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TAILOR-1 (W563)

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SPECIAL CORE ANALYSIS
FINAL REPORT

of

COBIA A11, DRUMMER 1 and TAILOR 1

for

ESSO AUSTRALIA LTD

by

ACS LABORATORIES PTY LTD

18 June, 1996

ACS LABORATORIES PTY. LTD.

Esso Australia Ltd
Esso House
12 Riverside Quay
SOUTHBANK VIC 3006

Attention: Mike Gilbert

FINAL REPORT: 008-354

CLIENT REFERENCE:	Order No 2710080 RFS5
MATERIAL:	Core Cuttings and Core Plug Offcuts
LOCALITY:	Cobia A11, Drummer 1, Tailor 1
WORK REQUIRED:	Mercury Injection Capillary Pressure Analysis

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

KEVIN H FLYNN
Manager
Special Core Analysis & Geological Services

ANTHONY M DRAKE
Laboratory Supervisor
Special Core Analysis

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CHAPTERS **PAGE**

CHAPTER 1

INTRODUCTION

1. INTRODUCTION

This final report presents the results obtained, and details of the procedures employed from a Special Core Analysis study. Mercury injection capillary pressure analysis was performed on a suite of core plug offcuts.

Chapter 2 of this report details the test and calculation procedures; Chapter 3 presents the full tests results in tabular and graphical format.

The following samples were provided by Esso Australia:

Well	Depth (m)
Cobia A11	2616.01 m 2616.38 m 2617.56 m 2618.72 m
Drummer 1	2485 - 2490 m
Tailor 1	7941' - 7941' 6"

It was requested that up to four pieces be utilised from cuttings supplied from Drummer 1. Unfortunately only two samples were able to be utilised.

Initial testing on two samples (A & B) from Tailor 1 indicated intrusion at very low pressures, usually due to fractures or surface irregularities. As porosity is normally utilised in the selection of penetrometers, and this value was unknown, it was recommended that these tests be performed again (samples C & D) to minimise this low pressure injection effect. This is done by increasing the initial pressure used in the penetrometer so that any surface irregularities and/or fractures in the samples are effectively discounted. In total four tests have been performed on Tailor 1, all results of which appear in this report.

CHAPTER 2

TEST AND CALCULATION PROCEDURES

2. TEST AND CALCULATION PROCEDURES

2.1 Mercury Injection Capillary Pressure

Samples of sufficient volume to fill the sample chamber (circa 2 cm^3) were utilised for capillary pressure determinations by the mercury injection technique. The mercury injection apparatus used is a semi-automatic Micromeritics Autopore 9200 which can operate up to a pressure of 60,000 psia, and can measure intrusions as small as 0.0001 cm^3 per gram of sample. This instrument was chosen for these analyses, as opposed to the standard mercury pump, because of its greater accuracy.

The Micromeritics Autopore records mercury intrusion by measuring the capacitance change between the capillary of mercury contained in the penetrometer and an outer metal sheath as mercury invades the samples. For pressures up to 24 psia, air pressure is used. Hydraulic oil is used to achieve the higher pressures. No volume corrections for pressure effects were made, since below 24 psia they are negligible, whilst for higher pressures the penetrometer experiences equal external and internal pressures, and mercury compression is offset by penetrometer compression.

All samples were dried in a humidity oven and placed into calibrated glass penetrometers. These consist of a sample chamber and attached precision bore capillary. Once the samples were placed into the penetrometer a vacuum was applied until less than 50 micrometres of mercury had been achieved. Mercury was then introduced into the penetrometer and the run commenced along pre-defined pressure points on a logarithmic scale. After equilibration at each pressure point a capacitance reading was taken which was then converted into an equivalent intrusion volume.

2.2 Breakthrough Pressure and Pore Throat Diameter

Pore throat diameter for intrusion pressure can be calculated as such:

$$D = \frac{4T\cos\theta C}{P_c}$$

where D = pore throat diameter (microns)
T = Interfacial tension (dynes/cm)
θ = contact angle (degrees)
P_C = capillary pressure (psi)
C = conversion constant
= $145 < 10^{-3}$

Displacement or breakthrough pressure can be determined by two methods. From the capillary pressure curves where the saturation tends to plateau, a point on the pressure axis can be read as indicated on the plots provided. Similarly, from an intrusion plot, the diameter at which breakthrough occurs can be read off the x-axis also as indicated. These values have been summarised in chapter 4 of this report.

CHAPTER 3

TEST RESULTS

CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Cobia A11

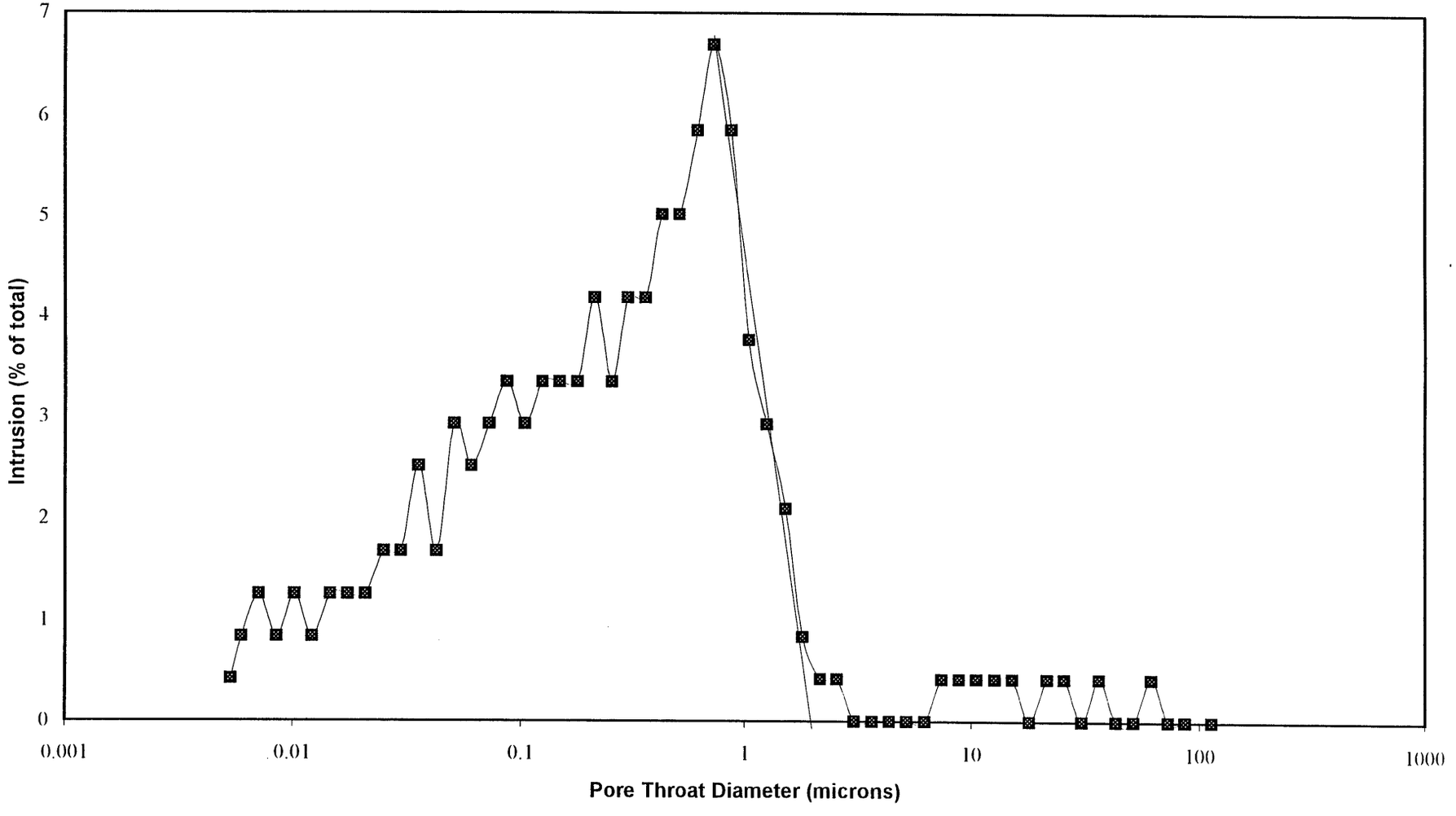
Test Method Air/Mercury Capillary Pressure
Sample Number
Depth 2616.01 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.88	0.0	0.0	113
2.46	0.0	0.0	86.2
2.92	0.0	0.0	72.6
3.47	0.4	0.4	61.1
4.14	0.0	0.4	51.2
4.93	0.0	0.4	43.0
5.85	0.4	0.8	36.2
6.98	0.0	0.8	30.4
8.33	0.4	1.3	25.5
9.92	0.4	1.7	21.4
11.9	0.0	1.7	17.9
14.1	0.4	2.1	15.0
16.9	0.4	2.5	12.6
20.1	0.4	2.9	10.5
24.1	0.4	3.3	8.81
28.7	0.4	3.8	7.38
34.1	0.0	3.8	6.21
41.0	0.0	3.8	5.18
48.8	0.0	3.8	4.34
58.4	0.0	3.8	3.63
69.8	0.0	3.8	3.04
82.9	0.4	4.2	2.56
98.5	0.4	4.6	2.15
118	0.8	5.4	1.79
141	2.1	7.5	1.51
171	2.9	10.5	1.24
204	3.8	14.2	1.04
243	5.9	20.1	0.871
291	6.7	26.8	0.729
343	5.9	32.6	0.618

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
413	5.0	37.7	0.513
497	5.0	42.7	0.426
591	4.2	46.9	0.359
708	4.2	51.0	0.300
835	3.3	54.4	0.254
998	4.2	58.6	0.212
1192	3.3	61.9	0.178
1427	3.3	65.3	0.149
1706	3.3	68.6	0.124
2045	2.9	71.5	0.104
2447	3.3	74.9	0.0866
2928	2.9	77.8	0.0724
3513	2.5	80.3	0.0603
4184	2.9	83.3	0.0507
4996	1.7	84.9	0.0424
6003	2.5	87.4	0.0353
7144	1.7	89.1	0.0297
8537	1.7	90.8	0.0248
10214	1.3	92.1	0.0208
12225	1.3	93.3	0.0173
14577	1.3	94.6	0.0145
17478	0.8	95.4	0.0121
20915	1.3	96.7	0.0101
24948	0.8	97.5	0.0085
29863	1.3	98.7	0.0071
35678	0.8	99.6	0.0059
39658	0.4	100.0	0.0053

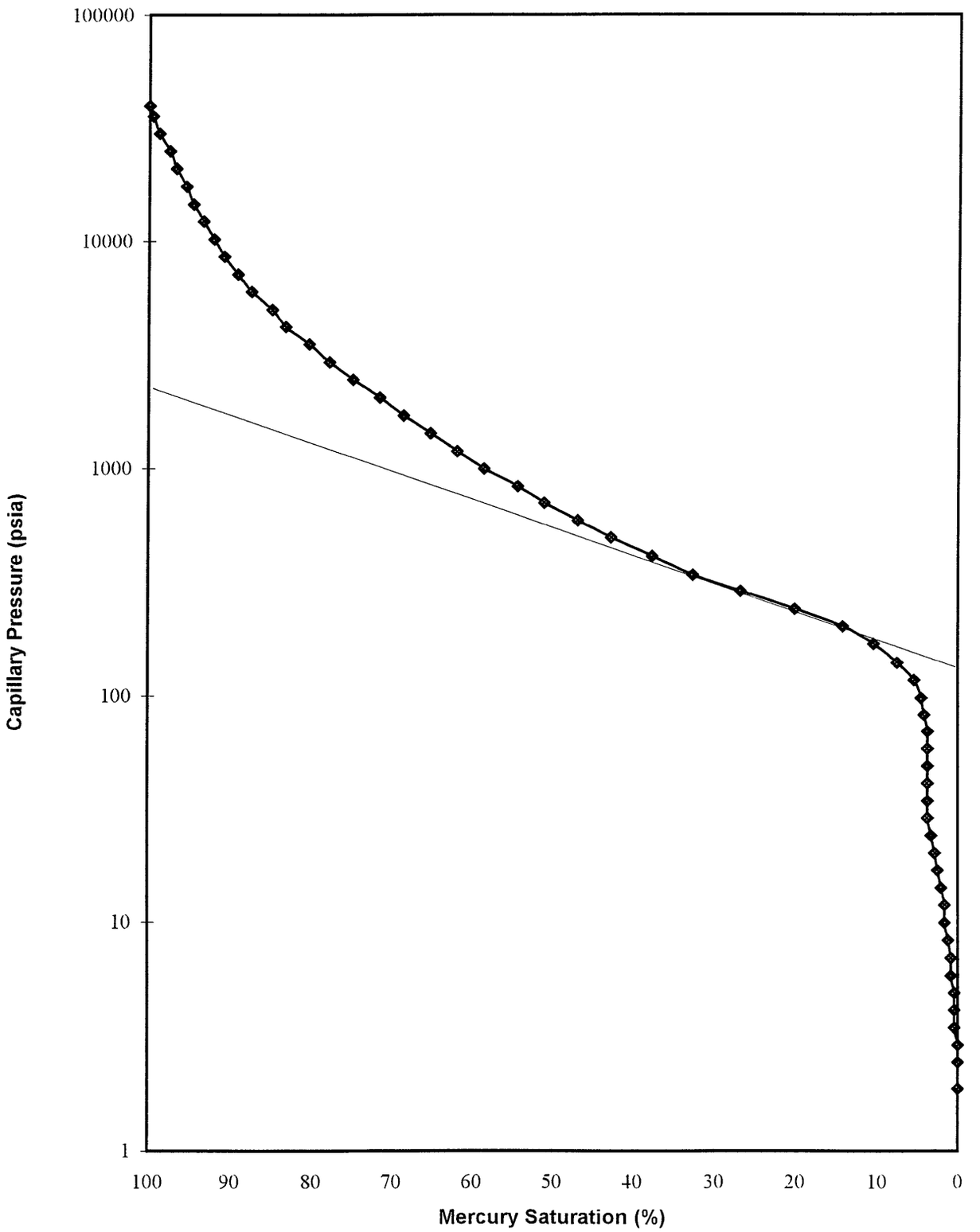
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2616.01 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2616.01 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Cobia A11

