



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

May 18, 1982

Tutcher Oil & Gas Company
Box 308, 317 Maple
Overbrook, Kansas 66524

Gentlemen:

Attached hereto are the results of tests run on the rotary core samples taken from the Shirar Lease, Well No. 1, located in the Southwest $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ in Section 17, T-13S, R-20E, in Douglas County, Kansas.

The core samples were sampled by a representative of the client and were sealed in plastic. The customer requested that the first four feet be analyzed, then approximately every third foot to be analyzed. The core samples were received in our laboratory on May 14, 1982.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

4 c to Overbrook, Kansas
1 c to Richard Schmidt, Topeka, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

LOGName Tutcher Oil & Gas Co., Lease Shirar Well No. 1

<u>Depth Interval, Feet</u>	<u>Description</u>
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UPPER AND LOWER SQUIRREL SAND

677.0 - 690.0	Grayish light brown very shaly sandstone.
690.0 - 697.5	Brown sandstone.
697.5 - 716.0	No core.
716.0 - 717.0	Light brown sandstone.
717.0 - 718.0	No core.
718.0 - 719.0	Light brown sandstone.
719.0 - 720.0	No core.
720.0 - 721.0	Light brown sandstone.
721.0 - 722.0	No core.
722.0 - 723.0	Light brown sandstone.
723.0 - 724.0	No core.
724.0 - 725.0	Light brown sandstone.
725.0 - 726.0	No core.
726.0 - 727.0	Light brown sandstone.
727.0 - 728.0	No core.
728.0 - 729.0	Light brown sandstone.
729.0 - 730.0	No core.
730.0 - 731.0	Light brown sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1

Company Tutcher Oil & Gas Company Lease Shirar Well No. 1

Sample No.	Depth, Feet	Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.
			Oil	Water	Total		
1	677.5	15.2	17	80	97	201	0.46
2	678.5	14.8	7	89	96	80	0.41
3	679.5	9.0	18	79	97	126	Imp.
4	680.5	15.7	7	91	98	85	Imp.
5	683.5	15.2	11	86	97	130	Imp.
6	686.5	14.5	13	83	96	146	Imp.
7	689.5	14.2	30	66	96	330	0.66
8	692.5	21.8	31	56	87	524	38.
9	695.5	19.9	25	59	84	386	22.
10	697.5	21.6	15	64	79	251	28.
11	718.5	23.5	6	85	91	109	110.
12	724.5	25.5	7	73	80	139	62.
13	728.5	22.1	5	91	96	86	60.