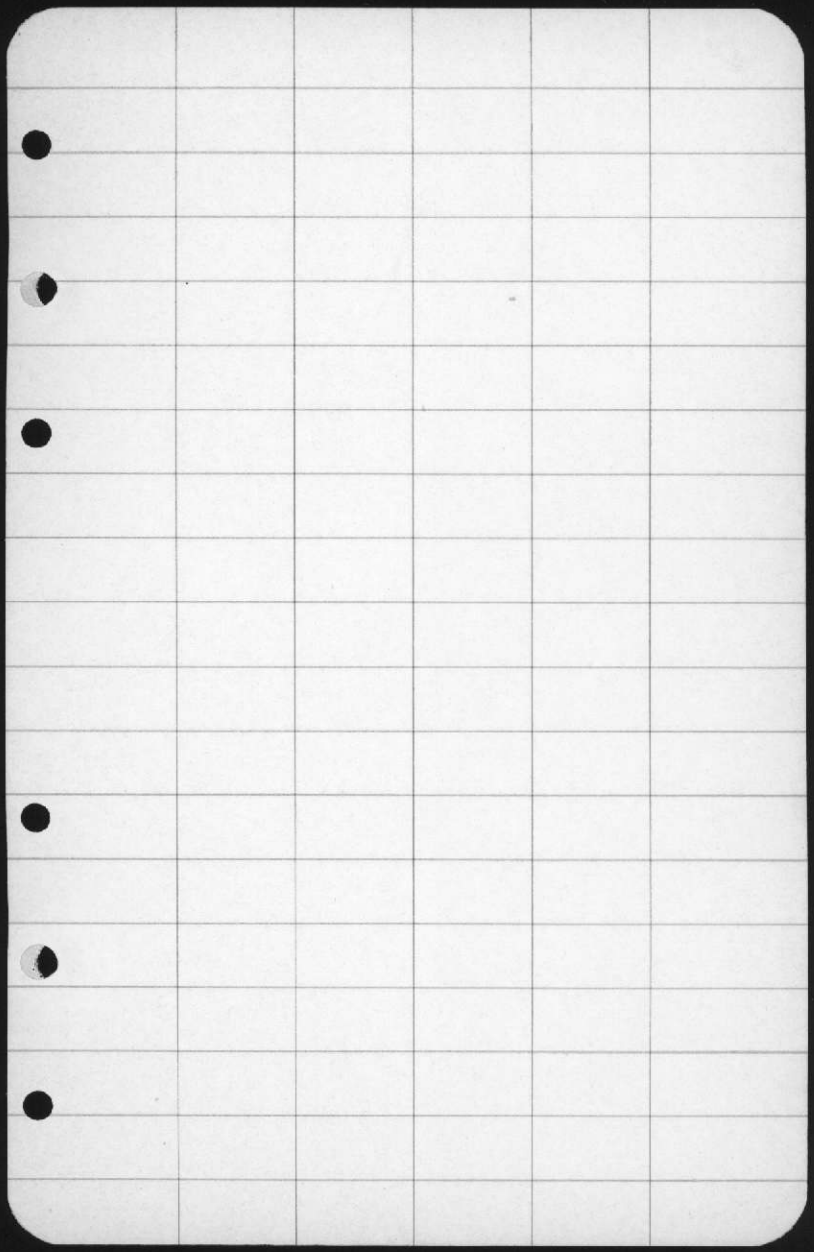


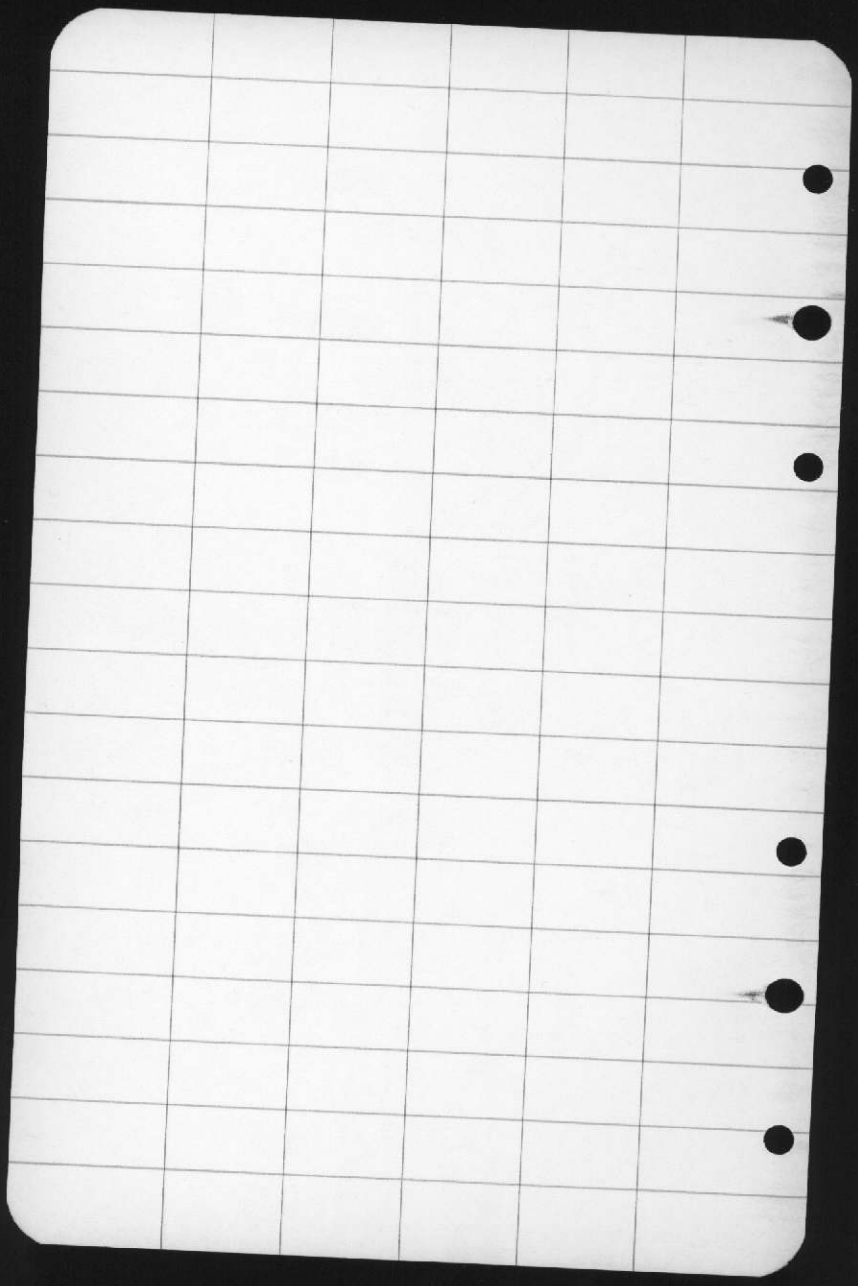


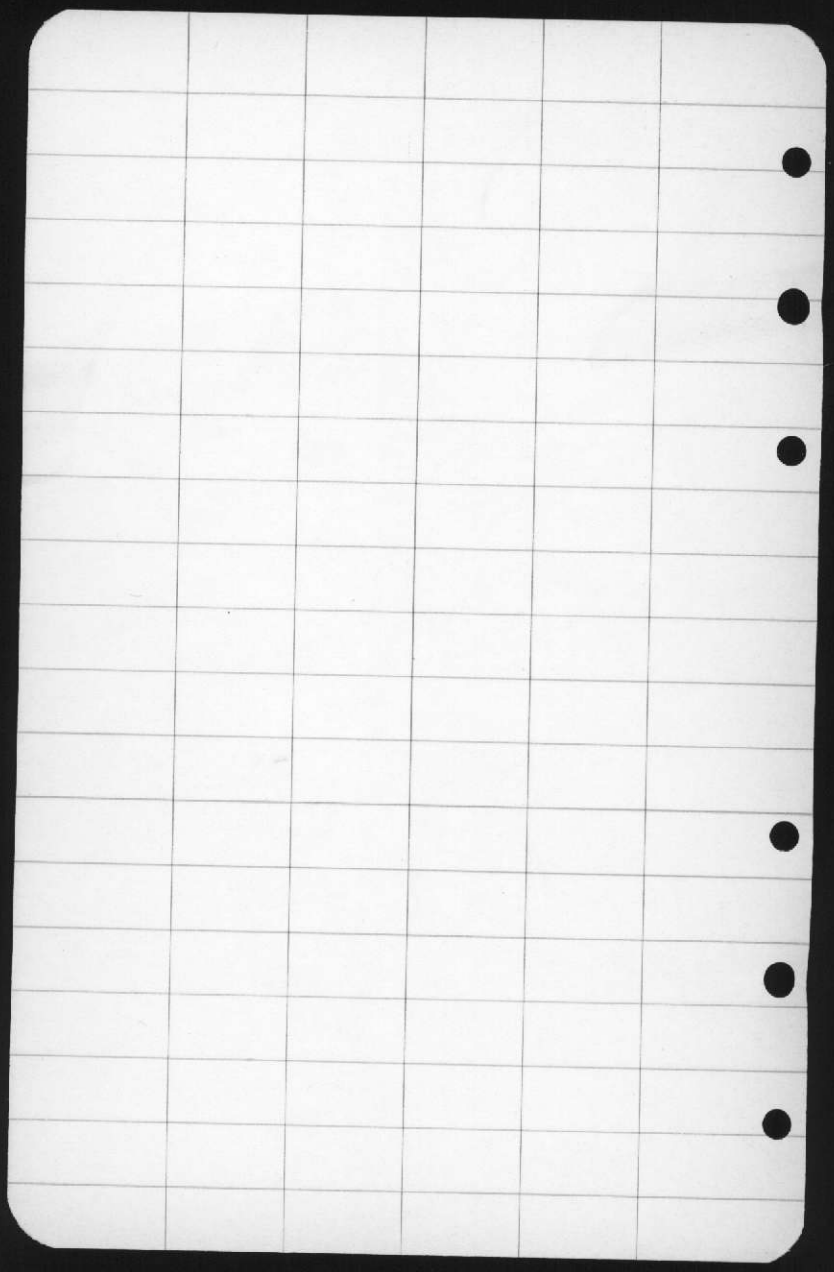


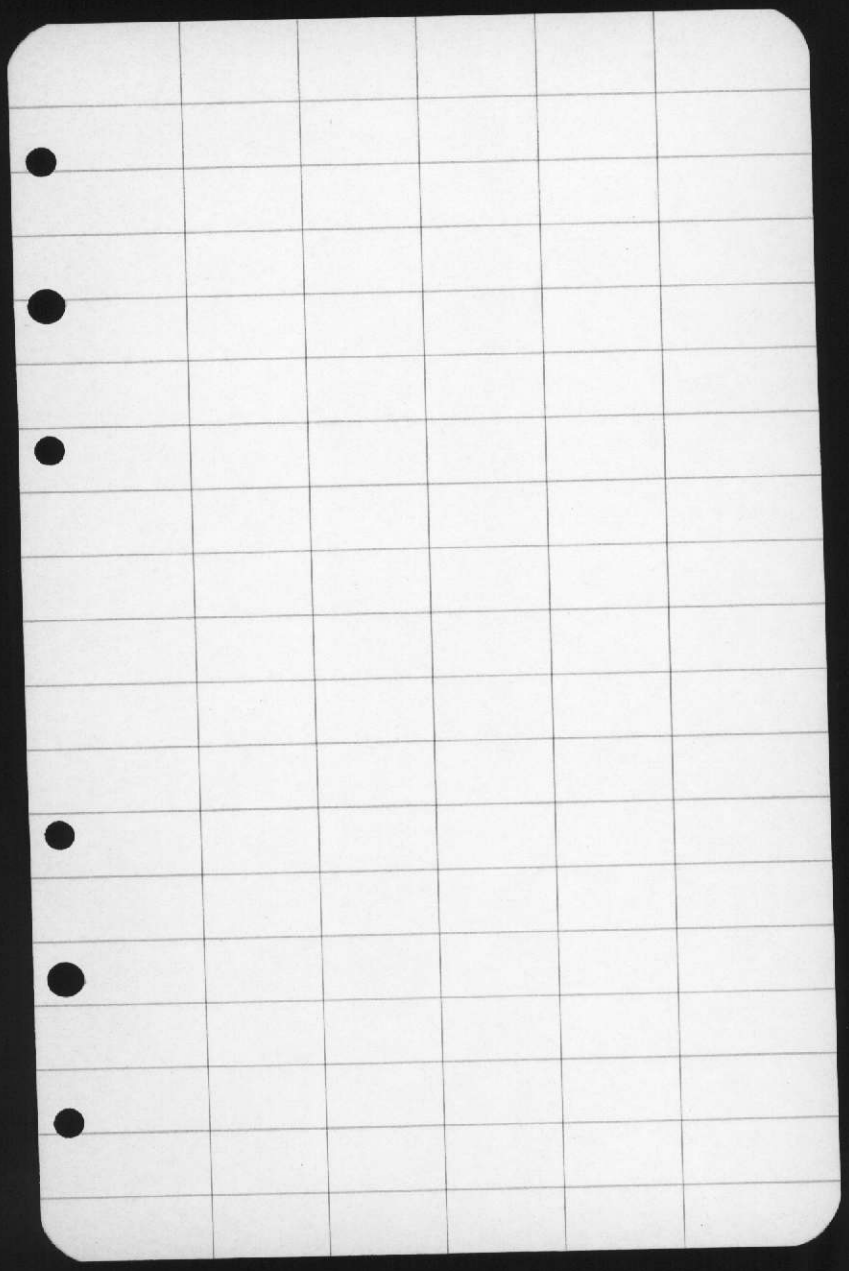


