

Core Analysis Report

For

Amoco Australia Petroleum Co.

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

363002

FILE NAME: 84017 .DAT

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AMOCO AUSTRALIA PETROLEUM CO
 DURROON NO:1

DATE : 22/3/85
 FORMATION :

FILE NO : 84017
 LABORATORY: ADELAIDE

CONVENTIONAL CORE ANALYSIS

LINE	SAMPLE NUMBER	DEPTH FEET	PERM MD HORIZ Ka	He POR	GRAIN DEN M	DESCRIPTION
1	20	8374.0	0.38	9.4	2.64	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
3	21	8378.0	0.35	9.3	2.64	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
5	22	8382.0	0.30	9.3	2.65	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
10	23	8386.0	0.42	9.4	2.62	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
12	24	8390.0	0.06	7.5	2.67	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC SHLY LAM GLAUC INCL
14	25	8394.0	0.23	8.8	2.66	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
16	26	8398.0	0.28	8.0	2.64	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
18	27	8402.0	0.21	6.8	2.66	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
20	28	8406.0	0.18	8.4	2.66	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
22	29	8410.0	0.74	9.3	2.63	SST BY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
24	30	8414.0	0.18	9.2	2.65	SST BY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL
26	31	8418.0	0.07	9.0	2.65	SST BY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL
28	32	8422.0	0.09	9.8	2.63	SST BY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL

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AMOCO AUSTRALIA PETROLEUM CO
 BURROON NO:1
 BASS BASIN
 VICTORIA

DATE : 22/3/85
 FORMATION :
 DRLG. FLUID:
 LOCATION :

FILE NO : 84017
 LABORATORY: ADELAIDE
 ANALYSTS : P.LANE
 ELEVATION :

CONVENTIONAL CORE ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM MD HORIZ Ka	He POR	GRAIN DEN M	DESCRIPTION
20	8374.0	0.38	9.4	2.64	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
21	8378.0	0.35	9.3	2.64	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
22	8382.0	0.30	9.3	2.65	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
23	8386.0	0.42	9.4	2.62	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
24	8390.0	0.06	7.5	2.67	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC SHLY LAM GLAUC INCL
25	8394.0	0.23	8.8	2.66	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
26	8398.0	0.28	8.0	2.64	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
27	8402.0	0.21	6.8	2.66	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
28	8406.0	0.18	8.4	2.66	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
29	8410.0	0.74	9.3	2.63	SST GY M-CG FRM-HD SBANG-SBRND WL SRT S CALC CARB SPK GLAUC INCL
30	8414.0	0.18	9.2	2.65	SST GY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL
31	8418.0	0.07	9.0	2.65	SST GY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL
32	8422.0	0.09	9.8	2.63	SST GY M-CG FRM-HD SBANG-SBRND WL SRT CARB SPK GLAUC INCL

363004

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO WELL : DURROON NO:1
FIELD : BASS BASIN COUNTY, STATE: VICTORIA

AIR PERMEABILITY : MD. (HORIZONTAL) RANGE USED 0.000 TO 1.
POROSITY : PERCENT (HELIUM) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS (FEET) : 8374.0 - 8499.8 INTERVAL LENGTH : 125.8
FEET ANALYZED IN ZONE : 13.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
8.8	0.27	0.17	0.21

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
 FIELD : BASS BASIN

WELL : DURROON NO:1
 COUNTY, STATE: VICTORIA

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
6.0 - 8.0	2.0	7.2	0.112	0.135	15.4	15.4
8.0 - 10.0	11.0	9.1	0.242	0.293	84.6	100.0

TOTAL NUMBER OF FEET = 13.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
 FIELD : BASS BASIN

WELL : DURROON NO:1
 COUNTY, STATE: VICTORIA

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.039 - 0.078	2.0	0.065	0.065	8.3	15.4	15.4
0.078 - 0.156	1.0	0.090	0.090	9.8	7.7	23.1
0.156 - 0.312	6.0	0.225	0.230	8.4	46.2	69.2
0.312 - 0.625	3.0	0.382	0.383	9.4	23.1	92.3
0.625 - 1.250	1.0	0.740	0.740	9.3	7.7	100.0

