APPENDIX 5.

CORE DESCRIPTION

PINE LODGE-1

W1034

1851.
VAL

AMDEL
CORE
SERVICES

13 September 1990

Gas & Fuel Exploration NL
151 Flinders Street
MELBOURNE VIC 3000

Attention: Mr J Foster

REPORT: 008/056

CLIENT REFERENCE: Order No 00307

MATERIAL: Core Samples

LOCALITY: Pine Lodge #1

WORK REQUIRED: Core Analysis

Please direct technical enquiries regarding this work to the signatory below under whose supervision the work was carried out.

RUSSELL R MARTIN
Laboratory Supervisor
Core Analysis/Special Core Analysis
on behalf of Amdel Core Services Pty Ltd

Please Reply To: P.O. Box 109 Eastwood SA 5063 Australia
Telephone: 61-8-372 2834 Facsimile: 61-8-372 2861

Amdel Core Services Pty Ltd
(Incorporated in South Australia)

13 September 1990

Gas & Fuel Exploration NL
151 Flinders Street
MELBOURNE VIC 3000

Attention: Mr J Foster

FINAL DATA REPORT - CONVENTIONAL CORE ANALYSIS

REPORT: 008/056 - PINE LODGE NO 1

Core No 1, 1975.00-1984.24m (9.24m) was collected from the wellsite by Amdel Core Services personnel on 24th August 1990.

The following report includes tabular data of permeability to air, helium injection porosity, and density determinations. Data presented graphically includes a continuous core gamma log, a core log plot and a porosity versus permeability to air plot.

The data contained in this report has been derived by the following methods:

1. CONTINUOUS CORE GAMMA

The core is laid out according to the depths marked on it and a continuous core gamma trace produced by passing the core beneath a gamma radiation detector which is protected from extraneous radiation by a lead tunnel. The speed at which the core is passed beneath the detector is adjusted so as to reproduce the required vertical scale; electronic amplification and digitization are used to produce a gamma trace similar to that of the downhole log.

2. PLUG CUTTING & DRYING

1½" diameter plugs were taken in the sandstone sections of the core at 25 cm intervals. Tap water is used as the bit lubricant. Samples were examined under ultra violet light for the presence of hydrocarbons, none was found to be evident.

The plugs are dried in a controlled humidity environment at temperatures not exceeding 100°C and are then stored in an airtight plastic container and allowed to cool to room temperature.

3. PERMEABILITY TO AIR

A plug sample is used for this measurement and is placed in a Hassler cell to which a confining pressure of 200 psig (1380 kpa) is applied; this pressure is used to prevent bypassing of air around the sides of the sample when the measurement is made. A known pressure is then applied to the upstream sample face and the differential pressure (between the upstream and downstream faces) is monitored at the downstream face. Permeability is then calculated using Darcy's Law.

4. HELIUM INJECTION POROSITY

The porosity of a clean dry core plug is determined as follows: it is first placed in a matrix cup where the grain volume is measured by helium injection: a known volume of helium at a known pressure is expanded into the matrix cup which contains the core plug; the resulting pressure is recorded and the unknown volume (that is, the volume of the grains) is determined using Boyle's Law. The bulk volume is determined by mercury immersion. The difference between the grain volume and the bulk volume is the pore volume and from this the porosity is calculated as the volume percentage of pores with respect to the bulk volume.

5. APPARENT GRAIN DENSITY

The apparent grain density is derived from the measurements described in Section 4, above, and is the ratio of the weight of the core plug divided by the grain volume determined as in paragraph 5.

CONVENTIONAL CORE ANALYSIS

Company: GAS & FUEL EXPLORATION N.L.
Well: PINE LODGE No. 1
Field: WILDCAT
Location: VICTORIA
Country: AUSTRALIA

Report: 008/056
Date: 25/08/90
Core Intervals: Core #1 1975.00 - 1984.24m

Sample Number	Depth (m)	Porosity (%)		Density		Permeability (md)		Summation of Fluids			Remarks
		He Inj	Roll Av	Nat	Grain	Ka	Roll Av Ka	Por %	Oil %	Water %	
1	1975.45	7.6			2.63	0.36					
2	1975.70	9.2			2.67	0.35					
3	1975.95	6.6			2.64	0.30					
4	1976.21	4.9			2.64	0.15					
5	1976.45	6.2			2.66	0.03					
6	1976.85	2.9			2.63	0.77					
7	1977.10	4.5			2.67	0.23					
8	1977.35	2.6			2.73	0.01					
9	1978.70	4.6			2.67	<0.01					
10	1979.75	4.4			2.66	0.11					
11	1981.25	5.2			2.62	0.06					
12	1981.50	4.0			2.61	0.14					
13	1981.75	4.8			2.60	0.03					
14	1982.00	2.4			2.57	0.14					
15	1982.25	3.9			2.59	0.08					
16	1982.50	6.2			2.63	0.03					
17	1982.75	6.8			2.62	0.03					
18	1982.95	7.1			2.72	2.8					
19	1983.20	6.7			2.66	0.09					
20	1983.50	3.6			2.59	0.07					
21	1983.75	4.2			2.62	0.01					
22	1983.95	7.7			2.68	0.17					
23	1984.20	17.3			2.66	94					

