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VARIOUS PETROLEUM EXPLORATION TENEMENTS

SOUTH AUSTRALIA AND QUEENSLAND

DELHI-SANTOS REGIONAL SOURCE ROCK STUDIES REPORTS AND DATA

Submitted by

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PRIMARY INDUSTRIES AND RESOURCES SA

LIQUID CHROMATOGRAPHY DATA
AVAILABLE IN PELS 5 & 6 AND
ATP 259P

Dean C. Johnstone
Regional Studies Group
April 1985.
MG/111/9

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ABSTRACT

This report synthesises all existing data relating to liquid chromatography, providing a basis for further source rock work to be carried out on a formation by formation basis. Various suggestions are made on how to handle the existing data so that a more detailed interpretation can be made.

Preliminary interpretations of basic geochemical parameters (Total Organic Carbon and Hydrocarbon Yield) are presented with the view that at this stage, all results are to be regarded in a broadly regional sense. It is not intended that such results be applied on a field scale.

Due to the sampling methods employed, data were difficult to adequately represent in map form etc. To overcome this, cuttoffs were applied with respect to which samples were used, thus reducing the number of usable data points.

From this study it is apparent that potential source rock quality is reduced toward the basin margins and over major structural high trends reflecting regional facies variations. Areas of higher quality generally parrallel areas where shaly facies dominate.

The data suggests that the best quality potential source rocks within the Eromanga Basin occur within the basal Jurassic (Poolowanna Formation) and Birkhead Formations. The Westbourne Formation and, to a lesser degree, the Murta Member, are secondary in quality.

As a result of this, areas to the north of the Jackson-Naccowlah Trend are shown to contain potential source rocks of sufficient quantity and quality to generate significant volumes of liquid hydrocarbons at the present level of maturity. These areas in the past have tended to be downgraded.

INTRODUCTION

Samples taken from 91 wells within PELS 5 & 6 and ATP 259P have been subjected to analysis using liquid chromatography. The results of these analyses are presented in Appendix A.

Prior to 1984, the quality of organic matter was investigated mainly via liquid chromatography. Due to the cost of analysis by this method, wide spread usage of liquid chromatography gave way to Rock-Eval pyrolysis. This was done to provide a relatively inexpensive screening service that could be followed up with liquid chromatography analysis on samples of interest. Little further liquid chromatography work has been undertaken under this system.

This report is a collation of all existing liquid chromatographic data and provides a working base for the Exploration Teams and the Regional Studies Group. In previous source rock reports, data were compiled for individual wells to give evaluation through a vertical section. Data presented in this report have been arranged on a formation by formation basis for selected horizons, to enable regional evaluation of geochemical trends.

Suggestions on techniques and methods of interpreting the data are offered along with an interpretation of basic parameters for selected source rock horizons (total organic carbon and hydrocarbon yield). Special note has been given to the limitations which need to be considered when using the data.

DISTRIBUTION OF DATA POINTS:

Distribution of data points is variable, both in areal and vertical extent. Enclosures I & II show the intervals which have been analysed, expressed as a percentage of the formation sampled and the depth interval sampled respectively.

From these charts it becomes apparent that sampling has been concentrated within the Cretaceous to Triassic interval with very few readings taken from the Permian section. Where the Permian has been sampled, it is generally confined to the Toolachee and Patchawarra Formations due to the removal of the late Early Permian section by erosion.

Maps showing the spatial distribution of wells which had samples >75% within the formation of interest are presented in Enclosure III for the four main Mesozoic source horizons. Sample collection generally has a very low density about producing fields. The Murta Member shows a higher density of data points in the Dullingari-Strzelecki region, along the Jackson-Naccowlah Trend and in the Patchawarra Trough area (adjacent to Merrimelia). Areas of lesser density include northern Queensland and within the Total 1966 Block.

Sampling of the Birkhead Formation has been more intense along the Jackson-Naccowlah Trend, in the Dullingari-Strzelecki region and throughout northern Queensland. The Patchawarra Trough and the Total 1966 Block have also been sampled but with a lower intensity.

The Westbourne Formation has mainly been sampled in the Patchawarra Trough and in the area north of the Jackson-Wackett Trend. Sampling to a lesser degree has been carried out in the southeastern Queensland-South Australia corner of the licence area. Sample distributiuon for the Westbourne Formation is similar to that of the Murta Member except for the presence of a greater number of data points in northern Queensland and Total 1966 Block.

The 'basal Hutton' Member and the laterally equivalent Poolowanna Formation are virtually not represented by samples south of the Jackson-Naccowlah Trend. Distribution is confined mainly to the northern Queensland and Pedirka areas.

Sampling of the Patchawarra Formation is confined to the major structural trends within the Cooper Basin. The Jackson-Karmona trend and the Nappacoongee-Murteree area show the greatest density of data points, with representation to a lesser degree in the Patchawarra Trough and southeastern Queensland.

Generally, more intense sampling has been carried out in the Nappacoongee-Dullingari, Jackson-Naccowlah and northern Queensland areas.

SAMPLING

Analysis in the past was carried out on either ditch cuttings, side wall core or full hole core samples. The ditch cuttings were composite samples generally representing 300' of section. Although these composite samples were not to cross formation boundaries (as picked in the field), difficulties in picking tops in the field and the revision of such tops usually resulted in samples straddling formation boundaries to some degree.

Where superadjacent formations are facies related this fact may not be important. However, where formations are separated by an unconformity it becomes important to know which formation is best represented by the sample.

To overcome this problem, it became neccessary to either reassign the analytical value for samples straddling formation boundaries or to apply a cutoff.

The first method employed was a technique for assigning values to that portion of the sample which lay entirely within one formation. This technique is outlined in appendix B and involves the solution of two simultaneous equations which relate the average value in each formation to the amount of sample contained above and below the formation boundary.

This method produces reasonably reliable results. However the technique relies on there being at least one sample above and below the sample in question, which is truly representative of the formation containing it (i.e. 100% within that formation). In many of the wells investigated, numerous consecutive samples would straddle formation boundaries (because of the 300' composite interval) thus making this technique unusable.

As a result cutoffs were applied instead. Subdivision was made on the basis of samples which where 100% within the formation, 99-75% within the formation and less than 75% within the formation. Samples which were between 100% & 75% were considered to be a fair representation of the formation being analysed.

Enclosure 1 shows the percentage of each formation sampled for liquid chromatography analysis with the wells being displayed in chronological order. Notice that the style of sampling has changed with time. Core and sidewall core samples dominate early wells due to the fact that such wells were not originally sampled for such work. 1984 work shows the use of 30'-50' composite samples. Though this close spacing increases the usefulness of such samples, continuity of sampling due to cost, suffers as a result.

RESULTS

Appendix A contains a summary of the analytical data compiled for each well. Subdivision of these samples has been made according to the procedure discussed in the previous section, for the four main Mesozoic source horizons and the Patchawarra Formation and are contained in Appendix C.

From the analytical data, a hydrocarbon yield has been calculated (where able) for each sample according to the relation:

$$\text{Hydrocarbon Yield (mg/g TOC)} = \frac{(A + S)}{100} \times (\text{EOM as a fraction of TOC})$$

where: A = wt % of aromatics

S = wt % of saturates

$$\text{EOM as a fraction of TOC} = \frac{\text{weight of EOM (g)}}{\text{sample weight(g)} \times \left(\frac{\text{TOC (wt\%)}}{100}\right)}$$

The total amount of hydrocarbon present in the sample was also calculated using:

Total Hydrocarbon Content (ppm)= HC yield (mg/g TOC) x TOC (wt%) x 10

Of the parameters presented in appendix C, Total Organic Carbon (TOC) content and hydrocarbon yield were considered to be the best to use in order to investigate the source potential of each formation.

TOC is a measure of the amount of organic matter present in a sample and can be used as an indicator of source rock potential at maturity. The amount of organic matter present in a rock is determined by crushing the rock, acid leaching to remove all carbonate carbon and measuring the remaining carbon content. This residual carbon is termed total organic carbon (TOC).

Dickey and Hunt (1972) maintain that a minimum TOC content of 0.5% is neccessary before a clastic rock can be considered to have hydrocarbon potential. The following scale can be applied to clastic rocks to estimate source rock potential at maturity (Moore, 1982)

TOC (wt%)	Source Potential at Maturity
less than 0.5%	negligible
0.5% - 1.0%	very poor
1.0% - 1.3%	poor
1.3% - 1.7%	moderate
1.7% - 2.0%	good
2.0% - 4.0%	very good
greater than 4.0%	excellent

The major weakness of this technique is the fact that it fails to consider the type of organic matter present. The amount of hydrocarbon that a kerogen is able to generate is strongly influenced by the type of kerogen in the source rock. Thus, inertinite-rich rocks are considered to yield very little hydrocarbons when mature. In addition the hydrocarbons will tend to be gaseous, regardless of maturity.

To allow for variations in organic type, the hydrocarbon yield of a source rock should be taken into account. The hydrocarbon yield at a particular level of maturity is a measure of the quality of the organic matter contained. The following scale can be applied to clastic rocks to reflect the quality of the organic matter contained.

Hydrocarbon Yield (mg/g TOC)	Quality of a source rock
less than 5	gas source or immature
5 - 10	gas and some oil
10-25	fair oil
25-50	good oil
50-250	very good oil
greater than 250	stained

During maturation, the hydrocarbon yield will increase and as a result, is a function of both organic type and the level of maturity. However it is independant of the total organic carbon content. Hydrogen-rich organic matter (Type I and II kerogens) will yield greater amounts of hydrocarbons than material with a low hydrogen to carbon ratio (Type III and IV kerogens). Low yielding organic material will therefore have a lower ability to expel hydrocarbons due to the fact that the absorbtive capacity of the organic matrix must be overcome before hydrocarbons become available for migration. Hence in order to investigate the source potential of a rock, equal emphasis must be placed upon TOC and hydrocarbon yield (Vincent, 1983). This can be represented diagramatically by a cross plot of TOC against hydrocarbon yield which indicates the amount and type of hydrocarbons generated by a rock at its existing level of maturity.

REPRESENTATION OF RAW DATA

Geochemical trends were attempted to be investigated by mapping TOC and Hydrocarbon Yield values. In order to represent such parameters on a map, values measured from samples taken over the interval of interest required averaging.

If sampling is continuous throughout the interval, weighted averages may be obtained by considering the thickness of each sample. The method for doing this is outlined in Appendix D and the results it yields are quite acceptable. However, many wells were sampled via sidewall or full hole cores, thus were not sampled continuously through the interval of interest. In these cases, the above method of averaging could not be employed. In fact, most wells with continuous samples proved to have samples straddling the formation boundaries. Because pure samples were not available above and below the boundary, the method of averaging could not be applied.

As an alternative, a straight numerical average was applied to each interval which only included those samples which were >75% within the formation. This resulted in averages being biased by marginally extreme values. Hence, the average may not be a true representation of the formation. In addition, barren sandstone can dilute thin beds rich in organic matter (carbonaceous shales and siltstones) thus giving low sample values of TOC and hydrocarbon yield. Conversely, coal rich layers will boost the organic richness of a sample (Vincent et al., 1985). The result in both cases, is to give a value which is a poor representation of the actual potential source rock.

Table 1 contains averages of TOC and hydrocarbon yield values for the four main Eromanga Basin source horizons.

TABLE 1: FORMATION AVERAGES OF TOC AND HYDROCARBON YIELD (ONLY SAMPLES ≥75% WITHIN THE INTERVAL OF INTEREST HAVE BEEN INCLUDED).

Well	TOC Murta to Basal Jr.	TOC Murta	HC yield Murta	TOC Westbourne	HC Westbourne	TOC Birkhead	HC Birkhead	TOC B. Jr & Poolowanna	HC B. Jr. & Poolowanna
Adria Downs 1	0.15-3.60 (10) 0.89	-	-	-	-	-	-	1.75	12.7
Alkina 1	0.24-4.00 (10) 1.06	0.89	18.1	0.41	12.4	4.00	24.9	0.66-1.14 (2) 0.90	6·7–18·5 (2) 12.60
Barrolka E 1	0.22-4.28 (8) 1.51	-	-	0.48	24.8	2.70	19.1	4.28	3.7
Beanbush 1	-	-	-	-	-	-	-	-	-
Belah 1	0.35-2.00 (6) 0.88	0.75	15.6	-	-	2.00	24.5	-	-
Boorthana 1	-	-	-	-	-	-	-	-	-
Cannuwaukaninna 1	-	-	-	-	-	-	-	-	-
Chandos 1	16.30	-	-	-	-	16.30	6.0	-	-
Chandos S 1	-	-	-	-	-	-	-	-	-
Colson 1	0.02-31.6 (6) 5.59	-	-	-	-	-	-	31.6	13.0
Coonatie 2	0.27-3.18 (7) 0.74	0.49	28.7	0.29	37.4	-	-	-	-
Cootanoorina 1	-	-	-	-	-	-	-	-	-
Corkwood 1	0.40-1.55 (4) 0·84	-	-	-	-	-	-	-	-
Cumbroo 1	0.54-25.30 (3) 9.66	-	-	-	-	0.54-25.30 (2) 12.92	3.0-11.0 (2) 7.00	-	-
Curalle 1	0.72-4.35 (5) 1.74	0.89	11.9	0.72	11.0	1.42	44.9	1.34-4.35 (2) 2.85	5.9-37.3 (2) 21.6
Cuttapirrie 1	0.58-1.24 (3) 0.88	0.82	33.4	-	-	1.24	57.7	-	-
Daralingie 4	0.95-1.60 (3) 1.32	-	-	-	-	-	-	-	-
Della 1	0.98-6.40 (2) 3.69	-	-	-	-	0.98	114.0	-	-
Dilchee 1	0.30-0.85 (3) 0.58	0.85	9.3	-	-	-	-	-	-
Dullingari 1	1.72	1.72	26.0	-	-	-	-	-	-
Dullingari 5	0.13-1.35 (9) 0.70	0.13-1.39 (9) 0.70	12.0-25.0 (8) 18.00	-	-	-	-	-	-
Dullingari DM7 11	0.60-1.45 (4) 1.05	0.60-1.45 (4) 1.05	18.2-36.4 (4) 27.15	-	-	-	-	-	-
Dullingari N 1	0.43-8.40 (14) 1.41	0.71-8.40 (5) 2.53	8.0-19.0 (5) 14.4	0.47	32.0	0.50-1.26 (3) 0.80	32.0-51.0 (3) 42.33	-	-
Durham Downs 1	-	-	-	-	-	-	-	-	-
Erabena 1	0.10-12.50 (10) 1.94	-	-	-	-	-	-	1.00-12.50 (3) 5.48	4.5-11.8 (3) 9.13
Fly Lake 4	0.50-1.30 (7) 0.79	0.60-0.95 (4) 0.74	34.5-53.7 (4) 42.6	-	-	-	-	-	-
Gidgealpa 2	-	-	-	-	-	-	-	-	-
Gilpeppee 2	0.45-3.55 (9) 1.71	-	-	0.90	33.4	3.55	27.5	2.15	12.9
Hume 1	0.75-3.75 (6) 1.41	0.80	9.5	0.75	13.7	3.75	10.8	-	-
Ingella 1	0.15-4.40 (10) 1.13	-	-	0.45-0.50 (2) 0.48	13.5-25.2 (2) 19.35	4.40	24.3	0.60	16.2
Innamincka 3	0.86-9.64 (4) 3.30	0.86	49.0	-	-	-	-	9.64	3.0
Jack Lake 1	0.05-0.47 (6) 0.19	-	-	0.12	37.0	0.47	6.6	-	-
Jackson 1	0.35-2.90 (12) 0.98	0.85-1.95 (3) 1.28	6.0-49.0 (3) 21.67	1.40-2.90 (2) 2.15	41.7-73.5 (2) 57.60	0.55	81.8	-	-

TABLE 1: FORMATION AVERAGES OF TOC AND HYDROCARBON YIELD (ONLY SAMPLES >75% WITHIN THE INTERVAL OF INTEREST HAVE BEEN INCLUDED). (Continued)

Well	TOC Murta to Basal Jr.	TOC Murta	HC yield Murta	TOC Westbourne	HC Westbourne	TOC Birkhead	HC Birkhead	TOC B. Jr & Poolowanna	HC B. Jr. & Poolowanna
Jackson 2	1.55	-	-	-	-	-	-	-	-
Jackson S 1	0.72-4.40 (6) 1.57	0.78	32.6	0.76	42.7	-	-	-	-
Karmona 1	-	-	-	-	-	-	-	-	-
Karmona E 1	0.41-2.62 (7) 0.90	0.63	66.0	0.53	23.5	2.62	32.5	-	-
Kidman 2	0.76-2.08 (8) 1.25	0.88	58.0	0.77-0.91 (2) 0.84	22.0-43.0 (2) 32.5	0.76-1.72 (2) 1.24	39.0-80.0 (2) 59.5	-	-
Kuncherinna 1	0.05-6.75 (17) 1.10	-	-	-	-	-	-	0.70-2.90 (7) 1.34	4.7-20.4 (7) 12.06
Macumba 1	-	-	-	-	-	-	-	-	-
Marabooka 1	0.05-3.20 (5) 1.69	0.65-2.65 (3) 1.73	28.0-38.0 (3) 32.33	-	-	<0.05	59.0	-	-
McKinlay 1	0.75-3.50 (5) 1.70	-	-	-	-	-	-	-	-
Merrimelia 6	0.50-2.60 (6) 1.06	0.80	49.7	-	-	-	-	8.25	0.7
Merrimelia 7	0.35-11.70 (8) 2.36	0.90	8.0	0.80	2.5	1.20	17.7	11.70	11.5
Mokari 1	0.14-1.17 (3) 0.75	-	-	-	-	-	-	0.15-1.17 (3) 0.75	13.0-28.0 (2) 20.5
Moomba 18	0.62-1.01 (3) 0.82	0.62-1.01 (2) 0.82	15.0-19.0 (2) 17.0	-	-	-	-	-	-
Moorari 3	0.25-2.10 (1) 1.00	0.90-0.90 (3) 0.68	12.3-23.9 (3) 18.0	0.40-1.60 (3) 1.07	22.4-81.5 (3) 45.9	0.65-2.10 (3) 1.18	61.8-461.2 (3) 201.4	-	-
Morney 1	1.00-3.10 (7) 1.59	-	-	-	-	-	-	1.85	17.5
Mt. Howitt 1	0.39-1.60 (2) 1.00	-	-	0.39	14.0	1.60	30.0	-	-
Mudera 1	0.65-1.80 (6) 0.88	0.70	26.0	-	-	0.75-0.75 (2) 0.75	21.8-36.9 (2) 29.35	-	-
Mudlalee 2	1.42-2.79 (3) 1.98	-	-	-	-	1.42	84.0	-	-
Munkari 1	1.66-3.04 (2) 2.35	-	-	-	-	-	-	-	-
Naccowlah 1	0.70-6.71 (8) 1.94	0.85-6.71 (2) 3.78	27.1-172.9 (2) 100.0	-	-	0.70-2.19 (3) 1.31	19.1-40.8 (3) 30.97	0.78-1.46 (2) 1.12	25.2-42.7 (2) 33.95
Namur 2	1.52-4.68 (6) 3.08	1.52-4.68 (6) 3.08	34.0-31.0 (6) 49.33	-	-	-	-	-	-
Nappacoongee 2	0.64-15.40 (3) 5.87	0.64-1.58 (2) 1.11	29.0-76.0 (2) 52.5	-	-	15.40	36.0	-	-
Oodnadatta 1	-	-	-	-	-	-	-	-	-
Oodnadatta TB	-	-	-	-	-	-	-	-	-
Orientos 1	0.26-1.76 (3) 0.78	-	-	-	-	0.31	24.0	-	-
Packsaddle 3	-	-	-	-	-	-	-	-	-
Pando 1	1.78-4.27 (4) 3.00	-	-	-	-	-	-	1.78-4.27 (4) 3.00	3.0-10.0 (4) 5.75
Patchawarra B	-	-	-	-	-	-	-	-	-
Pinna 1	0.12-1.16 (3) 0.71	1.16	27.01	-	-	-	-	-	-
Poolowanna 1	1.22-13.15 (11) 5.22	-	-	-	-	-	-	1.22-9.28 (9) 4.19	14.0-157.0 (9) 48.11
Purni 1	-	-	-	-	-	-	-	-	-
Spencer 2	0.20-0.95 (4) 0.50	-	-	-	-	-	-	-	-
Strzelecki 3	0.09-7.05 (14) 2.14	1.26-1.88 (2) 1.57	22.0-48.0 (2) 35.0	0.66-0.91 (2) 0.79	37.0-42.0 (2) 39.5	0.86-7.05 (5) 3.81	42.0-95.0 (5) 60.8	-	-

TABLE 1: FORMATION AVERAGES OF TOC AND HYDROCARBON YIELD (ONLY SAMPLES >75% WITHIN THE INTERVAL OF INTEREST HAVE BEEN INCLUDED). (Continued)

Well	TOC Murta to Basal Jr.	TOC Murta	HC yield Murta	TOC Westbourne	HC Westbourne	TOC Birkhead	HC Birkhead	TOC B. Jr & Poolowanna	HC B. Jr. & Poolowanna
Strzelecki 4	0.10-2.60 (12) 1.05	0.60-1.10 (3) 0.80	49.7-201.3 (3) 113.63	0.10	117.0	1.10-1.95 (3) 1.40	57.6-84.2 (3) 68.33	-	-
Strzelecki 5	0.85-3.70 (4) 1.79	0.85	17.7	-	-	3.70	16.9	-	-
Tanbar N 1	0.18-5.15 (10) 1.23	0.57	38.0	1.69	11.2	5.15	6.9	0.95-1.57 (2) 1.26	5.5-13.6 (2) 9.55
Tartulla 1	0.33-6.85 (1) 1.56	0.68-0.98 (3) 0.86	46.6-54.9 (3) 50.2	0.33-1.20 (3) 0.69	11.6-62.8 (3) 36.6	1.10-2.45 (3) 1.62	39.73	6.85	5.1
Thomas 1	0.41-5.30 (7) 1.90	-	-	-	-	-	-	0.41-5.30 (6) 2.00	N/A
Thunda 1	1.15-10.40 (2) 5.78	-	-	-	-	1.15	14.0	-	-
Toodla 1	-	-	-	-	-	-	-	-	-
Wackett 1	0.81-5.50 (6) 1.68	0.90-0.97 (2) 0.94	23.1-69.1 (2) 46.1	0.81	32.2	1.01-5.50 (2) 3.26	15.5-70.6 (2) 43.05	-	-
Walkandi 1	0.05-7.70 (12) 1.09	-	-	-	-	-	-	2.30-7.70 (2) 5.00	10.5-14.3 (2) 12.40
Wantana 1	0.40-4.20 (7) 1.54	0.50	20.2	-	-	-	-	-	-
Wareena 1	0.22-4.68 (7) 1.81	0.22	17.3	1.34	6.0	1.69-4.68 (3) 2.78	16.2-46.5 (3) 34.7	0.86	21.0
Weedina 1	-	-	-	-	-	-	-	-	-
Welcome Lake 1	0.15-3.35 (7) 1.07	-	-	0.25	28.5	-	-	-	-
Wills 1	0.80-1.60 (8) 1.04	0.80	4.6	-	-	1.60	12.6	-	-
Wilpinnie 1	0.08-9.70 (13) 2.35	0.61-1.91 (7) 1.24	10.9-49.0 (7) 31.73	6.97	31.3	1.01-9.70 (2) 5.36	26.7-31.1 (2) 28.9	-	-
Wimma 1	0.10-1.90 (8) 0.68	-	-	0.35	12.0	0.65-1.90 (2) 1.28	27.2-29.9 (2) 28.55	-	-
Yanko 1	0.85-1.50 (4) 1.06	-	-	1.00	14.7	-	-	-	-
Yapeni 1	0.10-1.10 (3) 0.75	1.05	25.7	-	-	1.10	70.0	-	-
*Bycoe 1	0.72-1.31 (4) 0.90	0.77	22.6	0.72	25.5	0.80-1.31 (2) 1.06	15.3-19.3 (2) 17.3	-	-
*Chookoo 1	1.03-8.55 (8) 3.59	-	-	1.54	9.2	1.03-3.60 (3) 1.92	19.2-80.2 (3) 41.00	3.12-8.55 (3) 6.36	13.3-35.1 (3) 21.63
*Gunna 1	0.95-1.89 (5) 1.63	1.87-1.89 (3) 1.88	12.5-46.1 (3) 28.27	-	-	0.95-1.58 (2) 1.27	48.2-89.5 (2) 68.85	-	-
*Naccowlah South 1	0.81-4.00 (12) 1.77	0.81	87.6	1.96-2.78 (2) 2.37	7.0-11.3 (2) 9.15	1.30-1.63 (3) 1.47	14.2-18.2 (3) 16.77	-	-
*Richie 1	1.00-2.58 (8) 1.43	1.00-1.46 (2) 1.23	5.0-11.6 (2) 8.30	1.04	22.8	1.20-2.58 (3) 1.86	32.0-78.9 (3) 57.67	-	-
*Tinpilla 1	0.81-11.80(11) 2.42	1.10-1.99 (4) 1.46	7.6-34.4 (4) 19.38	0.81-1.06 (2) 0.94	28.5-80.3 (2) 54.4	0.81-2.26 (3) 1.75	16.0-29.1 (3) 22.9	-	-
*Wilson 1	0.30-8.20 (14) 1.77	0.76-8.20 (4) 2.71	3.0-160.3 (4) 67.00	0.30-1.13 (3) 0.73	36.4-100.0 (3) 64.77	0.36-1.38 (4) 0.71	10.9-61.2 (4) 38.7	3.75	3.1

MAPPING OF TOC AND HYDROCARBON YIELD VALUES

Due to the large variaton in spatial distribution and the problems associated with calculating an average value for each formation, mapping of such values is not informative on a detailed, predictive scale. Gross distribution trends only can be inferred.

Distribution maps of TOC and Hydrocarbon Yield for the Murta Member, Westbourne Formation, Birkhead Formation and the basal Jurassic unit are presented in enclosure 111. Since the number of usable data points for each horizon are limited, there is considerable room for artistic licence in the way each map is contoured. Where possible, contouring was based on isopach maps of the unit in question. As previously discussed, map values represent an average of sample values which are contained 75% within the formation. Hence the maps are subject to dubious control by outlying wells. Because organic facies are highly variable in both lateral and vertical extent, the maps probably show an over simplification in that they show a particular value to persist over large expanses. If more data points were available, a higher degree of local variation would become more apparent. Tables 1-4 contained in Appendix H provide a key to the wells used.

As a general result, the distribution of TOC and Hydrocarbon Yield is governed by the distribution of the shalier sedimentary facies. Thus, increases in TOC parallel increases in the percentage of lacustrine shales and coals in the sequence. Hydrocarbon Yield also shows some parallelism. Both parameters show low values over the main structural highs and toward the basin margins. This presumably, is related to the sequence becoming more sandy or oxidized in these areas. As a consequence, the reliability of such maps will be increased by the inclusion of results from sand-shale ratio studies.

Basal Hutton Member and laterally equivalent Poolowanna Formation:

The highest concentrations of TOC occur in the Cooper Sector and show similar distribution trends to the Permian sediments of the Patchawarra and Nappamerri Troughs. The Poolowanna Trough area also shows high TOC values. This is consistant with the distribution of shaly Poolowanna equivalents. Hydrocarbon yield also increases in these areas. These areas of high yield and TOC show a correlation with hydrocarbon discoveries within the unit, at Poolowanna, Moolion and Cuttapirrie. Some anomalously high values of TOC are attributed to the presence of coal in some cuttings samples.

On average, the unit contains potential source rocks of good quality which compare favourably with other source horizons in the Eromanga Basin. TOC values are marginally better than those of the Birkhead Formation and much greater than those of the Murta Member and Westbourne Formation. Yield is similar to that of other horizons.

Birkhead Formation:

The Birkhead Formation shows its best TOC development in northern ATP 259P and in the Nappamerri Trough region where values of greater than 5.0 wt.% are recorded. This coincides with the more coally regions encountered in the formation. Better yielding source rocks are confined to the Cooper Basin area. Poorer development of TOC content and yield is noted along prominant structural high trends.

Westbourne Formation:

The Westbourne Formation generally shows moderate to poor source characteristics throughout its distribution. This is possibly due to the sandier, more oxidized nature of the unit. The best development of TOC and yield occur in the Jackson-Naccowlah area which is the only region to record hydrocarbon discoveries at this level to date. Other areas of high yield include the central Patchawarra Trough and the southern Nappamerri Trough. Again poorer values are encountered on structural high trends. This unit is notably poorer in source characteristics than the other three Mesozoic source horizons.

Murta Member:

Distribution of better quality potential source rocks reflects the distribution of shaly Murta Member with the highest values of yield (greater than 3.0 wt.%) and TOC (50-100 mg/g TOC) being recorded south of the Jackson-Naccowlah Trend and to some extent along the axis of the Windorah Trough. TOC is generally poorer in the more northern, sandy areas and along structural highs.

In contrast to the number of discoveries made in the region, the southern portion of PEL 6 shows relatively low values of TOC and yield. However, discoveries in this area are small which is consistent with low yielding organic matter which is present in low abundance. Generation of hydrocarbons within the unit may have been aided by bacterially-enriched terrigenous organic matter (Vincent et.al., 1985) which helps to explain the presence of oil accumulations in areas where poor potential source rocks are observed (using TOC, hydrocarbon yield and pyrolysis).

Mesozoic Units:

The average of TOC contained in units between the Murta Member and the Poolowanna Formation shows high values in the Poolowanna and Nappamerri Troughs and in northeastern ATP 259P. This reflects the more shaly/coaly regions of the sequence.

The quality and reliability of these maps will be improved at a later stage when data from rock-eval pyrolysis and sand-shale ratio studies are integrated. Among other things, a greater number of TOC data points will become available.

The construction of geochemical cross-sections provides a more accurate representation of the data. Hydrocarbon Yield and Total Organic Carbon values are plotted as a bar graph either side of a gamma ray log trace. This allows the interpreter to see where (stratigraphically and sedimentologically) the sample came from and the type of sample it is. Such sections should be constructed over all available wells for each horizon of interest. An example is included as Enclosure IV.

HYDROCARBON YIELD VERSUS TOTAL ORGANIC CARBON CONTENT.

Cross plots of hydrocarbon yield versus TOC have been constructed for each cut-off level of the four Mesozoic source horizons and the Patchawarra Formation and are included in Appendix E. A summary of these diagrams is presented in figure 1. This diagram shows the dominant cluster of data points for each horizon. Only the diagrams representing the 100% and the 99-75% cut-off were included in this summary.

All five intervals are shown to contain organic matter which is oil prone with low to high TOC content. Thus all are prospective units for the generation of oil. The Birkhead Formation appears to be the most prospective due to higher TOC content while the Westbourne Formation shows TOC content in the negligible to high range and as a result may be less responsible for the generation of large amounts of hydrocarbons across the basin. The basal Jurassic units show a skewness which tends to indicate a greater tendancy to be gas prone or immature in some areas.
The Murta Member has a moderate to very good rating in most areas.

The Permian Patchawarra Formation shows a bimodal distribution indicating that the unit has potential to yeild both oil & gas in significant quantities. However no strong correlation is evident between those samples which are oil prone and any particular horizon depth.

Plots of the averaged values in each well for the four Eromanga Basin units (Appendix F) show similar results to those mentioned above with a spread in the size of the data point cluster being evident (due to biasing).
These diagrams enable the interpreter to see if the interval in question is not only capable of yielding liquid hydrocarbons but also if enough organic matter is present to generate significant quantities.
Tables 1-4 contained in Appendix G show wells which fall within the areas defined by cutoff lines paralleling the axes of the interpretive diagram.

These tables represent the data contained in the plots of averaged values. The numbering system used (1A, 1B, etc) is an arbitary system which is explained by figure 2. Crude trends become apparent with wells grouped in certain areas of the diagram, also being spatially related.
By considering a trade-off of hydrocarbon yield against TOC content, a rating system of these areas can be devised. By regarding the ability of organic matter to yield liquid hydrocarbons as being more pertinent to the quality of a source rock than the amount of organic carbon it contains, the following (relative) rating system may be applied.

6E>5E>6D>5D>4E>6C>4D>5C>3E>4C>3D>3C>6B>2E>5B>4B>2D>3B>2C>2B>6A>1E>5A=4A=3A=2A=1D=1C=1B=1A>6F=5F=4F=3F=2F=1F

or on a scale of 1 to 24:

1 = 6E	8 = 5C	15 = 5B	22 = 1E
2 = 5E	9 = 3E	16 = 4B	23 = 5A, 4A,3A,2A,1D,1C,1B,1A
3 = 6D	10= 4C	17 = 2D	24 = 6F,5F,4F,3F,2F,1F
4 = 5D	11= 3D	18 = 3B	
5 = 4E	12= 3C	19 = 2C	
6 = 6C	13= 6B	20 = 2B	
7 = 4D	14= 2E	21 = 6A	

Hence, areas corresponding to low rating numbers, represent regions containing potential source rocks capable of yielding significant volumes of liquid hydrocarbons. Wells which plot in various areas are listed in Appendix G and displayed in map form as enclosure V.

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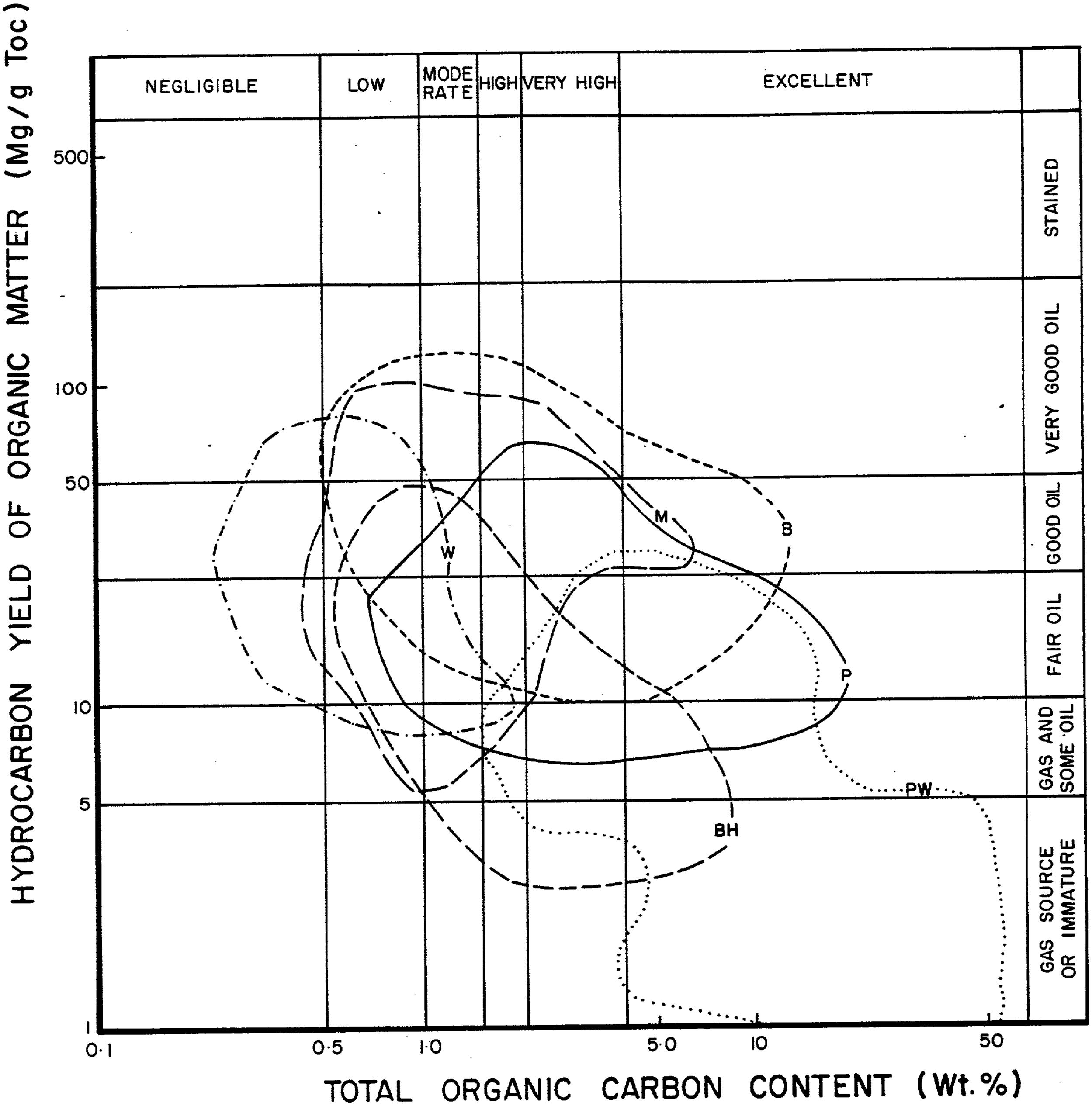
SOURCE HORIZON QUALITY *

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



M = MURTA MEMBER
W = WESTBOURNE FM
B = BIRKHEAD FM
BH = BASAL HUTTON MEMBER
P = POOLAWANNA FM
PW = PATCHAWARRA FM

* ONLY SAMPLES ≥75% WITHIN A FORMATION HAVE BEEN USED

DELHI	Author : D. JOHNSTONE	Date : NOV. 1984	Dwg. No. : 84XG - 4418	FIG. 1
	Drafted : M. SHEAN	Revised :	File No. : RP-1	

FIGURE 2: Number system used for rating source rock quality.

NEGLIGIBLE	LOW	MODERATE	HIGH	V HIGH	EXCELLENT	
1F (24)	2F (24)	3F (24)	4F (24)	5F (24)	6F (24)	STAINED
1E (22)	2E (14)	3E (9)	4E (5)	5E (2)	6E (1)	VG OIL
1D (23)	2D (17)	3D (11)	4D (7)	5D (4)	6D (3)	G OIL
1C (23)	2C (19)	3C (12)	4C (10)	5C (8)	6C (6)	FAIR OIL
1B (23)	2B (20)	3B (18)	4B (16)	5B (15)	6B (13)	GAS AND SOME OIL
1A (23)	2A (23)	3A (23)	4A (23)	5A (23)	6A (21)	GAS SOURCE OR IMMATURE

Vertical axis: 500, 100, 50, 10, 5, 1

Horizontal axis: 0.1, 0.5, 1.0, 5.0, 10, 50

TOTAL ORGANIC CARBON (weight percent)

SOURCE ROCK QUALITY MAPS

The crossplot of hydrocarbon yield versus TOC can also be represented in map form. By considering the previously mentioned rating system, areas of high to low source rock quality can be identified. Values at the well for each formation represent areas of the crossplot (i.e. 1A,2B,etc) where the values of TOC and hydrocarbon yield fall. (A list of wells which lie in each area is presented in Appendix G). These values are contoured via the rating system where one area can be regarded as being of better quality than an adjacent area at its present level of maturity.

The accuracy of such maps in highly dependant upon the averaged values of TOC and hydrocarbon yield used. In addition, data points are sparse thus reducing the constraints on the way values are contoured. Nevertheless, such a map is useful in high or low grading areas on a regional scale.

Enclosure V contains quality maps for the four main Mesozoic source horizons. Appendix H contains a key to the wells used. Low values represent areas of higher potential source rock quality (i.e. oil prone source rocks with large volumes of organic carbon). From the maps the following observations are made:

a) Higher quality potential source rocks are encountered in areas where shaly/coally facies are well developed.

b) The Poolowanna Formation and equivalents show a larger areal expanse of good quality potential source rocks with the best development being in the northern part of PELs 5 & 6 and within the Nappamerri Trough.

c) The Birkhead Formation contains high quality potential source rocks in the areas coinciding with older troughs.

d) The Westbourne Formation shows relatively poorer potential source rocks throughout its distribution except in the Jackson-Naccowlah area and the southern Nappamerri Trough.

e) The Murta Member contains higher quality potential source rocks in the Jackson-Naccowlah area and adjacent to Namur in the southern Nappamerri Trough.

f) Areas of lower quality occur where the sequences thin and become sandier (i.e. over structural high trends and toward the basin margin). Hydrocarbon yield declines in these areas due to oxidizing conditions being more dominant and the presence of hydrogen poor organic matter.

CONCLUSIONS

This report synthesises all existing data relating to liquid chromatography, providing a basis to further source rock work to be carried out on a formation by formation basis. Various suggestions are made on how to handle the existing data to enable a more detailed interpretation.

Preliminary interpretation of basic geochemical parameters provide a regional view on the distribution and quality of potential source rocks contained in the four main Mesozoic source horizons.

From this study it has become apparent that the variation in source parameters closely parallels variations in sedimentary facies, with sandy areas being coincident with areas of poorer source quality. Thus source rock quality is reduced toward basin margins and over major structural highs due to the then prevailing oxidizing conditions and winowing of organic material.

The data suggests that the best quality source rocks occur within the basal Jurassic (Poolowanna Formation and equivalents) which has a wide areal distribution. The Birkhead Formation shows similar qualities but contains less total organic carbon. The Westbourne Formation and to a lesser extent, the Murta Member are secondary in quality. However, source beds within these units are likely to be thin and easily obscured by non-source lithologies in samples taken from composite cuttings.

The dominance of the Poolowanna Formation and the Birkhead Formation as primary source horizons upgrades the potential of the northern areas of the licence due to the widespread nature of the units.

Results from this study will be greatly aided by the inclusion of Rock-Eval and vitrinite reflectance data.

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APPENDIX A

Analytical results

WELL: ADRIA DOWNS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	600-900	CT	3.20	650	5.2	18.6	6.8	30.9	29.5	14.2	165.0	20.3
2	900-1200	CT	4.00	1304	3.3	2.5	7.6	15.8	55.5	18.6	131.7	32.6
3	1200-1500	CT	1.90	569	5.5	11.7	6.6	38.3	36.9	6.5	104.0	29.9
4	1500-1800	CT	1.95	815	4.5	7.5	3.3	22.9	49.0	17.3	88.0	41.8
5	1800-2100	CT	1.55	688	5.8	8.4	4.6	23.8	45.6	17.6	89.5	44.4
6	2100-2400	CT	1.25	584	5.3	7.1	4.2	17.1	53.1	18.5	66.1	46.8
7	2400-2700	CT	2.65	1789	10.7	9.2	6.7	26.2	51.8	6.1	284.4	67.5
8	2700-3000	CT	1.30	731	9.1	8.9	7.3	19.2	62.2	2.4	118.4	56.2
9	3000-3120	CT	1.10	497	4.7	9.7	0.7	17.8	51.8	20.0	51.7	45.2
10	3120-3230	CT	0.70	533	6.7	6.4	2.4	15.1	56.2	19.9	46.9	76.2
11	3230-3380	CT	0.80	789	14.5	7.0	7.7	16.0	60.4	8.9	116.0	98.6
12	3380-3440	CT	0.90	658	6.3	4.2	4.4	18.2	56.3	16.9	56.6	73.1
13	3440-3640	CT	0.40	829	20.3	4.4	5.4	13.8	57.4	19.0	81.1	207.0
14	3640-3940	CT	0.25	600	28.8	7.3	4.7	9.9	59.7	18.4	72.0	240.0
15	3940-4100	CT	0.20	508	20.8	2.6	5.6	8.1	61.9	21.8	41.7	245.0
16	4100-4170	CT	0.55	669	4.1	3.0	0.4	8.7	82.0	5.9	22.8	122.0
17	4170-4300	CT	0.30	622	7.0	0.4	3.0	4.1	77.4	15.1	21.1	207.0
18	4300-4530	CT	0.15	408	20.7	4.5	3.1	15.8	71.0	5.6	31.0	272.0
19	4530-4860	CT	3.60	4388	7.9	3.4	3.1	4.8	86.0	2.7	285.5	122.0
20	4860-4910	CT	1.75	1764	12.7	8.4	4.2	12.8	69.1	5.5	222.7	101.0
21	4910-5020	CT	0.90	1256	12.5	4.8	4.1	8.4	76.3	6.4	112.1	140.0

WELL: ALKINA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	2280-2580	CT	4.30	3565	2.2	1.1	1.6	4.0	91.8	1.5	96.2	82.9
2	2580-2880	CT	2.50	1799	5.3	3.8	3.6	10.2	77.6	4.7	133.2	72.0
3	2880-3180	CT	1.54	1112	4.5	3.2	3.1	10.9	78.5	4.4	70.0	72.2
4	3180-3420	CT	1.46	1169	3.8	2.5	2.2	7.4	82.0	5.9	55.0	80.1
5	3420-3720	CT	1.06	794	6.4	5.6	2.9	16.9	59.7	15.0	67.5	74.9
6	3720-4020	CT	1.66	1468	6.5	4.8	2.6	12.6	75.1	4.9	108.6	88.4
7	4020-4320	CT	0.87	609	3.8	4.3	1.1	13.9	62.4	18.3	32.9	70.0
8	4320-4700	CT	1.16	610	3.8	5.1	2.1	15.9	66.4	10.6	43.9	52.6
9	4700-5000	CT	1.10	1054	15.4	12.5	3.6	15.1	57.8	11.0	169.7	95.8
10	5000-5066	CT	0.89	1374	18.1	8.0	3.7	15.2	58.1	15.0	160.8	154.4
11	5066-5172	CT	1.98	3997	9.7	2.9	1.9	4.5	87.0	3.6	191.9	201.9
12	5172-5480	CT	0.66	1692	74.1	17.5	11.4	14.5	48.8	7.8	489.1	256.4
13	5492-5790	CT	0.41	635	12.4	6.2	1.8	22.6	56.5	12.9	50.8	154.9
14	5816-5907	CT	0.24	589	12.0	4.4	0.5	19.1	62.7	13.2	28.9	245.4
15	5907-6184	CT	4.00	6215	24.9	10.8	5.2	9.5	67.8	6.8	994.6	155.4
16	6184-6500	CT	0.29	750	26.1	8.7	1.4	25.1	47.1	17.6	75.7	258.6
17	6500-6810	CT	0.33	926	14.9	3.4	1.9	13.5	65.2	16.0	49.1	280.6
18	6810-7110	CT	1.14	2378	6.7	2.1	1.1	3.4	90.2	3.2	76.1	208.6
19	7110-7200	CT	0.66	1490	18.5	4.8	3.4	7.6	81.1	3.1	122.2	255.8
20	7200-7310	CT	1.72	2222	10.7	4.6	3.7	10.7	72.3	8.7	184.4	129.2
21	7310-7560	CT	0.39	473	16.9	11.5	2.4	13.1	54.4	18.6	65.8	121.3
22	7560-7870	CT	0.78	481	7.1	10.5	1.0	22.1	49.9	16.5	55.3	61.7
23	7870-8170	CT	0.20	640	22.4	3.1	3.9	4.7	78.7	9.6	44.8	320.0
24	8170-8389	CT	0.32	768	30.5	12.2	0.5	5.8	74.1	7.5	97.5	240.0
25	8389-8690	CT	27.70	4188	0.7	1.1	3.7	9.4	84.3	1.4	200.8	15.1
26	8690-8795	CT	4.55	1121	0.9	2.8	0.7	22.2	68.4	5.9	39.2	24.6

WELL: BARROLKA EAST #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1200-1500	CT	1.62	1222	6.0	5.1	2.8	20.4	65.1	6.6	96.5	75.4
2	2400-2700	CT	3.06	2240	2.9	1.9	2.0	8.2	87.5	0.4	87.4	73.2
3	2700-3000	CT	1.87	1456	7.6	5.6	4.1	17.7	69.8	2.9	141.3	77.9
4	3000-3340	CT	2.66	1634	3.4	3.0	2.6	12.2	71.5	10.7	91.5	61.4
5	3340-3420	CT	1.86	2122	12.3	6.6	4.2	15.2	71.9	2.1	229.2	114.1
6	3420-3600	CT	2.38	1885	9.3	7.4	4.4	15.7	70.9	1.7	222.4	79.2
7	3600-3900	CT	1.02	661	7.0	6.1	4.7	17.0	63.4	8.7	71.4	64.8
8	3900-4200	CT	0.94	591	4.2	3.9	2.8	16.4	71.1	5.8	39.6	62.9
9	4200-4500	CT	0.76	641	7.5	5.9	3.0	16.1	72.5	2.5	57.0	84.3
10	4600-4900	CT	0.84	655	10.5	9.5	3.9	18.2	63.6	4.8	87.8	78.0
11	4900-5140	CT	0.78	1809	18.8	5.3	2.8	5.3	84.2	2.5	146.5	231.9
12	5140-5390	CT	0.55	927	14.5	4.5	4.1	11.4	78.9	1.0	79.7	168.5
13	5390-5690	CT	0.48	857	24.8	9.3	4.6	12.7	67.2	6.3	119.1	178.5
14	5750-5840	CT	2.26	3709	25.4	9.4	6.1	9.5	72.8	2.2	574.8	164.1
15	5840-6070	CT	2.70	4447	19.1	6.7	4.9	5.4	81.3	1.6	515.8	164.7
16	6070-6380	CT	0.22	552	18.1	6.5	0.7	8.6	80.0	4.4	39.7	250.9
17	6380-6680	CT	0.80	1240	18.0	6.5	5.1	10.0	75.1	3.3	143.8	155.0
18	6680-6830	CT	4.28	3962	3.7	2.1	1.9	3.2	90.4	2.3	158.5	92.6
19	6830-7140	CT	1.14	1252	17.2	10.1	5.6	12.9	65.6	5.7	196.5	109.8
20	7140-7440	CT	0.21	618	21.8	5.8	1.6	10.7	69.3	12.6	45.7	294.3
21	7440-7740	CT	0.79	437	7.3	11.7	1.5	12.4	67.9	6.6	57.7	55.3
22	7740-8050	CT	0.13	331	16.0	4.7	1.6	13.8	75.1	4.7	20.9	254.6
23	8050-8220	CT	0.08	348	51.3	11.0	0.8	8.5	73.3	6.4	41.1	435.0
24	8220-8460	CT	16.90	4377	0.1	0.2	0.2	1.3	91.9	6.4	17.5	25.9
25	8426	C	28.30	4086	0.8	1.0	4.9	20.4	71.3	2.4	240.4	14.4
26	8460-8760	CT	13.10	3253	0.5	1.1	0.8	2.3	91.0	4.7	61.7	24.8
27	8500-8530	CT	17.50	4189	2.6	6.1	4.9	22.9	58.9	7.2	460.1	23.9
28	8760-8820	CT	3.50	1783	1.5	1.7	1.2	9.6	82.1	5.5	51.7	50.9

WELL: BEANBUSH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC (wt%)	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	8740'8"	C	2.50	3129	26.3	11.3	9.7	24.1	45.6	9.3	656.3	125.0
2	10869'9"	C	5.23	1501	2.1	3.7	3.7	17.3	58.2	17.1	111.1	28.7
3	11646'1"	C	0.51	223	7.2	10.1	6.4	24.8	25.7	33.0	36.9	43.8