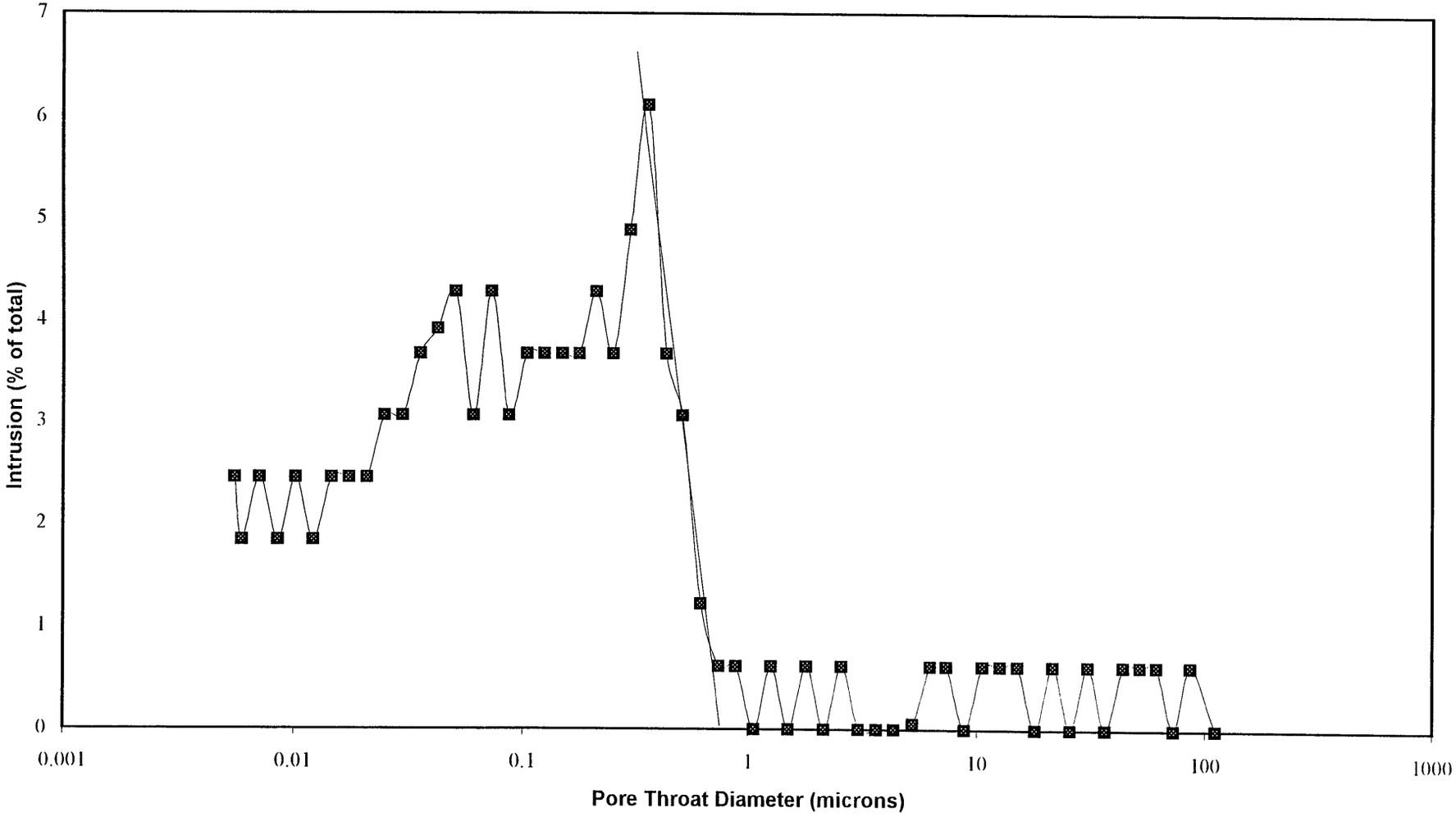
Test Method Air/Mercury Capillary Pressure
Sample Number
Depth 2616.38 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.90	0.0	0.0	112
2.46	0.6	0.6	86.2
2.92	0.0	0.6	72.6
3.47	0.6	1.2	61.1
4.12	0.6	1.8	51.5
4.90	0.6	2.4	43.3
5.86	0.0	2.4	36.2
6.96	0.6	3.1	30.5
8.33	0.0	3.1	25.5
9.94	0.6	3.7	21.3
11.9	0.0	3.7	17.9
14.2	0.6	4.3	15.0
16.9	0.6	4.9	12.5
20.2	0.6	5.5	10.5
24.1	0.0	5.5	8.79
28.8	0.6	6.1	7.35
34.0	0.6	6.7	6.24
40.6	0.1	6.8	5.22
48.7	0.0	6.8	4.35
58.3	0.0	6.8	3.64
69.8	0.0	6.8	3.04
83.0	0.6	7.4	2.55
98.9	0.0	7.4	2.14
118	0.6	8.0	1.79
141	0.0	8.0	1.50
169	0.6	8.6	1.25
201	0.0	8.6	1.05
240	0.6	9.2	0.882
286	0.6	9.8	0.740
345	1.2	11.1	0.615

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
414	3.1	14.1	0.512
489	3.7	17.8	0.434
588	6.1	23.9	0.360
707	4.9	28.8	0.300
844	3.7	32.5	0.251
1001	4.3	36.8	0.212
1195	3.7	40.4	0.177
1430	3.7	44.1	0.148
1710	3.7	47.8	0.124
2045	3.7	51.4	0.104
2449	3.1	54.5	0.0866
2926	4.3	58.8	0.0725
3512	3.1	61.8	0.0604
4183	4.3	66.1	0.0507
5006	3.9	70.0	0.0423
5993	3.7	73.7	0.0354
7144	3.1	76.8	0.0297
8545	3.1	79.8	0.0248
10216	2.4	82.3	0.0208
12224	2.4	84.7	0.0173
14630	2.4	87.2	0.0145
17509	1.8	89.0	0.0121
20936	2.4	91.4	0.0101
25013	1.8	93.3	0.0085
29898	2.4	95.7	0.0071
35763	1.8	97.6	0.0059
38288	2.4	100.0	0.0055

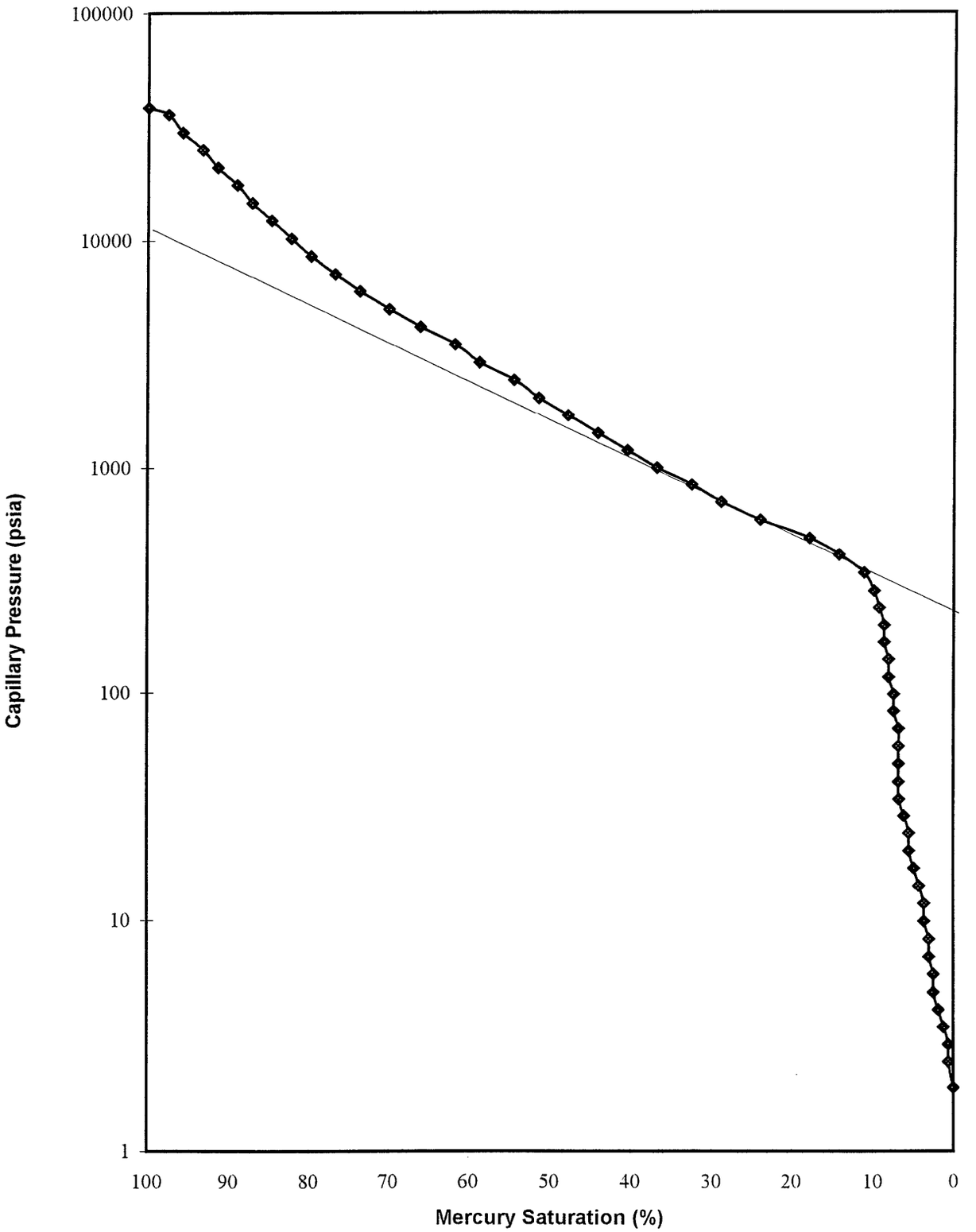
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2626.38 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2616.38 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Cobia A11

