

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

REGISTRY DRILLING & DEV.

JACOBS NO. 20  
UNKNOWN FIELD  
CALHOUN COUNTY, WEST VIRGINIA

913.03498

REGISTRY DRILLING & DEVELOPMENT  
Jacobs No. 20  
File No. 3202-13178  
Procedural Page

The core was transported to Core Laboratories, Inc. in Midland, Texas by air freight.

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

Core analysis was made from intervals requested on full diameter samples.

Fluid removal and fluid saturations were determined using controlled temperature vacuum retort techniques.

Gas expansion porosity and grain density were determined using Boyle's Law.

Air permeability was measured in two horizontal directions while the core was held in a Hassler rubber sleeve.

The core was boxed after the analysis and remains at our Midland lab as we await further disposition instructions.

PETROLEUM RESERVOIR ENGINEERING  
DALLAS, TEXAS

013-3498

REGISTRY DRILLING & DEV.  
JACOBS NO. 20  
UNKNOWN FIELD  
CALHOUN COUNTY, WEST VIRGINIA

DATE : 11-8-82  
FORMATION : LOWER BIG INJUN SAND  
DRLG. FLUID:  
LOCATION :

FILE NO : 3202-13178  
ANALYSTS : REINHEIMER  
LABORATORY: MIDLAND TEXAS

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM(Ka) MAXIMUM	PERM(Ka) 90 DEG	HE POR	OIL% PORE	WTR% PORE	GRAIN DEN	DESCRIPTION
<b>CORE NO. 1 2223.0-2243.0 REC 20'</b>								
S 1	2223.0-24.0	2.2	2.2	14.5	4.1	42.8	2.82	DOL V/LMY
S 2	2224.0-25.0	3.1	3.0	15.8	3.6	43.4	2.82	DOL VF
S 3	2225.0-26.0	3.9	3.7	17.6	13.8	34.9	2.85	DOL
S 4	2226.0-27.0	11. -	6.0	17.3	9.2	41.8	2.84	DOL VF
S 5	2227.0-28.0	3.5	5.4	18.4	8.7	39.4	2.85	DOL SL/LMY VF
S 6	2228.0-29.0	2.0	1.8	15.7	22.3	17.0	2.84	DOL SL/LMY SL/SDY
S 7	2229.0-30.0	0.33	0.25	10.5	30.5	18.9	2.81	DOL V/LMY SL/SDY STY
S 8	2230.0-31.0	2.1	2.0	17.5	27.4	35.8	2.85	DOL LMY SL/SDY
S 9	2231.0-32.0	0.79	0.71	14.8	24.8	28.6	2.81	DOL LMY SDY
S 10	2232.0-33.0	0.28	0.11	12.2	27.7	34.0	2.80	DOL LMY SL/SDY
S 11	2233.0-34.0	0.18	0.11	10.9	14.3	50.0	2.76	LM SL/SDY
S 12	2234.0-35.0	0.31	0.31	4.4	14.3	42.9	2.76	LM SL/SDY
S 13	2235.0-36.0	0.23	0.04	3.2	16.7	66.7	2.70	LM SL/SDY SHLAM
S 14	2236.0-37.0	0.13	0.09	4.1	11.1	48.1	2.73	LM SL/SDY
S 15	2237.0-38.0	0.13	0.07	4.9	9.7	51.6	2.73	LM SDY
S 16	2238.0-39.0	0.31	0.12	5.4	9.4	50.0	2.73	LM SL/SDY
S 17	2239.0-40.0	0.12	0.09	7.6	15.5	46.5	2.75	LM SL/SDY
S 18	2240.0-41.0	0.29	0.21	11.9	15.0	47.5	2.75	LM SL/SDY
	2241.0-43.0							NA SH

S INDICATES A PRESERVED SAMPLE

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## LITHOLOGICAL ABBREVIATIONS