TOTAL NUMBER OF FEET = 13.0

363007

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
 FIELD : BASS BASIN

WELL : DURROON NO:1
 COUNTY, STATE: VICTORIA

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.0	0.0	0.0	13.0	100.0	8.8	8.8
2.0	0.0	0.0	13.0	100.0	0.0	8.8
4.0	0.0	0.0	13.0	100.0	0.0	8.8
6.0	0.0	0.0	13.0	100.0	0.0	8.8
8.0	2.0	12.5	11.0	87.5	0.0	9.0
10.0	13.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 114.2

363008

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
 FIELD : BASS BASIN

WELL : DURROON NO:1
 COUNTY, STATE: VICTORIA

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	13.0	100.0	0.21	0.23
0.010	0.0	0.0	13.0	100.0	0.21	0.23
0.020	0.0	0.0	13.0	100.0	0.21	0.23
0.039	0.0	0.0	13.0	100.0	0.21	0.23
0.078	2.0	3.7	11.0	96.3	0.27	0.26
0.156	3.0	6.3	10.0	93.7	0.30	0.28
0.312	9.0	45.8	4.0	54.2	0.45	0.50
0.625	12.0	78.8	1.0	21.2	0.74	0.88
1.	13.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET(ARITHMETIC) = 3.49

363009

PERMEABILITY VS POROSITY

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
 FIELD : BASS BASIN

WELL : DURROON NO:1
 COUNTY, STATE: VICTORIA

AIR PERMEABILITY : MD - HORIZONTAL (UNCORRECTED FOR SLIPPAGE)
 POROSITY : PERCENT (HELIUM)

DEPTH INTERVAL(FT)	RANGE & SYMBOL	PERMEABILITY		POROSITY		POROSITY AVERAGE	PERMEABILITY AVERAGES		
		MINIMUM	MAXIMUM	MIN.	MAX.		ARITHMETIC	HARMONIC	GEOMETRIC
8374.0 - 8499.8	1 (X)	0.060	0.7	6.8	9.8	8.8	0.27	0.17	0.21

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :
 $\text{LOG}(K) = (\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT}$
 $K = \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT})$

RANGE	EQUATION OF THE LINE
1	PERM = ANTILOG((0.3640)(POROSITY) + -3.8661)

STATISTICAL DATA FOR GRAIN DENSITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
FIELD : BASS BASIN

WELL : DURROON NO:1
COUNTRY : VICTORIA

GRAIN DENSITY : gm/cc (MEASURED) RANGE USED 2.34 TO 2.94

DEPTH LIMITS : 8374.0 - 8499.8 INTERVAL LENGTH : 125.8
FEET ANALYZED IN ZONE : 13.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

