

DATE 6-19-00 ✓

PWSID 04-67-043

WELL # 643 ✓

WELL NAME Holcomb Blvd 643

BLDG. 643 ✓

CODE G

AVAILABILITY P

LOCATION Brewster Blvd

LATITUDE 34.71715 ✓

LONGITUDE -77.35469 ✓

WELL DIAMETER 10"

WELL DEPTH 240'

SCREEN INTERVAL 90'-100' 138'-148'

230'-240'

YIELD 269 GPM

STATIC LEVEL 30'

PUMPING LEVEL 55'

PUMP TYPE Vertical Turbine

MOTOR HP 15

INTAKE DEPTH 80'

DESIGN CAPACITY 260 GPM ✓

ACTUAL GPM 187 GPM

SIZE OF CONCRETE SLAB 32" x 32"

HEIGHT OF CASING 10"

00-91-3

84-11-93

843

1941 10/21/41

843

2

7

1941 10/21/41

1941 10/21/41

1941 10/21/41

1941

1941

1941 10/21/41

1941 10/21/41

1941 10/21/41

1941

1941

1941 10/21/41

1941

1941

1941 10/21/41

1941 10/21/41

1941 10/21/41

1941

# SOURCE INFORMATION GROUND WATER

Date Form Completed

M M D D Y Y  
 0 1 2 9 9 5

PWSID  
 0  
4  
6  
7  
0  
4  
3

Owner Assigned source Code

Well Name (If purchase, name of system)

643 H O I C O M B B I V D 6 4 3

Code

G  
 W  
 Y  
 Z

G=Ground  
 W=Purchase/G  
 Y=G w/direct influence  
 Z=W w/direct influence

If Purchase, seller ID#

Source Begin Date

M M Y Y

Source exempt— SWTR?

Y  
 N

Direct Influence Date

M M D D Y Y

Availability

P  
 E  
 S

P=Permanent  
 E=Emergency  
 S=Seasonal  
 I=Interim  
 O=Other

Location of well within the system (If purchase, location of master meter)

B R E W S T E R B I V D

Latitude (N)

Dec. Min. Sec.  
 3 4 4 3 0 3 . 7

Longitude (W)

Dec. Min. Sec.  
 0 7 7 2 1 1 8 . 6

How Determined

G  
 M  
 S

G=GPS  
 M=Map  
 S=Surveyed

GPS Data

Q# or DOP #  
 3

No. of Sats. Locked on

5

(If purchase, use seller's primary source lat/long)

Vulnerable (VOCs)

Y  
 N

Assessment Date

M M D D Y Y

## ENTRY POINT INFORMATION

Owner Assigned Entry Point Code

2 0 0

Entry Point Name

~~H B 6 4 3 M C B~~ H O I C O M B B I V D 4 7 2

Use Code

C

C=Ground/Permanent  
 D=Ground/non-permanent

Availability

P

P=Year-round  
 E=Emergency  
 S=Seasonal  
 I=Interim  
 O=Other

Location:

Well Site: Owned or controlled?  (Y,N) Control Area (100' radius)?  (Y,N) If no, explain: \_\_\_\_\_

Sources of pollution/distance: Rd @ 75'

Surface water within 200'?  Y  
 N

If yes, actual distance  feet

If yes, bact. samples collected? \_\_\_\_\_ (Y,N)

Adequate slope?  (Y,N) Flooding?  (Y,N) Maintenance: OK

Well House: Free of stored materials?  (Y,N) Properly drained?  (Y,N) Locked?  (Y,N)

Condition of house: OK Type of freeze protection: Elec Heat

Well: Diameter: 10" Type: GRAVEL PACKED Yield (gpm): 269 Properly sealed?  (Y,N)

Properly vented? \_\_\_\_\_ (Y,N) Casing depth  ft. (If unknown, put 'UNK') Well depth: 240 Meter available?  (Y,N)

Concrete slab adequate?  (Y,N) If no, explain: \_\_\_\_\_ Size: 7626

Size of blow-off: 4" Sample tap: Before treatment?  (Y,N) After treatment? \_\_\_\_\_ (Y,N)

Pumps: Capacity: GPM: 146 HP: 15 Pump intake depth: 80 Auxiliary Power?  (Y,N)

Type pump: Vertical Turbine Height above floor (pump/casing): 10"

Storage at well site: Elev:  Hydro:  Ground:

If hydroautomatic, air volume control? \_\_\_\_\_ (Y,N) Safety valves? \_\_\_\_\_ (Y,N) Coded? \_\_\_\_\_ (Y,N)

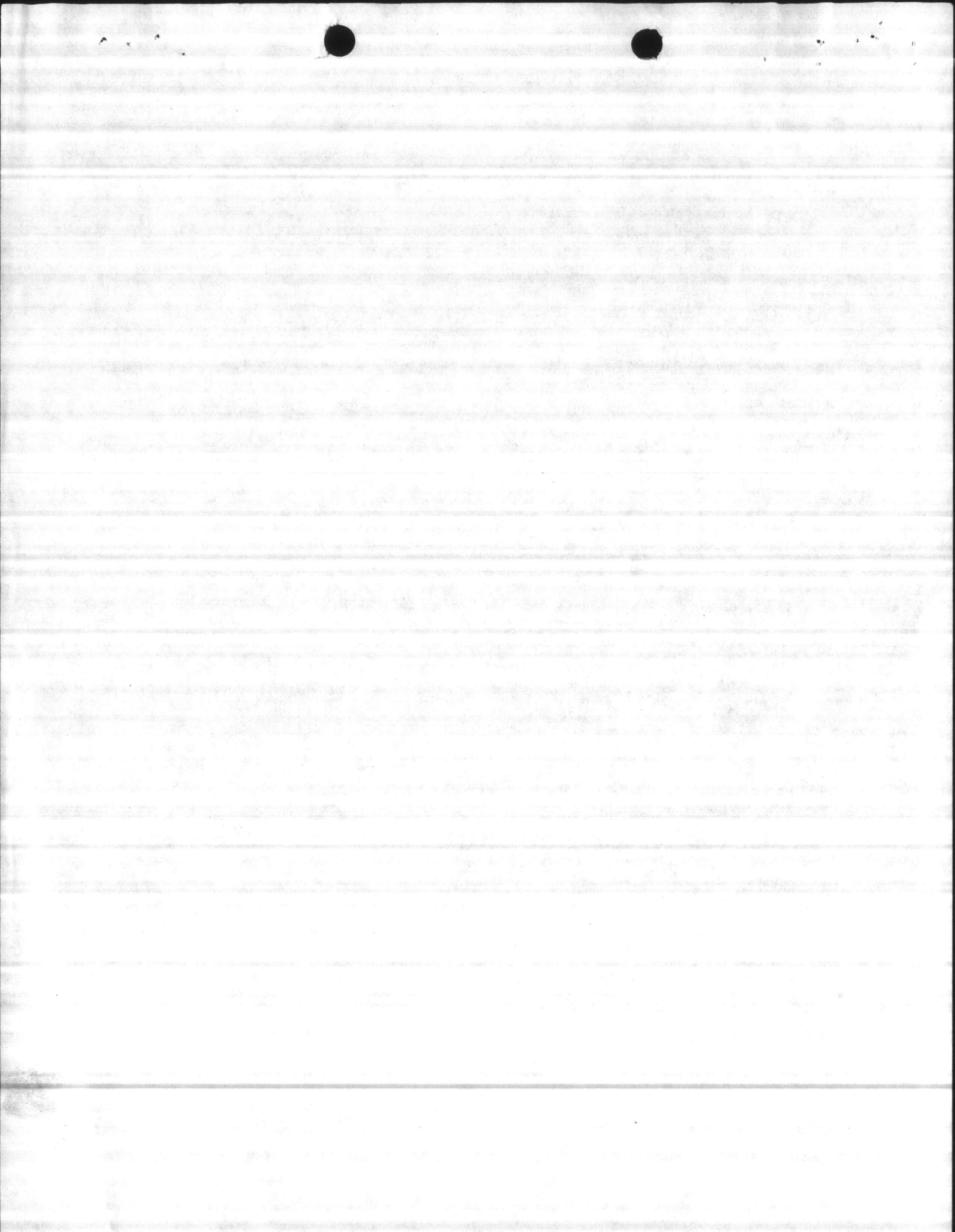
High service pumps: 1. \_\_\_\_\_ gpm \_\_\_\_\_ hp 2. \_\_\_\_\_ gpm \_\_\_\_\_ hp 3. \_\_\_\_\_ gpm \_\_\_\_\_ hp Auxiliary Power? \_\_\_\_\_ (Y,N)

Is the water treated at this well?  Y  
 N If yes, complete back of form.

If other wells are treated here, which ones? \_\_\_\_\_ If treated elsewhere, where? HB 610 PLANT

If purchase, retreat?  Y  
 N If yes, complete back of form.

① No vent  
 ② GAS drive unit leaking fuel



CAMP LEJEUNE No. 2 WELL

# DEMING PUMP CO.

SALEM, OHIO, U.S.A.

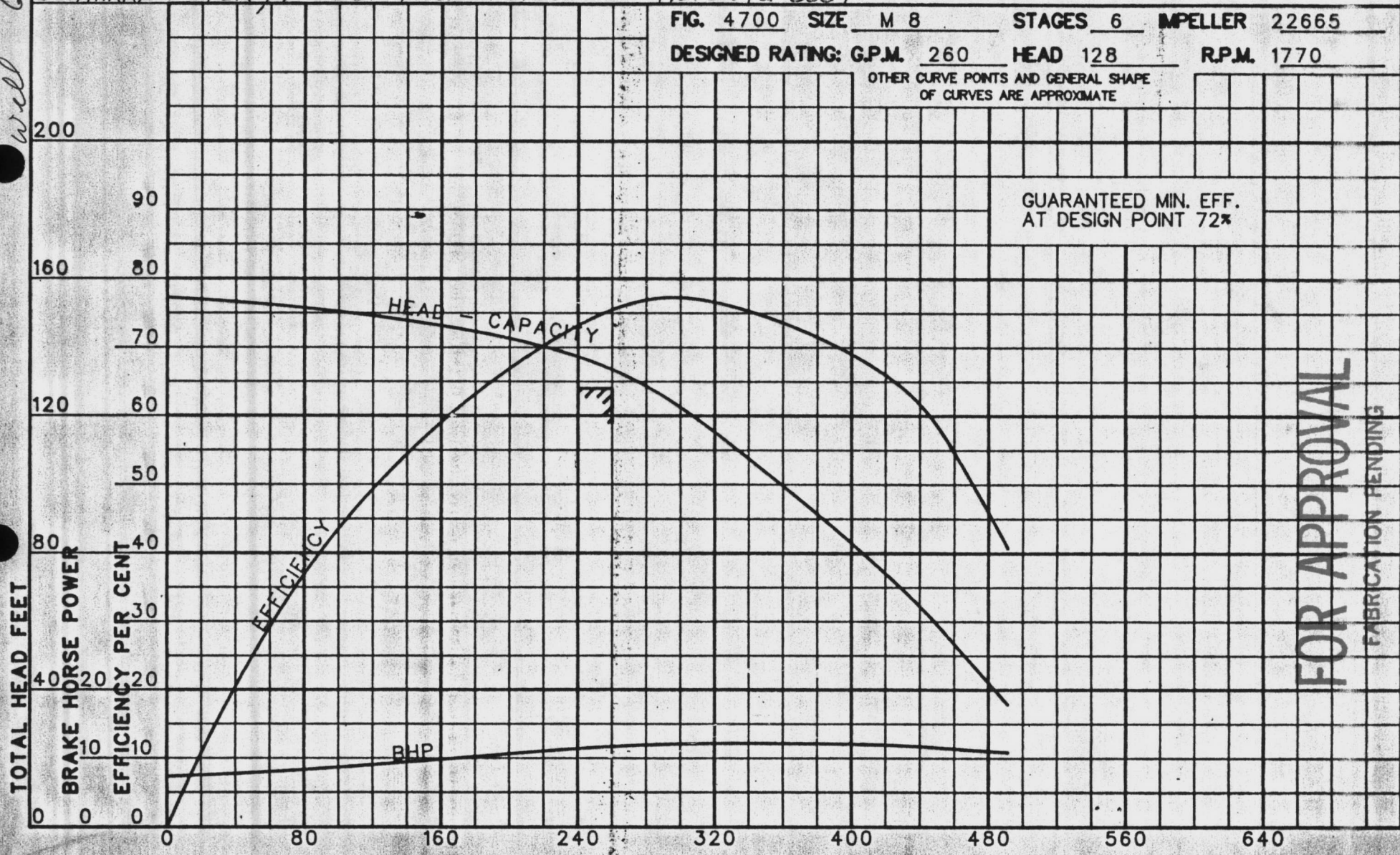
240 HARRY PEPPER & ASSOC. INC. S.O. 1635-02 P.O. C642-0001

## CHARACTERISTIC CURVES

FIG. 4700 SIZE M 8 STAGES 6 IMPELLER 22665

DESIGNED RATING: G.P.M. 260 HEAD 128 R.P.M. 1770

OTHER CURVE POINTS AND GENERAL SHAPE OF CURVES ARE APPROXIMATE



GUARANTEED MIN. EFF. AT DESIGN POINT 72%

FOR APPROVAL  
FABRICATION PENDING

SERIAL NO. \*\*\*\*

U. S. GALLONS PER MINUTE

DATE 2-21-85

IMP. DIA. 5 3/8"

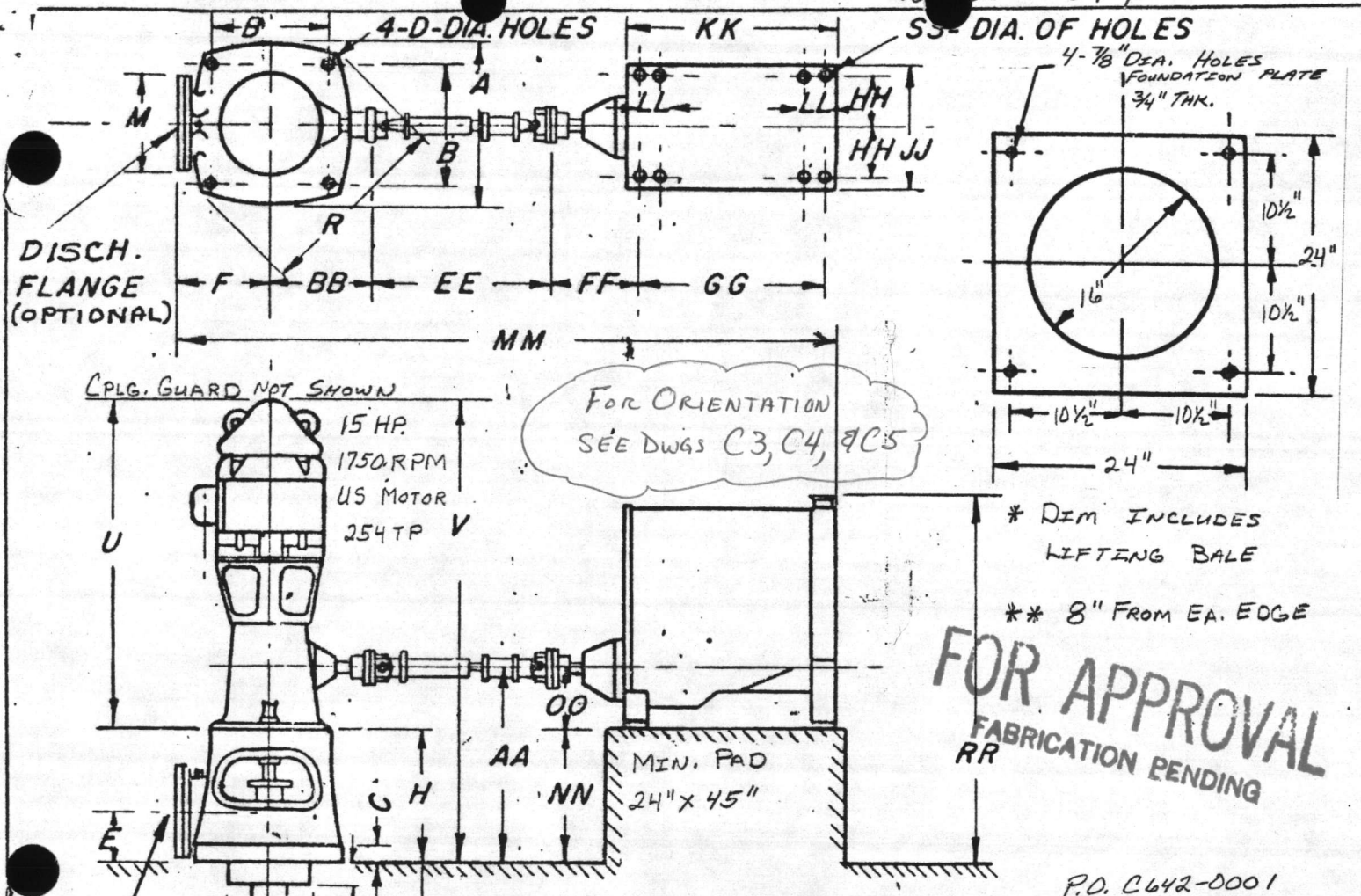
NO. Q23649

Well 699

EXHIBITION BENDING

FOR APPROVAL

well 699



FOR ORIENTATION SEE DWGS C3, C4, & C5

**FOR APPROVAL**  
FABRICATION PENDING

\* DIM INCLUDES LIFTING BALE  
\*\* 8" FROM EA. EDGE

P.O. C642-0001

HARRY PEPPER & ASSOC. INC. S.O. 1635-03

DIMENSIONS			
A	17"	Z	11'-0 3/8"
B	14 1/2"	CS	85'-3 1/4"
C	2"	OA	101'-0 3/8"
D	7/8"	AA	1'-10 1/4"
E	6 1/2"	BB	10 7/8"
F	9"	EE	24"
G	3 3/4"	FF	21 1/16"
H	15 1/2"	GG	29"
J	9 7/8"	HH	11 1/4"
M	11"	JJ	20"
N	6"	KK	45"
R	23"	LL	-
T	-	MM	7'-4 7/8"
U	4'-3 9/16"	NN	10 1/4"
V	5'-7 1/16"	OO	12"
W	6 1/4"	RR	56 1/4" *
X	7 1/2"	SS	5/8" **
Y	4'-8 1/4"	TT	5"