ANH(Y)	ANHYDRITE, ANHYDRITIC	LM(Y)	LIMESTONE, LIMY
ARK	ARKOSE, ARKOSIC	MG	MEDIUM GRAINED
BAN	BAND, BANDED	MTX	MATRIX
BREC	BRECCIA, BRECCIATED	NA	INTERVAL NOT ANALYZED (AT REQUEST OF CLIENT)
CALC	CALCITE, CALCAREOUS	NOD	NODULE, NODULAR
CARB	CARBONACEOUS	OOL	OOLITIC
CG	COARSE GRAINED	PISO	PISOLITIC
CHK(Y)	CHALK, CHALKY	PP	PINPOINT POROSITY
CHT(Y)	CHERT, CHERTY	PT	PARTING
CONGL	CONGLOMERATE, CONGLOMERITIC	PYR	PYRITE, PYRITIC
CXLN	COARSLY CRYSTALLINE	SD(Y)	SANDSTONE, SANDY
DNS	DENSE	SH(Y)	SHALE, SHALY
DOL(C)	DOLOMITE, DOLOMITIC	SHR	SOLID HYDROCARBON RESIDUE
F	RANDOMLY ORIENTED FRACTURES	SL/	SLIGHTLY
FG	FINE GRAINED	SLT(Y)	SILT, SILTY
FOSS	FOSSILIFEROUS	STY	STYLOLITE, STYLOLITIC
FR	FRIABLE	SUC	SUCROSIC
FXLN	FINELY CRYSTALLINE	SUL	SULPHUR
GAL	GALENA	TBFA	TOO BROKEN FOR ANALYSIS
GLAUC	GLAUCONITE, GLAUCONITIC	TRIP	TRIPOLITE
GRAN	GRANITE	V/	VERY
GYP	GYPSUM, GYPSIFEROUS	VF	PREDOMINANTLY VERTICALLY FRACTURED
HF	PREDOMINANTLY HORIZONTALLY FRACTURED	V	VUGULAR
INC	INCLUSION	XBD	CROSSBEDDED
INTBD	INTERBEDDED	XLN	MEDIUM CRYSTALLINE
LAM	LAMINATED	XTL	CRYSTAL

THE FIRST WORD IN THE DESCRIPTION COLUMN OF THE CORE ANALYSIS REPORT DESCRIBES THE ROCK TYPE. FOLLOWING ARE ROCK MODIFIERS IN DECREASING ABUNDANCE AND MISCELLANEOUS DESCRIPTIVE TERMS.

LOCATION \_\_\_\_\_

013-3498

# CORRELATION "COREGRAPH"

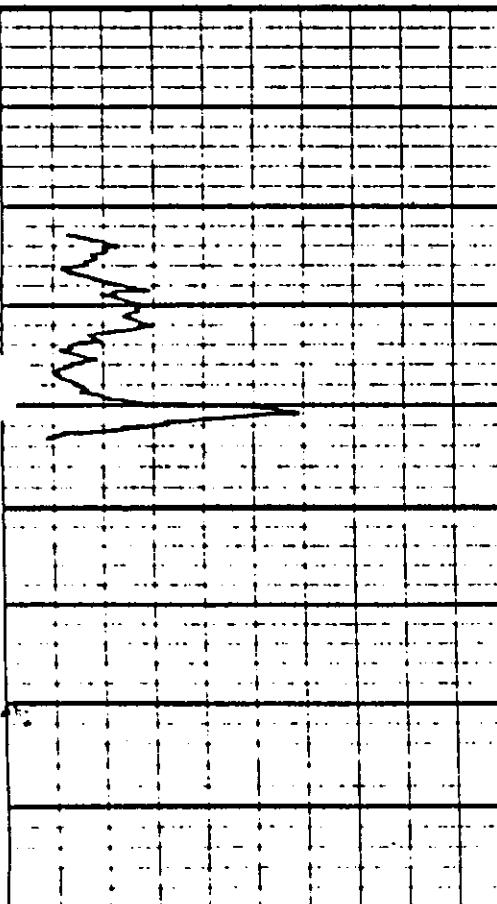
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VERTICAL SCALE: 5' 100'

**Gamma Ray**

RADIATION INCREASE →

API UNITS

**Permeability**

MILLIDARCIES

100 10 1.0 .1

Depth  
Feet30  
20  
10

2200

2250

**Porosity**

PERCENT

10

20  
3030  
20  
10**Total Water**

PERCENT PORE SPACE

100 80 60 40 20 0

**Oil Saturation**

PERCENT PORE SPACE

0 0 20 40 60 80 100