CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
OKLAHOMA CITY, OKLAHOMA

June 20, 1984

REPLY TO
SUITE 133
400 SOUTH VERMONT
OKLAHOMA CITY, OK
73108

TXO Production Corporation
Suite 300, 200 West Douglas
Wichita, Kansas 67202

Attn: Mr. Hal Brown

Subject: Core Analysis Data
McConnel "B" No. 1 Well
Clark County, Kansas
CLI File 3402-12071

Gentlemen:

Cores taken in the subject well in the Morrow formation were received at the Oklahoma City laboratory for special analytical testing described on the Procedure Page.

The accompanying Coregraph presents the Surface Core-Gamma Log and binomially averaged core analysis data in graphical form to aid correlation with downhole electrical surveys.

Tabular presentation of the measured physical properties may be found on page one of this report.

Core analysis data from the cored interval between 5,278.0 to 5,295.0 feet indicate very low matrix permeability and poor porosity development. The interval from 5,287.0 to 5,290.0 feet does indicate very good porosity development, but with very low matrix permeability. Fluid saturations data shows the presence of hydrocarbons between 5,281.0 and 5,286.0 feet. This Morrow zone is considered to be non-productive.

Histograms of porosity and permeability in addition to a graph of permeability versus porosity may be found on pages two and three.

It is a pleasure to have this opportunity of serving you.

Very truly yours,

CORE LABORATORIES, INC.

J. Michael Edwards

J. Michael Edwards
District Manager

JME:ja

10 cc - Addressee

TXO Production Corporation
McConnel "B" No. 1 Well
CLI File 3402-12071

Procedure Page

Handling and Analytical Procedures

Diamond coring equipment and water base mud were used to obtain 3.5 inch diameter cores between 5,267.0 and 5,295.0 feet.

The cores were preserved at the well site in PVC tubes by core engineer.

The cores were transported to Oklahoma City by client representative.

A Core-Gamma Log was recorded for downhole electric log correlation.

Plug analysis was made in intervals requested.

Fluid removal was accomplished using Dean Stark extraction.

Porosity was determined by Boyle's law grain volume--mercury pump bulk volume.

Horizontal air permeability on plugs measured without Klinkenberg correction.

Cores were slabbed for future geological study.

One-half slab segments have been shipped to:
Kansas Geological Survey
Lawrence, Kansas
Remaining one-half have been shipped to:
TXO Production Corporation
Wichita, Kansas

