

McALESTER FUEL CO. - STATE A-1

DRILL STEM TEST DATA

<u>Interval Tested</u>	<u>Results of Test</u>
8990'-9034'	Weak blow 2 minutes and died. Re-set tool - steady blow for 10 minutes and died. Opened and closed tool 4 times. Recovered 2070' of drilling mud.
9150'-9179'	No top or bottom choke. No water cushion. Tool open 1½ hrs. Gas in 35 min. Recovered 1440' of 39.7° API gravity oil, 180' of oil and gas cut mud. Opening B.H.F.P. - 0#, Max. B.H.F.P. - 340#, S.I.B.H.P. (15 min.) 3580#.
9182'-9222'	5/8" bottom choke, 1/4" top choke. Gas in 18 min. Fluid in 51 min. Flowed to tank 1 hr. Produced 27 bbls. 44.4° API gravity oil on 1/4" choke with 250# surface pressure. B.H.F.P. 3260#, S.I.B.H.P. (35 min.) 3560#.
9220'-9270'	5/8" bottom choke, 1/4" top choke. Tool open 2 hrs. Gas in 25 min. Fluid in 39 min. Flowed to tank 1 hr. Produced 19 bbls. 44.3° API gravity oil. B.H.F.P. - 3300#. S.I.B.H.P. (17 min.) 3400#.
9270'-9322'	Tool open 1 hr. & 35 min. Gas in 11 min. Recovered 5760' of 38° API gravity oil, 60' oil and gas cut rat hole mud. Max. B.H.F.P. - 1680#, S.I.B.H.P. (15 min.) 2940#.
12,225'-12,275'	5/8" bottom choke, 1/2" top choke. 2000' water cushion. Tool open 1-1/2 hrs. Recovered 2000' W. C., 270' oil and gas cut rat hole mud, 540' of oil cut with gas and mud, 90' of free oil (46° API gravity). Initial B.H.F.P. - 1075#, Final B.H.F.P. - 1125#, S.I.B.H.P. (15 min.) 3875#.
12,400'-12,489'	5/8" bottom choke, 1" top choke. 1500' water cushion. Tool open 2 hrs. Gas in 1 hr. Recovered 1500' W.C., 1140' oil and gas (44.2° gravity), 120' gas cut rat hole mud. Min. B.H.F.P.-880#, Max. B.H.F.P.-1020#, S.I.B.H.P. (15 min.) 1820#.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

EXPERIMENT 1

The purpose of this experiment is to determine the molar mass of a volatile liquid by measuring the mass and volume of the liquid in a known volume of a flask.

The procedure involves heating a known volume of a volatile liquid in a flask until it has completely vaporized. The mass of the flask is then measured, and the mass of the vapor is determined by subtracting the mass of the empty flask from the mass of the flask containing the vapor.

The molar mass of the liquid can then be calculated by dividing the mass of the vapor by the number of moles of vapor, which is determined by the ideal gas law.

The results of the experiment show that the molar mass of the liquid is approximately 44 g/mol, which is consistent with the molar mass of carbon dioxide.

The experiment was performed under the following conditions: temperature = 25°C, pressure = 1 atm, and volume of flask = 100 mL.

The data obtained from the experiment are as follows:

Mass of flask (g)	Mass of flask + vapor (g)
25.123	25.567

The calculated molar mass of the liquid is 44.0 g/mol. This value is in good agreement with the molar mass of carbon dioxide, which is 44.01 g/mol.

RESULTS

Mass of flask (g)

Mass of flask + vapor (g)

Temperature (°C)

Pressure (atm)

Volume of flask (mL)

Molar mass (g/mol)

Identity of liquid