GRAIN DENSITY
ARITHMETIC MEAN

2.65

GRAIN DENSITY
MEDIAN

2.65

STATISTICAL DATA FOR GRAIN DENSITY HISTOGRAM

COMPANY: AMOCO AUSTRALIA PETROLEUM CO
FIELD : BASS BASIN

WELL : BURROON NO:1
COUNTRY : VICTORIA

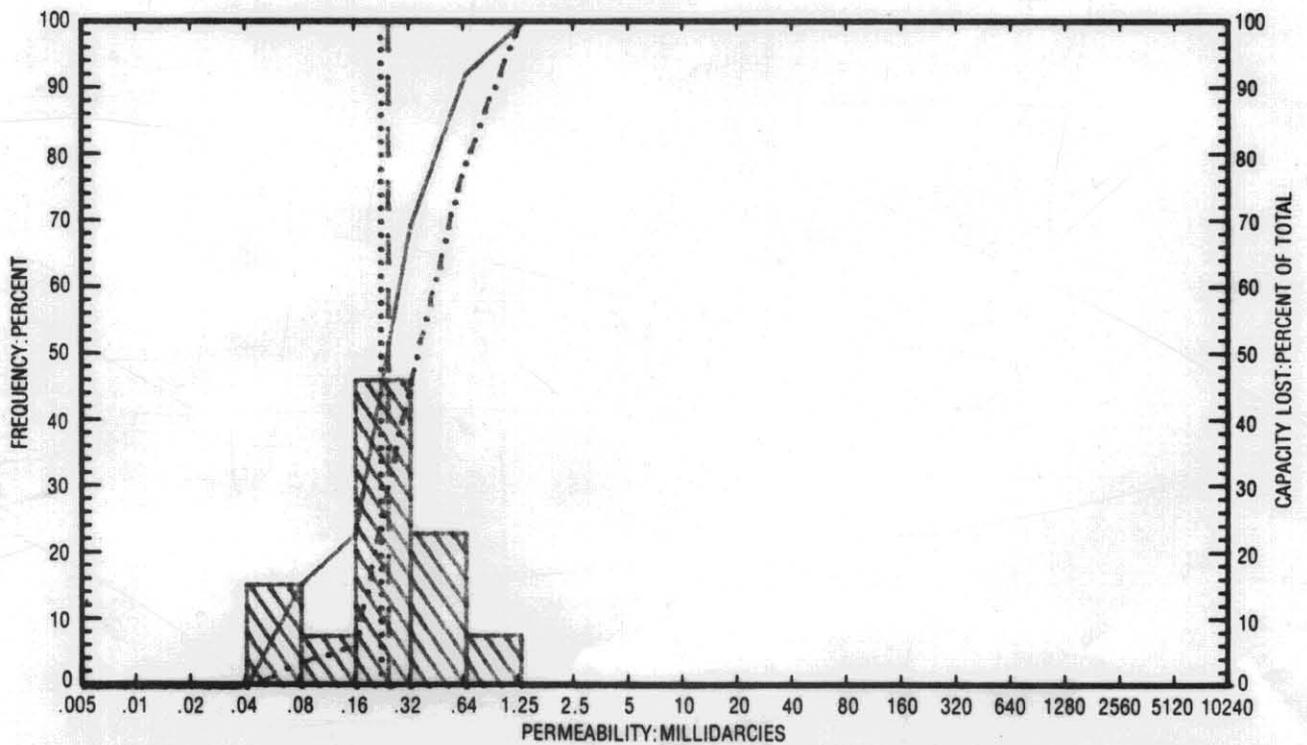
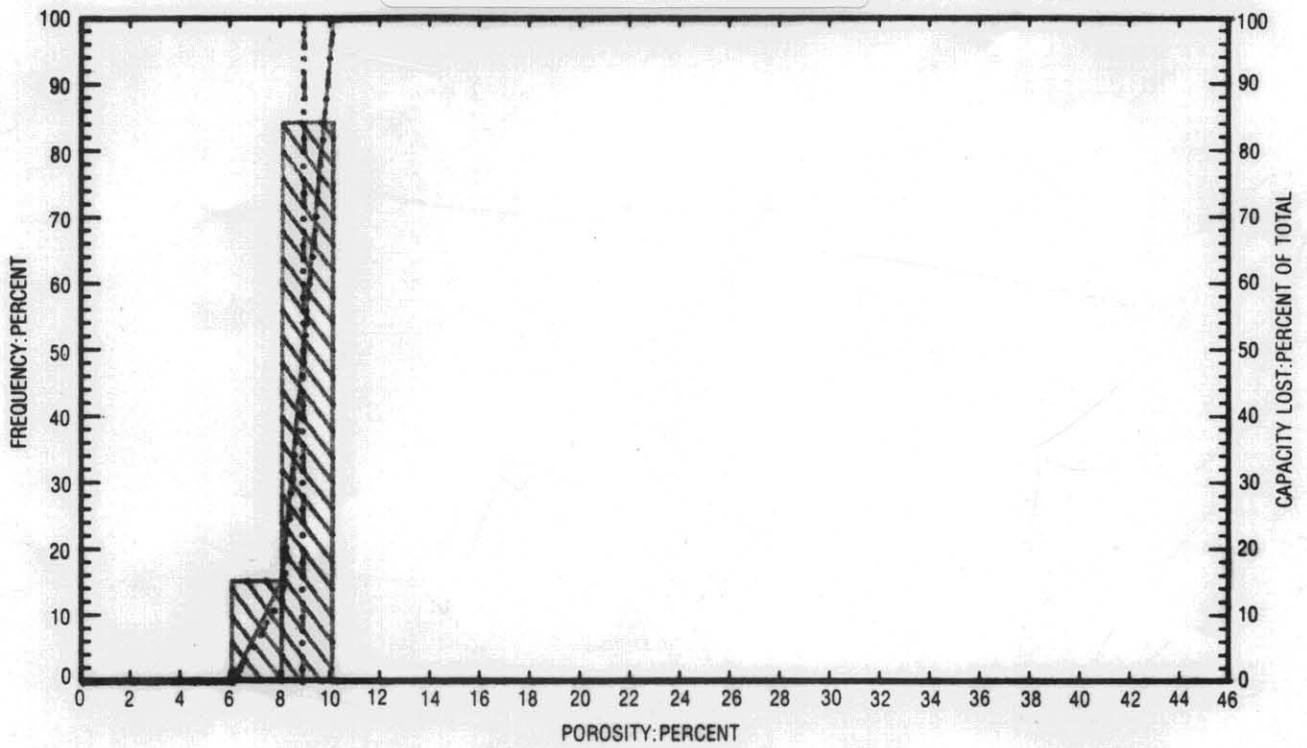
GROUPING BY GRAIN DENSITY RANGES