"N" 125# ASA DISCHARGE

5"x1" Col. & SHAFT

6-STAGES

TT-SIZE OF SUCTION PIPE & RAINER

CAMP LEJEUNE NO. 3 WELL  
TITLE  
VERTICAL TURBINE PUMP WITH COMBINATION RIGHT ANGLE GEAR DRIVE WITH ENGINE & MOTOR  
DATE 1-26-81 SCALE NONE

DATE OF ISSUE  
3-1-85  
DESTROY ALL PREVIOUS PRINTS  
FIG. 4700 SIZE M8  
DRAWING NO. T82510

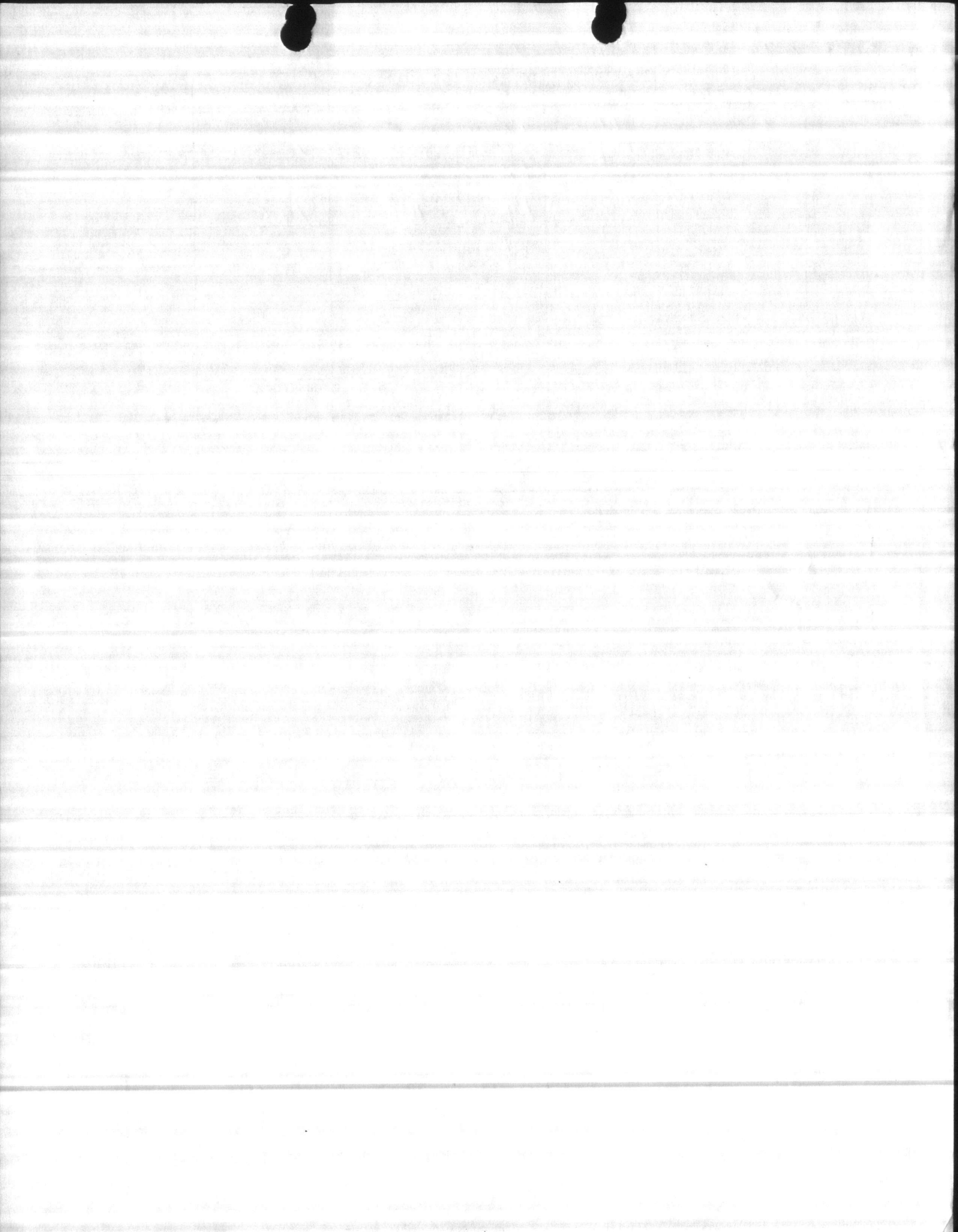
THE DEMING CO.  
SALEM, OHIO

RPW

FOR APPROVAL  
FABRICATION BENDING







Hunt

**CONTRACTOR'S SUBMITTAL TRANSMITTAL**  
LANTDIV NORFOLK 4-4355/3 (Rev. 11-80)

CONTRACT NO <b>81-C-1644</b>	TRANSMITTAL NO <b>164</b>	DATE <b>2-5-86</b>
---------------------------------	------------------------------	-----------------------

FROM CONTRACTOR  
**Harry Pepper & Associates, Inc.**

TO  
**Henry Von Oesen & Associates, Inc.**

PROJECT TITLE AND LOCATION  
**Holcomb Blvd Water Treatment Plant**  
**MCB, Cp Lejeune, North Carolina**

<p align="center"><b>CONTRACTOR USE ONLY</b></p> <p align="center"><i>*List only one specification division per form.</i></p> <p align="center"><i>List only one of the following categories on each transmittal form, and indicate which is being submitted</i></p> <p><input type="checkbox"/> Contractor Approved      <input checked="" type="checkbox"/> OICC Approval      <input type="checkbox"/> Deviation/Substitution For OICC Approval</p>	<p align="center"><b>REVIEWER USE ONLY</b></p> <p align="center"><b>**ACTION CODES</b></p> <p>A-Approved D-Disapproved AN-Approved as noted RA-Receipt acknowledged. C-Comments R-Resubmit</p>
--	--

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
	02734	ROTARY DRILLED WATER WELLS WELL # 2			
1	3.1.6	24 Hours Pumps Test	7	A	<i>PHB</i>
2	3.1.6	2 Hour Recovery Test	7	A	<i>PHB</i>

CONTRACTOR'S COMMENTS

---

COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC: **ONE COPY TO ROICC**

CONTRACTOR REPRESENTATIVE (Signature): *Phil Reese*  
**Phil Reese**

DATE RECEIVED BY REVIEWER <b>2/7/86</b>	FROM (Reviewer) <b>Henry von Oesen &amp; Assoc., Inc.</b>	TO <b>Harry Pepper &amp; Assoc.</b>
--	--	--

- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
- Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on **ONE COPY** of the transmittal form.

REVIEWER'S COMMENTS  
**Submit Water Analysis**

COPIES TO ROICC (2) LANTDIV (1) A-E (1)	DATE <b>2/10/86</b>	SIGNATURE <i>[Signature]</i>
--	------------------------	---------------------------------

11 FEB 1986 12 08

UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION

*[Handwritten signature]*

*[Handwritten initials]*

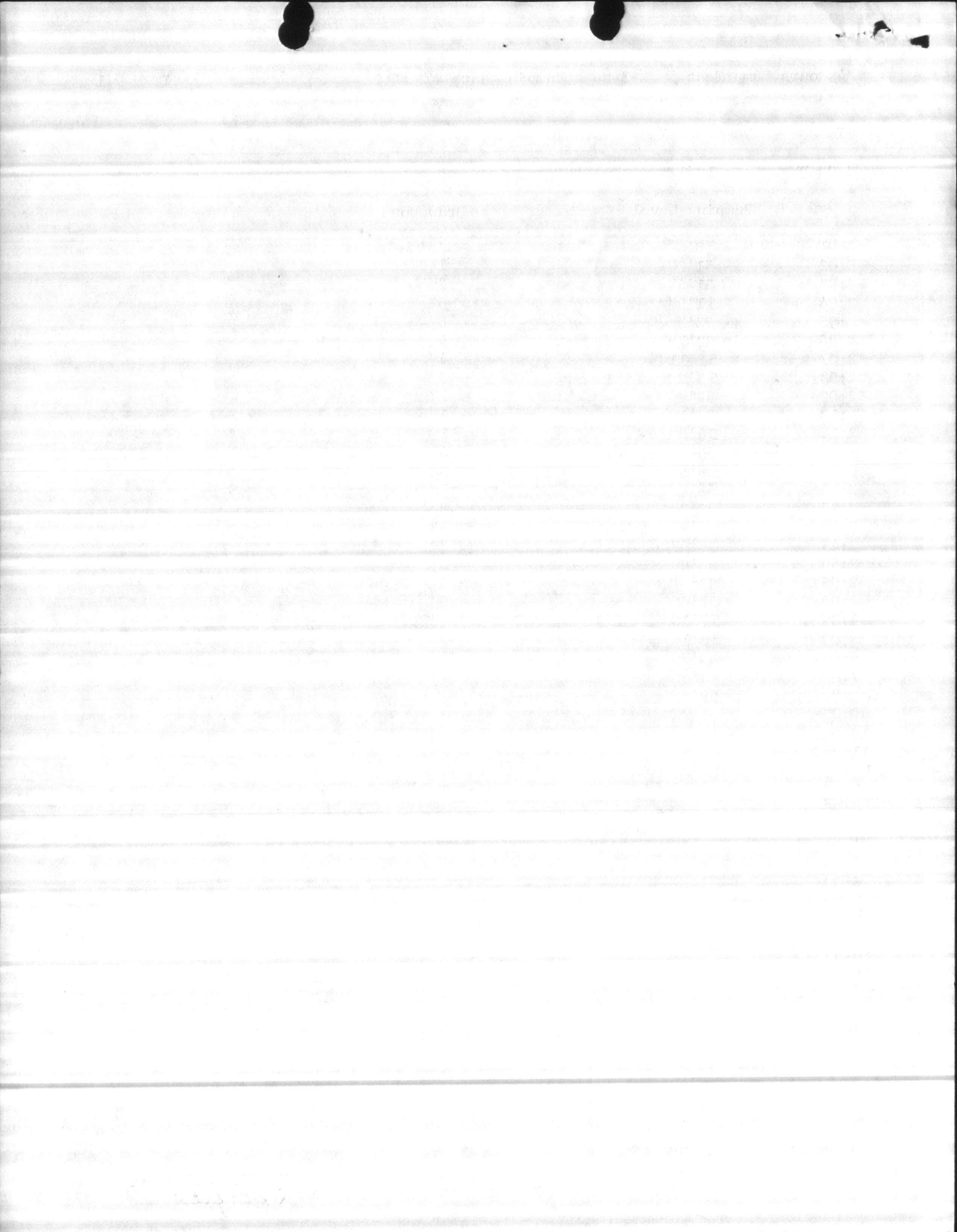
*[Faint, mostly illegible text, possibly a form or report header]*

TIME	PUMP SETTING	STATIC
2:00 PM	105'	15'
	Pumping Level	Draw Down
2:01	50'	35'
2:02	51'2"	1'2"
2:03	51'4"	2"
2:04	51'9"	5"
2:05	52'3"	6"
2:06	52'7"	4"
2:07	52'11"	4"
2:08	53'2"	3"
2:09	53'9"	7"
2:10	53'10"	1"
2:15	54'8"	10"
2:20	55'	4"
2:25	55'5"	5"
2:30	56'	7"
2:35	56'2"	2"
2:40	56'3"	1"
2:45	56'6"	3"
2:50	56'9"	3'
2:55	57'	3"
3:00	57'6"	6"
4:00	57'10"	4"
5:00	58'1"	3"
6:00	58'7"	6"
7:00	58'9"	2"
8:00	59'	3"
9:00	"	-
10:00	"	-
11:00	"	-
12:00 AM	"	-
1:00	"	-
2:00	"	-
3:00	"	-
4:00	"	-
5:00	"	-
6:00	"	-
7:00	"	-
8:00	"	-
9:00	"	-
10:00	"	-
11:00	"	-
12:00 PM	"	-
1:00	"	-
2:00	"	-

"It is hereby certified that the (material) (equipment) shown and marked in this submittal, shop drawings, catalog cut(s), etc., and approved/proposed to be incorporated into Contract Number N62470-81-C-1644 is in compliance with the Contract Drawings and Specifications and can be installed in the allocated space, and is:

- Approved for use.
- Submitted for Government approval.
- Approved for use subject to Government approval of specific deviation.