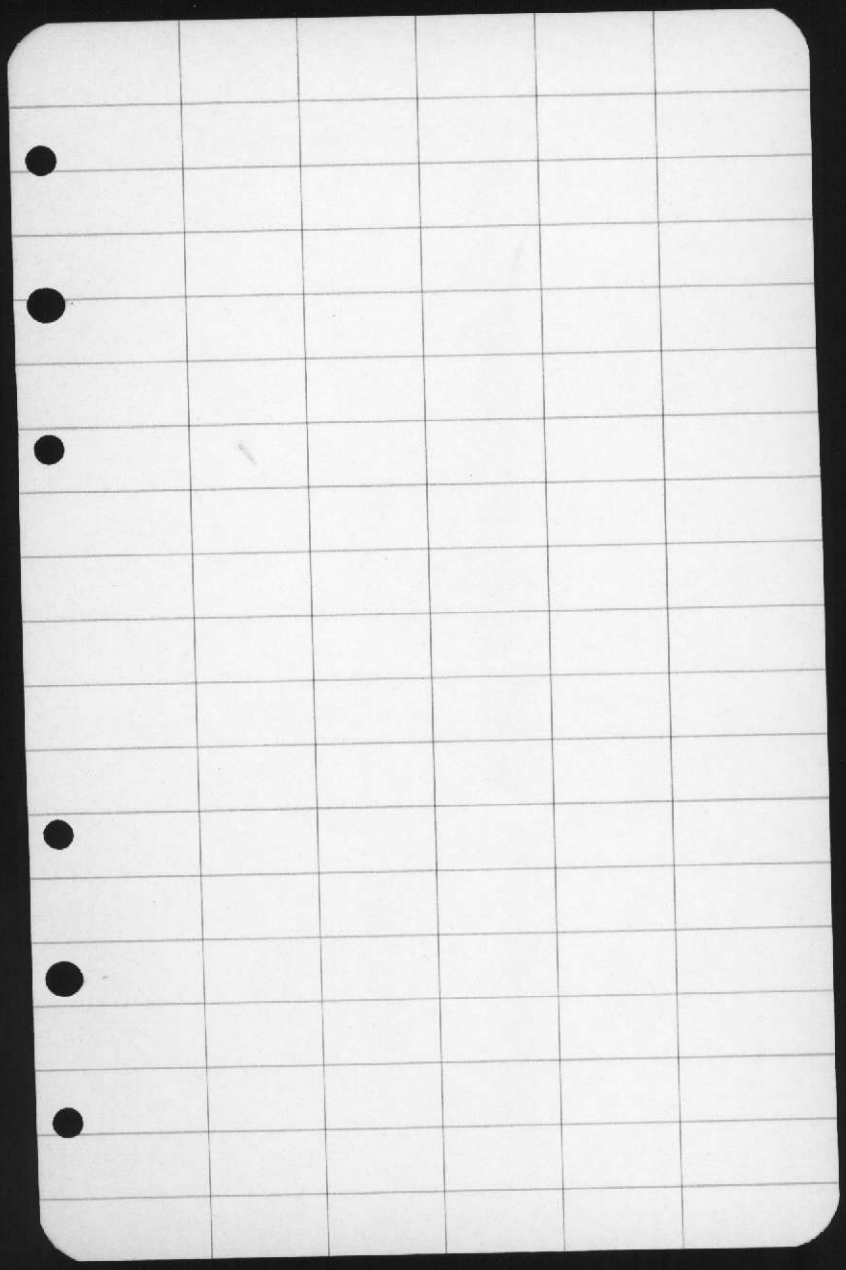


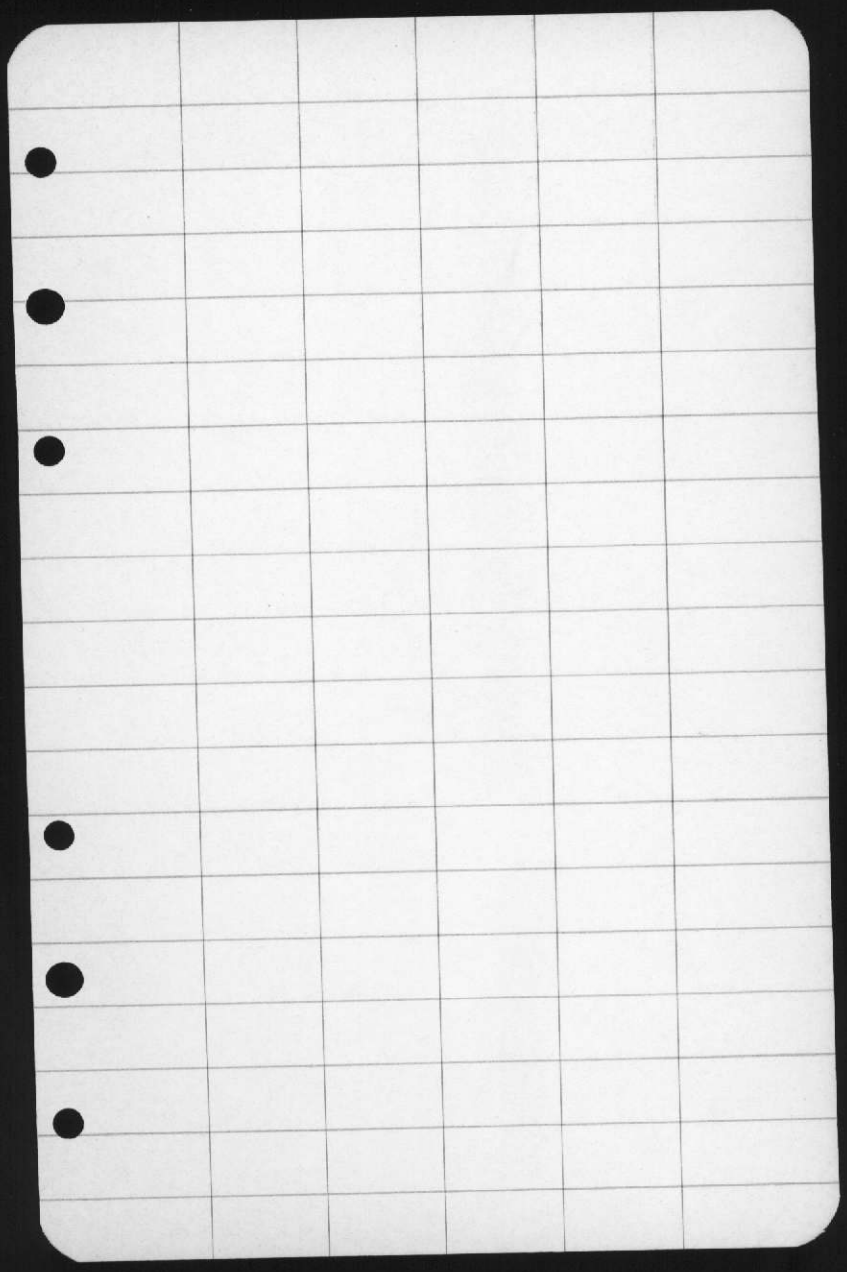


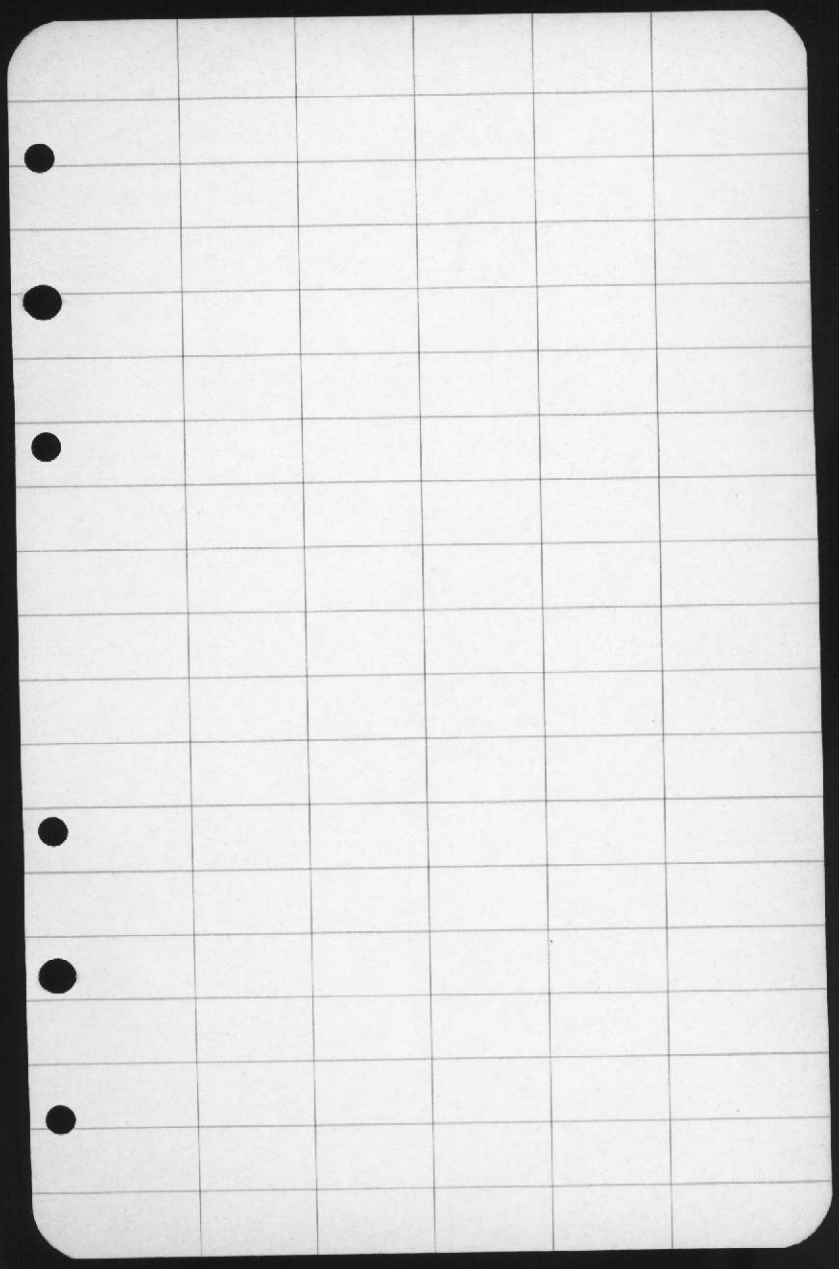


