ROTARY LABORATORIES, INC.
Core Analysis

CORE ANALYSIS PROCEDURES

FOR

PATTERSON PETROLEUM LP

ALPHA 7 # 2

LEA COUNTY, NEW MEXICO

The Rotary Sidewalls were delivered to Rotary Laboratories, Inc.

Gases from the Sidewalls were measured by Hot Wire Chromatography and reported in Gas Units.

A brief Lithological Description of the Sidewalls was recorded.

A description of the Fluorescence of the Sidewalls was recorded.

Ultraviolet Light Photographs were taken of the Sidewalls for a permanent record.

Natural Light Photographs were taken of the Sidewalls for a permanent record.

Composite Photographs of the Sidewall End Trims were taken under Natural and Ultraviolet Light.

The Sidewalls were extracted utilizing the Dean Stark method. Selected samples were leached with Methanol to remove the salts.

The fluids were measured by the Dean Stark method.

RECEIVED
Hobbs
OCD

Porosities were measured in a Boyle's Law Porosimeter utilizing Helium.

Permeabilities were measured in a Hassler Sleeve Permeameter utilizing Nitrogen at 300 psi confining pressure.

Test samples of a known permeability were measured before and after the Sidewall permeabilities were measured.

P.O. Box 3501 • Midland, Texas 79702-3501 • 432-684-8800 • Fax 432-684-8821 • E-mail rotarylab@prodigy.net

ROTARY SIDEWALL CORE ANALYSIS

PATTERSON PETROLEUM LP
ALPHA 7 # 2
LEA COUNTY, NEW MEXICO

A.P.I. NUMBER : 30-025-36914
FIELD : Wildcat Mississippian
LOCATION : 695' FNL, 330' FWL,
Section 7, T-15-S, R-34-E

FILE NO. : 041215-1
DATE : December 16, 2004
ANALYSTS : WH, SB, PK

DEAN STARK EXTRACTION

SAMPLE NO.	DEPTH ft	GRAIN DENSITY	POROSITY %	PERM mD	SATURATIONS Sw	SATURATIONS So	GAS UNITS	FLUORESCENCE %		LITHOLOGY
1	4,994.0	2.83	1.7	0.01	91.3	6.6	29	40	Brt yl-gld-bl	Dol brn mod-sslty ssdy tr ppp abd anhy incl sty
2	5,002.0	2.78	4.9	0.01	46.1	19.3	51	80	Brt yl-gld-bl	Dol brn sslty sc ppp tr anhy hal
3	5,010.0	2.79	6.1	0.10	78.9	10.9	72	70	Brt yl-gld-bl	Dol brn sslty ssdy anhyd sc ppp
4	5,064.0	2.75	11.3	0.18	76.2	0.0	8	0	Mf/cont	Ss opaq-gy-tn vfgr sbrnd-sbang sslty scalc tr pyr
5	9,979.0	2.83	16.8	0.64	48.7	18.5	231	90	Brt yl-grn	Dol tn-brn sdy slty tr ppp mod-vcalc fd frac tr foss
6	10,131.0	2.71	10.0	3.58	41.7	22.4	44	80	Brt yl-grn	Ls tn-gy mott sslty ssdy sc ppp-sml vug foss
7	10,177.0	2.73	8.9	0.28	34.6	22.7	320	80	Brt yl-grn	Ls tn-brn sslty ssdy tr ppp foss
8	10,685.0	2.70	16.1	0.07	64.4	0.0	20	0	cont	Ls tn-brn sslty ssdy abd ppp sty hal
9	10,691.0	2.72	16.5	0.09	35.4	0.0	13	0	cont	Ls tn-brn sslty ssdy abd ppp sty hal
10	10,694.0	2.72	9.4	0.01	84.4	0.0	13	0	cont	Ls tn-brn sslty ssdy tr ppp foss
11	10,871.0	2.71	0.8	0.22	25.6	0.0	14	0	cont	Ls dk gy-dk brn mott dns foss frac
12	10,877.0	2.64	1.5	0.01	29.7	0.0	14	0	cont	Cht dk gy-dk brn mott sslty scalc fd frac tr pyr
13	11,815.0	2.72	15.1	1.63	35.4	10.9	337	40	Brt bl-grn-wht	Ls tn-brn mott sslty ssdy sc ppp-sml vug sc cht no
14	11,817.0	2.73	10.8	0.65	44.6	17.2	107	40	Brt bl-grn-wht	Ls tn-brn mott sslty ssdy sc ppp-sml vug sc cht no
15	11,819.0	2.78	10.9	16.72	36.8	18.3	83	30	Brt bl-grn-wht	Ls tn-brn mod-sslty sc ppp foss frac