Authorized Reviewer \_\_\_\_\_ DATE \_\_\_\_\_  
Signature CQC Rep. Phil Pea DATE 2-5-86

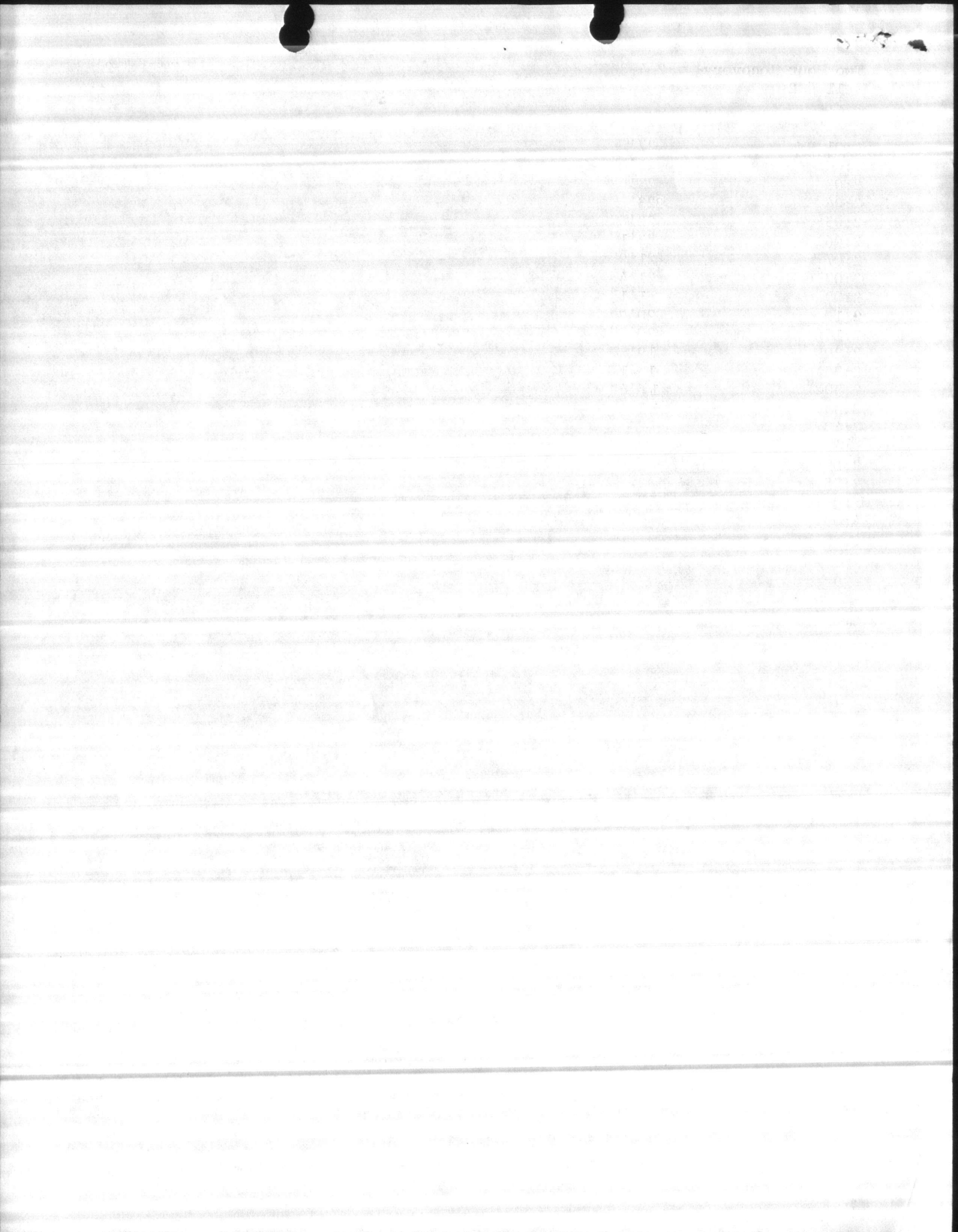


Two Hour Recovery  
Well # 2

2-4-86

ITEM # 2

2:01 PM	27'
2:02	25'
2:03	23'6"
2:04	23'
2:05	22'6"
2:06	22'1"
2:07	21'9"
2:08	21'4"
2:09	21'1"
2:10	20'9"
2:15	20'6"
2:20	19'
2:25	18'1"
2:30	16'4"
2:35	15'
2:40	"
2:45	"
2:50	"
2:55	"
3:00	"
4:00	"





Hunt

**CONTRACTOR'S SUBMITTAL TRANSMITTAL**

LANTDIV NORFOLK 4-4355/3 (Rev. 11-80)

CONTRACT NO 81-C-1644	TRANSMITTAL NO 153	DATE 1-23-86
PROJECT TITLE AND LOCATION Holcomb Blvd Water Treatment Plant		
MCB, Cp Lejeune, North Carolina		

FROM CONTRACTOR  
Harry Pepper & Associates, Inc.

TO  
Henry Von Oesen & Associates, Inc.

**CONTRACTOR USE ONLY**

\*List only one specification division per form.

List only one of the following categories on each transmittal form, and indicate which is being submitted

- Contractor Approved       OICC Approval       Deviation/Substitution For OICC Approval

**REVIEWER USE ONLY**

\*\*ACTION CODES

- A-Approved  
D-Disapproved  
AN-Approved as noted  
RA-Receipt acknowledged.  
C-Comments  
R-Resubmit

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
	02734	ROTARY DRILLED WATER WELLS-----Well # 2			
1		Step Test	7	RA	MPB

**CONTRACTOR'S COMMENTS**

An additional 14 feet of screen was added. See additional Transmittal's # 96, dated 9-20-85 and # 108, dated 10-16-85 on Well # 2.

A/E Please advise Rate to Pump for 24 hours test.

COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC: **ONE COPY TO ROICC**

CONTRACTOR REPRESENTATIVE (Signature): *Phil Reese*  
Phil Reese

DATE RECEIVED BY REVIEWER: 1/27/86      FROM (Reviewer): Henry von Oesen & Assoc., Inc.      TO:

- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
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**REVIEWER'S COMMENTS**

This step test is virtuary identical to the performance originally obtained from well #643 on Brewster Blvd. We would suggest testing at 250 GPM, which should result in a pumping level of about 60 feet.

COPIES TO ROICC (2) LANTDIV (1) A-E (1)      DATE: 1/28/86      SIGNATURE: *MPB*

29 JAN 1986 13 30

*[Handwritten signature]*

NAME	ADDRESS	CITY
[Faint text]	[Faint text]	[Faint text]
[Faint text]	[Faint text]	[Faint text]
[Faint text]	[Faint text]	[Faint text]
[Faint text]	[Faint text]	[Faint text]
[Faint text]	[Faint text]	[Faint text]

Well # 2  
 Step Test  
 1/22/86

*Item # 1*

<u>TIME</u>	<u>STATIC</u>	<u>PUMPING LEVEL</u>	<u>PUMPING RATE</u>
7:00 AM	15'	32'4"	100 GPM
7:15 AM		32'6"	"
7:30 AM		32'6"	"
7:45 AM		32'6"	"
8:15 AM		32'6"	"
8:45 AM		32'6"	"
9:15 AM		32'6"	"
9:45 AM		32'6"	"
10:00 AM		40'5"	150 GPM
10:15 AM		42'3"	"
10:30 AM		42'7"	"
10:45 AM		42'7"	"
11:15 AM		42'7"	"
11:45 AM		42'7"	"
12:15 PM		42'7"	"
12:45 PM		42'7"	"
1:00 PM		46'3"	200 GPM
1:15 PM		47'3"	"
1:30 PM		47'9"	"
1:45 PM		48'	"
2:15 PM		48'	"
2:45 PM		48'	"
3:15 PM		48"	"
3:45 PM		48	"
4:00 PM		58'11"	250 GPM
4:15 PM		59'2"	"
4:30 PM		59'2"	"
5:00 PM		59'2"	"
5:30 PM		59'2"	"
6:00 PM		59'2"	"
6:30 PM		59'2"	"
6:45 PM		69'9"	300 GPM
7:00 PM		71'1"	"
7:15 PM		71'3"	"
7:30 PM		71'3"	"
8:00 PM		71'3"	"
8:30 PM		71'3"	"
9:00 PM		71'3"	"
9:30 PM		71'3"	"

"It is hereby certified that the (material) (equipment) shown and marked in this submittal, shop drawings, catalog cut (s), etc., and approved/proposed to be incorporated into Contract Number N62470-81-C-1644 is in compliance with the Contract Drawings and Specifications and can be installed in the allocated space, and is:

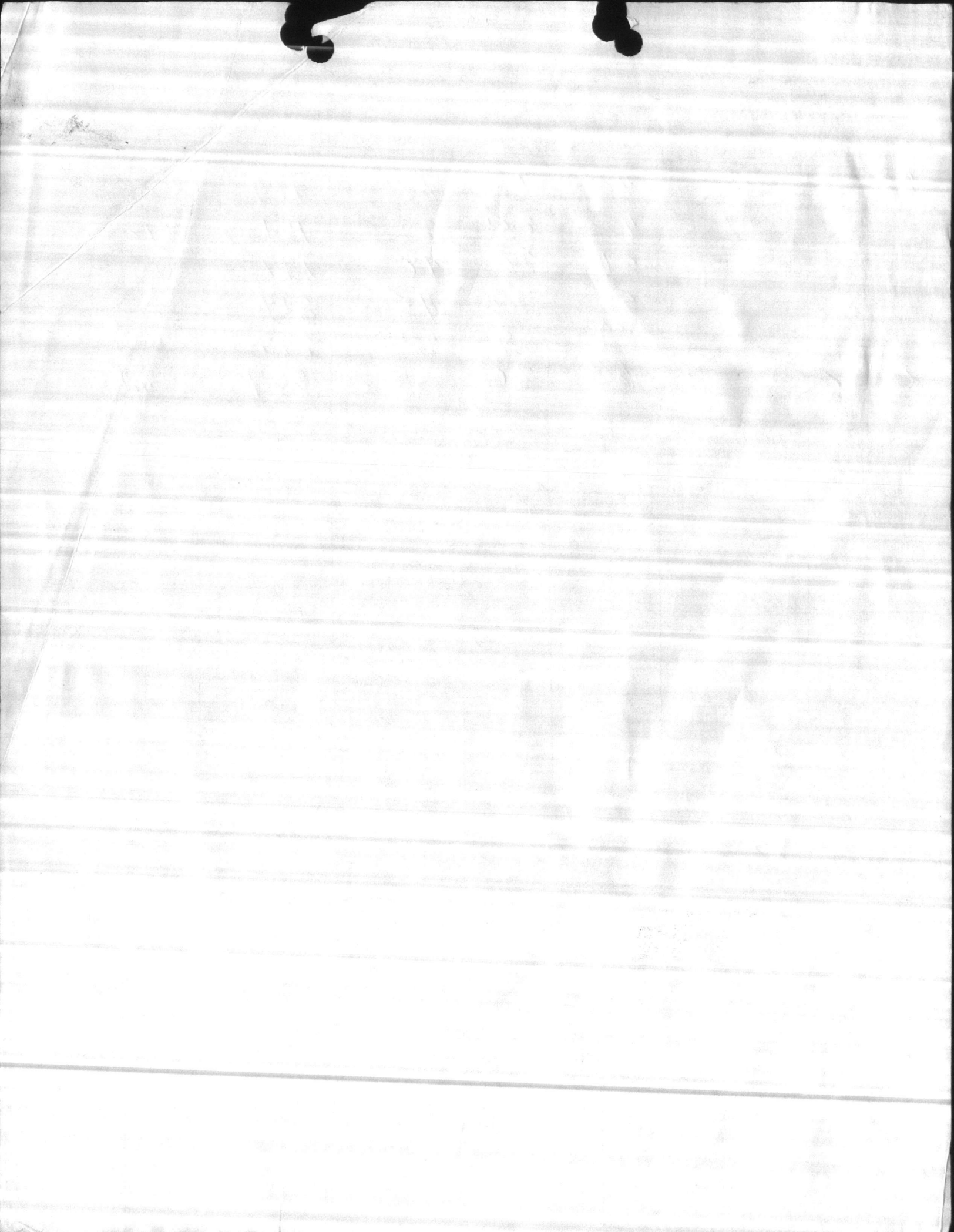
- Approved for use.
- Submitted for Government approval.
- Approved for use subject to Government approval of specific deviation.

Authorized Reviewer \_\_\_\_\_ DATE \_\_\_\_\_  
 Signature CQC Rep. *Phil Fene* DATE *1-27-86*