GRAIN DENSITY RANGE	FEET IN RANGE	AVERAGE DENSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
2.62 - 2.64	3.0	2.63	23.1	23.1
2.64 - 2.66	6.0	2.65	46.2	69.2
2.66 - 2.68	4.0	2.66	30.8	100.0

TOTAL NUMBER OF FEET = 13.0

363012

5 cm



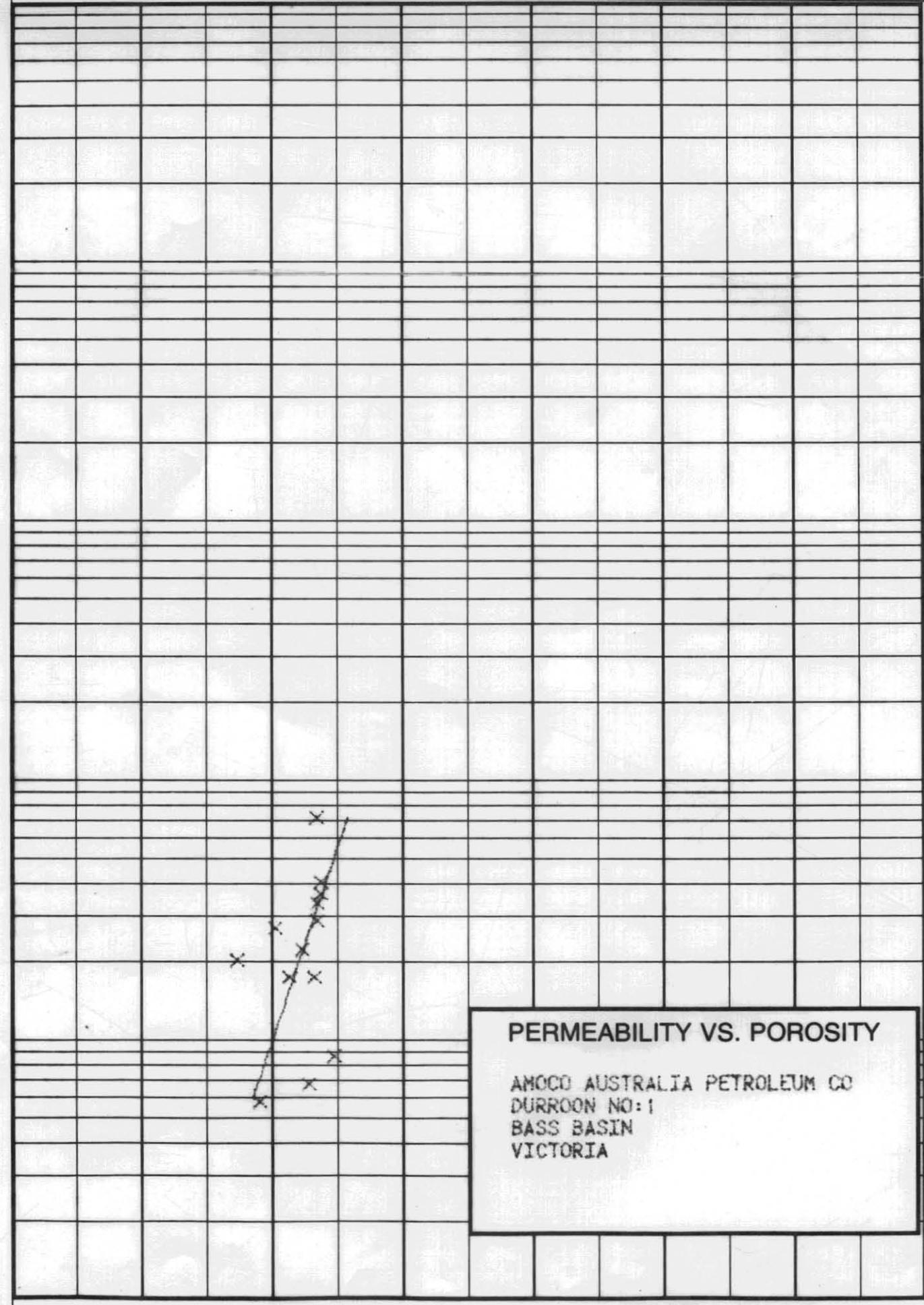
PERMEABILITY AND POROSITY HISTOGRAMS

AMOCO AUSTRALIA PETROLEUM CO
 DURROON NO:1
 BASS BASIN
 VICTORIA

LEGEND

- ARITHMETIC MEAN POROSITY (dotted line)
- GEOMETRIC MEAN PERMEABILITY (dotted line)
- MEDIAN VALUE ----- (dashed line)
- CUMULATIVE FREQUENCY ----- (solid line)
- CUMULATIVE CAPACITY LOST (dash-dot line)

0.0
100.
0.
1.
0.1
0.01



PERMEABILITY VS. POROSITY
AMOCO AUSTRALIA PETROLEUM CO
DURROON NO:1
BASS BASIN
VICTORIA

0.0 4.0 8.0 12.0 16.0 20.0 24.0
POROSITY:PERCENT

5 cm



CORE LABORATORIES, INC. *Petroleum Reservoir Engineering*

COMPANY AMOCO AUSTRALIA PETROLEUM CO FILE NO. 84017
 WELL DURROON NO:1 DATE 22/3/85
 FIELD BASS BASIN FORMATION _____ ELEV. _____
 COUNTRY VICTORIA DRLG. FLD. _____ CORES _____
 LOCATION _____