WELL: BELAH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC (wt%)	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	2900-3100	CT	1.05	615	5.0	6.3	2.2	19.0	59.0	13.6	52.3	58.6
2	3100-3400	CT	0.65	434	6.3	7.0	2.5	22.0	51.0	17.5	41.2	66.8
3	3400-3700	CT	0.85	358	4.6	8.7	2.2	21.8	49.8	17.5	39.0	42.1
4	3700-4000	CT	0.75	519	4.4	5.1	1.3	13.6	34.6	45.5	33.2	69.2
5	4100-4400	CT	1.65	1218	10.3	8.7	5.2	12.6	66.4	7.1	169.3	73.8
6	4400-4650	CT	0.75	732	15.6	11.8	4.2	12.6	56.5	15.0	117.1	97.6
7	4650-4950	CT	0.70	820	22.7	14.2	5.2	13.2	54.5	12.9	159.0	117.1
8	4950-5250	CT	0.50	603	32.0	19.3	7.2	17.5	41.9	14.0	159.8	120.6
9	5250-5310	CT	1.00	1526	19.8	6.9	6.1	19.6	65.3	2.1	198.4	152.6
10	5310-5380	CT	2.00	2707	24.5	10.8	7.3	10.3	67.7	3.9	490.1	135.4
11	5380-5600	CT	0.35	786	28.7	7.7	5.1	8.1	73.9	5.3	100.6	224.6
12	5780-6080	CT	5.20	3304	2.3	1.6	2.0	3.4	89.4	3.6	118.9	63.5
13	6080-6250	CT	12.60	5791	1.7	1.5	2.1	5.6	89.8	0.9	208.7	46.0
14	6250-6460	CT	3.30	1362	4.5	5.3	5.6	13.1	69.5	6.6	148.6	41.3
15	6460-6520	CT	8.25	4114	5.0	5.8	4.2	7.4	78.0	4.5	411.7	49.9
16	6520-6710	CT	3.30	1290	2.5	3.5	3.0	9.5	81.4	2.5	83.9	39.1
17	6710-7010	CT	10.40	4828	0.6	0.6	0.7	1.4	94.3	3.0	62.7	46.4
18	7010-7310	CT	5.80	2682	1.8	2.0	2.0	7.8	86.7	1.6	107.2	46.2
19	7310-7560	CT	1.80	1469	5.5	3.3	3.4	7.4	85.0	0.8	98.4	81.6

WELL: BOORTHANNA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1940-1990	CT	5.95	16205	28.3	6.6	3.8	11.6	78.0	0.0	1685.6	272.4
2	2390-2400	CT	0.45	417	37.2	30.6	9.5	30.6	16.3	13.0	167.3	92.7
3	3010-3020	CT	0.30	908	120.8	34.9	5.0	33.3	17.8	9.0	362.3	302.7
4	3260-3270	CT	0.30	472	20.9	6.1	7.2	43.2	29.1	14.4	62.8	157.3
5	3710-3720	CT	0.40	687	7.7	3.9	0.6	40.7	25.3	31.3	30.9	171.8

WELL: BYCOE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3960-3990	CT	0.77	1135	22.6	10.3	5.0	21.3	63.4		173.7	147.4
2	4670-4700	CT	0.72	1126	25.5	9.1	7.2	23.3	60.4		183.6	156.4
3	4940-4970	CT	1.31	1434	15.3	7.2	6.8	19.6	66.3		200.8	109.5
4	4970-5000	CT	0.80	1863	19.3	4.7	3.6	9.5	82.2		154.6	232.9

WELL: CANNUWAUKANINNA BORE

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	80	SWC	0.40	645	13.4	5.7	2.6	10.6	61.2	19.8	53.6	161.3
2	100	SWC	2.08	12013	1.7	0.2	0.1	1.6	88.6	9.5	36.0	577.5
3	109	SWC	3.74	2203	1.6	2.1	0.7	5.5	91.5	0.3	61.7	58.9
4	118	SWC	0.22	497	41.1	17.3	0.9	41.8	37.3	2.7	90.5	225.9

WELL: CHANDOS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4682	C	1.15	505	26.0	32.9	27.1	---40.0---				
2	5925	C	16.30	6153	6.0	--16.4---		---83.6---				
3	7123	C	0.15	402	18.0	2.0	4.7	---93.3---				
4	7772	C	0.35	627	61.0	23.6	10.5	---65.9---				
5	7976	C	21.10	26597								
6	7987	C	0.97	409	12.0	7.7	19.6	22.4	50.3	**Data from McKirdy 1982		

WELL: CHANDOS SOUTH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	7823	C	57.30	7000	6.0	16.3	34.6	26.1	23.0	**Data from McKirdy 1982		

WELL: CHOOKOO #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5250-5280	CT	1.54	387	9.2	25.6	11.0	43.1	20.3		141.5	25.1
2	5400-5430	CT	1.14	1363	23.6	12.1	7.6	26.0	54.3		268.6	119.6
3	5460-5490	CT	3.60	4164	19.2	7.8	8.8	26.7	56.7		691.4	115.7
4	5550-5580	CT	1.03	1739	80.2	36.8	10.7	26.2	26.3		825.9	168.8
5	5790-5820	CT	2.32	3871	19.9	5.4	6.5	13.1	75.1		460.8	166.9
6	5850-5880	CT	3.12	3337	13.3	5.8	6.6	19.4	68.1		414.0	107.0
7	5880-5910	CT	7.40	6770	16.5	11.2	6.8	13.8	68.3		1218.8	91.5
8	5908	SWC	8.55	10643	35.1	18.8	9.4	20.8	51.0		3001.8	124.5
9	5910-5940	CT	3.34	2046	9.9	6.8	9.3	14.5	69.5		329.6	61.3
10	6000-6030	CT	19.90	10214	4.0	3.6	4.1	11.9	80.4		786.1	51.3
11	6030-6060	CT	7.35	4389	4.2	3.6	3.4	8.3	84.7		307.2	59.7
12	6060-6090	CT	21.20	8810	6.9	5.8	10.8	21.3	62.1		1464.0	41.6

WELL: COLSON #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4299-4349	CT	1.20	465	9.0	7.5	14.7	35.1	42.7			
2	4349-4399	CT	0.93	357	8.0	10.9	8.9	37.0	43.2			
3	5919-5929	CT	0.02	63								
4	5939-5949	CT	0.05	166	36.0	4.7	6.5	25.2	63.6			
5	6254	SWC	1.47	770	8.0	6.0	9.1	36.2	48.7			
6	6298	SWC	0.30	502	21.0	3.9	8.4	33.3	54.3			
7	6349	SWC	0.10	89	8.0	6.3	2.5	23.2	68.1			
8	5419	SWC	31.60	22560	13.0	4.5	13.9	35.1	46.5			
9	6798	SWC	0.57	243	12.0	15.7	13.2	20.3	50.7			
10	7011-7016	CT	74.00	35065	12.0	4.8	19.8	31.1	44.3			
11	7068-7078	CT	75.50	48175	14.0	5.2	16.2	32.3	46.2			
12	7098	SWC	2.85	1480	13.0	7.5	17.5	46.9	40.1			
13	7128-7139	CT	13.90	8000	13.0	6.3	16.8	31.4	45.4			
14	7159-7168	CT	74.10	46755	14.0	6.6	16.2	36.7	40.4			
15	7948	SWC	0.21	620	161.0	47.1	7.4	20.6	24.8	STAINED	**Data from McKirdy 198	

WELL: COONATIE #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3300-3600	CT	2.10	1370	3.3	2.8	2.2	11.7	71.4	11.8	68.5	65.2
2	3600-3900	CT	1.71	1519	4.7	2.8	2.5	14.5	67.1	13.1	80.5	88.8
3	3900-4200	CT	1.47	1070	5.2	4.1	3.0	15.3	63.5	14.0	76.0	72.8
4	4200-4500	CT	1.17	732	10.2	12.6	3.7	17.6	63.3	2.8	119.4	62.6
5	4500-4800	CT	1.56	1116	4.6	3.9	2.6	15.0	70.4	8.1	72.5	71.5
6	4800-5100	CT	1.06	876	5.1	4.2	2.0	11.4	78.0	4.4	54.3	82.6
7	5100-5400	CT	0.92	515	4.9	5.3	3.4	14.7	72.0	4.6	44.8	56.0
8	5400-5700	CT	0.89	639	5.8	5.9	2.2	9.5	77.9	4.5	51.8	71.8
9	5700-5930	CT	1.02	462	3.7	5.7	2.5	44.4	45.4	1.9	37.9	45.3
10	5930-6140	CT	0.96	939	15.1	11.0	4.4	13.3	66.1	5.2	144.6	97.8
11	6140-6260	CT	0.49	149B	28.7	7.8	1.6	6.1	83.1	1.5	140.8	305.7
12	6260-6560	CT	0.28	649	45.2	16.6	2.9	10.6	63.4	6.6	126.6	231.8
13	6560-6860	CT	0.29	609	37.4	14.5	3.3	12.5	64.1	5.6	108.4	210.0
14	6860-7110	CT	0.38	740	140.0	8.5	63.4	13.4	63.7	11.0	532.0	194.7
15	7110-7410	CT	3.18	5359	19.4	6.4	5.1	8.7	77.7	2.1	616.2	168.5
16	7410-7710	CT	0.30	721	26.9	7.4	3.8	12.0	75.7	1.0	80.7	240.3
17	7710-8010	CT	0.27	568	25.2	8.7	3.3	10.4	76.3	1.2	68.2	210.4
18	8010-8350	CT	1.33	1960	26.4	14.5	3.4	2.7	73.0	6.4	350.9	147.4
19	8350-8650	CT	0.14	409	43.8	12.9	2.1	6.0	63.7	15.3	61.3	292.1
20	8950-9230	CT	0.22	933	123.0	26.9	2.1	7.6	48.0	15.4	270.6	424.1
21	9230-9460	CT	44.10	16615	2.4	2.8	3.5	5.9	77.7	10.0	1047.4	37.7
22	9460-9640	CT	34.40	10547	0.7	1.0	1.4	1.4	86.8	9.4	253.5	30.7
23	9650-9760	CT	25.20	8718	1.0	1.6	1.3	2.4	84.9	9.7	252.9	34.6
24	9760-9920	CT	18.50	8707	6.0	6.8	6.0	8.7	73.7	4.8	1115.3	47.1
25	9930-9970	CT	41.60	26460	1.3	0.8	1.3	2.3	81.6	14.1	555.6	63.6

WELL: COOTANOORINA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1742'8"-10"	C	2.70	1068	5.3	10.3	3.0	21.1	51.4	14.2	142.2	39.6
2	2866'5"-6"	C	0.25	431	64.3	33.7	3.6	23.4	17.5	21.4	160.9	172.5
3	3045'10"-3046	C	0.15	179	17.1	11.8	2.5	11.2	54.7	19.8	25.6	119.4
4	2450-2460	CT	0.75	1430	56.4	23.7	5.9	37.9	9.1	23.4	423.4	190.7
5	3070-3080	CT	0.40	1342	183.2	8.1	46.5	21.2	7.8	16.4	732.7	335.5

WELL: CORKWOOD #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1500-1800	CT	12.70	6805	4.8	4.6	4.3	24.9	57.9	8.3	605.8	53.6
2	1800-2100	CT	7.50	6385	5.5	3.7	2.8	20.4	68.3	4.8	414.9	85.1
3	2100-2400	CT	2.10	1416	4.0	3.7	2.2	31.8	59.9	2.4	83.5	67.4
4	2400-2700	CT	4.55	1833	3.0	3.9	3.6	35.3	40.9	16.1	137.5	40.3
5	2700-3000	CT	1.75	1042	12.7	17.6	3.7	23.2	40.5	15.0	221.8	59.5
6	3300-3600	CT	1.05	760	20.3	21.7	6.3	21.2	25.3	25.2	212.9	72.4
7	3600-3900	CT	0.90	434	9.0	12.4	6.2	27.1	50.3	4.0	80.7	48.2
8	3900-4200	CT	1.50	1117	13.5	7.5	10.7	28.3	34.5	19.0	203.1	74.4
9	4200-4500	CT	1.00	673	8.0	3.5	8.4	3.0	32.4	30.6	80.1	67.3
10	4500-4800	CT	0.85	693	23.5	21.8	7.0	33.4	26.6	11.2	199.8	81.6
11	4800-5100	CT	0.40	492	25.2	13.2	7.3	20.3	46.1	13.1	100.9	123.1
12	5100-5400	CT	1.55	1523	21.2	8.9	12.7	30.0	31.6	16.8	329.1	98.3
13	5400-5700	CT	0.55	451	8.6	5.1	5.4	24.5	48.1	16.9	47.4	82.0
14	5700-6000	CT	1.35	1175	26.5	5.0	25.4	26.7	29.7	13.2	357.5	87.1
15	6000-6300	CT	5.55	1868	6.0	11.6	6.3	12.5	50.0	19.3	334.8	33.7

WELL: CUMBROO #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5781	C	0.54	1473	11.0	---4.1--		---95.9---				
2	5797	C	25.30	4230	3.0	--18.7--		---81.3---				
3	6348	C	3.13	6673	6.0	---2.8--		---97.2---				
4	6644	C	1.42	2820	4.0	---2.1--		---97.9---				
5	6646	C	1.16	703	15.0	8.1	16.0	17.0	58.9			
6	6657	C	22.50	10773	2.0	---5.2--		---94.8---				
7	7055	C	9.54	1173	4.0	2.1	33.5	21.2	43.2			
8	7073	C	26.00	5350	2.0	---2.2--		---97.8---				

**Data from McKirdy 1982

WELL: CURALLE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3221	SWC	0.89	729	11.9	12.1	2.4	10.8	59.0	15.7	105.8	82.0
2	3669	SWC	0.72	830	11.0	5.3	4.2	11.6	58.9	0.0	78.9	115.3
3	4217	SWC	1.42	1686	44.9	34.1	3.7	13.8	42.0	6.4	637.1	118.7
4	5442	SWC	4.35	1010	37.3	41.9	7.6	16.2	34.3	0.0	499.5	75.3
5	5574	SWC	4.35	1713	5.9	8.2	6.7	22.2	58.3	4.6	255.4	39.4

WELL: CUTTAPIRRIE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	6039	SWC	0.82	1100	33.4	18.8	5.9	12.9	60.0	2.4	274.0	135.3
2	6373	SWC	0.58	1197	53.3	16.1	9.7	22.6	27.4	24.2	308.9	206.4
3	7052	SWC	1.24	2896	57.7	21.4	3.3	13.0	58.3	4.0	715.5	233.6

WELL: DARALINGIE #4

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1500-1800	CT	0.90	352	5.3	9.6	4.0	38.3	36.0	12.1	47.9	39.1
2	2400-2700	CT	2.95	1148	1.4	1.2	2.5	37.3	40.3	18.7	42.5	38.9
3	2700-3000	CT	2.00	969	3.7	3.8	3.8	36.4	50.3	5.7	73.7	48.5
4	3600-3900	CT	0.85	410	3.5	6.5	0.8	23.8	50.4	18.5	29.9	48.2
5	4200-4500	CT	0.80	334	3.8	7.1	2.0	32.0	47.1	11.8	30.4	41.7
6	4500-4800	CT	0.85	565	7.3	7.2	3.8	21.0	59.2	8.8	62.2	66.5
7	4800-5100	CT	0.90	480	7.6	9.3	4.9	30.6	41.6	13.6	68.1	53.3
8	5400-5700	CT	1.40	2698	17.7	4.5	4.7	11.1	71.1	8.6	248.2	192.7
9	5700-6000	CT	1.60	2425	27.7	9.3	9.0	20.0	56.7	5.0	443.9	151.6
10	6000-6300	CT	0.95	1211	20.8	7.6	8.7	16.8	55.1	11.8	197.4	127.5
11	6300-6570	CT	0.55	437	13.8	9.6	7.8	24.3	47.6	10.7	76.1	79.5

WELL: DELLA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5624	C	0.98	2400	114.0	43.0	3.5	39.7	13.8			
2	5636	C	6.40	12980	45.0	15.7	6.7	40.3	37.3	**Data from McKirdy 1982		

WELL: DILCHEE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	0-300	CT	0.20	436	55.4	16.5	8.9	19.8	38.8	16.0	110.7	218.0
2	300-600	CT	5.05	1822	6.4	13.7	3.9	31.0	46.3	5.1	320.9	36.1
3	600-900	CT	0.75	389	2.7	4.0	1.2	25.0	54.4	15.4	20.2	51.9
4	900-1200	CT	1.40	484	3.8	8.2	2.9	28.6	43.5	16.8	53.8	34.6
5	1200-1500	CT	1.25	573	4.3	6.3	3.1	27.4	47.4	15.8	53.8	45.8
6	1500-1800	CT	0.80	470	4.9	6.2	2.2	26.2	46.5	18.9	39.4	58.7
7	1800-2100	CT	0.95	584	6.3	4.2	6.0	22.8	43.1	23.9	59.6	61.5
8	2100-2400	CT	6.40	2739	3.9	2.9	6.1	25.2	51.8	14.0	246.5	42.8
9	2400-2700	CT	3.90	2191	4.7	3.5	4.8	21.0	52.5	18.2	181.9	56.2
10	2700-3000	CT	1.70	1224	4.6	3.2	3.2	22.0	56.5	15.1	78.3	72.0
11	3000-3300	CT	1.35	566	4.2	4.6	5.5	23.4	50.8	15.7	57.1	41.9
12	3300-3600	CT	1.20	435	3.8	5.3	5.3	30.0	44.0	15.4	46.0	36.2
13	3600-3900	CT	1.05	460	5.6	10.7	2.0	25.4	53.4	8.5	58.4	43.8
14	3900-4200	CT	1.15	492	5.1	6.3	5.6	27.1	50.5	10.5	58.6	42.8
15	4200-4500	CT	1.05	425	4.5	4.5	6.6	26.1	49.8	13.0	47.2	40.5
16	4500-4720	CT	0.95	509	7.1	9.0	4.2	20.4	59.2	7.2	67.2	53.6
17	4720-5000	CT	0.60	708	16.0	7.0	6.6	15.1	57.7	13.6	96.2	117.9
18	5000-5180	CT	0.85	722	9.3	5.2	5.7	15.5	59.8	13.8	78.7	84.9
19	5200-5600	CT	0.60	1434	21.7	4.5	4.6	9.0	65.5	16.4	130.5	239.0
20	5650-6100	CT	0.30	640	22.8	6.2	4.5	12.3	64.8	12.2	68.4	213.2
21	6100-6400	CT	0.45	1357	20.8	4.6	2.3	4.4	78.9	9.8	93.7	301.7
22	6400-6700	CT	0.20	304	25.5	13.1	3.7	19.3	57.8	6.1	51.0	151.9
23	6700-7000	CT	0.20	186	18.2	12.8	6.8	22.3	42.6	15.5	36.5	93.0
24	7010-7300	CT	73.40	6192	5.3	5.2	6.2	14.2	62.3	12.1	3865.8	46.2
25	7300-7550	CT	4.70	2354	6.5	7.3	5.6	9.7	59.8	17.6	303.8	50.1
26	7550-7770	CT	2.60	784	3.8	3.9	8.8	19.8	52.8	14.7	99.7	30.2
27	7770-7970	CT	29.60	13386	5.4	5.5	6.5	8.2	71.3	8.5	1605.5	45.2
28	7980-8190	CT	19.00	5910	4.0	6.4	6.4	10.7	62.5	14.0	756.4	31.1
29	8190-8400	CT	33.80	11094	1.4	1.3	2.9	4.2	89.6	2.0	465.6	32.8
30	8400-8700	CT	37.20	6561	1.0	1.6	4.3	10.1	74.8	9.2	386.3	17.6
31	8700-9000	CT	38.20	3852	0.6	0.9	5.4	8.1	74.9	10.7	243.1	10.1
32	9000-9153	CT	49.70	4010	0.3	0.5	3.5	8.9	73.2	12.9	161.0	8.1

WELL: DULLINGARI #1

No.	INTERVAL	SAMPLE	TOC	EOM	HC YEILD	SAT	AROM	ONS	ASHP	LOC	HC TOTAL	EOM(per TOC)
	(ft)	TYPE	(wt%)	(ppm)	(mg/g TOC)			(wt%)			(ppm)	(mg/g TOC)
1	1405	C	1.44	729	21.0	8.4	33.1	64.5	24.0			
2	2503	C	2.68	1479	6.0	7.5	3.0	49.8	39.7			
3	3503	C	1.03	493	5.0	10.7	0.4	54.5	34.4			
4	3966	C	0.60	208	5.0	12.9	0.5	52.6	34.0			
5	4957	C	1.72	1673	26.0	23.6	3.4	38.7	34.3			
6	6100	C	4.22	3979	15.0	9.7	6.2	32.7	51.4	**Data from McKirdy 1982		

WELL: DULLINGARI #5

No.	INTERVAL	SAMPLE	TOC	EOM	HC YEILD	SAT	AROM	ONS	ASHP	LOC	HC TOTAL	EOM(per TOC)
	(ft)	TYPE	(wt%)	(ppm)	(mg/g TOC)			(wt%)			(ppm)	(mg/g TOC)
1	4827	SWC	0.91	1189	8.0	4.7	1.3	29.2	64.8			
2	4844	SWC	0.88	1062	14.0	7.8	3.9	30.0	58.3			
3	4849'6"	SWC	0.97	679	16.0	16.4	6.9	35.6	41.1			
4	4855	SWC	0.66	557	20.0	19.1	4.4	28.0	48.5			
5	4861	SWC	0.29	339	22.0	14.8	3.7	44.5	37.0			
6	4863	SWC	1.39	993	18.0	18.8	6.7	36.9	37.6			
7	4866	SWC	0.55	462	17.0	14.1	6.3	35.8	43.8			
8	4908	SWC	0.13	1500	736.0	60.9	2.9	29.0	7.2	STAINED		
9	4978	SWC	0.87	649	12.0	10.0	6.0	30.0	54.0			
10	5006	SWC	0.58	678	25.0	13.1	8.2	34.4	44.3	**Data from McKirdy 1982		

WELL: DULLINGARI DM7 #11

No.	INTERVAL	SAMPLE	TOC	EOM	HC YEILD	SAT	AROM	ONS	ASHP	LOC	HC TOTAL	EOM(per TOC)
	(ft)	TYPE	(wt%)	(ppm)	(mg/g TOC)			(wt%)			(ppm)	(mg/g TOC)
1	5002'5"-10"	C	0.90	540	18.2	22.8	7.5	11.1	46.1	12.5	163.6	60.0
2	5007'5"-8"	C	0.60	707	26.9	15.7	7.1	19.5	34.6	23.1	161.3	117.9
3	5039'4"-8"	C	1.25	1105	27.1	19.4	11.3	14.4	38.9	16.0	339.2	88.4
4	5055'7"-10"	C	1.45	1562	36.4	24.1	9.7	14.6	43.3	8.3	527.8	107.7

WELL: DULLINGARI NORTH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1320-1350	CT	1.99	827	5.0	8.2	3.2	64.7	23.9			
2	1710-1740	CT	1.49	1026	5.0	5.0	2.5	75.7	16.8			
3	2160-2190	CT	27.40	13819	5.0	3.4	5.7	62.3	28.6			
4	2280-2310	CT	12.20	8881	9.0	5.0	7.9	55.5	31.6			
5	2520-2550	CT	2.50	1043	10.0	14.9	10.0	47.1	27.9			
6	3060-3090	CT	1.80	692	7.0	11.3	5.7	51.8	31.2			
7	3540-3570	CT	1.98	302	2.0	10.6	4.1	46.5	38.8			
8	4260-4290	CT	1.69	684	5.0	7.5	5.8	46.2	40.5			
9	4560-4590	CT	1.45	886	11.0	11.4	6.4	45.6	36.6			
10	4800-4830	CT	1.36	745	8.0	8.3	5.4	43.8	42.6			
11	4883	SWC	0.81	657	16.0	15.8	3.3	40.0	40.9			
12	4958	SWC	0.71	680	19.0	13.9	5.5	41.8	38.8			
13	4967	SWC	1.38	798	12.0	15.6	5.2	34.9	44.3			
14	4980-5010	CT	8.40	5020	17.0	21.5	6.4	42.8	29.3			
15	5027	SWC	0.49	368	16.0	19.6	2.0	47.0	31.4			
16	5097	SWC	1.15	1238	28.0	20.4	5.4	35.0	39.2			
17	5100-5130	CT	1.00	891	25.0	17.7	9.8	32.1	40.4			
18	5341	SWC	0.47	757	32.0	15.1	4.8	51.5	28.6			
19	5794	SWC	0.59	933	44.0	22.1	5.8	23.1	49.0			
20	5880-5910	CT	1.26	1448	32.0	17.3	10.5	29.0	43.2			
21	5929	SWC	0.56	915	51.0	26.3	5.1	26.2	42.4			
22	6042	SWC	0.43	1028	59.0	17.2	7.6	30.4	44.8			
23	6180-6210	CT	1.09	1128	17.0	8.3	8.0	31.1	52.6			
24	6300-6330	CT	0.84	1060	22.0	13.5	4.3	41.2	31.0			
25	6660-6690	CT	3.30	2067	10.0	10.6	4.6	60.6	24.2			
26	7020-7050	CT	9.40	5829	13.0	8.9	10.6	32.7	47.8			
27	7230-7250	CT	25.60	5967	4.0	6.5	10.7	39.0	43.8			
28	7237	SWC	3.00	814	9.0	26.1	7.6	55.4	10.9			
29	7380-7410	CT	7.10	2778	7.0	9.5	8.7	36.1	45.7			
30	7560-7590	CT	5.20	1775	7.0	7.3	11.8	33.6	47.3			
31	7645	SWC	0.67	658	33.0	30.6	3.2	53.3	12.9			
32	7680-7710	CT	9.10	4617	9.0	7.5	13.6	30.6	48.3			
33	7860-7890	CT	2.50	716	5.0	7.5	8.6	42.1	41.8			
34	8160-8190	CT	5.35	3084	7.0	6.0	6.7	44.1	43.2			
35	8340-8370	CT	8.20	3289	4.0	3.6	6.5	42.8	47.1			

Dullingarie North 1 (Continued)

36	8501	SWC	2.44	581	5.0	18.2	1.1	43.4	27.3	
37	8520-8550	CT	25.20	3476	2.0	2.3	8.6	55.5	33.6	
38	8940-8970	CT	6.15	1338	2.0	1.8	6.5	42.7	49.0	**Data from McKirdy 1982

WELL: DURHAM DOWNS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	8298	SWC	1.67	560	12.0	8.0	28.3	55.3	8.3	3.5	200.1	33.0
2	8441	SWC	5.18	2166	12.0	8.4	20.2	43.1	28.1	2.4	622.2	42.0
3	8516	SWC	5.66	1154	7.6	6.1	30.2	56.7	7.0	5.0	431.5	21.0

WELL: ERABENA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1100-1400	CT	0.95	320	2.9	7.7	0.9	20.5	51.8	19.1	27.5	33.7
2	1400-1700	CT	0.60	286	1.8	2.5	1.3	26.3	46.6	23.3	10.9	47.6
3	1700-2000	CT	1.55	952	6.4	8.5	2.0	20.9	56.5	12.1	99.9	61.4
4	2000-2300	CT	3.00	1863	4.1	3.1	3.5	14.3	54.5	24.6	123.0	62.1
5	2300-2380	CT	2.15	1606	3.6	2.7	2.1	11.0	68.6	15.6	77.1	74.7
6	2380-2680	CT	1.10	891	6.6	4.4	3.8	9.4	68.0	14.4	73.1	81.0
7	2680-2980	CT	1.10	553	4.0	5.6	2.3	12.6	65.7	13.8	43.7	50.3
8	2980-3280	CT	0.85	755	5.6	4.5	1.8	10.0	61.5	22.2	47.6	88.9
9	3280-3450	CT	0.60	557	6.9	5.1	2.3	12.8	58.8	21.0	41.2	92.8
10	3450-3750	CT	0.80	809	6.7	3.7	2.9	6.3	67.3	19.8	53.4	101.1
11	3750-4050	CT	1.05	541	5.8	6.0	5.2	15.7	53.0	20.1	60.7	51.6
12	4050-4350	CT	0.75	406	7.5	8.4	5.4	14.1	49.3	22.8	56.1	54.2
13	4350-4420	CT	1.15	498	5.4	7.7	4.8	16.5	53.2	17.8	62.2	43.3
14	4420-4570	CT	0.90	587	12.0	11.9	6.5	21.4	45.9	14.3	108.0	65.2
15	4570-4870	CT	0.95	1950	25.3	5.9	6.4	15.1	68.4	4.2	239.9	205.3
16	4870-5170	CT	0.45	2304	20.5	2.2	1.8	8.2	69.5	18.3	92.2	512.1
17	5170-5470	CT	0.55	1663	33.3	6.4	4.6	10.9	62.6	15.5	183.0	302.5
18	5470-5770	CT	0.45	1233	19.2	3.0	4.0	10.4	79.1	3.5	86.3	274.0
19	5770-6070	CT	0.20	613	24.8	3.4	4.7	9.6	64.5	17.8	49.7	306.6
20	6070-6370	CT	0.10	416	36.2	5.2	3.5	9.2	79.2	2.9	36.2	416.1
21	6370-6450	CT	0.20	675	28.7	4.0	4.5	11.9	60.1	19.5	57.3	337.3
22	6450-6750	CT	2.95	4021	4.5	1.9	1.4	2.8	88.6	5.3	132.7	136.3
23	6750-7050	CT	1.00	1839	11.8	3.3	3.1	5.2	83.2	5.2	117.7	183.9
24	7050-7350	CT	12.50	23960	11.1	3.1	2.7	2.3	83.9	8.0	1389.8	191.7
25	7350-7650	CT	2.00	280	0.3	1.1	1.2	1.3	84.7	11.7	6.4	14.0
26	7650-7820	CT	1.60	1432	4.6	2.4	2.7	5.4	75.8	13.7	73.0	89.5
27	7820-8120	CT	1.05	1913	15.5	5.5	3.0	5.6	72.5	13.4	162.6	182.2

WELL: FLY LAKE #4

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5694	SWC	0.60	1265	36.9	13.0	4.5	13.3	53.6	15.6	221.4	210.9
2	5751	SWC	0.40	2288	348.9	55.3	5.7	10.9	14.3	13.8	1395.7	572.0
3	5760	SWC	0.80	1561	118.8	37.4	23.5	4.3	28.1	14.6	950.0	195.0
4	5781	SWC	1.00	1222	27.5	19.8	2.7	15.9	45.6	16.0	274.9	122.2
5	5821	SWC	0.60	1488	34.5	11.2	2.7	8.7	55.7	21.7	206.8	248.0
6	5864	SWC	0.70	1190	38.8	19.5	3.3	14.3	39.1	23.8	271.3	170.0
7	5931	SWC	0.95	1910	43.4	17.3	4.3	7.9	40.6	29.9	412.5	201.0
8	5962	SWC	0.70	1408	53.7	20.7	6.0	10.0	52.7	10.6	376.0	201.2
9	5990	SWC	0.80	1800	33.3	11.1	3.7	13.4	58.7	13.1	266.4	225.0
10	6084	SWC	1.30	2488	28.8	11.8	3.3	14.7	51.3	18.9	374.9	191.0
11	6119	SWC	0.50	522	43.4	35.4	6.1	8.3	40.9	9.3	216.8	104.5

WELL: GIDGEALPA #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	6890'10"	C	0.55	624	36.5	26.8	5.4	20.6	37.0	10.3	201.0	113.5

WELL: GILPEPPEE #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3000-3300	CT	1.60	1460	8.2	4.9	4.1	16.4	59.0	15.6	131.3	91.2
2	3300-3600	CT	1.10	1031	11.0	8.1	3.6	16.2	57.2	14.9	120.6	93.7
3	3600-3900	CT	1.55	1178	9.3	7.9	4.3	18.3	63.5	6.0	143.5	75.9
4	3900-4200	CT	1.35	1130	5.2	4.5	1.7	10.5	75.0	8.3	70.1	83.7
5	4200-4500	CT	3.10	3792	33.9	20.9	6.8	26.7	42.2	3.4	1050.2	122.3
6	4500-4800	CT	1.00	787	16.0	14.6	5.7	23.3	39.6	16.8	159.8	78.7
7	4800-5100	CT	0.90	648	14.8	15.2	5.3	25.9	49.1	4.5	132.8	72.0
8	5100-5400	CT	1.05	822	14.9	13.1	6.0	19.9	44.5	16.5	156.8	78.2
9	5400-5700	CT	1.05	714	18.7	18.9	8.6	22.4	41.9	8.2	196.4	68.0
10	5700-6000	CT	2.20	3204	22.0	8.0	7.1	16.2	68.7	0.0	483.7	145.6
11	6000-6300	CT	0.90	1249	33.4	18.7	5.4	21.4	50.8	3.7	300.8	138.7
12	6300-6600	CT	3.55	4364	27.5	15.2	7.2	11.6	62.8	3.2	977.3	122.9
13	6600-6900	CT	1.70	2239	43.6	26.2	6.9	16.9	42.6	7.4	741.1	131.7
14	6900-7200	CT	0.45	952	29.8	10.4	3.7	13.3	66.1	6.5	134.3	211.6
15	7200-7320	CT	1.15	1920	28.9	12.1	5.2	15.3	67.4	0.0	332.0	166.9
16	7320-7600	CT	2.20	2844	14.6	7.3	4.0	9.4	76.1	3.2	321.4	129.3
17	7600-7700	CT	2.15	3184	12.9	5.0	3.7	9.6	75.3	6.4	277.0	148.1
18	7700-8000	CT	0.60	615	26.4	19.7	6.1	21.2	32.5	20.5	158.7	102.5
19	8000-8300	CT	1.25	999	27.4	27.8	6.5	21.9	37.0	6.8	342.6	79.9
20	8300-8600	CT	0.20	306	40.3	21.4	5.0	19.3	50.0	4.3	80.7	152.8
21	8600-8850	CT	0.15	320	31.8	12.2	2.7	10.6	59.6	14.9	47.7	213.2
22	8850-9060	CT	10.20	1929	1.2	2.7	3.6	16.5	71.5	5.7	121.5	18.9
23	9060-9360	CT	21.80	2982	1.0	2.1	4.9	20.0	65.5	7.5	209.1	13.7
24	9360-9660	CT	15.50	2592	1.2	2.7	4.7	20.3	68.6	3.7	191.5	16.7

WELL: GUNNA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3930-3960	CT	1.87	1261	12.5	10.0	8.6	30.0	51.4		234.4	67.4
2	3990-4020	CT	1.88	2534	46.1	26.6	7.6	29.9	35.9		866.7	134.8
3	4050-4080	CT	1.89	2240	26.2	15.9	6.2	41.2	36.7		495.0	118.5
4	4890-4920	CT	0.95	1966	48.2	14.8	8.5	23.6	53.2		458.0	206.9
5	4950-4980	CT	1.58	3570	89.5	29.0	10.6	23.0	36.4		1413.4	225.9
6	5250-5280	CT	29.50	22056	5.2	2.7	4.3	7.0	86.0		1544.6	74.8
7	5310-5340	CT	16.80	14042	5.7	3.5	3.3	7.5	85.7		955.0	83.6
8	5430-5460	CT	13.80	16843	10.6	5.1	3.6	8.5	82.8		1465.9	122.1
9	5550-5580	CT	24.30	9470	7.7	11.0	8.7	24.2	56.1		1867.0	39.0
10	5700-5730	CT	40.10	21598	8.4	8.1	7.4	15.8	68.6		3350.2	53.9

WELL: HUME #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	300-600	CT	0.70	195	2.2	6.0	1.8	27.1	53.0	12.1	15.2	27.8
2	600-900	CT	0.75	416	4.9	6.1	2.8	22.6	46.4	22.1	37.0	55.4
3	900-1200	CT	0.70	297	8.3	14.7	4.9	34.5	37.4	8.4	57.9	42.2
4	1200-1500	CT	1.60	632	6.2	9.5	6.2	32.5	30.7	21.1	99.2	39.5
5	1500-1800	CT	2.95	1360	2.5	3.4	2.0	16.8	77.2	0.6	73.4	46.1
6	1800-2100	CT	4.75	2308	3.5	4.3	3.0	17.9	66.6	8.2	168.5	48.6
7	2100-2400	CT	2.10	1132	2.6	2.8	2.1	9.2	80.7	5.2	55.5	53.9
8	2400-2700	CT	1.95	1058	2.6	2.9	1.9	9.4	79.3	6.5	50.8	54.3
9	2700-3000	CT	1.25	609	3.6	4.8	2.5	13.6	60.7	18.4	44.4	48.7
10	3000-3300	CT	1.20	677	4.2	5.9	1.5	15.4	68.9	8.3	50.1	56.4
11	3300-3600	CT	0.95	485	4.6	5.8	3.2	19.8	68.8	2.4	43.7	51.1
12	3600-3900	CT	0.90	513	5.5	6.4	3.2	24.9	56.1	9.4	49.2	57.0
13	3900-4200	CT	0.75	319	3.4	4.8	3.2	19.1	60.6	12.3	25.5	42.5
14	4200-4410	CT	1.20	626	3.8	4.8	2.4	9.4	75.3	8.1	45.1	52.2
15	4410-4720	CT	0.95	553	9.8	12.2	4.6	19.0	59.0	5.2	92.9	58.2
16	4720-4890	CT	0.80	628	9.5	8.6	3.5	13.9	54.1	19.9	76.0	78.5
17	4890-5115	CT	0.85	545	11.3	12.8	4.8	18.9	62.6	0.9	95.9	64.1
18	5115-5410	CT	0.75	667	13.7	9.7	5.7	13.3	59.5	11.8	102.7	88.9
19	5410-5570	CT	1.25	855	10.3	9.4	5.6	17.0	53.8	14.2	128.3	68.4
20	5570-5636	CT	3.75	4699	10.8	4.7	3.9	5.5	82.4	3.5	404.1	125.3
21	5636-5848	CT	1.05	1229	15.0	7.4	5.4	0.2	76.2	10.8	157.2	117.0
22	5848-6100	CT	1.30	755	11.1	11.1	8.0	18.9	46.5	15.5	144.0	58.0
23	6100-6440	CT	12.90	3908	3.8	5.9	6.5	10.3	77.1	0.2	484.7	30.3
24	6440-6590	CT	19.20	5285	2.6	3.6	5.7	8.5	75.9	6.3	491.0	27.5
25	6590-6800	CT	26.30	6593	2.1	3.4	4.9	4.3	84.5	2.9	547.9	25.1
26	6800-6830	CT	22.50	9130	2.8	3.1	3.9	4.6	84.6	3.8	639.5	40.6
27	6830-6910	CT	8.40	3172	5.4	9.6	4.7	7.8	71.2	6.7	454.1	37.8
28	6910-6970	CT	20.80	8029	1.4	1.6	1.9	2.7	86.6	7.2	281.0	38.6
29	6970-7085	CT	8.30	2859	2.2	3.3	3.1	2.7	83.7	7.2	182.7	34.4

WELL: INGELLA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	2900-3180	CT	3.30	1680	3.3	3.2	3.2	9.8	72.6	11.2	107.5	50.9
2	3180-3360	CT	2.65	1580	6.1	4.5	5.7	28.1	57.2	4.5	161.1	59.6
3	3360-3720	CT	2.90	1586	4.3	3.8	4.0	11.0	59.5	21.7	123.7	54.7
4	3720-4020	CT	1.25	875	11.1	10.0	5.9	18.3	57.8	8.0	139.1	70.0
5	4020-4269	CT	1.40	973	7.3	6.1	4.4	14.0	61.2	14.3	102.2	69.5
6	4264-4355	CT	6.65	6020	8.6	6.1	3.4	9.5	79.8	1.2	571.7	90.5
7	4355-4650	CT	1.80	1316	15.1	12.5	8.1	25.9	40.5	13.0	271.1	73.1
8	4650-4950	CT	1.00	644	9.4	8.4	5.7	19.6	48.9	13.4	93.6	66.4
9	4950-5190	CT	1.25	640	7.5	9.1	5.6	13.9	59.7	11.7	94.1	51.2
10	5190-5450	CT	1.00	781	15.4	12.6	7.1	19.5	52.9	7.9	153.9	78.1
11	5450-5740	CT	1.70	3116	19.9	6.7	4.2	3.5	83.5	2.1	339.1	183.0
12	5750-5900	CT	1.05	2102	7.8	2.0	1.9	3.4	88.9	3.8	81.9	200.0
13	5900-6200	CT	0.50	697	13.5	6.6	3.1	9.3	70.1	10.9	67.4	139.0
14	6200-6280	CT	0.45	862	25.2	7.7	5.5	13.0	67.7	6.1	113.5	191.0
15	6280-6350	CT	0.15	417	42.5	10.3	5.0	13.8	51.8	19.1	63.8	278.0
16	6350-6650	CT	4.40	7194	24.3	9.0	5.9	7.5	77.4	0.2	1068.6	163.0
17	6650-6950	CT	0.40	762	17.5	6.7	2.5	11.1	65.5	14.2	69.9	190.0
18	6950-7250	CT	0.50	916	14.1	5.1	2.6	8.8	69.8	13.7	70.5	183.0
19	7250-7300	CT	1.55	3182	6.8	1.5	1.8	3.5	91.7	1.5	104.9	205.0
20	7600-7800	CT	0.60	986	16.2	5.0	4.9	13.3	66.9	9.9	97.4	164.0
21	7800-8008	CT	0.60	500	15.8	15.5	3.5	17.4	47.1	16.5	95.1	83.4
22	8008-8300	CT	0.50	488	12.8	8.5	4.6	18.7	53.1	15.1	63.9	97.6
23	8600-8855	CT	0.40	403	9.0	6.8	2.1	19.2	56.2	15.7	36.0	101.0
24	8600-8855	CT	0.35	364	58.0	45.9	9.9	3.0	0.0	20.1	203.1	104.0

WELL: INNAMINCKA #3

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						|-----------	-----------	(wt%)	-----------	-----------|		
1	4134	SWC	0.86	1300	49.0	27.0	5.3	32.8	34.9	†		
2	4842	SWC	1.55	2905	42.0	16.4	6.0	22.4	55.2	† Data from		
3	5568	SWC	1.14	1068	25.0	19.9	6.8	28.1	45.2	† McKirdy 1982		
4	5691	SWC	9.64	3182	3.0	4.7	4.7	22.4	58.2	†		
5	8664'6"-8"	C	0.15									
6	8680'4"-6"	C	0.12									
7	8992'8"-9"	C	0.12									
8	9010'4"-6"	C	0.17									
9	9324'3"-4"	C	0.01									
10	9337'8"-9"	C	0.04									

WELL: JACK LAKE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3300-3600	CT	2.42	907	3.3	5.2	3.6	26.2	42.8	22.2	79.9	37.5
2	3600-3900	CT	1.00	644	5.7	6.9	2.0	24.1	48.4	18.7	57.3	64.4
3	3900-4200	CT	1.12	669	4.5	5.3	2.3	35.7	37.4	19.4	50.8	59.7
4	4200-4500	CT	1.20	913	7.5	6.5	3.4	32.0	40.9	17.3	90.4	76.1
5	4500-4800	CT	0.86	582	6.4	5.8	3.6	17.0	54.5	19.2	54.7	67.7
6	4800-4950	CT	1.16	638	5.6	6.4	3.8	21.5	53.5	14.7	65.1	55.0
7	5100-5400	CT	1.18	702	8.0	10.1	3.4	18.5	56.4	11.6	94.8	59.5
8	5400-5700	CT	1.16	1155	7.3	5.3	2.0	10.7	63.1	18.9	84.3	99.6
9	5700-6000	CT	0.33	1136	36.1	8.6	1.9	12.1	51.5	25.9	119.3	344.2
10	6000-6300	CT	0.12	322	37.0	10.5	3.3	14.2	47.7	24.3	44.4	268.3
11	6300-6600	CT	0.05	206	81.6	13.2	6.6	15.4	52.2	12.6	40.8	412.0
12	6600-6900	CT	0.47	299	6.6	8.8	1.6	16.1	55.4	18.1	31.1	63.6
13	6900-7200	CT	0.07	347	57.0	9.5	2.0	8.7	57.9	21.8	39.9	495.7
14	7200-7500	CT	0.10	377	26.4	5.5	1.5	8.1	65.7	19.2	26.4	377.0
15	7500-7800	CT	52.60	45789	3.0	1.5	1.9	3.7	91.3	1.6	1557.7	87.1
16	8100-8400	CT	1.22	1593	7.7	2.6	3.3	7.4	76.4	10.4	94.0	130.6
17	8400-8560	CT	45.50	36256	4.9	2.7	3.4	7.2	85.5	1.3	2212.1	79.7
18	8560-8890	CT	32.90	25138	5.3	3.2	3.7	7.5	A84.5	1.2	1734.4	76.4
19	8890-9090	CT	52.30	21466	1.4	1.6	1.7	2.7	90.8	3.2	707.6	41.0
20	9090-9390	CT	31.30	9443	2.4	4.2	3.9	3.9	82.2	5.8	765.7	30.2
21	9390-9690	CT	51.20	9574	0.5	1.3	1.5	2.7	92.0	2.5	268.1	18.7
22	9690-9860	CT	44.40	13535	4.3	7.7	6.3	6.6	77.4	2.0	1895.9	30.5
23	9870-10050	CT	12.40	9410	16.8	15.5	6.6	23.3	49.3	5.3	2080.0	75.9
24	10060-10270	CT	30.20	18107	4.7	3.8	4.1	7.4	76.0	8.7	1431.5	60.0
25	10280-10320	CT	44.60	22467	8.3	7.5	8.9	22.4	57.0	4.3	3686.5	50.4

WELL: JACKSON #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1200-1500	CT	2.50	1188	2.8	3.4	2.6	17.2	61.0	15.8	71.3	47.5
2	1500-1800	CT	1.20	727	5.6	7.6	1.7	19.9	58.1	12.7	67.6	60.6
3	1800-2100	CT	1.30	582	2.2	4.6	0.4	14.2	72.3	8.5	29.1	44.7
4	2100-2400	CT	1.35	582	3.7	3.4	5.1	34.4	56.3	0.8	49.5	43.1
5	2400-2700	CT	1.35	777	5.0	4.5	4.2	19.4	58.4	13.5	67.7	57.6
6	2700-3000	CT	1.05	396	2.8	4.0	3.4	23.8	52.3	16.5	29.3	37.7
7	3300-3400	CT	1.20	471	3.9	5.7	4.3	17.6	59.4	13.0	47.0	39.2
8	3340-3600	CT	0.70	495	27.3	33.5	5.1	32.0	23.5	5.9	191.3	70.8
9	3600-3650	CT	1.05	572	6.0	7.4	3.7	11.7	72.2	5.0	63.4	54.4
10	3650-3900	CT	0.85	666	10.0	12.1	0.7	13.0	62.1	12.1	85.2	78.3
11	3703'3"-6"	C	1.95	2411	39.1	22.3	9.2	20.1	41.6	6.8	761.7	124.0
12	3900-4200	CT	0.35	663	36.1	14.5	4.6	15.0	54.9	11.0	126.3	189.0
13	4176-4345	CT	0.35	2430	510.8	65.5	8.1	12.8	8.2	5.4	1787.7	694.0
14	4345-4520	CT	0.70	2316	187.7	51.1	5.6	10.7	21.4	11.2	1313.7	331.0
15	4385'3"-6"	C	1.40	2059	73.5	41.2	8.8	18.5	28.9	2.6	1029.0	147.0
16	4400'1"-2"	C	2.90	5097	41.7	20.0	3.7	9.8	55.9	10.6	1209.6	176.0
17	4520-4680	CT	0.55	1138	81.8	31.1	8.4	12.2	47.4	0.9	449.7	207.0
18	4680-4710	CT	0.70	1459	54.3	19.8	6.3	14.7	45.1	14.1	380.0	208.0
19	4710-4860	CT	0.50	955	65.3	26.7	7.5	16.4	44.4	5.0	326.6	191.0
20	4860-4916	CT	0.45	854	40.1	16.2	4.9	8.8	66.0	4.1	180.4	190.0
21	4916-4962	CT	12.50	7563	3.4	2.1	3.5	5.6	83.8	5.0	423.5	60.5
22	4960-5000	CT	15.50	11493	1.2	0.7	0.9	2.3	88.5	7.7	183.8	74.1
23	4962-5026	CT	10.70	8633	4.4	2.3	3.2	4.8	89.1	0.6	474.9	80.7
24	5026-5118	CT	7.50	4684	3.9	3.3	3.0	4.9	88.7	0.1	295.3	62.5
25	5118-5160	CT	20.30	15552	2.8	1.6	2.0	2.9	89.7	3.8	559.8	76.6
26	5160-5239	CT	11.00	4737	4.0	3.8	5.5	8.7	76.9	5.1	440.9	43.1
27	5239-5578	CT	19.10	6940	3.4	4.6	4.9	7.7	77.1	5.7	658.7	36.3
28	5578-5728	CT	7.50	3753	4.3	4.0	4.7	5.1	80.7	5.5	326.3	50.0

WELL: JACKSON #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4720-4750	CT	1.55	1720	29.5	19.6	7.0	24.1	38.6	10.7	457.7	111.0
2	5010-5040	CT	9.65	6866	0.6	0.5	0.4	1.7	97.2	0.1	61.8	71.2

WELL: JACK5SON SOUTH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3000-3270	CT	1.39	1026	7.3	4.5	5.4	18.1	51.2	20.9	101.6	73.8
2	3280-3490	CT	1.03	884	17.0	16.8	3.0	14.3	62.4	3.5	175.0	85.8
3	3500-3730	CT	0.78	883	32.6	19.3	9.5	22.5	41.6	7.1	254.3	113.2
4	3740-4110	CT	0.72	1107	28.3	11.1	7.3	17.9	54.0	9.6	203.8	153.8
5	4120-4380	CT	0.76	1122	42.7	24.2	4.7	12.4	50.0	8.6	324.2	147.6
6	4380-4490	CT	0.88	2537	34.0	9.8	2.0	12.4	61.7	14.1	299.4	288.3
7	4490-4650	CT	4.40	7789	24.1	6.7	6.9	11.7	62.9	11.8	1059.2	177.0
8	4650-4890	CT	1.85	4197	52.6	16.6	6.6	13.2	60.0	3.6	973.9	226.9
9	4890-5050	CT	6.55	5179	9.7	5.1	7.2	13.6	61.7	12.3	637.3	79.1
10	5050-5180	CT	21.30	10782	8.2	7.5	8.8	16.1	59.6	8.1	1756.8	50.6
11	5190-5480	CT	30.00	7307	4.1	10.4	6.3	24.0	56.3	3.0	1222.4	24.4
12	5490-5780	CT	6.45	2851	6.5	8.5	6.2	19.1	60.3	5.9	419.1	44.2
13	5790-5870	CT	2.16	1584	8.7	6.3	5.6	18.5	57.5	12.1	188.4	73.3

WELL: KARMONA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	7519	C	6.90	12215	45.0	9.3	18.4	33.5	38.8			
2	7521	C	88.90	3111	1.0	6.5	25.4	56.8	11.3			
3	7528	C	96.00	4319	2.0	11.5	22.6	45.0	20.9	**Data from McKirdy 1982		

WELL: KARMONA EAST #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4200-4490	CT	1.30	799	4.9	4.9	3.0	15.8	62.2	14.1	63.2	61.5
2	4490-4790	CT	0.97	658	10.0	9.4	5.3	18.0	67.1	0.2	96.7	67.8
3	4790-5000	CT	0.63	1528	66.0	20.8	6.4	13.5	55.6	3.7	415.5	242.5
4	5000-5300	CT	0.41	909	23.7	6.2	4.5	12.4	70.6	6.3	97.3	221.7
5	5300-5500	CT	0.53	914	23.5	9.4	4.2	12.9	65.2	8.3	124.3	172.5
6	5500-5740	CT	0.64	1245	29.8	8.6	6.7	13.6	64.7	6.4	190.5	194.5
7	5740-5950	CT	2.62	5036	32.5	9.3	7.6	9.8	70.1	3.3	851.0	192.2
8	5950-6250	CT	0.60	1427	22.6	4.1	5.4	11.6	74.7	4.2	135.5	237.8
9	6250-6340	CT	0.86	1962	16.9	3.0	4.4	10.2	79.6	2.7	145.2	228.1
10	6340-6440	CT	2.66	5555	4.8	0.8	1.5	2.3	93.2	2.3	127.7	208.8
11	6440-6740	CT	0.76	1553	21.7	4.6	6.0	12.2A	73.7	3.5	164.6	204.3
12	6740-7040	CT	0.97	1595	18.6	6.3	5.0	14.0	73.7	1.1	180.2	164.4
13	7160-7460	CT	23.50	11029	1.5	3.1	0.0	3.0	75.4	6.6	341.7	46.9
14	7400-7420	CT	17.26									
15	7530-7830	CT	6.45	3549	6.5	5.9	5.9	7.3	73.8	7.0	418.6	55.0
16	7840-8140	CT	1.53	1363	9.1	5.7	4.5	9.8	77.6	2.4	139.0	89.1
17	7515'3"	C	4.10									

