

PRENTISS MISSISSIPPI BOARD OF WATER COMMISSIONERS

A-47
4-20-62

WATER WELL DRILLERS LOG

Date: April 20, 1962, Driller: HERNDON WELL & SUPPLY CO.
 P. O. BOX 42 County Prentiss
 SHANNON, MISSISSIPPI

(1) Owner of Land:	Description & Color of Materials Sand, Clay, Red Clay, Shell, etc.	Thick- ness Feet	Depth Feet
<u>Ort. Bridges</u> (Name) <u>Rt 3 Boosville, Miss.</u> (Address)	<u>Gravel & clay</u> 8		0
(2) Location: $\frac{1}{4}$, $\frac{1}{4}$, Sec. <u>28 45</u> T. <u>45</u> R. <u>6</u> <u>2</u> miles <u>W</u> , of <u>Imperial</u> (distance) (direction) (Nearest Town)	<u>Blue rock</u> 8		20
(3) Topography: <u>Hilly</u> (Hilly) (Flat) (Level)	<u>Gravel</u> 8		300
(4) Purpose of Well: <u>Domestic</u> (Domestic Irrigation Municipal, Industrial, Other)	<u>Bottom</u>		420

Information upon completion of well:

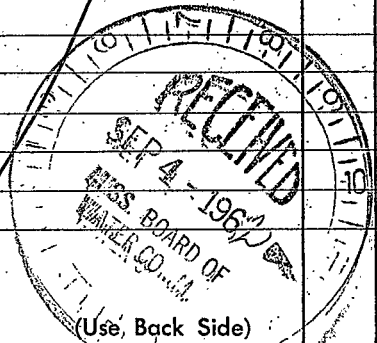
- (1) Diameter 4 inches.
 (2) Total Depth 420 feet.
 (3) Water Level 180 feet below top of ground.
 (4) Cased to 34'6", Size 4".
 (5) Screen: Size _____, Length _____.
 (6) Were any formations sealed against pollution?
 yes, _____ no.

If YES depth of formation 20'

Why Gravel & Sand

Drillers Remarks:

CODED



Well No.

The following table shows the results of the experiments conducted on the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

Temperature (°C)	Time taken for color change (s)	Rate of reaction (1/time)
10	120	0.0083
20	60	0.0167
30	30	0.0333
40	15	0.0667
50	8	0.1250

As the temperature increases, the rate of reaction increases significantly. This is due to the fact that at higher temperatures, the molecules have more kinetic energy, leading to a greater number of successful collisions between the reactant molecules.

The following table shows the effect of concentration on the rate of reaction between hydrogen peroxide and potassium iodide.

Concentration of H ₂ O ₂ (mol/l)	Time taken for color change (s)	Rate of reaction (1/time)
0.1	120	0.0083
0.2	60	0.0167
0.3	40	0.0250
0.4	30	0.0333

The rate of reaction increases as the concentration of hydrogen peroxide increases. This is because a higher concentration of reactant molecules leads to a greater frequency of collisions between them.

The following table shows the effect of catalyst concentration on the rate of reaction between hydrogen peroxide and potassium iodide.

Catalyst Concentration (mol/l)	Time taken for color change (s)	Rate of reaction (1/time)
0.01	120	0.0083
0.02	60	0.0167
0.03	40	0.0250
0.04	30	0.0333

The rate of reaction increases as the concentration of the catalyst increases. The catalyst provides an alternative pathway for the reaction with a lower activation energy, allowing more molecules to undergo the reaction at a given temperature.