TXO PRODUCTION CORPORATION
McCONNEL "B" NO. 1 WELL

CLARK COUNTY, KANSAS

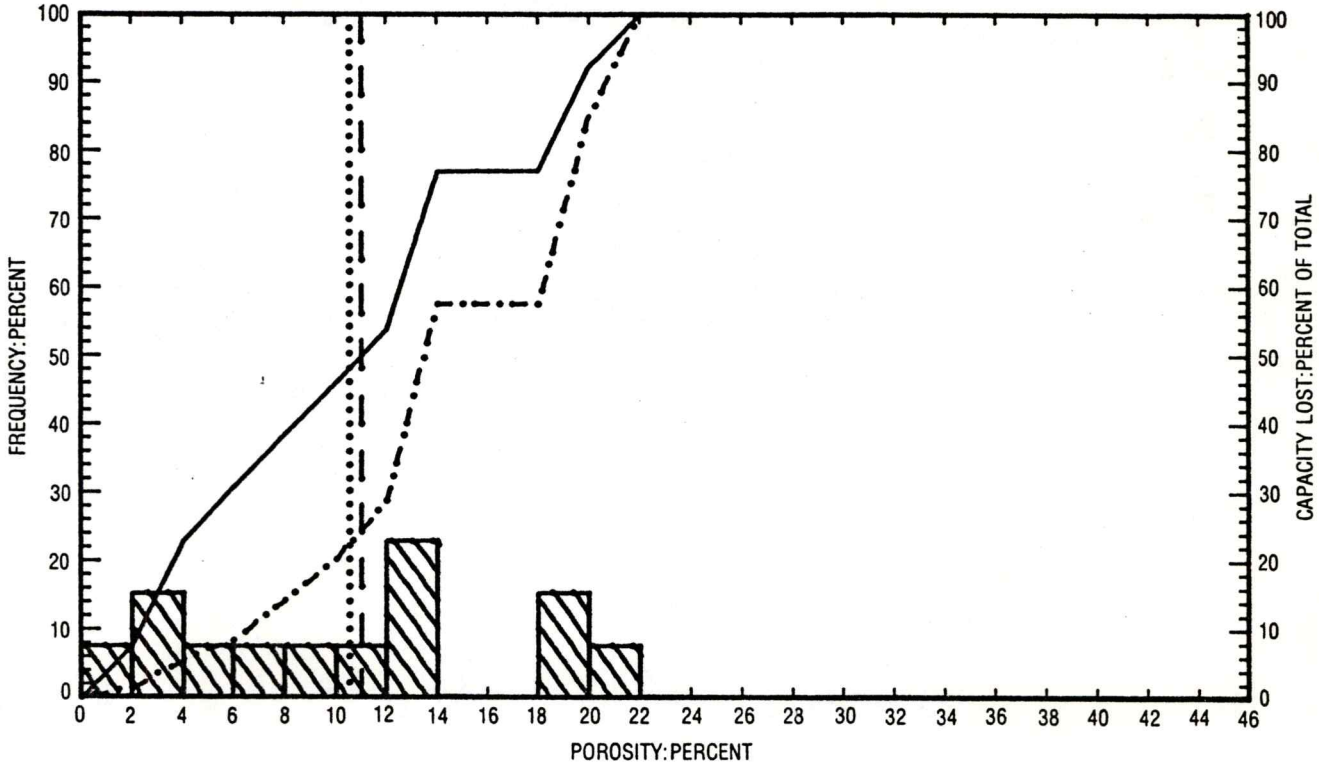
DATE: 6-20-84
FORMATION: MORROW SAND
DRLG. FLUID: WATER BASE MUD
LOCATION: NE/NE/NE SEC 6-30S-24W

