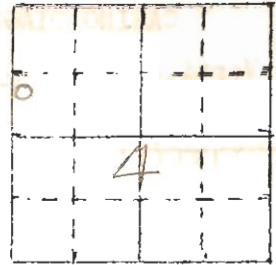


IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-1971

RECORD OF WELL



Location:

Town: Tabor (N E)
(S 1/2 W); County Fremont
NW SW NW sec. 4 T. 20 N., R. 42 W. Green Twp.

Well name and number Tabor Town Test No 1

Owner Town of Tabor Address _____

Tenant _____ Address _____

Perkins City Clerk

Contractor Rex Lane Address Blanchard

Drillers Nuckolls and McKinnis

Drilling dates Feb 7 to March 20, 1945

Well data:

Elevations: Drilling curb 1220 ± pool feet; Land surface _____ feet

Determined by SDJ

Topographic position slope of upland

Total depth: Reported 76 feet, Measured _____ feet

Drilling method cable tool

Hole and casing data 6 1/4 casing 0-23 ft

(Give amount, size, kind, and depth of all casing; type and position of seals and packers, cementing; how finished--perforated pipe, screen, gravel pack, open hole, etc.)

Original depth to water 115 ^{above} ft. below _____ Date March 18 1945

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal Don Creek; Others _____

Production data: Date March 18, 1945
 Static depth to water 115 Measuring point _____
 Pumping level 135 at 20 g.p.m. _____

Specific capacity _____ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump _____ Column Dia. _____ Length _____
 Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____
 Power _____ Airline _____
 Estimated rate of production: _____ g.p.m. for _____ hrs. a day
 Use of water _____

WATER ANALYSES (in parts per million)

Date sampled	<u>Feb. 19, 1945</u>	_____	_____	_____
Sampled by	<u>None</u>	_____	_____	_____
Total solids	_____	_____	_____	_____
Insoluble matter	<u>147.0</u>	_____	_____	_____
Alkalinity (Meq)	<u>358.6</u>	_____	_____	_____
Alkalinity (Phn)	<u>0.0</u>	_____	_____	_____
pH	_____	_____	_____	_____
Fe ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O ₃	<u>57.0</u>	_____	_____	_____
Alkali as sodium	_____	_____	_____	_____
Calcium	<u>99.3</u>	_____	_____	_____
Magnesium	<u>27.1</u>	_____	_____	_____
Iron (unfiltered)	<u>40.0(?)</u>	_____	_____	_____
Manganese	_____	_____	_____	_____
Nitrate	_____	_____	_____	_____
Fluoride	_____	_____	_____	_____
Chloride	<u>40.0</u>	_____	_____	_____
Sulfate	_____	_____	_____	_____
Bicarbonate	<u>436.8</u>	_____	_____	_____
Hardness (ppm)	<u>431</u>	_____	_____	_____
Hardness (gpg)	<u>25.2</u>	_____	_____	_____

Remarks Small barrel sample.

Laboratory data: _____ Sample storage location _____
 Sample range 95-276 No. spls. 21 No. dupls. & cond. 19 Per
 Spls. prepared by Rush Washed range _____ by _____
 Driller's log and cond. _____
 Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
 Microscopic study 95-276 strip log April 12, 1945
 Gen. log _____ Correl. by L. C. Davis, Jr.

WATER LEVEL DATA

Measuring point _____

Date	Depth to water	Altitude	Remarks

Reported by driller

REMARKS

On Feb 20, 1944 ran bailing test

Casing to 230 ft depth 267 ft

1. SW 115 #

2. bailed 1000 gal in 55 min

3. Water level drawn down 12 ft and couldn't lower it any more.

4. came back 8 ft in 5 min

3 remonh. Mello

*Frio
Tabor Town well
661-453*

June 26, 1953

MEMORANDUM

TO: H. G. Hershey
FROM: J. E. Cooper
SUBJECT: Call from driller at Blanchard, Iowa

Rex Lane, water well contractor, Blanchard, Iowa, called this morning in regard to the Town Well at Tabor, Iowa. Lane drilled this well in 1945 to a depth of 276 ft. The well is only producing a few gpm at present and Lane proposes to acidize, treat with Hydrofrax, or shoot well in an effort to restore production. He wanted us to take a look at the **samples from** the well, particularly the sandstone which occurs between 245-265 feet to see if acid would work on the sandstone. He also wanted a small cut of the samples from bedrock at 231 ft. to 276 ft. T.D. We examined these samples and the sandstone is very fine to fine calcium cemented material which breaks down readily in acid.