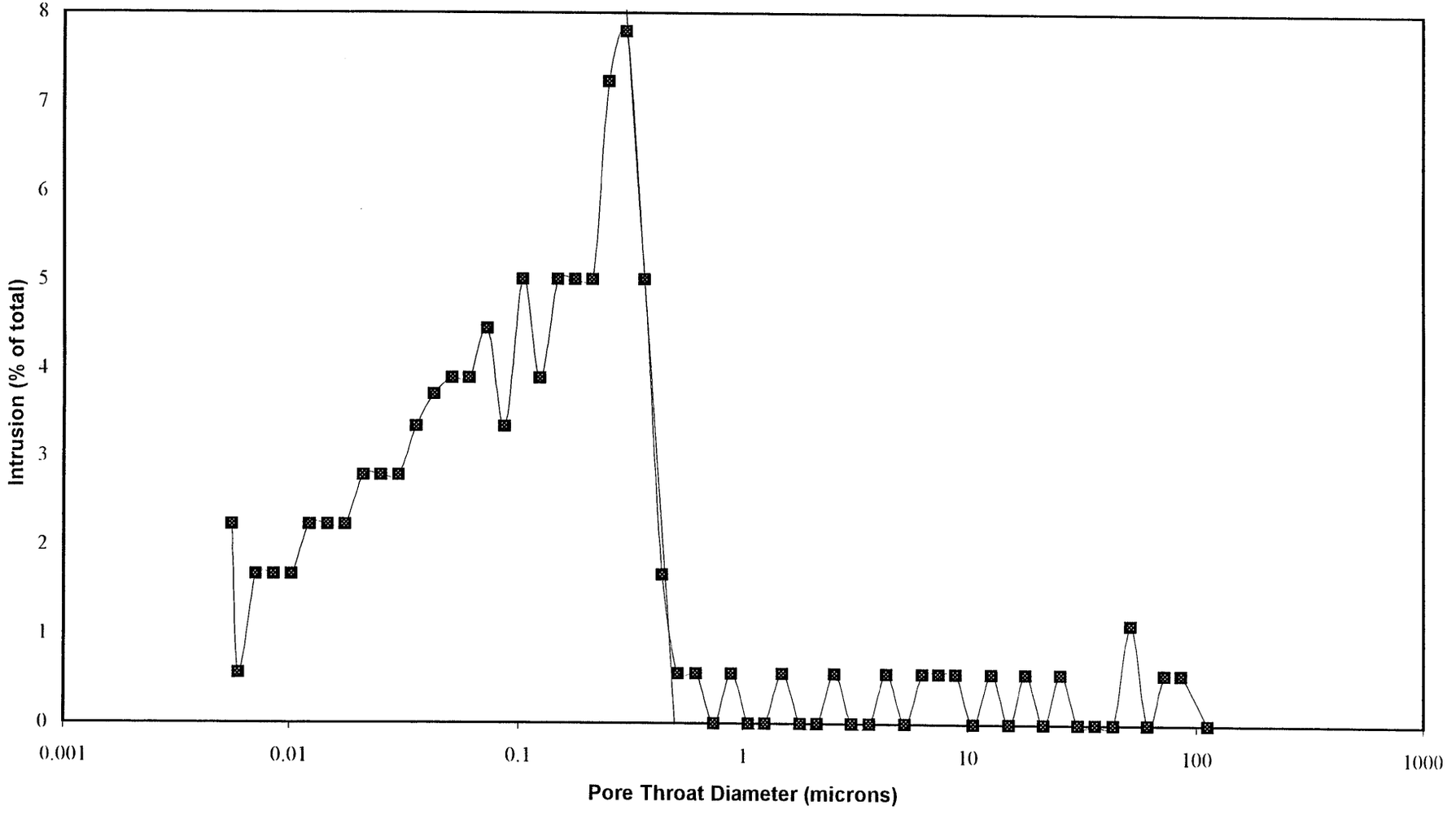
Test Method Air/Mercury Capillary Pressure
Sample Number
Depth 2617.56 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.89	0.0	0.0	112
2.47	0.6	0.6	85.8
2.92	0.6	1.1	72.6
3.47	0.0	1.1	61.1
4.13	1.1	2.2	51.3
4.90	0.0	2.2	43.3
5.87	0.0	2.2	36.1
6.99	0.0	2.2	30.3
8.34	0.6	2.8	25.4
9.90	0.0	2.8	21.4
11.9	0.6	3.3	17.9
14.1	0.0	3.3	15.0
16.9	0.6	3.9	12.6
20.2	0.0	3.9	10.5
24.1	0.6	4.5	8.81
28.7	0.6	5.0	7.38
34.0	0.6	5.6	6.24
40.6	0.0	5.6	5.22
48.7	0.6	6.1	4.35
58.3	0.0	6.1	3.64
69.8	0.0	6.1	3.04
83.0	0.6	6.7	2.55
98.9	0.0	6.7	2.14
118	0.0	6.7	1.79
141	0.6	7.2	1.50
169	0.0	7.2	1.25
201	0.0	7.2	1.05
240	0.6	7.8	0.882
286	0.0	7.8	0.740
345	0.6	8.3	0.615

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
414	0.6	8.9	0.512
489	1.7	10.6	0.434
588	5.0	15.6	0.360
707	7.8	23.4	0.300
844	7.2	30.6	0.251
1001	5.0	35.6	0.212
1195	5.0	40.6	0.177
1430	5.0	45.6	0.148
1710	3.9	49.5	0.124
2045	5.0	54.5	0.104
2449	3.3	57.9	0.0866
2926	4.5	62.3	0.0725
3512	3.9	66.2	0.0604
4183	3.9	70.1	0.0507
5006	3.7	73.8	0.0423
5993	3.3	77.2	0.0354
7144	2.8	80.0	0.0297
8545	2.8	82.7	0.0248
10216	2.8	85.5	0.0208
12224	2.2	87.8	0.0173
14630	2.2	90.0	0.0145
17509	2.2	92.2	0.0121
20936	1.7	93.9	0.0101
25013	1.7	95.5	0.0085
29898	1.7	97.2	0.0071
35763	0.6	97.8	0.0059
38288	2.2	100.0	0.0055

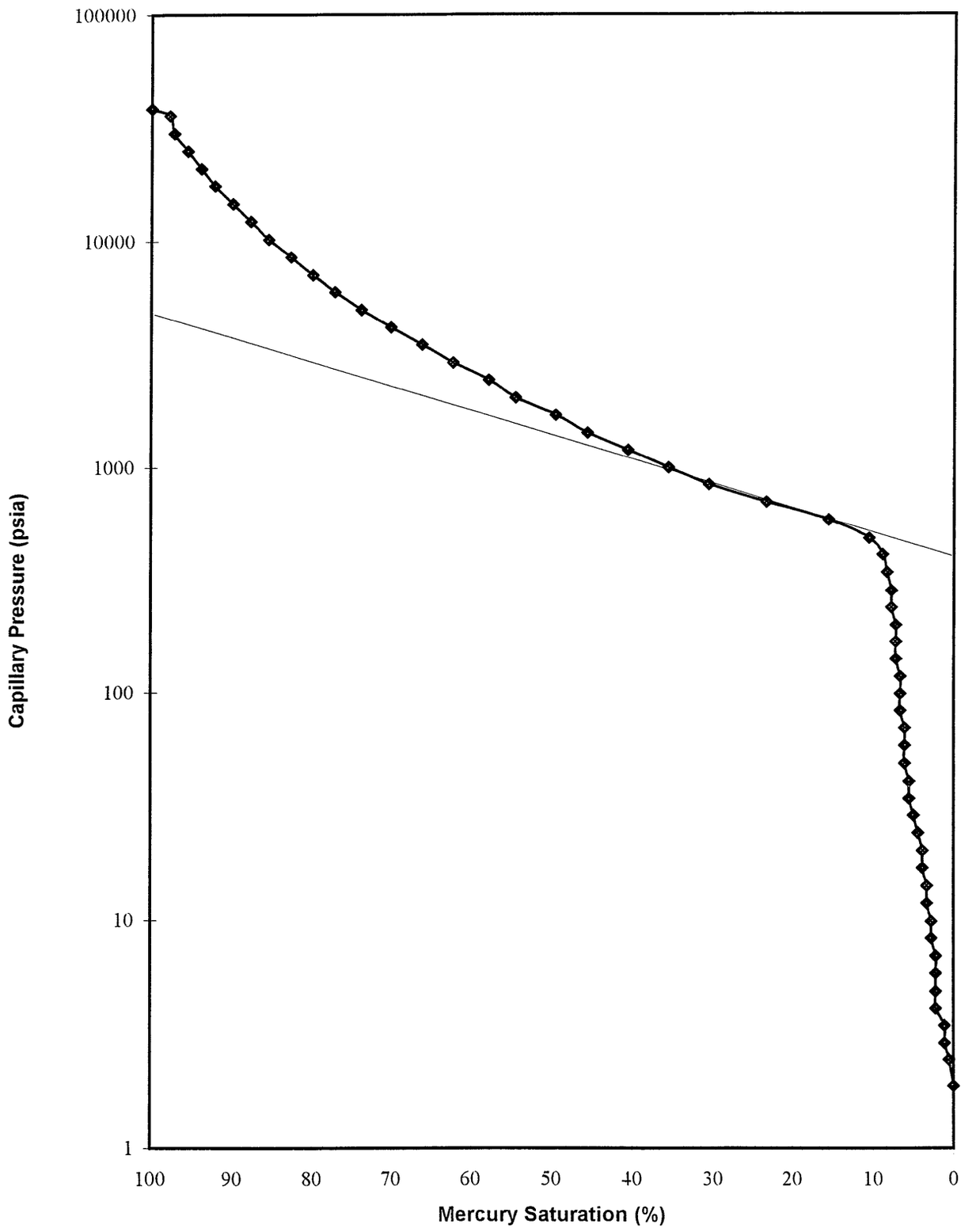
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2617.56 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2617.56 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Cobia A11

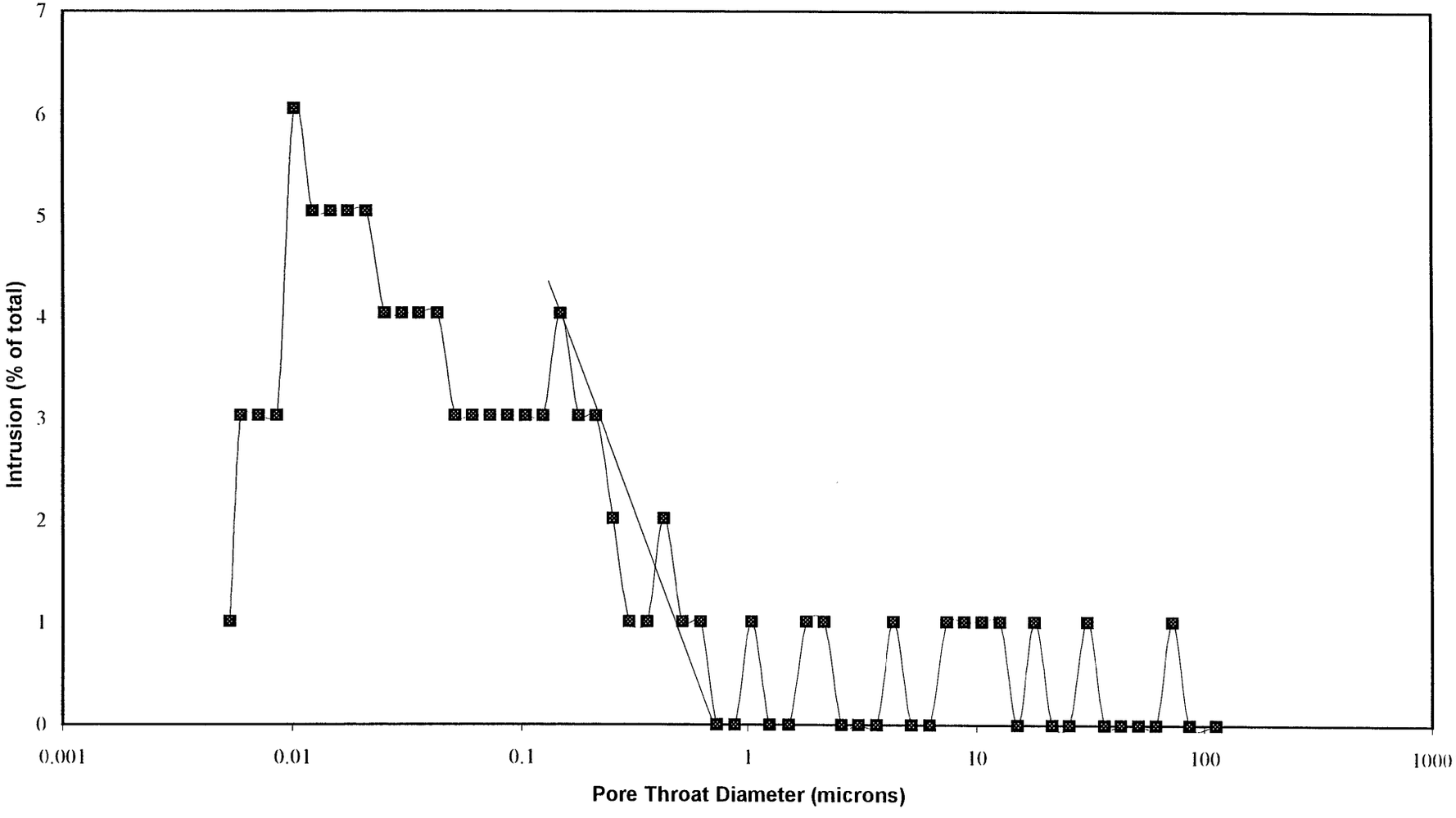
Test Method Air/Mercury Capillary Pressure
Sample Number
Depth 2618.72 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.88	0.0	0.0	113
2.46	0.0	0.0	86.2
2.92	1.0	1.0	72.6
3.47	0.0	1.0	61.1
4.14	0.0	1.0	51.2
4.93	0.0	1.0	43.0
5.85	0.0	1.0	36.2
6.98	1.0	2.0	30.4
8.33	0.0	2.0	25.5
9.92	0.0	2.0	21.4
11.9	1.0	3.0	17.9
14.1	0.0	3.0	15.0
16.9	1.0	4.0	12.6
20.1	1.0	5.1	10.5
24.1	1.0	6.1	8.81
28.7	1.0	7.1	7.38
34.1	0.0	7.1	6.21
41.0	0.0	7.1	5.18
48.8	1.0	8.1	4.34
58.4	0.0	8.1	3.63
69.8	0.0	8.1	3.04
82.9	0.0	8.1	2.56
98.5	1.0	9.1	2.15
118	1.0	10.1	1.79
141	0.0	10.1	1.51
171	0.0	10.1	1.24
204	1.0	11.1	1.04
243	0.0	11.1	0.871
291	0.0	11.1	0.729
343	1.0	12.1	0.618