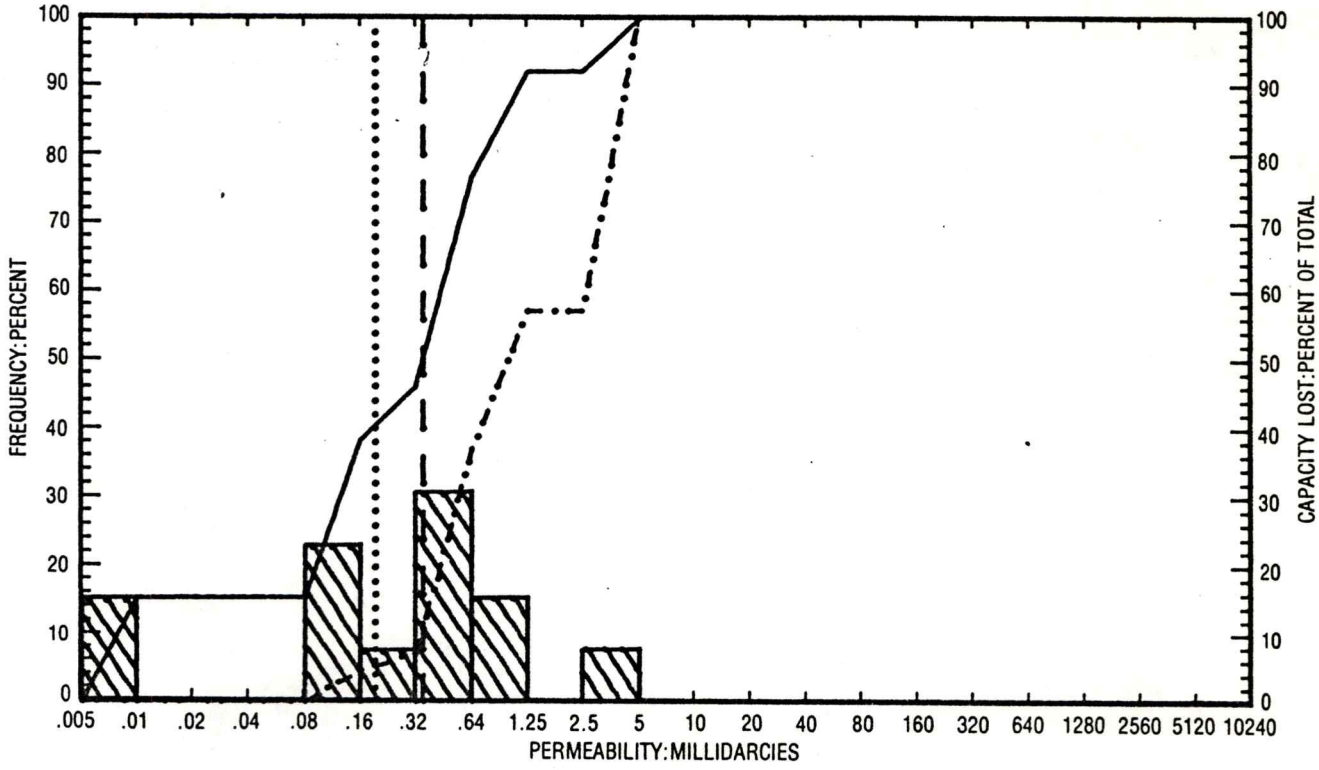
FILE NO: 3402-12071
ANALYST: EDWARDS
LABORATORY: OKLAHOMA CITY

DEAN STARK PLUG ANALYSIS

	SMP. NO.	DEPTH FEET	PERM. TO AIR MD. PLUG H	POROSITY PERCENT	FLUID SATS. OIL	FLUID SATS. WATER	GRAIN DEN.	DESCRIPTION
		5267.0-78.0						LM,FOSS,DSE,STY,VF
	1	5278.0-79.0	0.10	8.3	0.0	89.2	2.65	SD,VF GRN,SLTY
	2	5279.0-80.0	0.57	7.8	0.0	91.5	2.65	SD,VF GRN,SHY,SLTY
	3	5280.0-81.0	0.12	4.1	0.0	96.8	2.65	SD,VF GRN,SHY,SLTY
	4	5281.0-82.0	0.09	3.6	16.0	35.8	2.65	SD,VF GRN,LMY,SH INCL, SLTY
+	5	5282.0-83.0	2.90	13.7	2.3	81.8	2.67	SD,VF GRN,SL/LMY,SLTY
	6	5283.0-84.0	0.49	13.1	10.8	52.9	2.65	SD,VF GRN,SME SH,SLTY
		5284.0-86.0						SH,SD STKS
	7	5286.0-87.0	0.40	11.4	7.0	65.9	2.65	SD,VF GRN,SLTY
	8	5287.0-88.0	0.16	12.5	0.0	73.7	2.67	SD,VF GRN,SL/SHY,SLTY
		5288.0-90.0						SH
	9	5290.0-91.0	0.57	18.4	0.0	82.2	2.66	SD,VF GRN,SLTY,SL/PYR
	10	5291.0-92.0	0.66	20.8	0.0	82.7	2.67	SD,VF GRN,SLTY,SL/PYR
	11	5292.0-93.0	0.68	19.1	0.0	82.5	2.66	SD,VF GRN,SLTY
	12	5293.0-94.0	<0.01	2.0	0.0	93.5	2.67	SD,VF GRN,LMY,SLTY
	13	5294.0-95.0	<0.01	1.8	0.0	85.7	2.67	SD,VF GRN,LMY,SLTY
		5295.0-5297.0	LOST CORE					