WELL: KIDMAN #2

No.	INTERVAL	SAMPLE	TOC	EOM	HC YEILD	SAT	AROM	ONS	ASHP	LOC	HC TOTAL	EOM(per TOC)
	(ft)	TYPE	(wt%)	(ppm)	(mg/g TOC)	(wt%)					(ppm)	(mg/g TOC)
1	3400	SWC	0.62	395	11.0	14.3	2.6	27.3	55.8			
2	3538	SWC	0.94	581	11.0	14.0	4.3	32.2	49.5			
3	3646	SWC	0.12	439	44.0	7.1	4.8	38.1	50.0			
4	4210	SWC	0.95	1650	50.0	20.9	7.7	45.0	26.4			
5	4460	SWC	1.22	843	20.0	20.0	8.6	32.8	38.6			
6	4532	SWC	0.16									
7	4670	SWC	0.36	465	24.0	10.6	7.6	48.5	33.3			
8	4778	SWC	0.47	510	7.0	4.8	1.6	33.3	60.3			
9	4863	SWC	0.88	1580	58.0	25.2	7.4	48.2	25.2			
10	5030	SWC	2.08	3012	31.0	16.6	4.6	22.8	56.0			
11	5170	SWC	0.91	1022	22.0	13.5	6.4	20.5	59.6			
12	5310	SWC	0.77	1255	43.0	18.4	7.8	28.2	45.6			
13	5508	SWC	1.57	1456	15.0	12.0	4.4	38.7	44.9			
14	5679	SWC	1.72	3548	39.0	12.9	5.9	34.8	46.4			
15	5755	SWC	0.76	2155	80.0	23.8	4.4	16.6	55.2			
16	5930	SWC	1.33	1277	14.0	10.1	4.0	21.3	46.4			
17	6092	SWC	0.16									
18	6284	SWC	0.11									
19	6412	SWC	0.72	671	9.0	8.0	2.0	36.0	54.0			
20	6502	SWC	1.25	792	18.0	20.3	8.5	25.4	45.8			
21	6784	SWC	2.88	2611	10.0	8.3	2.6	37.3	51.8			
22	6814	SWC	2.22	1045	9.0	13.0	5.2	50.5	31.2			
23	6846	SWC	2.62									
24	6900	SWC	3.58	1516	6.0	10.8	3.8	49.2	36.2			
25	7120	SWC	3.04	1042	10.0	21.2	7.1	22.2	49.5			
26	7207	SWC	1.34									
27	7328	SWC	1.98	868	6.0	13.2	<2.5	18.5	65.8			
28	7350	SWC	0.11									
29	7374	SWC	0.13									

**Data from McKirdy 1982

WELL: KUNCHERINNA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	2520-2820	CT	2.10	1396	3.4	3.0	2.1	10.5	73.5	10.9	71.2	66.5
2	2820-3120	CT	1.75	1320	6.0	3.9	4.1	14.5	63.2	14.3	105.6	75.4
3	3120-3420	CT	1.10	756	5.8	4.9	3.5	19.2	52.5	19.9	63.5	68.7
4	3420-3720	CT	1.10	733	8.3	9.7	2.7	16.5	53.6	17.5	91.0	66.7
5	3720-4020	CT	1.15	987	1.0	1.1	0.1	3.3	89.3	6.2	11.8	85.8
6	4020-4320	CT	2.10	2118	7.5	4.3	3.1	12.4	73.7	6.5	157.0	101.0
7	4320-4620	CT	1.60	1226	8.4	6.0	4.9	18.6	55.0	15.5	133.6	76.6
8	4620-4920	CT	1.00	545	6.1	6.5	4.6	21.2	53.0	14.7	60.5	54.5
9	4920-5110	CT	1.25	1041	8.4	5.5	4.6	16.0	50.0	23.8	105.0	83.2
10	5110-5240	CT	1.05	820	10.6	8.2	5.4	13.9	51.8	20.7	111.5	78.1
11	5240-5540	CT	0.15	519	27.7	6.7	1.3	19.3	50.7	22.0	41.5	346.0
12	5540-5840	CT	0.25	1296	158.8	25.7	4.9	10.2	41.1	18.1	397.0	519.0
13	5840-6120	CT	<0.05	225	44.5	9.4	0.5	7.9	58.6	23.6	22.2	<449.0
14	6120-6420	CT	0.65	1735	30.4	5.4	6.0	8.7	62.6	17.3	197.9	267.0
15	6420-6720	CT	0.20	736	17.7	2.9	1.9	9.1	70.6	15.5	35.3	368.0
16	6720-7020	CT	0.05	333	26.0	3.2	0.7	8.7	82.3	5.1	13.0	666.0
17	7020-7320	CT	0.15	401	28.0	6.7	3.8	9.8	71.9	7.8	42.1	267.0
18	7320-7620	CT	0.10	376	28.2	5.3	2.2	8.1	69.5	14.9	28.2	376.0
19	7620-7770	CT	6.75	13384	5.0	1.4	1.1	2.5	91.2	4.3	334.1	198.0
20	7750-7790	CT	0.95	1228	9.4	3.5	3.8	14.6	60.4	17.7	89.7	129.3
21	7770-8060	CT	1.15	3212	4.7	0.8	0.9	2.4	94.6	1.3	55.0	279.0
22	7840-7880	CT	2.90	2258	8.1	5.9	4.5	12.2	66.0	11.4	234.9	77.9
23	8070-8110	CT	0.82	1177	12.6	6.5	2.3	16.2	60.1	14.8	103.5	143.5
24	8060-8340	CT	1.25	2641	19.2	5.5	3.6	11.5	65.1	14.3	240.0	211.0
25	8190-8230	CT	0.94	869	10.8	8.5	3.2	16.5	55.9	15.9	101.6	92.4
26	8230-8270	CT	1.62	1599	8.6	5.9	2.8	15.5	54.7	21.2	139.1	98.7
27	8340-8410	CT	0.70	3651	20.4	2.0	1.9	4.9	88.2	3.0	142.5	522.0
28	8400-8440	CT	3.12	1334	3.1	3.7	3.6	17.3	57.9	17.5	97.5	42.8
29	8410-8710	CT	3.40	4356	2.2	0.9	0.8	1.7	95.2	1.4	74.0	128.0
30	8440-8480	CT	1.22	862	5.6	5.0	2.9	14.5	60.0	17.6	68.1	70.7
31	8480-8520	CT	7.40	6342	10.2	8.5	3.4	21.9	44.2	21.9	754.7	85.7
32	8520-8560	CT	2.94	2118	6.3	5.3	3.5	12.2	62.0	17.0	186.3	72.0
33	8710-8930	CT	2.45	2662	5.0	2.4	2.2	5.6	86.5	3.3	122.8	109.0
34	8930-9170	CT	2.15	3457	8.4	3.1	2.1	4.5	81.8	8.5	180.0	161.0
35	9170-9320	CT	0.30	325	8.3	5.6	2.1	12.7	68.3	11.3	25.0	108.0
36	9320-9393	CT	0.20	644	35.4	9.8	1.2	11.5	53.4	24.1	70.8	322.0

WELL: MACUMBA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	7713	C	3.20	1158	8.0	7.0	15.6	32.3	45.1			
2	7720	C	3.15	1340	12.0	9.4	17.4	32.2	40.6	**Data from McKirdy 1981		

WELL: MARABOOKA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3334	SWC	0.80	677	14.0	11.8	4.6	41.8	41.8			
2	3422	SWC	0.10	324	49.0	8.4	6.7	55.5	29.4	CONTAMINATED (SEEL-PEEL)		
3	3430	SWC	0.25	345	17.0	8.1	4.0	57.1	29.8			
4	4644	SWC	0.65	1021	38.0	17.2	5.2	44.7	35.9			
5	4759'8"	C	1.90	1885	28.0	20.2	7.9	29.4	42.5			
6	4792'5"	C	2.65	3318	31.0	13.6	11.2	22.4	52.8			
7	4839'4"	C	3.20	3130	27.0	15.7	12.2	30.7	41.4			
8	5658	SWC	<0.05	213	59.0	7.5	6.3	49.9	36.3	STAINED		
9	6465'6"	C	1.00	966	7.0	3.1	4.2	36.5	56.2			
10	6549	SWC	2.10	1495	17.0	15.1	7.0	39.5	38.4			
11	6918	SWC	<0.05	368	207.0	19.3	8.8	24.5	47.4	CONTAMINATED (SEEL-PEEL)		

**Data from McKirdy 1981

WELL: McKINLAY #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	2400-2700	CT	1.30	536	4.4	8.5	2.2	41.5	36.4	11.4	57.3	41.2
2	2700-2821	CT	1.10	585	8.1	7.5	7.8	31.2	39.7	13.8	89.5	53.2
3	2821-2930	CT	0.95	469	5.9	7.5	4.5	37.6	33.3	17.1	56.2	49.3
4	2930-3000	CT	1.35	877	8.9	9.5	4.2	29.8	46.4	10.1	120.2	65.0
5	3000-3300	CT	1.00	494	8.0	11.8	4.4	21.3	48.9	13.6	80.0	49.4
6	3300-3600	CT	0.75	496	9.7	6.3	8.4	16.7	51.5	17.1	72.9	66.1
7	3600-3650	CT	0.90	504	6.8	7.7	4.4	23.5	54.8	9.5	61.0	56.0
8	3650-3855	CT	1.00	639	8.4	9.0	4.1	19.9	53.2	13.8	83.7	63.9
9	3855-4007	CT	0.80	533	9.6	9.8	4.6	17.2	63.2	5.2	76.7	66.6
10	4007-4200	CT	1.30	1310	17.2	14.2	2.9	14.2	53.1	15.6	223.9	100.7
11	4200-4500	CT	1.10	1273	11.6	6.1	3.9	13.1	70.7	6.2	127.3	115.7
12	4500-4649	CT	0.75	1203	27.3	11.9	5.1	12.9	57.6	12.5	204.5	160.4
13	4649-4699	CT	1.85	2892	24.4	9.6	6.0	11.6	72.4	0.4	451.1	156.3
14	4699-4997	CT	3.50	1607	4.9	7.5	3.2	27.0	48.0	14.3	171.9	45.9
15	4997-5130	CT	0.95	559	13.5	16.7	5.1	20.3	54.7	3.2	128.4	62.0

WELL: MERRIMELIA #6

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1500-1800	CT	0.90	300	3.2	4.0	5.6	26.7	44.6	19.1	28.8	33.3
2	1800-2100	CT	1.40	528	3.4	3.9	5.2	25.6	46.5	18.8	48.0	37.7
3	2100-2400	CT	1.55	602	3.5	2.5	6.5	25.9	41.7	23.4	54.1	38.8
4	2400-2700	CT	1.45	477	3.8	10.1	1.5	31.7	48.1	8.6	55.3	32.9
5	2700-3000	CT	3.45	1751	4.5	5.3	3.5	19.3	53.9	18.0	154.2	50.8
6	3000-3300	CT	2.85	1782	6.3	5.1	5.0	19.7	58.3	11.9	179.9	62.5
7	3300-3600	CT	3.00	1614	4.6	4.6	3.9	20.9	59.0	11.0	137.2	53.8
8	3600-3900	CT	1.90	1031	6.4	5.7	6.1	24.1	47.3	16.8	121.7	54.3
9	3900-4200	CT	1.20	662	5.6	3.9	6.3	25.3	42.9	21.6	67.6	55.2
10	4200-4500	CT	1.05	586	5.6	5.2	4.8	29.7	44.0	16.3	58.6	55.8
11	4500-4840	CT	1.20	629	5.7	6.9	3.9	20.0	62.8	6.4	67.9	52.4
12	4850-5100	CT	1.35	773	13.6	16.4	7.4	17.0	54.8	4.4	184.1	57.3
13	5100-5150	CT	0.80	1093	49.7	27.6	8.8	20.8	34.7	8.1	397.8	136.6
14	5320-5620	CT	0.70	860	72.5	35.3	23.7	8.0	74.2	16.2	507.6	122.9
15	5620-5920	CT	1.05	1754	50.1	19.6	10.4	12.6	48.1	9.3	526.0	167.0
16	5920-6220	CT	2.60	3943	21.7	7.1	7.2	7.3	71.4	7.0	564.0	151.7
17	6220-6520	CT	0.50	889	40.2	9.8	12.8	11.7	59.0	6.7	200.9	177.8
18	6520-6720	CT	0.70	822	30.5	9.2	8.0	13.6	49.5	19.7	213.6	177.4
19	6720-6920	CT	8.25	4075	0.7	0.5	1.0	1.4	93.5	3.6	61.1	49.4
20	6920-7220	CT	0.70	839	21.5	10.8	7.1	15.1	49.5	17.5	150.2	119.9
21	7220-7320	CT	0.80	992	18.7	8.8	6.3	12.9	54.1	17.9	149.8	124.0
22	7320-7442	CT	0.95	721	13.9	8.0	10.3	18.7	50.4	12.6	132.0	75.9

WELL: MERRIMELIA #7

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	2400-2700	CT	2.50	1472	6.2	5.7	4.9	20.9	52.7	15.8	156.1	58.9
2	2700-3000	CT	2.20	1774	7.6	5.6	3.8	16.8	70.0	3.8	166.7	80.6
3	3000-3300	CT	1.40	838	8.0	8.0	5.3	23.1	60.1	3.5	111.5	59.9
4	3300-3600	CT	1.45	819	5.3	6.7	2.7	22.7	45.6	22.3	77.0	56.5
5	3600-3900	CT	1.45	945	8.4	7.6	5.3	24.2	48.0	4.9	122.0	65.2
6	3900-4200	CT	1.20	605	7.9	10.9	4.8	21.6	42.7	20.0	95.0	50.4
7	4200-4500	CT	0.95	548	12.2	13.9	7.2	22.7	44.2	12.0	115.7	57.7
8	4500-4800	CT	1.00	619	9.8	9.4	6.5	17.1	50.0	17.0	98.4	61.9
9	4800-4930	CT	1.25	602	7.5	10.8	4.7	20.1	61.8	2.6	93.2	48.1
10	4930-5160	CT	1.15	884	23.7	23.8	7.0	23.1	36.4	9.7	272.4	76.9
11	5160-5320	CT	0.90	1495	8.0	40.5	7.5	16.6	29.2	6.2	71.7	16.6
12	5320-5620	CT	0.60	1302	6.2	24.3	4.4	9.0	53.2	9.1	37.4	21.7
13	5620-5920	CT	0.80	1385	2.5	10.5	3.8	9.1	65.8	10.8	19.8	17.3
14	5920-6020	CT	2.65	4883	1.4	3.4	4.1	3.6	86.5	2.4	36.6	18.4
15	6020-6250	CT	1.20	1132	17.7	11.8	7.0	12.3	66.5	2.4	212.7	94.3
16	6250-6550	CT	0.35	429	1.8	7.8	6.5	15.6	63.3	6.8	6.2	12.3
17	6550-6780	CT	0.70	947	1.9	6.8	7.0	14.1	67.9	4.2	13.0	13.5
18	6780-6940	CT	11.70	5400	11.5	11.5	13.3	18.0	51.8	5.4	1340.5	46.2
19	6940-7200	CT	1.70	1032	11.3	11.5	7.1	13.4	48.3	19.7	191.9	60.7
20	7200-7280	CT	1.45	1239	29.0	23.8	10.2	13.2	47.0	5.8	421.0	85.4
21	7280-7350	CT	0.80	1046	1.5	7.9	3.6	7.0	73.6	7.9	12.1	13.1
22	7350-7452	CT	4.65	3416	11.1	8.6	6.5	7.3	69.2	8.4	516.1	73.5

WELL: MOKARI #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5786	C	1.17	1090	28.0	6.8	23.0	13.7	56.5			
2	5794	C	0.93	890	13.0	5.2	8.4	6.9	79.5			
3	5797	C	0.14									
4	6070	C	0.14									
5	6071	C	2.37	1111	7.0	5.0	10.6	17.5	66.9			
6	6074	C	11.40	3657	9.0	7.8	21.3	29.3	41.6			
7	6080	C	0.34									
8	6085	C	1.49	1100	15.0	7.2	12.4	17.5	62.9			
9	6543	C	0.75	978	32.0	12.1	12.3	20.6	55.0			
10	6552	C	0.94									
11	6553	C	9.01	7099	33.0	22.8	18.9	25.2	33.1			
12	6616	C	0.95	888	34.0	14.2	22.5	13.2	50.1			
13	6618	C	3.61	2421	20.0	12.2	17.4	26.7	43.7			
14	6620	C	1.19	1496	28.0	3.8	19.9	25.8	50.5			
15	6624	C	0.48									
16	7821	C	0.03	26	65.0	17.1	54.3	---28.6---		BMR DATA		
17	7824	C	0.02	**Data from McKirdy 1981								

WELL: MOOMBA #18

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5703	C	0.62	370	15.0	17.1	7.7	39.3	35.9			
2	5796	C	1.01	772	19.0	19.3	6.1	41.9	32.7			
3	5804	C	0.79	586	14.0	13.3	6.1	38.3	42.3	**Data from McKirdy 1981		

WELL: MOOROWIE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5310-5330	CT	0.29	432	74.5	41.6	8.4	40.7	9.3	0.0	216.1	149.0

WELL: MOORARI #3

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5978	SWC	0.75	1184	23.9	10.7	4.5	7.4	35.5	41.9	179.4	157.4
2	6024	SWC	0.40	809	17.8	8.2	0.6	5.0	37.7	48.5	71.1	202.0
3	6094	SWC	0.90	1017	12.3	9.3	1.6	6.7	52.1	30.3	110.9	113.0
4	6390	SWC	0.40	1781	81.5	14.6	3.7	10.0	40.2	31.5	325.9	445.2
5	6550	SWC	1.60	1705	22.4	14.8	6.2	10.5	58.2	10.3	357.8	106.5
6	6750	SWC	1.20	2458	33.8	11.8	4.7	8.3	62.1	13.1	405.5	204.8
7	7014	SWC	2.10	5965	81.2	19.6	9.0	11.6	58.3	30.6	1705.7	284.0
8	7077	SWC	0.65	4240	461.2	59.8	10.9	6.9	10.5	11.9	2997.6	652.3
9	7190	SWC	0.80	1771	61.8	17.1	10.8	15.5	38.6	18.0	494.2	221.4
10	7256	SWC	1.90	7665	106.1	24.6	1.7	5.0	48.4	20.3	2015.8	403.4
11	7587	SWC	0.25	11	231.4	48.0	5.4	16.2	20.3	10.1	578.6	433.4
12	8014	SWC	0.45	2502	291.4	45.7	6.7	9.9	8.7	29.0	1311.3	556.1
13	8310	SWC	0.20	620	133.3	37.2	5.8	23.3	19.8	13.9	266.6	310.0
14	8622	SWC	0.90	6583	495.9	59.7	8.1	7.9	8.6	15.7	4463.0	731.4

WELL: MORNEY #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	800-1300	CT	2.35	1904	14.4	11.1	6.7	39.0	35.4	7.8	338.8	81.0
2	1350-1850	CT	1.15	755	6.7	6.6	3.6	19.9	54.7	15.2	76.9	65.6
3	1850-2350	CT	0.90	886	13.5	11.9	1.8	11.6	49.3	25.4	121.5	98.5
4	2350-2850	CT	5.20	6208	14.8	7.3	5.1	19.7	61.7	6.2	769.9	119.4
5	2850-3210	CT	1.10	1009	17.1	13.6	5.0	22.9	58.5	0.0	187.6	91.7
6	3200-3500	CT	1.15	1083	14.3	10.5	4.7	22.1	53.0	9.7	164.7	94.2
7	3500-3800	CT	1.25	1731	13.3	4.9	4.7	6.4	77.3	6.7	166.2	138.5
8	3800-4100	CT	1.00	919	15.3	11.3	5.4	20.8	55.6	6.9	153.5	91.9
9	4100-4400	CT	3.10	3633	23.1	10.3	9.4	10.2	53.3	16.8	715.7	117.2
10	4400-4700	CT	1.65	3410	69.0	24.8	8.6	10.2	36.5	19.9	1139.1	206.7
11	4700-5000	CT	1.25	1910	13.1	5.8	2.8	10.8	52.7	27.9	164.3	152.8
12	5000-5300	CT	1.05	940	15.0	11.7	5.1	18.1	40.8	24.3	157.9	89.5
13	5300-5600	CT	1.85	3081	17.5	4.1	6.4	8.4	62.9	18.2	323.4	166.5
14	5600-5900	CT	2.95	2914	10.3	5.5	4.9	9.1	67.5	13.0	303.1	98.8
15	5900-6200	CT	2.25	2200	13.4	7.5	6.2	11.4	48.7	26.2	301.5	97.8
16	6200-6500	CT	0.35	329	14.5	7.7	7.7	15.4	43.4	25.8	50.6	93.9

WELL: MOUNT HOWITT #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4094	C	0.39	1200	14.0	---4.6--		---95.4---				
2	4659	C	1.60	4173	30.0	--11.6--		---88.4---				
3	5723	C	0.27	143								
4	6918	C	3.31	432	4.0	1.3	27.1	19.7	51.9	**Data from McKirdy 1982		

WELL: MUDERA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3518	SWC	0.60	597	34.9	24.3	10.8	35.1	26.1	3.7	209.5	99.5
2	3579'11"	SWC	1.30	680	4.1	3.9	3.9	6.8	62.1	23.3	53.0	52.3
3	4930'1"	SWC	0.70	1181	26.0	11.2	4.2	17.1	48.6	18.9	182.0	168.8
4	4955'1"	SWC	0.65	910	22.7	10.8	5.4	14.9	50.5	18.9	147.4	140.0
5	4973	SWC	0.65	7808	925.0	75.5	1.5	3.1	2.9	17.0	6012.5	1201.3
6	5810	SWC	0.75	1558	21.8	9.8	0.7	19.3	45.9	24.3	163.6	207.7
7	5834	SWC	0.75	1689	36.9	15.5	0.9	13.4	46.6	23.6	277.0	225.2
8	5868'2"	SWC	1.80	2036	31.3	20.8	6.9	28.5	42.7	1.1	563.9	113.1

WELL: MUDLALEE #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3994	SWC	1.15	1242	36.0	23.7	10.0	25.8	40.5			
2	4222	SWC	1.26	924	26.0	23.4	12.7	27.8	36.1			
3	4516	SWC	1.72	2321	70.0	36.9	14.8	22.7	25.6			
4	5322	SWC	1.42	2740	84.0	25.9	17.8	30.4	25.9			
5	5456	SWC	2.79	2569	92.0	14.1	15.9	29.9	40.1			
6	5736	SWC	3.47	2030	9.0	4.2	11.7	40.6	43.5			

**Data from McKirdy 1982

WELL: MUNKARIE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC (wt%)	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	1310-1340	CT	25.60	20709	29.0	28.3	7.1	38.2	26.4	STAINED		
2	1940-1970	CT	12.20	3733	3.0	5.1	4.4	62.6	27.8			
3	2120-2150	CT	6.85	1597	4.0	10.8	4.9	57.6	26.7			
4	2480-2510	CT	15.80	4545	4.0	9.8	3.9	45.4	40.9			
5	2660-2690	CT	6.05	1542	4.0	11.4	3.7	60.1	25.0			
6	3020-3050	CT	6.10	1500	3.0	9.3	3.9	58.4	28.4			
7	3440-3470	CT	5.90	1698	5.0	12.2	3.9	60.4	23.7			
8	3560-3590	CT	3.75	1342	4.0	8.7	3.1	58.9	29.9			
9	3740-3770	CT	5.35	2211	4.0	6.8	3.1	48.7	41.4			
10	3920-3950	CT	4.10	1713	5.0	8.2	3.3	44.3	44.2			
11	4280-4310	CT	3.28	1370	5.0	9.4	3.9	40.5	46.2			
12	4400-4430	CT	3.12	746	4.0	11.3	4.3	46.9	37.5			
13	5180-5210	CT	3.04	312	2.0	12.4	4.7	32.9	50.0			
14	5600-5630	CT	1.66	3180	17.0	3.6	5.1	32.3	59.0			
15	5786	SWC	0.55	467	9.0	6.2	4.7	37.5	51.6			
16	5816	SWC	2.27	2493	18.0	6.1	10.3	37.2	46.4			
17	5900-5930	CT	5.80	3477	4.0	3.2	3.6	36.4	56.8			
18	5942	SWC	3.27	1120	9.0	7.9	18.3	44.5	29.3			
19	6140-6170	CT	9.30	6490	6.0	3.5	4.4	46.4	45.7			
20	6256	SWC	0.82	1488	7.0	1.0	3.1	28.2	67.7			
21	6260-6290	CT	21.30	6466	5.0	6.2	9.8	39.1	44.9			
22	6293	SWC	0.98	3355	32.0	2.9	6.4	28.1	62.6			
23	6322	SWC	0.91	1633	24.0	4.7	8.7	44.3	52.3			
24	6374	SWC	2.41	2340	26.0	8.5	17.8	27.7	46.0			
25	6374	SWC	3.39	2135	16.0	7.5	17.8	34.5	40.2			
26	6417	SWC	2.35	2010	17.0	7.1	13.3	37.6	41.9			
27	6440-6470	CT	3.50	2197	10.0	12.7	3.3	38.8	45.2			
28	6510	SWC	2.20	845	11.0	3.5	24.4	38.4	33.7			
29	6726	SWC	1.44	1120	20.0	9.7	15.7	33.6	41.0			
30	6780	SWC	1.80	1015	15.0	7.4	18.8	32.9	40.9			
31	6800-6830	CT	14.50	8030	14.0	12.9	12.5	45.7	28.9			
32	6830	SWC	4.58	1814	14.0	13.0	22.3	36.1	28.6			
33	6860-6890	CT	4.34	2501	7.0	9.1	3.3	36.8	50.8			

Munkarie 1 (Continued)

34	6950	SWC	2.82	1603	22.0	9.4	29.4	25.8	35.4
35	7000	SWC	1.75	1089	19.0	10.0	20.0	25.3	44.7
36	7070	SWC	2.57	1474	14.0	8.6	15.7	22.7	53.0
37	7099	SWC	3.42	1542	20.0	13.7	30.0	30.9	25.4
38	7100-7130	CT	2.70	1526	6.0	7.5	7.0	28.7	56.8
39	7155	SWC	1.55	1712	32.0	12.3	16.5	27.4	33.8
40	7155	SWC	1.22	812					
41	7158	SWC	0.98	691	23.0	13.8	18.5	30.8	36.9
42	7310-7340	CT	5.60	3126	7.0	6.4	6.1	41.7	45.8
43	7327	SWC	2.83	2310	23.0	11.9	16.4	31.4	40.3
44	7395	SWC	11.80	7265	26.0	12.4	30.2	30.7	26.7
45	7407	SWC	3.13	1416	14.0	7.7	23.8	30.0	38.5
46	7407	SWC	12.00	3980	14.0	11.9	29.3	35.1	23.7
47	7550-7580	CT	2.14	1515	9.0	6.5	5.9	38.0	49.6
48	7670-7692	CT	0.39	135	10.0	24.4	3.7	43.8	28.1

**Data from McKirdy 1982

WELL: NACCOWLAH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4080	SWC	1.16	837	10.0	10.5	3.3	13.9	38.1	34.2	115.6	72.2
2	4416	SWC	0.85	2168	172.9	63.6	4.2	9.2	9.6	13.4	1469.6	255.0
3	4634	SWC	6.71	1233	27.1	7.8	7.8	20.0	46.7	17.7	1817.2	173.6
4	5178	SWC	1.81	1744	14.6	9.1	6.0	25.0	24.6	34.5	263.5	96.4
5	5348	SWC	2.19	2460	40.8	19.3	17.0	14.6	47.8	1.3	892.8	112.3
6	5487	SWC	0.70	1076	33.0	14.8	6.7	19.5	41.6	17.4	231.3	153.7
7	5460-5500	CT	1.05	1568	19.1	9.4	3.4	17.7	65.1	4.4	200.7	149.3
8	5736	SWC	1.46	1925	25.2	16.8	2.3	14.1	51.2	15.6	367.5	131.8
9	5840	SWC	0.78	1093	42.7	23.7	6.8	25.4	32.2	11.9	333.3	140.1
10	5947	SWC	2.98	1741	11.1	14.1	4.9	27.4	38.0	15.6	330.7	58.4
11	5987	SWC	3.52	2603	7.9	7.4	3.3	19.1	44.9	25.3	278.3	73.9
12	6000-6050	CT	11.10	5016	9.5	14.0	7.1	18.6	57.1	3.1	1058.6	45.2
13	6091'1"-2"	C	4.26	2113	10.7	6.7	14.9	12.9	44.7	20.8	456.4	49.6
14	6110-6140	CT	15.40	4665	11.7	22.3	16.3	27.1	34.0	0.4	1801.2	30.3
15	6126'9"-10"	C	7.54	2125	5.0	10.0	7.6	18.3	45.9	18.2	374.2	28.2
16	6305	SWC	10.55	5880	11.0	10.9	8.8	35.7	43.9	0.7	1157.6	55.7

WELL: NACCOWLAH SOUTH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4410-4440	CT	0.89	726	18.0	16.7	5.3	33.9	44.1		159.8	81.6
2	4440-4470	CT	0.81	1324	87.6	45.3	8.3	25.0	21.3		709.9	163.5
3	5100-5130	CT	1.96	1064	11.3	15.1	5.8	37.3	41.8		222.4	54.3
4	5130-5160	CT	2.78	1064	7.0	12.1	6.1	40.5	41.3		193.8	38.3
5	5340-5370	CT	4.00	2401	8.6	6.8	7.5	25.6	60.1		343.2	60.0
6	5370-5400	CT	1.63	1247	14.2	9.8	8.8	28.0	53.4		231.9	76.5
7	5400-5430	CT	1.47	1187	18.2	14.3	8.2	31.9	45.7		266.9	80.7
8	5460-5490	CT	1.30	1156	17.9	11.5	8.6	22.6	57.4		232.3	88.9
9	5730-5760	CT	2.58	3216	16.5	6.2	7.0	9.3	77.5		424.7	124.7
10	5760-5790	CT	0.69	477	10.7	9.8	5.7	19.1	65.3		73.9	69.1
11	5790-5820	CT	0.96	1073	18.6	9.7	6.9	18.9	64.5		178.2	111.8
12	5820-5850	CT	2.18	2317	28.3	17.5	9.1	20.1	53.3		616.4	106.3
13	5940-5970	CT	18.50	8942	7.3	5.0	10.1	26.7	58.2		1349.3	48.3
14	6000-6030	CT	1.34	1432	19.5	12.9	5.3	16.4	65.4		260.7	106.9
15	6030-6060	CT	7.50	3587	3.0	2.6	3.6	11.1	82.7		222.3	47.8
16	6060-6090	CT	2.18	1166	3.9	3.3	3.9	16.6	76.1		84.0	53.5

WELL: NAMUR #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5407	C	1.52	1693	43.0	30.8	7.6	34.3	27.3			
2	5409	C	2.82	2758	45.0	34.6	11.6	34.3	19.5			
3	5412'6"	C	2.64	4373	81.0	36.9	12.3	28.4	22.4			
4	5419'6"	C	3.90	4528	39.0	23.4	10.1	35.7	30.8			
5	5421'8"	C	2.94	3296	54.0	35.5	12.4	34.0	18.1			
6	5424'3"	C	4.68	5291	34.0	18.3	11.5	32.7	37.5			

**Data from McKirdy 1981

WELL: NAPPACOONGIE #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3362	SWC	0.67	422	15.0	17.5	6.3	42.9	33.3			
2	4075	SWC	1.03	2009	63.0	23.6	8.9	38.2	29.3			
3	4324	SWC	0.64	669	29.0	18.5	9.3	35.2	37.0			
4	4359'8"	C	1.58	2285	76.0	44.3	8.3	28.5	18.9			
5	5367	C	15.40	22945	36.0	20.5	3.9	31.7	43.9			
6	6158	C	2.88	1227	8.0	9.2	9.8	46.9	34.1	**Data from McKirdy 1981		

WELL: OODNADATTA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	397'0"-3"	C	1.50	938	2.9	2.9	1.7	19.1	61.0	15.3	43.1	62.5
2	540'0"-3"	C	0.90	887	4.0	2.7	1.4	11.4	81.8	2.7	36.4	98.6
3	920'0"-3"	C	1.20	159	0.9	2.3	4.3	14.0	72.2	7.2	10.5	13.3

WELL: OODNADATTA BORE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	250-263	CT	2.82	692	1.6	5.9	0.8	18.0	55.9	19.5	46.3	24.5

WELL: ORIENTOS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4724	C	0.26	11958	1313.0	--28.6---		---71.4---		STAINED		
2	5197	C	1.76	1623	13.0	--13.6---		---86.4---				
3	5443	C	0.31	430	24.0	--17.4---		---82.6---		**Data from McKirdy 1982		

WELL: PACKSADDLE #3

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	7237	C	0.31	121	16.0	8.2	32.8	36.0	23.0	**Data from McKirdy 1982		

WELL: PANDO #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	5553	C	4.27	1718	10.0	16.5	4.4	23.0	56.1			
2	5587	C	1.78	720	3.0	3.6	3.0	39.7	53.7			
3	5588	C	3.76	1098	7.0	20.6	3.4	36.8	39.2			
4	5619	C	2.17	1063	3.0	2.7	3.4	39.7	54.2			
5	5629	C	2.25	889	3.0	3.0	3.9	39.9	53.2			
6	5649	C	3.29	1124	4.0	5.5	6.0	36.1	0.51	**Data from McKirdy 1982		

WELL: PATCHAWARRA BORE

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	570-590	CT	1.04	3355	2.6	0.3	0.5	4.5	81.5	13.1	26.8	322.6
2	590-600	CT	0.68	1785	6.0	2.0	0.3	12.7	77.9	7.0	41.1	262.5
3	630-640	CT	1.16	10506	7.3	0.7	0.1	2.5	76.7	20.0	84.1	905.7
4	670-690	CT	0.24	1096	10.1	1.5	0.7	5.3	79.6	12.9	24.1	456.7

WELL: PINNA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	4260	SWC	1.45	2122	47.0	27.4	5.0	30.6	37.0			
2	4660	SWC	1.16	1021	27.0	25.4	5.7	34.8	34.1			
3	5105	SWC	0.84	2550	92.0	24.7	5.7	31.9	37.7			
4	5549	SWC	0.12	1240	492.0	43.5	4.1	34.3	18.1	STAINED		
5	6230	SWC	2.78	5561	121.0	51.8	8.5	28.4	11.3			
6	6398	C	2.74	1952	7.0	4.5	5.3	33.1	57.1			
7	8158	SWC	3.60	6231	101.0	49.9	8.5	21.9	19.7	**Data from McKirdy 1982		

WELL: POOLOWANNA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	7754	C	13.50	24310	33.0	6.3	12.1	36.3	45.3			
2	7756	C	6.20	11545	31.0	5.0	11.7	23.5	59.8			
3	7835	SWC	1.22	7460	157.0	20.6	5.1	28.3	46.0	STAINED		
4	7918-7928	CT	3.55	4509	38.0	9.8	19.8	27.8	42.6			
5	7934	SWC	1.89	2537	59.0	28.7	15.2	33.6	22.5			
6	8020	SWC	9.28	5717	22.0	16.7	16.8	---66.5--		BMR DATA		
7	8128-8138	CT	1.36	1761	42.0	17.8	14.9	30.7	36.6			
8	8213	SWC	2.30	5291	58.0	13.8	11.5	39.9	34.8			
9	8428	C	5.01	3333	14.0	13.8	9.0	---77.2---		BMR DATA		
10	8433	C	5.15	3186	23.0	17.6	19.9	17.8	44.7			
11	8436	C	7.95	3960	20.0	14.0	26.1	37.0	22.9			
12	8518-8528	CT	6.40	3394	17.0	13.0	19.9	21.7	35.4			
13	8528-8538	CT	5.25	2147	16.0	14.6	24.4	38.8	22.2	**Data from McKirdy 1981		

WELL: PURNI #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4740	C	2.85	955	4.0	5.3	7.7	27.8	59.2			
2	4747	C	0.85									
3	4760	C	1.17	1044	14.0	3.5	12.3	28.1	56.1			
4	4765	C	0.17									
5	4771	C	2.29	692	5.0	8.3	14.4	26.7	50.6			
6	5065	C	0.06									
7	5075	C	0.77	647	9.0	8.7	1.6	36.8	52.9			
8	5082	C	0.46									
9	5086	C	1.56	1331	8.0	4.0	5.0	40.2	50.7			
10	5088	C	0.49	1145	35.0	4.5	11.1	32.7	61.7			
11	5254	C	0.51	482	34.0	18.6	17.2	33.7	30.5			
12	5274	C	0.45									
13	5280	C	0.50	480	10.0	5.2	5.3	21.7	67.8			
14	5809	C	0.16									
15	5813	C	0.17	89	45.0	65.0	20.5	---20.5---		BMR DATA		
16	5819	C	0.05									
17	6104	C	0.05									
18	6114	C	0.05									
19	6121	C	0.41	27	4.0	32.4	27.0	---40.6---		BMR DATA		
20	6130	C	0.05									
21	6137	C	0.05	23	10.0	7.1	14.3	---78.6---		BMR DATA		
22	6145	C	0.04									

**Data from McKirdy 1981

WELL: RICHIE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3710-3740	CT	1.46	1333	5.0	3.8	1.7	30.8	63.7		73.3	91.3
2	3770-3800	CT	1.00	684	11.6	13.3	3.7	35.6	47.4		116.3	68.4
3	4550-4580	CT	1.04	3120	22.8	3.0	4.6	18.9	73.5		237.1	300.0
4	4610-4640	CT	1.01	3110	37.9	5.9	6.4	14.4	73.3		382.5	307.9
5	4730-4760	CT	1.20	2155	62.1	25.1	9.5	26.2	39.1		745.7	179.6
6	4760-4790	CT	1.81	2705	32.0	12.5	8.9	18.7	57.9		578.7	149.4
7	4790-4820	CT	2.58	5233	78.9	30.6	8.3	20.1	41.0		2035.3	202.8
8	4940-4970	CT	1.32	2612	13.1	1.9	4.7	6.6	86.9		172.4	197.9
9	5030-5060	CT	6.55	8312	7.9	2.9	3.3	21.6	72.1		515.3	126.9
10	5180-5210	CT	8.90	4919	4.8	3.5	5.1	18.5	72.8		423.3	55.3
11	5240-5270	CT	21.00	2098	0.9	3.6	5.3	19.3	71.8		186.9	10.0
12	5480-5510	CT	67.40	36465	5.5	4.0	6.2	15.6	74.2		3719.3	54.1
13	5630-5660	CT	40.50	22719	7.4	4.8	8.4	18.7	68.1		2999.1	56.1

WELL: SPENCER #2

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1600-1900	CT	1.35	472	3.4	6.3	3.3	32.7	50.6	7.1	45.4	35.0
2	1900-2100	CT	3.45	1463	1.7	2.2	1.7	6.8	86.3	3.0	57.9	43.0
3	2100-2400	CT	1.95	837	2.9	4.7	2.1	21.4	63.9	7.9	57.0	43.0
4	2700-3000	CT	1.10	518	3.7	5.2	2.6	21.8	54.5	15.9	40.3	47.0
5	3000-3300	CT	1.00	470	5.9	9.3	3.3	41.4	44.2	1.8	59.2	47.0
6	3300-3600	CT	1.00	479	6.0	8.4	4.2	28.3	53.8	5.3	60.5	48.0
7	3600-3900	CT	0.95	674	3.1	2.7	1.6	13.8	65.5	16.4	29.0	71.0
8	3900-4000	CT	1.00	525	8.1	4.0	11.2	8.6	65.1	11.1	80.6	53.0
9	4200-4350	CT	0.85	417	4.7	6.4	3.1	19.6	56.0	14.9	39.6	49.0
10	4500-4800	CT	0.30	573	30.4	10.7	5.2	15.3	60.9	7.9	91.1	191.0
11	4900-5150	CT	0.55	645	8.9	3.9	3.6	17.4	53.6	21.5	48.7	118.0
12	5200-5450	CT	0.95	1384	12.3	4.7	3.7	7.2	77.9	6.5	116.5	146.0
13	5500-5800	CT	0.20	306	6.6	3.1	1.2	14.8	62.5	18.4	13.2	153.0
14	5800-6000	CT	0.75	981	10.2	7.3	0.5	9.9	72.5	9.8	76.6	131.0
15	6000-6259	CT	0.25	433	8.9	4.0	1.1	7.5	75.8	11.6	22.2	174.0
16	6259-6462	CT	0.30	236	11.4	9.9	4.5	16.7	52.2	16.7	34.1	79.0

WELL: STRZELECKI #3

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1300-1330	CT	1.85	578	6.0	15.1	4.9	52.4	27.6			
2	1600-1630	CT	1.63	1031	8.0	9.4	2.7	52.7	35.2			
3	1900-1930	CT	1.75	403	4.0	11.8	6.6	58.1	23.5			
4	2020-2050	CT	16.70	3742	3.0	7.1	6.3	52.4	34.2			
5	2320-2350	CT	3.48	1136	7.0	14.6	6.4	56.4	22.6			
6	2620-2650	CT	4.36	1243	5.0	10.5	5.9	67.0	16.6			
7	2800-2830	CT	3.14	1462	6.0	8.4	4.2	63.3	24.1			
8	3319	SWC	0.30	114								
9	3329	SWC	0.29	128	4.0	3.4	5.1	---91.5---				
10	3420	SWC	1.07	601	8.0	7.7	6.1	53.1	33.1			
11	3460-3490	CT	3.00	872	5.0	13.5	2.3	62.1	22.1	PROBABLE CAVINGS		
12	3590	SWC	0.90	461	35.0	53.1	14.7	10.5	21.7	STAINED		
13	3700	SWC	0.97	276	10.0	24.8	10.8	38.7	25.7			
14	3802	SWC	0.71	220								
15	3902	SWC	0.82	552								
16	4114	SWC	1.45	1136	24.0	19.8	11.0	50.2	19.0			
17	4180-4210	CT	2.36	499	6.0	18.4	8.0	46.6	27.1			
18	4210	SWC	1.07	851	30.0	21.7	16.1	37.8	24.4			
19	4260	SWC	1.44	1581	36.0	19.4	13.3	40.8	26.5			
20	4318	SWC	0.63	423								
21	4410	SWC	0.80	510	28.0	25.7	17.7	35.6	21.0			
22	4470	SWC	1.26	1258	48.0	38.5	9.5	32.8	19.2			
23	4480-4510	CT	1.88	884	22.0	38.6	8.7	33.2	19.5			
24	4734	SWC	1.51	1295	34.0	23.1	16.9	30.5	29.5			
25	4894	SWC	0.91	841	42.0	18.3	26.7	16.7	38.3			
26	4919	SWC	0.66	1220	37.0	9.6	10.4	37.4	42.6			
27	5043	SWC	0.12	266								
28	5256	SWC	1.50	1750	43.0	16.6	20.6	30.8	32.0			
29	5320-5350	CT	2.90	6690	64.0	15.9	12.0	32.6	39.5			
30	5336	SWC	7.05	7945	48.0	22.5	20.1	36.1	21.3			
31	5400	SWC	3.74	6565	95.0	37.0	17.0	29.7	16.3			

Strzelecki 3 (Continued)

32	5440-5470	CT	4.50	4912	42.0	24.7	13.6	30.2	31.5
33	5509	SWC	0.86	940	55.0	21.1	29.4	30.4	19.1
34	5686	SWC	0.09						
35	5830-5860	CT	1.44	876	23.0	26.1	11.8	32.9	29.2
36	5836	SWC	1.10	561	12.0	15.0	8.8	---76.2---	
37	5904	SWC	0.28						
38	5948	SWC	0.43	730					
39	6002	SWC	2.35	1048	20.0	21.2	22.7	26.6	29.5
40	6040-6070	CT	30.10	12143	8.0	7.7	11.1	35.6	45.6
41	6043	SWC	2.35	1632	27.0	12.6	25.8	14.6	47.0
42	6070-6100	CT	19.10	4869	7.0	14.1	12.8	31.4	41.7
43	6124	SWC	0.20	1022					
44	6154	SWC	0.81	679					

**Data from McKirdy 1982

WELL: STRZELECKI #4

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3242	SWC	1.20	846	13.8	11.5	8.1	20.9	36.8	22.7	165.8	70.5
2	3323	SWC	1.05	1024	24.1	18.1	6.6	15.9	45.6	13.8	252.9	97.5
3	3353	SWC	0.90	1338	11.2	4.8	2.7	6.2	68.1	18.2	100.4	148.7
4	3593	SWC	0.75	571	12.4	10.9	5.4	15.8	54.9	13.0	93.0	76.1
5	3770	SWC	1.00	459	12.9	14.8	13.4	20.1	39.6	12.1	129.4	45.9
6	3982	SWC	0.75	2974	49.2	8.7	3.7	4.6	61.4	21.6	368.7	396.5
7	4190	SWC	1.25	985	20.2	149.9	5.7	19.6	33.7	21.1	252.2	78.8
8	4508	SWC	1.10	1771	49.7	25.6	5.3	15.9	24.9	28.3	547.2	161.0
9	4546	SWC	0.70	1551	89.9	33.7	6.9	13.9	23.9	21.6	629.5	221.5
10	4564	SWC	0.60	3552	201.3	28.0	6.0	16.1	28.9	21.0	1207.7	592.0
11	4755	C	2.60	4552	49.7	21.1	7.3	29.1	38.3	4.2	1292.9	175.1
12	4819	SWC	0.55	1778	64.6	14.4	5.6	16.2	24.1	39.7	355.5	323.2
13	5050	SWC	0.10	2207	117.0	5.0	0.3	2.5	72.2	20.0	117.0	2207.0
14	5202	SWC	0.95	1968	53.2	17.8	7.9	16.7	45.9	11.7	505.6	207.1
15	5300	SWC	1.30	1890	50.1	24.9	9.6	28.8	20.8	15.9	651.7	145.3
16	5359	SWC	0.50	1132	63.4	22.7	5.3	13.3	38.7	20.0	317.0	226.4
17	5404	SWC	1.15	2345	84.2	32.6	8.7	23.1	33.1	2.5	968.4	203.9
18	5423	SWC	1.95	4439	57.6	17.8	7.5	17.2	34.5	23.0	1122.9	227.6
19	5490	C	1.10	1539	63.2	36.2	9.0	24.8	30.0	0.0	695.6	139.9

WELL: STRZELECKI #5

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1500-1800	CT	2.05	867	2.7	3.9	2.4	19.6	68.3	5.8	54.6	42.3
2	2400-2600	CT	2.00	1142	3.7	3.3	3.1	9.8	82.4	1.4	73.1	57.1
3	2700-3000	CT	1.50	739	9.8	13.8	6.0	26.3	45.9	8.0	146.4	49.3
4	3000-3250	CT	1.25	575	6.1	8.4	4.9	23.8	50.8	12.1	76.5	46.0
5	3300-3320	CT	1.40	1112	7.6	6.4	3.2	20.5	55.8	14.1	106.7	79.4
6	3400-3700	CT	1.30	644	6.0	7.4	4.8	27.2	46.3	14.3	78.5	49.5
7	3700-4000	CT	0.90	528	10.3	5.0	12.6	20.8	44.0	17.6	93.0	58.7
8	4000-4200	CT	1.05	773	7.7	4.1	6.4	16.1	58.5	14.9	81.1	73.6
9	4300-4400	CT	1.00	737	13.6	11.2	7.2	15.6	55.2	10.8	135.6	73.7
10	4500-4600	CT	0.85	697	17.7	14.2	7.3	18.0	47.1	13.4	150.0	82.1
11	5000-5300	CT	1.15	928	15.4	14.3	4.8	18.2	49.9	12.8	177.3	80.7
12	5400-5500	CT	3.70	4208	16.9	8.4	6.4	9.2	69.2	6.8	624.3	114.0
13	5600-5750	CT	1.45	2537	48.6	19.4	8.4	8.4	49.4	14.4	705.4	175.0
14	5850-5900	CT	1.60	709	12.9	23.0	6.2	20.4	37.4	13.0	207.0	44.3
15	6000-6300	CT	4.35	1878	8.9	14.5	6.0	7.6	68.6	3.3	385.2	43.2

WELL: TANBAR NORTH #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3660-3990	CT	1.17	956	2.7	2.3	1.0	5.5	87.3	3.9	31.5	81.7
2	3990-4290	CT	1.10	1125	3.2	2.0	1.1	3.3	92.4	1.1	34.9	102.3
3	4290-4410	CT	1.64	1545	8.9	5.4	4.0	20.0	66.3	4.3	145.2	94.2
4	4410-4470	CT	1.39	1438	12.8	7.9	4.5	22.0	65.3	0.3	178.4	103.5
5	4470-4770	CT	2.94	3633	18.4	8.6	6.3	17.7	46.0	21.4	541.4	123.6
6	4650-4710	CT	3.74	7556	46.7	15.2	7.9	17.0	52.0	7.8	1745.2	202.0
7	4770-5070	CT	4.02	1694	9.1	16.1	5.6	34.2	41.1	3.0	367.3	42.1
8	5070-5370	CT	3.66	894	4.9	13.7	6.5	21.2	52.1	6.5	180.4	24.4
9	5370-5412	CT	1.66	851	6.9	8.2	5.3	15.1	63.9	7.4	115.0	51.3
10	5412-5710	CT	1.07	1061	20.1	14.0	6.3	22.3	55.1	2.2	215.5	99.2
11	5550-5800	CT	0.70	972	33.5	18.2	5.9	16.8	55.3	3.8	234.3	138.9
12	5710-5830	CT	0.57	837	38.0	20.9	5.0	17.3	50.3	6.5	216.7	146.8
13	5830-6130	CT	0.88	1982	24.1	7.2	3.5	8.6	67.1	13.6	212.0	225.2
14	6130-6480	CT	1.69	2482	11.2	5.1	2.5	6.5	77.4	8.6	188.7	146.9
15	6480-6670	CT	0.38	619	22.3	11.2	2.5	13.3	64.4	8.6	84.8	162.9
16	6670-6980	CT	5.15	4622	6.9	5.2	2.5	4.9	81.0	6.5	355.7	89.7
17	6980-7280	CT	0.44	927	16.2	5.9	1.8	10.1	76.8	5.4	71.4	210.7
18	7280-7580	CT	0.46	968	16.2	5.4	2.3	10.1	81.9	0.3	74.5	210.4
19	7580-7652	CT	0.18	530	25.6	6.4	2.3	9.7	77.2	4.4	46.1	294.4
20	7652-7950	CT	0.95	1162	13.6	7.4	3.7	10.6	70.5	7.8	129.0	122.3
21	7950-8180	CT	1.57	1112	5.5	4.2	3.6	11.3	77.6	3.3	86.7	70.8
22	8180-8480	CT	0.58	244	5.7	9.4	4.2	16.7	62.0	7.8	33.2	42.1
23	8480-8710	CT	0.45	388	14.0	12.5	3.7	16.6	50.2	16.9	62.8	86.2