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
413	1.0	13.1	0.513
497	2.0	15.2	0.426
591	1.0	16.2	0.359
708	1.0	17.2	0.300
835	2.0	19.2	0.254
998	3.0	22.2	0.212
1192	3.0	25.3	0.178
1427	4.0	29.3	0.149
1706	3.0	32.3	0.124
2045	3.0	35.4	0.104
2447	3.0	38.4	0.0866
2928	3.0	41.4	0.0724
3513	3.0	44.4	0.0603
4184	3.0	47.5	0.0507
4996	4.0	51.5	0.0424
6003	4.0	55.6	0.0353
7144	4.0	59.6	0.0297
8537	4.0	63.6	0.0248
10214	5.1	68.7	0.0208
12225	5.1	73.7	0.0173
14577	5.1	78.8	0.0145
17478	5.1	83.8	0.0121
20915	6.1	89.9	0.0101
24948	3.0	92.9	0.0085
29863	3.0	96.0	0.0071
35678	3.0	99.0	0.0059
39658	1.0	100.0	0.0053

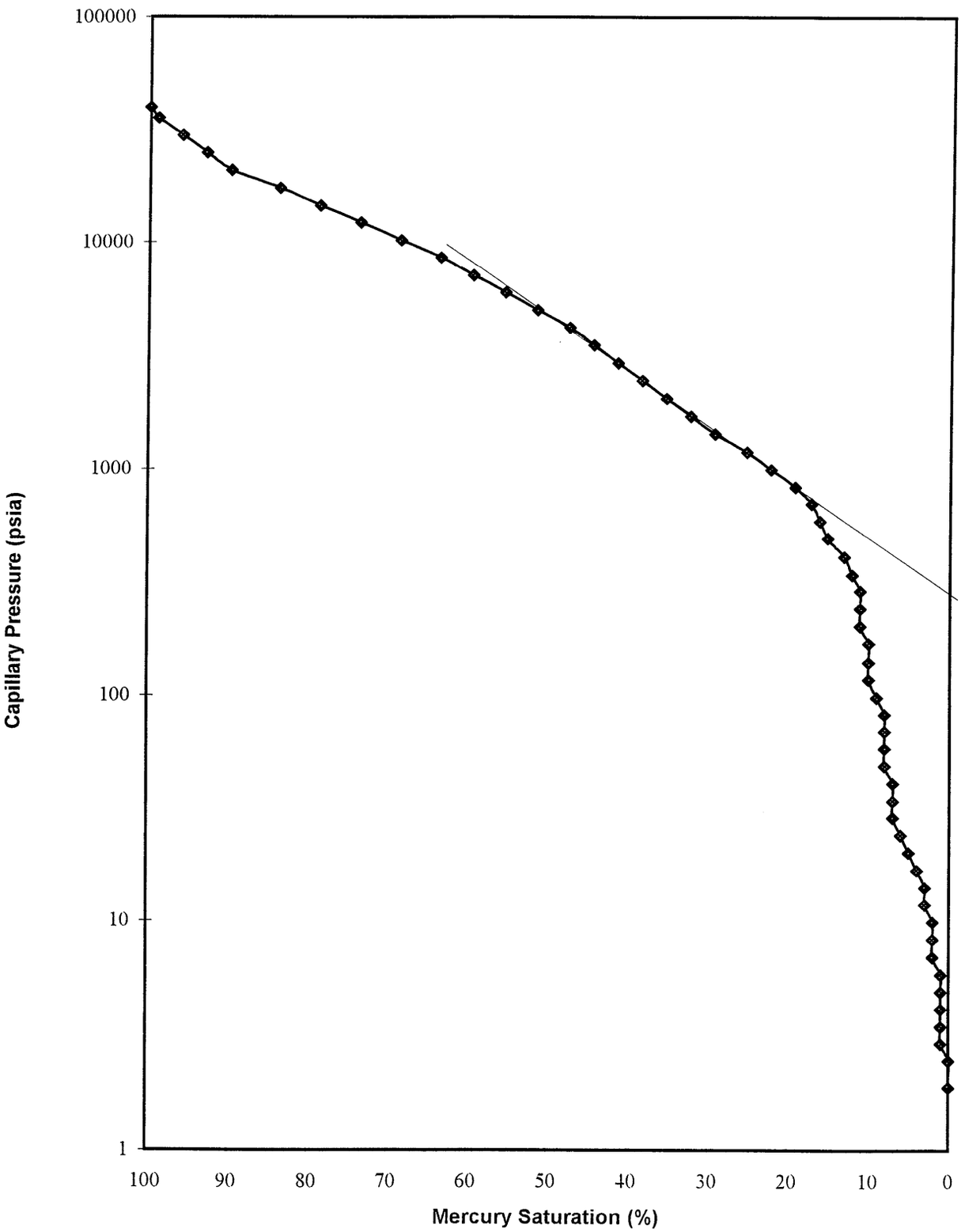
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2618.72 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Cobia A11
Depth: 2618.72 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Drummer 1

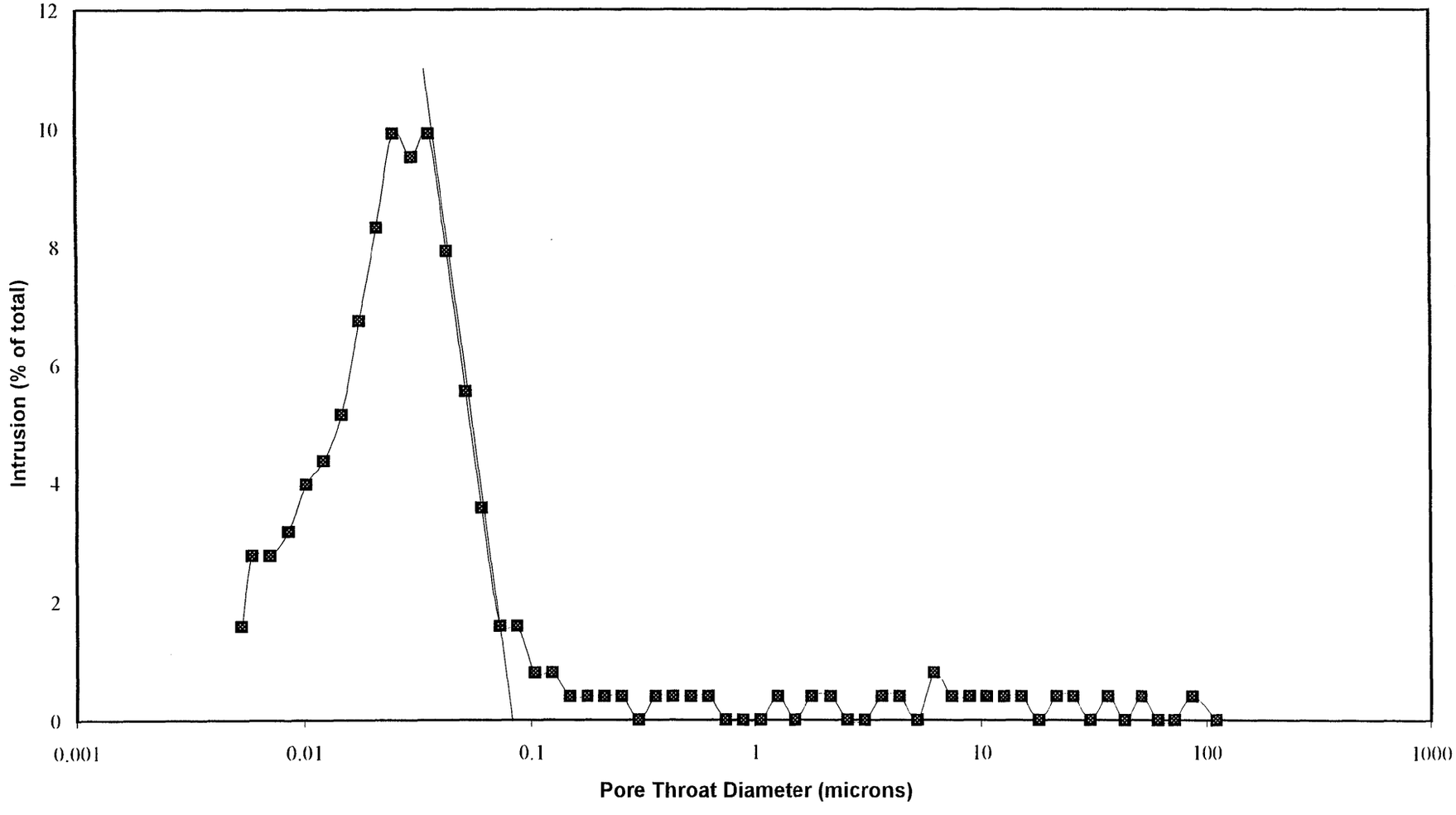
Test Method Air/Mercury Capillary Pressure
Sample Number a
Depth 2485 m - 2490 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.92	0.0	0.0	110
2.46	0.4	0.4	86.2
2.94	0.0	0.4	72.1
3.47	0.0	0.4	61.1
4.14	0.4	0.8	51.2
4.91	0.0	0.8	43.2
5.84	0.4	1.2	36.3
6.98	0.0	1.2	30.4
8.32	0.4	1.6	25.5
9.92	0.4	2.0	21.4
11.9	0.0	2.0	17.9
14.1	0.4	2.4	15.0
16.9	0.4	2.8	12.6
20.2	0.4	3.2	10.5
24.0	0.4	3.6	8.82
28.7	0.4	4.0	7.38
34.4	0.8	4.8	6.16
40.8	0.0	4.8	5.20
48.9	0.4	5.2	4.34
58.4	0.4	5.6	3.63
69.5	0.0	5.6	3.05
83.0	0.0	5.6	2.55
98.6	0.4	6.0	2.15
119	0.4	6.3	1.78
141	0.0	6.3	1.50
169	0.4	6.7	1.25
201	0.0	6.7	1.06
240	0.0	6.7	0.884
287	0.0	6.7	0.740
342	0.4	7.1	0.620

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
409	0.4	7.5	0.518
493	0.4	7.9	0.430
589	0.4	8.3	0.360
698	0.0	8.3	0.304
835	0.4	8.7	0.254
1000	0.4	9.1	0.212
1193	0.4	9.5	0.178
1427	0.4	9.9	0.149
1709	0.8	10.7	0.124
2047	0.8	11.5	0.104
2447	1.6	13.1	0.0867
2925	1.6	14.7	0.0725
3510	3.6	18.3	0.0604
4151	5.6	23.8	0.0511
4995	7.9	31.7	0.0424
5967	9.9	41.7	0.0355
7113	9.5	51.2	0.0298
8554	9.9	61.1	0.0248
10194	8.3	69.4	0.0208
12202	6.7	76.2	0.0174
14583	5.2	81.3	0.0145
17484	4.4	85.7	0.0121
20875	4.0	89.7	0.0102
24973	3.2	92.9	0.0085
29973	2.8	95.6	0.0071
35673	2.8	98.4	0.0059
39790	1.6	100.0	0.0053

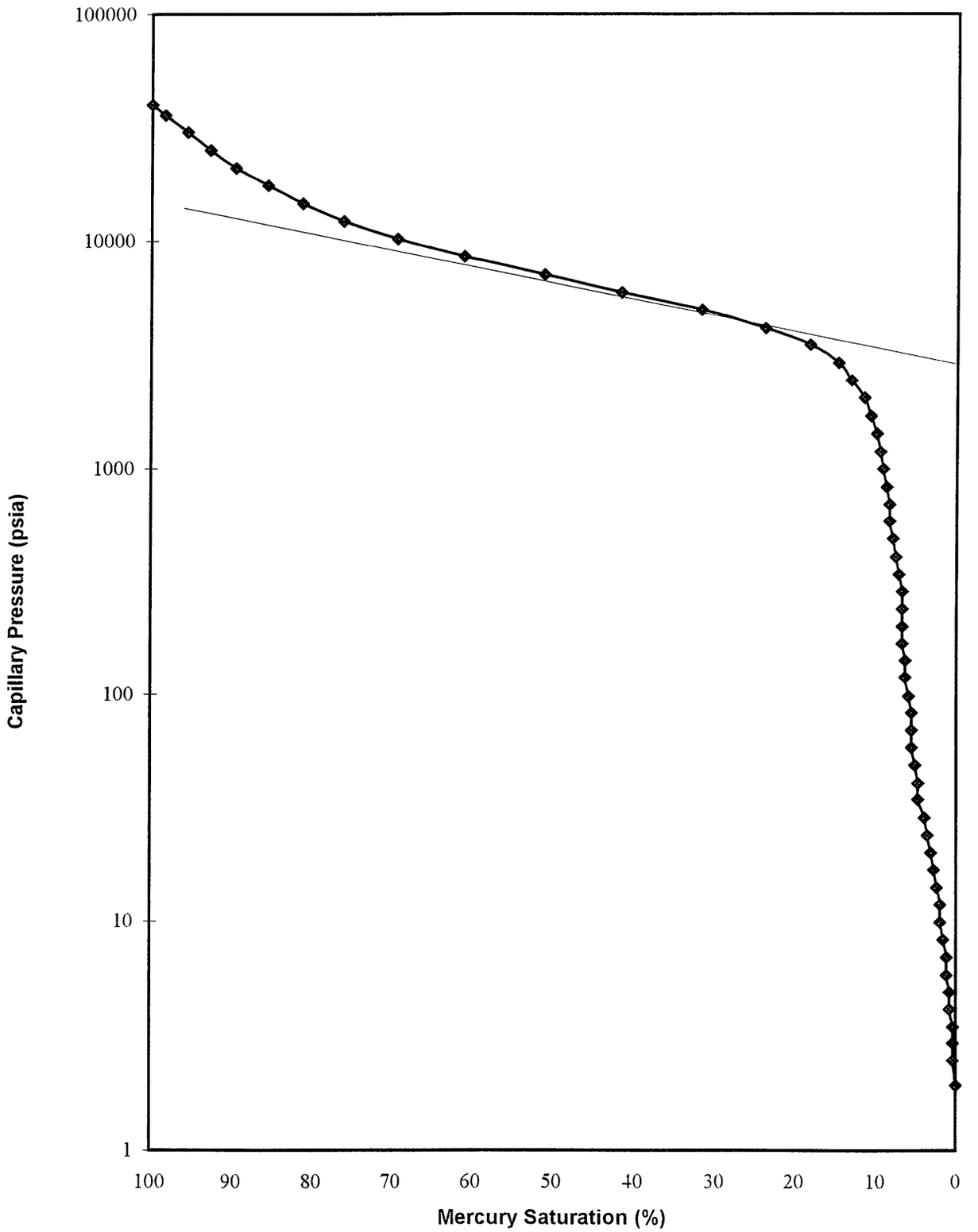
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Drummer 1
Sample: a
Depth: 2485 m - 2490 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Drummer 1
Sample: a
Depth: 2485 m - 2490 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Drummer 1