\+ DENOTES HORIZONTAL CRACKS





PERMEABILITY AND POROSITY HISTOGRAMS

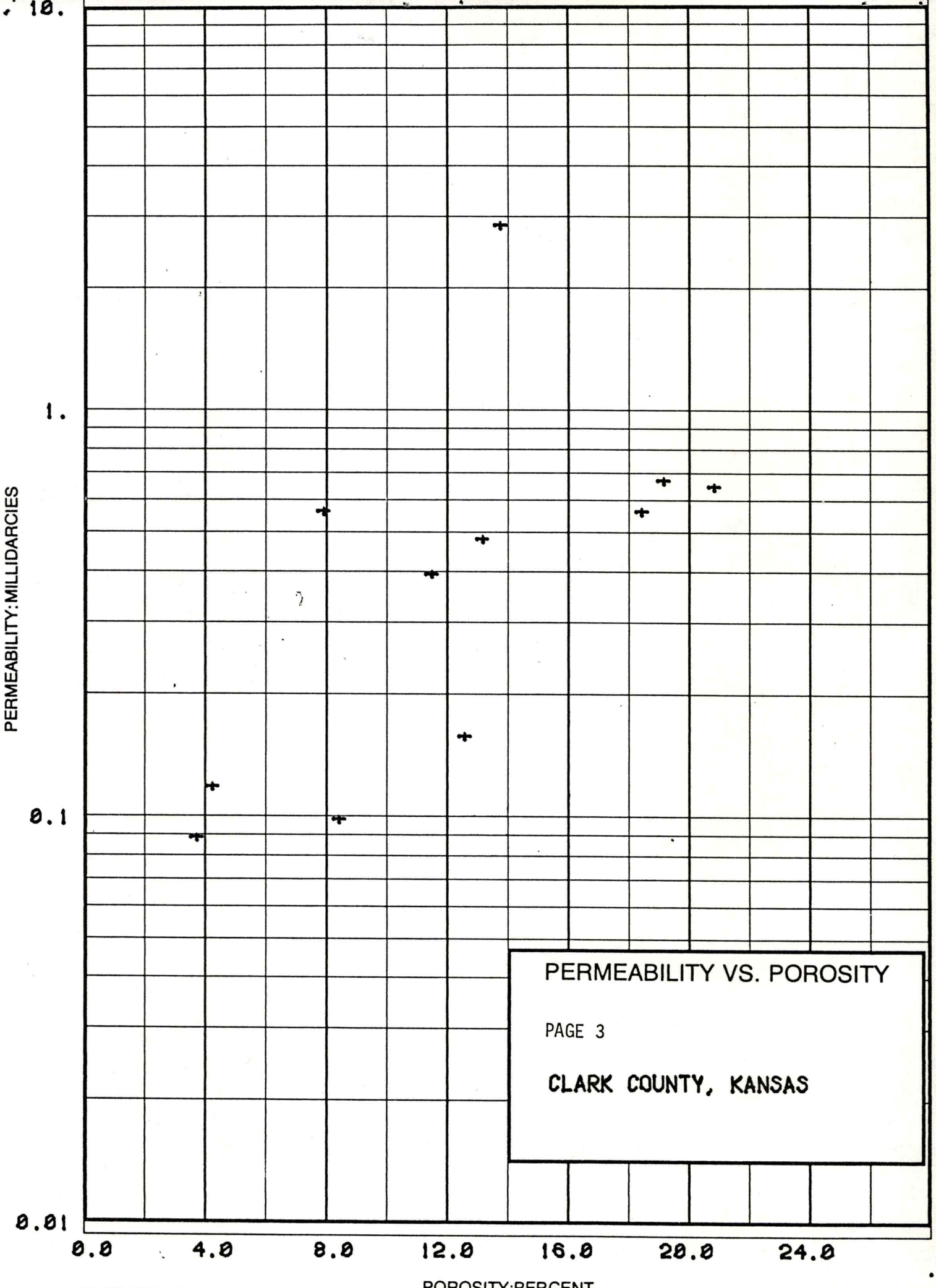
PAGE 2

TXO PRODUCTION CORPORATION
McCONNEL "B" NO. 1 WELL

CLARK COUNTY, KANSAS

LEGEND

ARITHMETIC MEAN POROSITY
GEOMETRIC MEAN PERMEABILITY
MEDIAN VALUE
CUMULATIVE FREQUENCY
CUMULATIVE CAPACITY LOST



CORE LABORATORIES, INC. *Petroleum Reservoir Engineering*

COMPANY TXO PRODUCTION CORPORATION — FILE NO. 3482-12071

WELL McCONNEL "B" NO. 1 WELL — DATE 6-28-84

FIELD — FORMATION MORROW SAND — ELEV.

COUNTY CLARK — STATE KANSAS — DRLG. FLD. WATER BASE MUD — CORES

LOCATION NE/NE/NE SEC 6-38S-24W

CORRELATION COREGRAPH

VERTICAL SCALE: 5" = 100'

Gamma Ray
RADIATION INCREASE →

Permeability
MILLIDARCIES
1000 100 10 1

Depth Feet

Porosity
PERCENT
30 20 10 0

Total Water
PERCENT PORE SPACE
100 80 60 40 20 0

Oil Saturation
PERCENT PORE SPACE
0 20 40 60 80 100

5250

5300