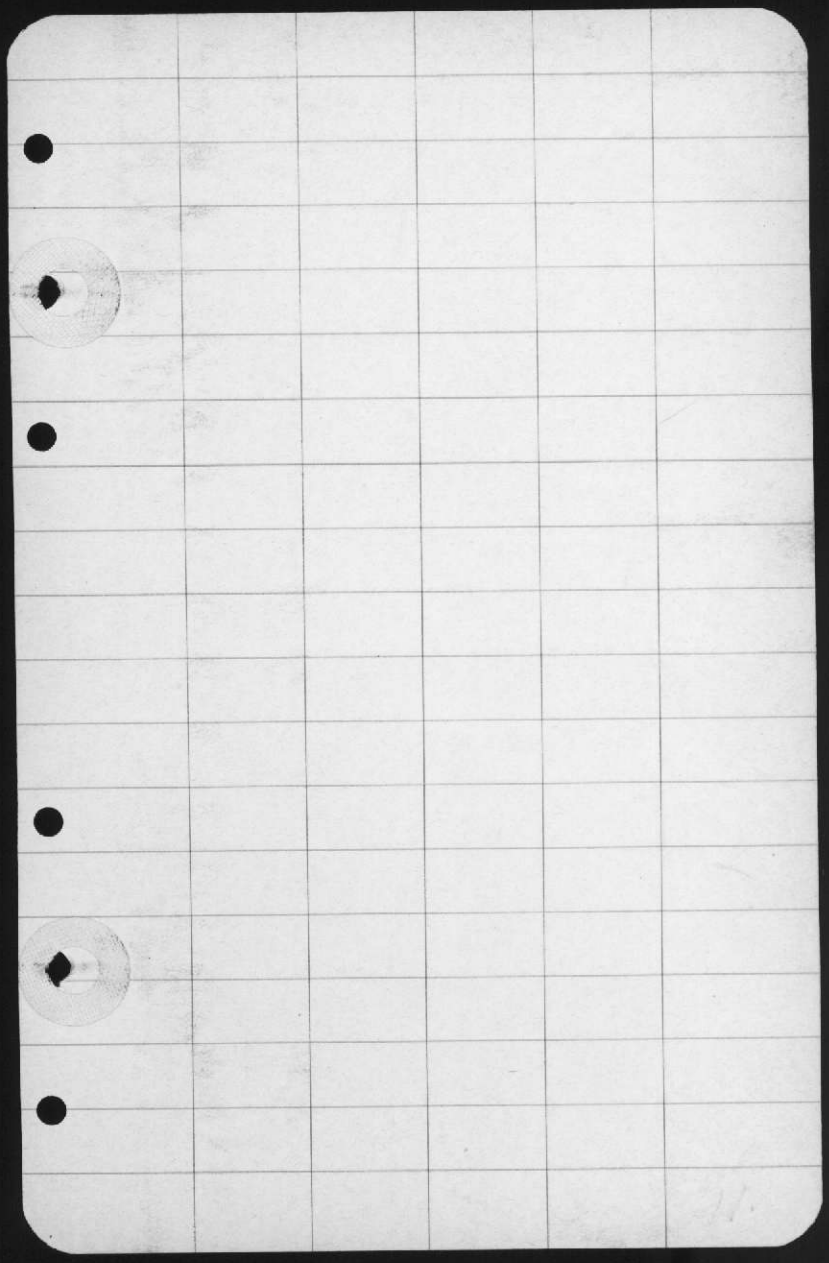


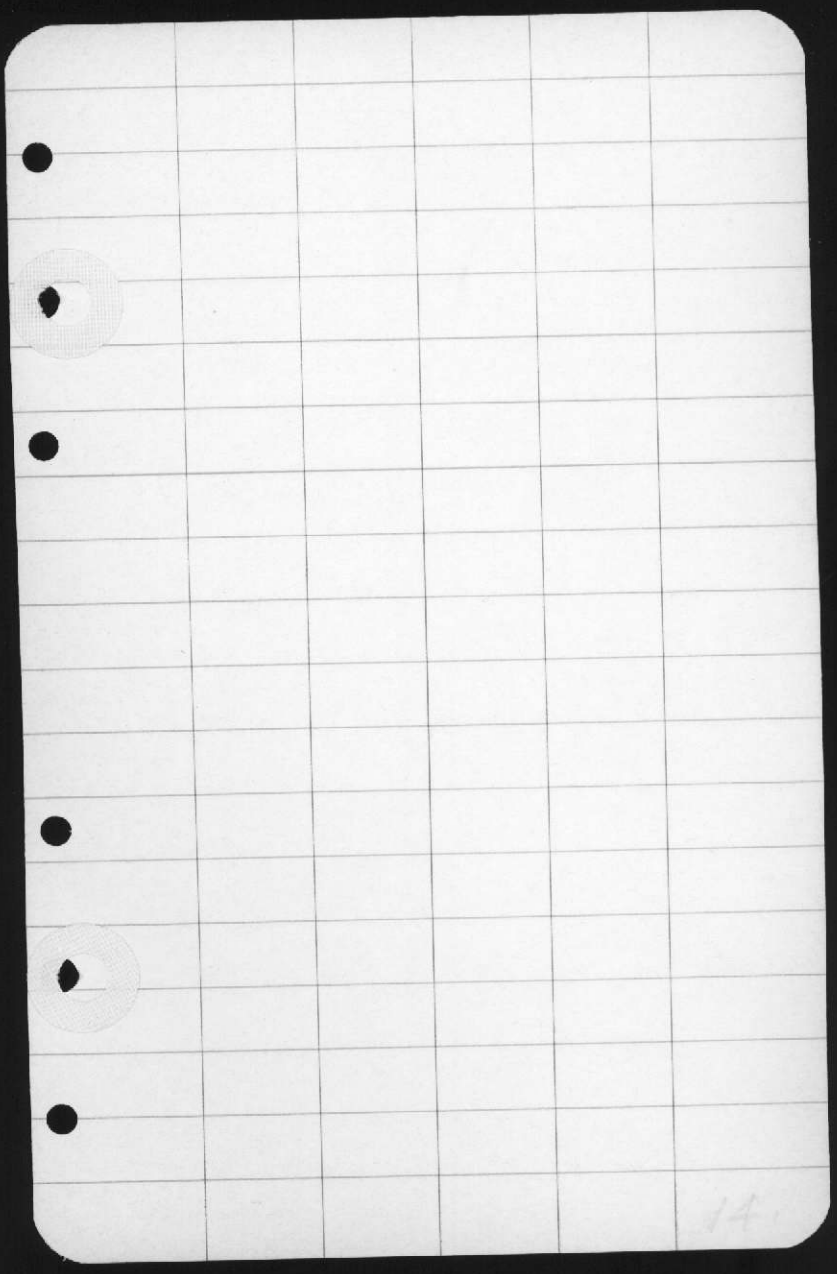








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