WELL: TARTULLA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	0-300	CT	0.40	196	3.7	1.2	6.4	43.6	14.9	6.9	14.9	49.1
2	300-600	CT	0.35	226	11.0	9.0	8.0	28.5	35.0	19.5	38.4	64.6
3	1200-1500	CT	0.90	681	3.6	0.3	4.4	18.4	66.6	10.3	32.0	75.7
4	1500-1800	CT	1.30	631	4.9	6.5	3.7	34.7	35.6	19.5	64.3	48.5
5	1800-2100	CT	1.25	687	3.8	2.9	4.1	34.8	41.2	17.0	48.0	54.9
6	2100-2400	CT	3.50	2128	6.0	4.6	5.2	26.2	52.3	11.7	208.5	60.8
7	2400-2700	CT	1.55	1132	8.6	5.1	6.7	30.4	38.8	19.0	133.5	73.0
8	2700-3000	CT	3.25	1535	3.8	2.1	5.9	34.2	42.2	16.7	122.7	47.2
9	3000-3300	CT	1.10	463	2.2	1.0	4.2	30.6	50.0	14.2	24.1	42.1
10	3300-3600	CT	1.00	485	3.2	1.3	5.4	35.5	45.4	12.4	32.5	48.5
11	3570-3680	CT	2.70	2497	13.0	11.2	2.9	27.6	55.0	3.3	352.1	92.5
12	3700-3900	CT	1.65	840	5.8	6.4	4.9	32.4	51.4	4.9	94.9	50.9
13	3900-4200	CT	1.40	597	5.4	7.0	5.7	39.5	35.7	12.1	75.7	42.6
14	4200-4500	CT	0.80	309	5.9	10.8	4.6	34.7	45.2	4.7	47.6	38.6
15	4500-4800	CT	0.95	468	3.7	6.0	1.6	26.3	61.4	4.7	35.6	49.3
16	4850-5070	CT	0.94	1072	18.9	12.9	3.7	19.1	57.8	6.5	177.9	114.0
17	5070-5280	CT	0.93	1459	46.6	24.6	5.1	24.9	41.4	4.0	433.4	156.9
18	5180-5190	CT	0.98	2203	54.9	19.0	5.4	22.4	37.6	15.7	538.0	224.8
19	5250-5270	CT	0.68	1591	49.1	17.8	3.2	23.0	45.3	10.7	334.0	234.0
20	5280-5400	CT	2.68	5762	17.6	3.9	4.3	8.8	72.7	10.3	472.5	215.0
21	5400-5700	CT	0.40	476	26.2	12.0	10.0	21.5	48.3	8.2	104.7	119.0
22	5620-5650	CT	0.33	2409	62.8	6.1	2.5	11.0	72.8	7.6	207.0	730.0
23	5700-6000	CT	1.20	836	11.6	10.0	6.7	22.0	54.7	6.6	139.7	69.7
24	5930-5950	CT	0.53	2982	35.4	4.2	2.1	15.7	58.1	19.9	188.0	562.6
25	6000-6300	CT	2.45	4566	21.2	3.9	7.5	9.2	73.6	5.8	520.6	186.4
26	6070-6100	CT	1.10	3874	52.5	10.2	4.7	13.3	55.5	16.1	577.0	352.2
27	6180-6200	CT	1.32	3066	45.5	13.2	6.4	19.6	58.1	2.7	601.0	232.3
28	6300-6600	CT	0.85	1834	20.3	2.4	7.0	9.5	66.0	15.1	172.4	215.8
29	6600-6900	CT	4.85	9670	17.7	0.9	8.0	8.4	71.5	11.2	860.7	199.4
30	6700-6720	CT	6.85	13914	5.1	1.4	1.1	4.7	91.0	1.8	348.0	203.1
31	6900-7200	CT	0.35	583	19.5	7.8	3.9	14.7	57.5	16.1	68.2	166.6

Tartulla 1 (Continued)

32	7200-7600	CT	0.65	622	18.3	16.1	3.0	16.1	61.2	3.6	118.8	95.7
33	7600-7700	CT	2.36	2171	25.4	22.5	5.1	14.4	50.1	7.9	599.3	92.0
34	7700-7820	CT	8.25	5309	9.0	7.9	6.0	12.1	72.3	1.7	738.5	64.4
35	7820-7880	CT	4.46	1620	3.5	6.6	3.1	10.7	75.9	3.7	157.0	36.3
36	7930-7980	CT	21.60	15291	1.8	1.3	1.3	3.7	89.6	4.0	397.6	70.8
37	8000-8300	CT	20.80	6121	3.6	3.1	9.3	11.4	68.4	7.8	758.3	29.4
38	8300-8320	CT	5.85	2756	15.1	26.0	6.1	24.2	36.6	7.1	884.5	47.1
39	8300-8503	CT	61.30	8931	2.1	0.9	13.8	17.2	56.0	12.1	1315.6	14.6
40	NOT STATED	CT	1.45	3147	14.5	0.8	5.9	16.9	69.3	7.1	210.9	217.1

WELL: THOMAS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4711'7"	SWC	1.10									
2	5724'5"	SWC	1.31									
3	6847	SWC	1.40									
4	6858'5"	SWC	5.30									
5	6947	SWC	1.23									
6	6956'9"	SWC	0.41									
7	7294'7"	SWC	1.89									
8	7439'7"	SWC	1.74									
9	7501'4"	SWC	2.51									
10	7728'10"	SWC	0.98									
11	7846'7"	SWC	0.17									

WELL: THUNDA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	6165	C	1.15	1753	14.0	---9.4--		---90.6---				
2	6916	C	10.40	1533	5.0	--31.3--		---68.7---				
3	6939	C	3.24	7795	13.0	---5.3--		---94.7---		**Data from McKirdy 1982		

WELL: TINPILLA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3890-3920	CT	1.10	2044	12.3	3.8	2.8	75.5	17.9		134.9	185.8
2	3950-3980	CT	1.99	2716	34.4	18.3	6.9	30.2	44.6		684.5	136.5
3	3980-4010	CT	1.25	1646	23.2	10.8	6.8	18.4	64.0		289.7	131.7
4	4040-4070	CT	1.48	985	7.6	6.8	4.6	18.5	70.1		112.4	66.6
5	4640-4670	CT	0.81	2840	80.3	17.1	5.8	54.9	22.1		650.3	350.6
6	4670-4700	CT	1.06	2558	28.5	7.4	4.4	16.0	72.1		301.8	241.3
7	4790-4820	CT	1.88	1414	15.3	10.9	9.4	15.6	64.2		287.0	75.2
8	4820-4850	CT	0.81	957	29.1	15.4	9.2	22.8	52.6		235.3	118.1
9	4850-4880	CT	2.26	2851	23.6	10.7	8.0	6.8	74.5		533.3	126.2
10	4910-4940	CT	2.18	3490	16.0	5.2	4.8	11.7	78.3		349.0	160.1
11	5180-5210	CT	11.80	8909	14.0	10.3	8.2	12.7	68.7		1648.2	75.5
12	5240-5270	CT	7.10	7658	13.6	5.4	7.2	19.0	68.3		965.3	107.9
13	5300-5330	CT	7.55	8668	17.8	8.5	7.0	17.1	67.4		1343.4	114.8
14	5360-5390	CT	6.45	3660	5.8	5.3	5.0	21.6	68.1		376.7	56.7
15	5390-5420	CT	4.50	2594	4.7	3.3	4.9	19.9	71.9		212.5	57.6
16	5480-5510	CT	6.40	2890	4.8	4.7	5.9	19.7	69.7		306.6	45.2
17	5510-5540	CT	38.40	25285	8.0	6.1	6.1	20.5	67.3		3082.6	65.8
18	5600-5630	CT	55.50	23959	6.0	5.8	8.2	18.3	67.6		3356.6	43.2
19	5660-5690	CT	42.70	40461	12.6	5.4	7.9	17.6	69.1		5383.8	94.8

WELL: TOODLA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	498	C	0.85	208	6.0	24.7	1.2	35.9	38.2			
2	525	C	0.91	149	1.0	6.8	2.1	64.6	26.5			
3	559	C	0.77	133	3.0	10.8	4.6	47.7	36.9			
4	601	C	1.06	157	2.0	9.8	3.3	58.8	28.1			
5	638	C	0.97	308	3.0	6.6	1.3	52.8	39.3			
6	660	C	0.71	219	6.0	18.3	2.4	42.7	36.6			
7	686	C	1.00	265	2.0	4.9	3.8	35.8	55.5			
8	705	C	1.10	302	3.0	7.7	3.5	43.5	45.3			
9	731	C	1.20	352	3.0	7.6	3.8	61.0	27.6			
10	757	C	1.09	271	4.0	8.6	4.9	48.3	38.2			
11	791	C	1.46	307	3.0	9.3	5.0	67.5	18.2			
12	836	C	1.29	251	2.0	10.1	1.6	62.0	26.3			
13	850	C	1.85	342	4.0	13.8	5.4	63.7	17.1			
14	854	C	1.63	366	4.0	10.2	5.8	61.7	22.3			
15	871	C	1.99	455	5.0	13.9	6.4	60.5	19.2	**Data from McKirdy 1982		

WELL: WACKETT #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4180-4220	CT	0.95	807	17.7	18.2	2.6	10.3	58.8	10.2	167.8	84.9
2	4410-4440	CT	0.97	1877	69.1	32.8	2.9	16.4	36.1	11.7	670.1	193.5
3	4600-4630	CT	0.90	836	23.1	21.0	3.9	14.9	55.9	4.4	208.2	92.9
4	4850-4870	CT	0.88	801	15.2	13.2	3.5	16.2	58.8	8.3	133.7	91.0
5	5100-5130	CT	0.81	988	32.2	22.6	3.8	17.0	52.7	3.9	260.9	122.0
6	5850-5890	CT	1.64	2849	14.9	5.8	2.8	7.7	80.0	3.7	245.7	173.7
7	6010-6050	CT	2.02	1369	18.0	19.2	7.3	20.6	46.8	6.2	362.9	67.8
8	5360-5390	CT	5.50	7173	15.5	7.3	4.6	9.1	76.0	3.0	853.5	130.4
9	5510-5570	CT	1.01	1702	70.6	36.3	5.6	19.5	36.2	2.3	713.1	168.5

WELL: WALKANDI #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	600-900	CT	0.75	782	32.8	22.1	9.4	24.9	23.2	20.4	245.7	104.0
2	900-1200	CT	2.00	859	3.3	5.9	1.7	27.7	47.3	17.4	65.4	43.0
3	1200-1500	CT	7.10	2268	1.3	2.7	1.3	36.5	36.4	23.1	90.9	32.0
4	1500-1800	CT	2.95	921	1.6	2.8	2.5	59.4	27.6	7.7	48.5	31.0
5	1800-2100	CT	2.80	906	2.2	4.1	2.9	47.5	25.2	20.3	62.7	32.0
6	2100-2400	CT	1.45	481	1.3	1.6	2.4	31.5	41.7	22.8	19.1	33.0
7	2400-2700	CT	1.10	450	3.8	5.3	3.9	34.9	35.4	20.5	41.5	41.0
8	2700-3000	CT	1.30	564	5.6	7.2	5.9	37.7	31.8	17.4	73.2	43.0
9	3000-3300	CT	1.40	883	7.7	5.1	7.1	44.9	29.6	13.3	107.6	63.0
10	3300-3600	CT	1.30	552	5.4	5.9	6.6	37.3	30.6	19.6	69.9	43.0
11	3600-3900	CT	0.90	548	6.5	4.8	5.9	33.8	40.4	15.1	58.7	61.0
12	3900-4200	CT	1.05	794	5.2	4.1	2.7	22.0	56.3	14.9	54.3	76.0
13	4200-4500	CT	1.00	661	9.5	4.8	9.6	13.3	56.5	15.8	95.0	66.0
14	4500-4800	CT	1.40	1127	8.1	6.1	3.9	26.1	55.7	8.2	113.4	81.0
15	4800-5100	CT	1.05	447	4.6	6.3	4.3	26.2	50.9	12.3	47.9	43.0
16	5100-5400	CT	1.20	820	6.7	4.8	5.0	23.9	64.8	1.5	80.0	68.0
17	5400-5630	CT	1.20	729	10.2	8.5	8.2	25.9	47.1	10.3	122.2	61.0
18	5630-5990	CT	1.00	1407	16.1	5.6	5.8	15.3	67.4	5.9	160.7	141.0
19	5670-5990	CT	0.45	944	16.4	4.7	3.1	8.0	77.5	6.7	73.7	210.0
20	5990-6290	CT	0.10	363	18.1	3.1	1.9	10.9	64.1	20.0	18.1	363.0
21	6290-6590	CT	0.10	307	16.6	1.9	3.5	11.2	69.4	14.0	16.6	307.0
22	6590-6890	CT	0.20	592	24.9	4.9	3.5	13.0	68.1	10.5	49.7	296.0
23	6890-7190	CT	0.15	626	35.9	6.4	2.2	13.0	60.6	17.8	53.9	418.0
24	7190-7490	CT	0.15	794	46.0	5.9	2.8	6.7	82.7	1.9	69.0	529.0
25	7490-7790	CT	0.15	1283	8.6	0.8	0.2	1.4	89.6	8.0	12.8	855.0
26	7790-8090	CT	0.05	283	26.0	3.8	0.8	8.0	74.7	12.7	13.0	566.0
27	8090-8390	CT	0.70	2351	4.4	0.7	0.6	1.5	90.5	6.7	30.6	336.0
28	8390-8690	CT	2.30	7149	14.3	2.4	2.2	1.3	92.2	1.9	329.0	311.0
29	8690-8990	CT	7.70	9485	10.5	5.3	3.2	4.6	85.9	1.0	805.0	123.0
30	8990-9270	CT	3.45	2676	10.8	6.1	7.8	6.1	76.8	3.2	374.0	78.0
31	9270-9570	CT	1.10	1905	19.5	6.4	4.9	7.0	81.6	0.1	215.0	173.0
32	9570-9636	CT	1.50	1831	12.6	5.9	4.4	11.4	67.2	11.1	188.5	122.0

Walkandi 1 (Continued)

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
33	9636-9930	CT	0.65	491	9.0	7.0	4.8	15.5	56.1	16.6	58.3	76.0
34	9930-10230	CT	0.35	435	11.3	7.4	1.7	16.5	60.1	14.3	39.5	124.0
35	10230-10253	CT	0.45	549	9.3	5.2	2.4	12.4	60.8	19.2	41.7	122.0

WELL: WANTANA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS (wt%)	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	2400-2700	CT	3.80	2008	3.2	3.0	3.1	24.0	64.3	5.6	122.6	52.9
2	2700-3000	CT	7.65	5477	3.4	1.8	3.0	22.3	63.5	9.4	262.9	71.6
3	3000-3300	CT	1.20	581	8.3	9.8	7.4	32.2	35.7	14.9	99.9	48.4
4	3300-3600	CT	1.00	728	9.7	8.5	4.8	30.6	37.6	18.5	96.8	72.8
5	3600-3900	CT	1.70	1161	8.4	8.4	3.9	29.5	47.9	10.3	142.8	68.3
6	3900-4200	CT	1.20	795	7.0	5.9	4.6	20.4	49.9	19.2	83.5	66.3
7	4200-4500	CT	1.15	711	6.6	5.5	5.2	36.9	50.0	2.4	76.0	61.8
8	4500-4800	CT	0.90	438	5.6	7.9	3.7	26.4	45.3	16.7	50.8	48.7
9	4800-5100	CT	0.95	639	7.7	5.7	5.7	21.7	57.0	9.9	72.9	67.3
10	5100-5400	CT	1.15	707	7.9	8.2	4.7	32.2	49.8	5.0	91.2	61.5
11	5400-5570	CT	0.80	354	10.9	14.4	10.3	22.7	52.6	0.0	87.5	44.3
12	5570-5700	CT	0.50	414	20.2	14.3	10.1	32.3	26.4	16.9	101.1	82.9
13	5700-6000	CT	0.60	648	25.4	15.2	8.3	24.8	43.6	12.1	152.3	108.0
14	6000-6300	CT	0.40	746	29.1	9.1	6.5	20.3	53.3	10.8	116.3	186.4
15	6300-6600	CT	1.45	2355	25.2	9.6	5.9	21.2	61.7	1.6	365.0	162.4
16	6600-6900	CT	3.10	4401	26.7	8.6	10.2	14.6	60.4	6.2	827.6	142.0
17	6900-7200	CT	4.20	6912	8.9	2.6	2.8	11.2	82.0	1.4	373.3	164.6
18	7200-7500	CT	0.50	600	9.0	4.3	3.2	12.0	70.3	10.2	45.0	120.0
19	7500-7800	CT	0.40	586	30.2	14.7	5.9	23.9	44.9	10.6	120.7	146.5

WELL: WAREENA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC (wt%)	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	2950-3000	CT	1.04	977	16.2	12.8	4.4	10.0	72.6	0.3	168.0	93.9
2	3200-3230	CT	0.81	788	10.2	7.4	3.1	11.7	73.6	4.1	82.8	97.3
3	3231	SWC	0.22	300	17.3	11.6	1.1	11.6	71.6	4.1	38.1	136.2
4	3440-3500	CT	1.90	1957	6.2	3.9	2.1	10.0	73.4	10.6	117.4	103.0
5	3950-4000	CT	1.34	958	6.0	6.3	2.1	10.3	72.1	9.3	80.5	71.5
6	4168	SWC	1.69	2636	46.5	23.3	6.5	16.0	37.7	16.5	785.6	156.0
7	4320-4370	CT	1.98	1684	16.2	13.7	5.3	17.0	62.4	1.6	320.0	85.1
8	4333	SWC	4.68	5379	41.4	27.9	8.1	23.9	37.9	2.2	1935.8	114.9
9	4869	SWC	0.86	840	21.0	17.7	3.8	17.1	60.8	0.6	180.6	97.7
10	6000-6050	CT	0.76	1148	49.9	29.6	3.4	11.1	38.9	16.9	379.0	151.1
11	6100-6150	CT	9.20	2491	1.3	3.0	1.9	8.0	86.5	0.5	122.2	27.1
12	6105	SWC	5.63	2422	9.9	15.0	8.0	27.3	43.0	6.7	556.8	43.0
13	6192	SWC	3.18	858	4.2	10.7	5.0	22.3	50.4	11.6	134.8	27.0

WELL: WEEDINA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT (wt%)	AROM (wt%)	ONS (wt%)	ASHP (wt%)	LOC (wt%)	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
1	1980-2010	CT	1.90	2450	20.6	1.2	14.8	16.9	55.7	11.4	391.9	128.9
2	2180-2210	CT	1.80	3383	3.8	0.6	1.4	16.1	59.7	22.2	67.6	187.9
3	2962'0"-2"	C	0.10	109	9.6	6.3	2.5	23.8	40.0	27.4	9.6	109.0
4	3363'6"-8"	C	0.10	76	12.0	9.5	6.3	20.6	60.3	3.3	12.0	76.0
5	3363'9"-3364'3"	C	0.05	227	† From Saxby 1977							
6	3783'2"-3783'5"	C	<0.05	223	† From Saxby 1977							
7	4243'0"-2"	C	0.05	116	57.3	17.6	7.1	11.8	38.8	24.7	28.7	232.0
8	4964'9"-4965'3"	C	0.20	115	† From Saxby 1977							
9	4966'6"-7"	C	0.20	204	13.9	11.0	2.6	17.8	49.2	19.4	27.8	102.2
10	5326'7"-5327'4"	C	<0.05	852	† From Saxby 1977							

WELL: WELCOME LAKE #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3330-3630	CT	1.25	804	4.5	4.1	2.9	23.1	50.3	19.6	56.3	64.3
2	3630-3930	CT	0.95	527	4.9	6.2	2.7	23.5	48.3	19.3	46.8	55.4
3	3930-4230	CT	1.30	1489	5.2	3.2	1.3	14.2	63.5	19.8	67.0	114.6
4	4230-4530	CT	1.00	1175	6.0	3.7	1.4	17.2	61.9	15.8	59.9	117.5
5	4530-4830	CT	0.95	550	5.3	8.5	0.6	14.7	49.4	0.0	50.1	57.9
6	4830-5130	CT	0.95	611	6.0	7.6	1.8	16.3	60.0	14.3	57.4	64.3
7	5130-5360	CT	1.10	603	7.6	9.4	4.4	24.2	57.9	4.1	83.2	54.8
8	5360-5540	CT	1.20	680	9.7	14.1	3.0	20.9	54.6	7.4	116.3	56.7
9	5540-5600	CT	0.80	700	11.8	10.8	2.7	17.5	51.6	17.4	94.5	87.5
10	5600-5900	CT	0.15	95	18.7	22.1	7.4	29.3	41.2	0.0	28.0	63.3
11	5900-6110	CT	0.25	610	28.5	10.4	1.3	16.5	49.4	22.4	71.3	243.8
12	6110-6410	CT	0.50	960	25.9	9.7	3.8	18.0	53.9	14.6	129.6	192.0
13	6410-6610	CT	1.80	2354	19.2	9.1	5.6	20.8	57.4	7.1	344.8	130.3
14	6610-6910	CT	0.90	1342	22.2	10.0	4.9	18.1	51.5	15.5	199.9	149.1
15	6910-7210	CT	0.55	1123	31.8	9.3	6.3	16.8	65.3	2.3	175.1	204.1
16	7210-7510	CT	3.35	4912	13.6	4.7	4.6	11.6	71.6	7.5	456.7	146.6
17	7510-7810	CT	0.40	491	21.5	12.4	5.1	23.0	57.3	2.2	86.0	122.8

WELL: WILLS #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	900-1200	CT	2.40	1064	3.3	4.6	2.8	26.5	49.7	16.4	78.7	44.3
2	1200-1500	CT	16.30	7520	2.4	1.3	3.8	20.0	55.5	19.4	383.2	46.1
3	1500-1800	CT	4.65	1487	2.6	4.2	4.0	24.5	61.6	5.7	122.0	32.0
4	1800-2100	CT	2.20	891	4.2	2.4	8.0	27.4	43.9	18.3	92.7	40.5
5	2100-2400	CT	2.85	1243	4.5	2.9	7.4	24.5	49.0	16.2	128.0	43.6
6	2400-2700	CT	1.10	510	4.7	5.8	4.4	21.2	58.4	10.2	52.1	46.4
7	2700-3000	CT	1.10	683	8.2	6.4	6.8	24.1	50.5	12.2	90.2	62.1
8	3000-3300	CT	1.60	581	3.8	8.1	2.3	28.6	40.2	20.8	60.4	36.3
9	3300-3600	CT	1.05	348	2.0	1.6	4.4	27.7	54.3	12.0	20.9	33.1
10	3600-3900	CT	1.00	448	5.8	8.1	4.9	22.1	54.7	10.2	58.2	44.8
11	3900-4080	CT	0.75	399	7.4	4.7	9.3	23.3	51.8	10.9	55.9	53.2
12	4080-4200	CT	0.80	400	4.6	1.0	8.1	25.2	56.1	9.6	36.4	50.0
13	4200-4380	CT	1.35	622	5.7	7.0	5.3	29.1	52.6	6.0	76.5	46.1
14	4380-4700	CT	1.00	1617	1.3	3.3	4.9	9.2	79.6	3.0	13.3	16.2
15	4700-4850	CT	0.80	1164	1.8	8.4	4.1	20.7	64.4	2.4	14.6	14.6
16	4850-5000	CT	0.80	926	1.8	8.0	7.9	24.7	52.5	6.9	14.8	11.6
17	4940-4990	CT	0.80	1040	1.7	5.4	7.8	18.4	62.2	6.2	13.7	13.0
18	5120-5150	CT	1.60	1075	12.6	10.6	8.2	19.9	59.4	0.0	202.1	67.2
19	5170-5310	CT	1.20	1196	16.0	4.8	11.2	17.0	62.7	4.3	191.4	99.7
20	5320-5620	CT	13.60	10409	7.5	4.1	5.7	18.5	65.5	6.2	1019.6	76.5
21	5620-5650	CT	5.85	2486	4.1	3.7	5.9	8.2	72.2	10.0	238.7	42.5
22	5740-5920	CT	2.20	699	1.2	3.3	0.5	19.8	71.3	5.1	26.6	31.8
23	5920-6010	CT	3.10	1213	6.2	8.0	7.9	19.1	62.4	2.5	192.7	39.1
24	6010-6120	CT	0.40	380	3.8	3.0	1.0	21.2	62.0	12.8	15.2	95.0

WELL: WILPINNIE

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4622	SWC	1.17	2232	106.1	51.3	4.3	9.6	14.9	19.9	1241.2	190.8
2	4678'6"	C	1.44	1615	46.2	35.8	5.4	20.3	37.0	1.5	665.7	112.2
3	4690	C	1.91	629	10.9	28.1	4.9	17.2	44.3	5.5	207.4	32.9
4	4707	C	1.89	1965	45.8	37.8	6.2	21.3	31.9	2.8	864.9	104.0
5	4711	C	1.03	813	33.0	33.4	8.4	33.0	25.2	†*Data from		
6	4724'6"	C	1.18	1243	49.0	37.7	9.2	32.5	20.6	† McKirdy 1981		
7	4772	SWC	0.61	550	16.6	11.7	6.7	13.3	50.0	18.3	101.2	90.2
8	4820	SWC	0.61	433	20.6	21.1	7.9	31.6	21.1	18.3	125.6	71.0
9	4858	SWC	0.08	163	0.0	0.0	0.0	0.0	0.0	0.0	0.0	203.8
10	5075	SWC	6.97	1490	31.3	12.4	8.0	15.0	61.1	3.5	2184.0	153.6
11	5346	SWC	0.54	989	26.2	11.0	3.3	12.1	60.4	13.2	141.4	183.1
12	5626	SWC	9.70	10300	26.7	20.4	4.7	12.9	46.6	15.4	2585.7	106.2
13	5761	SWC	1.01	2197	31.1	10.3	4.0	10.3	73.0	2.4	314.1	217.5
14	6073	SWC	3.62	4321	32.2	23.5	3.5	14.2	34.1	24.7	1167.0	119.4
15	7073'5"	C	4.52	2980	25.0	31.8	6.2	16.8	42.2	3.0	1131.9	65.9
16	7091'4"	C	9.56	64	7.9	7.2	4.4	11.5	66.1	10.8	753.0	67.9
17	7100'8"	C	2.18	908	4.4	4.5	6.0	38.5	47.4	3.6	95.5	41.7

WELL: WILSON #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	3730-3760	CT	0.83	1710	73.7	31.7	4.1	32.4	31.7		612.1	206.0
2	3890-3920	CT	8.20	1583	3.0	14.4	1.4	30.9	53.2		250.1	19.3
3	3920-3950	CT	1.04	1724	31.0	15.7	3.0	16.5	64.8		322.4	165.8
4	3950-3980	CT	0.76	2398	160.3	44.3	6.5	18.9	30.3		1218.1	315.5
5	4370-4400	CT	0.30	696	36.4	11.6	4.1	16.7	67.6		109.3	232.0
6	4520-4550	CT	0.77	1214	57.9	27.8	8.9	26.8	36.5		445.6	157.7
7	4550-4580	CT	1.13	2647	100.0	36.9	5.8	16.6	40.7		1130.0	234.2
8	4580-4610	CT	0.72	2970	204.2	42.3	7.2	10.1	40.4		1470.2	412.5
9	4670-4700	CT	0.44	550	10.9	5.0	3.7	21.8	69.6		47.8	125.0
10	4760-4790	CT	0.67	1347	28.7	9.9	4.4	6.5	79.2		192.6	201.0
11	4790-4820	CT	0.36	1172	54.0	14.0	2.6	12.0	71.3		194.6	325.6
12	4820-4850	CT	1.38	2680	61.2	24.9	6.6	14.5	53.9		844.2	194.2
13	5060-5090	CT	4.40	3563	6.0	4.2	3.2	5.2	87.5		263.7	81.0
14	5090-5120	CT	3.75	2874	3.1	1.5	2.6	4.7	91.2		117.8	76.6
15	5120-5150	CT	9.00	3050	1.4	1.2	2.8	5.1	90.9		122.0	33.9
16	5180-5210	CT	3.60	2639	3.7	3.0	2.0	6.9	88.2		131.9	73.3
17	5240-5270	CT	3.42	2320	3.7	3.0	2.4	9.7	84.9		125.2	67.8

WELL: WIMMA #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	1200-1500	CT	1.25	338	2.1	4.3	3.3	38.0	40.0	14.4	25.7	27.0
2	2400-2700	CT	0.80	363	4.8	6.2	4.5	36.9	37.9	14.5	38.8	45.3
3	3300-3600	CT	2.50	1317	6.0	5.6	5.8	25.8	43.3	19.5	150.2	52.7
4	4200-4500	CT	1.20	750	7.1	5.9	5.4	23.7	48.1	16.9	84.8	62.5
5	4800-5100	CT	1.45	1000	10.8	9.3	6.3	25.8	45.5	13.1	156.1	69.0
6	5100-5400	CT	1.55	990	11.6	8.4	9.7	24.3	50.0	7.6	179.3	63.9
7	5400-5700	CT	1.15	622	10.4	13.0	6.3	19.4	52.6	8.7	120.1	54.1
8	5700-6000	CT	0.90	413	8.4	9.7	8.5	20.2	49.6	12.0	75.2	45.9
9	6000-6300	CT	1.00	501	5.8	7.2	4.4	16.7	60.3	11.4	58.1	50.1
10	6300-6600	CT	0.85	523	8.6	10.0	4.0	16.2	55.8	14.0	73.2	61.5
11	6600-6900	CT	0.40	378	16.6	13.0	4.6	17.0	46.3	19.1	66.6	94.6
12	6900-7200	CT	0.55	3880	109.3	13.2	2.3	6.4	61.3	16.8	601.0	705.0
13	7200-7500	CT	0.35	1273	12.0	2.0	1.3	4.7	77.2	14.8	42.0	364.0
14	7500-7600	CT	0.30	719	24.7	7.6	2.7	7.2	67.7	14.8	74.2	240.0
15	7650-7800	CT	1.90	2931	29.9	11.1	8.3	9.5	66.8	4.3	567.6	154.0
16	7800-7880	CT	0.65	1421	27.2	7.2	5.2	14.0	63.6	10.0	176.5	219.0
17	7890-8100	CT	0.10	255	32.9	8.4	4.5	11.4	59.4	16.3	32.9	255.0
18	8400-8700	CT	1.15	1449	25.3	8.8	11.3	11.0	51.5	17.4	291.2	126.0
19	8700-9000	CT	1.15	2129	17.0	5.0	4.2	4.8	75.8	10.2	195.7	185.0
20	9000-9300	CT	0.70	1344	20.7	5.9	4.9	5.9	73.7	9.6	145.2	192.0
21	9300-9466	CT	0.25	759	22.5	5.2	2.2	5.5	78.8	8.3	56.2	304.0
22	9900-10200	CT	0.10	223	42.4	11.6	7.4	28.9	34.7	17.4	42.4	223.0
23	10400-10700	CT	27.80	7	4.8	9.4	9.4	17.6	57.3	6.3	1322.3	25.3

WELL: YANKO #1

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	700-1000	CT	1.95	664	3.9	7.0	4.3	33.5	44.6	10.6	75.1	34.1
2	1000-1300	CT	2.00	645	2.3	4.8	2.2	21.8	63.9	7.3	45.2	32.3
3	1300-1600	CT	2.70	840	3.0	4.9	4.9	30.1	45.5	14.6	82.3	31.1
4	1600-1900	CT	6.75	2762	2.9	3.5	3.7	17.2	69.2	6.3	198.8	40.9
5	1900-2200	CT	2.40	1176	4.1	4.6	3.7	23.5	59.4	8.8	97.6	49.0
6	2200-2500	CT	2.00	869	5.2	8.0	3.9	19.9	63.1	5.0	103.5	43.5
7	2500-2800	CT	1.95	888	4.8	7.1	3.5	23.8	51.0	14.6	94.0	45.5
8	2800-3100	CT	1.25	574	6.7	10.1	4.5	22.9	57.7	4.7	83.8	45.9
9	3100-3400	CT	1.20	654	5.2	5.8	3.8	16.8	66.1	7.4	62.8	54.5
10	3400-3700	CT	0.85	399	5.5	8.6	3.2	20.9	59.6	7.7	47.0	46.9
11	3700-4000	CT	1.05	438	4.8	8.0	3.5	19.5	56.8	12.3	50.4	41.7
12	4000-4300	CT	1.10	591	6.2	7.3	4.3	19.1	52.9	16.4	68.5	53.7
13	4300-4600	CT	1.15	857	5.5	4.5	2.9	8.7	70.0	13.9	63.4	74.5
14	4600-4900	CT	0.90	527	9.6	10.0	6.4	20.2	56.0	7.3	86.5	58.6
15	4900-5200	CT	0.85	532	8.6	9.0	4.8	18.0	54.9	13.2	73.4	62.6
16	5200-5500	CT	1.00	929	14.7	8.5	7.3	19.0	64.8	0.4	146.8	92.9
17	5500-5800	CT	1.50	1723	14.6	7.8	4.9	10.6	60.6	16.0	218.9	114.9
18	5800-6100	CT	6.35	2986	1.6	1.8	1.7	2.8	92.7	1.0	104.5	47.0
19	6100-6400	CT	7.15	2300	3.2	6.1	3.7	7.6	81.3	1.3	225.6	32.2
20	6400-6700	CT	12.30	3147	1.5	2.7	3.3	6.6	86.4	0.9	188.9	25.6
21	6700-7000	CT	3.80	1536	3.1	3.4	4.2	8.8	79.2	4.3	116.7	40.4

WELL: YAPENI #

No.	INTERVAL (ft)	SAMPLE TYPE	TOC (wt%)	EOM (ppm)	HC YEILD (mg/g TOC)	SAT	AROM	ONS	ASHP	LOC	HC TOTAL (ppm)	EOM(per TOC) (mg/g TOC)
						(wt%)						
1	4955	SWC	1.05	1265	25.7	16.7	4.6	12.5	45.0	21.2	269.7	120.6
2	4976	SWC	0.10	1015	70.0	5.7	1.2	4.5	51.1	37.5	70.0	1015.0
3	5725	SWC	1.10	1892	37.3	18.6	3.1	17.1	53.4	7.8	410.6	172.0

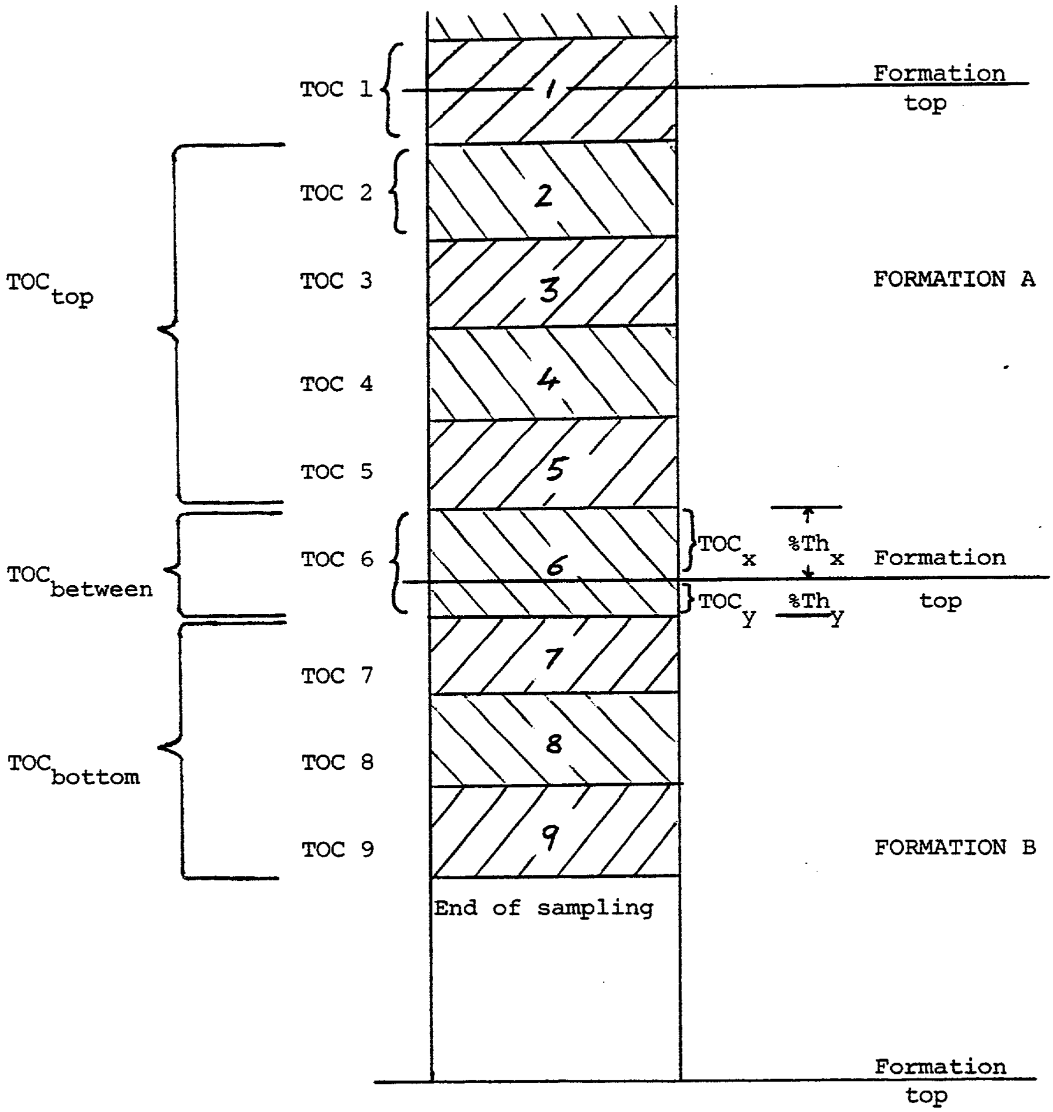
APPENDIX B.

Technique for assigning TOC values to samples straddling formation boundaries.

APPENDIX B : Technique for assigning TOC values to samples straddling formation boundaries.

CASE A: Adequate sampling of underlying and overlying formations.

EXAMPLE:



PROBLEM: To calculate TOC_x and TOC_y from TOC_{1-9}

SOLUTION:

TOC_{top} = Mean TOC value of samples lying entirely within Formation A, using:

$$TOC_{Av} = \frac{\sum_{i=1}^{n} (Th_i \times TOC_i)}{Th_{total}}$$

TOC_{bottom} = Mean TOC value of samples lying entirely within Formation B. calculated as above.

$TOC_{between}$ = TOC value of that sample straddling the formation boundary.

$\% Th_x$ = Thickness percentage of that sample straddling the formation boundary which lies in Formation A.

$\% Th_y$ = Thickness percentage of that sample straddling the formation boundary which lies in Formation B.

TOC_x = TOC value of that part of the sample which lies in Formation A (to be calculated)

TOC_y = TOC value of that part of the sample which lies in Formation B (to be calculated).

Now: $TOC_{between} = (TOC_x \times \% Th_x) + (TOC_y \times \% Th_y)$ .... Eqn 1

Assuming: $\frac{TOC_{top}}{TOC_{bottom}} = \frac{TOC_x}{TOC_y}$ .... Eqn 2

Then $TOC_y = TOC_x \times \left(\frac{TOC_{bottom}}{TOC_{top}} \right)$ .... Eqn 3

Substituting this for TOC_y in Eqn 1:

$$TOC_{between} = (TOC_x \times \% Th_x) + \left(TOC_x \times \frac{TOC_{bottom}}{TOC_{top}} \right) \times \% Th_y$$

$$TOC_{between} = TOC_x \left(\% Th_x + \frac{TOC_{bottom}}{TOC_{top}} \times \% Th_y \right)$$

$$\boxed{TOC_x = \frac{TOC_{between}}{\%\ Th_x + \%\ Th_y \left(\frac{TOC_{bottom}}{TOC_{top}}\right)}} \quad \text{.....Eqn. 4}$$

$$\boxed{TOC_y = TOC_x \times \left(\frac{TOC_{bottom}}{TOC_{top}}\right)} \quad \text{.....Eqn. 3}$$

APPENDIX C

Subdivided Analytical Results

*Denotes wells sampled at 30' intervals

TABLE 1a: Extractable Organic Matter yield & composition of samples 100% within the Murta Member.

No	Well Name	Formation Interval (ft)	Sample Interval	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	------EOM Composition (%)------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Coonatie 2	6113-6290	6140'-6260'	0.49	1498	28.7	7.8	1.6	6.1	83.1	1.5	140.8	CT
2	Curralle 1	3212-3277	3221'	0.89	729	11.9	12.1	2.4	10.8	59.0	15.7	105.8	SWC
3	Cuttapirrie 1	6001-6172	6039'	0.82	1100	33.4	18.8	5.9	12.9	50.0	2.4	274.0	SWC
4	Dullingari 1	4697-5002	4957'	1.72	1673	26.0	23.6	3.4	38.7	34.3			C
5A	Dullingari 5	4830-5015	4844'	0.88	1062	14.0	7.8	3.9	30.0	58.3			SWC
5B			4849'6"	0.97	679	16.0	16.4	6.9	35.6	41.1			SWC
5C			4855'	0.66	557	20.0	19.1	4.4	28.0	48.5			SWC
5D			4861'	0.29	339	22.0	14.8	3.7	44.5	37.0			SWC
5E			4863'	1.39	993	18.0	18.8	6.7	36.9	37.6			SWC
5F			4866'	0.55	462	17.0	14.1	6.3	35.8	43.8			SWC
5G			4908'	0.13	1500	736.0	60.9	2.9	29.0	7.2	stained		SWC
5H			4978'	0.87	649	12.0	10.0	6.0	30.0	54.0			SWC
5I			5006'	0.58	678	25.0	13.1	8.2	34.4	44.3			SWC
6A	Dullingari 11	4942-5162	5002'5"-10"	0.90	540	18.2	22.8	7.5	11.1	46.1	12.5	163.6	C
6B			5007'5"-8"	0.60	707	26.9	15.7	7.1	19.5	34.6	23.1	161.3	C
6C			5039'4"-8"	1.25	1105	27.1	19.4	11.3	14.4	38.9	16.0	339.2	C
6D			5055'7"-10"	1.45	1562	36.4	24.1	9.7	14.6	43.3	8.3	527.8	C
7A	Dullingari Nth 1	4788-5016	4800'-4830'	1.36	745	8.0	8.3	5.4	43.8	42.6			CT
7B			4883'	0.81	657	16.0	15.8	3.3	40.0	40.9			SWC
7C			4958'	0.71	680	19.0	13.9	5.5	41.8	38.8			SWC
7D			4967'	1.38	798	12.0	15.6	5.2	34.9	44.3			SWC
7E			4980'-5010'	8.40	5020	17.0	21.5	6.4	42.8	29.3			CT
8A	Fly Lake 4	5813-5971	5821'	0.60	1488	34.5	11.2	2.7	8.7	55.7	21.7	206.8	SWC
8B			5864'	0.70	1190	38.8	19.5	3.3	14.3	39.1	23.8	271.3	SWC
8C			5931'	0.95	1910	43.4	17.3	4.3	7.9	40.6	29.9	412.5	SWC
8D			5962'	0.70	1408	53.7	20.7	6.0	10.0	52.7	10.6	376.0	SWC
9	Innamincka 3	4013-4197	4134'	0.86	1300	49.0	27.0	5.3	32.8	34.9			SWC
10	Jackson 1	3604-3845	3703'3"-6"	1.95	2411	39.1	22.3	9.2	20.1	41.6	6.8	759.0	C
11	Kidman 2	4784-4938	4863'	0.88	1580	58.0	25.2	7.4	48.2	25.2			SWC
12A	Marabooka 1	4588-4802	4644'	0.65	1021	38.0	17.2	5.2	44.7	35.9			SWC
12B			4759'8"	1.90	1885	28.0	20.2	7.9	29.4	42.5			C
12C			4792'4"	2.65	3318	31.0	13.6	11.2	22.4	52.8			C
13	Merrimelia 6	5007-5244	5100'5150'	0.80	1093	49.7	27.6	8.8	20.8	34.7	8.1	397.8	CT
14	Merrimelia 7	5157-5326	5160'-5320'	0.90	1495	8.0	40.5	7.5	16.6	29.2	6.2	71.7	CT
15A	Moomba 18	5646-5800	5703'	0.62	370	15.0	17.1	7.7	39.3	35.9			C
15B			5796'	1.01	772	19.0	19.3	6.1	41.9	32.7			C
16A	Moorari 3	5956-6126	5978'	0.75	1184	23.9	10.7	4.5	7.4	35.5	41.9	179.4	SWC
16B			6024'	0.40	809	17.8	8.2	0.6	5.0	37.7	48.5	71.1	SWC
16C			6094'	0.90	1017	12.3	9.3	1.6	6.7	52.1	30.3	110.9	SWC
17	Mudera 1	4764-4939	4930'	0.70	1181	26.0	11.2	4.2	17.1	48.6	18.9	182.0	SWC
18A	Naccowlah 1	4392-4670	4416'	0.85	2168	172.9	63.6	4.2	9.2	9.6	13.4	1469.6	SWC
18B			4634'	6.71	1233	27.1	7.8	7.8	20.0	46.7	17.7	1817.2	SWC
19A	Namur 2	5245-5431	5407'	1.52	1693	43.0	30.8	7.6	34.3	27.3			C
19B			5409'	2.82	2758	45.0	34.6	11.6	34.3	19.5			C
19C			5412'6"	2.64	4373	81.0	36.9	12.3	28.4	22.4			C
19D			5419'6"	3.90	4528	39.0	23.4	10.1	35.7	30.8			C
19E			5421'9"	2.94	3296	54.0	35.5	12.4	34.0	18.1			C
19F			5424'3"	4.68	5291	34.0	18.3	11.5	32.7	37.5			C
20A	Nappacoongee 2	4268-4458	4324'	0.64	669	29.0	18.5	9.3	35.2	37.0			SWC
20B			4359'8"	1.58	2285	76.0	44.3	8.3	28.5	18.9			C
21	Pinna 1	4552-4710	4552'	1.16	1021	27.0	25.4	5.7	34.8	34.1			SWC
22A	Strzelecki 3	4443-4622	4470'	1.26	1258	48.0	38.5	9.5	32.8	19.2			SWC
22B			4480'-4510'	1.88	884	22.0	38.6	8.7	33.2	19.5			CT
23A	Strzelecki 4	4489-4659	4564'	0.60	3552	201.3	28.0	6.0	16.1	28.9	21.0	1207.7	SWC
23B			4546'	0.70	1551	89.9	33.7	6.9	13.9	23.9	21.6	629.5	SWC
23C			4508'	1.10	1771	49.7	25.6	5.3	15.9	24.9	28.3	547.2	SWC
24	Strzelecki 5	4473-4641	4500'-4600'	0.85	697	17.7	14.2	7.3	18.0	47.1	13.4	150.0	CT
25A	Tartulla 1	5099-5283	5180'-5190'	0.98	2203	54.9	19.0	5.4	22.4	37.6	15.7	538.0	CT
25B			5250'-5270'	0.68	1591	49.1	17.8	3.2	23.0	45.3	10.7	334.0	CT
26A	Wackett 1	4402-4647	4410'-4440'	0.97	1877	69.1	32.8	2.9	16.4	36.1	11.7	670.1	CT
26B			4600'-4630'	0.90	836	23.1	21.0	3.9	14.9	55.9	4.4	208.2	CT
27	Wantana 1	5550-5736	5570'-5700'	0.50	414	20.2	14.3	10.1	32.3	26.4	16.9	101.1	CT
28	Wareena 1	3209-3501	3231'	0.22	300	17.3	11.6	1.1	11.6	71.6	4.1	38.1	SWC
29A	Wilpinnie 1	4657-4874	4678'6"	1.44	1615	46.2	35.8	5.4	20.3	37.0	1.5	665.7	C
29B			4690'	1.91	629	10.9	28.1	4.9	17.2	44.3	5.5	207.4	C
29C			4707'	1.89	1965	45.8	37.8	6.2	21.3	31.9	2.8	864.9	C
29D			4711'	1.03	813	33.0	33.4	8.4	33.0	25.2			C
29E			4724'6"	1.18	1243	49.0	37.7	9.2	32.5	20.6			C
29F			4772'	0.61	550	16.6	11.7	6.7	13.3	50.0	18.3	101.2	SWC
29G			4820'	0.61	433	20.6	21.1	7.9	31.6	21.1	18.3	125.6	SWC
29H			4858'	0.08	163		insufficient extract						SWC
30	Yapeni 1	4823-4966	4955'	1.05	1265	25.7	16.7	4.6	12.5	45.0	21.2	269.7	SWC
31	*Bycoe 1	3882-4122	3960'-3990'	0.77	1135	22.6	10.3	5.0	21.3	63.4		173.7	CT
32A	*Gunna 1	3936-4173	3990'-4020'	1.88	2534	46.1	26.6	7.6	29.9	35.9		866.7	CT
32B			4050'-4080'	1.89	2240	26.2	15.9	6.2	41.2	36.7		495.0	CT
33	*Naccowlah Sth 1	4428-4691	4440'-4470'	0.81	1324	87.6	45.3	8.3	25.0	21.3		709.9	CT
34	*Richie 1	3714-3951	3770'-3800'	1.00	684	11.6	13.3	3.7	35.6	47.4		116.3	CT
35A	*Tinpilla 1	3886-4112	3890'-3920'	1.10	2044	12.3	3.8	2.8	75.5	17.9		134.9	CT
35B			3950'-3980'	1.99	2716	34.4	18.3	6.9	30.2	44.6		684.5	CT
35C			3980'-4010'	1.25	1646	23.2	10.8	6.8	18.4	64.0		289.7	CT
35D			4040'-4070'	1.48	985	7.6	6.8	4.6	18.5	70.1		112.4	CT
36A	*Wilson 1	3733-3976	3890'-3920'	8.20	1583	3.0	14.4	1.4	30.9	53.2		250.1	CT
36B			3920'-3950'	1.04	1724	31.0	15.7	3.0	16.5	64.8		322.4	CT

TABLE 1b: Extractable Organic Matter yield & composition of samples >75% within the Murta Member.

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	EOM Composition (%) Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Alkina 1	5002-5122	96.97	5000-5066	0.89	1374	18.1	8.0	3.7	15.2	58.1	15.0	160.8	CT
2	Belah 1	4382-4591	76.40	4400-4650	0.75	732	15.6	11.8	4.2	12.6	56.5	15.0	117.1	CT
3	Dilchee 1	4987-5173	96.11	5000-5180	0.85	722	9.3	5.2	5.7	15.5	59.8	13.8	78.7	CT
4	Hume 1	4683-4881	94.71	4720-4890	0.80	628	9.5	8.6	3.5	13.9	54.1	19.9	78.5	CT
5A	Jackson 1	3604-3845	92.00	3600-3650	1.05	572	6.0	7.4	3.7	11.7	72.2	5.0	63.4	CT
5B			78.00	3650-3900	0.85	666	10.0	12.1	0.7	13.0	62.1	12.1	85.2	CT
6	Jackson Sth 1	3538-3782	83.48	3500-3730	0.78	883	32.6	19.3	9.5	22.5	41.6	7.1	254.3	CT
7	Karmona East 1	4777-4990	95.24	4790-5000	0.63	1528	66.0	20.8	6.4	13.5	55.6	3.7	415.5	CT
8	Tanbar Nth 1	5724-5848	88.33	5710-5830	0.57	837	38.0	20.9	5.0	17.3	50.3	6.5	216.7	CT
9	Tartulla 1	5099-5283	86.19	5070-5280	0.93	1459	46.6	24.6	5.1	24.9	41.4	4.0	433.4	CT
10	Wills 1	4106-4306	78.89	4080-4200	0.80	400	4.6	1.0	8.1	25.2	56.1	9.6	36.4	CT
11	*Gunna 1	3936-4173	80.00	3930-3960	1.87	1261	12.5	10.0	8.6	30.0	51.4		234.4	CT
12	*Richie 1	3714-3951	86.67	3710-3740	1.46	1333	5.0	3.8	1.7	30.8	63.7		73.3	CT
13A	*Wilson 1	3733-3976	90.00	3730-3760	0.83	1710	73.7	31.7	4.1	32.4	31.7		612.1	CT
13B			86.67	3950-3980	0.76	2398	160.3	44.3	6.5	18.9	30.3		1218.1	CT

TABLE 1c: Extractable Organic Matter yield & composition of samples <75% within the Murta Member.