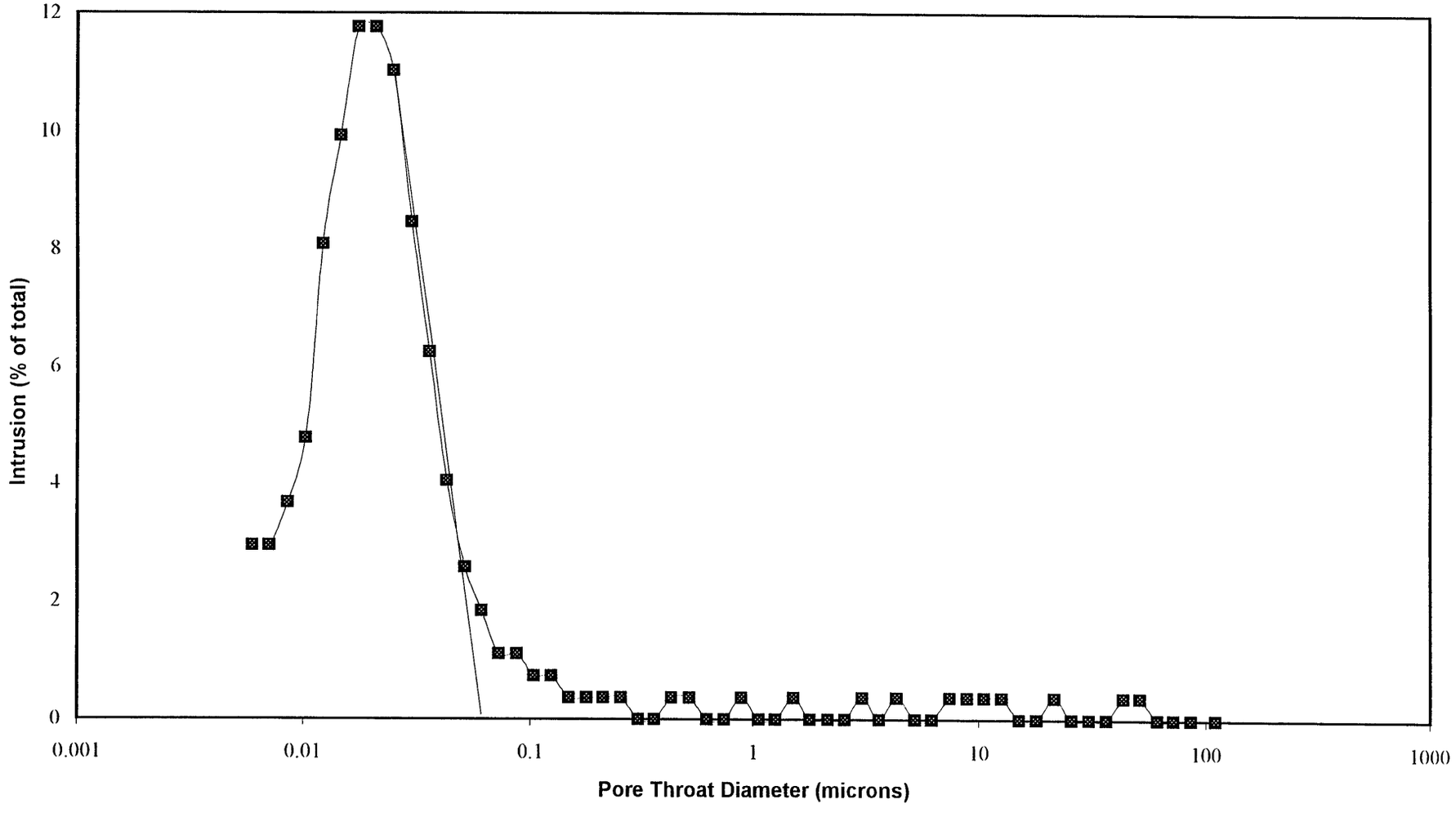
Test Method Air/Mercury Capillary Pressure
Sample Number b
Depth 2485 m - 2490 m

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.92	0.0	0.0	110
2.46	0.0	0.0	86.2
2.94	0.0	0.0	72.1
3.47	0.0	0.0	61.1
4.14	0.4	0.4	51.2
4.91	0.4	0.7	43.2
5.84	0.0	0.7	36.3
6.98	0.0	0.7	30.4
8.32	0.0	0.7	25.5
9.92	0.4	1.1	21.4
11.9	0.0	1.1	17.9
14.1	0.0	1.1	15.0
16.9	0.4	1.5	12.6
20.2	0.4	1.8	10.5
24.0	0.4	2.2	8.82
28.7	0.4	2.6	7.38
34.4	0.0	2.6	6.16
40.8	0.0	2.6	5.20
48.9	0.4	2.9	4.34
58.4	0.0	2.9	3.63
69.5	0.4	3.3	3.05
83.0	0.0	3.3	2.55
98.6	0.0	3.3	2.15
119	0.0	3.3	1.78
141	0.4	3.7	1.50
169	0.0	3.7	1.25
201	0.0	3.7	1.06
240	0.4	4.0	0.884
287	0.0	4.0	0.740
342	0.0	4.0	0.620

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
409	0.4	4.4	0.518
493	0.4	4.8	0.430
589	0.0	4.8	0.360
698	0.0	4.8	0.304
835	0.4	5.1	0.254
1000	0.4	5.5	0.212
1193	0.4	5.9	0.178
1427	0.4	6.3	0.149
1709	0.7	7.0	0.124
2047	0.7	7.7	0.104
2447	1.1	8.8	0.0867
2925	1.1	9.9	0.0725
3510	1.8	11.8	0.0604
4151	2.6	14.3	0.0511
4995	4.0	18.4	0.0424
5967	6.3	24.6	0.0355
7113	8.5	33.1	0.0298
8554	11.0	44.1	0.0248
10194	11.8	55.9	0.0208
12202	11.8	67.6	0.0174
14583	9.9	77.6	0.0145
17484	8.1	85.7	0.0121
20875	4.8	90.4	0.0102
24973	3.7	94.1	0.0085
29973	2.9	97.1	0.0071
35673	2.9	100.0	0.0059

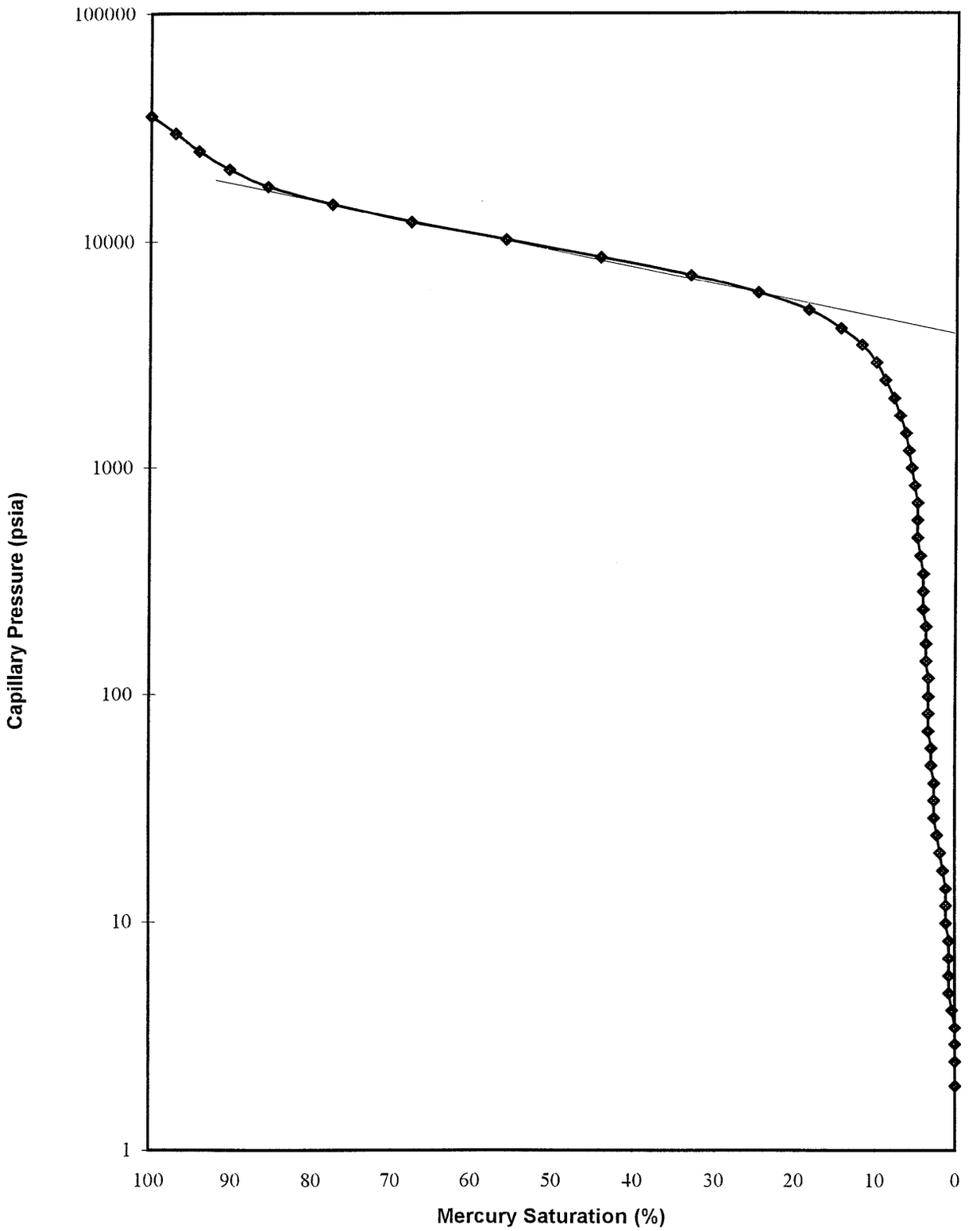
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Drummer 1
Sample: b
Depth: 2485 m - 2490 m



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Drummer 1
Sample: b
Depth: 2485 m - 2490 m