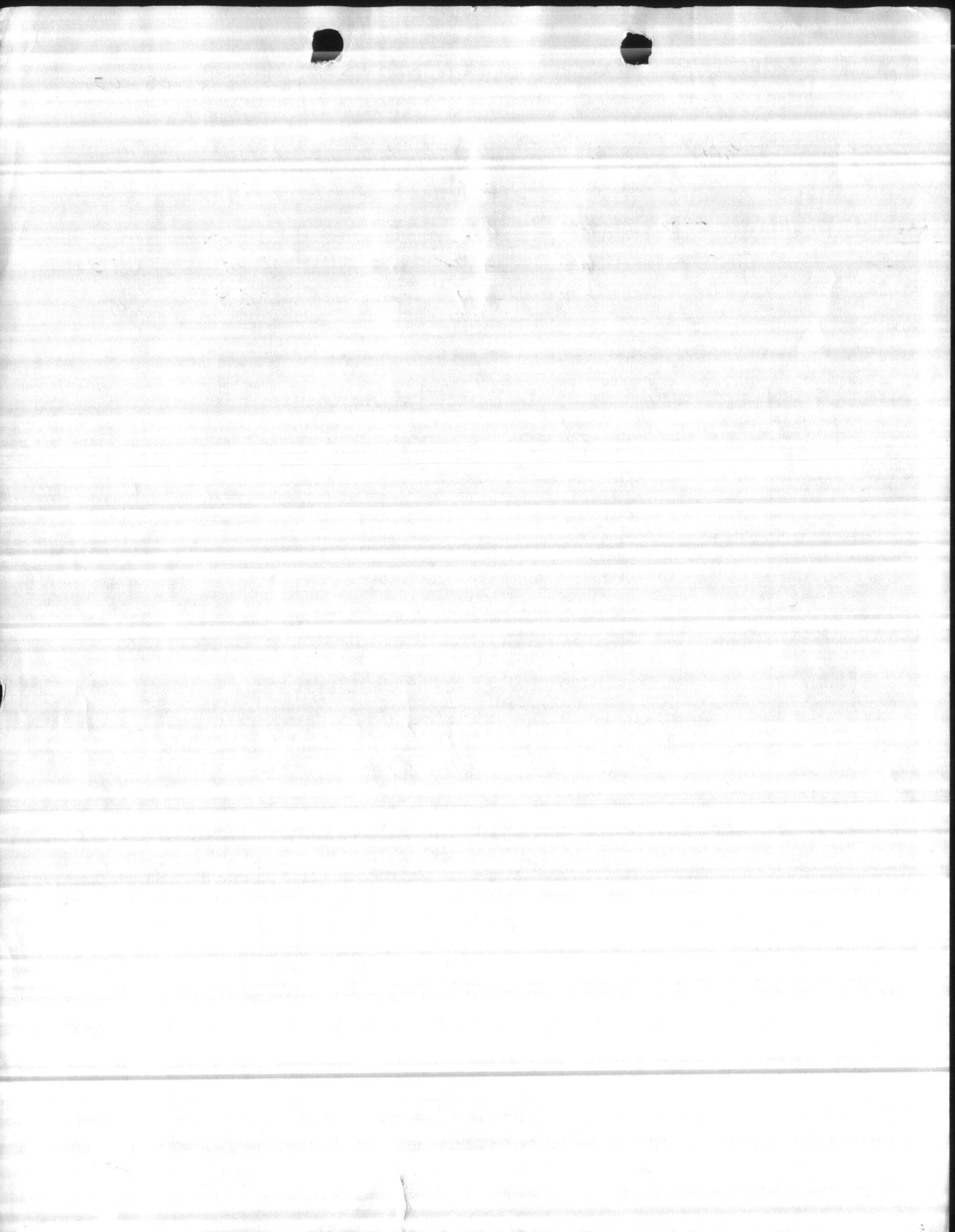
175

175











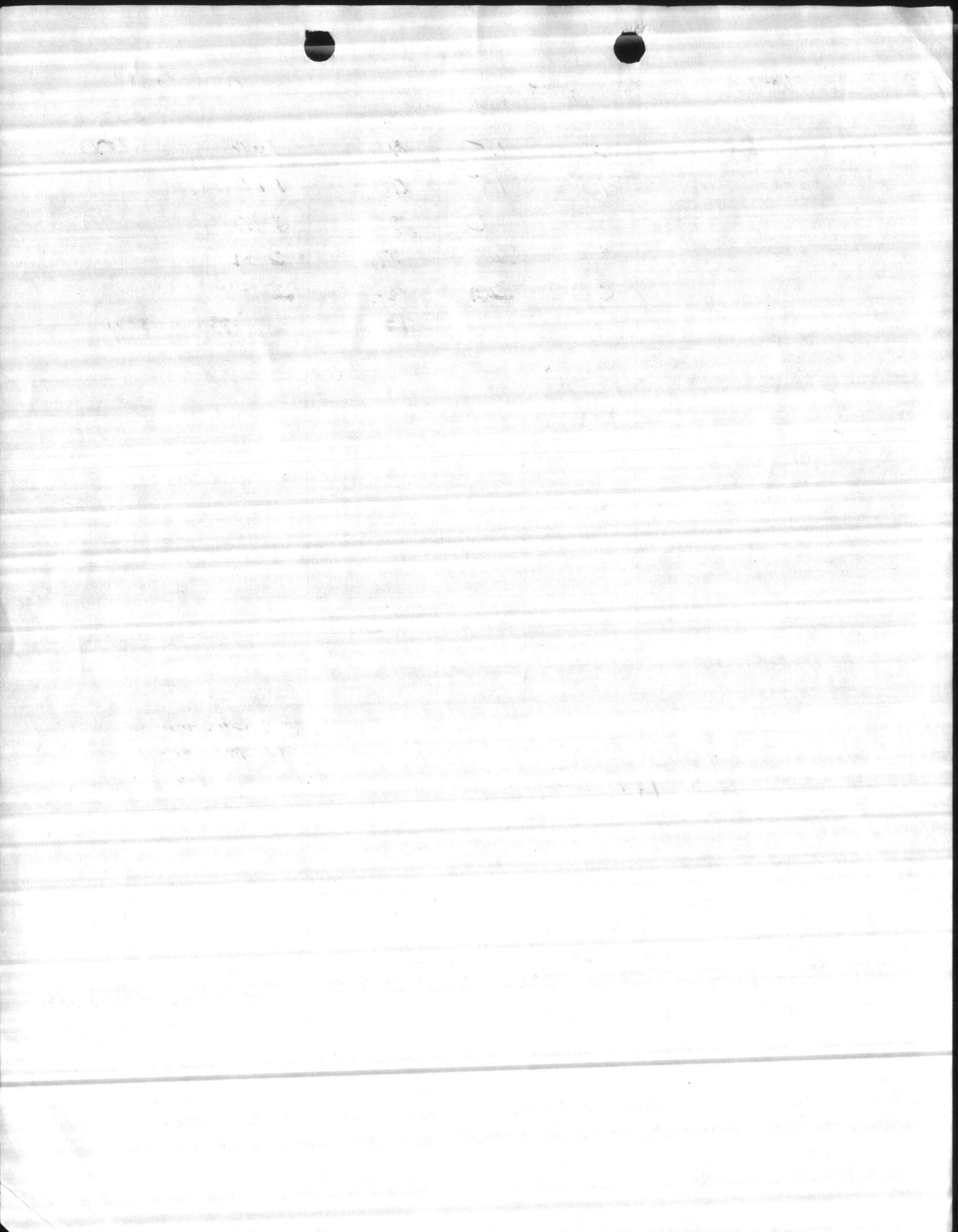
WELL NUMBER <u>043</u>		BY <u>SALAS</u>			DATE <u>03-01-01</u>	
AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
<u>80</u>	<u>30</u>	<u>35</u>	<u>05</u>	<u>45</u>	<u>100</u>	<u>50</u>
		<u>45</u>	<u>15</u>	<u>40</u>	<u>150</u>	<u>60</u>
		<u>50</u>	<u>20</u>	<u>35</u>	<u>190</u>	<u>10</u>
		<u>55</u>	<u>25</u>	<u>30</u>	<u>239</u>	<u>20</u>
		<u>60</u>	<u>30</u>	<u>25</u>	<u>266</u>	<u>30</u>
				<u>20</u>	<u>292</u>	<u>40</u>

REMARKS

D/H - 50 PSI

NOTE: Cleaned up line to air pressure gauge and replaced gauge. 9/2

ANUFACTURER	STAGE	S.N.	TOTAL HEAD	SIZE





1951

1	2	3	4	5	6
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27

28

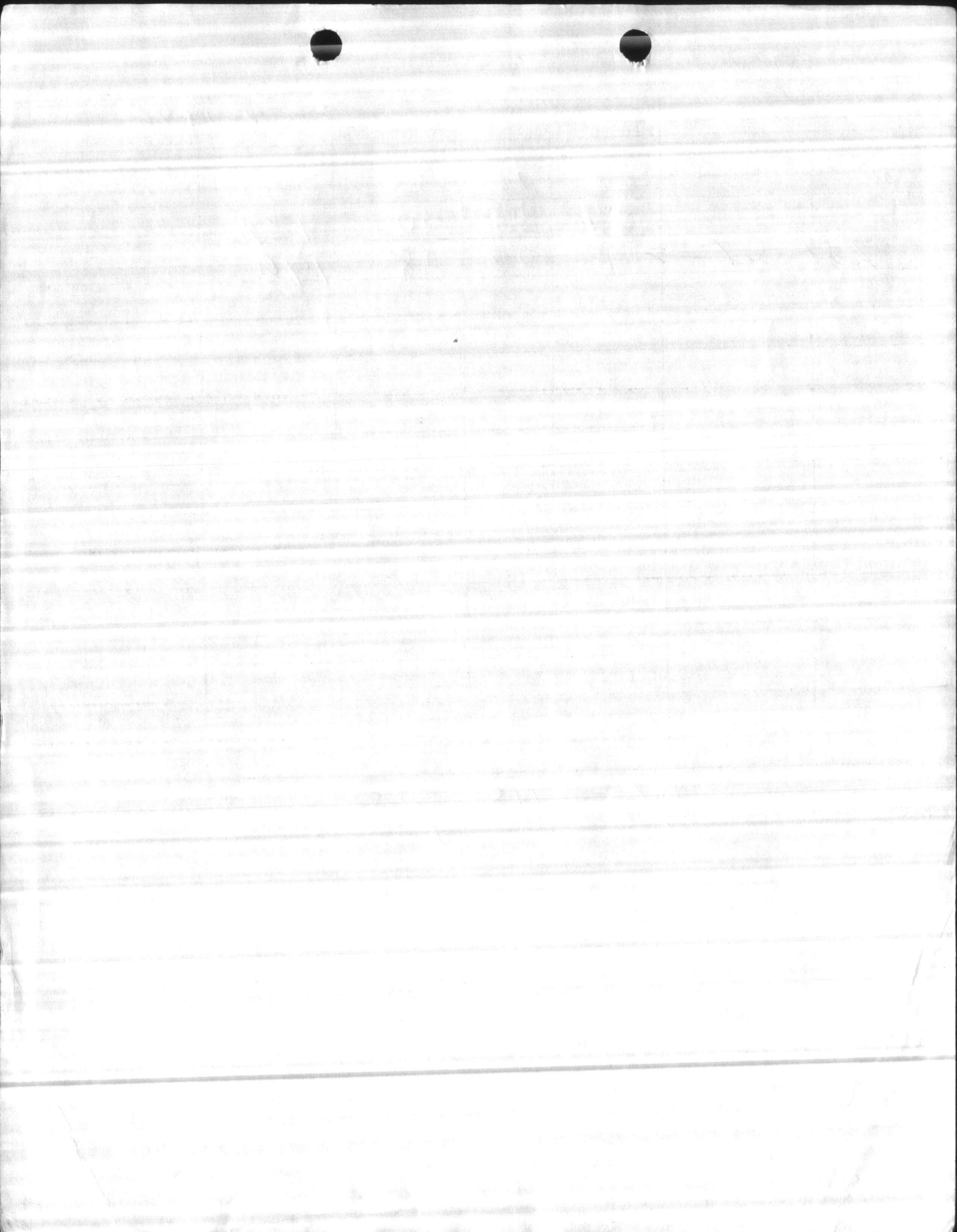
WELL NUMBER *643* BY *Stevenson & Kins* DATE *4-19-96*

AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
<i>80'</i>	<i>30</i>	<i>46</i>	<i>16</i>	<i>35</i>	<i>100</i>	<i>50</i>
		<i>51</i>	<i>21</i>	<i>30</i>	<i>133</i>	<i>00</i>
<i>Left set -&gt;</i>		<i>53</i>	<i>23</i>	<i>28</i>	<i>146</i>	

*D/H - 45 PSI*

REMARKS

MANUFACTURER	STAGE	S.N.	TOTAL HEAD	SIZE



WELL NUMBER	BY	DATE				
WELL LINE	STATIC LEVEL	PUMP LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
80	30	40	10	40	100	25
		60	30	30	219	35
left set at →		67	37	25	269	45

REMARKS

head head 50 PSI  
 left set at 25 PSI  
 by meter 220 GPM

11-18-91

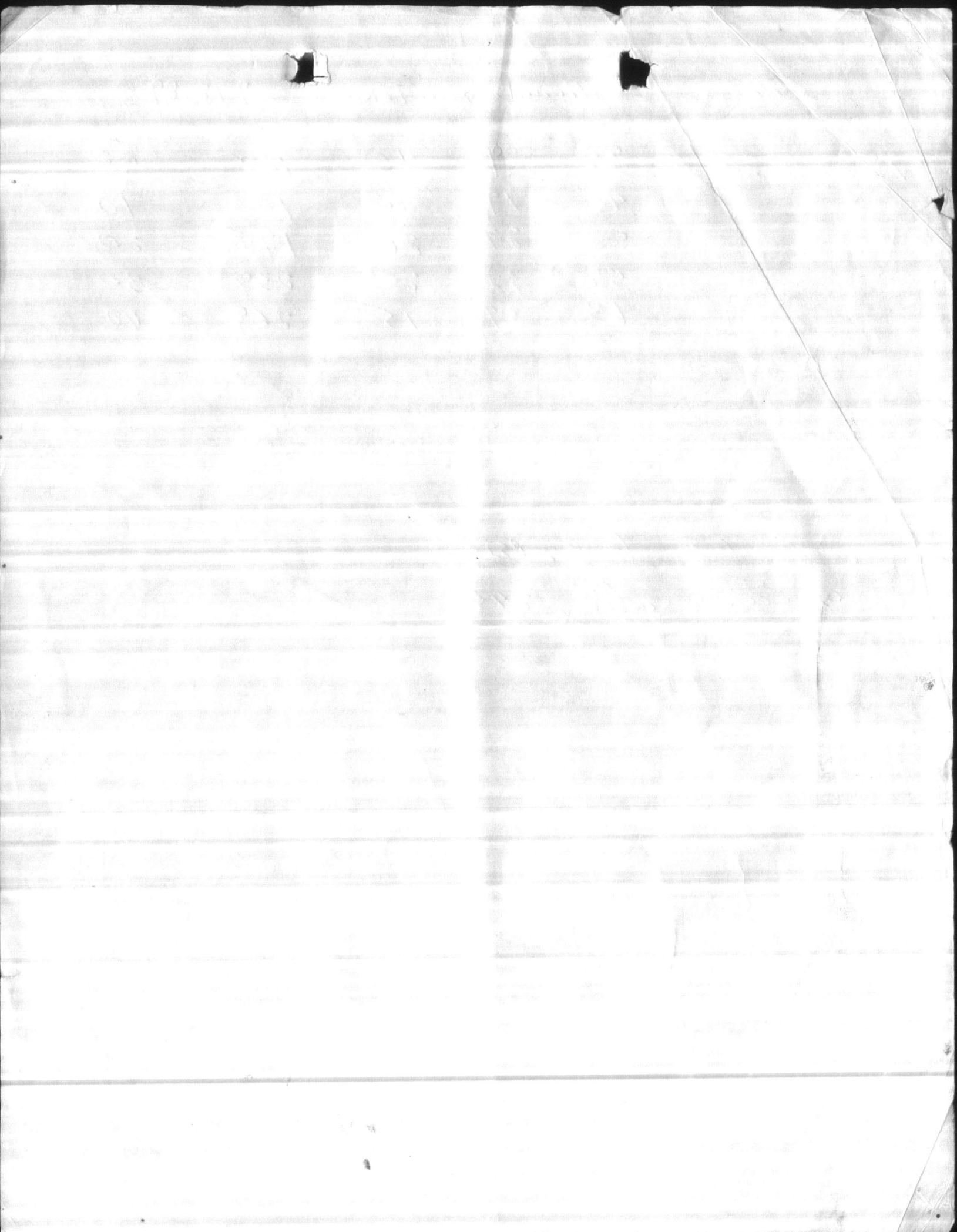
new shaft & bearings removed oil tube

FACTURER	STAGE	S.N.	TOTAL HEAD	SIZE





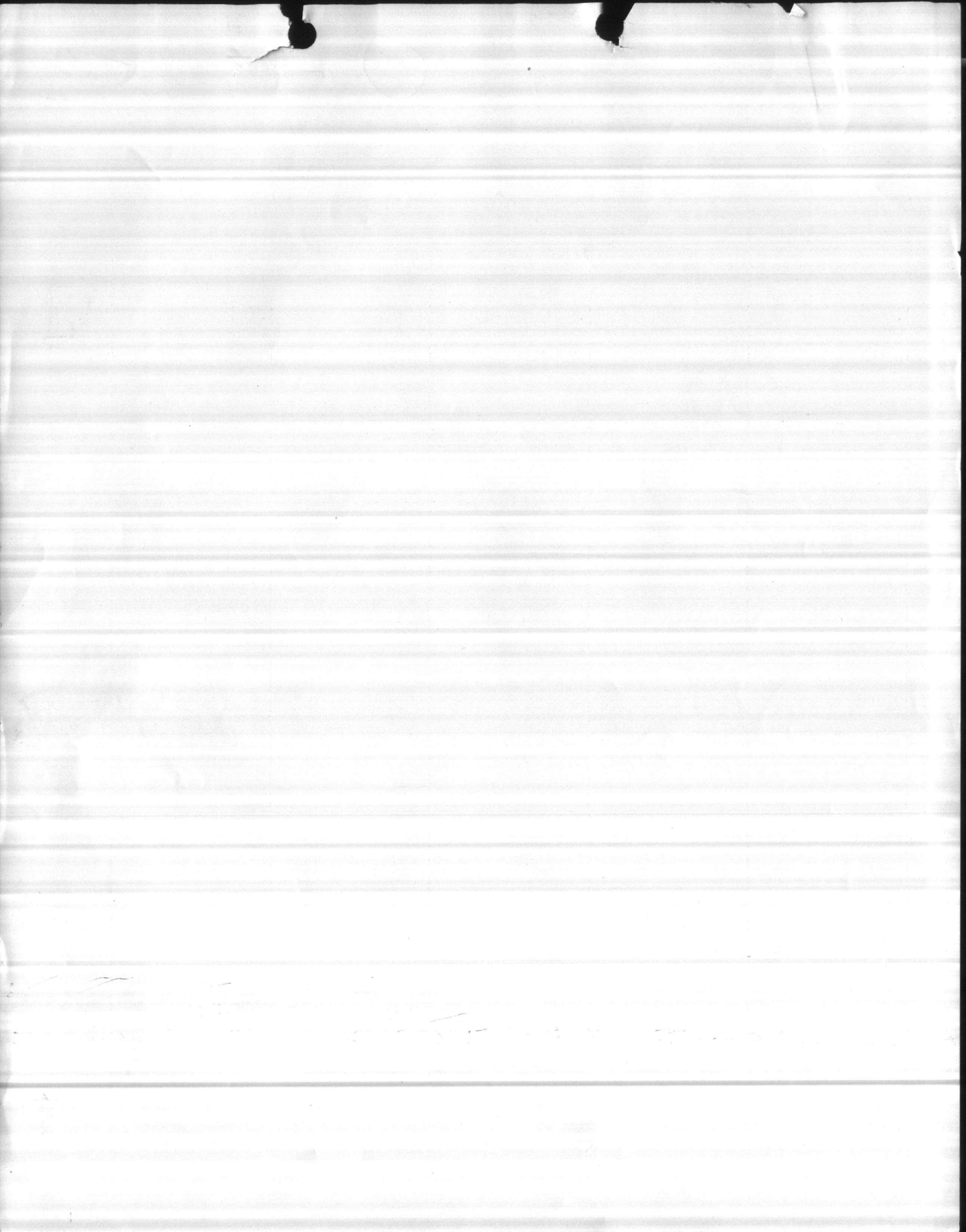




Camp Lejeune #7 Well  
Corbin Construction

2<sup>nd</sup> Section

- 0'-10' Reddish Sandy Clay Soft.
- 10'-25' Soft Blue Clay
- 25'-70' Gray sand loose + soft
- 70'-155' White limestone soft, with streaks of soft  
Gray sand
- 155'-180' Gray sand loose
- 180'-240' white limestone hard streaks of gray  
soft sand.
- 240'-265' white hard limestone
- 265'-302' white limestone hard and streaks  
of gray soft sand.