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	EOM Composition (%) Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Alkina 1	5002-5122	52.83	5066-5172	1.98	3997	9.7	2.9	1.9	4.5	87.0	3.6	191.9	CT
2A	Barrolka East 1	4894-4918	2.00	4600-4900	0.84	655	10.5	9.5	3.9	18.2	63.6	4.8	87.8	CT
2B			7.50	4900-5140	0.78	1809	18.8	5.3	2.8	5.3	84.2	2.5	146.5	CT
3	Belah 1	4382-4591	6.00	4100-4400	1.65	1218	10.3	8.7	5.2	12.6	66.4	7.1	169.3	CT
4A	Coonatie 2	6113-6290	12.86	5930-6140	0.96	939	15.1	11.0	4.4	13.3	66.1	5.2	144.6	CT
4B			10.00	6260-6560	0.28	649	45.2	16.6	2.9	10.6	63.4	6.6	126.6	CT
5A	Corkwood 1	4416-4603	28.00	4200-4500	1.00	673	8.0	3.5	8.4	3.0	32.4	30.6	80.1	CT
5B			34.33	4500-4800	0.85	693	23.5	21.8	7.0	33.4	26.6	11.2	199.8	CT
6	Daralingie 4	4970-5158	43.33	4800-5100	0.90	480	7.6	9.3	4.9	30.6	41.6	13.6	68.1	CT
7	Dilchee 1	4987-5173	4.64	4720-5000	0.60	708	16.0	7.0	6.6	15.1	57.7	13.6	96.2	CT
8	Gilpeppee 2	5467-5576	36.33	5400-5700	1.05	714	18.7	18.9	8.6	22.4	41.9	8.2	196.4	CT
9	Hume 1	4683-4881	11.94	4410-4720	0.95	553	9.8	12.2	4.6	19.0	59.0	5.2	92.9	CT
10A	Ingella 1	5430-5514	7.69	5190-5450	1.00	781	15.4	12.6	7.1	19.5	52.9	7.9	153.9	CT
10B			22.07	5450-5740	1.70	3116	19.9	6.7	4.2	3.5	83.5	2.1	339.1	CT
11A	Jack Lake 1	5654-5828	15.33	5400-5700	1.16	1155	7.3	5.3	2.0	10.7	63.1	18.9	84.3	CT
11B			42.67	5700-6000	0.33	1136	36.1	8.6	1.9	12.1	51.5	25.9	119.3	CT
12	Jackson Sth 1	3538-3782	11.35	3740-4110	0.72	1107	28.3	11.1	7.3	17.9	54.0	9.6	203.8	CT
13	Karmona East 1	4777-4990	4.33	4490-4790	0.97	658	10.0	9.4	5.3	18.0	67.1	0.2	96.7	CT
14A	McKinlay 1	3902-4071	69.08	3855-4007	0.80	533	9.6	9.8	4.6	17.2	63.2	5.2	76.7	CT
14B			33.16	4007-4200	1.30	1310	17.2	14.2	2.9	14.2	53.1	15.6	223.9	CT
15	Merrimelia 6	5007-5244	37.20	4850-5100	1.35	773	13.6	16.4	7.4	17.0	54.8	4.4	184.1	CT
16A	Merrimelia 7	5157-5326	1.30	4930-5160	1.15	884	23.7	23.8	7.0	23.1	36.4	9.7	272.4	CT
16B			2.00	5320-5620	0.60	1302	6.2	24.3	4.4	9.0	53.2	9.1	37.4	CT
17	Morney 1	3389-3402	4.33	3200-3500	1.15	1083	14.3	10.5	4.7	22.1	53.0	9.7	164.7	CT
18	Spencer 2	4317-4452	22.00	4200-4350	0.85	417	4.7	6.4	3.1	19.6	56.0	14.9	39.6	CT
19	Tanbar Nth 1	5724-5848	6.00	5830-6130	0.88	1982	24.1	7.2	3.5	8.6	67.1	13.6	212.0	CT
20	Tartulla 1	5099-5283	2.50	5280-5400	2.68	5762	17.6	3.9	4.3	8.8	72.7	10.3	472.5	CT
21A	Wantana 1	5550-5736	11.76	5400-5570	0.80	354	10.9	14.4	10.3	22.7	52.6	0.0	87.5	CT
21B			12.00	5700-6000	0.60	648	25.4	15.2	8.3	24.8	43.6	12.1	152.3	CT
22	Wareena 1	3209-3501	70.00	3200-3230	0.81	788	10.2	7.4	3.1	11.7	73.6	4.1	82.8	CT
23	Welcome Lake 1	5600-5754	51.33	5600-5900	0.15	95	18.7	22.1	7.4	29.3	41.2	0.0	28.0	CT
24	Wills 1	4106-4306	58.89	4200-4380	1.35	622	5.7	7.0	5.3	29.1	52.6	6.0	76.5	CT
25	Wimma 1	6612-6787	58.33	6600-6900	0.40	378	16.6	13.0	4.6	17.0	46.3	19.1	66.6	CT
26A	Yanko 1	4493-4731	35.67	4300-4600	1.15	857	5.5	4.5	2.9	8.7	70.0	13.9	63.4	CT
26B			43.67	4600-4900	0.90	527	9.6	10.0	6.4	20.2	56.0	7.3	86.5	CT
27	*Naccowlah Sth 1	4428-4691	40.00	4410-4440	0.89	726	18.0	16.7	5.3	33.9	44.1		159.8	CT

TABLE 2a: Extractable Organic Matter yield & composition of samples 100% within the Westbourne Fm.

No	Well Name	Formation Interval (ft)	Sample Interval	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	------EOM Composition (%)------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sampl Type
1	Alkina 1	5490-5818	5492'-5790'	0.41	635	12.4	6.2	1.8	22.6	56.5	12.9	50.8	CT
2	Barrolka East 1	5362-5705	5390'-5690'	0.48	857	24.8	9.3	4.6	12.7	67.2	6.3	119.1	CT
3	Coonatie 2	6507-6913	6560'-6860'	0.29	609	37.4	14.5	3.3	12.5	64.1	5.6	108.4	CT
4	Curralle 1	3586-3770	3669'	0.72	830	11.0	5.3	4.2	11.6	58.9	0.0	78.9	SWC
5	Dullingari Nth 1	5310-5484	5341'	0.47	757	32.0	15.1	4.8	51.5	28.6			SWC
6	Ingella 1	5904-6285	6200'-6280'	0.45	862	25.2	7.7	5.5	13.0	67.7	6.1	113.5	CT
7A	Jackson 1	4169-4446	4176'-4345'	0.35	2430	510.8	65.5	8.1	12.8	8.2	5.4	1787.7	CT
7B			4385'3"-6"	1.40	2059	73.5	41.2	8.8	18.5	28.9	2.6	1029.0	C
7C			4400'1"-2"	2.90	5097	41.7	20.0	3.7	9.8	55.9	10.6	1208.0	C
8	Jackson South 1	4120-4422	4120'-4380'	0.76	1122	42.7	24.2	4.7	12.4	50.0	8.6	324.2	CT
9A	Kidman 2	5148-5330	5170'	0.91	1022	22.0	13.5	6.4	20.5	59.6			SWC
9B			5310'	0.77	1255	43.0	18.4	7.8	28.2	45.6			SWC
10	Merrimelia 7	5554-5933	5620'-5920'	0.80	1385	2.5	10.5	3.8	9.1	65.8	10.8	19.8	CT
11A	Moorari 3	6330-6770	6390'	0.40	1781	81.5	14.6	3.7	10.0	40.2	31.5	325.9	SWC
11B			6550'	1.60	1705	22.4	14.8	6.2	10.5	58.2	10.3	357.8	SWC
11C			6750'	1.20	2458	33.8	11.8	4.7	8.3	62.1	13.1	405.5	SWC
12	Mt Howitt 1	4045-4451	4094'	0.39	1200	14.0	..4.6..		..95.4..				C
13A	Strzelecki 3	4885-4997	4894'	0.91	841	42.0	18.3	26.7	16.7	38.3			SWC
13B			4919'	0.66	1220	37.0	9.6	10.4	37.4	42.6			SWC
14	Strzelecki 4	4893-5074	5050'	0.10	2207	117.0	5.0	0.3	2.5	72.2	20.0	117.0	SWC
15	Tanbar Nth 1	6123-6582	6130'-5480'	1.69	2482	11.2	5.1	2.5	6.5	77.4	8.6	188.7	CT
	Tartulla 1		5620'-5650'	0.33	2409	62.8	6.1	2.5	11.0	72.8	7.6	207.0	CT
		5578-6005	5700'-6000'	1.20	836	11.6	10.0	6.7	22.0	54.7	6.6	139.7	CT
16C			5930'-5950'	0.53	2982	35.4	4.2	2.1	15.7	58.1	19.9	188.0	CT
17	Wackett 1	4958-5135	5100'-5130'	0.81	988	32.2	22.6	3.8	17.0	52.7	3.9	260.9	CT
18	Wareena 1	3678-4093	3950'-4000'	1.34	958	6.0	6.3	2.1	10.3	72.1	9.3	80.5	CT
19	Wilpinnie 1	5070-5313	5075'	6.97	1490	31.3	12.4	8.0	15.0	61.1	3.5	2184.0	SWC
20	*Bycoe 1	4437-4784	4670'-4700'	0.72	1126	25.5	9.1	7.2	23.3	60.4		183.6	CT
21	*Chookoo 1	4998-5350	5250'-5280'	1.54	387	9.2	25.6	11.0	43.1	20.3		141.5	CT
22A	*Naccowlah Sth 1	4949-5304	5100'-5130'	1.96	1064	11.3	15.1	5.8	37.3	41.8		222.4	CT
22B			5130'-5160'	2.78	1064	7.0	12.1	6.1	40.5	41.3		193.8	CT
23	*Richie 1	4274-4596	4550'-4580'	1.04	3120	22.8	3.0	4.6	18.9	73.5		237.1	CT
24A	*Tinpilla 1	4438-4764	4640'-4670'	0.81	2840	80.3	17.1	5.8	54.9	22.1		650.3	CT
24B			4670'-4700'	1.06	2558	28.5	7.4	4.4	16.0	72.1		301.8	CT
25A	*Wilson 1	4296-4600	4370'-4400'	0.30	696	36.4	11.6	4.1	16.7	67.6		109.3	CT
25B			4520'-4550'	0.77	1214	57.9	27.8	8.9	26.8	36.5		445.6	CT
25C			4550'-4580'	1.13	2647	100.0	36.9	5.8	16.6	40.7		1130.0	CT

TABLE 2b: Extractable Organic Matter yield & composition of samples >75% within the Westbourne Fm.

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	EOM Composition (%) Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Gilpeppee 2	5908-6260	86.67	6000-6300	0.90	1249	33.4	18.7	5.4	21.4	50.8	3.7	300.8	CT
2	Hume 1	5123-5423	97.29	5115-5410	0.75	667	13.7	9.7	5.7	13.3	59.5	11.8	102.7	CT
3	Ingella 1	5904-6285	98.67	5900-6200	0.50	697	13.5	6.6	3.1	9.3	70.1	10.9	67.4	CT
4	Jack Lake 1	6043-6320	85.67	6000-6300	0.12	322	37.0	10.5	3.3	14.2	47.7	24.3	44.4	CT
5	Karmona East 1	5302-5650	99.00	5300-5500	0.53	914	23.5	9.4	4.2	12.9	65.2	8.3	124.3	CT
6	Welcome Lake 1	5950-6211	76.19	5900-6110	0.25	610	28.5	10.4	1.3	16.5	49.4	22.4	71.3	CT
7	Wimma 1	7011-7462	87.33	7200-7500	0.35	1273	12.0	2.0	1.3	4.7	77.2	14.8	42.0	CT
8	Yanko 1	4987-5437	79.00	5200-5500	1.00	929	14.7	8.5	7.3	19.0	64.8	0.4	146.8	CT

TABLE 2c: Extractable Organic Matter yield & composition of samples <75% within the Westbourne Formation

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	EOM Composition (%) Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Alkina 1	5490-5818	2.20	5816-5907	0.24	589	12.0	4.4	0.5	19.1	62.7	13.2	28.9	CT
2	Barrolka East 1	5362-5705	11.20	5140-5390	0.55	927	14.5	4.5	4.1	11.4	78.9	1.0	79.7	CT
3A	Coonatie 2	6507-6913	17.67	6260-6560	0.28	649	45.2	16.6	2.9	10.6	63.4	6.6	126.6	CT
3B			21.20	6860-7110	0.38	740	140.0	8.5	63.4	13.4	63.7	11.0	532.0	CT
4	Gilpeppee 2	5908-6260	30.67	5700-6000	2.20	3204	22.0	8.0	7.1	16.2	68.7	0.0	483.7	CT
5	Hume 1	5123-5423	8.13	5410-5570	1.25	855	10.3	9.4	5.6	17.0	53.8	14.2	128.3	CT
6	Ingella 1	5904-6285	7.14	6280-6350	0.15	417	42.5	10.3	5.0	13.8	51.8	19.1	63.8	CT
7	Jack Lake 1	6043-6320	6.67	6300-6600	0.05	206	81.6	13.2	6.6	15.4	52.2	12.6	40.8	CT
8A	Jackson 1	4169-4446	10.33	3900-4200	0.35	663	36.1	14.5	4.6	15.0	54.9	11.0	126.3	CT
8B			57.71	4345-4520	0.70	2316	187.7	51.1	5.6	10.7	21.4	11.2	1313.7	CT
9	Jackson Sth 1	4120-4422	38.18	4380-4490	0.88	2537	34.0	9.8	2.0	12.4	61.7	14.1	299.4	CT
10	Karmona East 1	5302-5650	62.50	5500-5740	0.64	1245	29.8	8.6	6.7	13.6	64.7	6.4	190.5	CT
11A	Merrimelia 7	5554-5933	22.00	5320-5620	0.60	1302	6.2	24.3	4.4	9.0	53.2	9.1	37.4	CT
11B			13.00	5920-6020	2.65	4883	1.4	3.4	4.1	3.6	86.5	2.4	36.6	CT
12A	Merrimelia 6	5452-5831	56.00	5320-5620	0.70	860	72.5	35.3	23.7	8.0	74.2	16.2	507.6	CT
12B			70.33	5620-5920	1.05	1754	50.1	19.6	10.4	12.6	48.1	9.3	526.0	CT
13	Morney 1	3844-4049	68.33	3800-4100	1.00	919	15.3	11.3	5.4	20.8	55.6	6.9	153.5	CT
14	Strzelecki 5	5028-5120	30.67	5000-5300	1.15	928	15.4	14.3	4.8	18.2	49.9	12.8	177.3	CT
15A	Tanbar Nth 1	6123-6582	2.33	5830-6130	0.88	1982	24.1	7.2	3.5	8.6	67.1	13.6	212.0	CT
15B			53.68	6480-6670	0.38	619	22.3	11.2	2.5	13.3	64.4	8.6	84.8	CT
16A	Tartulla 1	5578-6005	40.67	5400-5700	0.40	476	26.2	12.0	10.0	21.5	48.3	8.2	104.7	CT
16B			1.67	6000-6300	2.45	4566	21.2	3.9	7.5	9.2	73.6	5.8	520.6	CT
17	Welcome Lake 1	5950-6211	33.67	6110-6410	0.50	960	25.9	9.7	3.8	18.0	53.9	14.6	129.6	CT
18A	Wills 1	4531-4794	52.81	4380-4700	1.00	1617	1.3	3.3	4.9	9.2	79.6	3.0	13.3	CT
18B			62.67	4700-4850	0.80	1164	1.8	8.4	4.1	20.7	64.4	2.4	14.6	CT
19	Wimma 1	7011-7462	63.00	6900-7200	0.55	3880	109.3	13.2	2.3	6.4	61.3	16.8	601.0	CT
20	Yanko 1	4987-5437	71.00	4900-5200	0.85	532	8.6	9.0	4.8	18.0	54.9	13.2	73.4	CT
21	*Wilson 1	4296-4600	66.67	4580-4610	0.72	2970	204.2	42.3	7.2	10.1	40.4		1470.2	CT

TABLE 3a: Extractable Organic Matter yield & composition of samples 100% within the Birkhead Fm.

No	Well Name	Formation Interval (ft)	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	------EOM Composition (%)------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Chandos 1	5900-6155	5925	16.30	6153	6.0	..16.4..		..83.6..				C
2A	Cumbroo 1		5781	0.54	1473	11.0	.. 4.1..		..95.9..				C
2B			5797	25.30	4230	3.0	..18.7..		..81.3..				C
3	Curalle 1	3970-4240	4217	1.42	1686	44.9	34.1	3.7	13.8	42.0	6.4	637.1	SWC
4	Cuttapirrie 1	6896-7158	7052	1.24	2896	57.7	21.4	3.3	13.0	58.3	4.0	715.5	SWC
5	Della 1	5420-5634	5624	0.98	2400	114.0	43.0	3.5	39.7	13.8			C
6A	Dullingari Nth 1	5787-5932	5794	0.59	933	44.0	22.1	5.8	23.1	49.0			SWC
6B			5880-5910	1.26	1448	32.0	17.3	10.5	29.0	43.2			CT
6C			5929	0.56	915	51.0	26.3	5.1	26.2	42.4			SWC
7A	Kidman 2	5612-5764	5679	1.72	3548	39.0	12.9	5.9	34.8	46.4			SWC
7B			5755	0.76	2155	80.0	23.8	4.4	16.6	55.2			SWC
8	Marabooka 1	5553-5677	5658	<0.05	213	59.0	7.5	6.3	49.9	36.3			SWC
9A	Moorari 3	6886-7214	7014	2.10	5965	81.2	19.6	9.0	11.6	58.3	30.6	1705.7	SWC
9B			7077	0.65	4240	461.2	59.8	10.9	6.9	10.5	11.9	2997.6	SWC
9C			7190	0.80	1771	61.8	17.1	10.8	15.5	38.6	18.0	494.2	SWC
10	Mt Howitt 1	4558-4854	4659	1.60	4173	30.0	..11.6..		..88.4..				C
11A	Mudera 1	5736-5849	5834	0.75	1689	36.9	15.5	0.9	13.4	46.6	23.6	277.0	SWC
11B			5810	0.75	1558	21.8	9.8	0.7	19.3	45.9	24.3	163.6	SWC
12	Mudlalee 2	5235-5346	5322	1.42	2740	84.0	25.9	17.8	30.4	25.9			SWC
13A	Naccowlah 1	5308-5502	5348	2.19	2460	40.8	19.3	17.0	14.6	47.8	1.3	892.8	SWC
13B			5487	0.70	1076	33.0	14.8	6.7	19.5	41.6	17.4	231.3	SWC
13C			5460-5500	1.05	1568	19.1	9.4	3.4	17.7	65.1	4.4	200.7	CT
14	Nappacoongie 2	5208-5373	5367	15.40	22945	36.0	20.5	3.9	31.7	43.9			C
15	Orientos 1	5300-5553	5443	0.31	430	24.0	..17.4..		..82.6..				C
16A	Strzelecki 3	5322-5527	5336	7.05	7945	48.0	22.5	20.1	36.1	21.3			SWC
16B			5400	3.74	6565	95.0	37.0	17.0	29.7	16.3			SWC
16C			5440-5470	4.50	4912	42.0	24.7	13.6	30.2	13.5			CT
16D			5509	0.86	940	55.0	21.1	29.4	30.4	19.1			SWC
17A	Strzelecki 4	5397-5524	5423	1.95	4439	57.6	17.8	7.5	17.2	34.5	23.0	1122.9	SWC
17B			5404	1.15	2345	84.2	32.6	8.7	23.1	33.1	2.5	968.4	SWC
17C			5490	1.10	1539	63.2	36.2	9.0	24.8	30.0	0.0	695.6	C
18	Strzelecki 5	5396-5532	5400-5500	3.70	4208	16.9	8.4	6.4	9.2	69.2	6.8	624.3	CT
19A	Tartulla 1	6061-6290	6070-6100	1.10	3874	52.5	10.2	4.7	13.3	55.5	16.1	577.0	CT
19B			6180-6200	1.32	3066	45.5	13.2	6.4	19.6	58.1	2.7	601.0	CT
20	Thunda 1		6165	1.15	1753	14.0	..9.4..		..90.6..				C
21A	Wackett 1	5358-5572	5360-5390	5.50	7173	15.5	7.3	4.6	9.1	76.0	3.0	853.5	CT
21B			5510-5570	1.01	1702	70.6	36.3	5.6	19.5	36.2	2.3	713.1	CT
22A	Wareena 1	4148-4372	4320-4370	1.98	1684	16.2	13.7	5.3	17.0	62.4	1.6	320.0	CT
22B			4333	4.68	5379	41.4	27.9	8.1	23.9	37.9	2.2	1935.8	SWC
22C			4168	1.69	2636	46.5	23.3	6.5	16.0	37.7	16.5	785.6	SWC
23	Wills 1	5112-5223	5120-5150	1.60	1075	12.6	10.6	8.2	19.9	59.4	0.0	202.1	CT
24A	Wilpinnie 1	5600-5787	5626	9.70	10300	26.7	20.4	4.7	12.9	46.6	15.4	2585.7	SWC
24B			5761	1.01	2197	31.1	10.3	4.0	10.3	73.0	2.4	314.1	SWC
25A	Wimma 1	7615-7897	7650-7800	1.90	2931	29.9	11.1	8.3	9.5	66.8	4.3	567.6	CT
25B			7800-7880	0.65	1421	27.2	7.2	5.2	14.0	63.6	10.0	176.5	CT
26	Yapeni 1	5693-5747	5725	1.10	1015	70.0	5.7	1.2	4.5	51.1	37.5	70.0	SWC
27	*Bycoe 1	4830-4994	4940-4970	1.31	1434	15.3	7.2	6.8	19.6	66.3		200.8	CT
28	*Chookoo 1	5401-5578	5460-5490	3.60	4164	19.2	7.8	8.8	26.7	56.7		691.4	CT
29A	*Gunna 1	4845-5001	4890-4920	0.95	1966	48.2	14.8	8.5	23.6	53.2		458.0	CT
29B			4950-4980	1.58	3570	89.5	29.0	10.6	23.0	36.4		1413.4	CT
30A	*Naccowlah Sth 1	5363-5505	5370-5400	1.63	1247	14.2	9.8	8.8	28.0	53.4		231.9	CT
30B			5400-5430	1.47	1187	18.2	14.3	8.2	31.9	45.7		266.9	CT
30C			5460-5490	1.30	1156	17.9	11.5	8.6	22.6	57.4		232.3	CT
31A	*Richie 1	4702-4814	4730-4760	1.20	2155	62.1	25.1	9.5	26.2	39.1		745.7	CT
31B			4760-4790	1.81	2705	32.0	12.5	8.9	18.7	57.9		578.7	CT
32A	*Tinpilla 1	4800-4984	4820-4850	0.81	957	29.1	15.4	9.2	22.8	52.6		235.3	CT
32B			4850-4880	2.26	2851	23.6	10.7	8.0	6.8	74.5		533.3	CT
32C			4910-4940	2.18	3490	16.0	5.2	4.8	11.7	78.3		349.0	CT
33A	*Wilson 1	4660-4870	4670-4700	0.44	550	10.9	5.0	3.7	21.8	69.6		47.8	CT
33B			4760-4790	0.67	1347	28.7	9.9	4.4	6.5	79.2		192.6	CT
33C			4790-4820	0.36	1172	54.0	14.0	2.6	12.0	71.3		194.6	CT
33D			4820-4850	1.38	2680	61.2	24.9	6.6	14.5	53.9		844.2	CT

TABLE 3b: Extractable Organic Matter yield & composition of samples >75% within the Birkhead Formation

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	---------EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Alkina 1	5910-6216	98.29	5907-6184	4.00	6215	24.9	10.8	5.2	9.5	67.8	6.8	994.6	CT
2	Barrolka East 1	5804-6068	99.13	5840-6070	2.70	4447	19.1	6.7	4.9	5.4	81.3	1.6	515.8	CT
3	Belah 1	5314-5382	94.29	5310-5380	2.00	2707	24.5	10.8	7.3	10.3	67.7	3.9	490.1	CT
4	Gilpeppee 2	6339-6650	87.00	6300-6600	3.55	4364	27.5	15.2	7.2	11.6	62.8	3.2	977.3	CT
5	Hume 1	5580-5682	84.85	5570-5636	3.75	4699	10.8	4.7	3.9	5.5	82.4	3.5	404.1	CT
6	Ingella 1	6360-6654	96.67	6350-6650	4.40	7194	24.3	9.0	5.9	7.5	77.4	0.2	1068.6	CT
7	Jack Lake 1	6627-6853	75.33	6600-6900	0.47	299	6.6	8.8	1.6	16.1	55.4	18.1	31.1	CT
8	Jackson 1	4539-4692	88.13	4520-4680	0.55	1138	81.8	31.1	8.4	12.2	47.4	0.9	449.7	CT
9	Karmona East 1	5754-5940	88.57	5740-5950	2.62	5036	32.5	9.3	7.6	9.8	70.1	3.3	851.0	CT
10	Merrimelia 7	6033-6260	94.35	6020-6250	1.20	1132	17.7	11.8	7.0	12.3	66.5	2.4	212.7	CT
11	Strzelecki 3	5322-5527	93.33	5320-5350	2.90	6690	64.0	15.9	12.0	32.6	39.5			CT
12	Tanbar Nth 1	6662-6978	99.35	6670-6980	5.15	4622	6.9	5.2	2.5	4.9	81.0	6.5	355.7	CT
13	Tartulla 1	6061-6290	76.33	6000-6300	2.45	4566	21.2	3.9	7.5	9.2	73.6	5.8	520.6	CT
14	*Bycoe 1	4830-4994	80.00	4970-5000	0.80	1863	19.3	4.7	3.6	9.5	82.2		154.6	CT
15A	*Chookoo 1	5401-5578	96.67	5400-5430	1.14	1363	23.6	12.1	7.6	26.0	54.3		268.6	CT
15B			93.33	5550-5580	1.03	1739	80.2	36.8	10.7	26.2	26.3		825.9	CT
16	*Richie 1	4702-4814	80.00	4790-4820	2.58	5233	78.9	30.6	8.3	20.1	41.0		2035.3	CT

TABLE 3c: Extractable Organic Matter yield & composition of samples <75% within the Birkhead Formation

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	---------EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1A	Adria Downs 1	3787-3983	51.00	3640-3940	0.25	600	28.8	7.3	4.7	9.9	59.7	18.4	72.0	CT
1B			26.88	3940-4100	0.20	508	20.8	2.6	5.6	8.1	61.9	21.8	41.7	CT
2	Alkina 1	5910-6216	10.13	6184-6500	0.29	750	26.1	8.7	1.4	25.1	47.1	17.6	75.7	CT
3	Barrolka East 1	5804-6068	40.00	5750-5840	2.26	3709	25.4	9.4	6.1	9.5	72.8	2.2	574.8	CT
4	Belah 1	5314-5382	0.91	5380-5600	0.35	786	28.7	7.7	5.1	8.1	73.9	5.3	100.6	CT
5A	Coonatie 2	7042-7318	27.20	6860-7110	0.38	740	140.0	8.5	63.4	13.4	63.7	11.0	532.0	CT
5B			69.33	7110-7410	3.18	5359	19.4	6.4	5.1	8.7	77.7	2.1	616.2	CT
6A	Corkwood 1	5346-5541	18.00	5100-5400	1.55	1523	21.2	8.9	12.7	30.0	31.6	16.8	329.1	CT
6B			47.00	5400-5700	0.55	451	8.6	5.1	5.4	24.5	48.1	16.9	47.4	CT
7	Daralingie 4	5827-5956	43.00	5700-6000	1.60	2425	27.7	9.3	9.0	20.0	56.7	5.0	443.9	CT
8	Dilchee 1	5935-6031	21.33	5650-6100	0.30	640	22.8	6.2	4.5	12.3	64.8	12.2	68.4	CT
9	Gilpeppee 2	6339-6650	16.67	6600-6900	1.70	2239	43.6	26.2	6.9	16.9	42.6	7.4	741.1	CT
10	Hume 1	5580-5682	21.70	5636-5848	1.05	1229	15.0	7.4	5.4	0.2	76.2	10.8	157.2	CT
11	Ingella 1	6360-6654	1.33	6650-6950	0.40	762	17.5	6.7	2.5	11.1	65.5	14.2	69.9	CT
12	Jackson 1	4539-4692	40.00	4680-4710	0.70	1459	54.3	19.8	6.3	14.7	45.1	14.1	380.0	CT
13	Jackson 2	4563-4722	6.67	4720-4750	1.55	1720	29.5	19.6	7.0	24.1	38.6	10.7	457.7	CT
14A	Jackson Sth 1	4547-4705	64.38	4490-4650	4.40	7789	24.1	6.7	6.9	11.7	62.9	11.8	1059.2	CT
14B			22.92	4650-4890	1.85	4197	52.6	16.6	6.6	13.2	60.0	3.6	973.9	CT
15	McKinlay 1	4831-4908	25.84	4699-4997	3.50	1607	4.9	7.5	3.2	27.0	48.0	14.3	171.9	CT
16	Merrimelia 6	5946-6146	66.67	5920-6220	2.60	3943	21.7	7.1	7.2	7.3	71.4	7.0	564.0	CT
17	Merrimelia 7	6033-6260	3.33	6250-6550	0.35	429	1.8	7.8	6.5	15.6	63.3	6.8	6.2	CT
18A	Morney 1	4224-4509	58.67	4100-4400	3.10	3633	23.1	10.3	9.4	10.2	53.5	16.8	715.7	CT
18B			36.33	4400-4700	1.65	3410	69.0	24.8	8.6	10.2	36.5	19.9	1139.1	CT
19	Spencer 2	5257-5439	72.80	5200-5450	0.95	1384	12.3	4.7	3.7	7.2	77.9	6.5	116.5	CT
20	Tanbar North 1	6662-6978	4.21	6480-6670	0.38	619	22.3	11.2	2.5	13.3	64.4	8.6	84.8	CT
21A	Wantana 1	6472-6692	42.67	6300-6600	1.45	2355	25.2	9.6	5.9	21.2	61.7	1.6	365.0	CT
21B			30.67	6600-6900	3.10	4401	26.7	8.6	10.2	14.6	60.4	6.2	827.6	CT
22	Welcome Lake 1	6610-6742	44.00	6610-6910	0.90	1342	22.2	10.0	4.9	18.1	51.5	15.5	199.9	CT
23	Wills 1	5112-5223	37.86	5170-5310	1.20	1196	16.0	4.8	11.2	17.0	62.7	4.3	191.4	CT
24	Wimma 1	7615-7897	3.33	7890-8100	0.10	255	32.9	8.4	4.5	11.4	59.4	16.3	32.9	CT
25A	Yanko 1	5455-5571	15.00	5200-5500	1.00	929	14.7	8.5	7.3	19.0	64.8	0.4	146.8	CT
25B			23.67	5500-5800	1.50	1723	14.6	7.8	4.9	10.6	60.6	16.0	218.9	CT
26	*Naccowlah Sth 1	5363-5505	23.33	5340-5370	4.00	2401	8.6	6.8	7.5	25.6	60.1		343.2	CT
27	*Tinpilla 1	4800-4984	66.67	4790-4820	1.88	1414	15.3	10.9	9.4	15.6	64.2		287.0	CT

TABLE 4a: Extractable Organic Matter yield & composition of samples 100% within the Basal Hutton Member (or Poolowanna Fm.)

No	Well Name	Formation Interval (ft)	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	------EOM Composition (%)------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1A	Alkina 1	6805-7265	6810-7110	1.14	2378	6.7	2.1	1.1	3.4	90.2	3.2	76.1	CT
1B			7110-7200	0.66	1490	18.5	4.8	3.4	7.6	81.1	3.1	122.2	CT
2	Barrolka East	6644-6834	6680-6830	4.28	3962	3.7	2.1	1.9	3.2	90.4	2.3	158.5	CT
3A	Curalle 1	4894-5605	5442	1.34	1010	37.3	41.9	7.6	16.2	34.3	0.0	499.5	SWC
3B			5574	4.35	1713	5.9	8.2	6.7	22.2	58.3	4.6	255.4	SWC
4	Gilpeppee 2	7401-7702	7600-7700	2.15	3184	12.9	5.0	3.7	9.6	75.3	6.4	277.0	CT
5	Innamincka 3	5662-5703	5691	9.64	3182	3.0	4.7	4.7	22.4	58.2			SWC
6	Merrimelia 7	6742-7000	6780-6940	11.70	5400	11.5	11.5	13.3	18.0	51.8	5.4	1340.5	CT
7	Morney 1	5143-5750	5300-5600	1.85	3081	17.5	4.1	6.4	8.4	62.9	18.2	323.4	CT
8A	Naccowlah 1	5666-5884	5736	1.46	1925	25.2	16.8	2.3	14.1	51.2	15.6	367.5	SWC
8B			5840	0.78	1093	42.7	23.7	6.8	25.4	32.2	11.9	333.3	SWC
9A	Pando 1	5550-5620	5553	4.27	1718	10.0	16.5	4.4	23.0	56.1			C
9B			5587	1.78	720	3.0	3.6	3.0	39.7	53.7			C
9C			5588	3.76	1098	7.0	20.6	3.4	36.8	39.2			C
9D			5619	2.17	1063	3.0	2.7	3.4	39.7	54.2			C
10A	Tanbar Nth 1	7652-8180	7652-7950	0.95	1162	13.6	7.4	3.7	10.6	70.5	7.8	129.0	CT
10B			7950-8180	1.57	1112	5.5	4.2	3.6	11.3	77.6	3.3	86.7	CT
11	Tartulla 1	6682-6812	6700-6720	6.85	13914	5.1	1.4	1.1	4.7	91.0	1.8	348.0	CT
12	Wareena 1	4826-4998	4869	0.86	840	21.0	17.7	3.8	17.1	60.8	0.6	180.6	SWC
13	Colson 1	6409-6768	6419	31.60	22560	13.0	4.5	13.9	35.1	46.5			SWC
14A	Erabena 1	6462-7426	6750-7050	1.00	1839	11.8	3.3	3.1	5.2	83.2	5.2	117.7	CT
14B			7050-7350	12.50	23960	11.1	3.1	2.7	2.3	83.9	8.0	191.7	CT
1[illegible]	Kuncherinna 1	7767-8402	7770-8060	1.15	3212	4.7	0.8	0.9	2.4	94.6	1.3	55.0	CT
[illegible]			7840-7880	2.90	2258	8.1	5.9	4.5	12.2	66.0	11.4	234.9	CT
15C			8060-8340	1.25	2641	19.2	5.5	3.6	11.5	65.1	14.3	240.0	CT
15D			8070-8110	0.82	1177	12.6	6.5	2.3	16.2	60.1	14.8	103.5	CT
15E			8190-8230	0.94	869	10.8	8.5	3.2	16.5	55.9	15.9	101.6	CT
15F			8230-8270	1.62	1599	8.6	5.9	2.8	15.5	54.7	21.2	139.1	CT
16A	Mokari 1	5778-5915	5786	1.17	1090	28.0	6.8	23.0	13.7	56.5			C
16B			5794	0.93	890	13.0	5.2	8.4	6.9	79.5			C
16C			5797	0.14	...	...	...N/A...		...	.....			C
17A	Poolowanna 1	7832-8506	7835	1.22	7460	157.0	20.6	5.1	28.3	46.0			SWC
17B			7918-7928	3.55	4509	38.0	9.8	19.8	27.8	42.6			CT
17C			7934	1.89	2537	59.0	28.7	15.2	33.6	22.5			SWC
17D			8020	9.28	5717	22.0	16.7	16.8	..66.5..				SWC
17E			8128-8138	1.36	1761	42.0	17.8	14.9	30.7	36.6			CT
17F			8213	2.30	5291	58.0	13.8	11.5	39.9	34.8			SWC
17G			8428	5.01	3333	14.0	13.8	9.0	..77.2..				C
17H			8433	5.15	3186	23.0	17.6	19.9	17.8	44.7			C
17I			8436	7.95	3960	20.0	14.0	26.1	37.0	22.9			C
18A	Thomas 1	6808-7480	6847	1.40		...	...N/A...		...	...			C
18B			6858'5"	5.30		...	...N/A...		...	...			C
18C			6947	1.23		...	...N/A...		...	...			C
18D			6956'9"	0.41		...	...N/A...		...	...			C
18E			7294'7"	1.89		...	...N/A...		...	...			C
18F			7439'7"	1.74		...	...N/A...		...	...			C
19	Walkandi 1	8329-8972	8390-8690	2.30	7149	14.3	2.4	2.2	1.3	92.2	1.9	329.0	CT
20A	*Chookoo 1	5832-5923	5850-5880	3.12	3337	13.3	5.8	6.6	19.4	68.1		414.0	CT
20B			5880-5910	7.40	6770	16.5	11.2	6.8	13.8	68.3		1218.8	CT
[illegible]			5908'	8.55	10643	35.1	18.8	9.4	20.8	51.0		3001.8	SWC
2[illegible]	*Wilson 1	5074-5128	5090-5120	3.75	2874	3.1	1.5	2.6	4.7	91.2		117.8	CT

TABLE 4b: Extractable Organic Matter yield & composition of samples >75% within the Basal Hutton Member (or Poolowanna Fm.)

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	----EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1	Ingella 1	7300-7760	80.00	7600-7800	0.60	986	16.2	5.0	4.9	13.3	66.9	9.9	97.4	CT
2	Merrimelia 6	6723-6874	75.50	6720-6920	8.25	4075	0.7	0.5	1.0	1.4	93.5	3.6	61.1	CT
3	Adria Downs 1	4747-4900	80.00	4860-4910	1.75	1764	12.7	8.4	4.2	12.8	69.1	5.5	222.7	CT
4	Erabena 1	6462-7426	96.00	6450-6750	2.95	4021	4.5	1.9	1.4	2.8	88.6	5.3	132.7	CT
5	Kuncherinna 1	7767-8402	88.57	8340-8410	0.70	3651	20.4	2.0	1.9	4.9	88.2	3.0	142.5	CT
6	Walkandi 1	8329-8972	94.00	8690-8990	7.70	9485	10.5	5.3	3.2	4.6	85.9	1.0	805.0	CT

TABLE 4c: Extractable Organic Matter yield & composition of samples <75% within the Basal Hutton Member (or Poolowanna Fm)

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	---------EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1A	Alkina 1	6805-7265	1.61	6500-6810	0.33	926	14.9	3.4	1.9	13.5	65.2	16.0	49.1	CT
1B			59.09	7200-7310	1.72	2222	10.7	4.6	3.7	10.7	72.3	8.7	184.4	CT
2A	Barrolka East 1	6644-6834	12.00	6380-6680	0.80	1240	18.0	6.5	5.1	10.0	75.1	3.3	143.8	CT
2B			1.29	6830-7140	1.14	1252	17.2	10.1	5.6	12.9	65.6	5.7	196.5	CT
3	Belah 1	5546-5617	24.55	5380-5600	0.35	786	28.7	7.7	5.1	8.1	73.9	5.3	100.6	CT
4	Coonatie 2	8010-8146	40.00	8010-8350	1.33	1960	26.4	14.5	3.4	2.7	73.0	6.4	350.9	CT
5A	Gilpeppee 2	7401-7702	71.07	7320-7600	2.20	2844	14.6	7.3	4.0	9.4	76.1	3.2	321.4	CT
5B			0.67	7700-8000	0.60	615	26.4	19.7	6.1	21.2	32.5	20.5	158.7	CT
6A	Jack Lake 1	7482-7561	6.00	7200-7500	0.10	377	26.4	5.5	1.5	8.1	65.7	19.2	26.4	CT
6B			20.33	7500-7800	52.60	45789	3.0	1.5	1.9	3.7	91.3	1.6	1557.7	CT
7A	Merrimelia 7	6742-7000	16.52	6550-6780	0.70	947	1.9	6.8	7.0	14.1	67.9	4.2	13.0	CT
7B			23.08	6940-7200	1.70	1032	11.3	11.5	7.1	13.4	48.3	19.7	191.9	CT
8A	Morney 1	5143-5750	52.33	5000-5300	1.05	940	15.0	11.7	5.1	18.1	40.8	24.3	157.9	CT
8B			50.00	5600-5900	2.95	2914	10.3	5.5	4.9	9.1	67.5	13.0	303.1	CT
9A	Spencer 2	5795-5900	1.67	5500-5800	0.20	306	6.6	3.1	1.2	14.8	62.5	18.4	13.2	CT
9B			50.00	5800-6000	0.75	981	10.2	7.3	0.5	9.9	72.5	9.8	76.6	CT
10	Tartulla 1	6682-6812	72.67	6600-6900	4.85	9670	17.7	0.9	8.0	8.4	71.5	11.2	860.7	CT
11	Wantana 1	7322-7455	44.33	7200-7500	0.50	600	9.0	4.3	3.2	12.0	70.3	10.2	45.0	CT
12A	Welcome Lake 1	7392-7513	39.33	7210-7510	3.35	4912	13.6	4.7	4.6	11.6	71.6	7.5	456.7	CT
12B			1.00	7510-7810	0.40	491	21.5	12.4	5.1	23.0	57.3	2.2	86.0	CT
13	Wills 1	5340-5393	17.67	5320-5620	13.60	10409	7.5	4.1	5.7	18.5	65.5	6.2	1019.6	CT
14A	Wimma 1	8571-8814	43.00	8400-8700	1.15	1449	25.3	8.8	11.3	11.0	51.5	17.4	291.2	CT
14B			38.00	8700-9000	1.15	2129	17.0	5.0	4.2	4.8	75.8	10.2	195.7	CT
15	Adria Downs 1	4747-4900	34.24	4530-4860	3.60	4388	7.9	3.4	3.1	4.8	86.0	2.7	285.5	CT
16	Erabena 1	6462-7426	25.33	7350-7650	2.00	280	0.3	1.1	1.2	1.3	84.7	11.7	6.4	CT
17A	Kuncherinna 1	7767-8402	2.00	7620-7770	6.75	13384	5.0	1.4	1.1	2.5	91.2	4.3	334.1	CT
17B			57.50	7750-7790	0.95	1228	9.4	3.5	3.8	14.6	60.4	17.7	89.7	CT
17C			5.00	8400-8440	3.12	1334	3.1	3.7	3.6	17.3	57.9	17.5	97.5	CT
18	Walkandi 1	8329-8972	20.33	8090-8390	0.70	2351	4.4	0.7	0.6	1.5	90.5	6.7	30.6	CT
19	*Chookoo 1	5832-5923	43.33	5910-5940	3.34	2046	9.9	6.8	9.3	14.5	69.5		329.6	CT
20A	*Wilson 1	5074-5128	53.33	5060-5090	4.40	3563	6.0	4.2	3.2	5.2	87.5		263.7	CT
20B			26.67	5120-5150	9.00	3050	1.4	1.2	2.8	5.1	90.9		122.0	CT

TABLE 5a: Extractable Organic Matter yield & composition of samples 100% within the Patchawarra Fm.

No	Well Name	Formation Interval (ft)	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	------EOM Composition (%)------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Samp Typ
1	Barrolka East 1	8480-8813	8500-8530	17.50	4189	2.6	6.1	4.9	22.9	58.9	7.2	460.1	CT
2	Beanbush 1	10821-11620	10869'9"-10"	5.23	1501	2.1	3.7	3.7	17.3	58.2	17.1	111.1	C
3	Belah 1	6720-7458	7010-7310	5.80	2682	1.8	2.0	2.0	7.8	86.7	1.6	107.2	CT
4	Chandos Sth 1		7823	57.30	7000	6.0	16.3	34.6	26.1	23.0			C
5	Coonatie 2	9544-9822	9650-9760	25.20	8718	1.0	1.6	1.3	2.4	84.9	9.7	252.9	CT
6A	Cumbroo 1		7055	9.54	1173	4.0	2.1	33.5	21.2	43.2			C
6B			7073	26.00	5350	2.0	..2.2..		..97.8..				C
7A	Dilchee 1	8170-9052	8190-8400	33.80	11094	1.4	1.3	2.9	4.2	89.6	2.0	465.6	CT
7B			8400-8700	37.20	6561	1.0	1.6	4.3	10.1	74.8	9.2	386.3	CT
7C			8700-9000	38.20	3852	0.6	0.9	5.4	8.1	74.9	10.7	243.1	CT
8A	Dullingari Nth 1	7967-8953	8160-8190	5.35	3084	7.0	6.0	6.7	44.1	43.2			CT
8B			8340-8370	8.20	3289	4.0	3.6	6.5	42.8	47.1			CT
8C			8501	2.44	581	5.0	18.2	1.1	43.4	27.3			SWC
8D			8520-8550	25.20	3476	2.0	2.3	8.6	55.5	33.6			CT
9A	Durham Downs 1	8439-8633	8441	5.18	2166	12.0	8.4	20.2	43.1	28.1	2.4	622.2	SWC
9B			8516	5.66	1154	7.6	6.1	30.2	56.7	7.0	5.0	431.5	SWC
10A	Jack Lake 1	8528-9837	8560-8890	32.90	25138	5.3	3.2	3.7	7.5	84.5	1.2	1734.4	CT
10B			8890-9090	52.30	21466	1.4	1.6	1.7	2.7	90.8	3.2	707.6	CT
10C			9090-9390	31.30	9443	2.4	4.2	3.9	3.9	82.2	5.8	765.7	CT
10D			9390-9690	51.20	9574	0.5	1.3	1.5	2.7	92.0	2.5	268.1	CT
11	Jackson 1	5230-5598	5239-5578	19.10	6940	3.4	4.6	4.9	7.7	77.1	5.7	658.7	CT
12A	Jackson Sth 1	5142-5850	5190-5480	30.00	7307	4.1	10.4	6.3	24.0	56.3	3.0	1222.4	CT
12B			5490-5780	6.45	2851	6.5	8.5	6.2	19.1	60.3	5.9	419.1	CT
13A	Karmona East 1	7503-8362	7530-7830	6.45	3549	6.5	5.9	5.9	7.3	73.8	7.0	418.6	CT
13B			7840-8140	1.53	1363	9.1	5.7	4.5	9.8	77.6	2.4	139.0	CT
13C			7515'3"	4.10	..	...	..N/A..		...	...			C
14A	Kidman 2	7135-7336	7207	1.34	..	...	..N/A..		...	...			SWC
14B			7328	1.98	868	6.0	13.2	<2.5	18.5	65.8			SWC
15	Marabooka 1	6566-7061	6918	<0.05	368	207.0	19.3	8.8	24.5	47.4	contaminated		SWC
16A	Munkari 1	7114-7503	7155	1.55	1712	32.0	12.3	16.5	27.4	33.8			SWC
16B			7155	1.22	812	..	...N/A..		...	...			SWC
16C			7158	0.98	691	23.0	13.8	18.5	30.8	36.9			SWC
16D			7310-7340	5.60	3126	7.0	6.4	6.1	41.7	45.8			CT
16E			7327	2.83	2310	23.0	11.9	16.4	31.4	40.3			SWC
16F			7395	11.80	7265	26.0	12.4	30.2	30.7	26.7			SWC
16G			7407	3.13	1416	14.0	7.7	23.8	30.0	38.5			SWC
16H			7407	12.00	3980	14.0	11.9	29.3	35.1	23.7			SWC
17	Naccowlah 1	6290-6828	6305	10.55	5880	11.0	10.9	8.8	35.7	43.9	0.7	1157.6	SWC
18	Pinna 1	6301-8124	6398	2.74	1952	7.0	4.5	5.3	33.1	57.1			C
19	Tartulla 1	8062-8450	8300-8320	5.85	2756	15.1	26.0	6.1	24.2	36.6	7.1	884.5	CT
20A	Wilpinnie 1	6999-7619	7073'5"	4.52	2980	26.0	31.8	6.2	19.8	42.2			C
20B			7091'4"	9.56	6492	8.0	7.2	4.4	22.3	66.1			C
20C			7100'8"	2.18	908	4.0	4.5	6.0	42.1	47.4			C
21	*Gunna 1	5586-5932	5700-5730	40.10	21598	8.4	8.1	7.4	15.8	68.6		3350.2	CT
22A	*Richie 1	5419-5968	5630-5660	40.50	22719	7.4	4.8	8.4	18.7	68.1		2999.1	CT
22B			5480-5510	67.40	36465	5.5	4.0	6.2	15.6	74.2		3719.3	CT
23A	*Tinpilla 1	5548-6014	5600-5630	55.50	23959	6.0	5.8	8.2	18.3	67.6		3356.6	CT
23B			5660-5690	42.70	40461	12.6	5.4	7.9	17.6	69.1		5383.8	CT

TABLE 5b: Extractable Organic Matter yield & composition of samples >75% within the Patchawarra Fm.