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Tailor 1

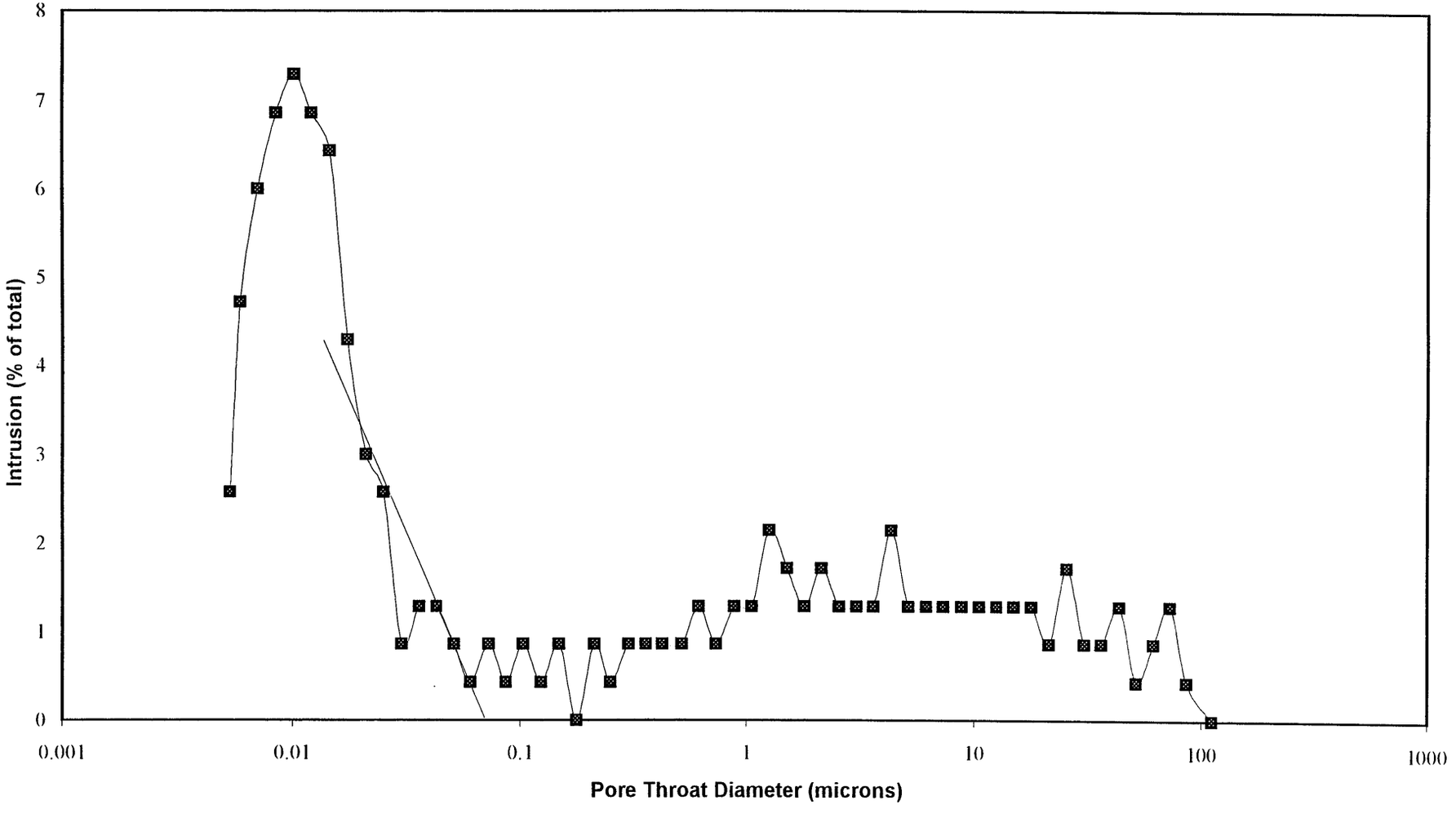
Test Method Air/Mercury Capillary Pressure
Sample Number a
Depth 7941' - 7941' 6"

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.90	0.0	0.0	112
2.46	0.4	0.4	86.2
2.91	1.3	1.7	72.9
3.45	0.9	2.6	61.4
4.12	0.4	3.0	51.5
4.89	1.3	4.3	43.4
5.87	0.9	5.2	36.1
6.98	0.9	6.0	30.4
8.31	1.7	7.7	25.5
9.95	0.9	8.6	21.3
11.9	1.3	9.9	17.9
14.2	1.3	11.2	15.0
16.9	1.3	12.4	12.6
20.2	1.3	13.7	10.5
24.1	1.3	15.0	8.80
28.8	1.3	16.3	7.35
34.3	1.3	17.6	6.18
41.0	1.3	18.9	5.17
48.9	2.1	21.0	4.34
58.5	1.3	22.3	3.62
69.4	1.3	23.6	3.06
83.1	1.3	24.9	2.55
99.1	1.7	26.6	2.14
117	1.3	27.9	1.81
140	1.7	29.6	1.51
168	2.1	31.8	1.26
200	1.3	33.0	1.06
240	1.3	34.3	0.884
288	0.9	35.2	0.736
344	1.3	36.5	0.617

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
409	0.9	37.3	0.518
496	0.9	38.2	0.427
590	0.9	39.1	0.359
703	0.9	39.9	0.301
849	0.4	40.3	0.250
999	0.9	41.2	0.212
1194	0.0	41.2	0.178
1430	0.9	42.1	0.148
1710	0.4	42.5	0.124
2050	0.9	43.3	0.103
2445	0.4	43.8	0.0867
2929	0.9	44.6	0.0724
3515	0.4	45.1	0.0603
4165	0.9	45.9	0.0509
4981	1.3	47.2	0.0426
5981	1.3	48.5	0.0354
7150	0.9	49.4	0.0296
8575	2.6	51.9	0.0247
10220	3.0	54.9	0.0207
12241	4.3	59.2	0.0173
14613	6.4	65.7	0.0145
17494	6.9	72.5	0.0121
20888	7.3	79.8	0.0101
24972	6.9	86.7	0.0085
29883	6.0	92.7	0.0071
35719	4.7	97.4	0.0059
39744	2.6	100.0	0.0053

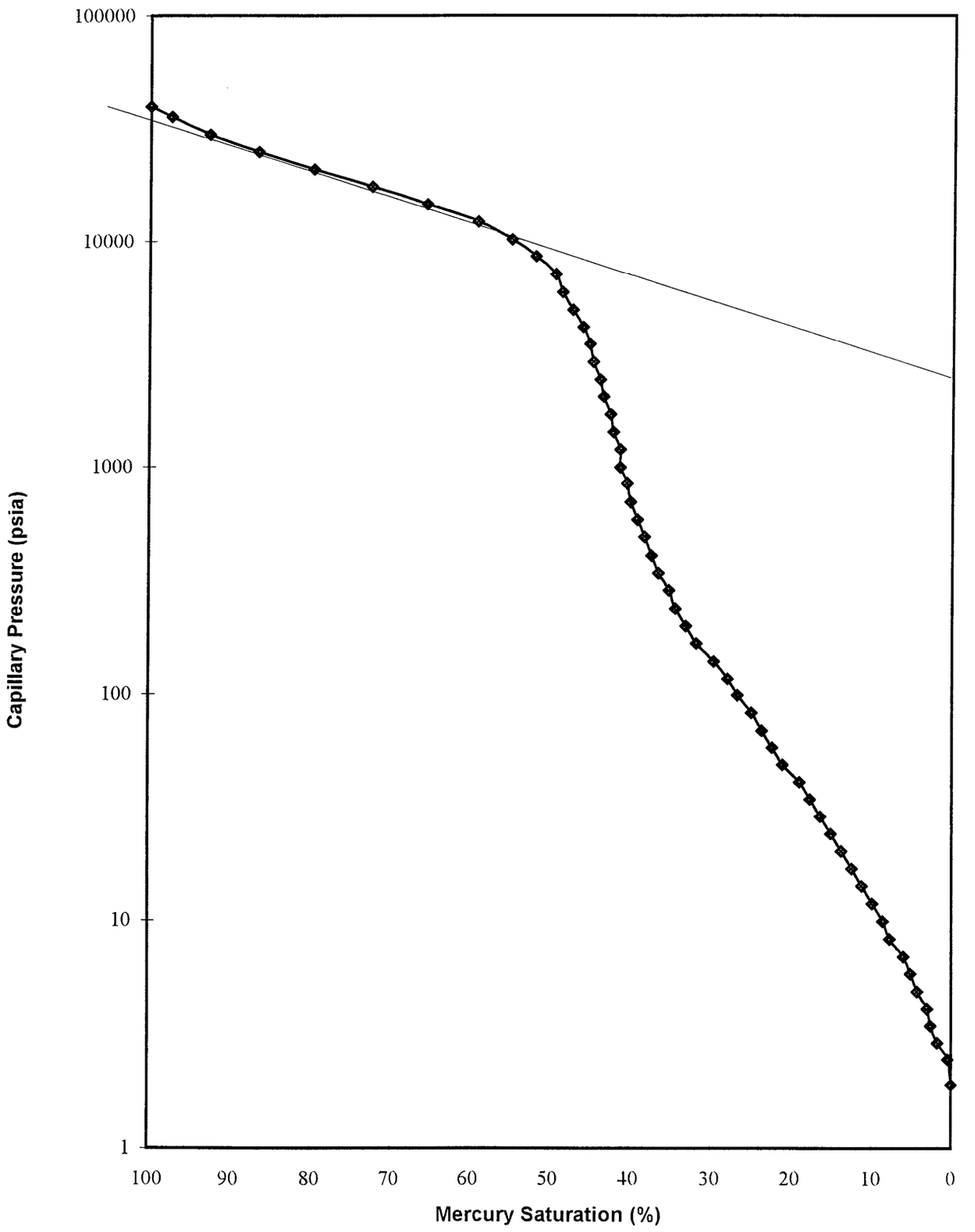
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Tailor 1
Sample: a
Depth: 7941' - 7941' 6"



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Tailor 1
Sample: a
Depth: 7941' - 7941' 6"



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Tailor 1

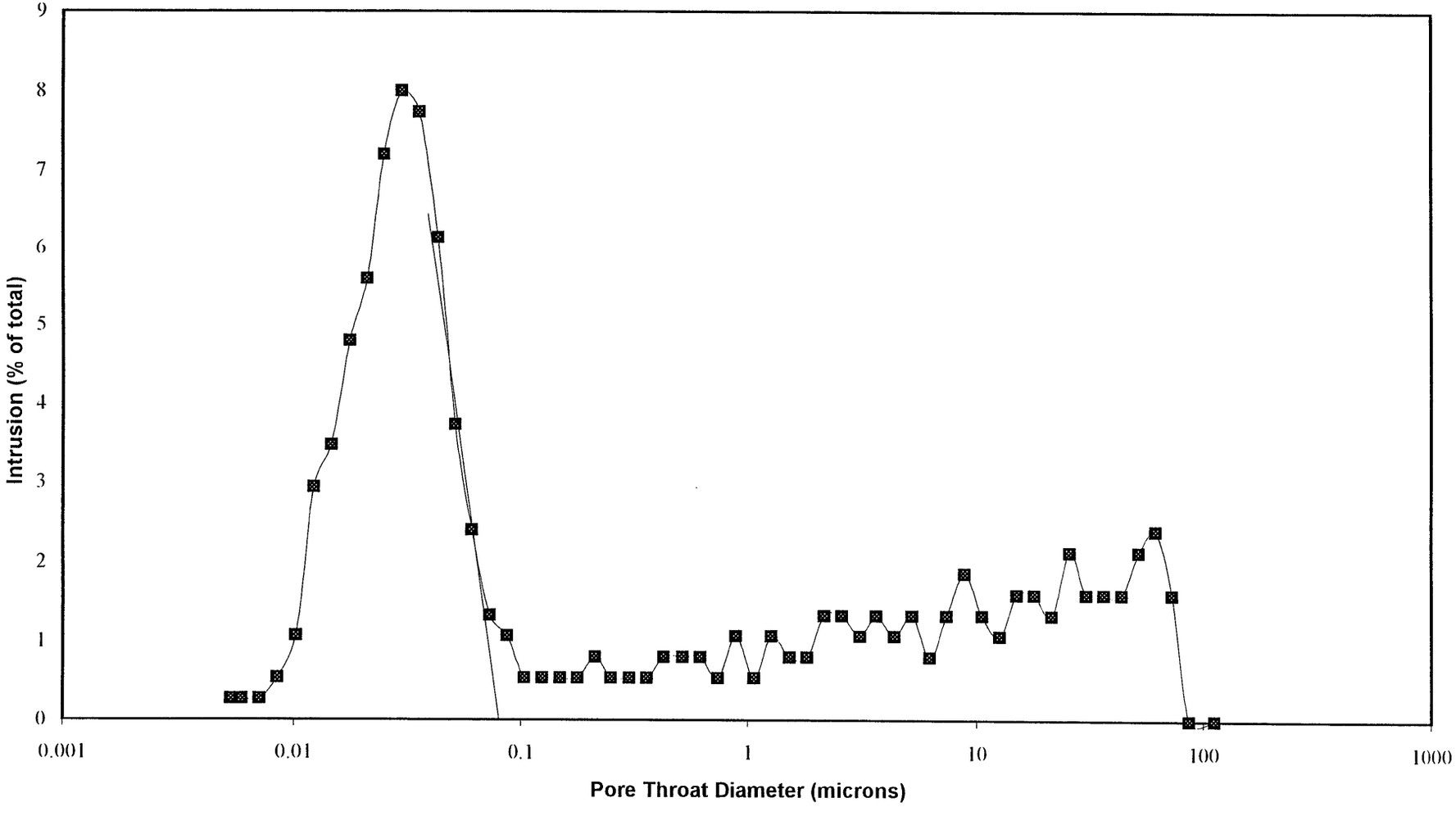
Test Method Air/Mercury Capillary Pressure
Sample Number b
Depth 7941' - 7941' 6"