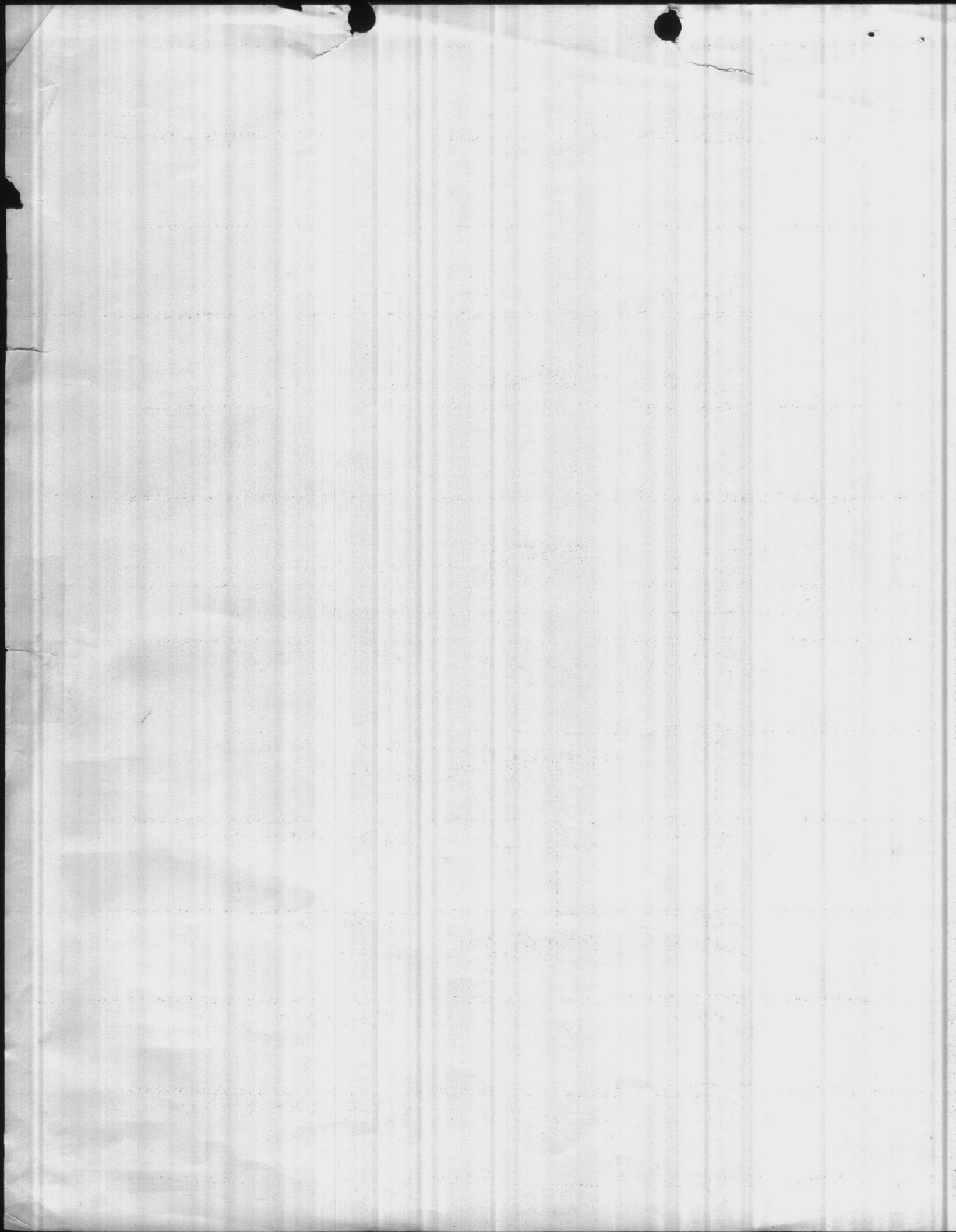


CORBIN CONSTRUCTION COMPANY  
 Camp LeJeune, North Carolina  
 Pumping Test Well No. 7  
 August 11, 1971

Static Level 18' 10"

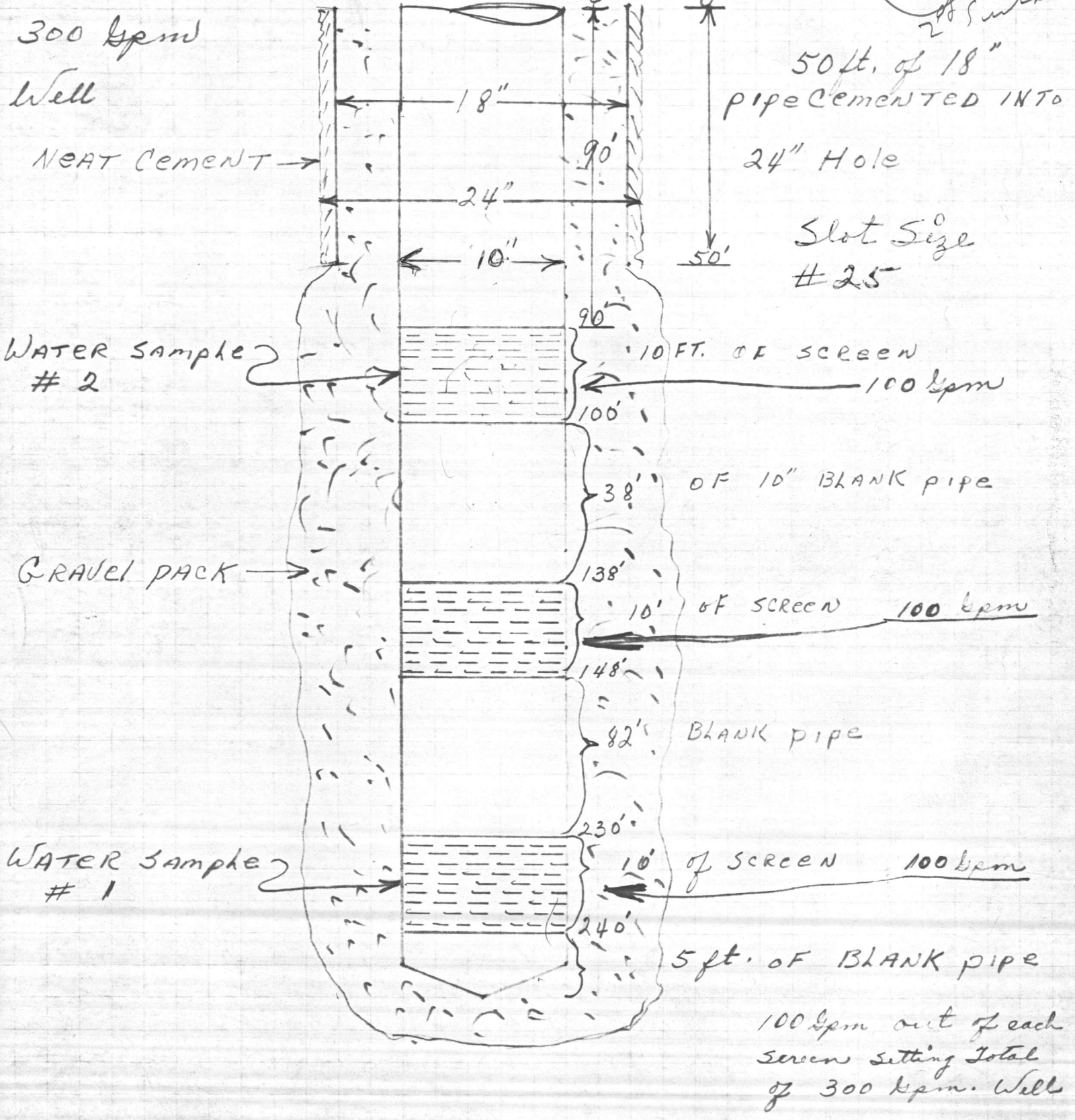
TIME	GPM	PUMPING LEVEL	TIME	GPM	PUMPING LEVEL
9:00	172		8:15	302	69' 0"
9:15	172	41' 8"	8:45	302	69' 1"
9:30	172	42' 6"	9:45	302	69' 6"
9:45	172	42' 10"	10:45	302	69' 10"
10:00	172	43' 7"	11:45	302	70' 0"
10:15	172	43' 8"	12:45	302	70' 2" (8/12/71)
10:30	172	43' 11"	1:45	302	70' 6"
11:00	172	44' 1"	2:45	302	70' 8"
11:30	172	44' 6"	3:45	302	70' 1"
12:00	172	44' 5"	4:45	302	70' 0"
12:30	172	44' 7"	5:45	302	70' 2"
12:45	200	47' 10"	6:45	302	70' 5"
1:00	200	48' 0"	7:45	302	70' 7"
1:15	200	48' 1"	8:45	302	70' 3"
1:45	200	48' 3"	9:45	302	70' 7"
2:15	200	48' 4"	10:45	302	70' 3"
2:45	200	48' 6"	11:45	302	70' 3"
3:15	200	48' 6"	12:45	302	70' 3"
3:30	250	56' 10"	1:45	302	70' 7"
3:45	250	56' 11"	2:45	302	70' 3"
4:00	250	57' 2"	3:45	302	70' 3"
4:30	250	57' 4"	4:45	302	70' 3"
5:00	250	58' 0"	5:45	302	70' 9"
5:30	250	58' 2"	6:45	302	70' 9"
6:00	250	58' 2"	7:45	302	70' 10"
6:15	302	67' 9"	8:45	302	70' 10"
6:30	302	67' 11"	9:00	347	81' 8"
6:45	202	68' 4"	9:15	347	81' 10"
7:15	302	68' 8"	9:30	347	82' 0"
7:45	302	68' 9"	10:00	347	82' 2"
			10:30	347	82' 3"
			11:00	347	82' 3"

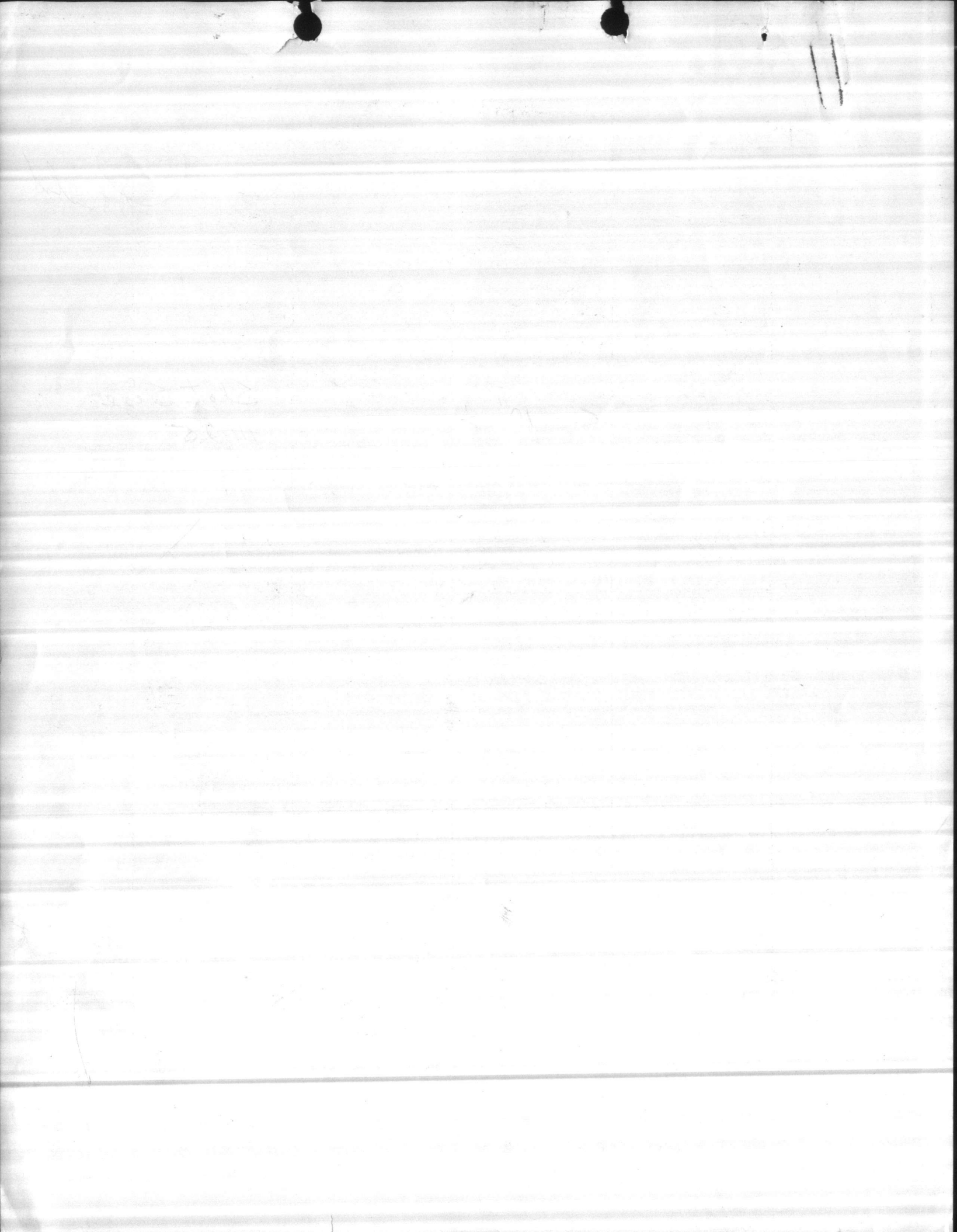
Within 10' of Top of Screen Line  
 Top screen set at 90'



Camp Lejeune N.C. Job # 40936 LAYNE ATLANTIC

PROPOSED SKETCH OF Well # 7







043

Static W. L.

P/2

Pressure

g.p.a

63

35

151

Lefton

66

33

172

69'

30

197

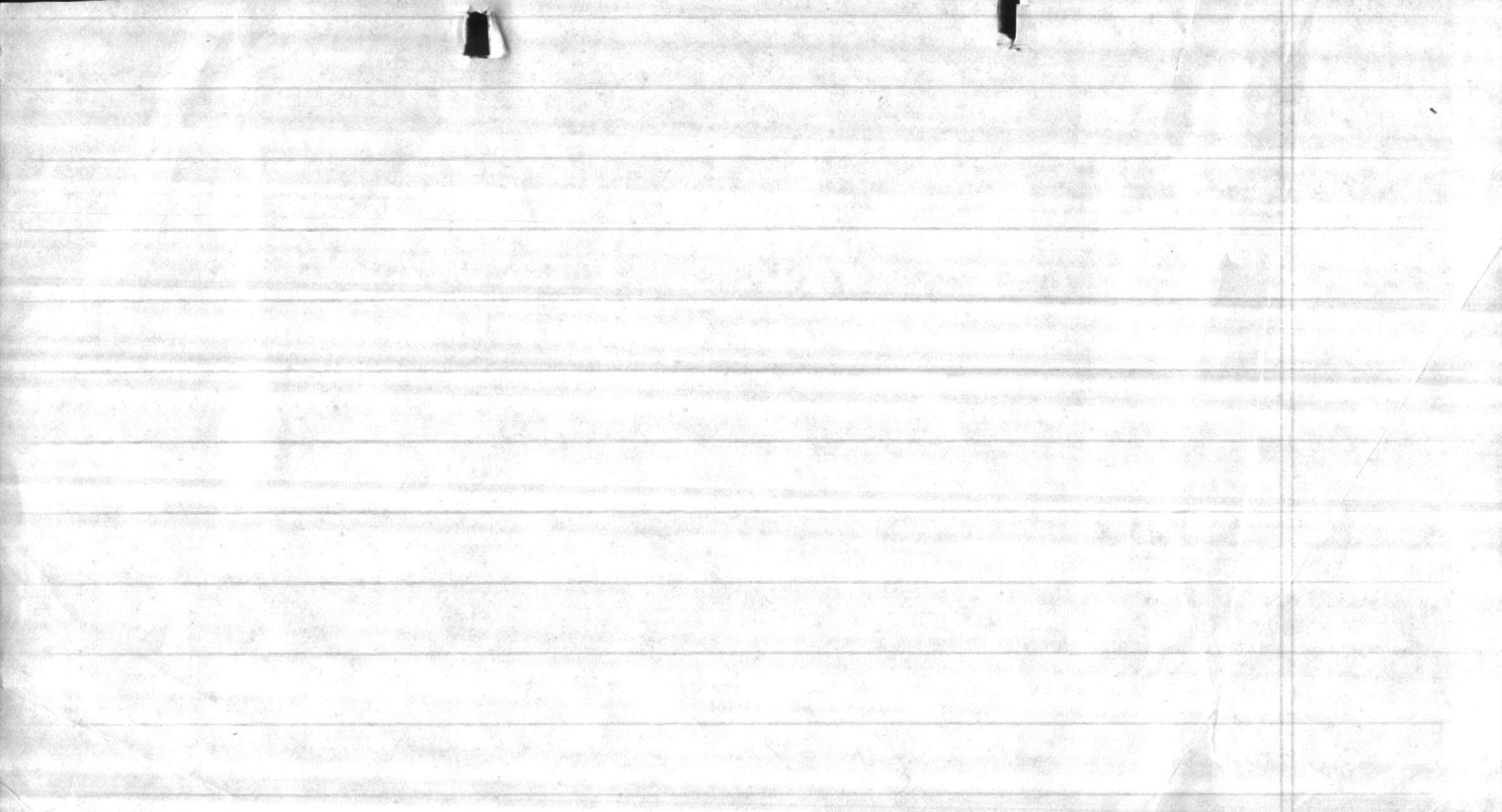
72'