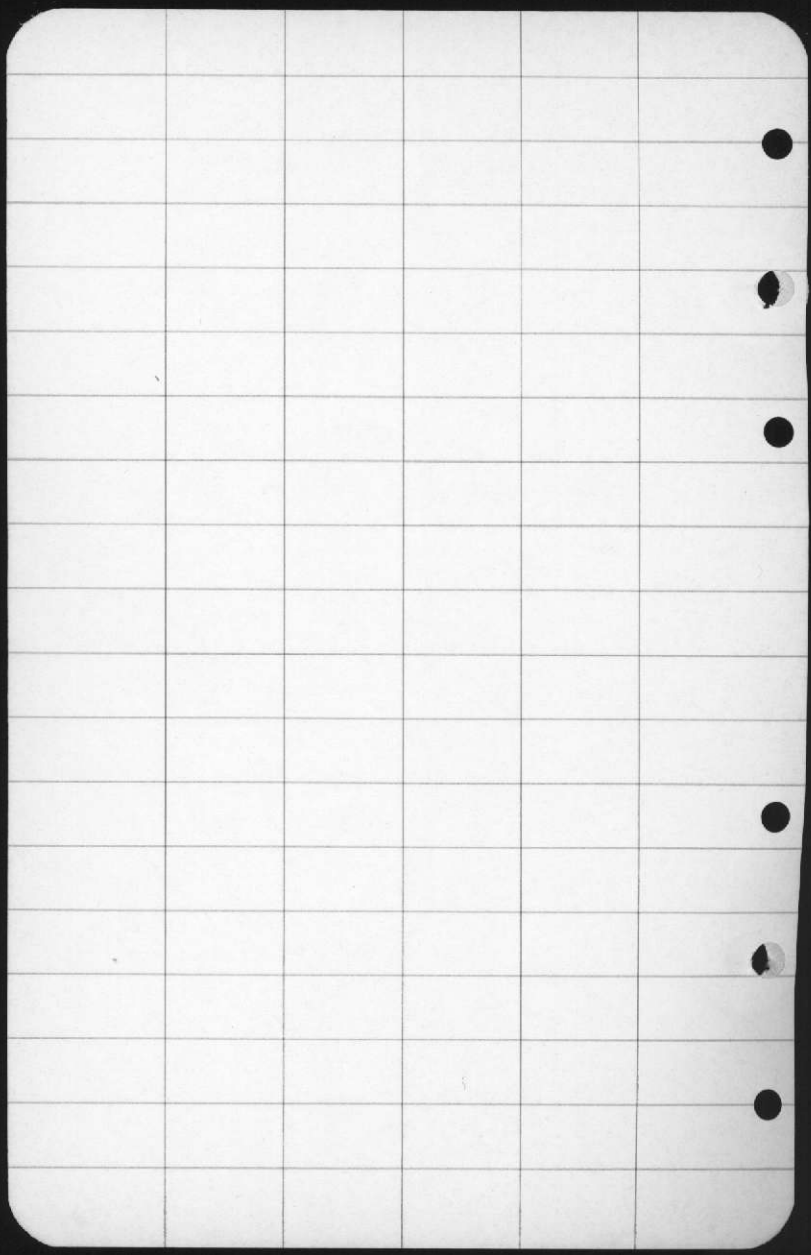



Tarawa Terrace Wells


Tarawa Terrace

15 May 1951

Tarawa Terrace

Temporary 4" Well.

0-70' Sand & Clay