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	---------EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1A	Barrolka East 1	8480-8813	93.33	8460-8760	13.10	3253	0.5	1.1	0.8	2.3	91.0	4.7	61.7	CT
1B			88.33	8760-8820	3.50	1783	1.5	1.7	1.2	9.6	82.1	5.5	51.7	CT
2	Belah 1	6720-7458	96.67	6710-7010	10.40	4828	0.6	0.6	0.7	1.4	94.3	3.0	62.7	CT
3	Hume 1	6922-6977	80.00	6910-6970	20.80	8029	1.4	1.6	1.9	2.7	86.6	7.2	281.0	CT
4	Jack Lake 1	8528-9837	86.47	9690-9860	44.40	13535	4.3	7.7	6.3	6.6	77.4	2.0	1895.9	CT
5	Jackson Sth 1	5142-5850	75.00	5790-5870	2.16	1584	8.7	6.3	5.6	18.5	57.5	12.1	188.4	CT
6	Tartulla 1	8062-8450	79.33	8000-8300	20.80	6121	3.6	3.1	9.3	11.4	68.4	7.8	758.3	CT

TABLE 5c: Extractable Organic Matter yield & composition of samples <75% within the Patchawarra Formation

No	Well Name	Formation Interval (ft)	% of Sample	Sample Interval (ft)	TOC (wt%)	EOM Yield (ppm)	H'c Yield (mg/g TOC)	---------EOM Composition (%)-------- Sat	Arom	ONS	Asph	Loss on Column	H'C Total (ppm)	Sample Type
1A	Alkina 1	8508-8696	60.47	8389-8690	27.70	4188	0.7	1.1	3.7	9.4	84.3	1.4	200.8	CT
1B			5.71	8690-8795	4.55	1121	0.9	2.8	0.7	22.2	68.4	5.9	39.2	CT
2	Belah 1	6720-7458	59.20	7310-7560	1.80	1469	5.5	3.3	3.4	7.4	85.0	0.8	98.4	CT
2A	Coonatie 2	9544-9822	53.33	9460-9640	34.40	10547	0.7	1.0	1.4	1.4	86.8	9.4	253.5	CT
3B			38.75	9760-9920	18.50	8707	6.0	6.8	6.0	8.7	73.7	4.8	1115.3	CT
4A	Dilchee 1	8170-9052	9.52	7980-8190	19.00	5910	4.0	6.4	6.4	10.7	62.5	14.0	756.4	CT
4B			33.99	9000-9153	49.70	4010	0.3	0.5	3.5	8.9	73.2	12.9	161.0	CT
5	Dullingari Nth 1	7967-8953	43.33	8940-8970	6.15	1338	2.0	1.8	6.5	42.7	49.0			CT
6	Hume 1	6922-6977	6.09	6970-7085	8.30	2859	2.2	3.3	3.1	2.7	83.7	7.2	182.7	CT
7	Jack Lake 1	8528-9837	20.00	8400-8560	45.50	36256	4.9	2.7	3.4	7.2	85.5	1.3	2212.1	CT
8A	Jackson 1	5230-5598	11.39	5160-5239	11.00	4737	4.0	3.8	5.5	8.7	76.9	5.1	440.9	CT
8B			13.33	5578-5728	7.50	3753	4.3	4.0	4.7	5.1	80.7	5.5	326.3	CT
9	Jackson Sth 1	5142-5850	29.23	5050-5180	21.30	10782	8.2	7.5	8.8	16.1	59.6	8.1	1756.8	CT
10	Munkari 1	7114-7503	53.33	7100-7130	2.70	1526	6.0	7.5	7.0	28.7	56.8			CT
11	Tartulla 1		73.89	8300-8503	61.30	8931	2.1	0.9	13.8	17.2	56.0	12.1	1315.6	CT
12A	Yanko 1	6499-6773	67.00	6400-6700	12.30	3147	1.5	2.7	3.3	6.6	86.4	0.9	188.9	CT
12B			24.33	6700-7000	3.80	1536	3.1	3.4	4.2	8.8	79.2	4.3	116.7	CT

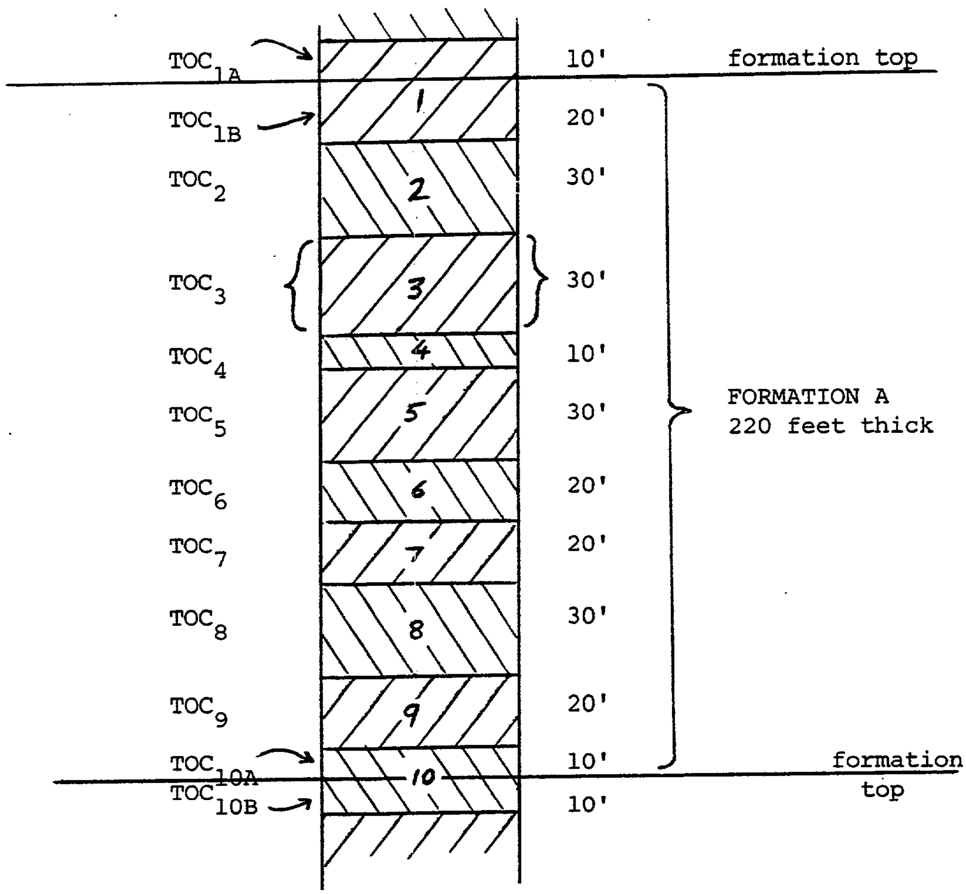
APPENDIX D

Technique for averaging Analytical Data

APPENDIX D: Technique for assigning TOC values to wells on a formation by formation basis.

PROBLEM: To take into account variations in sample spacing.

EXAMPLE:



SOLUTION: Ten samples were collected in Formation A, which is 220 feet thick. Samples 1 and 10 extended across the formation contacts.

Assume: TOC_{1B} represents the TOC content of the lower 20' of sample 1.

Assume: TOC_{10A} represents the TOC content of the upper 10' of sample 10/

Now:

$$TOC_{AV} = \text{Average TOC for Formation A}$$

$$= \left(\frac{20}{220} \times TOC_{1B}\right) + \left(\frac{30}{220} \times TOC_{2}\right) + \left(\frac{30}{220} \times TOC_{3}\right) + \ldots.$$

$$\ldots\ldots + \left(\frac{20}{220} \times TOC_{9}\right) + \left(\frac{10}{220} \times TOC_{10A}\right).$$

In general, if Th_i = Thickness of interval i, sampled

Th_{Total} = Thickness of Formation A

n = Total number of samples taken in Formation A

TOC_i = TOC Value of sample i

Then

$$\boxed{TOC_{AV} = \frac{\sum_{i=1}^{n} (Th_i \times TOC_i)}{Th_{total}}}$$

APPENDIX E

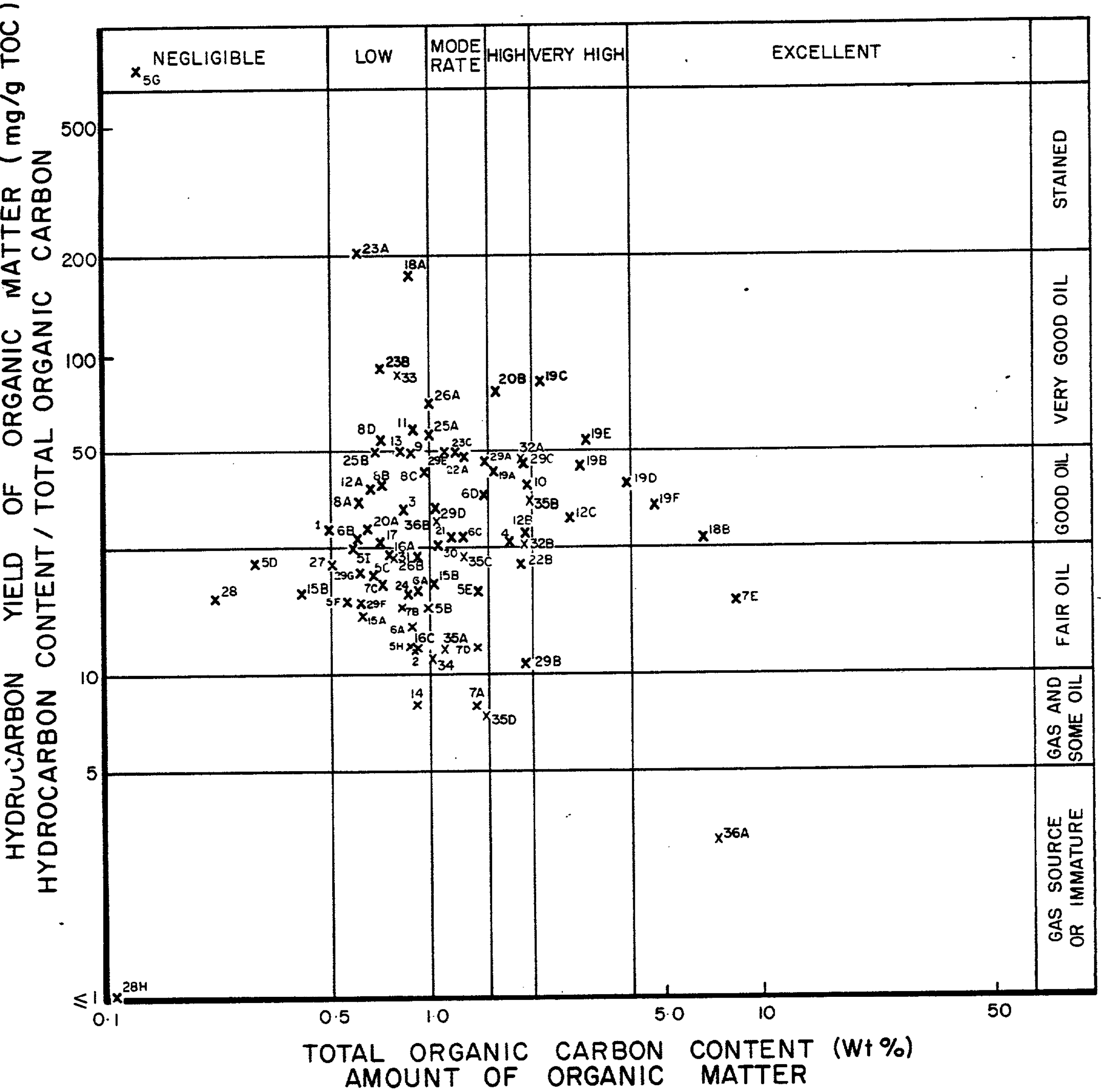
TOC vs hydrocarbon yield crossplots

DELHI PETROLEUM PTY. LTD.

MURTA MEMBER *

(MOOGA FORMATION)

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

X IA SAMPLE AND WELL CODE (SEE TABLE IA, APPENDIX C)

* 100 % OF THE SAMPLE LIES WITHIN THE MURTA MEMBER

Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4317	FIG. EIa
Drafted : J. BARNS	Revised :	File No. : SH-21	

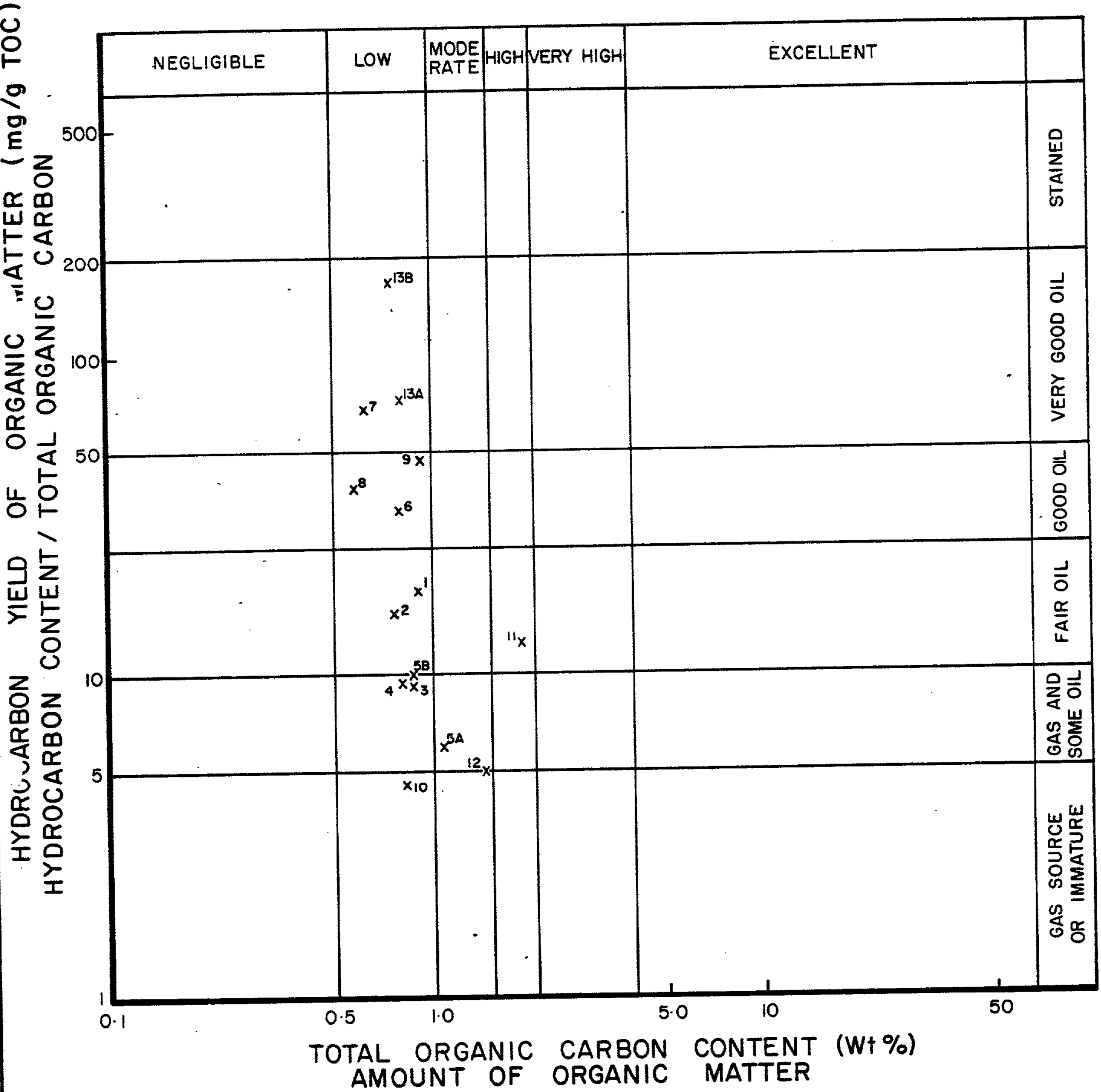
Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

MURTA MEMBER *

(MOOGA FORMATION)

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x 1A SAMPLE & WELL CODE (SEE TABLE 1B, APPENDIX C)

* ≥ 75 % OF THE SAMPLE LIES WITHIN THE MURTA MEMBER.

Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4318	FIG. E1b
Drafted : J. BARNS	Revised :	File No. : SH-21	

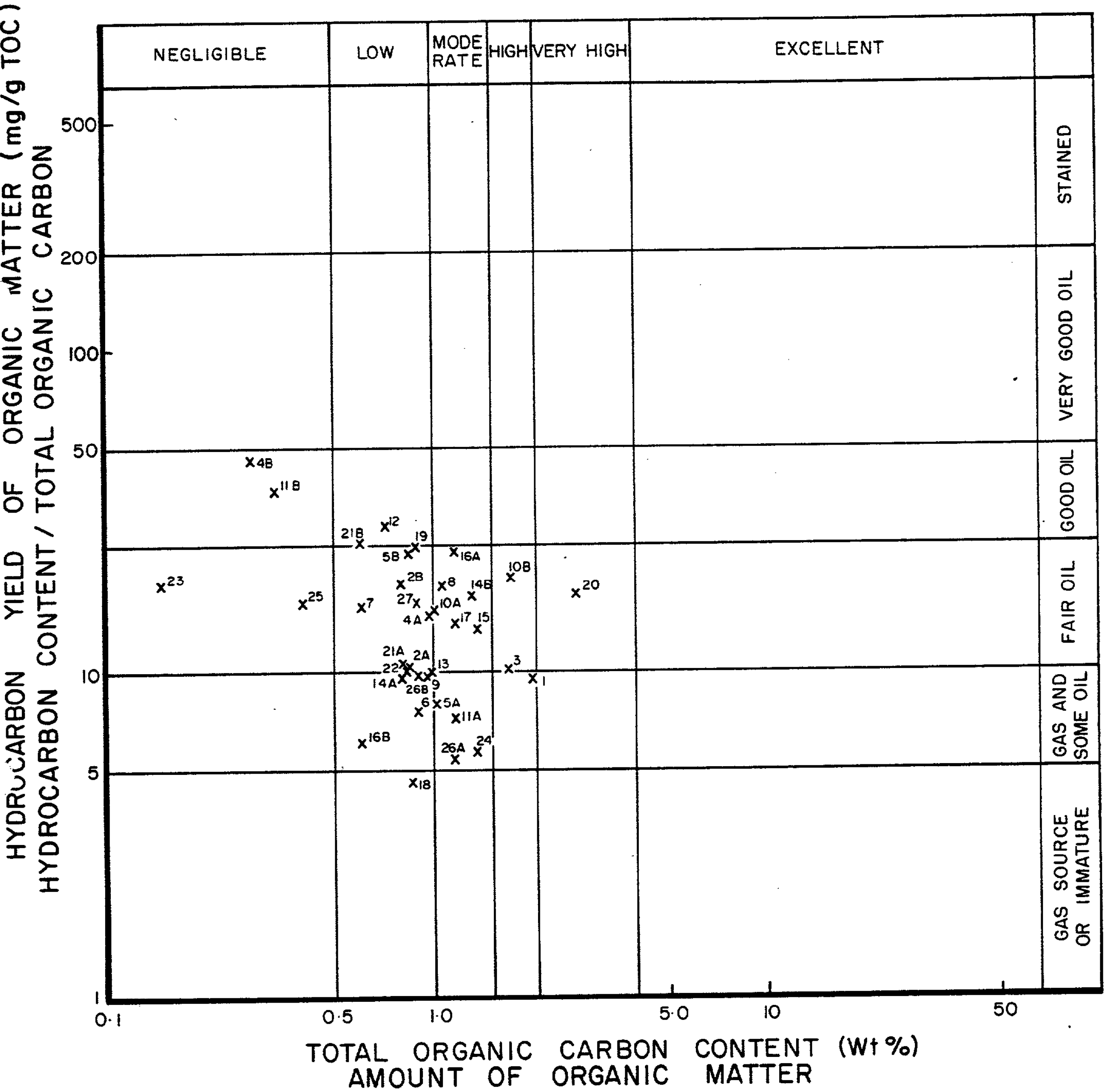
Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

MURTA MEMBER *

(MOOGA FORMATION)

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE & WELL CODE (SEE TABLE 1C, APPENDIX C)

* <75% OF THE SAMPLE LIES WITHIN THE MURTA MEMBER.

Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4319	FIG. E1c
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

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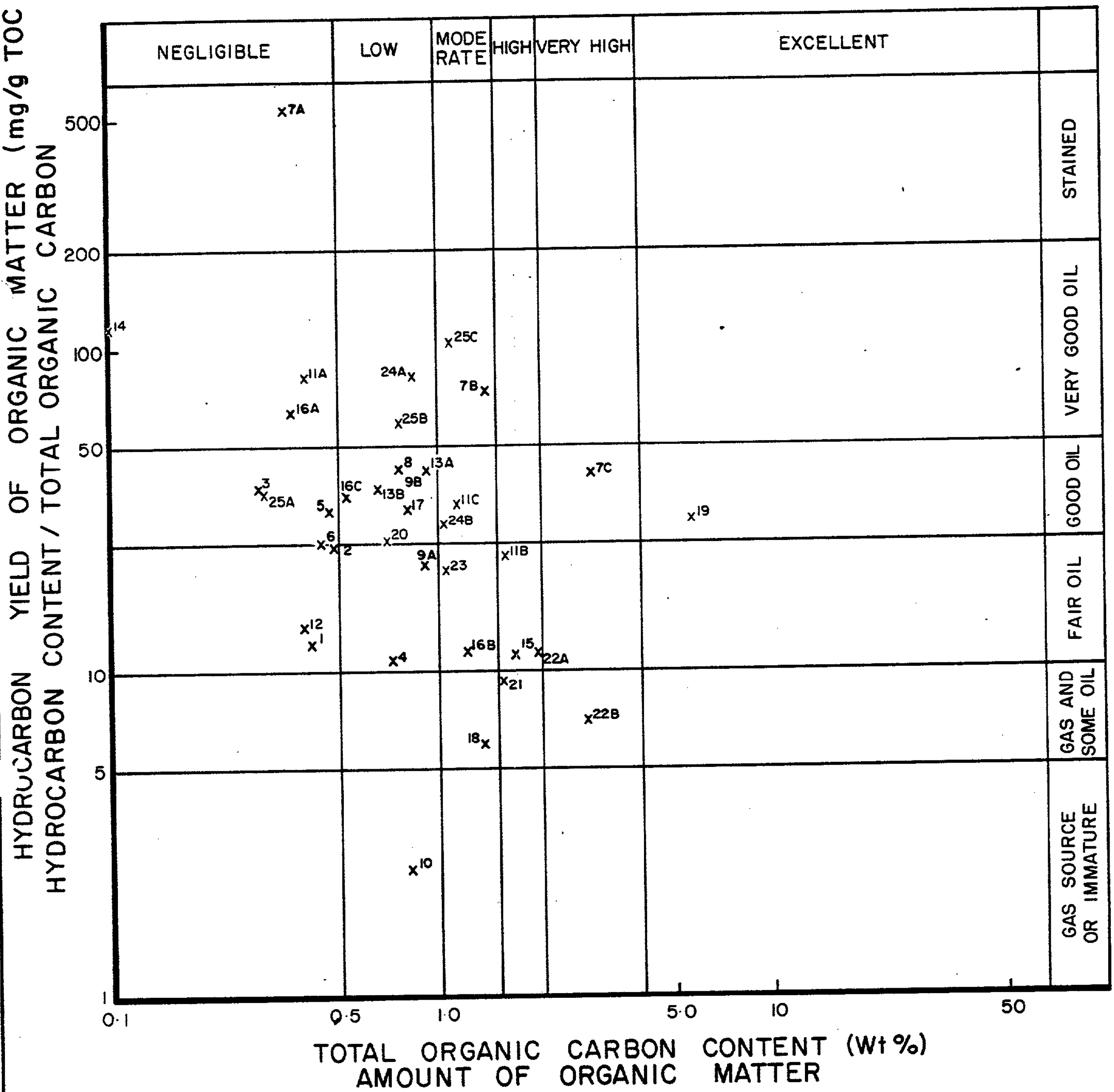
WESTBOURNE FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE AND WELL CODE (SEE TABLE 2A, APPENDIX C)

* 100 % OF THE SAMPLE LIES WITHIN THE WESTBOURNE FORMATION.

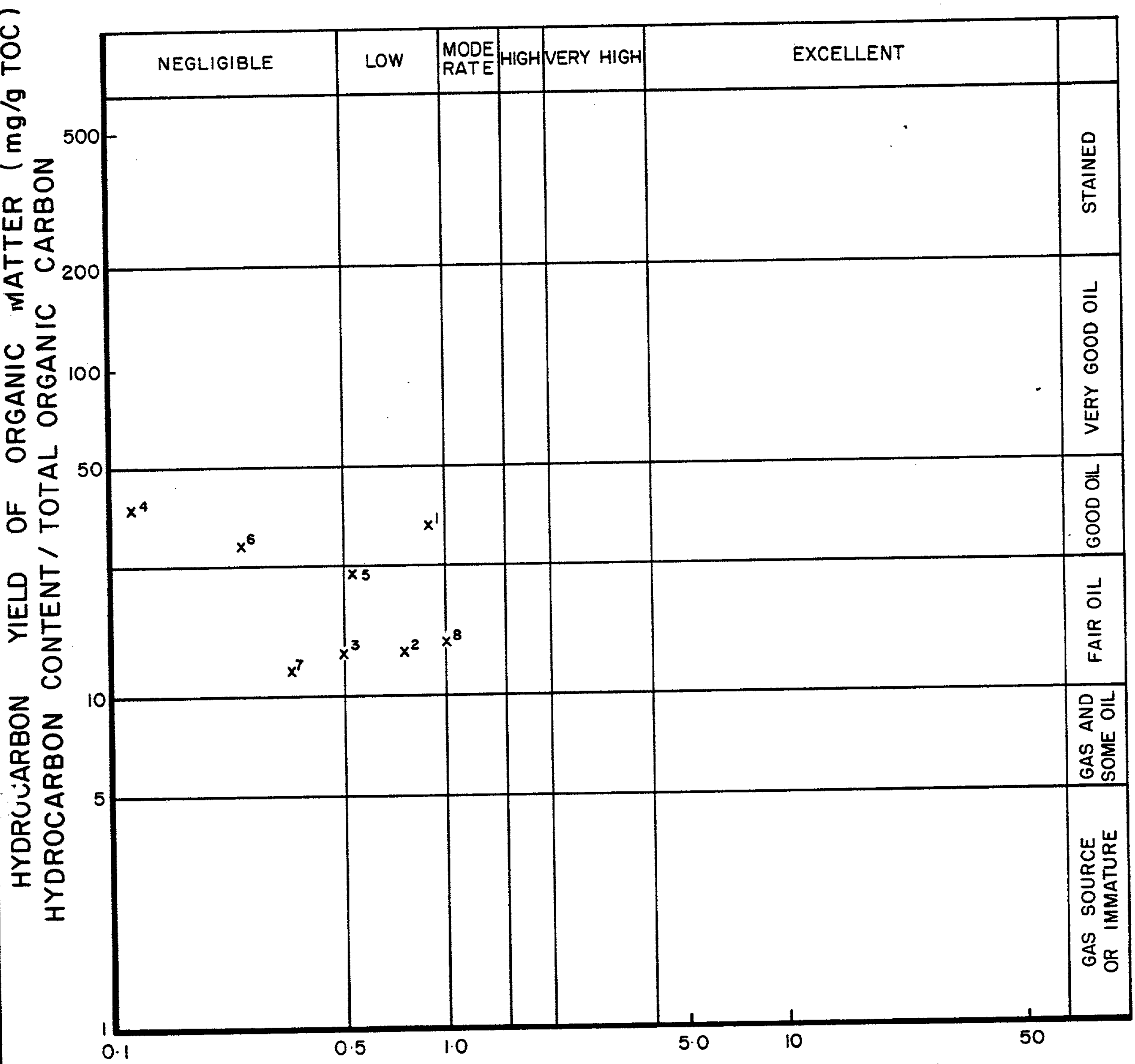
DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4327	FIG. E2a
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

WESTBOURNE FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x^{1A} SAMPLE AND WELL CODE (SEE TABLE 2B, APPENDIX C)

* ≥ 75 % OF THE SAMPLE LIES WITHIN THE WESTBOURNE FORMATION.

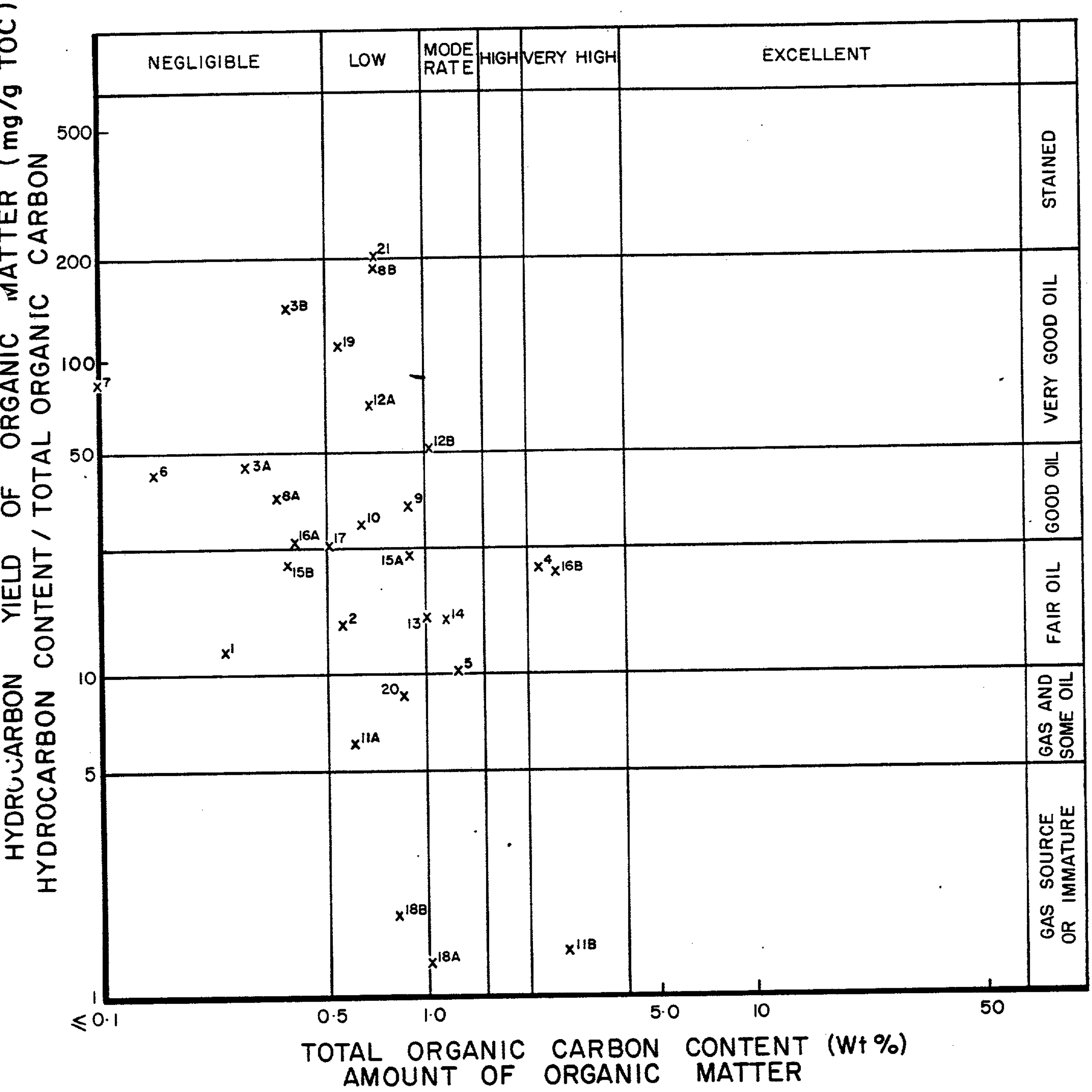
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4325	FIG. E2b
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

WESTBOURNE FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE AND WELL CODE (SEE TABLE 2C, APPENDIX C)

* < 75% OF THE SAMPLE LIES WITHIN THE WESTBOURNE FORMATION.

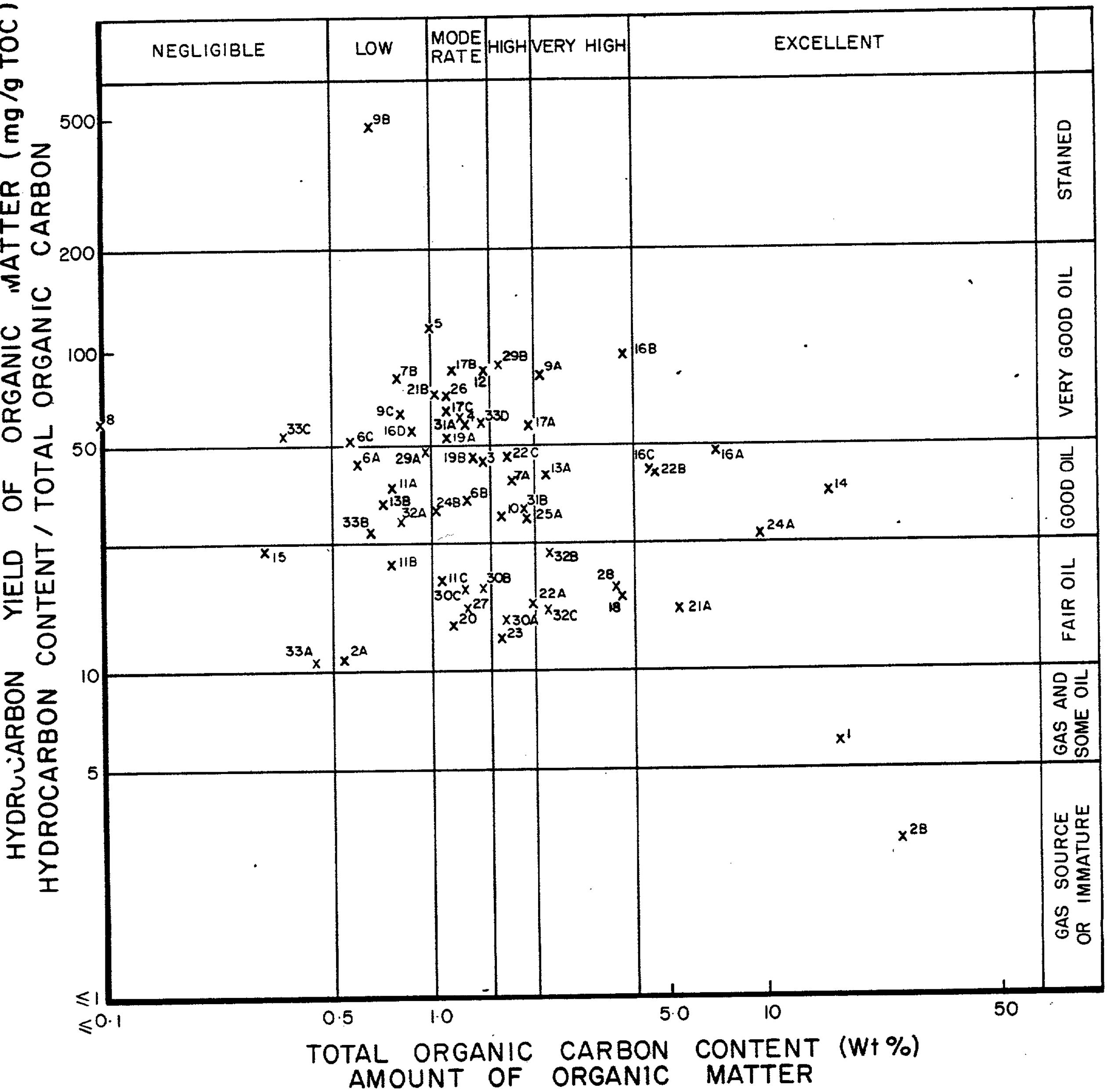
DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4326	FIG. E2c
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

BIRKHEAD FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE AND WELL CODE (SEE TABLE 3A, APPENDIX C)

* 100% OF THE SAMPLE LIES WITHIN THE BIRKHEAD FORMATION

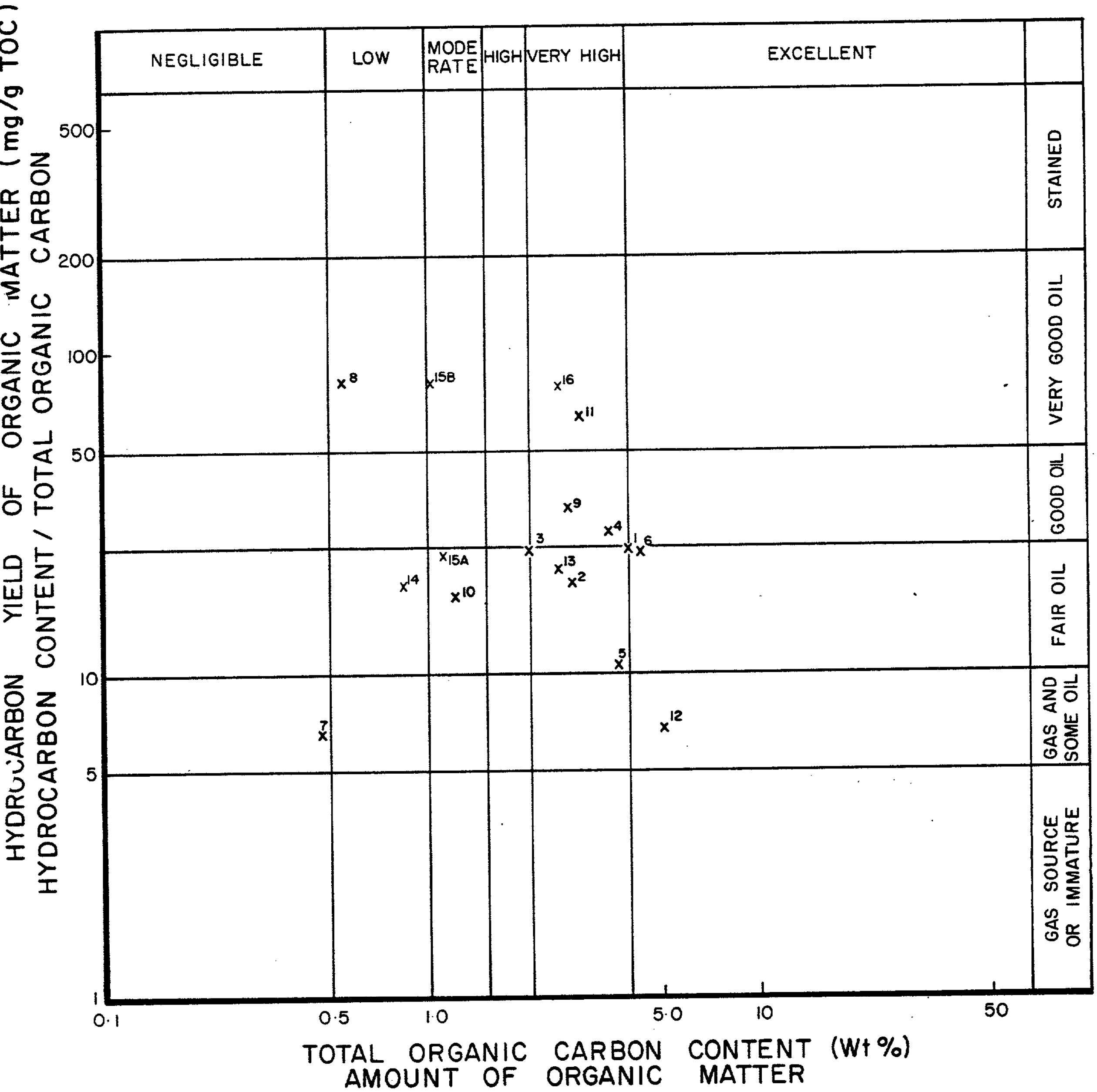
DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4321	FIG. E3a
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

BIRKHEAD FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

X[1A] SAMPLE AND WELL CODE (SEE TABLE 3B, APPENDIX C)

* ≥75% OF THE SAMPLE LIES WITHIN THE BIRKHEAD FORMATION.

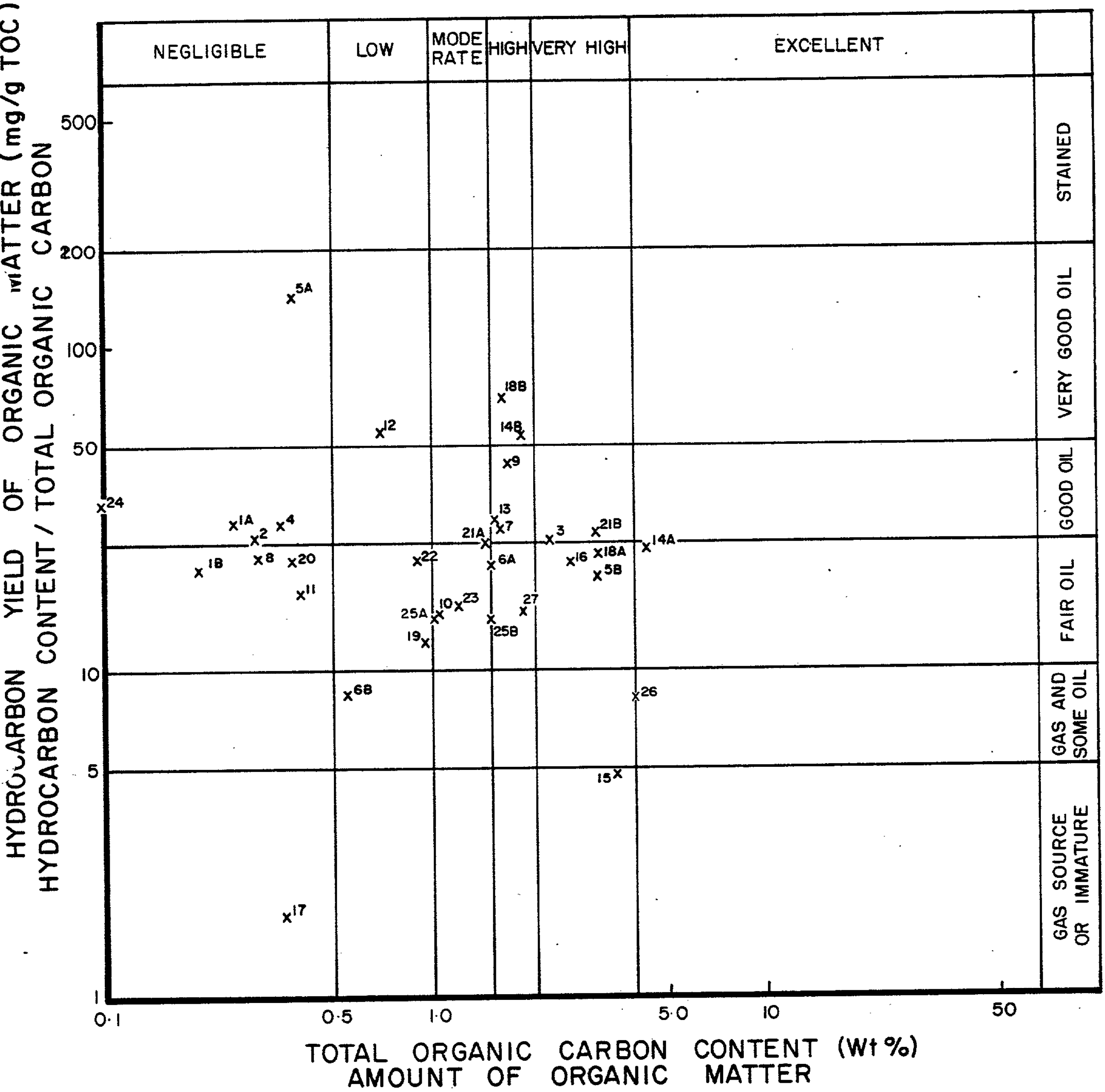
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4322	FIG. E3b
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

BIRKHEAD FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x[1A] SAMPLE AND WELL CODE (SEE TABLE 3C, APPENDIX C)

* <75% OF THE SAMPLE LIES WITHIN THE BIRKHEAD FORMATION.

DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4323	FIG. E3c
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

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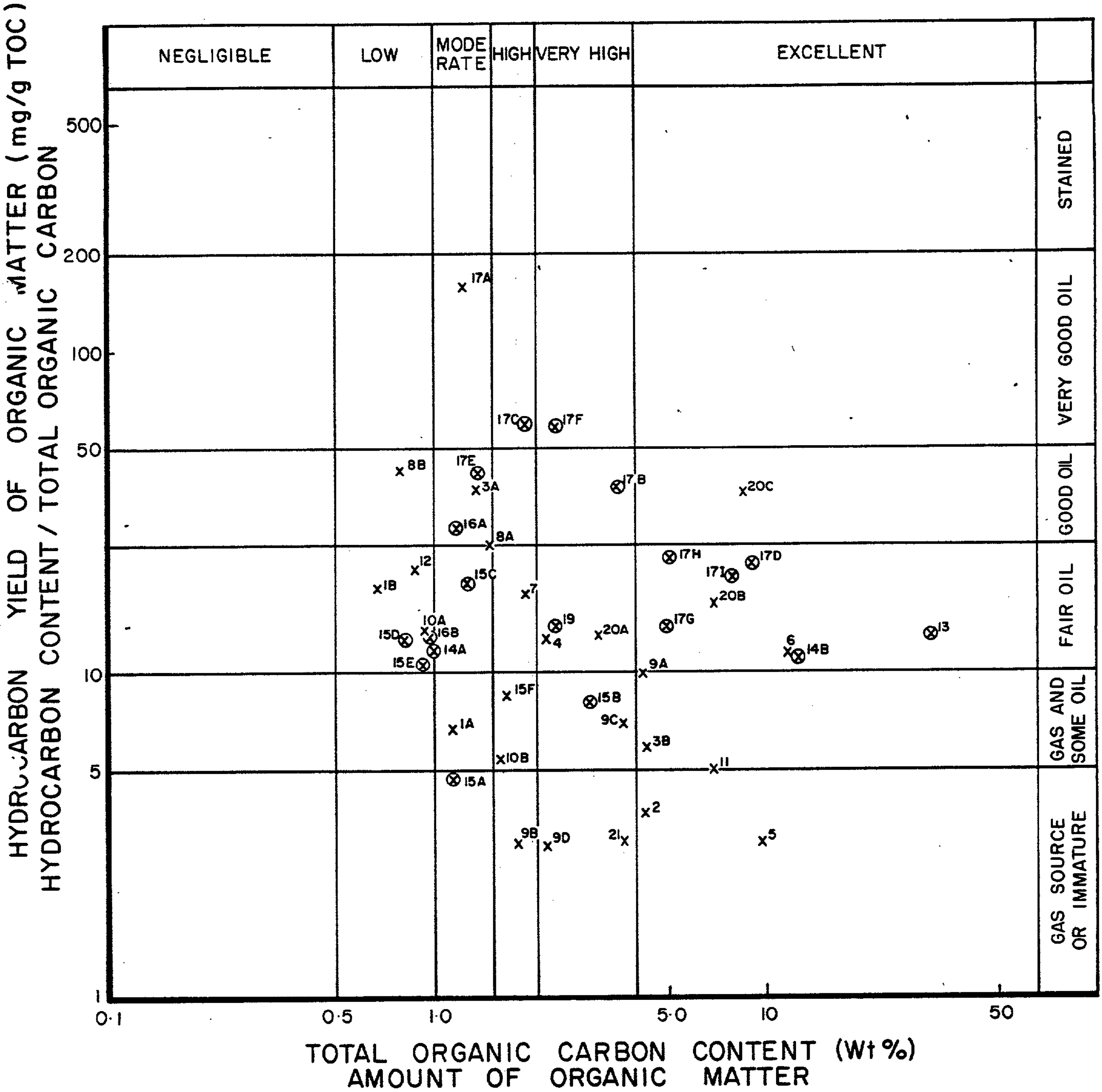
'BASAL HUTTON' MEMBER AND POOLOWANNA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

- X IA — BASAL HUTTON MEMBER : SAMPLE AND WELL CODE
- ⊗ IA — POOLOWANNA FM. : SAMPLE AND WELL CODE (SEE TABLE 4A, APPENDIX C)
- * — 100% OF THE SAMPLE LIES WITHIN THE BASAL HUTTON MEMBER OR THE POOLOWANNA FORMATION.

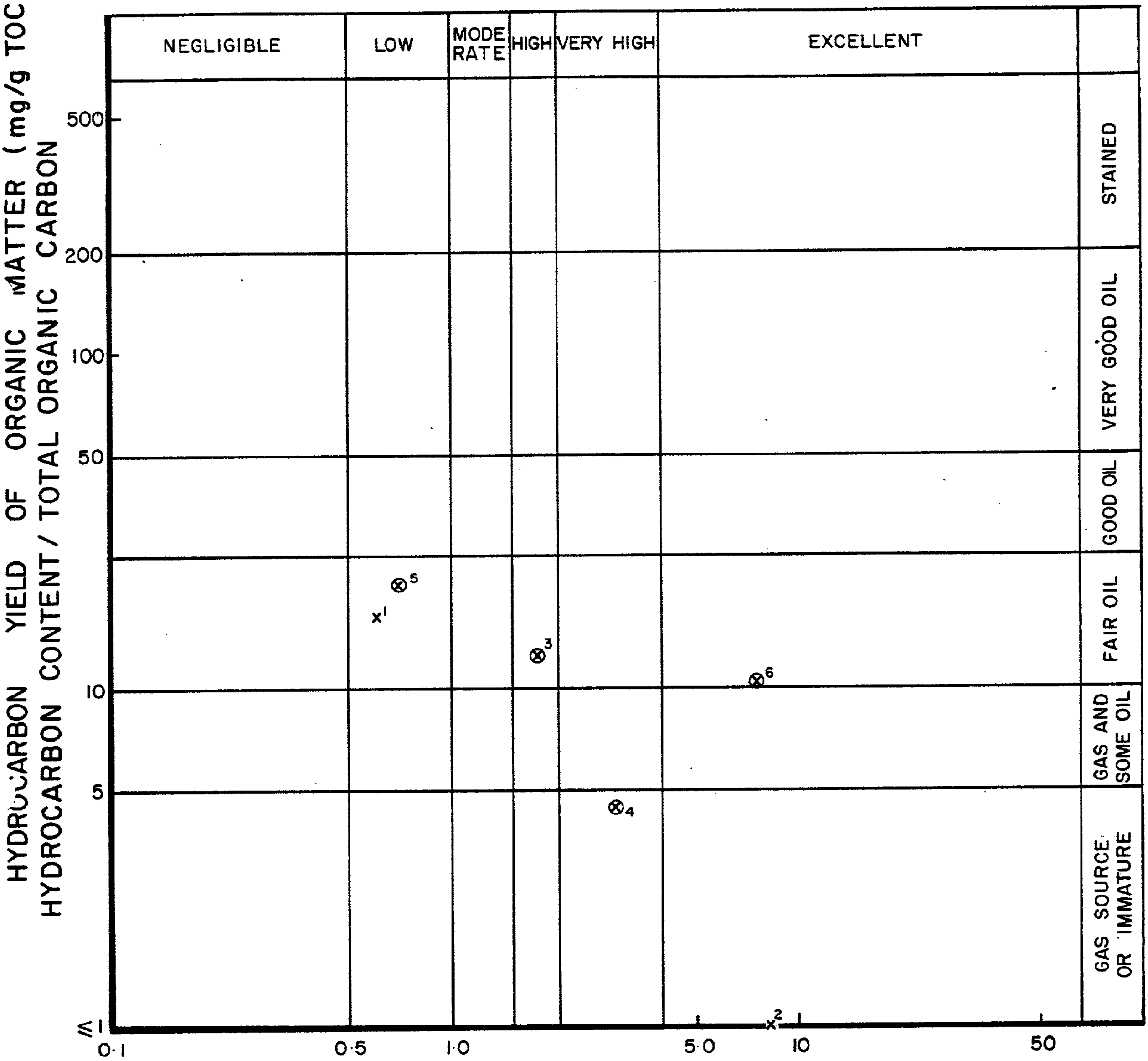
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4330	FIG. E4a
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

'BASAL HUTTON' MEMBER' AND POOLOWANNA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x 1A BASAL HUTTON MEMBER : SAMPLE AND WELL CODE

⊗ 1A POOLOWANNA FM. : SAMPLE AND WELL CODE (SEE TABLE 4B, APPENDIX C)

* ≥ 75% OF THE SAMPLE LIES WITHIN THE BASAL HUTTON MEMBER OR THE POOLOWANNA FORMATION.

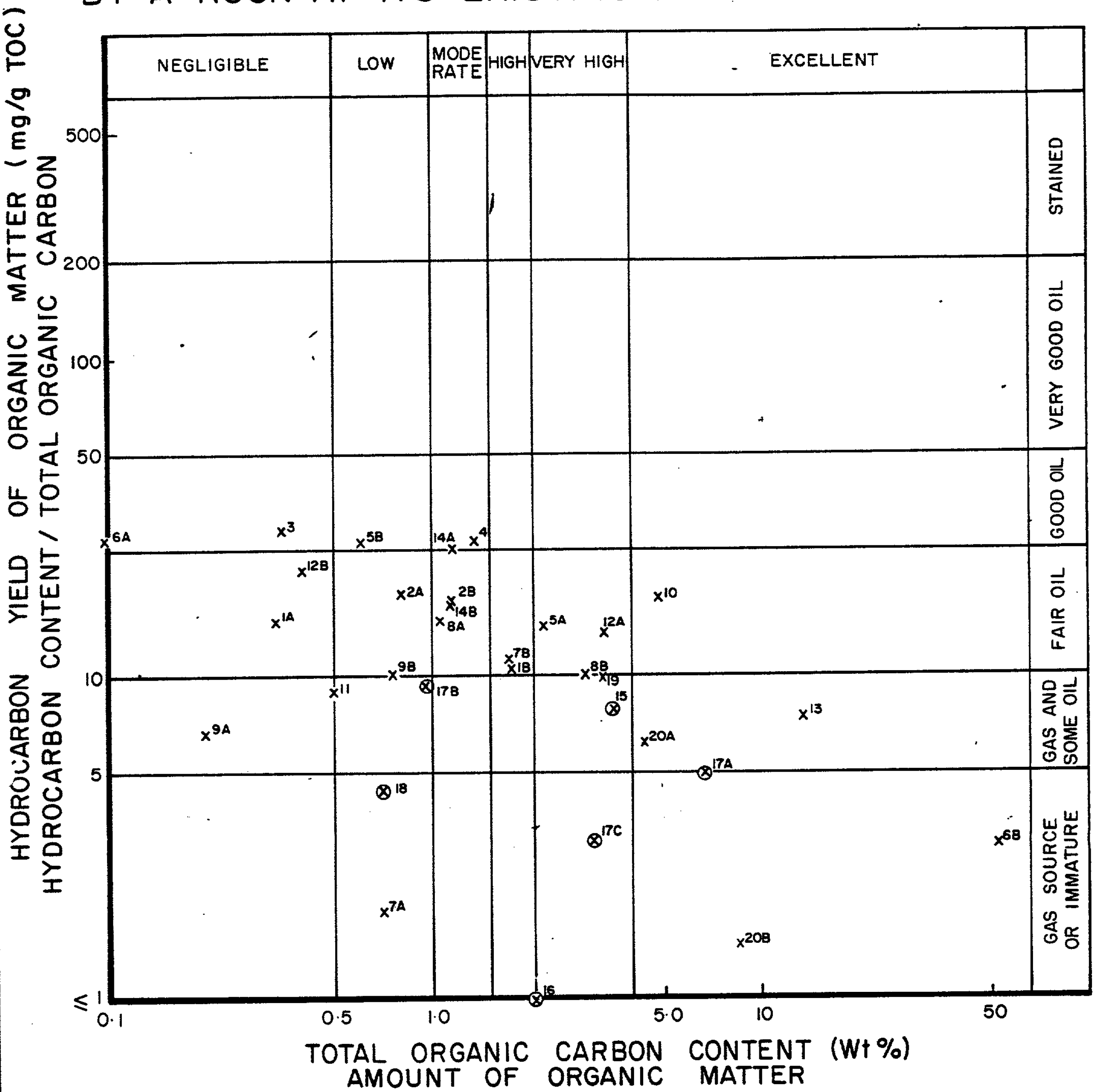
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4329	FIG. E4b
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

'BASAL HUTTON' MEMBER AND POOLOWANNA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x 1A BASAL HUTTON MEMBER : SAMPLE AND WELL CODE

⊗ 1A POOLOWANNA FM. : SAMPLE AND WELL CODE (SEE TABLE 4C, APPENDIX C)

* <75% OF THE SAMPLE LIES WITHIN THE BASAL HUTTON MEMBER OR THE POOLOWANNA FORMATION.