VF = Vertical Fracture; HF = Horizontal Fracture; MP = Mounted Plug; SP = Short Plug;
C# = Top of Core; B# = Bottom of Core; OWC = Probable Oil/Water Contact;
Tr = Probable Transition Zone; GC = Probable Gas Cap;

Amdel Core Services Pty Limited
Incorporated in South Australia

CORE PLUG DESCRIPTION

Company: GAS & FUEL EXPLORATION NL
Report: 008/056
Well: PINE LODGE NO 1
Date: 25/08/90
Field: WILDCAT
Core Interval: Core #1 1975.00 - 1984.24m
Location: VICTORIA
Country: AUSTRALIA

Sample Number	Depth	Description
1		Sst: gry, m-f gr, mod srtd, Qtz - Fspr w/ Mic, cl Cmt, sli-mod turb
2		As in 1 w/ carb Lam
3		As in 1
4		As in 1
5		Calcar: lt gry, f-vf gr, v wl srtd, Qtz w/ mnr Mic & Py, r py Nod & carb clasts
6		Sst: m-dk gry, f-vf gr, wl srtd Qtz w/ Mic mnr Fspr, cl Cmt, hi carb/mic Lam turb
7		Sst: gry, f-vf gr, wl srtd, Qtz w/ Mic & Fspr, cl Cmt, py/carb Lam, v wl cmtd carb Len
8		Sst: gry, f-vf gr, v wl srtd, Qtz w/ Fspr & mnr Mic, cl Cmt, carb Lam w/ mnr Py
9		Sst: lt gry, f gr, wl srtd, Qtz w/ Fspr & mnr Mic, cl Cmt, slily carb Bnd, slily turb
10		Sst: gry, f gr, wl srtd, Qtz w/ Mic & Fspr, cl Cmt, hi turb carb Lam w/ mnr Py r py Nod
11		Sst: m-lt gry, vf-f gr, wl srtd, Qtz w/ Fspr & Mic, cl Cmt, turb carb Lam & Len
12		As in 11 w/ Py Nod & Len
13		Sst: gry, f-vf gr, wl srtd, Qtz w/ Fspr & Mic, cl Cmt, turb carb Bnd, r Py Nod