28

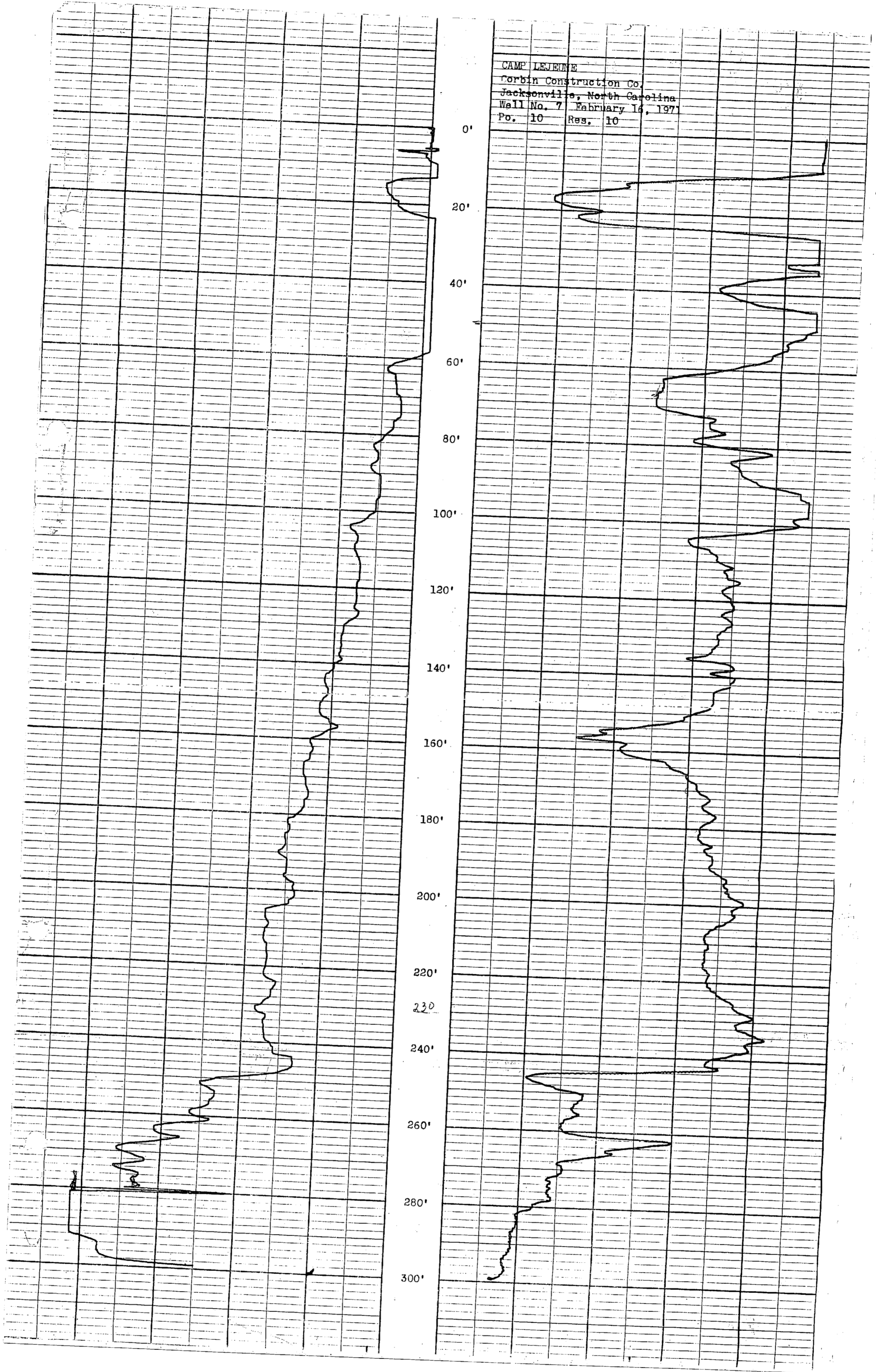
210

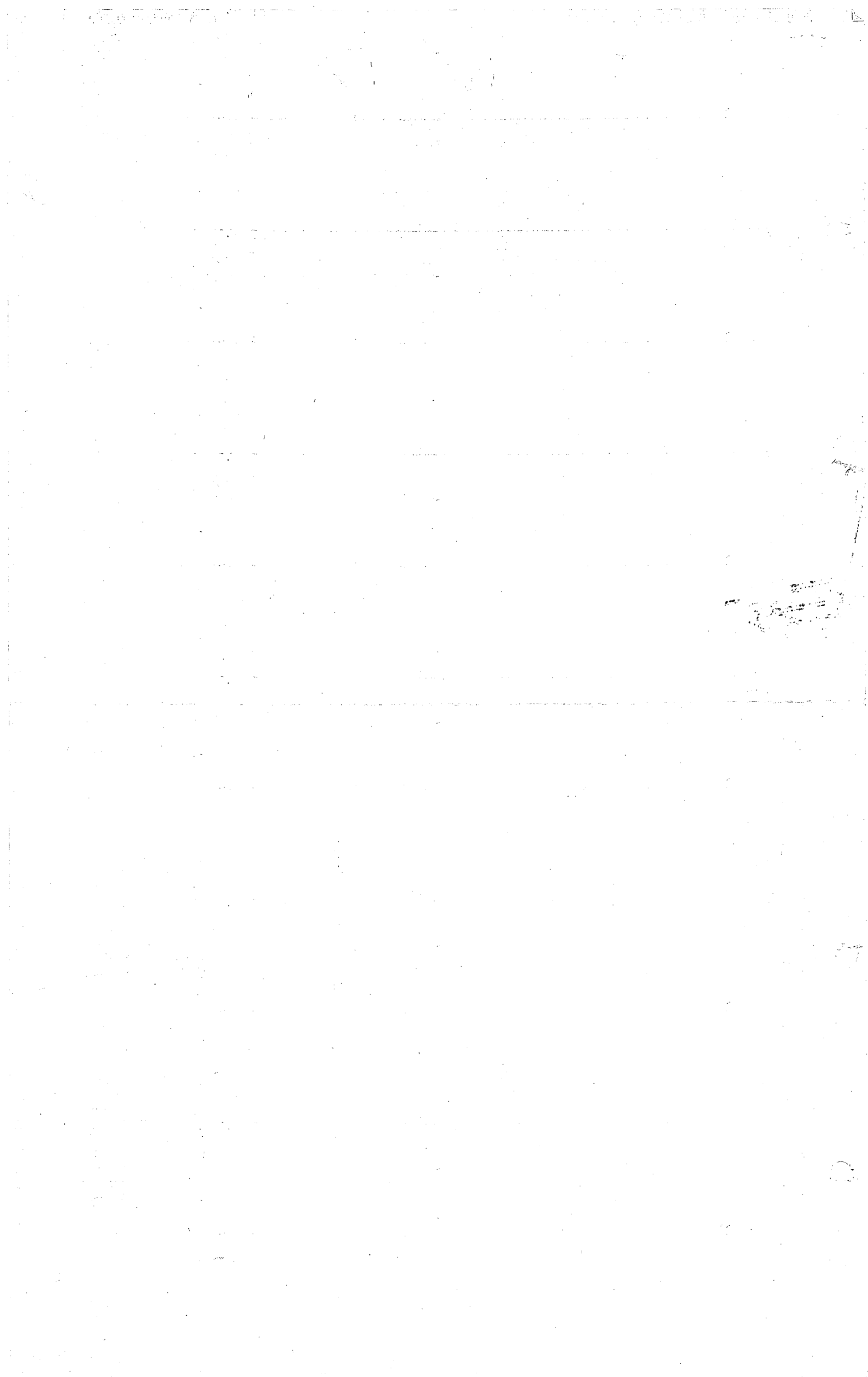
D.R.  
12-12-80

Air Line ~~69'~~ 70'



CAMP LEJUNE  
Corbin Construction Co.  
Jacksonville, North Carolina  
Well No. 7 February 16, 1971  
Po. 10 Res. 10



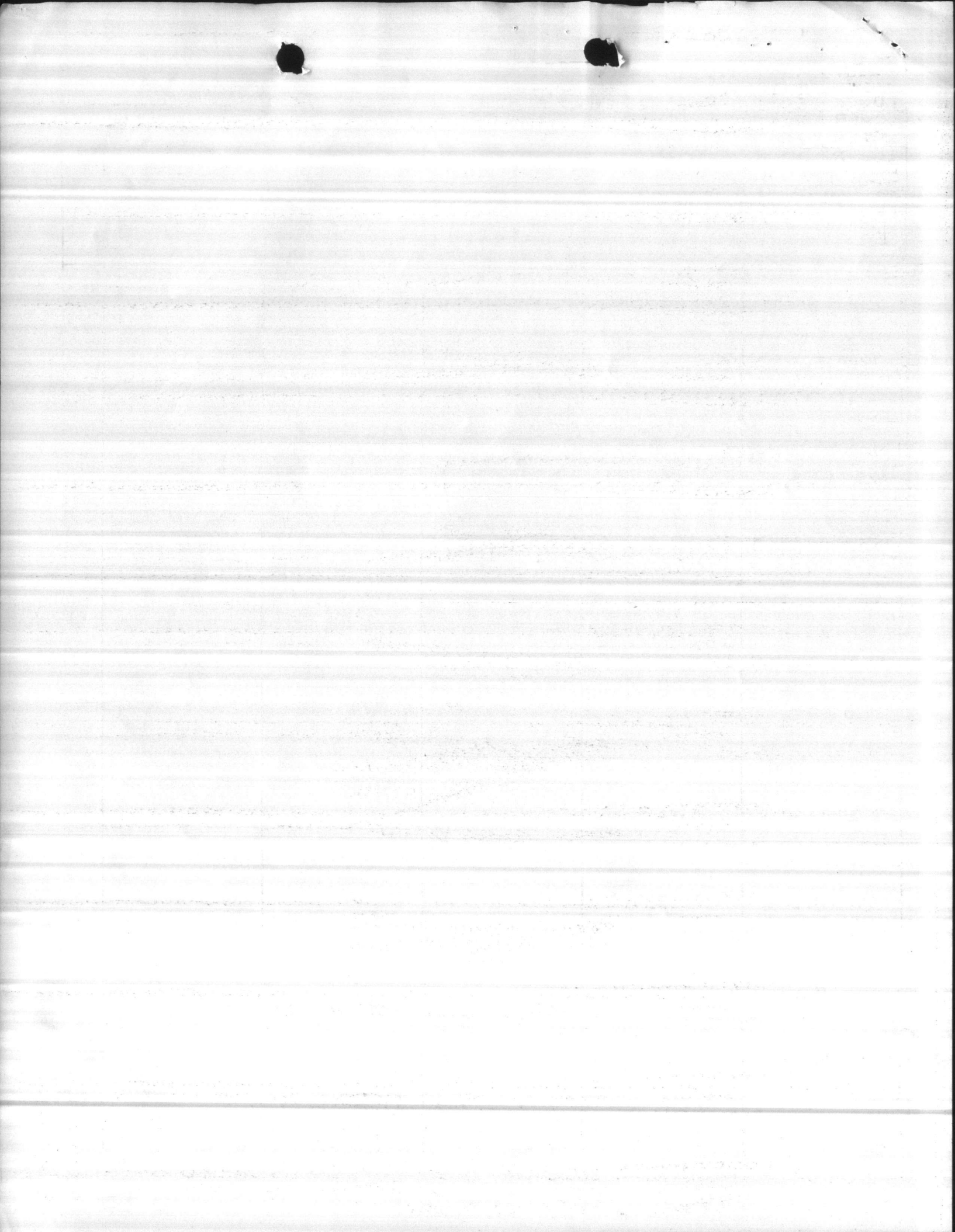


Well 7

Discharge head per section 11A, par. 11A.3.1	----	64
Pumping level @ 260 gpm	----	60
Total head	----	124

Pump

8" RKHC 4 stage 15 hp



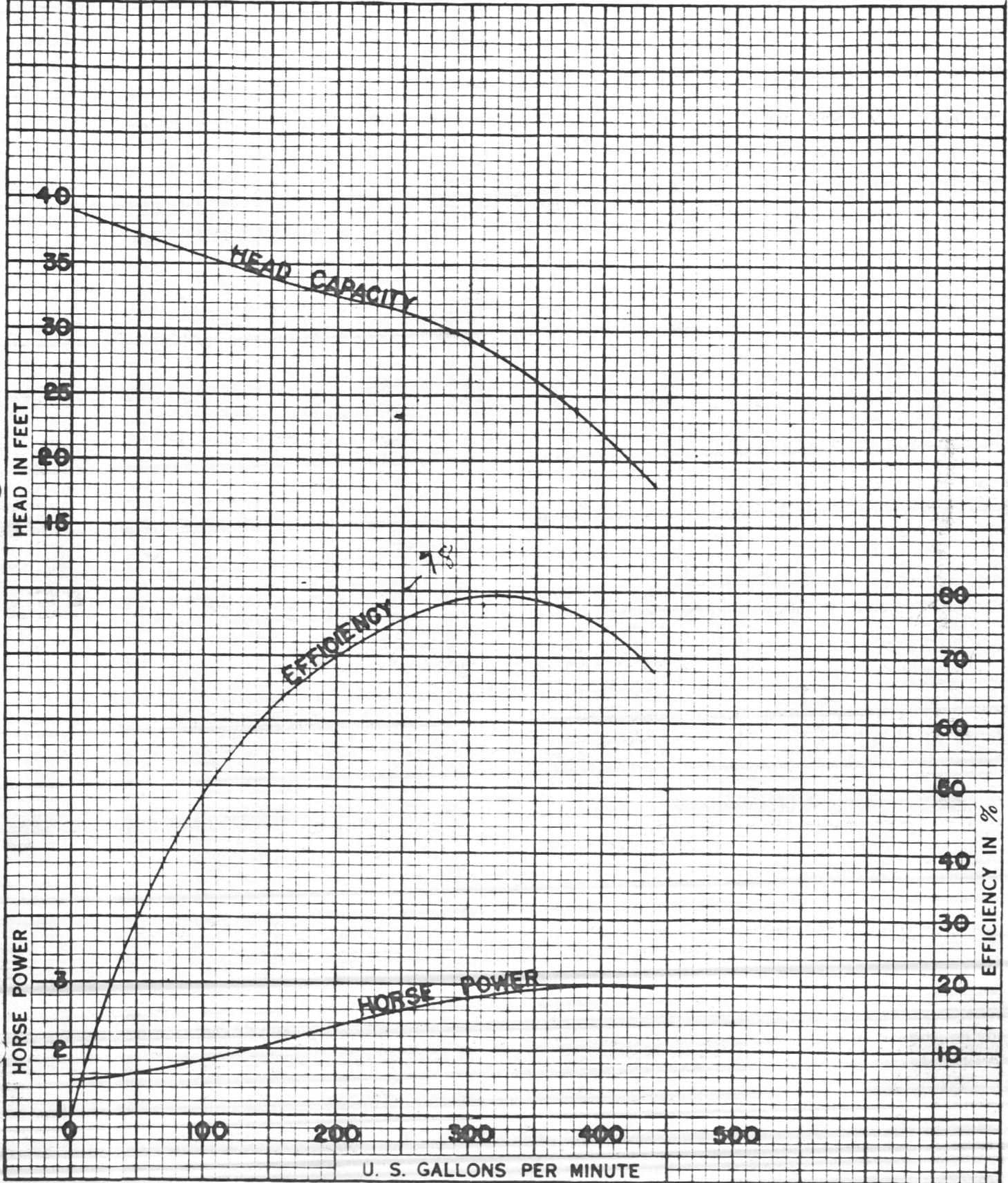
CHANGE EFFICIENCY AS FOLLOWS	NUMBER OF POINTS	FOR NUMBER OF STAGES
LOWER	5.0	1
LOWER	3.5	2
LOWER	2.0	3
LOWER	1.0	4