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
1.90	0.0	0.0	112
2.46	0.0	0.0	86.2
2.91	1.6	1.6	72.9
3.45	2.4	4.0	61.4
4.12	2.1	6.1	51.5
4.89	1.6	7.7	43.4
5.87	1.6	9.3	36.1
6.98	1.6	10.9	30.4
8.31	2.1	13.1	25.5
9.95	1.3	14.4	21.3
11.9	1.6	16.0	17.9
14.2	1.6	17.6	15.0
16.9	1.1	18.7	12.6
20.2	1.3	20.0	10.5
24.1	1.9	21.9	8.80
28.8	1.3	23.2	7.35
34.3	0.8	24.0	6.18
41.0	1.3	25.3	5.17
48.9	1.1	26.4	4.34
58.5	1.3	27.7	3.62
69.4	1.1	28.8	3.06
83.1	1.3	30.1	2.55
99.1	1.3	31.5	2.14
117	0.8	32.3	1.81
140	0.8	33.1	1.51
168	1.1	34.1	1.26
200	0.5	34.7	1.06
240	1.1	35.7	0.884
288	0.5	36.3	0.736
344	0.8	37.1	0.617

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
409	0.8	37.9	0.518
496	0.8	38.7	0.427
590	0.5	39.2	0.359
703	0.5	39.7	0.301
849	0.5	40.3	0.250
999	0.8	41.1	0.212
1194	0.5	41.6	0.178
1430	0.5	42.1	0.148
1710	0.5	42.7	0.124
2050	0.5	43.2	0.103
2445	1.1	44.3	0.0867
2929	1.3	45.6	0.0724
3515	2.4	48.0	0.0603
4165	3.7	51.7	0.0509
4981	6.1	57.9	0.0426
5981	7.7	65.6	0.0354
7150	8.0	73.6	0.0296
8575	7.2	80.8	0.0247
10220	5.6	86.4	0.0207
12241	4.8	91.2	0.0173
14613	3.5	94.7	0.0145
17494	2.9	97.6	0.0121
20888	1.1	98.7	0.0101
24972	0.5	99.2	0.0085
29883	0.3	99.5	0.0071
35719	0.3	99.7	0.0059
39744	0.3	100.0	0.0053

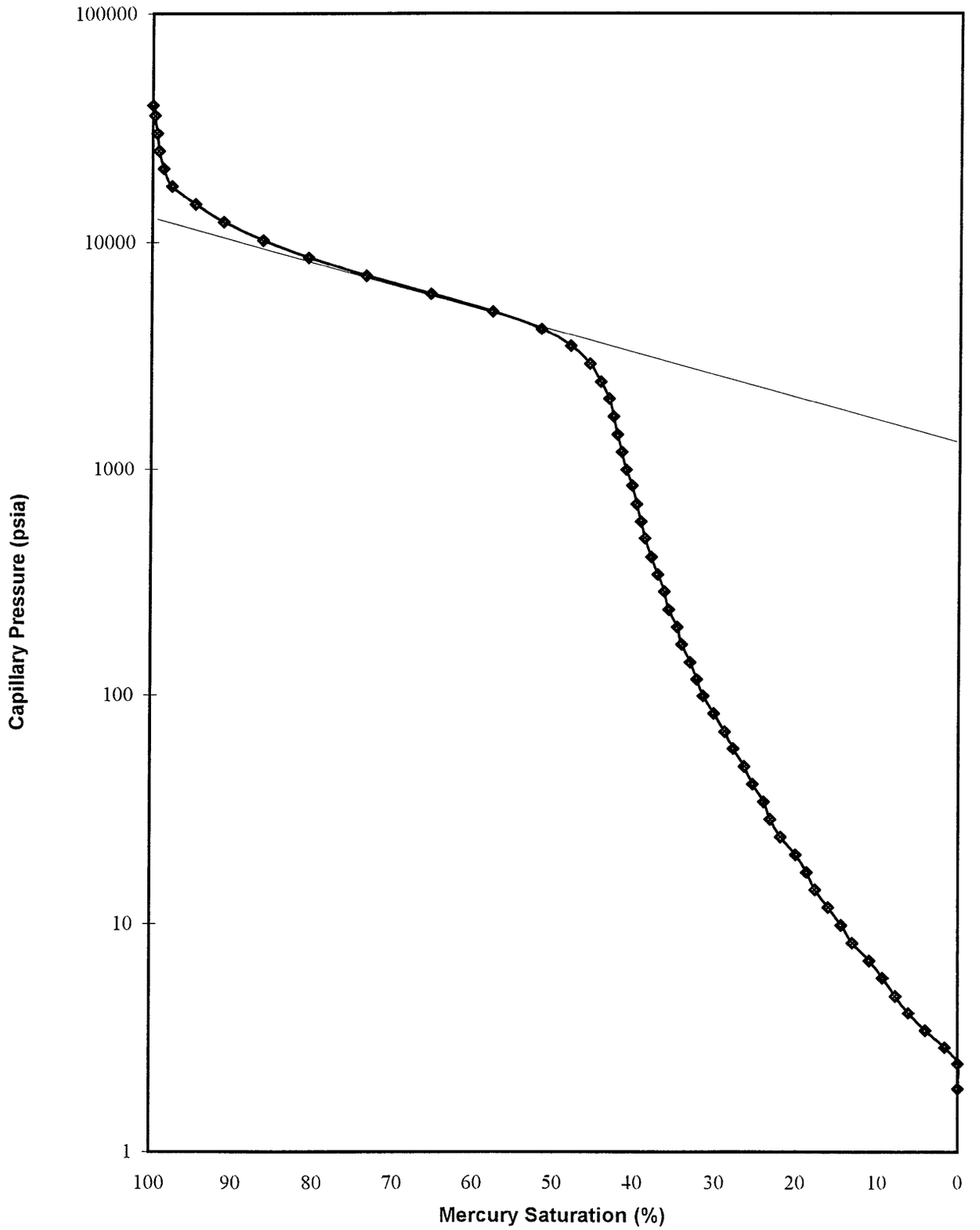
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Tailor 1
Sample: b
Depth: 7941' - 7941' 6"



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Tailor 1
Sample: b
Depth: 7941' - 7941' 6"



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Tailor 1

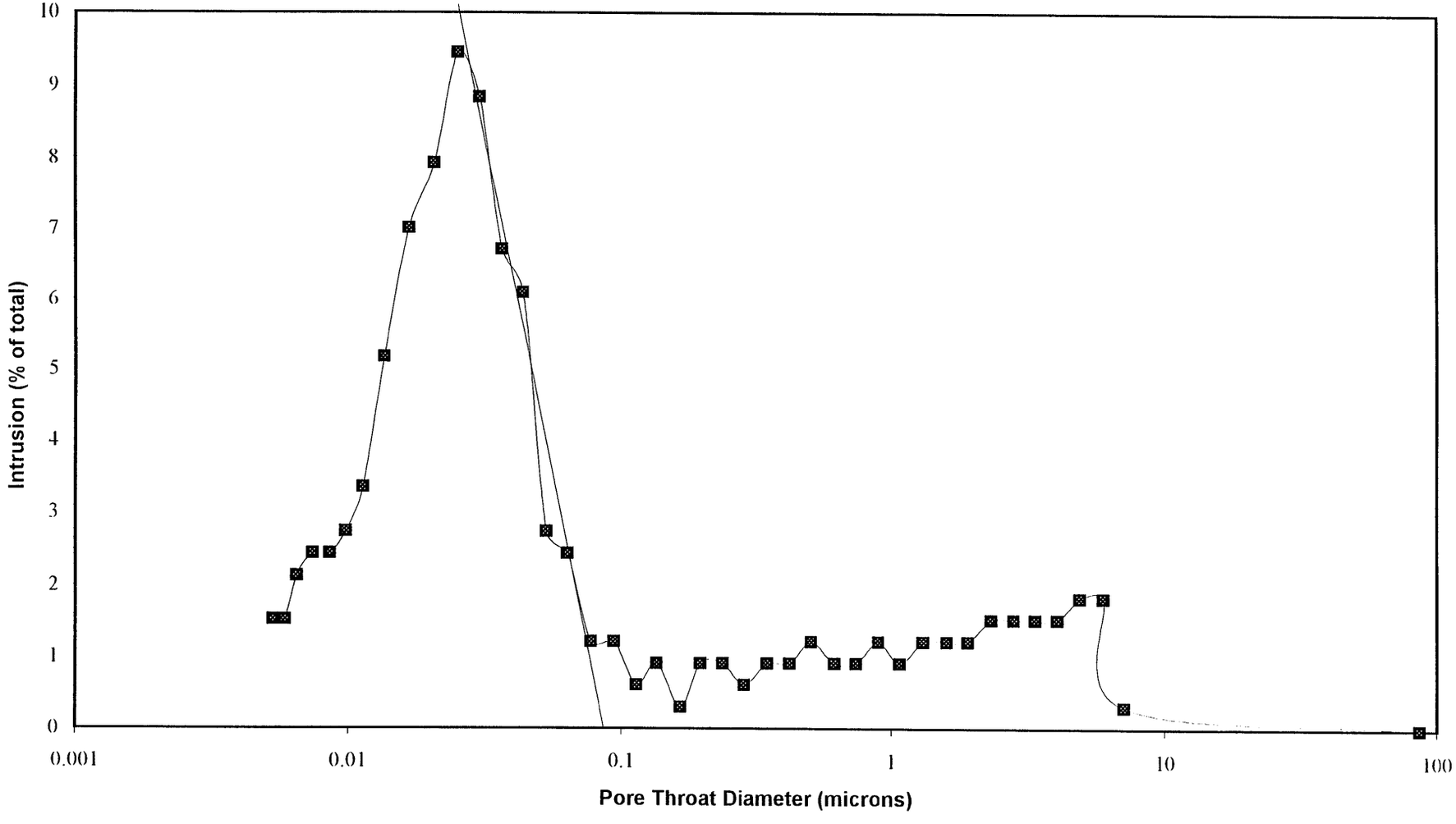
Test Method Air/Mercury Capillary Pressure
Sample Number c
Depth 7941' - 7941'6"

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
2.45	0.0	0.0	87
29.9	0.3	0.3	7.1
35.7	1.8	2.1	5.9
43.4	1.8	4.0	4.9
52.3	1.5	5.5	4.1
63.0	1.5	7.0	3.4
75.6	1.5	8.5	2.8
91.8	1.5	10.1	2.3
111	1.2	11.3	1.9
133	1.2	12.5	1.6
163	1.2	13.7	1.3
197	0.9	14.6	1.1
237	1.2	15.9	0.90
287	0.9	16.8	0.74
344	0.9	17.7	0.62
420	1.2	18.9	0.50
504	0.9	19.8	0.42
611	0.9	20.7	0.35
740	0.6	21.3	0.29
890	0.9	22.3	0.24
1077	0.9	23.2	0.20
1273	0.3	23.5	0.17
1565	0.9	24.4	0.14
1865	0.6	25.0	0.11
2262	1.2	26.2	0.094
2754	1.2	27.4	0.077

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
3359	2.4	29.9	0.063
4016	2.7	32.6	0.053
4931	6.1	38.7	0.043
5890	6.7	45.4	0.036
7090	8.8	54.3	0.030
8553	9.5	63.7	0.025
10356	7.9	71.6	0.020
12848	7.0	78.7	0.017
15815	5.2	83.8	0.013
18822	3.4	87.2	0.011
21825	2.7	89.9	0.010
24809	2.4	92.4	0.0085
28789	2.4	94.8	0.0074
32809	2.1	97.0	0.0065
36280	1.5	98.5	0.0058
39708	1.5	100.0	0.0053

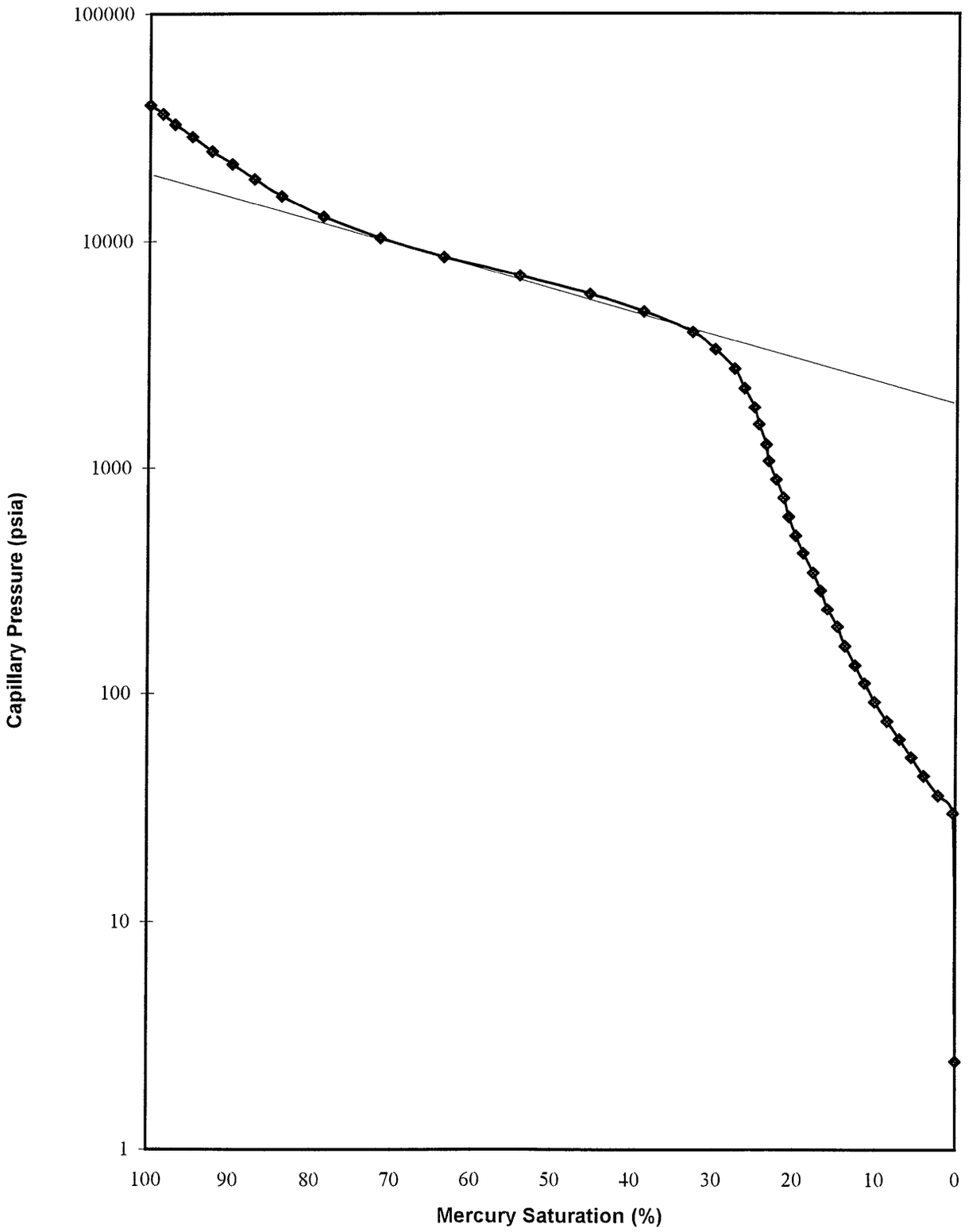
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Tailor 1
Sample: c