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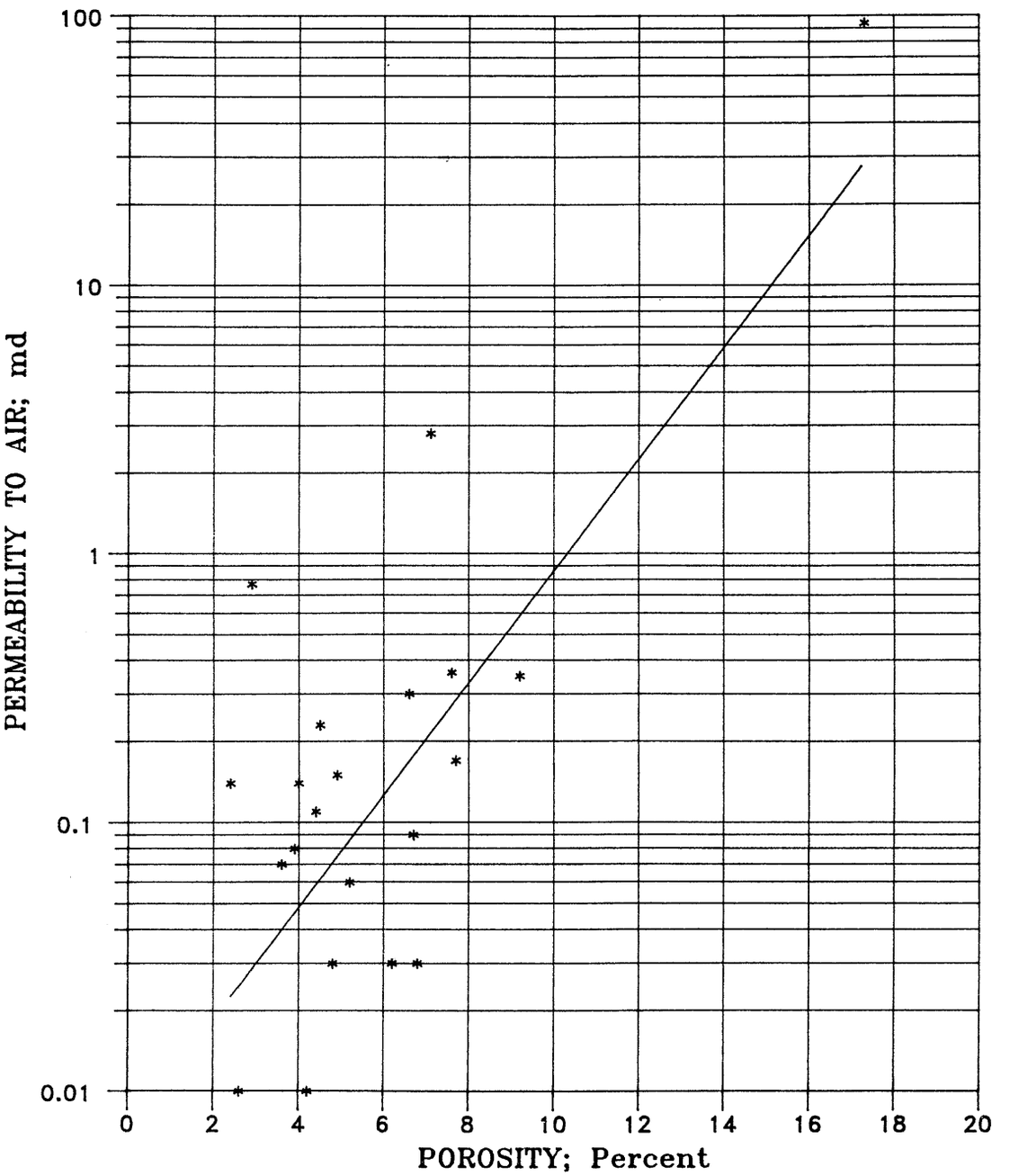
Sample Number	Depth	Description
14		sdy Sltst: m-dk gry, carb w/ f-vf gr, Sd Len, slily turb Lam & Len
15		sdy Sltst: m-dk gry, carb w/ turb, f gr, mod-poorly srtd Sd Lam & Len
16		Sst: lt gry, v f gr, wl srtd Qtz w/ Fspr & Mic, cl Cmt, slty carb Len, poss Bur infilled w/ m gr Sd
17		Sst: gry, m-f gr, mod srtd, Qtz & Fspr w/ mnr Mic, cl Cmt, sli-mod turb
18		Sst: lt-m gry, m-vf gr, mod-wl srtd, Qtz w/ Fspr & mnr Mic, cl Cmt, slily carb Bnd, r py Nod
19		Sst: m gry, f gr, wl srtd, Qtz w/ Fspr & Mic & mnr Py, cl Cmt, sml carb Len, slily turb, mnr py Nod
20		sdy Sltst: m-dk gry, carb w/ f-vf gr, Sd Len, slily turb Lam & Len
21		slty Sst: gry, v f gr, v wl srtd Qtz, Fspr & Mic w/ carb Mat
22		Sst: m gry, f gr, wl srtd, Qtz w/ Fspr & Mic & mnr Py, cl Cmt, sml carb Len, slily turb, mnr py Nod
23		Sst: bu gry, f gr, wl srtd, Qtz w/ mnr Fspr, thn carb Lam, slily turb

POROSITY vs PERMEABILITY

Company: Gas and Fuel Exploration NL
Well : Pine Lodge No.1
Ambient: Y=(0.480X)x0.007