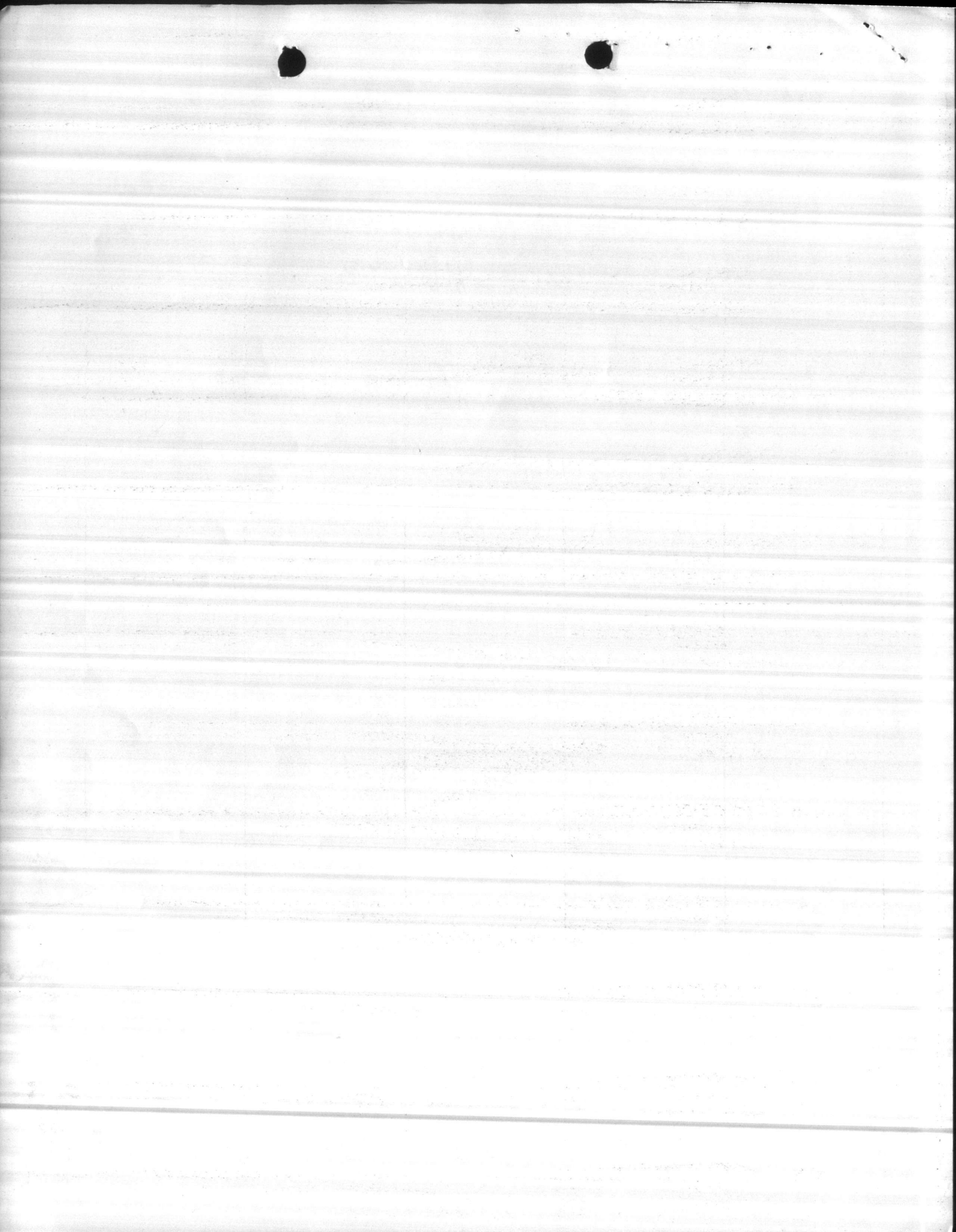
NOTE: ANY CHANGE IN EFFICIENCY CHANGES EITHER THE HEAD OR HORSE POWER IN PROPORTION.



8" RKHC  
1750 RPM

SINGLE STAGE LABORATORY  
HEAD & HORSE POWER  
THRUST "K" = 4.0







*Smith* #2

(803) 479-4639

H.B. 670

Date: January 29, 1971

643

Report To: Layne Atlantic Co.  
Norfolk, Va.

Date Analyzed: 1/29/71  
Sample Number: Camp Lejeune #5  
135-145

Analysis Results--Parts Per Million

Determination

pH	<u>7.3</u>
Iron (Fe)	<u>0.15</u>
Nitrate (NO <sub>3</sub> )	<u>Trace</u>
Fluoride (F)	<u>0.3</u>
Manganese (Mn)	<u>0</u>
Total Hardness (CaCO <sub>3</sub> )	<u>181</u>
Chlorides (Cl)	<u>12</u>
Sulfate (SO <sub>4</sub> )	<u>6.3</u>
Phosphate (PO <sub>4</sub> )	<u>1.1</u>
Magnesium (Mg)	<u>4.5</u>
Calcium (Ca)	<u>61.2</u>
Carbonate (CO <sub>3</sub> )	<u>0</u>
Bicarbonate (HCO <sub>3</sub> )	<u>292</u>
Hydroxide (OH)	<u>0</u>

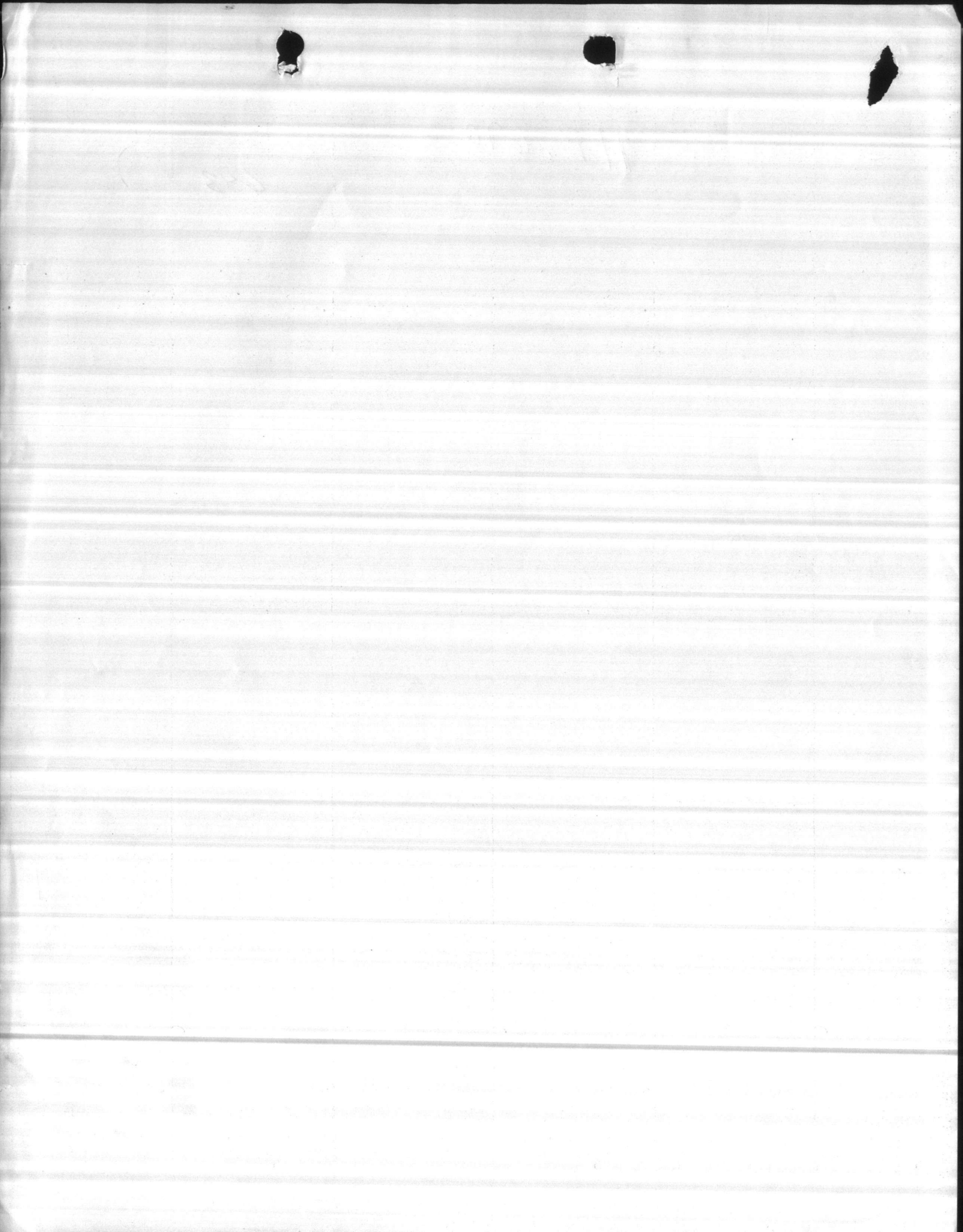
Determination

Carbon Dioxide (CO <sub>2</sub> )	<u>30</u>
Total Acidity (CaCO <sub>3</sub> )	<u>47</u>
Calcium Hardness (CaCO <sub>3</sub> )	<u>153</u>
Magnesium Hardness (CaCO <sub>3</sub> )	<u>28</u>
Carbonate Hardness (CaCO <sub>3</sub> )	<u>181</u>
Noncarbonate Hardness (CaCO <sub>3</sub> )	<u>0</u>
Alkalinity (Phenolphthalein) (CaCO <sub>3</sub> )	<u>0</u>
Carbonate Alkalinity (CaCO <sub>3</sub> )	<u>0</u>
Bicarbonate Alkalinity (CaCO <sub>3</sub> )	<u>240</u>
Total Alkalinity (CaCO <sub>3</sub> )	<u>240</u>
Total Dissolved Solids	<u>210</u>
Specific Conductance (micromhos at 25°)	<u>350</u>
Appearance When Analyzed	<u>Clear</u>
Odor When Analyzed	<u>Not Objectionable</u>
Turbidity	<u>0</u>

Signed: \_\_\_\_\_

W. P. Johnson  
W. P. Johnson, Laboratory Director

Remarks: \_\_\_\_\_

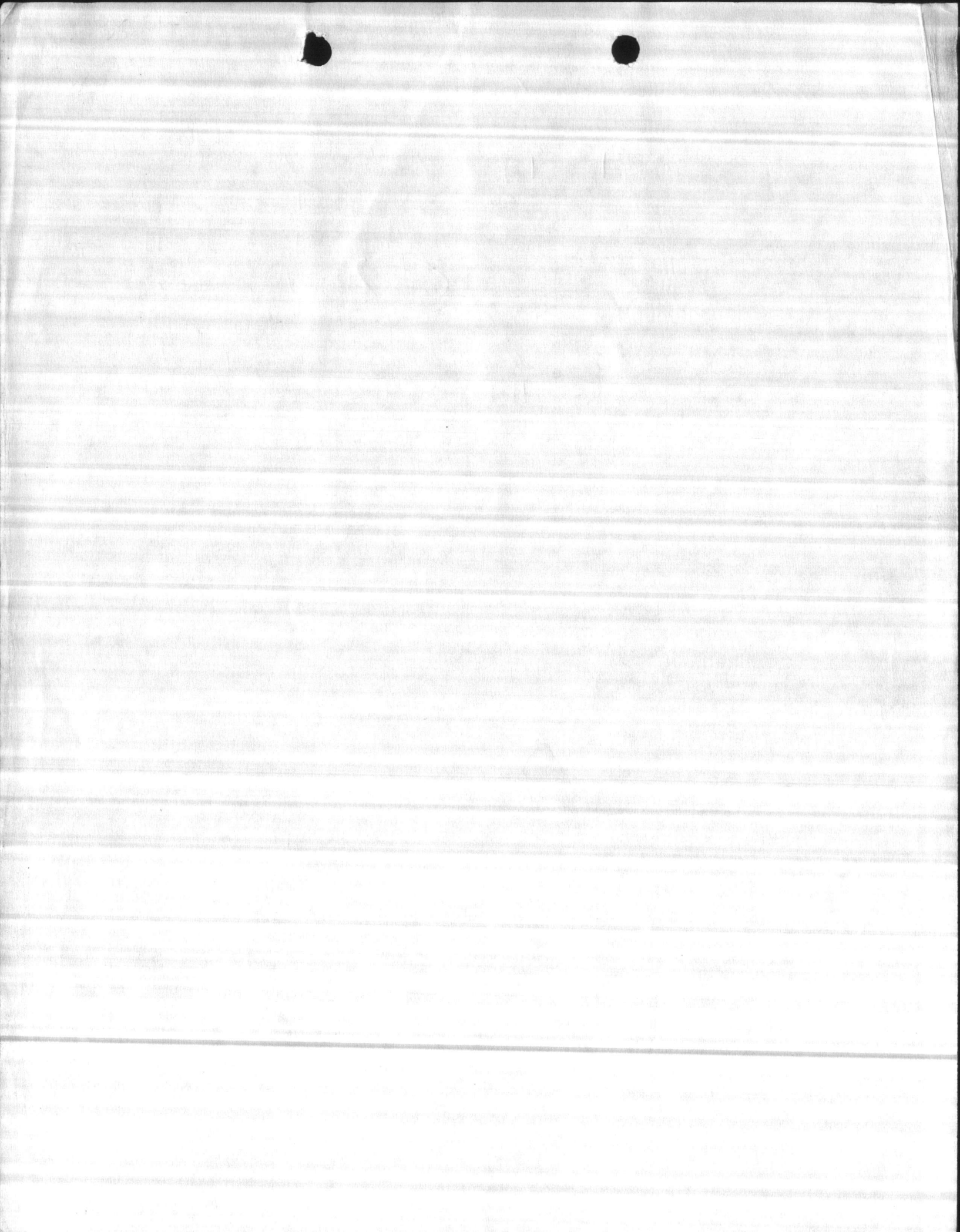


WELL NUMBER 643		BY THOMAS/PHILLIPS			DATE 12-4-84	
AIR LINE	STATIC LEVEL	PUMPING LEVEL	DRAIN DOWN	DISCHARGE PRESSURE	GPM	START TIME
78'	12'	31	19	42	104	1048
		35	23	38	128	1058
		39	27	34	159	1108
		45	33	30	192	1118
		50	38	26	219	1128
		52	40	23	236	1138
		53	41	20	275	1148