Lane listed 4 other wells in general area in which sandstone of same type was found. These are: Jones & Clark well near Hastings; Fisher, Ransey, and Merritt Monroe wells near Hamburg. We have samples from Jones & Clark and Monroe wells. Samples appear similar to material in Tabor well, but have not been correlated with the SS in the Tabor well.

Will call Lane **this** afternoon, tell him that acid worked readily on the sandstone in the samples we have. Also have prepared small cuts of samples which will be mailed to him.

Well # I 3-21-1945 Labor Elevation 1220+

276'
T.P.

22 1/4
6 1/4

- N.W. 1/4 N.W. 1/4 Sec 4.
T-70. R 42-W-13th T.W.P.
Test well
T.P. 276'
Static head 115' from Camb.
20' diam diam @ 20 H.P.M.

231 1/2 - 273" - not corrd.

3-21-1945:

Louis Shilling Co
Blanchard Ave

Loess

100"

100"

Marly clay.

W fine yellow sand

165"

Blue Clay.

W sand 200'

6 1/4 shoe collar

B&T. DRIST June 231

lime lime

gray shale

Black shale

W? sand stone

W? lignite shale

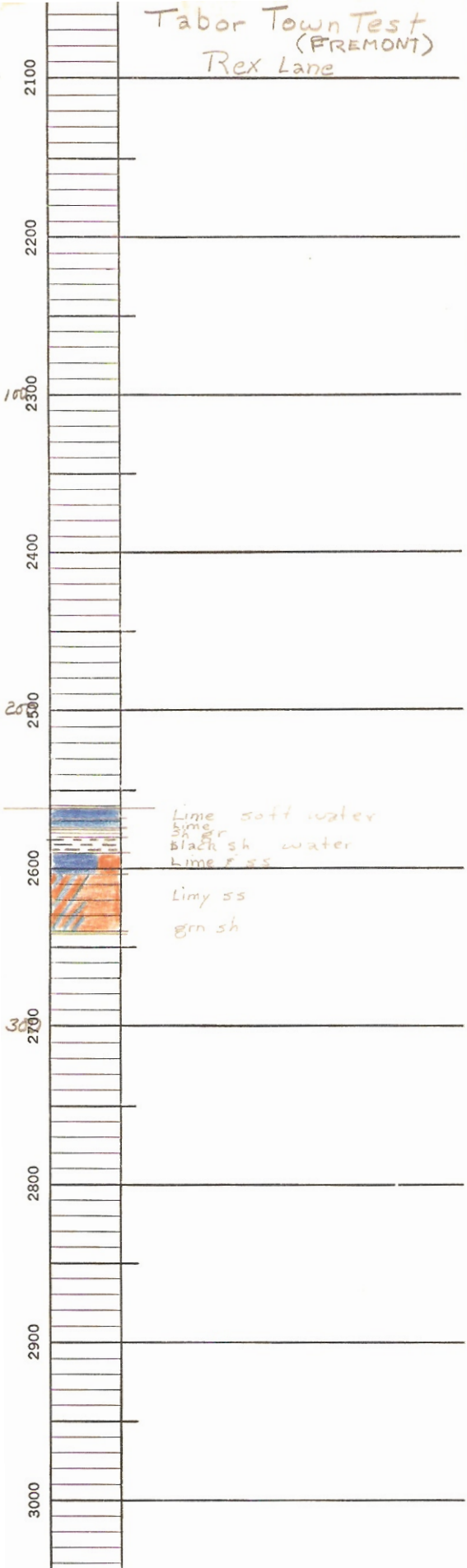
276

1. Would appreciate study log.
of John.

2. Page Co. - Yorktown - Sec 31
of Douglas Tract. -
will drill to Penn.
would appreciate any information
wants to develop this $\frac{1}{2}$ acre
(approx) $\frac{1}{2}$ farm

3. Shenandoah -
Disposal hole for
Radio -
Stake bed.
- any means to fell in
water before pulling back into
sand. - knock silt out
(aer or air ?)
Land lower flood plain.