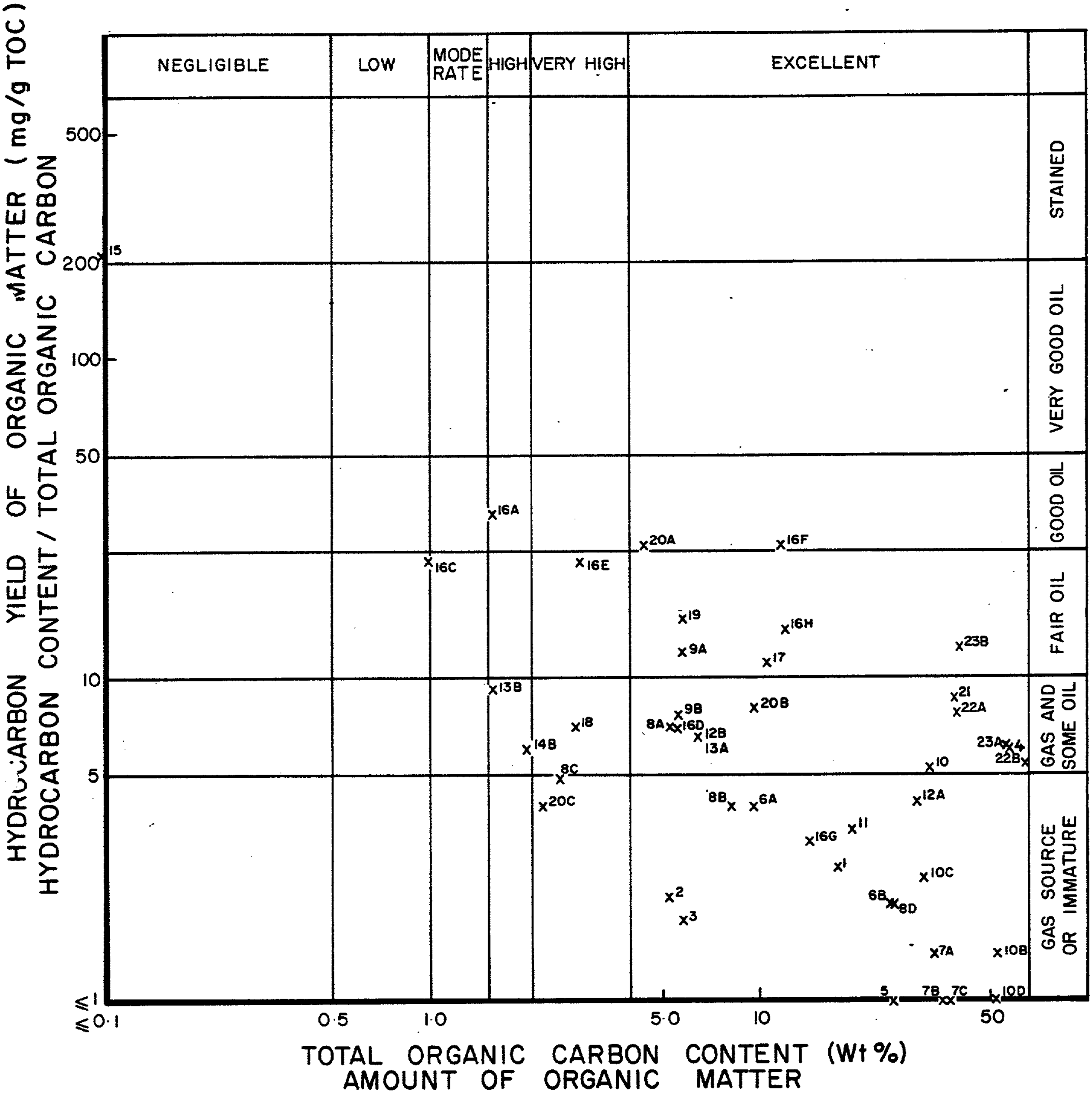
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4331	FIG. E4c
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

PATCHAWARRA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE AND WELL CODE (SEE TABLE 5A, APPENDIX C)

* 100% OF THE SAMPLE LIES WITHIN THE PATCHAWARRA FORMATION

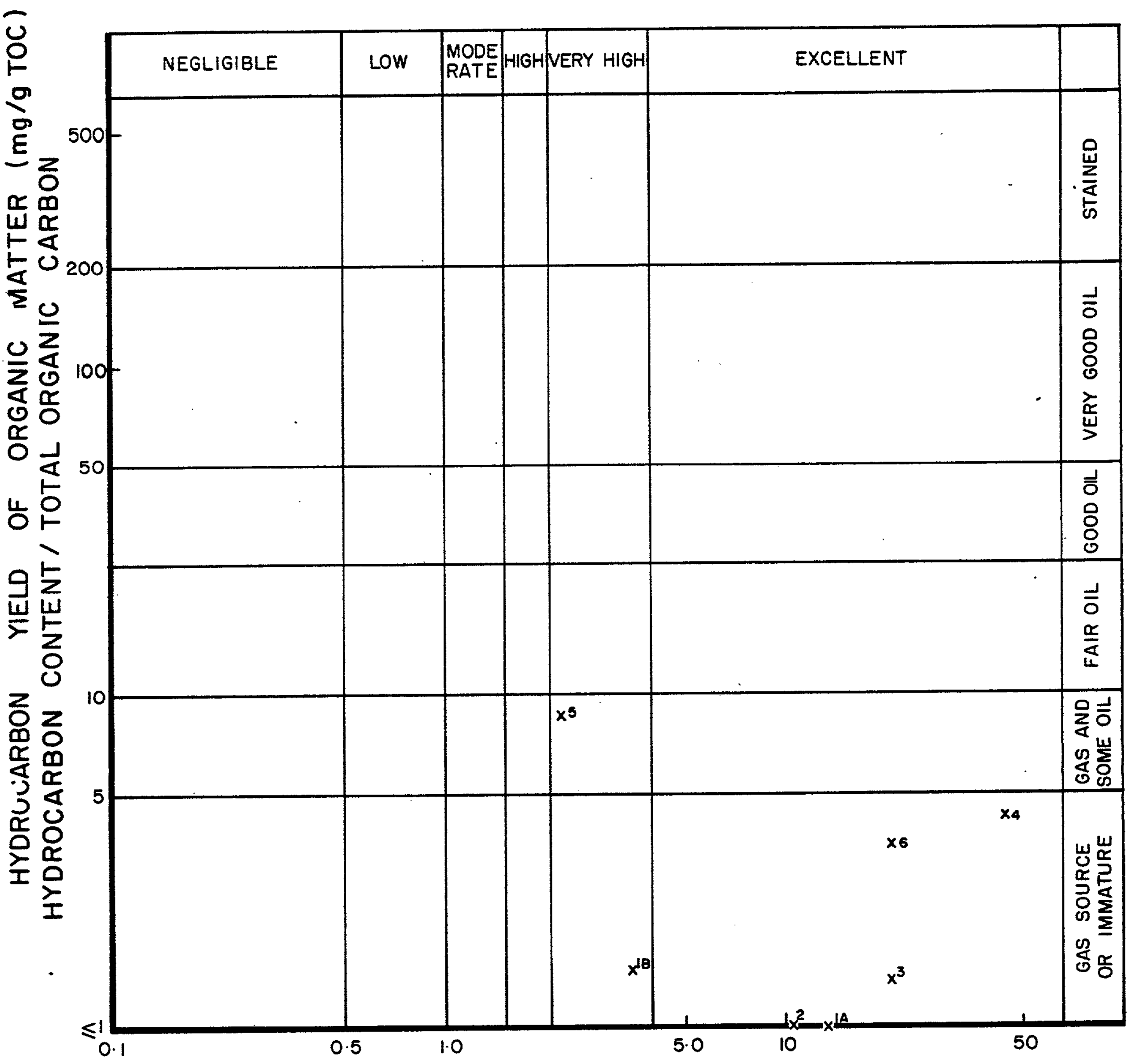
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4335	FIG. E 5a
Drafted :- J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

PATCHAWARRA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1A SAMPLE AND WELL CODE (SEE TABLE 5B, APPENDIX C)

* ≥ 75 % OF THE SAMPLE LIES WITHIN THE PATCHAWARRA FORMATION.

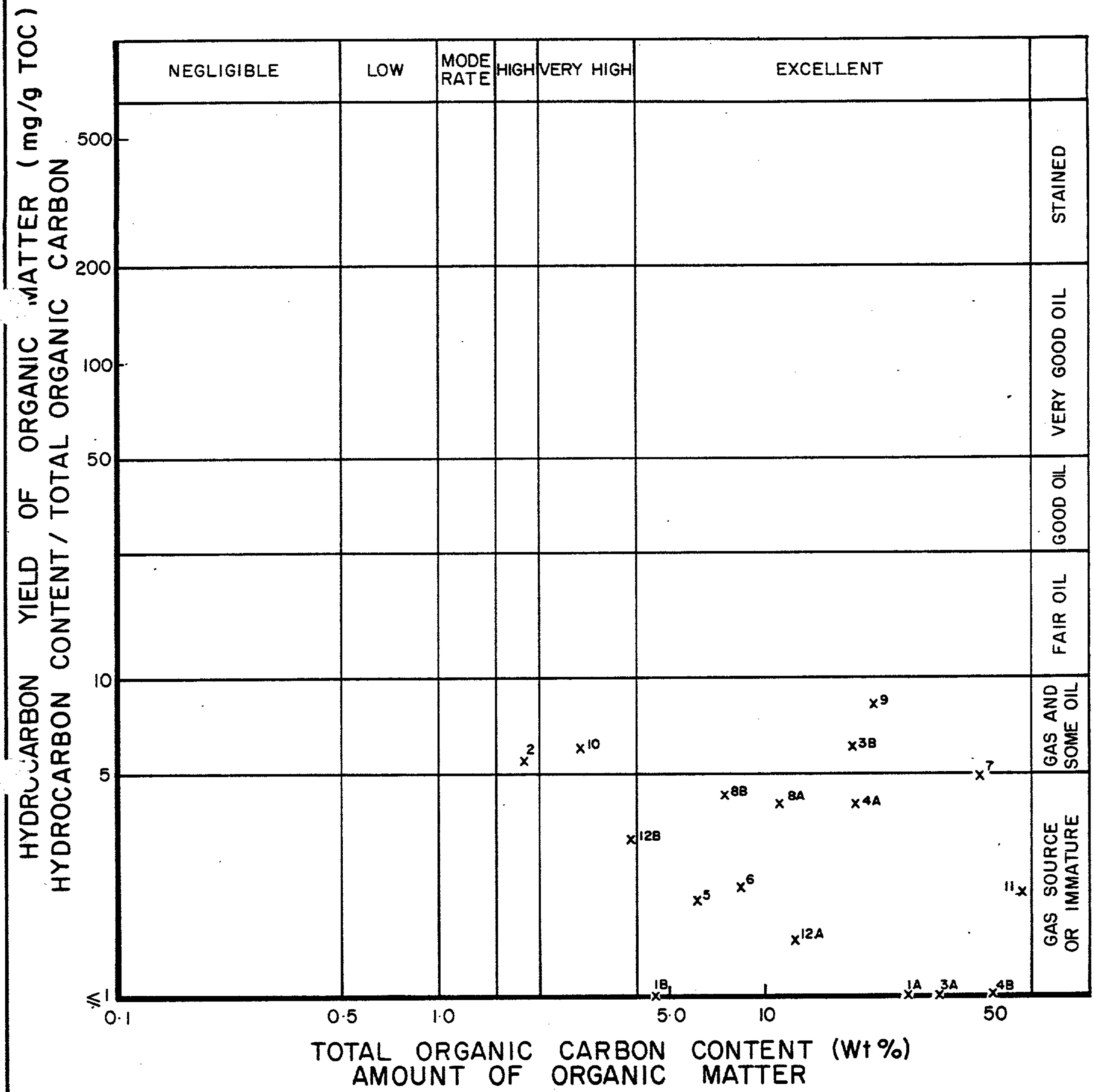
DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4334	FIG. E5b
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

PATCHAWARRA FORMATION*

THE TYPE AND AMOUNT OF HYDROCARBONS GENERATED BY A ROCK AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x 1A SAMPLE AND WELL CODE (SEE TABLE 5C, APPENDIX C)

* < 75 % OF THE SAMPLE LIES WITHIN THE PATCHAWARRA FORMATION.

DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4333	FIG. E5c
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

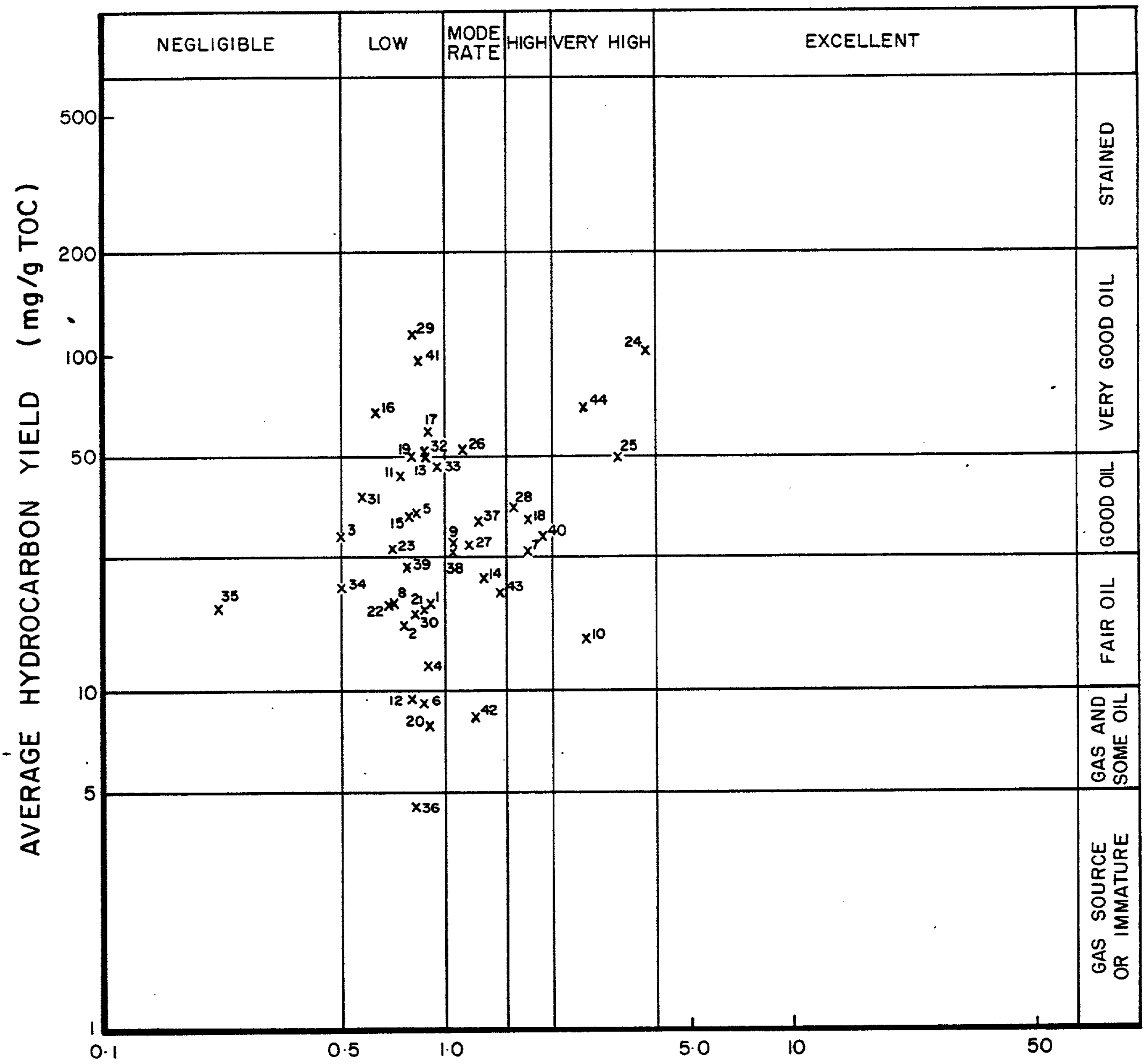
APPENDIX F

AVERAGED TOC VS HYDROCARBON YIELD CROSSPLOTS

DELHI PETROLEUM PTY. LTD.

MURTA MEMBER *

THE AVERAGE TYPE AND AMOUNT OF HYDROCARBONS GENERATED WITHIN A FORMATION AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

X1 SAMPLE & WELL CODE (SEE TABLE 1, APPENDIX G)

* INCLUDES ONLY SAMPLES 75-100% WITHIN THE MURTA MEMBER.

NOTE: THIS IS A PLOT OF VALUES THAT HAVE BEEN AVERAGED — i.e. NUMERICAL AVERAGE FOR THE FORMATION IN EACH WELL.

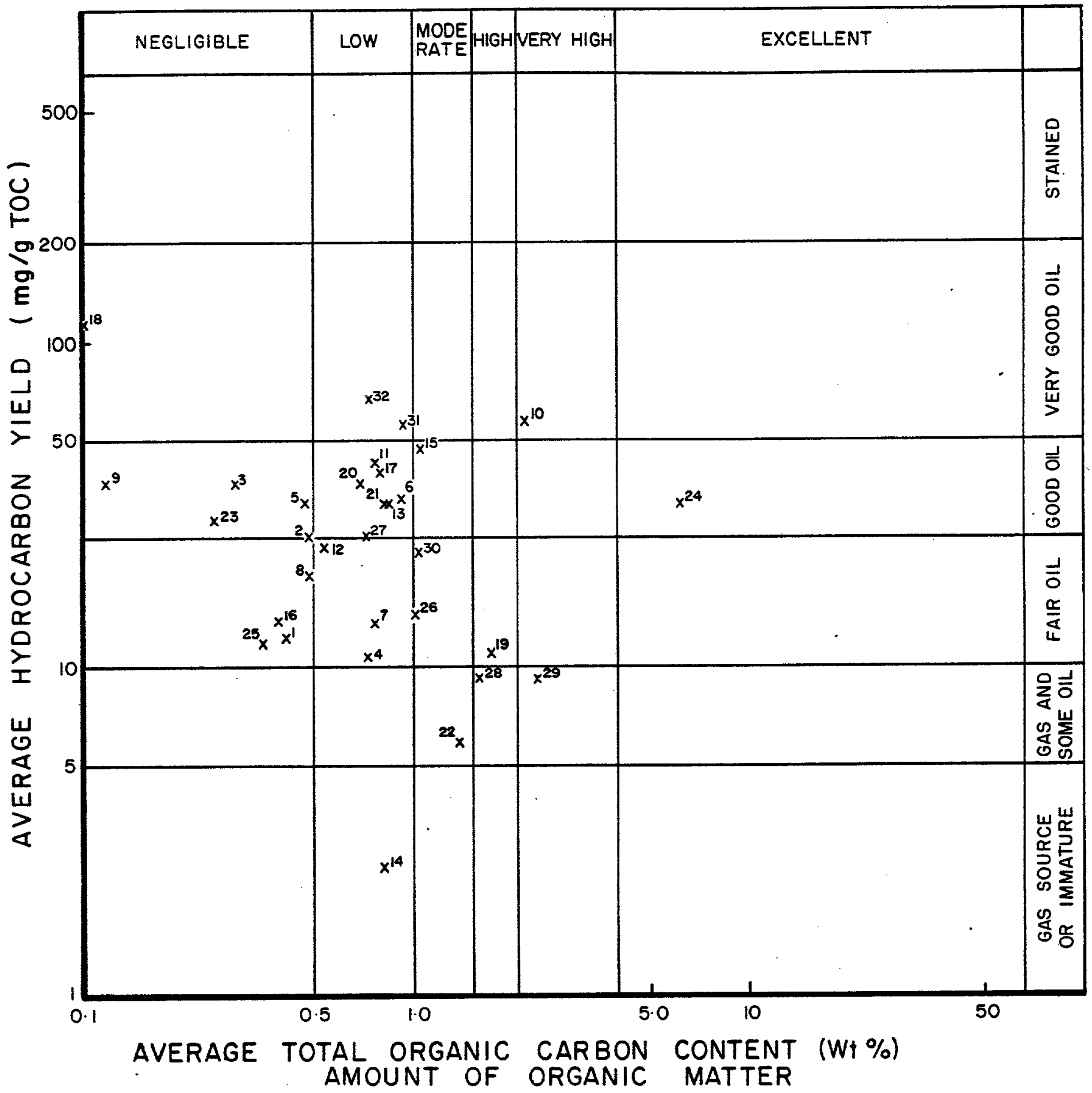
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4320	FIG. F1
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

WESTBOURNE FORMATION*

THE AVERAGE TYPE AND AMOUNT OF HYDROCARBONS GENERATED WITHIN A FORMATION AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x 1A SAMPLE AND WELL CODE (SEE TABLE 2, APPENDIX G)

* INCLUDES ONLY SAMPLES 75-100% WITHIN THE BIRKHEAD FORMATION.

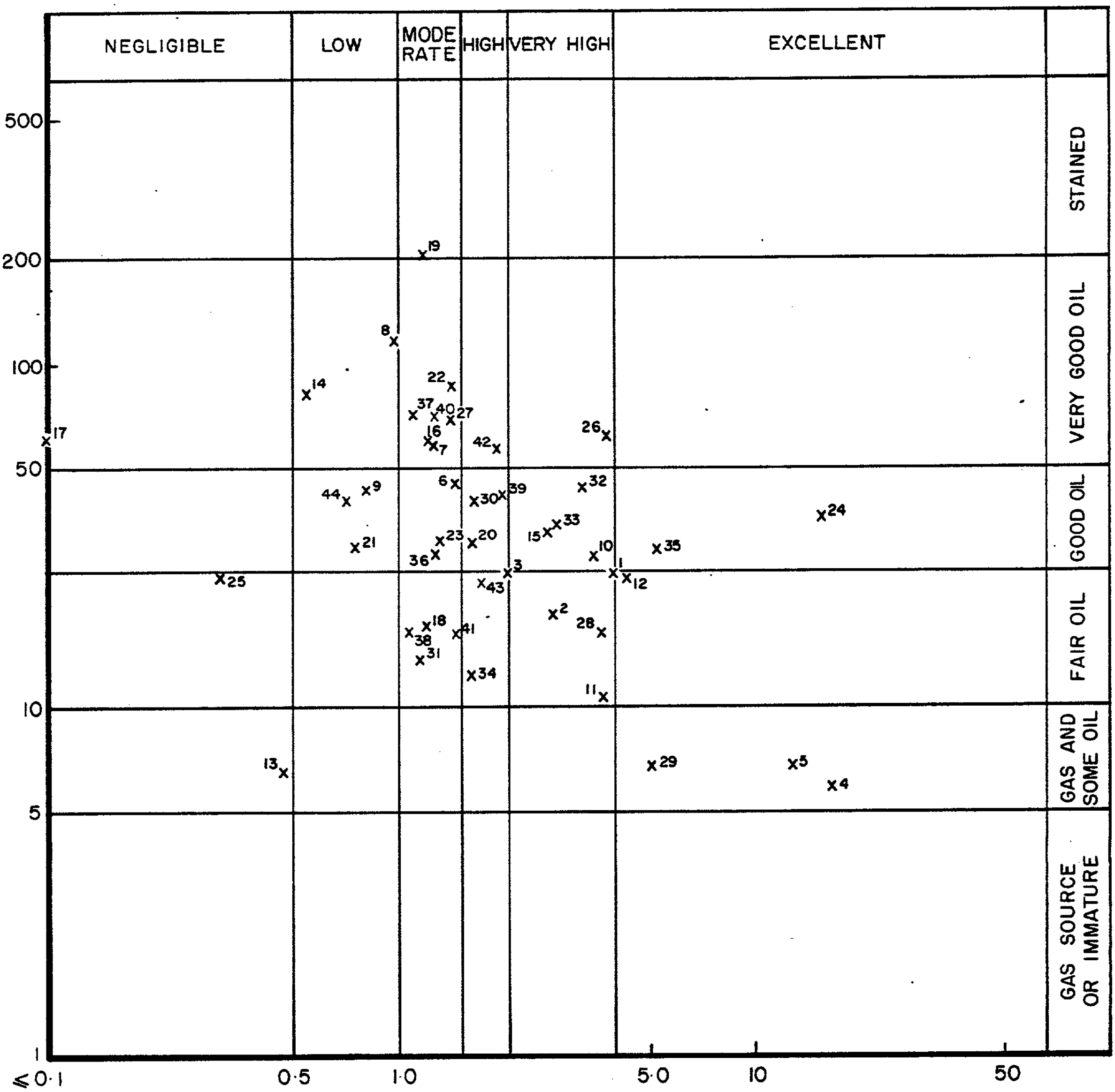
Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84 XG-4328	FIG. F2
Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

BIRKHEAD FORMATION *

THE AVERAGE TYPE AND AMOUNT OF HYDROCARBONS GENERATED WITHIN A FORMATION AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x[1] SAMPLE AND WELL CODE (SEE TABLE 3, APPENDIX G)

* INCLUDES ONLY SAMPLES 75 – 100% WITHIN

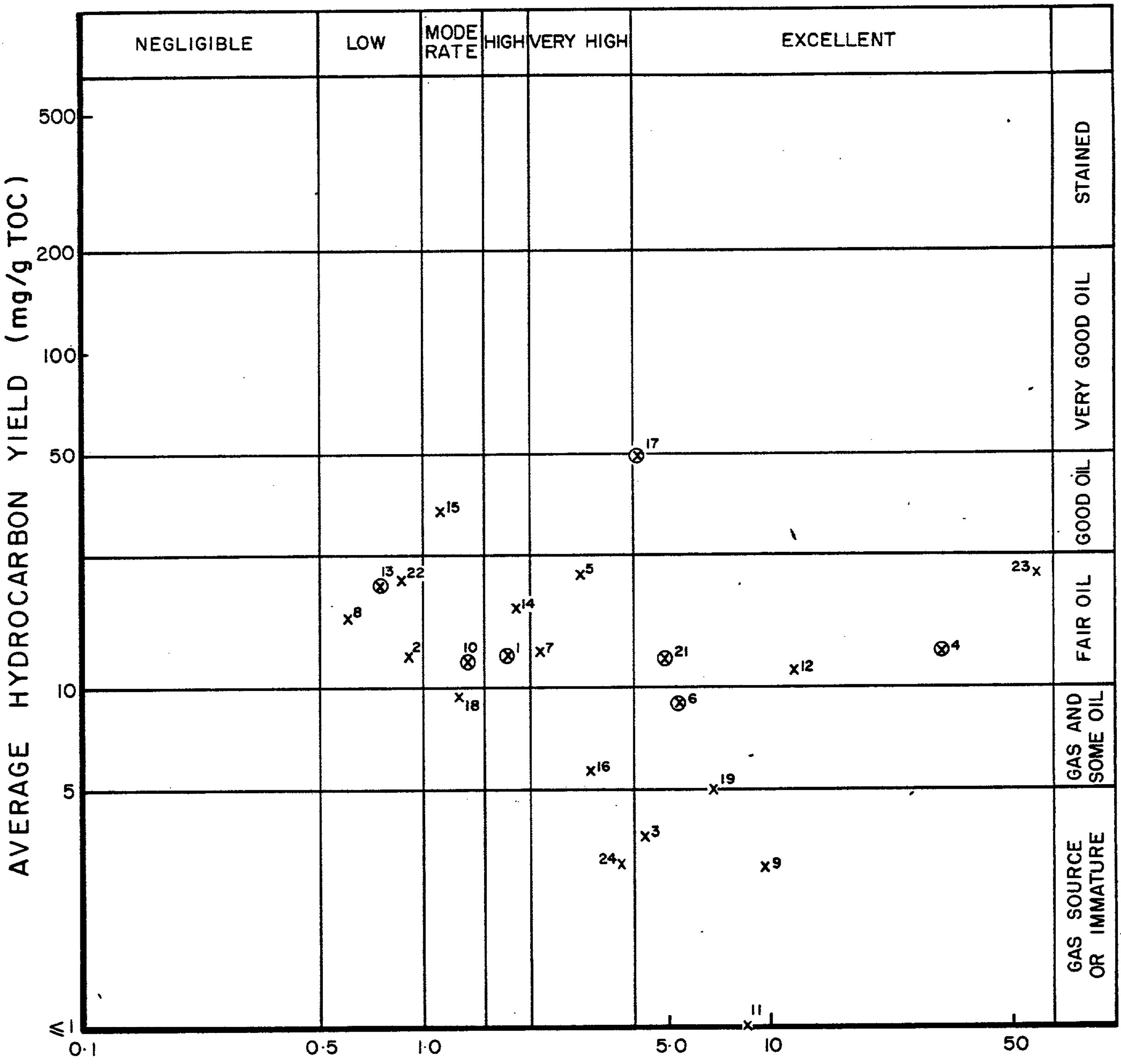
DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4324	FIG. F3
	Drafted : J. BARNS	Revised :	File No. : SH-21	

Base No. 83XG-2091, File SD-1

DELHI PETROLEUM PTY. LTD.

'BASAL HUTTON' MEMBER AND POOLOWANNA FORMATION*

THE AVERAGE TYPE AND AMOUNT OF HYDROCARBONS GENERATED WITHIN A FORMATION AT ITS EXISTING LEVEL OF MATURITY



EXPLANATION OF SYMBOLS

x1 BASAL HUTTON MEMBER : SAMPLE AND WELL CODE

⊗1 POOLOWANNA FM. : SAMPLE AND WELL CODE (SEE TABLE 4, APPENDIX G)

* INCLUDES ONLY SAMPLES 75–100% WITHIN THE BASAL HUTTON MEMBER OR POOLOWANNA FORMATION.

DELHI	Author : D. JOHNSTONE	Date : OCTOBER 1984	Dwg. No. : 84XG-4332
	Drafted : J. BARNS	Revised :	File No. : SH-21

FIG. F4

Base No. 83XG-2091, File SD-1

APPENDIX G

Area Tables

* Denotes wells sampled at 30' intervals

TABLE 1: MURTA MEMBER SOURCE QUALITY

1A	1B	1C	1D	1E	1F
	-	35 WAREENA 1	3 COONATIE 2	-	-
2A	2B	2C	2D	2E	2F
36 WILLS 1	6 DILCHEE 1 12 HUME 1 20 MERRIMELIA 7	1 ALKINA 1 2 BELAH 1 4 CURALLE 1 8 DULLINGARI 5 21 MOOMBA 18 22 MOORARI 3 30 STRZELECKI 5 34 WANTANA 1 39 *BYCOE 1	5 CUTTAPIRRIE 1 11 FLY LAKE 4 13 INNAMINCKA 3 15 JACKSON STH 1 19 MERRIMELIA 6 23 MUDERA 1 31 TANBAR NTH 1 33 WACKETT 1	16 KARMONA E 1 17 KIDMAN 2 29 STRZELECKI 4 32 TARTULLA 1 41 *NACCOWLAH SOUTH 1	-
3A	3B	3C	3D	3E	3F
-	42 *RICHIE 1	14 JACKSON 1 43 *TINPILLA 1	9 DULLINGARI 11 27 PINNA 1 37 WILPINNIE 1 38 YAPENI 1	26 NAPPACOONGEE 2	-
4A	4B	4C	4D	4E	4F
-	-	-	7 DULLINGARI 1 18 MARABOOKA 1 28 STRZELECKI 3 40 *GUNNA 1	-	-
5A	5B	5C	5D	5E	5F
-	-	10 DULLINGARI NTH 1	25 NAMUR 2	24 NACCOWLAH 1 44 *WILSON 1	-
6A	6B	6C	6D	6E	6F
-	-	-	-	-	-

TABLE 2: WESTBOURNE FORMATION SOURCE QUAALITY

1A	1B	1C	1D	1E	1F
-	-	1 ALKINA 1 2 BARROLKA E 1 8 INGELLA 1 16 MT. HOWITT 1 25 WIMMA 1	3 COONATIE 2 5 DULLINGARI NTH 1 9 JACK LAKE 1 23 WELCOME LAKE 1	18 STRZELECKI 4	-
2A	2B	2C	2D	2E	2F
14 MERRIMELIA 7	-	4 CURALLE 1 7 HUME 1 12 KARMONA E 1	6 GILPEPPEE 2 11 JACKSON STH 1 13 KIDMAN 2 17 STRZELECKI 3 20 TARTULLA 1 21 WACKETT 1 27 *BYCOE 1	31 *TINPILLA 1 32 *WILSON 1	-
3A	3B	3C	3D	3E	3F
-	22 WAREENA 1	26 YANKO 1 30 *RICHIE 1	15 MOORARI 3	-	-
4A	4B	4C	4D	4E	4F
-	28 *CHOOKOO 1	19 TANBAR NTH 1	-	-	-
5A	5B	5C	5D	5E	5F
-	29 *NACCOWLAH SOUTH 1	-	24 WILPINNIE 1	10 JACKSON 1	-
6A	6B	6C	6D	6E	6F
-	-	-	-	-	-

TABLE 3: BIRKHEAD FORMATION SOURCE QUALITY

1A -	1B 13 JACK LAKE 1	1C 25 ORIENTOS 1	1D -	1E 17 MARABOOKA 1	1F -
2A -	2B -	2C -	2D 9 DULLINGARI NTH 1 21 MUDERA 1 44 *WILSON 1	2E 8 DELLA 1 14 JACKSON 1	2F -
3A -	3B -	3C 18 MERRIMELIA 7 31 THUNDA 1 38 *BYCOE 1 41 *NACCOWLAH SOUTH 1	3D 6 CURALLE 1 23 NACCOWLAH 36 WIMMA 1	3E 7 CUTTAPIRRIE 1 16 KIDMAN 2 22 MUDLALEE 2 27 STRZELECKI 4 37 YAPENI 1 40 *GUNNA 1	3F 19 MOORARI 3
4A -	4B -	4C 34 WILLS 43 TINPILLA 1	4D 20 MT. HOWITT 1 30 TARTULLA 1 39 CHOOKOO 1	4E 42 *RICHIE 1	4F -
5A -	5B -	5C 2 BARROLKA E. 1 3 BELAH 1 11 HUME 1 28 STRZELECKI 5	5D 10 GILPEPPEE 2 15 KARMONA E 1 32 WACKETT 1 33 WAREENA 1	5E 26 STRZELECKI 3	5F -
6A -	6B 4 CHANDOS 1 5 CUMBROO 1 29 TANBAR NTH 1	6C 1 ALKINA 1 12 INGELLA 1	6D 24 NAPPACOONGEE 2 35 WILPINNIE 1	6E -	6F -

TABLE 4: 'BASAL HUTTON' MEMBER AND POOLOWANNA FORMATION SOURCE QUALITY

1A -	1B -	1C -	1D -	1E -	1F -
2A -	2B -	2C 2 ALKINA 1 8 INGELLA 1 13 MOKARI 1 22 WAREENA 1	2D -	2E -	2F -
3A -	3B 18 TANBAR NTH 1	3C 10 KUNCHERINNA 1	3D 15 NACCOWLAH 1	3E -	3F -
-	4B -	4C 1 ADRIA DOWNS 1 14 MORNEY 1	4D -	4E -	4F -
5A 24 *WILSON 1	5B 16 PANDO 1	5C 5 CURALLE 1 7 GILPEPPEE 2	5D -	5E -	5F -
6A 3 BARROLKA E 1 9 INNAMINCKA 3 11 MERRIMELIA 6	6B 6 ERABENA 1 19 TARTULLA 1	6C 4 COLSON 1 12 MERRIMELIA 7 21 WALKANDI 1 23 *CHOOKOO 1	6D 17 POOLOWANNA 1	6E -	6F -

APPENDIX H

Key to Wells

APPENDIX H: Key to wells used in geochemical maps.

MURTA MEMBER

1 Alkina 1
2 Belah 1
3 Coonatie 2
4 Curalle 1
5 Cuttapirrie 1
6 Dilchee 1
7 Dullingari 1
8 Dullingari 5
9 Dullingari 11
10 Dullingari Nth 1
11 Fly Lake 4
12 Hume 1
13 Innamincka 3
14 Jackson 1
15 Kackson Sth 1
16 Karmona East 1
17 Kidman 2
18 Marabooka 1
19 Merrimelia 6
20 Merrimelia 7
21 Moomba 18
22 Moorari 3
23 Mudera 1
24 Naccowlah 1
25 Namur 2
26 Nappacoongee 2
27 Pinna 1
28 Strzelecki 3
29 Strzelecki 4
30 Strzelecki 5
31 Tanbar Nth 1
32 Tartulla 1
33 Wackett 1
34 Wantana 1
35 Wareena 1
36 Wills 1
37 Wilpinnie 1
38 Yapeni 1
39 Bycoe 1
40 Gunna 1
41 Naccowlah Sth 1
42 Richie 1
43 Tinpilla 1
44 Wilson 1

WESTBOURNE FORMATION

1 Alkina 1
2 Barrolka East 1
3 Coonatie 2
4 Curalle 1
5 Dullingari Nth 1
6 Gilpeppee 2
7 Hume 1
8 Ingella 1
9 Jack Lake 1
10 Kackson 1
11 Jackson Sth 1
12 Karmona East 1
13 Kidman 2
14 Merrimelia 7
15 Moorari 3
16 Mt. Howitt 1
17 Strzelecki 3
18 Strzelecki 4
19 Tanbar Nth 1
20 Tartulla 1
21 Wackett 1
22 Wareena 1
23 Welcome Lake 1
24 Wilpinnie 1
25 Wimma 1
26 Yanko 1
27 Bycoe 1
28 Chookoo 1
29 Naccowlah Sth 1
30 Richie 1
31 Tinpilla 1
32 Wilson 1

BIRKHEAD FORMATION

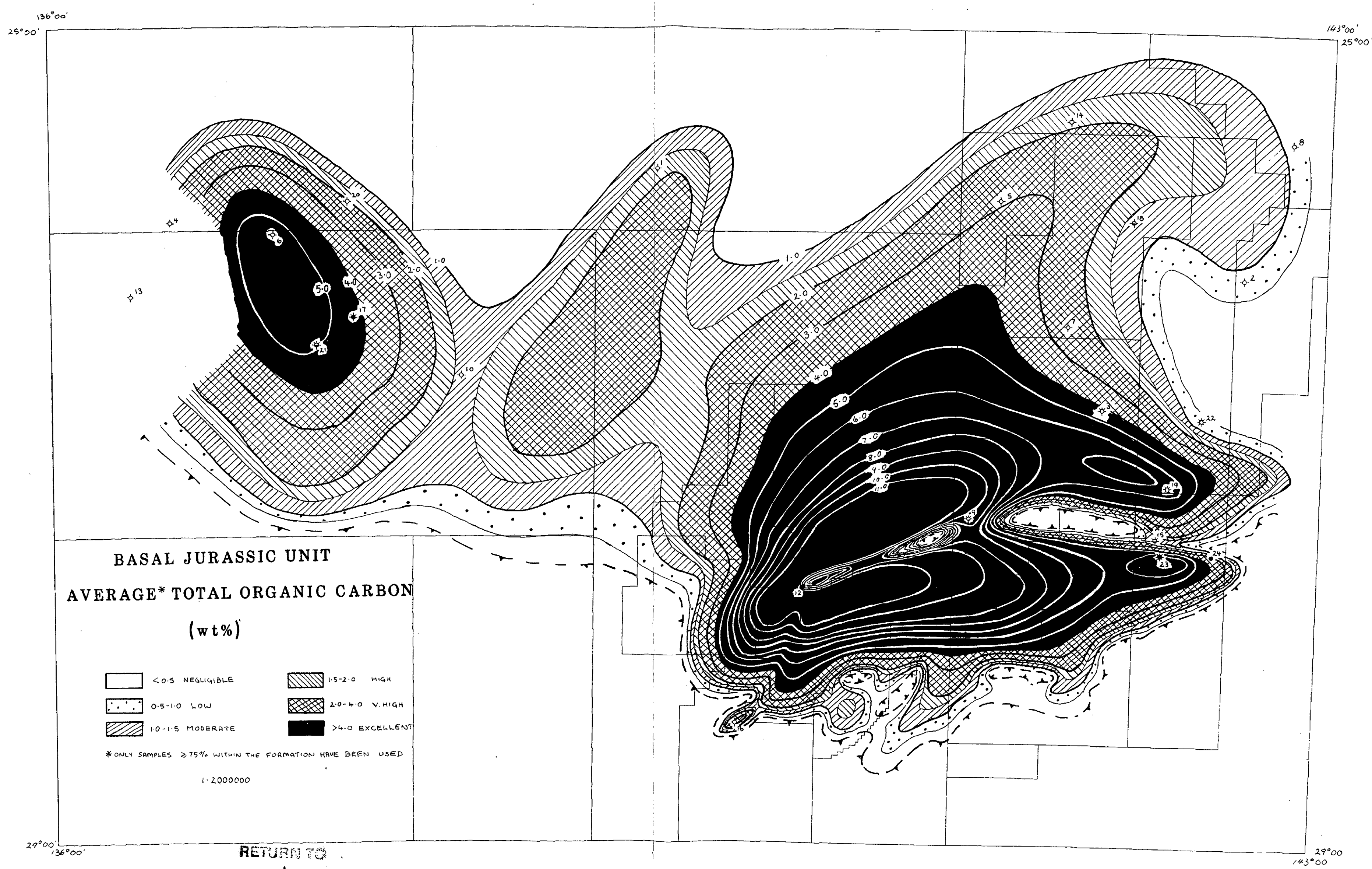
1 Alkina 1
2 Barrolka East 1
3 Belah 1
4 Chandos 1
5 Cumbroo 1
6 Curalle 1
7 Cuttapirrie 1
8 Della 1
9 Dullingari Nth 1
10 Gilpeppee 2
11 Hume 1
12 Ingella 1
13 Jack Lake 1
14 Jackson 1
15 Karmona East 1
16 Kidman 2
17 Marabooka 1
18 Merrimelia 7
19 Moorari 3
20 Mt. Howitt 1
21 Mudera 1
22 Mudlalee 2
23 Naccowlah 1
24 Nappacoongee 2
25 Orientos 1
26 Strzelecki 3
27 Strzelecki 4
28 Strzelecki 5
29 Tanbar Nth 1
30 Tartulla 1
31 Thunda 1
32 Wackett 1
33 Wareena 1
34 Wills 1
35 Wilpinnie 1
36 Wimma 1
37 Yapeni 1
38 Bycoe 1
39 Chookoo 1
40 Gunna 1
41 Naccowlah Sth 1
42 Richie 1
43 Tinpilla 1
44 Wilson 1

BASAL JURASSIC UNIT (Poolowanna Formation)

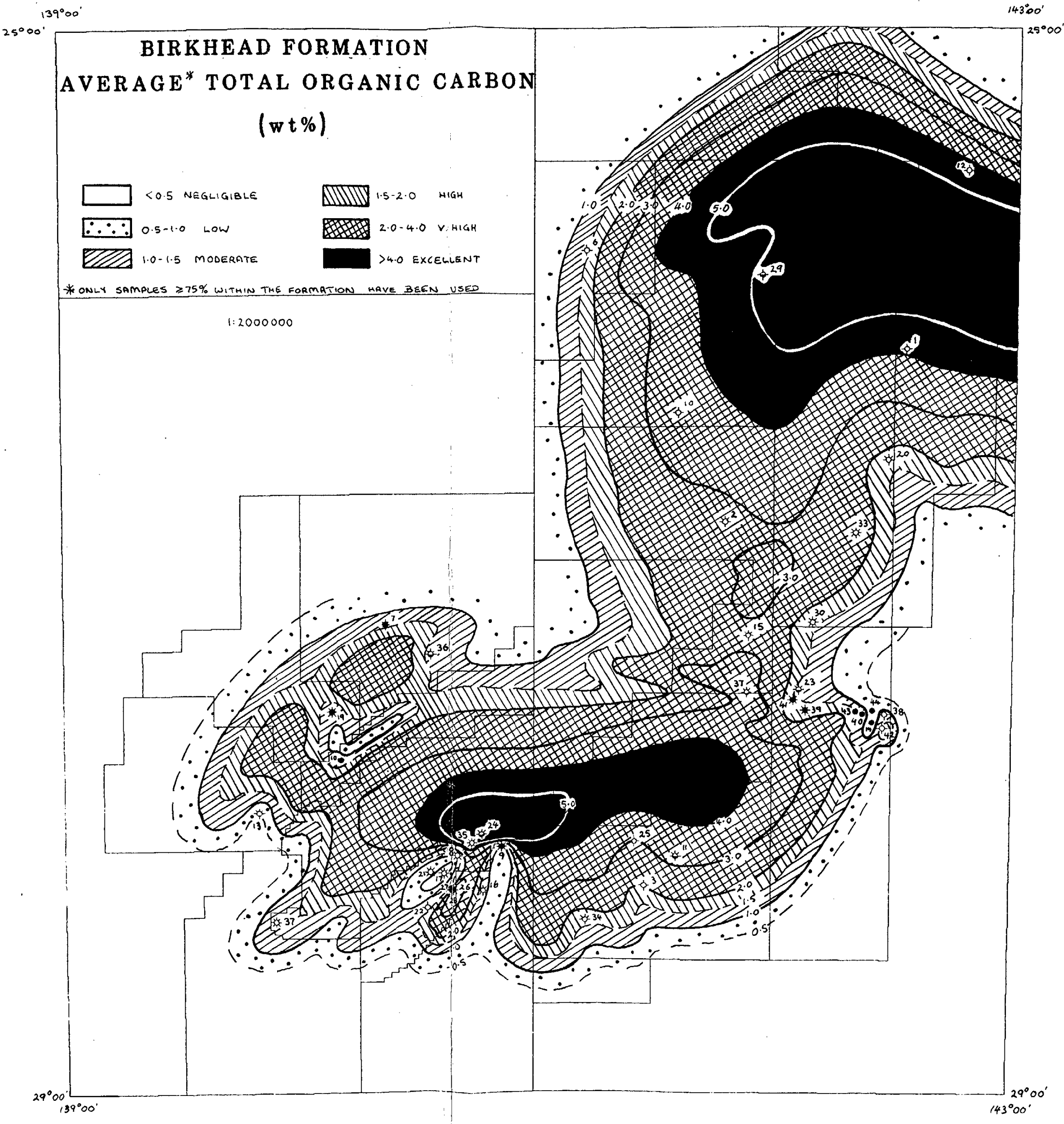
1 Adria Downs 1
2 Alkina 1
3 Barrolka East 1
4 Colson 1
5 Curalle 1
6 Erabena 1
7 Gilpeppee 2
8 Ingella 1
9 Innamincka 3
10 Kuncherinna 1
11 Merrimelia 6
12 Merrimelia 7
13 Mokari 1
14 Morney 1
15 Naccowlah 1
16 Pando 1
17 Poolowanna 1
18 Tanbar Nth 1
19 Tartulla 1
20 Thomas 1
21 Walkandi 1
22 Wareena 1
23 Chookoo 1
24 Wilson 1

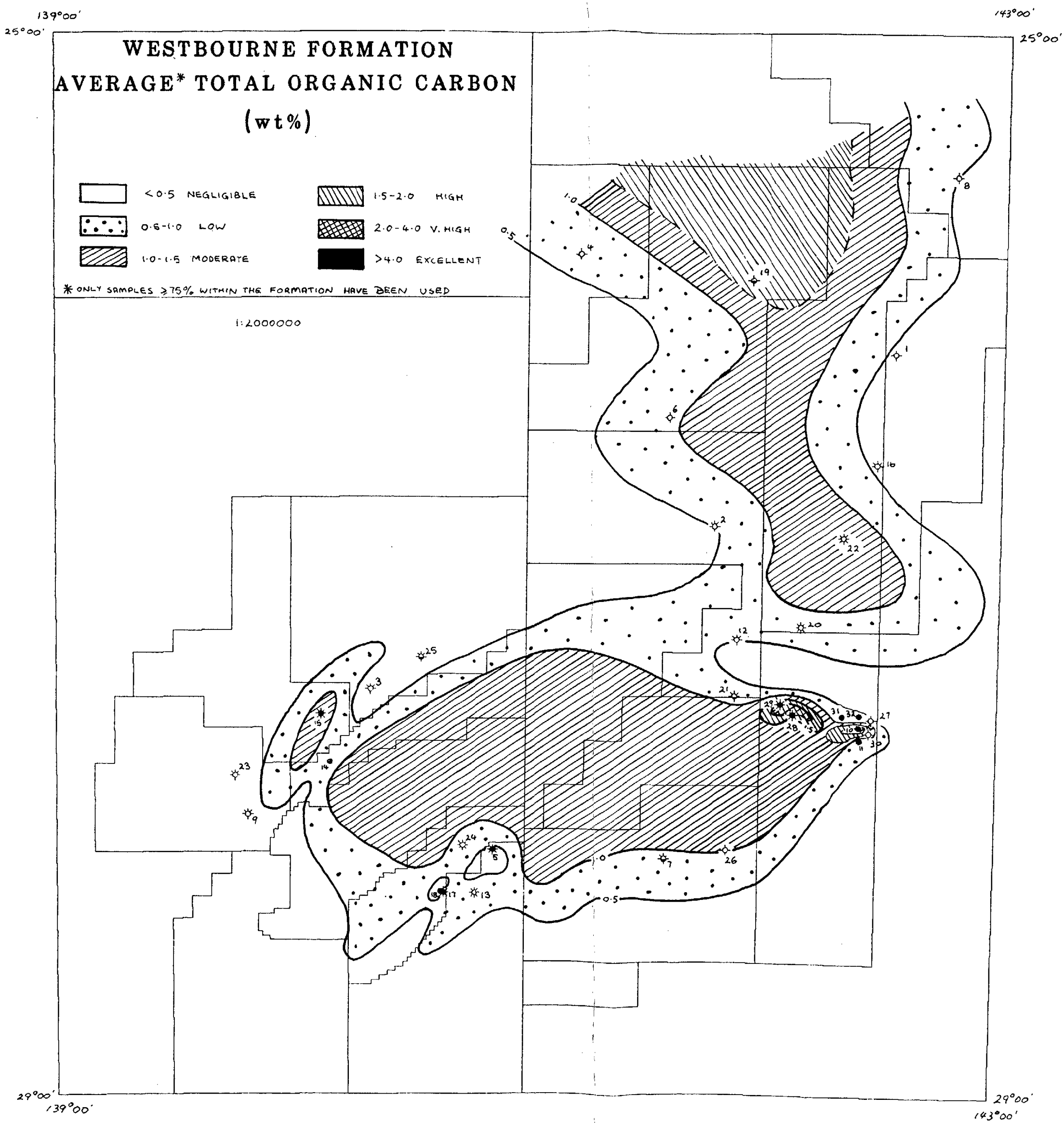
MESOZOIC UNITS

1 Adria Downs 1
2 Alkina 1
3 Barrolka East 1
4 Belah 1
5 Chandos 1
6 Colson 1
7 Coonatie 2
8 Corkwood 1
9 Cumbroo 1
10 Curalle 1
11 Cuttapirrie 1
12 Daralingie 4
13 Della 1
14 Dilchee 1
15 Dullingari 1
16 Dullingari 5
17 Dullingari 11
18 Dullingari Nth 1
19 Erabena 1
20 Fly Lake 4
21 Gilpeppee 2
22 Hume 1
23 Ingella 1
24 Innamincka 3
25 Jack Lake 1
26 Jackson 1
27 Jackson 2
28 Jackson Sth 1
29 Karmona East 1
30 Kidman 2
31 Kuncherinna 1
32 Marabooka 1
33 McKinlay 1
34 Merrimelia 6
35 Merrimelia 7
36 Mokari 1
37 Moomba 18
38 Moorari 3
39 Morney 1
40 Mt. Howitt 1
41 Mudera 1
42 Mudlalee 2
43 Munkari 1
44 Naccowlah 1
45 Namur 2
46 Nappacoongee 2
47 Orientos 1
48 Pando 1
49 Pinna 1
50 Poolowanna 1
51 Spencer 2
52 Strzelecki 3
53 Strzelecki 4
54 Strzelecki 5
55 Tanbar Nth 1
56 Tartulla 1
57 Thomas 1
58 Thunda 1
59 Wackett 1
60 Walkandi 1
61 Wantana 1
62 Wareena 1
63 Welcome Lake 1
64 Wills 1
65 Wilpinna 1
66 Wimma 1
67 Yanko 1
68 Yapeni 1
69 Bycoe 1
70 Chookoo 1
71 Gunna 1
72 Naccowlah Sth 1
73 Richie 1
74 Tinpilla 1
75 Wilson 1