REMARKS

test set at 30 PSI 192 GPM

MANUFACTURER	STAGE	S.N.	TOTAL HEAD	SIZE

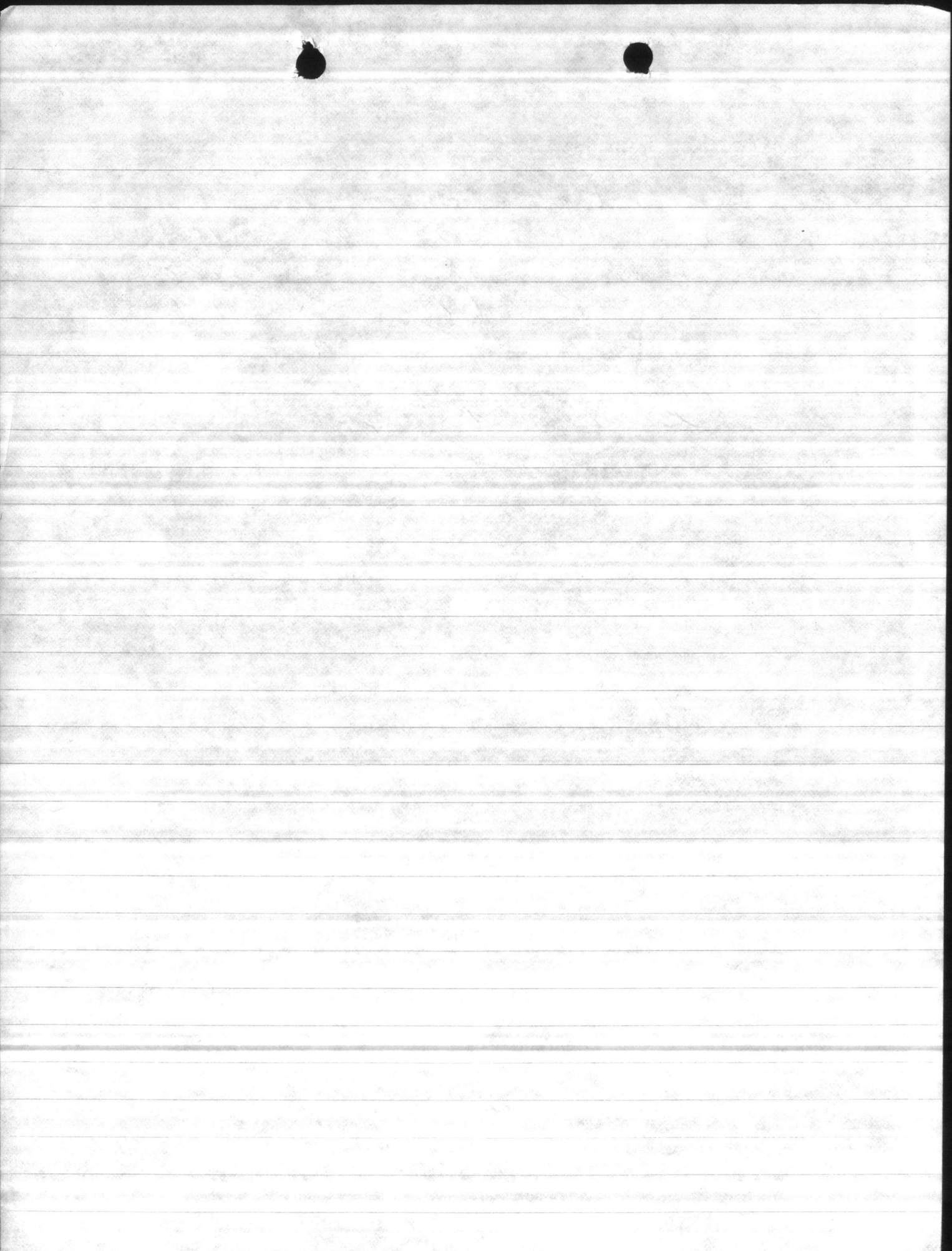


643

9-19-85

AL	S/L	P/L	O/O	PSI	GPM
28	37	47	10	42	104
		50	13	39	128
		55	18	35	151
		62	25	30	190

used direct reading gage



U.S. DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
OFFICE OF WATER DATA COORDINATION  
INVENTORY OF HYDROLOGIC DATA STATIONS  
QUALITY OF WATER

APPROVED.  
Budget Bureau No. 42-R1485  
Approval Expires June 30, 1976

1. AGENCY CODE <b>MC</b>		2. TYPE <b>Q</b>	3. LATITUDE <b>34° 43' 03" N</b>		4. LONGITUDE <b>77° 21' 18" W</b>	
6. AGENCY STATION NO. <b>HP-643</b>		7. STATION NAME <b>HP-670-643</b>				
8. DRAINAGE BASIN CODE No. <b>06</b> Letter <b>N</b>		9. STATE CODE <b>32</b>	10. COUNTY CODE <b>133</b>	11. COUNTY NAME <b>Onslow</b>		
12. PERIOD OF RECORD Began <b>1972</b> Discontinued		Y <input type="checkbox"/> Continuous Interruption Exceeds 1 Year		13.	14.	
15. SITE						
<input type="checkbox"/> 101 Stream		<input type="checkbox"/> 104 Reservoir		<input checked="" type="checkbox"/> 107 Well		
<input type="checkbox"/> 102 Canal		<input type="checkbox"/> 105 Estuarine zone		<input type="checkbox"/> 108 Drain		
<input type="checkbox"/> 103 Lake		<input type="checkbox"/> 106 Spring		<input type="checkbox"/> 109 Other		
16. TYPES OF DATA AVAILABLE AND FREQUENCY OF MEASUREMENT (Enter appropriate number (1-8) beside each parameter to indicate frequency of measurement. For parameters telemetered, enter "T".)						
1 Continuous 2 Seasonal		3 Daily 4 Weekly		5 Monthly 6 Quarterly		7 Annual 8 Other Periodic
<i>Physical</i>		<i>Chemical</i>		<i>Biologic</i>		
311 Temperature		331 Dissolved solids		361 Coliforms		
312 Specific conductance		332 <input checked="" type="checkbox"/> Chloride		362 Other micro-organisms (Benthic organism, phytoplankton, etc.)		
313 Turbidity		333 Nutrients (nitrogen)		363 Other		
314 Color		334 Nutrients (phosphorus)				
315 Odor		335 Common ions				
316 p <sub>i</sub> (field)		336 <input checked="" type="checkbox"/> Hardness		<i>Sediment</i>		
317 <input checked="" type="checkbox"/> p <sub>i</sub> (lab)		337 Radiochemical		371 Concentration (suspended)		
318 Eh		338 Dissolved oxygen		372 Particle size (suspended)		
319 Suspended solids		339 Other gases		373 Particle size (bed load material)		
320 Other		340 Minor elements		374 Other		
		341 Pesticides (insecticides, herbicides, etc.)				
		342 Detergents - MBS				
		343 Biochemical oxygen demand				
		344 Carbon (total, dissolved, etc.)				
17. SUPPLEMENTARY DATA AVAILABLE FOR STATION						
<input type="checkbox"/> 421 Surface water station		<input type="checkbox"/> 423 Water stage or level		<input type="checkbox"/> 425 Time of travel		
<input type="checkbox"/> 422 Ground water station		<input checked="" type="checkbox"/> 424 Water discharge		<input type="checkbox"/> 426 Drainage area		
18. STORAGE OF DATA						
<input type="checkbox"/> 501 Published		<input type="checkbox"/> 503 Data on punchcard		<input type="checkbox"/> 505 Other		
<input checked="" type="checkbox"/> 502 Not published		<input type="checkbox"/> 504 Data on magnetic tape, disc, data cell, etc.				
19. INQUIRIES ABOUT DATA SHOULD BE SENT TO:						
Office <b>Base Maintenance Department, Utilities Division</b>						
Street No. <b>Marine Corps Base</b>						
City, State, Zip <b>Camp Lejeune, North Carolina 28542</b>					City Code <b>0735</b>	
20. DATA ARE AVAILABLE TO PUBLIC ON REQUEST <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
21. OFFICE COMPLETING FORM <b>BASE MAINTENANCE DEPARTMENT</b>						
22. COMPILER'S NAME <b>BOB WILSON</b>					23. DATE Month <b>12</b> Year <b>1976</b>	



1000

1000

1000



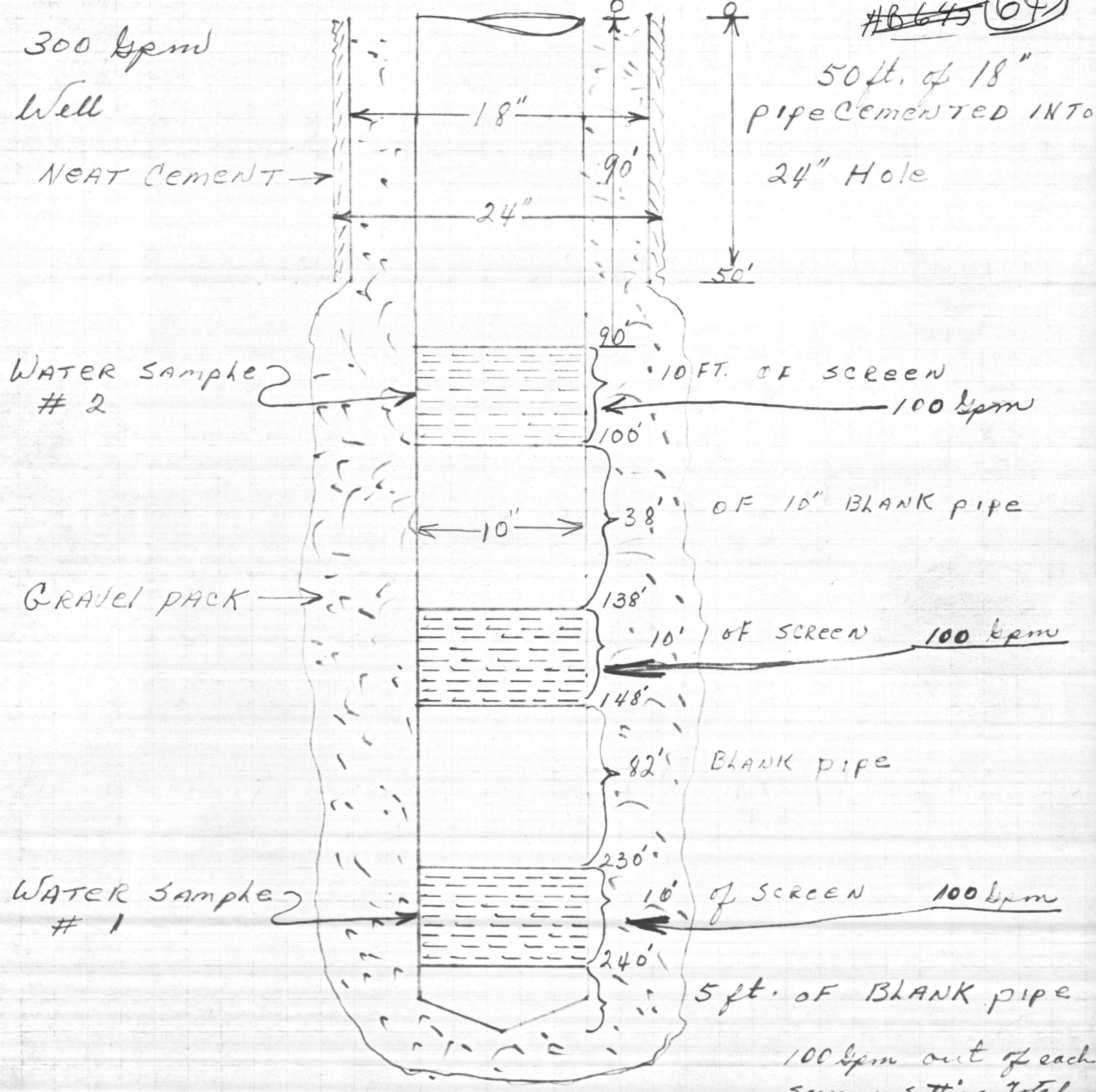
Camp Lejeune N.C. Job # 40936 LAYNE ATLANTIC

PROPOSED SKETCH OF Well # 7

~~#6645~~ (643)

300 gpm Well

50 ft. of 18" pipe cemented into 24" Hole



100 gpm out of each screen sitting total of 300 gpm. Well



HP 643 (10)

HP 643

10-2

Camp Le June Well # 7  
Carbon cont.

~~2/11/71~~ 2/16/71

0-10 Sand Clay HB 645  
10-25 Blue Clay  
25-70 Sand  
70-155 Limestone Sand  
155-180 Sand  
180-240 Sand Limestone  
240-265 Hard limestone sand  
265-302 Sand limestone

Daged 9-19-11  
+.

HB 142

Camp Lejeune N.C. Job # 40936 LAGNE ATLANTIC

PROPOSED SKETCH OF Well # 7

300 gpm Well

NEAT CEMENT →

50 ft. of 18" pipe cemented into

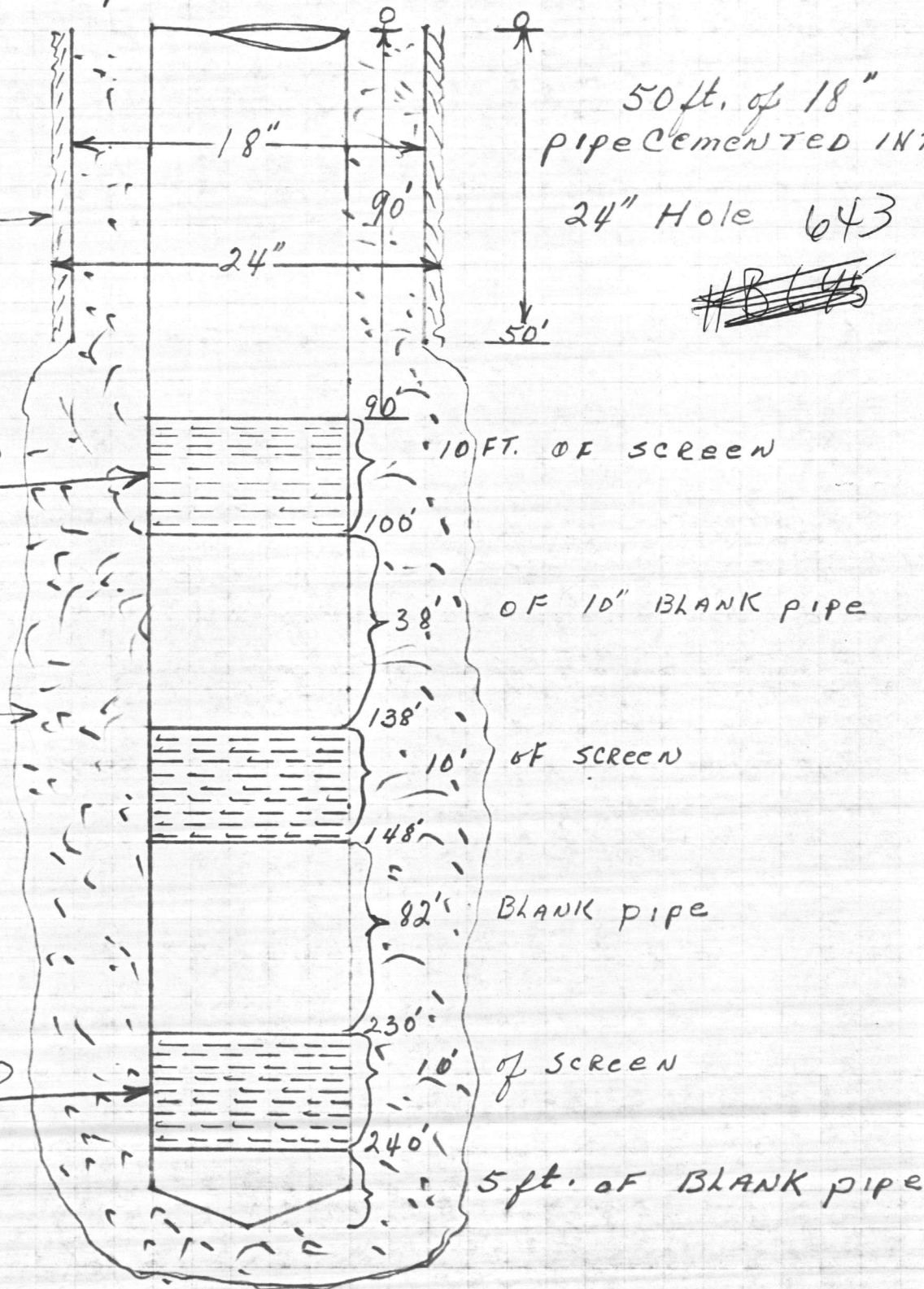
24" Hole 643

~~#B645~~

WATER sample # 2 →

GRAVEL PACK →

WATER sample # 1 →



48142

H.B. 643 WELL # 7