70'-100' Shell rock with streaks of fine gray sand.

100'-185' Fine grained green Limestone (very soft)

185'-200' Green limestone with much sand & black material.

200'-265' Sand & Green lime (much black material)

265'-270' Sand & Green lime (some shell and fine bones.)

270'-280' Fine sand with much fine shell, bone and black material.

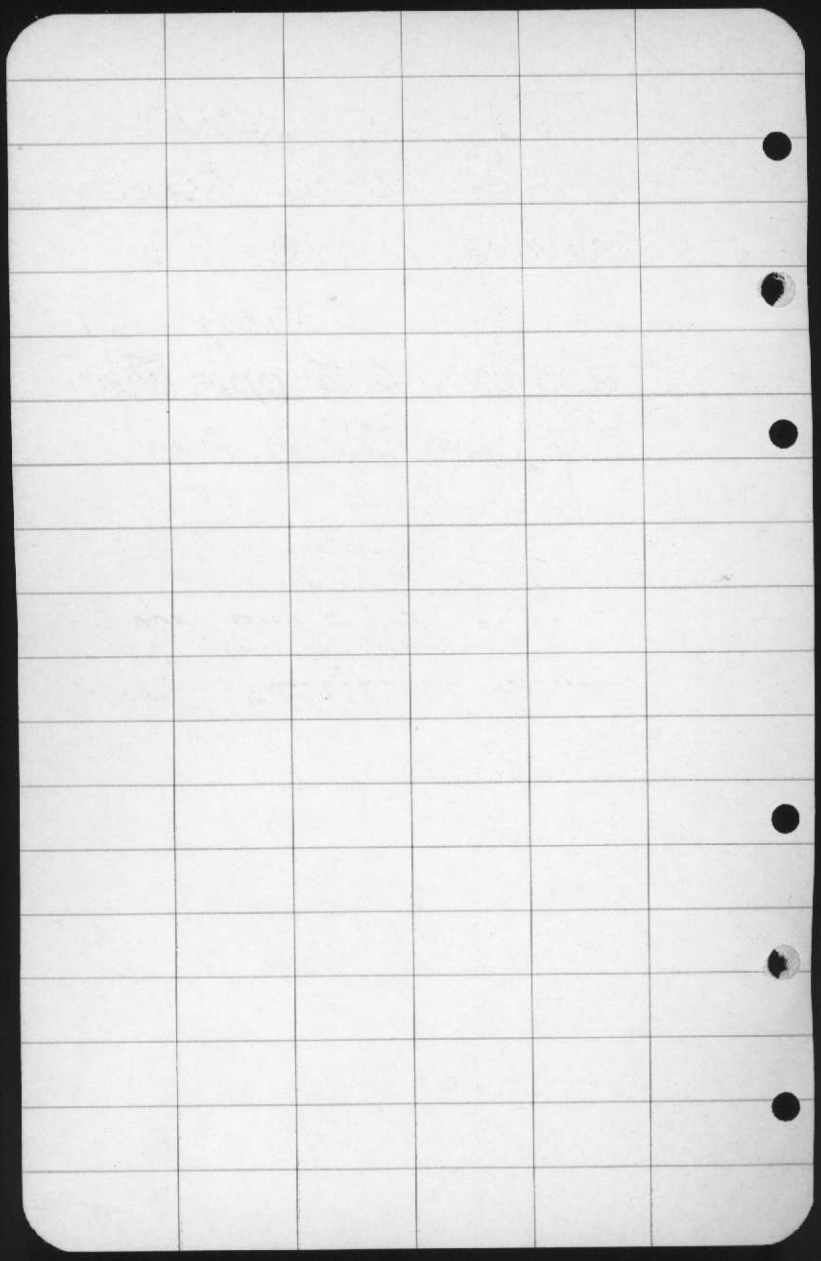
Temporary 4" Well

280'-294'? Fine green Limestone with much fine shell, bone and black material.

