CORE ANALYSIS REPORT

FOR

J. C. BROWN
J. C. BROWN NO. 5-B WELL
DOUGLAS COUNTY, KANSAS

May 3, 1985

J. C. Brown
Rural Route 3
Baldwin, Kansas   66006

Attn: Mr. J. C. Brown

Subject: Core Analysis Data
J. C. Brown No. 5-B Well
Douglas County, Kansas
CLI File 3408-850077

Gentlemen:

Cores taken in the subject well in the Squirrel Sand formation
were received at the Tulsa laboratory for special analytical
testing described on the Procedure Page.

The accompanying Coregraph presents 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.

Empirical estimates of stock tank oil in place may be found on
page two.

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

Very truly yours,

CORE LABORATORIES, INC.

J. Michael Edwards
District Manager

JME:ja

3 cc - Addressee
2 cc - Kansas Land Investment, Inc.
        Attn: Mr. Jim Mietchen
        222 East 3rd Street
        Ottawa, Kansas   66067

J. C. Brown
J. C. Brown No. 5-B Well
CLI File 3408-850077

Procedure Page

Handling and Analytical Procedures

Diamond coring equipment and air were used to obtain 2-1/8 inch
diameter cores between 688.0 and 699.5 feet.

The cores were preserved at the well site in plastic bags by
client representative.

The cores were transported to Tulsa by bus.

Plug analysis was made in intervals requested.

Fluid removal was accomplished using high temperature retorts.

Porosity was determined by summation-of-fluids technique.

Horizontal air permeability on plugs measured without Klinkenberg
correction.

Temporary storage of cores in Tulsa laboratory for a period of
thirty days without additional charge.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

J. C. BROWN

J. C. BROWN NO. 5-B WELL

DOUGLAS COUNTY, KANSAS

DATE : 5-3-85
FORMATION : SQUIRREL SAND
DRLG. FLUID: AIR
LOCATION :

FILE NO. : 3408-850077
API NO. :
LABORATORY: TULSA, OKLAHOMA

CONVENTIONAL PLUG ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM PLUG	FLD POR	OIL% POR	WTR% POR	DESCRIPTION
	688.0-88.5					SH
1	688.5-89.0	0.16	16.3	16.4	68.6	SD FN GRN SLTY SL/CALC SHY MICA
2	689.0-89.9	0.98	19.2	26.5	43.4	SD FN GRN SLTY SL/CALC SH LAMS MICA
	689.9-90.5					SH
3	690.5-91.0	0.54	16.5	20.1	51.7	SD FN GRN SLTY SL/CALC SH LAMS MICA
4	691.0-92.0	2.4	16.5	14.0	69.2	SD FN GRN SLTY SL/CALC SHY MICA
5	692.0-93.0	0.20	18.6	11.8	55.8	SD FN GRN SLTY SL/CALC V/SHY MICA
6	693.0-94.0	16.	14.4	12.7	71.4	SD FN GRN SL/CALC SHY MICA
	694.0-95.0					SH
7	695.0-96.0	28.	22.9	29.9	32.8	SD FN GRN SL/CALC SL/SHY MICA
8	696.0-97.0	104.	20.8	30.3	36.7	SD FN GRN SL/CALC MICA
9	697.0-98.0	43.	20.1	28.6	38.9	SD FN GRN SL/CALC SL/SHY MICA
10	698.0-99.0	9.9	16.8	17.3	59.0	SD FN GRN SL/CALC SH LAMS MICA
11	699.0-99.5	7.6	19.0	17.1	47.7	SD FN GRN SL/CALC SH LAMS MICA

$h = 5.5$

$\phi = 19$

$S_o = 23.2$

$S_w = 47.7 \ (43)$

$\sqrt{} = .665$

J. C. BROWN   DATE   : 5-3-85   FILE NO.   : 3408-850077
J. C. BROWN NO. 5-B WELL   FORMATION : SQUIRREL SAND   ANALYSTS   : HUDSON

*** CORE SUMMARY AND CALCULATED RECOVERABLE OIL ***

DEPTH INTERVAL: 693.0 TO   699.5

FEET OF CORE ANALYZED :   5.5   FEET OF CORE INCLUDED IN AVERAGES: 5.5

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --
PERMEABILITY HORIZONTAL RANGE (MD.)   :   5.0 TO   110.   (UNCORRECTED FOR SLIPPAGE)
FLUID POROSITY RANGE (%)   :   10.0   TO   100.0
OIL SATURATION RANGE (%)   :   10.0   TO   40.0
WATER SATURATION RANGE (%)   :   30.0   TO   80.0
SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGE PERMEABILITY (MILLIDARCIES)   AVERAGE TOTAL WATER SATURATION   :   45.6
   ARITHMETIC PERMEABILITY   :   37.   (PERCENT OF PORE SPACE)
   GEOMETRIC PERMEABILITY   :   26.
   HARMONIC PERMEABILITY   :   18.   AVERAGE CONNATE WATER SATURATION   : (C)   43.6
                                           (PERCENT OF PORE SPACE)

PRODUCTIVE CAPACITY (MILLIDARCY-FEET)
   ARITHMETIC CAPACITY   :   205.   OIL GRAVITY (API)   : (E)   34.0
   GEOMETRIC CAPACITY   :   140.
   HARMONIC CAPACITY   :   102.   ORIGINAL SOLUTION GAS-OIL RATIO   : (E)   1.
                                           (CUBIC FEET PER BARREL)

AVERAGE POROSITY (PERCENT)   :   19.0

                                           ORIGINAL FORMATION VOLUME FACTOR   : (C)   1.05
AVERAGE RESIDUAL OIL SATURATION   :   24.2   (BBLS SATURATED OIL/STOCK-TANK BBL)
   (PERCENT OF PORE SPACE)

                                           ORIGINAL STOCK-TANK OIL IN PLACE   : (C)   792.
                                           (BARRELS PER ACRE-FOOT)

===

CALCULATED MAXIMUM SOLUTION GAS DRIVE RECOVERY IS   BARRELS PER ACRE-FOOT, ASSUMING PRODUCTION
COULD BE CONTINUED UNTIL RESERVOIR PRESSURE DECLINED TO ZERO PSIG. CALCULATED MAXIMUM WATER DRIVE
RECOVERY IS   BARRELS PER ACRE-FOOT, ASSUMING FULL MAINTENANCE OF ORIGINAL RESERVOIR PRESSURE
100% AREAL AND VERTICAL COVERAGE, AND CONTINUATION OF PRODUCTION TO 100% WATER CUT.

===

(C) CALCULATED   (E) ESTIMATED   (M) MEASURED   (*) REFER TO ATTACHED LETTER.

CORE LABORATORIES, INC.

CORE LAB

Petroleum Reservoir Engineering

COMPANY J. C. BROWN

WELL J. C. BROWN NO. 5-B WELL

FIELD

COUNTY DOUGLAS COUNTY STATE KANSAS

LOCATION

FILE NO. 3408-850077

DATE 5-3-85

FORMATION SQUIRREL SAND ELEV.

DRLG. FLD. AIR CORES

CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., (all errors or omissions excepted); but Core Laboratories, Inc., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

VERTICAL SCALE: 5'' = 100'

Total Water

PERCENT PORE SPACE

100 80 60 40 20 0

Gamma Ray
RADIATION INCREASE

Permeability
MILLIDARCIES

1000 100 10 1

Porosity
PERCENT

30 20 10

Oil Saturation
PERCENT PORE SPACE

0 0 20 40 60 80 100

Depth Feet

650

700

750