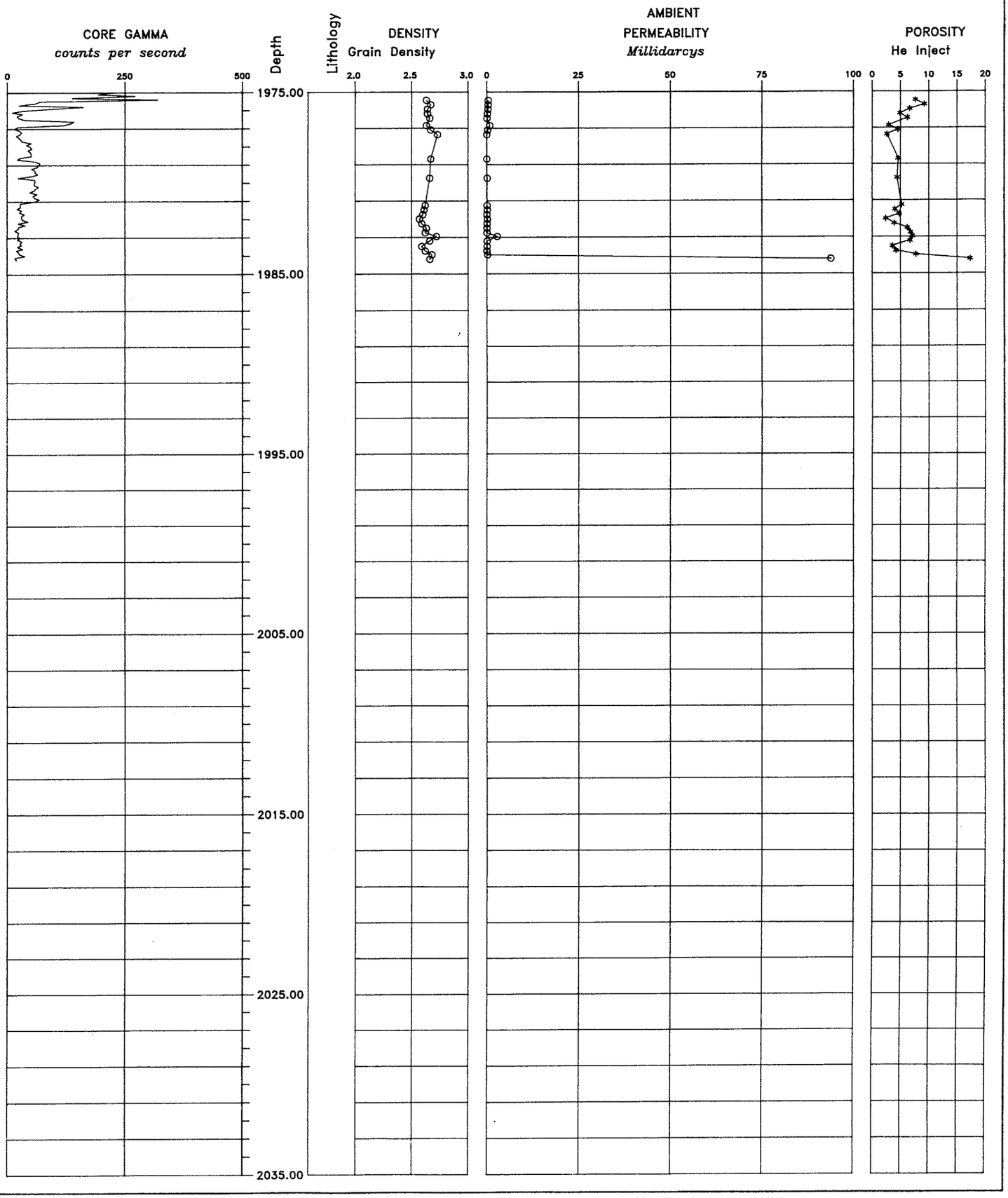
AMDEL CORE SERVICES PTY. LIMITED
Incorporated in South Australia

CORE PLOT

Scale 1 : 200

Company: Gas and Fuel Exploration NL
Well : Pine Lodge No.1
Field : Wildcat

Core Interval: 1975.00 – 1984.24 m
Location : Victoria
File : 008/056



PE903696

This is an enclosure indicator page.
The enclosure PE903696 is enclosed within the container PE903695 at this location in this document.

The enclosure PE903696 has the following characteristics:

ITEM_BARCODE	= PE903696
CONTAINER_BARCODE	= PE903695
NAME	= Pine Lodge 1 core photograph
BASIN	= OTWAY
PERMIT	= PEP105
TYPE	= WELL
SUBTYPE	= CORE_PHOTOS
DESCRIPTION	= Pine Lodge 1 core photograph (1975m -1980m)
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1034
WELL_NAME	= Pine Lodge-1
CONTRACTOR	= Amdel Core Services
CLIENT_OP_CO	= Gas and Fuel Exploration N.L

(Inserted by DNRE - Vic Govt Mines Dept)

PE903697

This is an enclosure indicator page.
The enclosure PE903697 is enclosed within the container PE903695 at this location in this document.

The enclosure PE903697 has the following characteristics:

ITEM_BARCODE	= PE903697
CONTAINER_BARCODE	= PE903695
NAME	= Pine Lodge 1 core photograph
BASIN	= OTWAY
PERMIT	= PEP105
TYPE	= WELL
SUBTYPE	= CORE_PHOTOS
DESCRIPTION	= Pine Lodge 1 core photograph (1980m -1985m)
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	=
W_NO	= W1034
WELL_NAME	= Pine Lodge-1
CONTRACTOR	= Amdel Core Services
CLIENT_OP_CO	= Gas and Fuel Exploration N.L

(Inserted by DNRE - Vic Govt Mines Dept)

GAS AND FUEL EXPL. PINE LODGE - 1. 1975 TO 1985

BELFAST FM.