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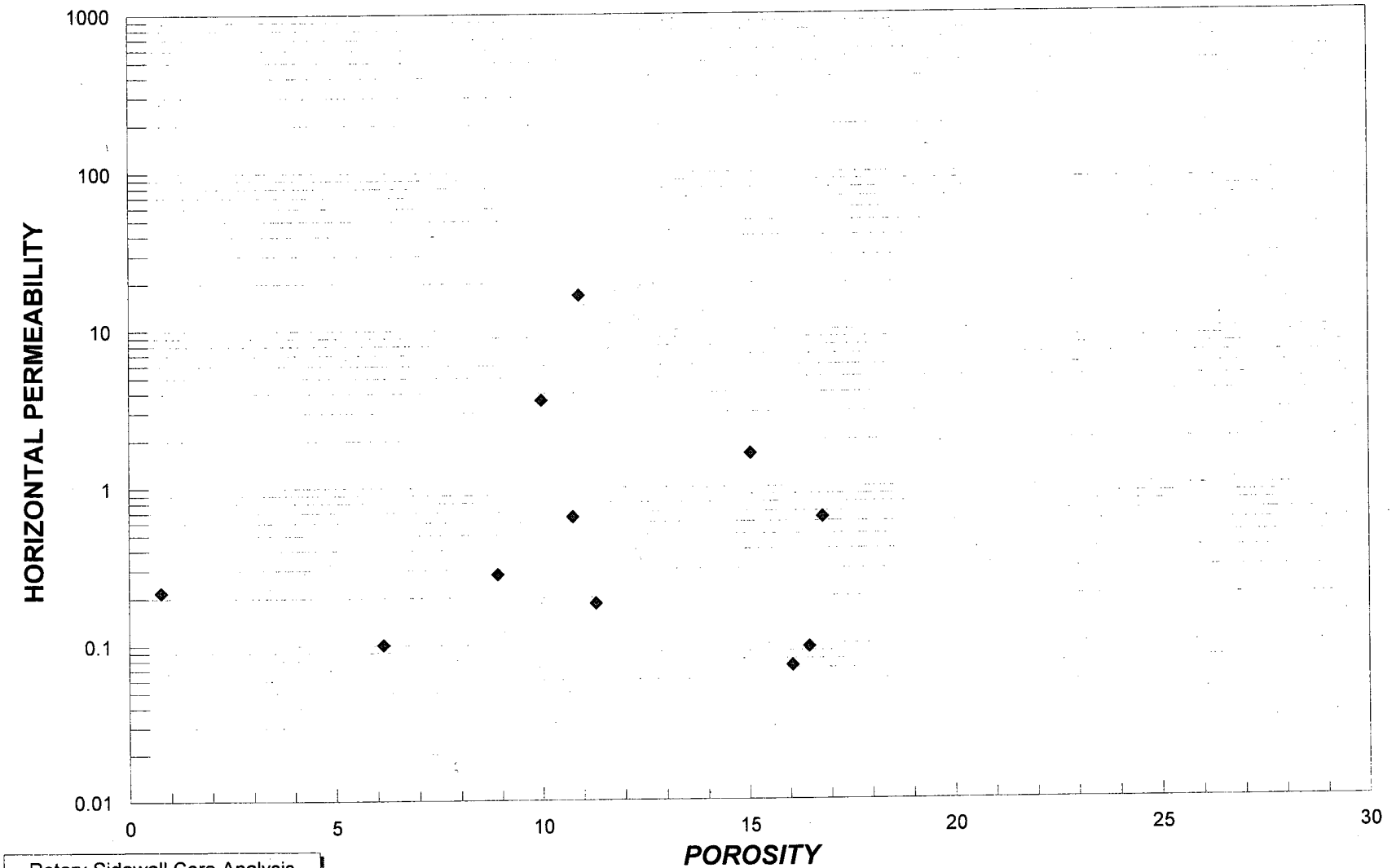
ALPHA 7 # 2



Rotary Sidewall Core Analysis

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PATTERSON PETROLEUM LP
ALPHA 7 # 2
12/21/2004

QUALITY CONTROL RERUN DATA

Sample No.	GRAIN DENSITY original	GRAIN DENSITY reruns	POROSITY original	POROSITY reruns	*kstandard* Test Sample	PERMEABILITY original	PERMEABILITY reruns
1	2.830	2.828	1.69	1.63	**2.615**	0.010	0.009
4	2.749	2.748	11.31	11.25			
7	2.727	2.726	8.92	8.87		0.279	0.266
9	2.718	2.720	16.47	16.53			
13	2.720	2.720	15.05	15.05			
15	2.784	2.787	10.93	11.01	**2.611**	16.716	16.750

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