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Tailor 1
Sample: c
Depth: 7941' - 7941' 6"



CAPILLARY PRESSURE

Company Esso Australia Ltd
Well Tailor 1

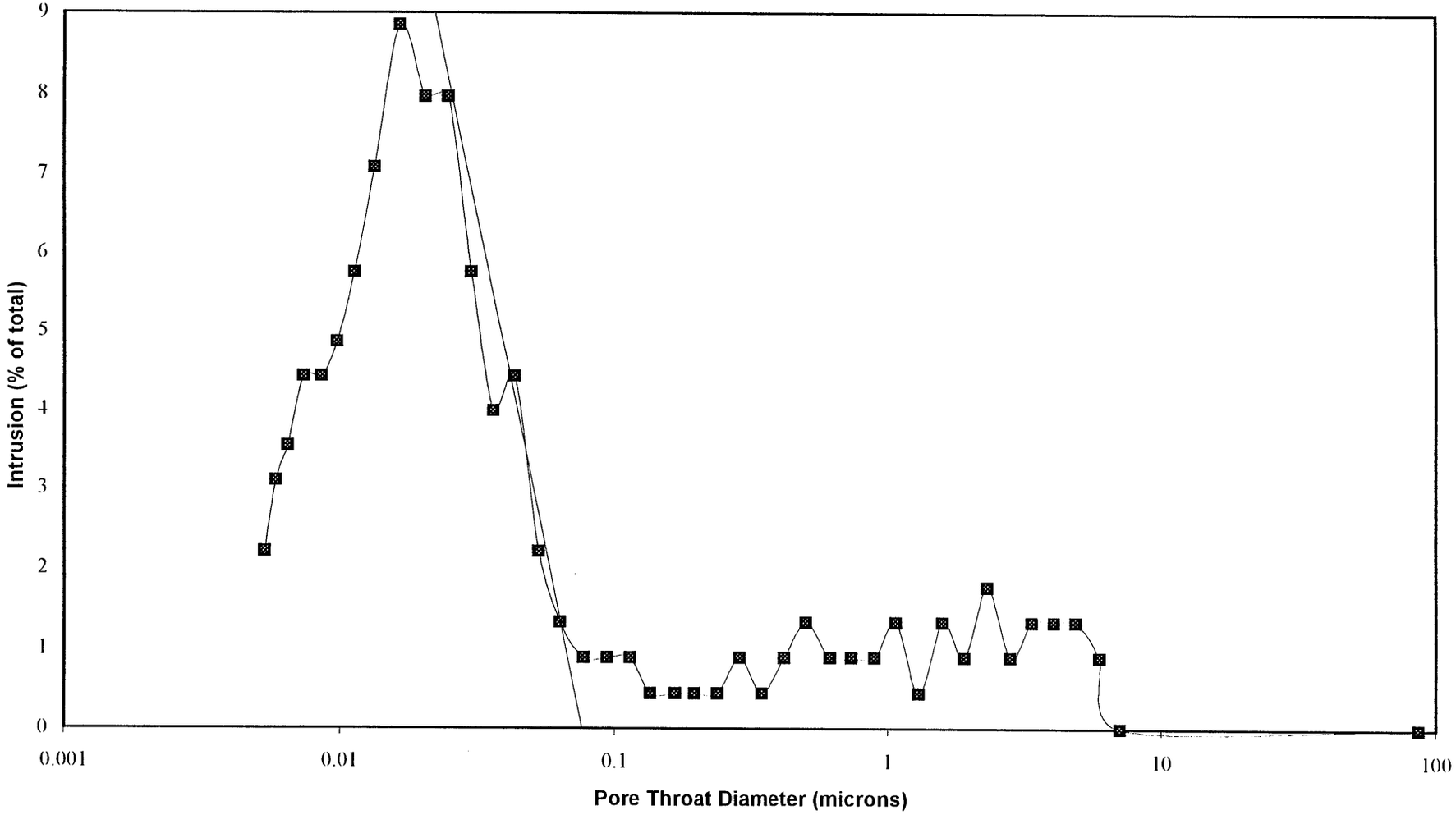
Test Method Air/Mercury Capillary Pressure
Sample Number d
Depth 7941' - 7941'6"

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
2.45	0.0	0.0	87
29.9	0.0	0.0	7.1
35.7	0.9	0.9	5.9
43.4	1.3	2.2	4.9
52.3	1.3	3.5	4.1
63.0	1.3	4.9	3.4
75.6	0.9	5.8	2.8
91.8	1.8	7.5	2.3
111	0.9	8.4	1.9
133	1.3	9.7	1.6
163	0.4	10.2	1.3
197	1.3	11.5	1.1
237	0.9	12.4	0.90
287	0.9	13.3	0.74
344	0.9	14.2	0.62
420	1.3	15.5	0.50
504	0.9	16.4	0.42
611	0.4	16.8	0.35
740	0.9	17.7	0.29
890	0.4	18.1	0.24
1077	0.4	18.6	0.20
1273	0.4	19.0	0.17
1565	0.4	19.5	0.14
1865	0.9	20.4	0.11
2262	0.9	21.2	0.094
2754	0.9	22.1	0.077

Pressure (psia)	Intrusion (percent)	Saturation (percent)	Pore Diameter (μm)
3359	1.3	23.5	0.063
4016	2.2	25.7	0.053
4931	4.4	30.1	0.043
5890	4.0	34.1	0.036
7090	5.8	39.8	0.030
8553	8.0	47.8	0.025
10356	8.0	55.8	0.020
12848	8.8	64.6	0.017
15815	7.1	71.7	0.013
18822	5.8	77.4	0.011
21825	4.9	82.3	0.010
24809	4.4	86.7	0.0085
28789	4.4	91.2	0.0074
32809	3.5	94.7	0.0065
36280	3.1	97.8	0.0058
39708	2.2	100.0	0.0053

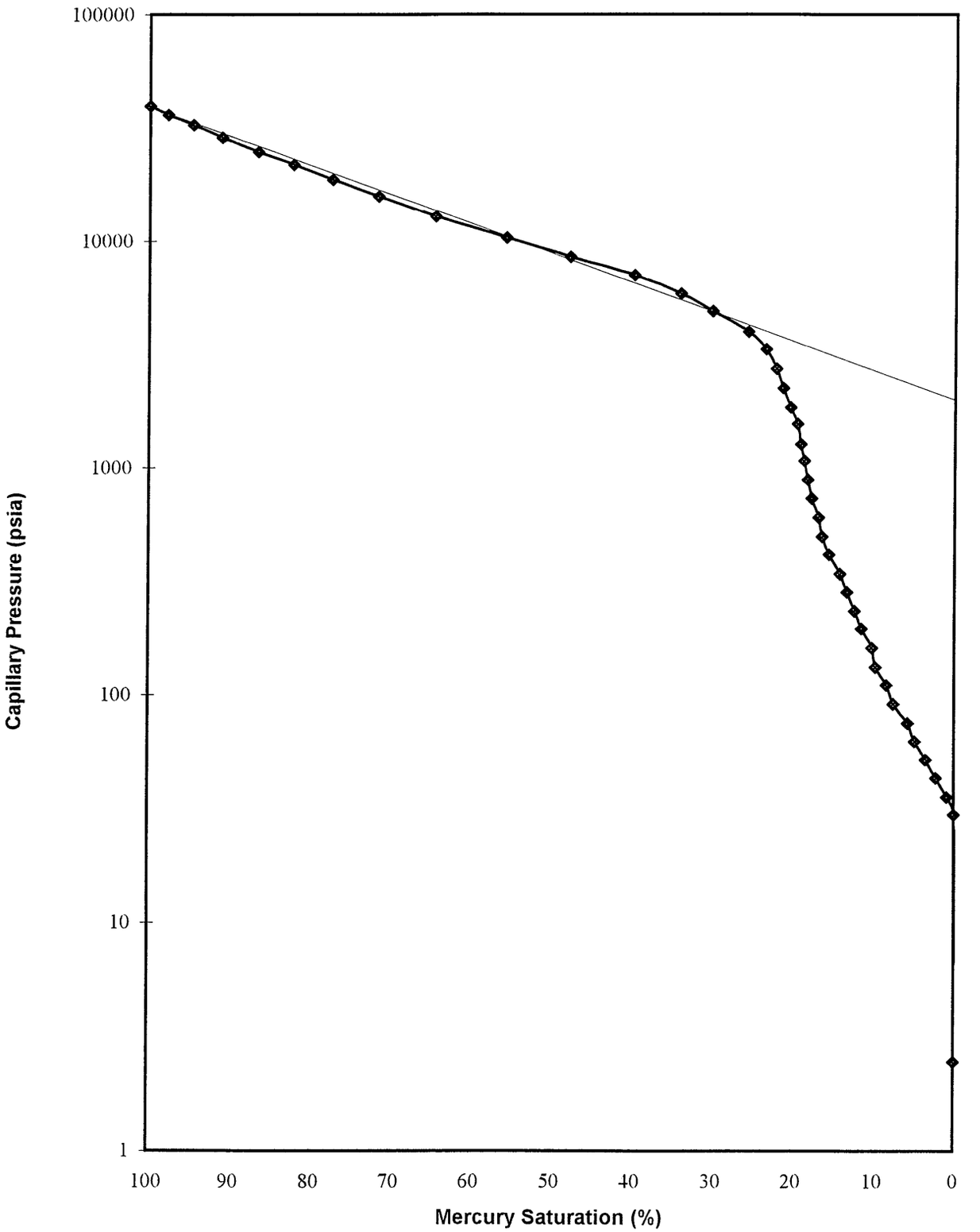
Incremental Intrusion Vs Pore Throat Diameter

Company: Esso Australia Ltd
Well: Tailor 1
Sample: d



Capillary Pressure vs Saturation

Company: Esso Australia Ltd
Well: Tailor 1
Sample: d
Depth: 7941' - 7941' 6"



CHAPTER 4

SUMMARY OF RESULTS

SUMMARY

Company Esso Australia Ltd

Well	Sample Number	Depth	Breakthrough Pressure (psi)	
			Capillary Pressure Derived	Pore Throat Derived
Cobia A11		2616.01 m	140	110
		2616.38 m	220	29
		2617.56 m	400	400
		2618.72 m	300	300
Drummer 1	a	2485 - 2490	3000	2630
	b	2486 - 2490	4000	3500
Tailor 1	a	7941' - 7941' 6"	2500	2990
	b	7941' - 7941' 6"	1400	2630
	c*	7941' - 7941' 6"	2000	2350
	d*	7941' - 7941' 6"	2500	2350

* Repeat Analyses

PE906375

This is an enclosure indicator page.
The enclosure PE906375 is enclosed within the container PE906374 at this location in this document.

The enclosure PE906375 has the following characteristics:

ITEM_BARCODE	= PE906375
CONTAINER_BARCODE	= PE906374
NAME	= Capillary vs. Saturation Chart
BASIN	= GIPPSLAND
PERMIT	= VIC/L5
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Capillary vs. Saturation Chart (figure from Core Analysis Report) for Tailor-1
REMARKS	=
DATE_CREATED	= 18/06/96
DATE_RECEIVED	= 26/06/96
W_NO	= W563
WELL_NAME	= TAILOR-1
CONTRACTOR	= ACS LABORATORIES
CLIENT_OP_CO	= ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

Capillary Pressure vs Saturation

Company: Esso Australia Ltd