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GEOLOGISTS REPORT

for

GUILINGER #1
C,W/2,SE,SE,sec 12,T9S,R19W
JEFFERSON, KANSAS

December,1994

by

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GEOLOGISTS REPORT
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December 28,1994: Called to well @ 3:30AM, drlg @ 1050'. On loc @ 5:00 AM. Released from loc. @ 8:00 PM upon comp. of logging.

ELEVATION: 1089.7 GL (all measurements from round off 1090)

FORMATION TOPS	SAMPLE DEPTH	LOG DEPTH	DATUM	THICKNESS
Base KC	832	832	+258	
Mannaton	967	968	+122	90'
Cherokee	1057	1058	+ 32	514'
Coal marker	1469	1471	-381	4'
U. McLouth Sd	1520	1521	-431	8'
M. McLouth Sd	absent			
L. McLouth Sd		1536	-446	12'
Burgess Sd		1567	-477	5'
Mississippi Lm.	1570	1571	-482	

Sample returns were examined microscopically from a drilled depth of 1000 feet to TD for the presence of visible hydrocarbons. Formation tops and thicknesses were picked from the drilling time log, sample returns and the Neutron/Density Porosity Log. There were no zones of interest above the Mclouth sands in this well and therefore only the lower Cherokee section will be discussed in detail in this report.

CHEROKEE GROUP:

Although there were several thicker, moderately clean sands developed through the middle part of this section there were no indications that hydrocarbons were present in any of these units. Due to the sand development, this interval needs to be examined in any wells drilled in the immediate area.

The McLouth sands are divided into three units for mapping purposes, the upper (1521-1529), middle (1529-1536) and lower (1536-1548) . The middle

sequence is a shale interval in this well and will not be discussed further in this report.

The upper sand is a clean, porous, subrounded to rounded , medium to coarse grained quartz sand. There was a slight show of medium brown free oil present in the samples. The samples had a strong initial petroleum odor which rapidly weakened. Drilling mud was ejected to a height of approximately 6 feet into the air during the drilling of this interval. Log calculations were prepared on location by Mr. Glenn Schmeidler of Log Tech Inc using the following values: M= 1.8, Rw = .2

INTERVAL	POROSITY	Rt	SW%
1522-24	21%	60	25%
24-26	20%	100	20%
1526-28	16%	40	33%

The Neutron/Density Porosity log indicated a strong cross-over gas effect thru this interval. Based on the log calculations , excellent porosity , cross-over on the log , and the apparent surge of gas up thru the drilling mud while drilling this sand, it appears that this interval has the potential to produce commercial quantities of gas.

Although the lower Mclouth had much less porosity and low Rt values there is the possibility that some gas is present in this zone as evidenced by the converging density and porosity curves on the logs.The shalyness of the sand also reduces the log porosity values. There was some pyrite cementation of the sand grains in this interval observed in the samples. This cementation can cause low resistivity values on the RA Guard logs if present in suffucuent amounts.

The Burgess sand had a very limited thickness : however , there was a slight gas cross-over effect noted on the log between 1568 and 1572 feet. The lower porosity values on the log , along with Rt values of only 12 to 14 ohms yield Sw values that indicate a wet sand. This sand needs to be evaluated carefully in any offset wells that may be planned.

MISSISSIPPI LIME

The lime top was reached at a log depth of 1572 feet. Sample returns from the drilled interval showed a low porosity lime that had no visible shows of hydrocarbons. This interval is considered non-productive in this well.

CONCLUSIONS AND RECOMMENDATIONS

The upper Mclouth sand appears to have the potential to produce commercial quantities of gas from this well. The logs fom this well along with those of wells drilled in the nearby area suggest that there is the probability that offset wells to this location may also be productive. There is a much thicker sand development to the west although those wells that were campared to this well were structurally lower.The wells to the NW and SW had a gas effect indicated on the logs but the reisitivity values were very low and the log calculations indicated a wet sand.

Should additional information be required, please contact me.

Respectfully submitted,

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