Temporary 4" Well

21 May 1951

4" casing down 268'
Driller tried blowing at 10:45 A.M. with air line down to 294'.
No water flowed.
Air line at 261' with 75 lbs. pressure.
Water came out in short spurts for about 15 min.
Thick green water.
Air line at 205', 75 lbs. pressure. Water clearing but strong odor of H_2S present. Approx. 30 gpm. Gallon sample taken for analysis at 3:30 P.M.



Analysis of water taken from Temporary Well (4") at Tarawa Terrace 21 May 1951 showed 415 ppm chlorides, 0.7 ppm. Iron and strong odor of H_2S.

16 May 1951

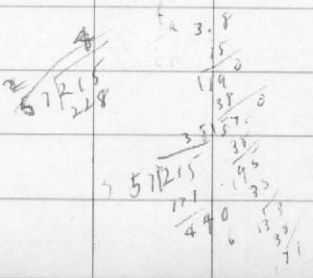
Tarawa Terrace - Well No. 1

0-20' Sand + Clay
20-70' Fine gray sand
70-85' Soft shell rock (Much water)
85-87' Fine gray sand
87-108' Hard shell rock
108-125' Fine gray sand
125-145' Fine grained blue-green limestone
145-180' Coarse sand (some shell)

8" Casing to 91'
Static level 20' (below surface)
Surface El. =

#1

#1



Driller started pumping with gasoline engine at 10:30 A.M. 18 May. Pumped approx. 200 GPM for 5 hours drawing a large volume of fine sand. Pump pulled after 5 hrs. and well filled with coarse gravel up to 86' level.

19 May 1951

After pumping continuously for approx. 24 hrs. water was clear. No sample taken at this time for Analysis.

Pumping Rate 215 GPM
Draw down 57'

The pumping rate and drawdown were not checked by this organization but merely as stated by the driller.

R. E. Peterson
Public Works

Sample of water taken from this well for analysis 31 May 1951.

REP

22 May 1951

Tarawa Terrace - Well No. 2(a)

0'-12' Sand & clay
12'-18' Fine gray sand
18'-21' Sand & yellow clay
21'-50' Fine gray sand
23 May 50'-65' Fine gray sand (some shell)
65'-68' Soft shell roc
68'-72' Fine gray sand (some shell)
72'-85' Soft shell rock (much water)
85'-92' Hard shell rock
92'-125' Fine grained green Limestone. (very soft)

Casing at 73' below surface. 4.

#2(a)


#2(a)

24 May 1951

Driller started pumping with gasoline engine at 11:30 A.M. with gravel in well to approx. 80' level. Sample taken for analysis at 3:00 P.M. Water did not clear up after pumping all night. Drawing large volume of fine sand.

25 May 1951

9:30 A.M. Driller is driving 8" casing deeper as he thinks sand is coming from above.

5.

29 May 1951

Driller drove 8" casing to 93' and drilled well on down to 130'. He commenced pumping 26 May and continued for 48 hrs. drawing large volumes of fine gray sand and approx. 200 G.P.M.. At this date (29 May) driller was given permission to move this well approx. 150' north along railroad R.O.W. and drill into the first strata of shell rock encountered. Upon reaching the first strata of shell rock

5R

it is the drillers intention to set a 10" pipe, containing a precast screen, into said strata and try to develop 200 GPM of sand-free water. If no water can be developed in this manner he intends to go deeper with the 10" pipe and screen, stopping at frequent intervals to attempt pumping an adequate supply of sand-free water.

30 May 1951

Tarawa Terrace-Well No. 2.(b)

0'-15' Sand & clay
15-30' White sand & clay
30'-42' Fine gray sand
42'-65' Fine gray sand
(some fine shell)
65'-73' Soft shell rock
73'-75' Fine gray sand
75'-78' Soft shell rock
78'-84' Hard shell rock

#2 (b)


#2(b)

With 10" casing down to 77' and well to 90', driller pumped 100 GPM of "crystal clear" water for about 5 hours. This was not observed by the writer but as stated by the driller. It should be noted that no person from this organization was present during the drilling (from 0'-90') or the pumping of this well on 30 May 1951.

31 May 1951

Driller pulled pump and

8.

is drilling deeper.
10" pipe down to 77'.
Driller stated this A.M.
that at 84' he broke
through the hard Coquina
Limestone ("shell rock")
and into the stratum
of soft, fine grained,
green limestone. (Questionable)
The green limestone contains
large amounts of clay
and very fine sand.
At this time the
driller has not put
a screen in the 10"
pipe as originally
intended nor did he

have a screen in while pumping on 30 May. At 4.00 P.M. this date (31 May) the well has been drilled to depth of 150' and the stratum at this level is still the fine-grained green lime encountered (as stated by driller) at the 84' level.

1 June 1950

No work was done this date by driller.