Tabor Town Test
(PREMONT)
Rex Lane



2100
2200
2300
2400
2500
2600
2700
2800
2900
3000

Lime soft water
lime sh
Black sh water
lime ss
limy ss
grn sh

Blanchard, Iowa,
Feb. 20 - 1945.

Iowa Geological Survey,
Iowa City, Iowa.

Mr. G. H. Huskey,

FEB 26 1945

Dear Sir:

I am mailing under separate cover
sample of water taken from the well
we are now drilling at Tabor, Iowa.

This water is from an area between 231 ft.
to 270 ft. Base of the drift being 231 ft.

Log Shows.

231' - 234'	Lime - Soft-water.
234' - 237'	Lime
237' - 240'	Shale - Gray
240' - 245'	Black shale - water
245' - 252'	Lime and Sand Stone
252' - 270'	Simey Sand Stone
270' - 271'	Green Shale

Would like to know if the analysis shows sample
of water to be satisfactory for city use. If so we
will complete the well.

Yours Respectfully,
Rex Lane.

February 13, 1945

Mr. Rex Lane
Blanchard, Iowa

Dear Mr. Lane:

We have received your letter of February 10 concerning Tabor and have gathered together such information as we have in the area. Dr. Hershey has asked me to reply for him since he has been called out of town.

The only record we have of a town well at Tabor is one that was in use in 1911. This was a dug well 12 feet in diameter and 114 feet deep. It did not penetrate entirely through the drift and only a small quantity of water was obtainable.

We also have record of a farm well about one and a half miles southwest of town drilled in 1941. Good samples were saved from the surface to the total depth of 230 feet. The drift is 169 feet thick with a good sand between 145 and 169 feet. Apparently this possible source was not satisfactory as it is entirely cased off. Bedrock is shale followed by several limestone beds and from 205 to 229 feet the rock is almost entirely limestone with a few shale breaks. Fifteen gallons per minute of water was obtained from the well.

As you know, Tabor is situated just north of the sharp Thurman structure. It is therefore somewhat difficult to estimate the section to be encountered without more control than we have at the present time. It seems probable that in the farm well mentioned above the producing horizon is Deer Creek limestone. If that is so, the entire Shawnee section should be anticipated at Tabor. In any case the same limestone should be present.

Apparently the glacial sand was either not water-bearing or else considered undependable in the farm well. Nevertheless if it is present at Tabor it would seem worthwhile investigating. The sand was coarse enough to be readily developed if water is present.

We shall be glad to study the samples from the well and suggest that you send us those which you have to date. A complete set should enable us to identify the section with some assurance after 50 to 75 feet of bedrock has been penetrated.

Either Dr. Hershey or I expect to be in the western part of the state in the near future and shall plan to stop at Tabor to see you.

Very truly yours,

SEH:KNB

S. E. Harris, Jr.

Taber water supply

Never had a satisfactory supply.

Large diameter wells have been dug in many places. These yielded only small quantities. In 1925 an impounding reservoir was constructed but it soon silted up. Near the site of the reservoir several wells about 8 feet deep and from 10 to 12 feet in diameter were dug and are ~~now~~ the present source of supply.

Two deep wells have been drilled in the past. One over 300 feet deep yielded little water and was soon abandoned. A second was condemned by the department of health and was never used.

Information from town clerk Mr. Perkins
by S E Harris Jr. Feb 21, 1945

**IOWA PRESS
CLIPPING BUREAU**

Des Moines, Iowa

**Nonpareil
Council Bluffs, Iowa**

MAR 30 1945

**Tabor's New Well
Proving Adequate**

Special to The Nonpareil.

TABOR—The new town well put down by the Lane Drilling company of Blanchard has been in use for about two weeks and is supplying a good stream of water. The well is 276 feet deep, the casing is down 237 feet, where a layer of limestone was struck, and below this a good flow of water. Water is being pumped from the new well about 12 hours per day at the rate of 1,200 gallons per hour. This amount together with lesser amounts from the well up-town and the two wells near the old dam northwest of town gives an adequate supply for the present needs of the town.