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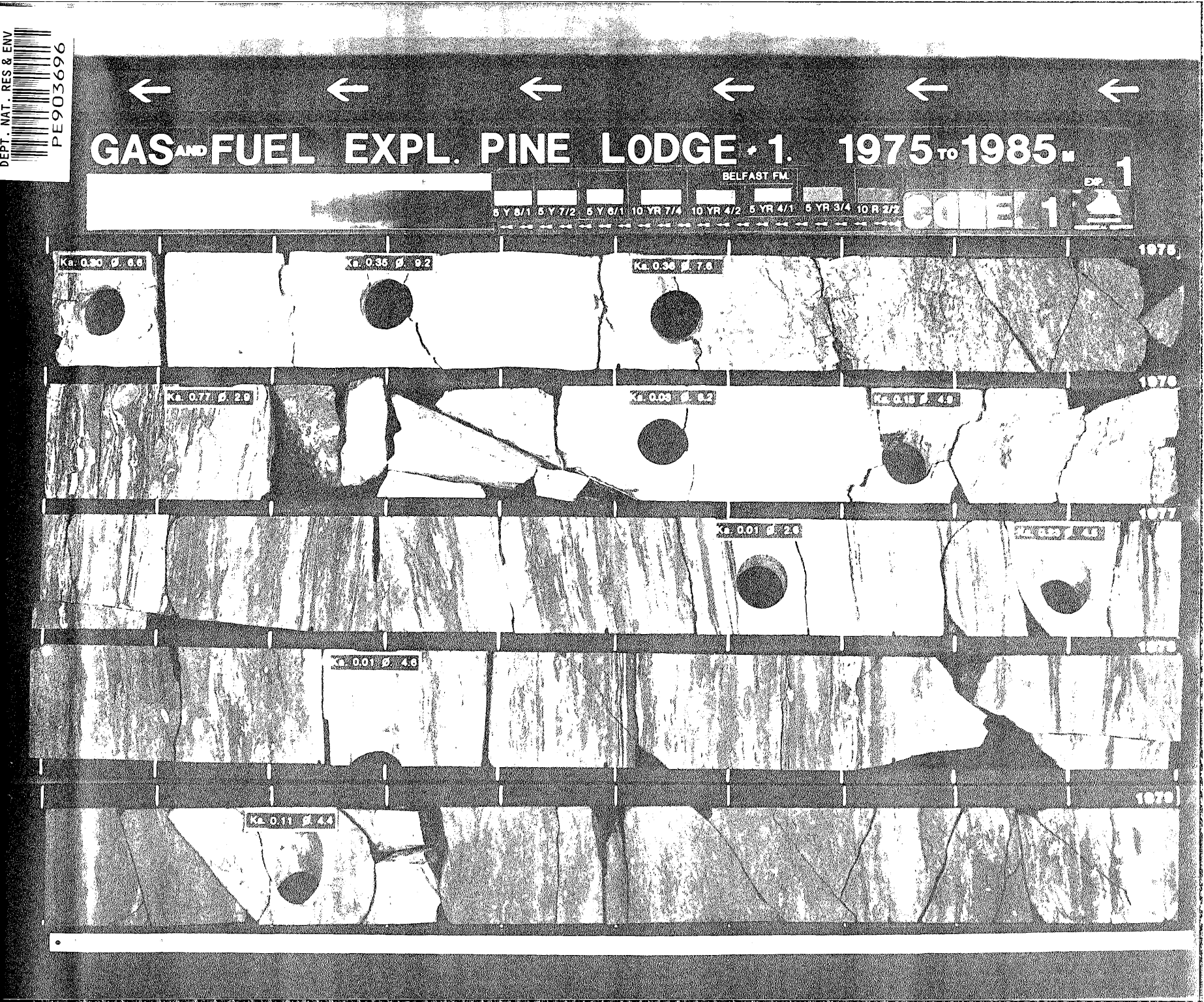
CORE 1



GAS AND FUEL EXPL. PINE LODGE - 1. 1975 TO 1985.

BELFAST FM.

5 Y 8/1 | 5 Y 7/2 | 5 Y 8/1 | 10 YR 7/4 | 10 YR 4/2 | 5 YR 4/1 | 5 YR 3/4 | 10 R 3/2

CORE 1 DST 2