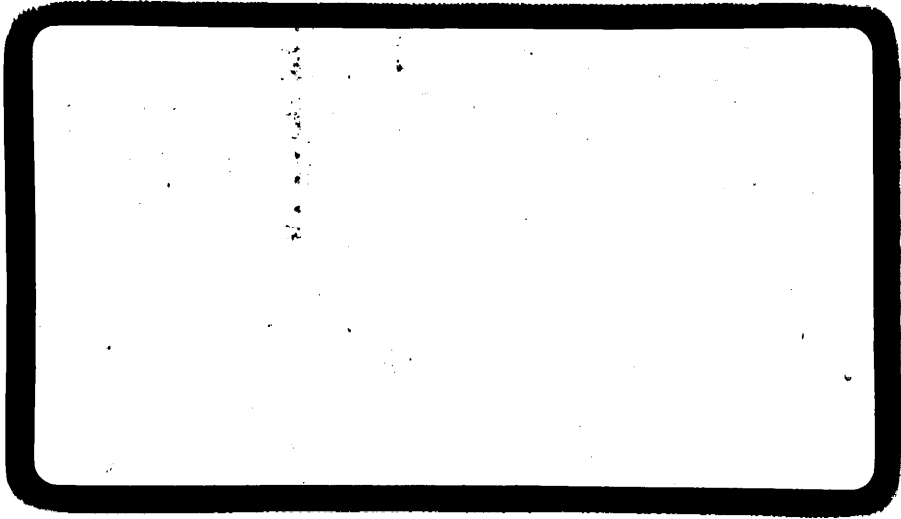


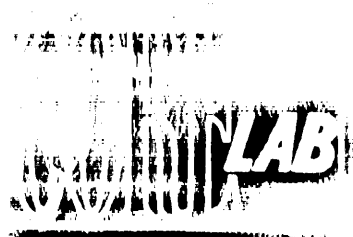


GIPPSLAND BASIN
HYDROCARBON REPORT

CORELAB
GRUNTER-1



THE UNIVERSITY OF MELBOURNE



H/C BOX

OIL and GAS DIVISION

ESSO AUSTRALIA LIMITED

GRUNTER #1

RESERVOIR FLUID STUDY

- 2 MAY 1985

Petroleum Reservoir Engineering



1st March, 1985

CORE LABORATORIES
Petroleum Reservoir Engineering



Esso Australia Limited,
Esso House,
127 Kent Street,
SYDNEY, N.S.W. 2000

Attention : Mr. A.K. Khurana

Subject : Reservoir Fluid Study
Well : Grunter #1
File : AFL 84061

Dear Sir,

Please find enclosed reservoir fluid analyses on a sample obtained from Grunter #1.

This sample was submitted to our laboratory in a two and three-quarter gallon RFL chamber and was subsequently transferred into three 650 cc cylinders at a working pressure of 7000 psi.

The compositional analysis of the reservoir fluid was then conducted by low temperature fractional distillation in conjunction with routine gas chromatography, and considering the nature of the fluid, extended to undecanes plus by extended gas chromatography. This is reported on page two.

While dumping three litres of 5000 psi gas we collected approximately 20 cc's of condensate, which was not sufficient to run a high temperature distillation.

However, upon contacting Esso's Sydney office we proceeded with breaking down this liquid using capillary chromatography. The results of this analysis are ported on page three.

We thank Esso for the opportunity to be of service. Please do not hesitate in contacting us should you require any further information.

Yours sincerely,

A handwritten signature in black ink, appearing to be "J. Bon", written over a large, stylized scribble.

J. Bon,
Manager.

JB/gm/dc

Company : Esso Australia Limited Date Sampled : 23rd October, 1984
Well : Grunter #1 State : Victoria
Field : Grunter Country : Australia

FORMATION CHARACTERISTICS

Formation Name :
Date First Well Completed :
Original Reservoir Pressure :
Original Produced Gas-Oil Ratio :
 Production Ratio :
 Separator Pressure and Temperature :
 Oil Gravity @ 60°F :
Datum :
Original Gas Cap :

WELL CHARACTERISTICS

Elevation :
Total Depth :
Producing Interval :
Tubing Size and Depth :
Productivity Index :
Last Reservoir Pressure :
 Date :
 Reservoir Temperature :
 Status of Well :
 Pressure Gauge :
Normal Production Rate :
 Gas-Oil Ratio :
 Separator Pressure and Temperature :
 Base Pressure :
Well Making Water :

SAMPLING CONDITIONS

Depth sampled @ : 3053.1m (MDKB)
Sampling Pressure :
Sampling Temperature : 105°C
Estimated Reservoir Pressure : 4467 psia
Estimated Reservoir Temperature :

Sampled by : Schlumberger
Type Sampler : RFT RUN/SEAT 17/84

REMARKS :

HYDROCARBON ANALYSIS OF RESERVOIR FLUID SAMPLE

Cylinder #: 436238D (Ex RFT 17/84)

<u>Component</u>	<u>Mol Percent</u>	<u>GPM</u>
Hydrogen Sulphide	0.00	
Carbon Dioxide	5.31	
Nitrogen	0.20	
Methane	78.80	
Ethane	6.98	1.862
Propane	3.10	0.851
iso-Butane	0.60	0.196
n-Butane	1.05	0.330
iso-Pentane	0.34	0.124
n-Pentane	0.30	0.108
Hexanes	0.45	0.183
Heptanes	1.32	1.300 (C7+)
Octanes	1.34	
Nonanes	0.20	
Decanes	0.01	
Undecanes plus	trace	
C7+ Mole Wt 155 density at 60°F 0.7929 ° API = 46.8	<u>100.00</u>	<u>4.954</u>
Gas gravity (Air = 1.000):		0.863
Gross heating value (BTU per cubic foot of dry gas @ 14.696 psia and 60°F):		1260

HYDROCARBON ANALYSIS BY CAPILLARY COLUMN
 CHROMATOGRAPHY OF CONDENSATE COLLECTED WHILE DUMPING 5000 PSI GAS

<u>Components</u>	<u>Mol Percent</u>	<u>Weight Percent</u>
Hexane minus	2.30	1.27
n-Heptane	8.77	5.52
n-Octane	20.25	14.22
n-Nonane	15.08	11.98
n-Decane	10.96	9.64
n-Undecane	7.12	6.86
n-Dodecane	5.49	5.80
n-Tridecane	5.78	6.64
n-Tetradecane	5.06	6.30
n-Pentadecane	4.03	5.43
n-Hexadecane	3.05	4.45
n-Heptadecane	2.70	4.20
n-Octadecane	2.49	4.10
n-Nonadecane	1.66	2.86
n-Eicosane	1.30	2.33
n-Heneicosane	0.96	1.82
n-Docosane	0.78	1.56
n-Tricosane	0.63	1.30
n-Tetracosane	0.47	1.02
n-Pentacosane	0.38	0.85
n-Hexacosane	0.26	0.60
n-Heptacosane	0.20	0.48
n-Octacosane	0.11	0.29
n-Nonacosane	0.08	0.21
n-Triacontane plus	0.09	0.27
	<hr/> 100.00	<hr/> 100.00

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 judgement of Core Laboratories, Inc. (all errors and 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.