GRAIN DENSITY HISTOGRAM

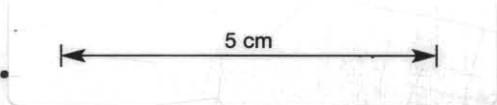
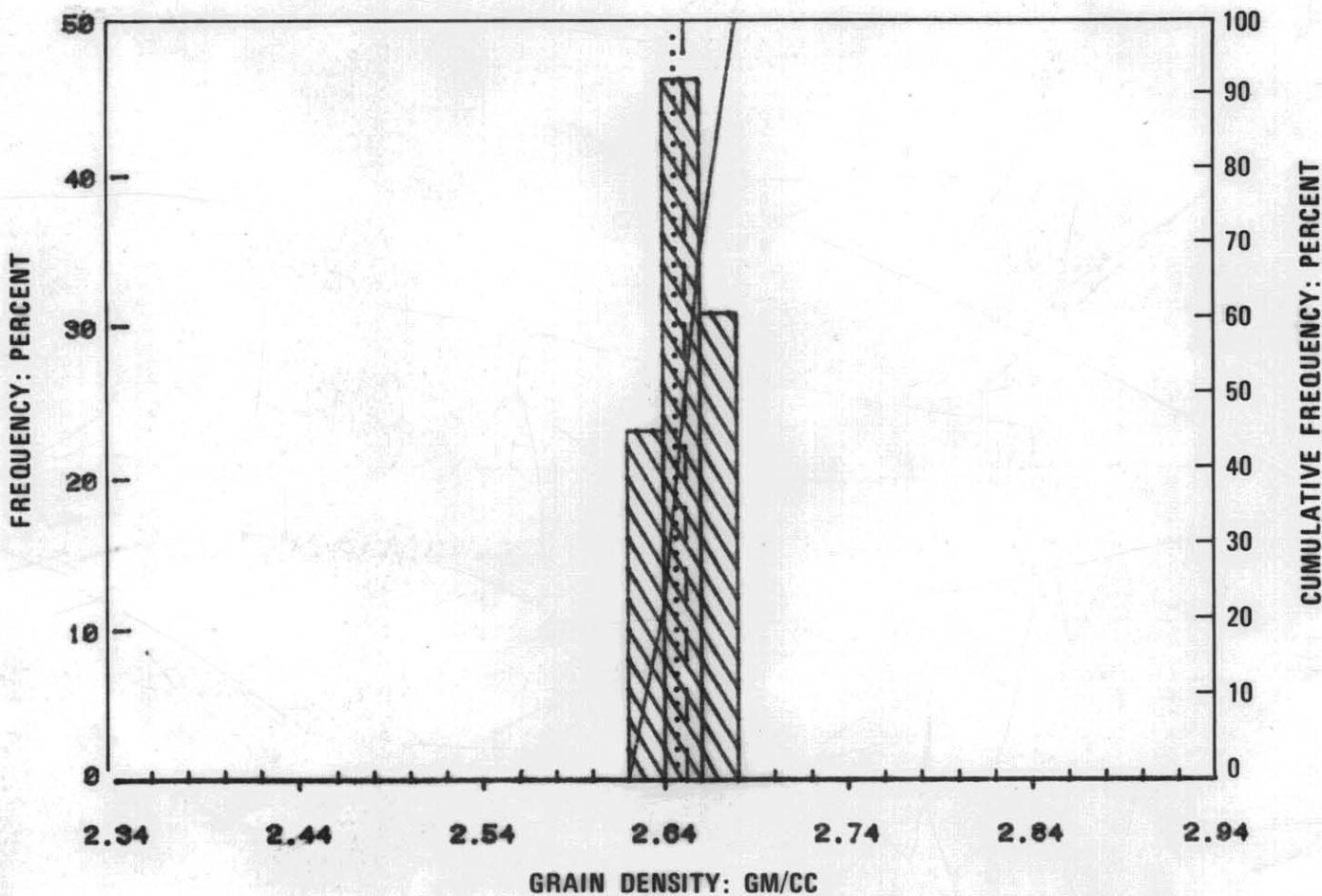


FIGURE 3.

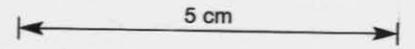
LEGEND	
ARITHMETIC MEAN GRAIN DENSITY
MEDIAN VALUE	----
CUMULATIVE FREQUENCY	====

OR-0336A

FIGURE 4

MATERIALS CODE NO. 7520 526 500 2/79

OR-0336A



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY AMOCO AUSTRALIA PETROLEUM CO FILE NO. 84017
 WELL DURROON NO. 1 DATE 22/3/85
 FIELD BASS BASIN FORMATION _____ ELEV. _____
 COUNTY ICTORIA STATE _____ DRLG. FLD. _____ CORES _____
 LOCATION _____

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 profitability 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

100 10 1.0 .1

Depth Feet 30

Porosity _____

PERCENT

20 10

Oil Saturation _____

PERCENT PORE SPACE

0 0 20 40 60 80 100

