

NEW MEXICO STATE LAND OFFICE  
OFFICE OF THE STATE GEOLOGIST  
SANTA FE, NEW MEXICO

### MISCELLANEOUS NOTICES

Submit this notice in triplicate to the State Geologist or proper Oil and Gas Inspector at least five days before the work specified is to begin. A copy will be returned to the sender on which will be given the approval with any modifications considered advisable or the rejection by the State Geologist or Oil and Gas Inspector of the plan submitted. The plan as approved should be followed and work should not begin until approval is obtained.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL	<b>X</b>		
NOTICE OF INTENTION TO DEEPEN WELL			

Hobbs, New Mexico, Feb. 9, 1934

PLACE

DATE

Mr. J. D. Hunter State Geologist, ~~proper~~ Oil & Gas Inspector  
Santa Fe, N. Mex.

Following is a notice of intention to do certain work as described below at the Shell

Petroleum Corporation, W. D. Grimes Well No. 1 in S.W. Quarter

COMPANY OR OPERATOR

LEASE

of Sec. 28, T. 18S, R. 38E, N. M. P. M., Hobbs

Oil Field, Lea County.

#### DETAILS OF PROPOSED PLAN OF WORK

This well will be killed by pumping oil into the tubing. It is then proposed to repair the producing White Lime Section by placing approximately 1000 gallons of commercial Hydrochloric Acid Solution in the bottom of the hole. The well will then be shut in for about 72 hours before it is placed back on production.

The present potential of this well is 3367 barrels of oil and a Gas-Oil Ratio of 905 cu.ft. gas per barrel of oil. Was 14,000 cu.ft. gas per barrel before setting a packer.

It is recommended that this well be treated to correct the high gas-oil ratio.

DUPLICATE

Approved FEB 12 1934, 19\_\_\_\_  
except as follows:

Shell Petroleum Corporation

COMPANY OR OPERATOR

By H. F. Winham

Position Div. Engineer

Send communications regarding well to

Name Shell Petroleum Corporation

Address Wink, Texas

J. D. Hunter  
NAME TITLE  
Address \_\_\_\_\_

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
LABORATORY OF PHYSICAL CHEMISTRY

REPORT OF RESEARCH

The purpose of this research was to determine the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide. The reaction was carried out in a series of test tubes at different temperatures, and the time required for the reaction to complete was measured.

The results of the experiment are as follows:

TABLE I

Time required for reaction to complete at different temperatures.

Temperature (°C) Time (sec)

20 120  
30 60  
40 30

It is evident from the above table that the rate of reaction increases with increasing temperature.

This is due to the fact that at higher temperatures, the molecules of hydrogen peroxide and potassium iodide have more kinetic energy, and therefore, they are more likely to collide and react.

DETAILS OF PROPOSED PLAN OF WORK

The proposed plan of work is to determine the effect of concentration on the rate of reaction between hydrogen peroxide and potassium iodide. This will be done by carrying out a series of experiments in which the concentration of one of the reactants is varied while the other is kept constant.

The results of these experiments will be compared with those obtained in the first experiment, and the effect of concentration on the rate of reaction will be determined.

The following table shows the proposed plan of work:

Concentration of H<sub>2</sub>O<sub>2</sub> (M)

0.1 0.2 0.3 0.4 0.5

Concentration of KI (M)

0.1 0.2 0.3 0.4 0.5

Time (sec)

The results of these experiments will be compared with those obtained in the first experiment, and the effect of concentration on the rate of reaction will be determined.