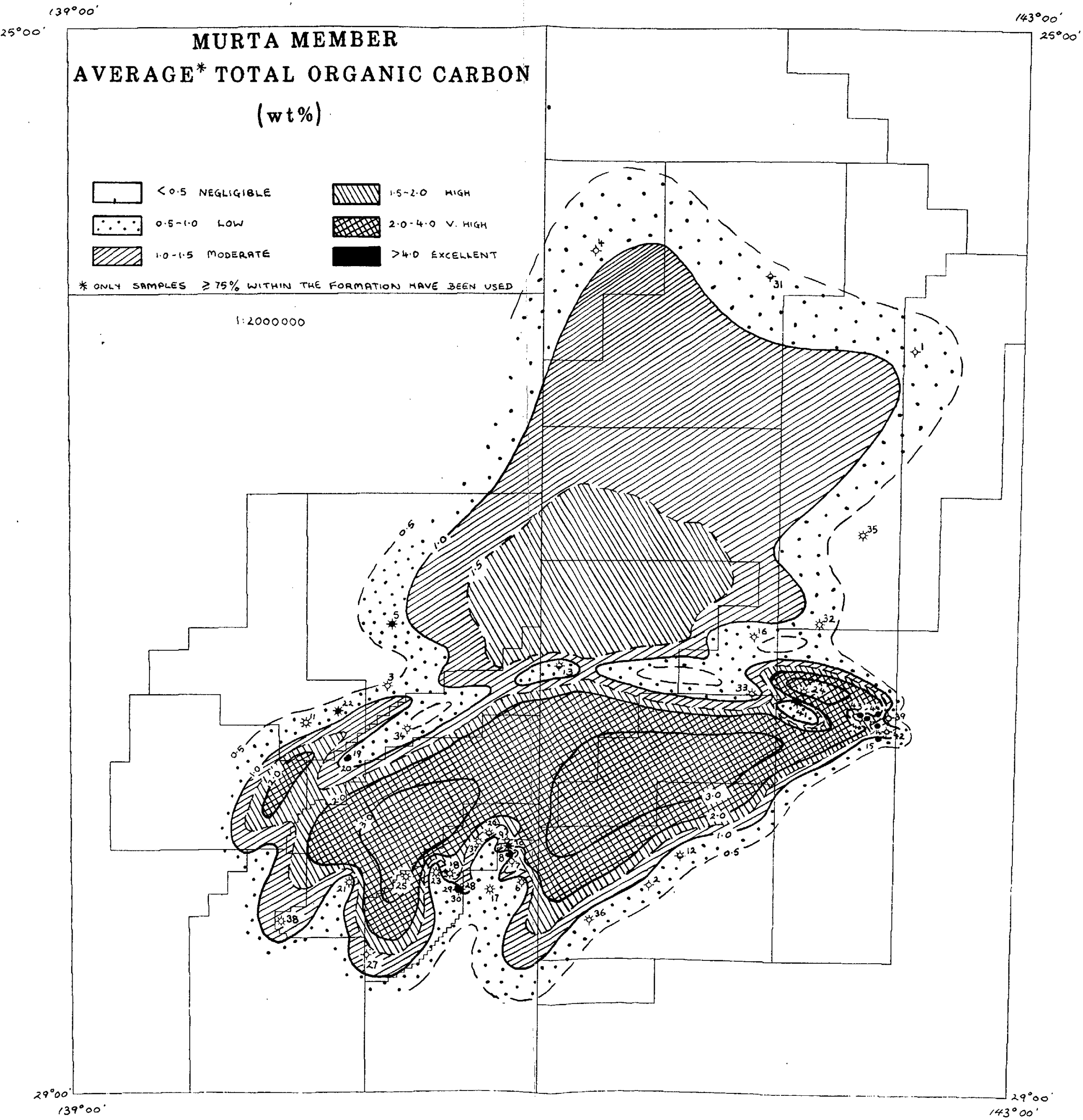

136°00'
25°00'
143°00'
25°00'
BASAL JURASSIC UNIT
AVERAGE* TOTAL ORGANIC CARBON
(wt%)
<0·5 NEGLIGIBLE
0·5-1·0 LOW
1·0-1·5 MODERATE
1·5-2·0 HIGH
2·0-4·0 V. HIGH
>4·0 EXCELLENT
* ONLY SAMPLES ≥ 75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
29°00'
136°00'
29°00
143°00

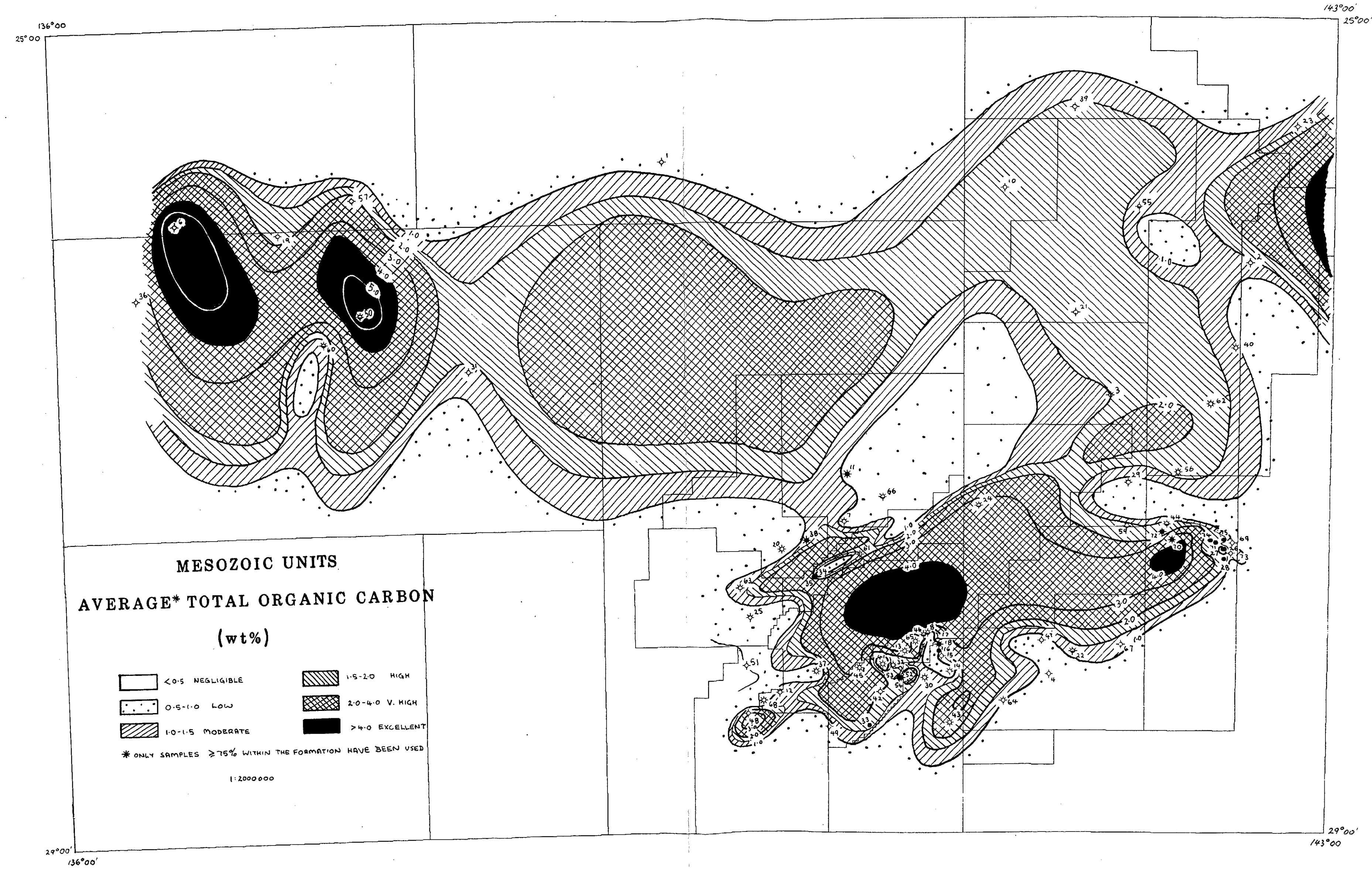
039873

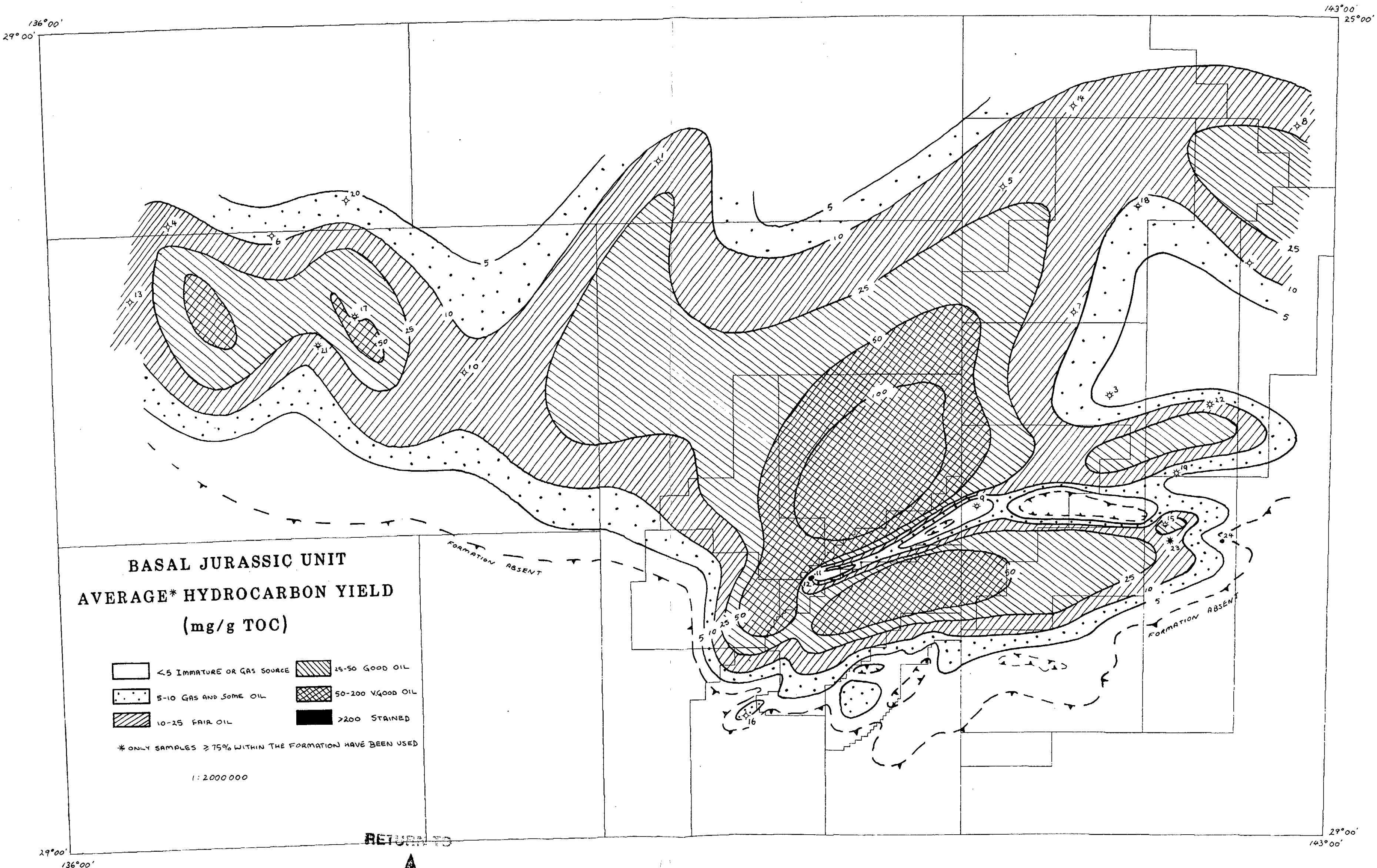

BIRKHEAD FORMATION
AVERAGE* TOTAL ORGANIC CARBON
(wt%)
<0.5 NEGLIGIBLE
0.5-1.0 LOW
1.0-1.5 MODERATE
1.5-2.0 HIGH
2.0-4.0 V. HIGH
>4.0 EXCELLENT
* ONLY SAMPLES ≥75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
139°00'
143°00'
25°00'
29°00'



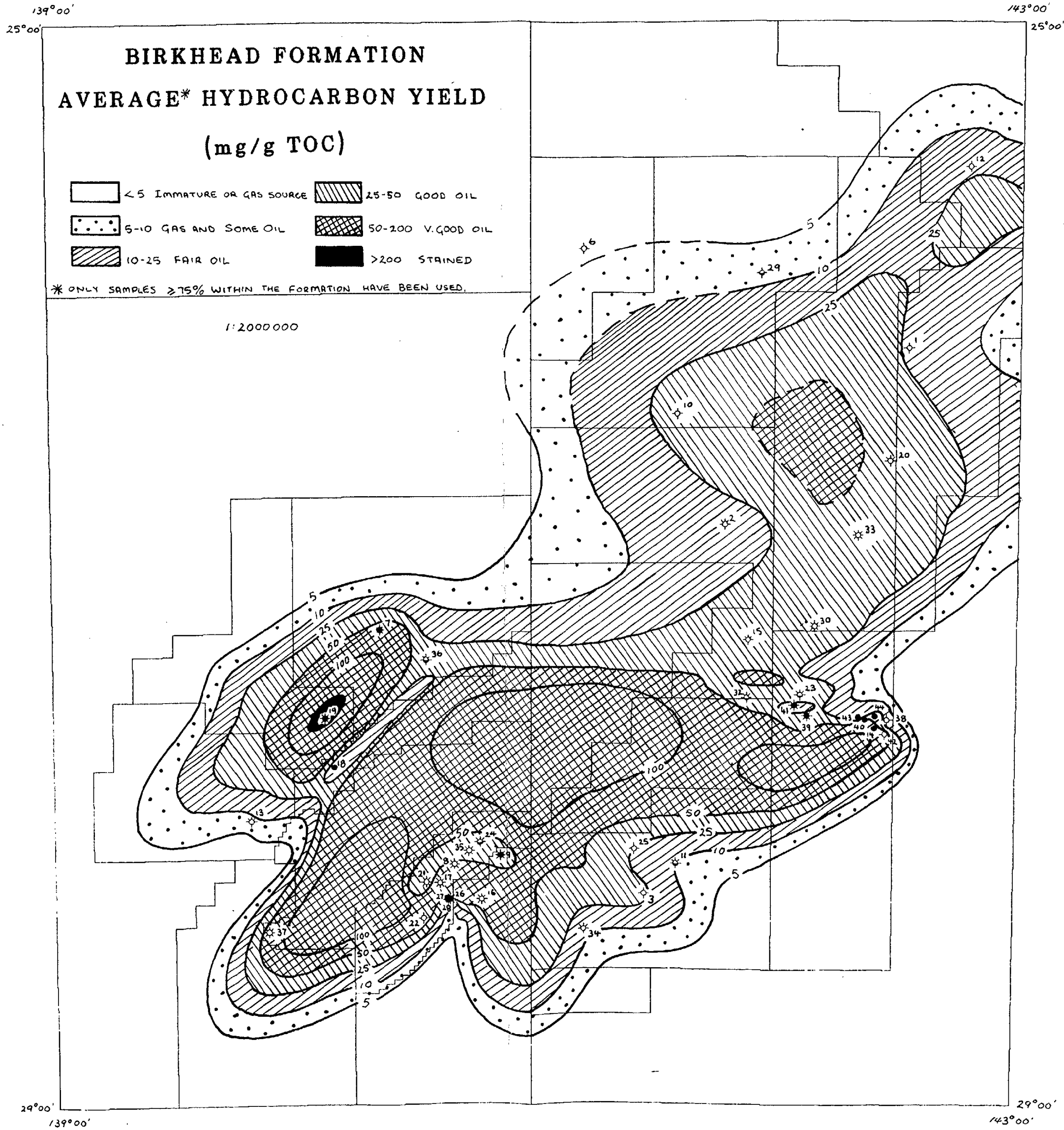
WESTBOURNE FORMATION
AVERAGE* TOTAL ORGANIC CARBON
(wt%)
<0·5 NEGLIGIBLE
0·6-1·0 LOW
1·0-1·5 MODERATE
1·5-2·0 HIGH
2·0-4·0 V. HIGH
>4·0 EXCELLENT
* ONLY SAMPLES ≥75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
139°00'
143°00'
25°00'
25°00'
29°00'
139°00'
29°00'
143°00'

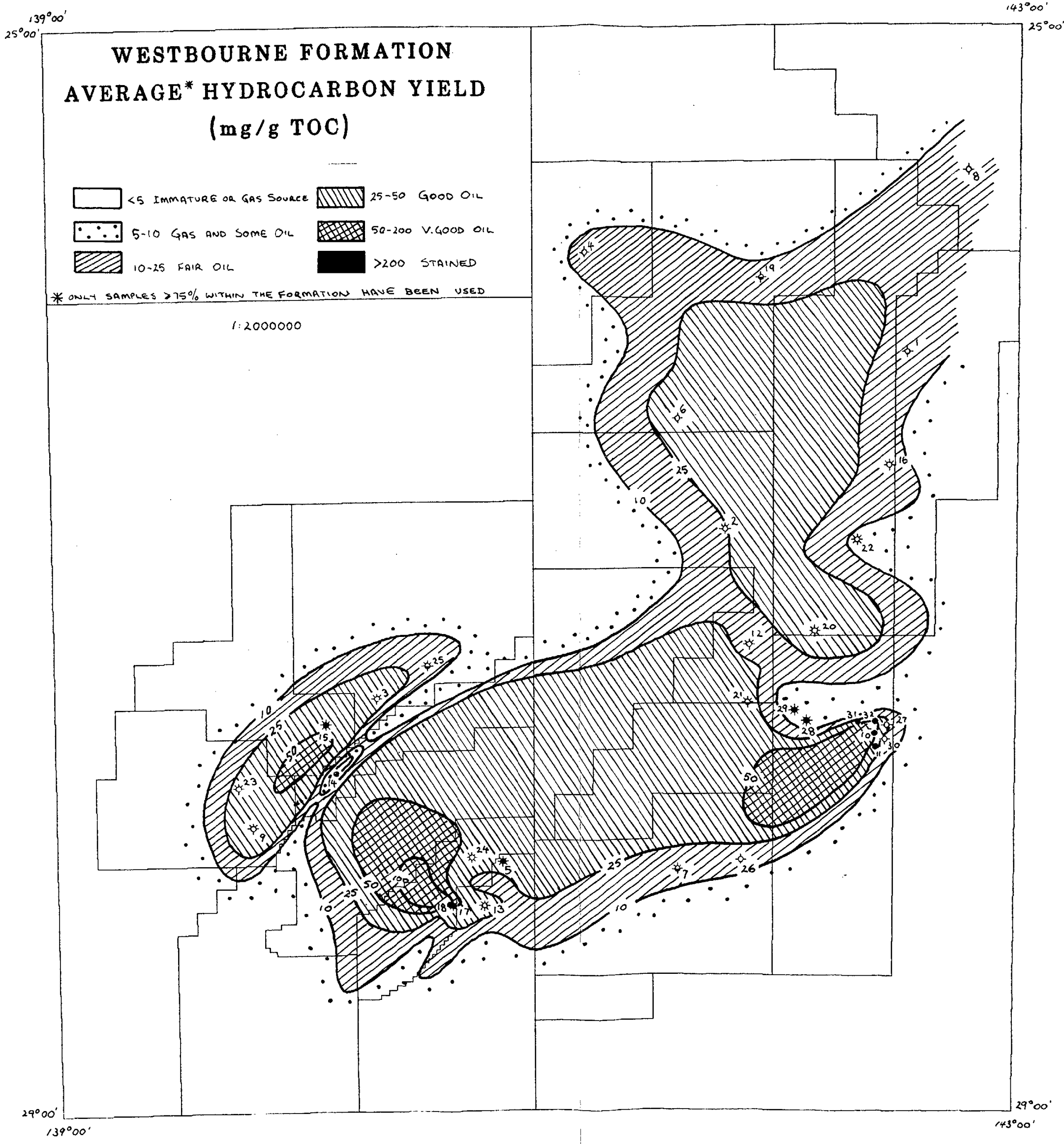

MURTA MEMBER
AVERAGE* TOTAL ORGANIC CARBON
(wt%)
<0·5 NEGLIGIBLE
0·5–1·0 LOW
1·0–1·5 MODERATE
1·5–2·0 HIGH
2·0–4·0 V. HIGH
>4·0 EXCELLENT
* ONLY SAMPLES ≥ 75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
139°00'
25°00'
143°00'
25°00'
29°00'
139°00'
29°00'
143°00'


MESOZOIC UNITS
AVERAGE* TOTAL ORGANIC CARBON
(wt%)
<0·5 NEGLIGIBLE
0·5-1·0 LOW
1·0-1·5 MODERATE
1·5-2·0 HIGH
2·0-4·0 V. HIGH
>4·0 EXCELLENT
* ONLY SAMPLES ≥75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
136°00
25°00
143°00'
25°00'
29°00'
136°00'
29°00'
143°00

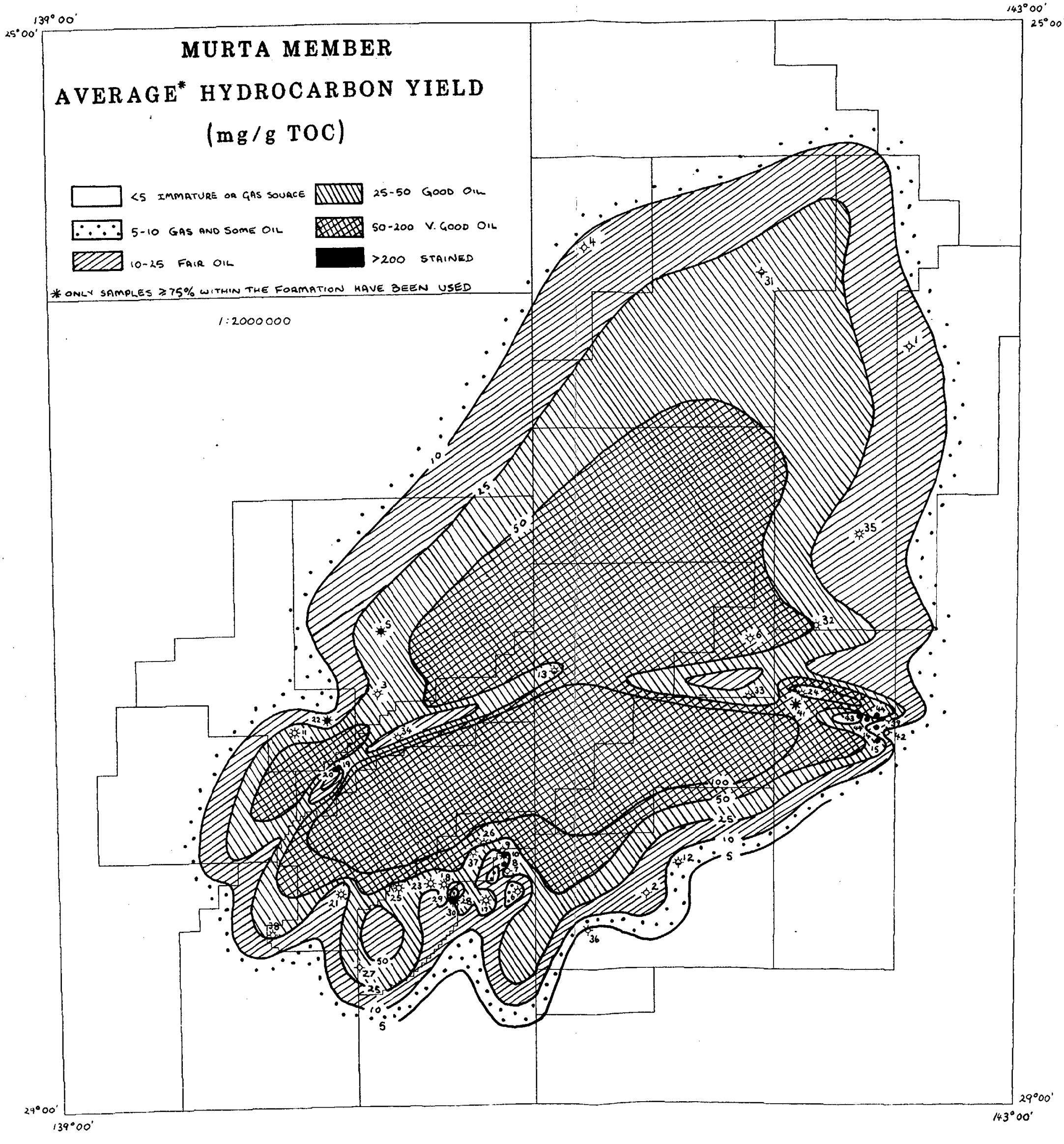

BASAL JURASSIC UNIT
AVERAGE* HYDROCARBON YIELD
(mg/g TOC)
<5 IMMATURE OR GAS SOURCE
5-10 GAS AND SOME OIL
10-25 FAIR OIL
25-50 GOOD OIL
50-200 V.GOOD OIL
>200 STAINED
* ONLY SAMPLES ≥ 75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
FORMATION ABSENT
FORMATION ABSENT
136°00'
29°00'
143°00'
25°00'
29°00'
136°00'
29°00'
143°00'

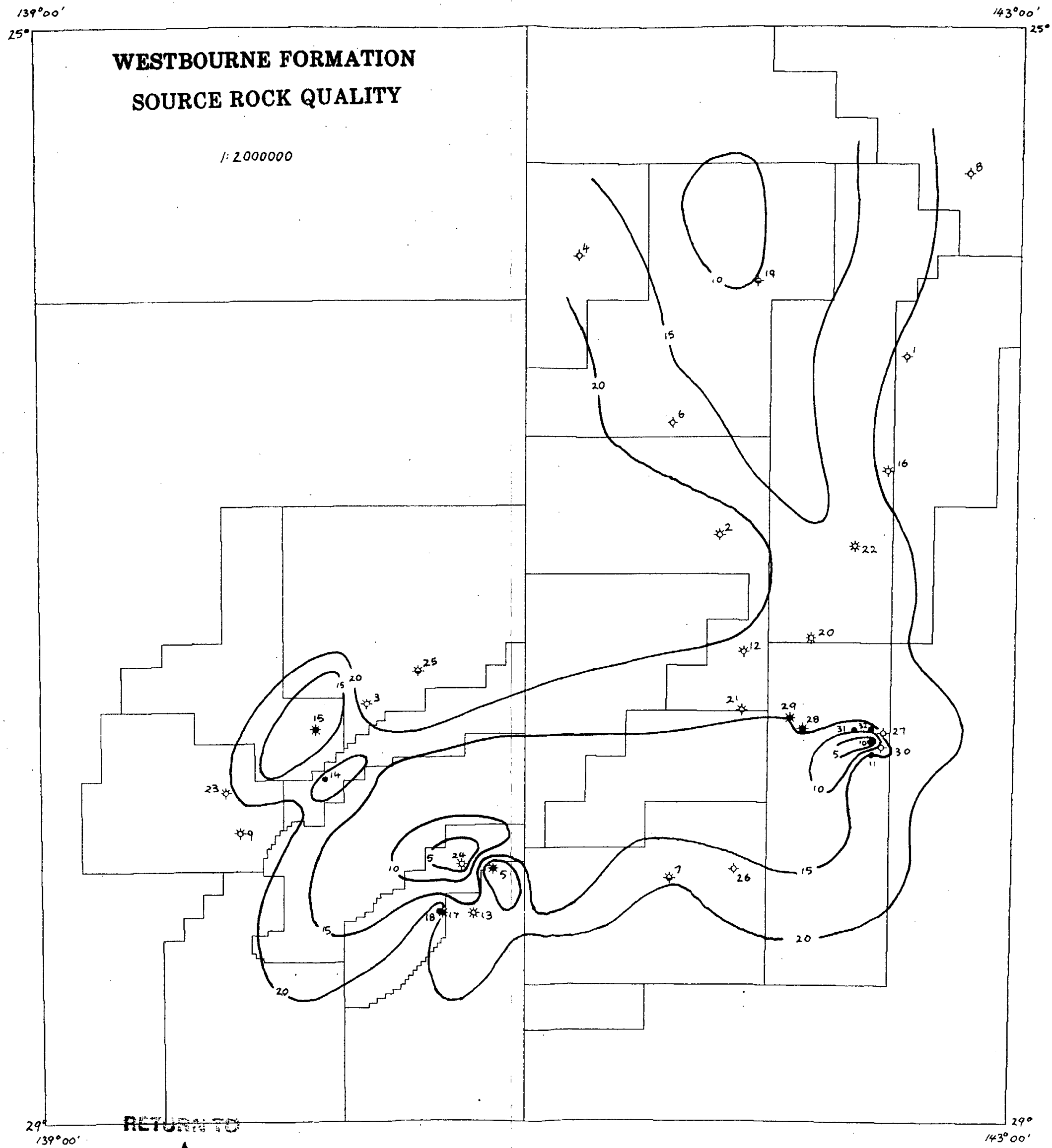
039873


BIRKHEAD FORMATION
AVERAGE* HYDROCARBON YIELD
(mg/g TOC)
<5 IMMATURE OR GAS SOURCE
5-10 GAS AND SOME OIL
10-25 FAIR OIL
25-50 GOOD OIL
50-200 V. GOOD OIL
>200 STAINED
* ONLY SAMPLES ≥75% WITHIN THE FORMATION HAVE BEEN USED.
1:2000000
139°00'
143°00'
25°00'
29°00'
5
10
25
50
100



WESTBOURNE FORMATION
AVERAGE* HYDROCARBON YIELD
(mg/g TOC)
<5 IMMATURE OR GAS SOURCE
5-10 GAS AND SOME OIL
10-25 FAIR OIL
25-50 GOOD OIL
50-200 V.GOOD OIL
>200 STAINED
* ONLY SAMPLES >75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
139°00'
25°00'
143°00'
25°00'
29°00'
139°00'
29°00'
143°00'


MURTA MEMBER
AVERAGE* HYDROCARBON YIELD
(mg/g TOC)
<5 IMMATURE OR GAS SOURCE
5-10 GAS AND SOME OIL
10-25 FAIR OIL
25-50 GOOD OIL
50-200 V. GOOD OIL
>200 STAINED
* ONLY SAMPLES ≥75% WITHIN THE FORMATION HAVE BEEN USED
1:2000000
139°00'
25°00'
143°00'
25°00'
29°00'
143°00'
29°00'
139°00'


WESTBOURNE FORMATION
SOURCE ROCK QUALITY
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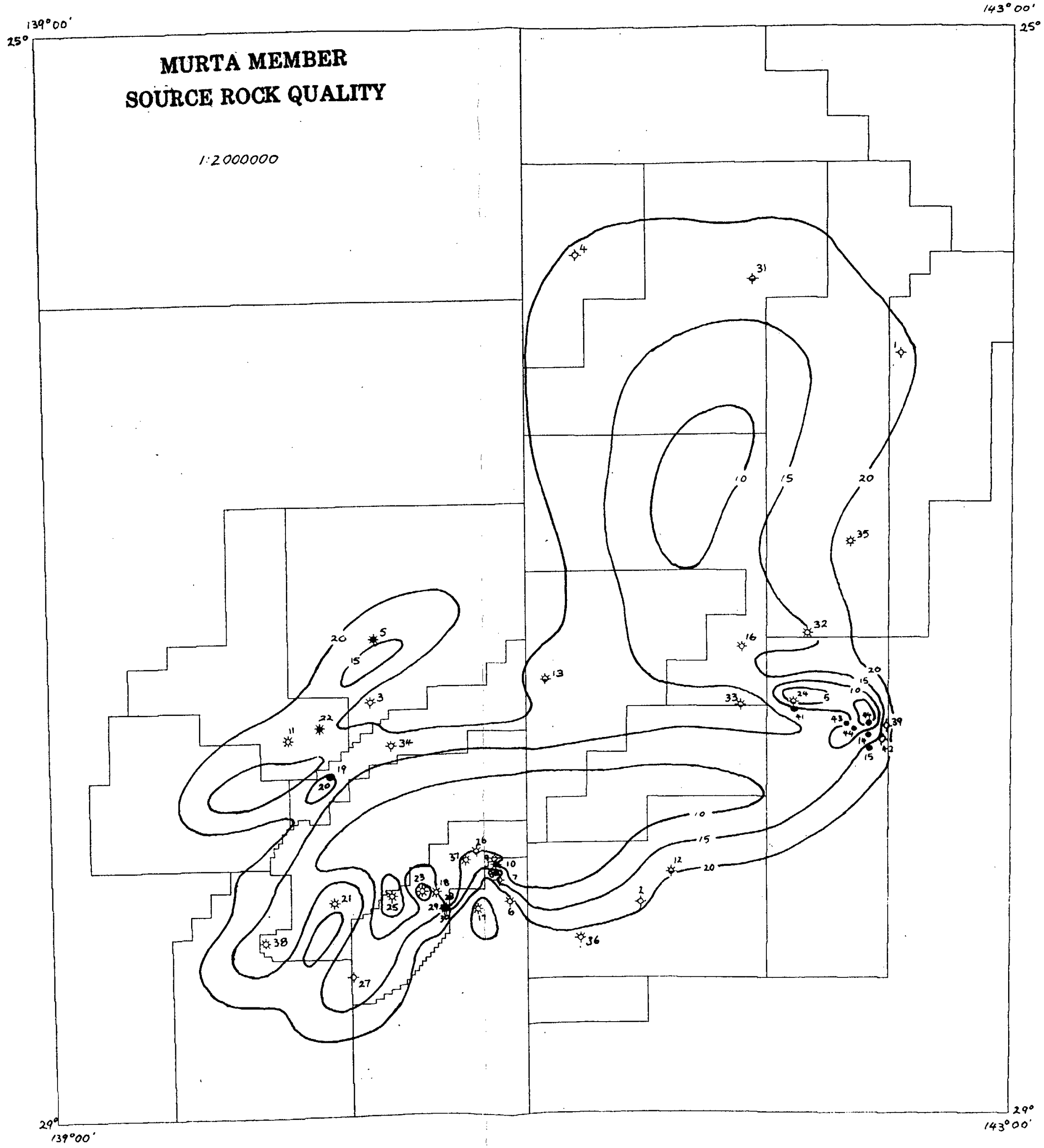
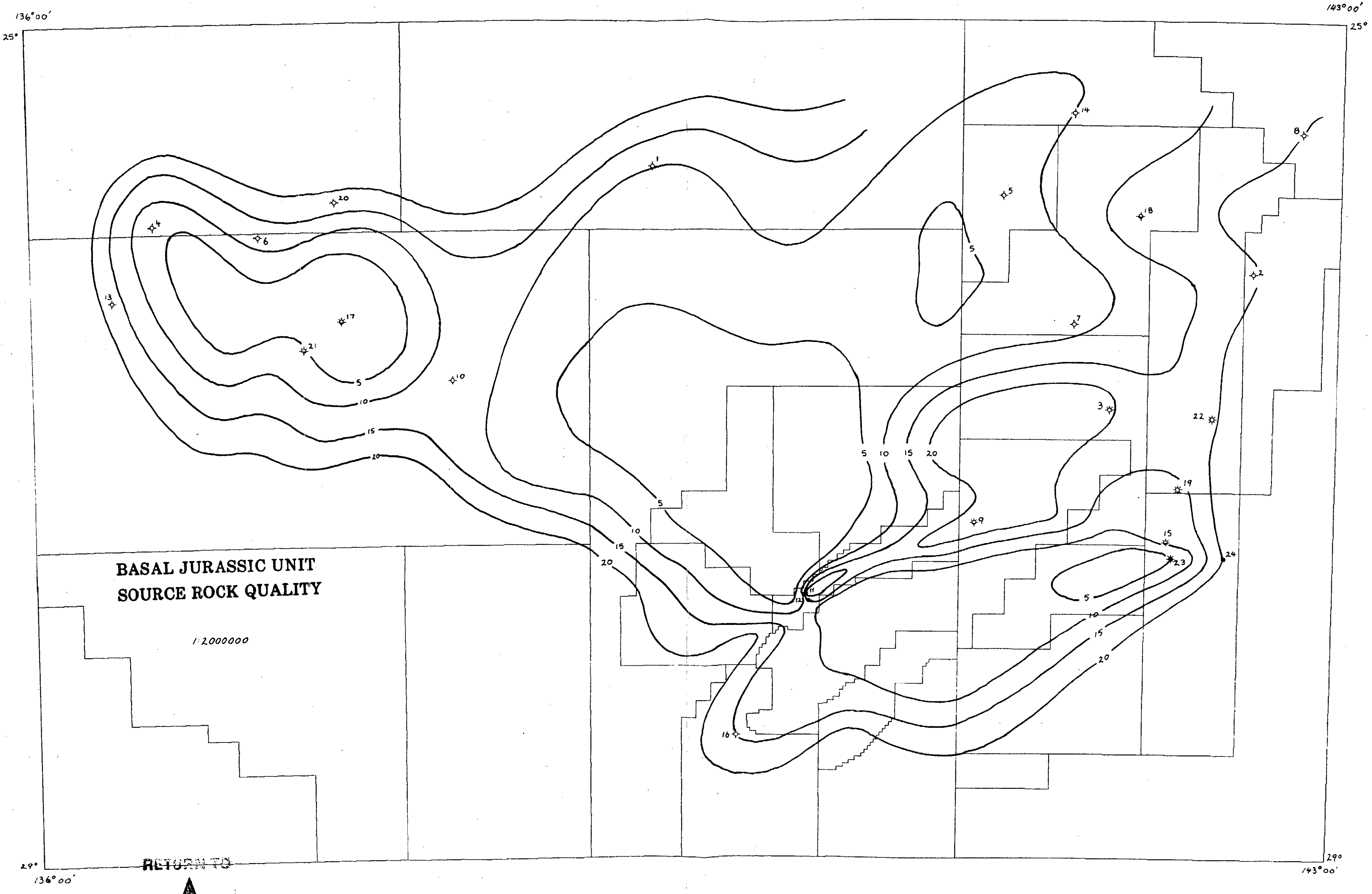
139°00'
143°00'
25°
29°

039873

MURTA MEMBER
SOURCE ROCK QUALITY

1:2000000

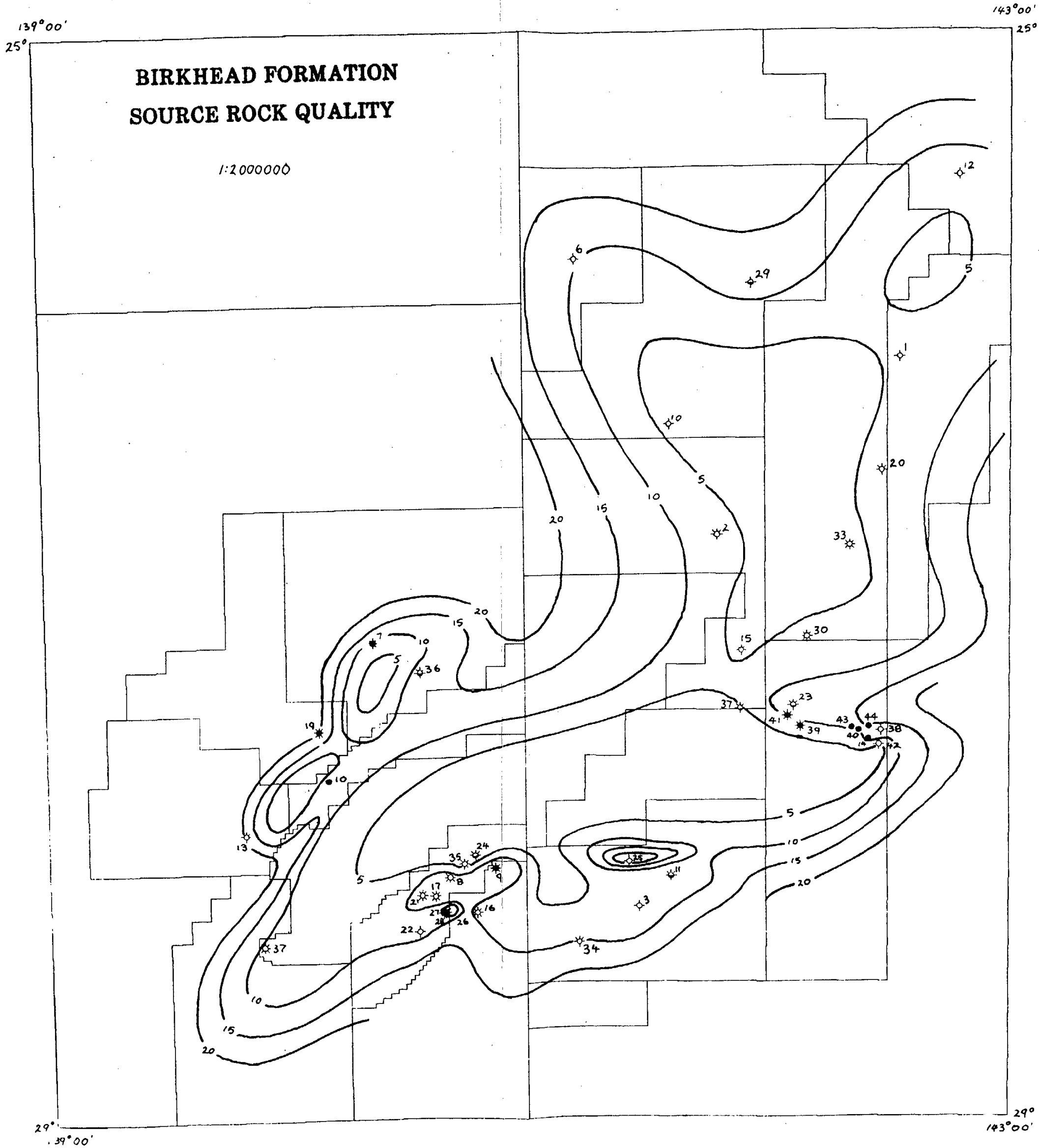



136°00'
143°00'
25°
29°
BASAL JURASSIC UNIT
SOURCE ROCK QUALITY
1:2000000
5
10
15
20

039873

BIRKHEAD FORMATION SOURCE ROCK QUALITY

1:2000000



AUTHOR : M. GRIFFITHS
DRAFTED : P.E. HERD
DATE : MAY 1984
REVISED : AUGUST 1984

DELHI PETROLEUM PTY. LTD.

INTERVALS SAMPLED FOR LIQUID CHROMATOGRAPHY PRIOR TO 1984

LEGEND

SWC SIDE WALL CORE
XC FULL HOLE CORE
X 10' CUTTINGS SAMPLE
COMPOSITE CUTTINGS SAMPLE (GENERALLY 300')

Dwg. No. 84XS-4153 File: A-29

DELHI PETROLEUM PTY. LTD.

PERCENTAGE OF FORMATION SAMPLED FOR LIQUID CHROMATOGRAPHY ANALYSIS

LEGEND

SWC	SIDE WALL CORE
C	FULL HOLE CORE
N.P.	SECTION NOT PRESENT
(wavy box)	CONTINUOUS SAMPLING WITH SECTION MISSING
(open box)	COMPOSITE CUTTINGS SAMPLE (GENERALLY 300' INTERVALS)
(hatched box)	COMPOSITE CUTTINGS SAMPLE (GENERALLY 30' INTERVALS)

Author: D.C. JOHNSTONE | Drafted: M.A. SHEAN | Date: OCTOBER 1984

WILPINNIE 1
NAPPACOONGEE 2
CORKWOOD 1
DULLINGARI 11
DULLINGARI NORTH 1
DULLINGARI 5
DULLINGARI 1
DILCHEE 1
WILLS 1
BELAH 1
HUME 1
YANKO 1
JACKSON SOUTH 1
CADNA-OWIE FORMATION
M1 SUBUNIT
M2 SUBUNIT
M3 SUBUNIT
M4 SUBUNIT
M5 SUBUNIT
"McKINLAY MEMBER"
NAMUR SANDSTONE MEMBER
LOCATION
LEGEND
DELHI PETROLEUM PTY. LTD.
PEL 5&6 SOUTH AUSTRALIA
AND ATP 259P QUEENSLAND
MURTA MEMBER GEOCHEMICAL CROSS SECTION
039873
WILPINNIE 1 to JACKSON SOUTH 1
DELHI
Vertical Scale. 2" = 100'
Horizontal Scale. ARBITRARY
Datum. TOP OF MURTA MBR.
Supervisor.
Interpretation. D.C. JOHNSTONE
Drafted, N.C.C. Date 1/85
Chief Draftsman
Date. AUG. 84
Drawing Number 85XG-4647
File No. S1-36

OIL CORRELATION STUDY, PATCHAWARRA TROUGH
EROMANGA/COOPER BASIN

Delhi Petroleum Pty Limited

F3/51/0-F6486/86 November 1986

The Australian
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F 3/51/0
F 6486/86

Delhi Petroleum Pty Limited
CSR House
101 Grenfell Street
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Attention: Dr J. Hunt

REPORT F 6486/86

YOUR REFERENCE:	Order no. DG-D-302837
TITLE:	Oil correlation study, Patchawarra Trough, Eromanga/Cooper Basin
MATERIAL:	Oils
LOCALITIES:	BOOKABOURDIE-1, FLY LAKE-1, KENNY-1, MOOLION-1, MOORARI-1, YANPURRA-1
IDENTIFICATION:	As in Table 1 of report
DATE RECEIVED:	26 June 1986
WORK REQUIRED:	Topping oil to 210°C. Deasphaltening and liquid chromatography. Urea adduction of saturates. GC-MS of naphthenes (urea non-adduct). Isolation of aromatic hydrocarbons by thin layer chromatography. GC-MS of aromatics. Calculation of aromatic maturity ratios and equivalent vitrinite reflectance. Interpretation.

Investigation and Report by: Dr David M. McKirdy and
Dr Robert E. Cox

Manager-Petroleum Services Section: Dr Brian G. Steveson

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1. INTRODUCTION

Six oils (3 Jurassic, 3 Permian : Table 1) from exploration wells located in the Patchawarra Trough, Eromanga/Cooper Basin, were nominated for detailed analysis of their naphthenes and aromatic hydrocarbons by gas chromatography-mass spectrometry (GC-MS).

The aims of the investigation were twofold:

1. to determine the source affinity and thermal maturity of the oils as indicated by their sterane, terpane and isoprenoid alkane biomarker geochemistry; and

2. to compare the aforementioned biomarker maturity data with that obtained using the methylphenanthrene index (MPI) and other aromatic hydrocarbon ratios (Radke and Welte, 1983; Radke *et al.*, 1984; Alexander *et al.*, 1985).

Preliminary results were phoned to J. Hunt on 24 October 1986.

2. ANALYTICAL METHODS

Details of the analytical procedures are given in Appendix 1.

3. RESULTS

Analytical data are summarised and presented herein as follows:

	Table	Figure	Appendix
C_{12+} bulk composition	2	1	-
C_{12+} saturates (alkanes)	2,3	2-7	-
GC-MS of naphthenes	3,4	8-12	2
GC-MS of aromatics	5-7	13,14	-

4. DISCUSSION

4.1 Bulk Composition

The six oils analysed in this study, regardless of reservoir age, all have a *paraffinic* C_{12+} bulk composition (Fig. 1). The Jurassic oils, however, have lower aromatics/saturates ratios, and are more waxy, thus:

Well	Reservoir	A/S[1]	$\underline{n}$-C_{23+}[2] %	API
Pepita-1	Tirrawarra	0.11	18.0	39
Bookabourdie-1	Birkhead	0.07	25.5	46.3
Kenny-1	Birkhead	0.07	50.8	35.6
Moolion-1	Poolawanna	0.06	22.0	44.5
Fly Lake-1	Tirrawarra	0.13	20.0	55
Moorari-1	Tirrawarra	0.18	19.0	53
Yanpurra-1	Tirrawarra	0.17	10.5	54

1. Saturates = paraffins (normal and iso-alkanes) and naphthenes (Table 2)

2. Waxy $\underline{n}$-alkanes as a percentage of total C_{12}-C_{33} $\underline{n}$-alkanes

The anomalously high asphaltene content of the Fly Lake-1 (Tirrawarra) crude (Table 1) may be an artefact of oxidation during storage [Note: the Fly Lake-1 and Yanpurra-1 samples are aliquots of topped oils which were prepared in 1980 for an earlier geochemical study of the Eromanga/Cooper Basin (McKirdy, 1982)].

4.2 Source Affinity

Mass fragmentograms of the naphthenes isolated from the Bookabourdie-1 (Birkhead) oil are, with one exception (m/z 123, drimanes), characterised by low signal/noise ratios (Figs. 8-10, Appendix 2). In other words, steranes, triterpanes and long-chain (C_{25+}) isoprenoid alkanes appear to be poorly preserved in this particular oil. The reasons for this feature are not clear. It may be an artefact of the work-up procedure, in which case it should be checked out by repeat analysis.

The similarity of the C_{14}-C_{16} drimane and C_{16}-C_{20} isoprenoid alkane distributions of the Bookabourdie-1 (Birkhead), Kenny-1 (Birkhead) and Moolion-1 (Poolawanna) oils (parameters 14-17, Table 3; Appendix 2) suggests that all three Jurassic crudes have a broadly similar source affinity.

Aspects of the C_{12+} composition of both the Jurassic and Permian oils attest to their terrestrial origin. These include the dominance of C_{29} homologues in their C_{27}-C_{29} sterane and diasterane distributions (parameters 1-3, Table 3; Fig. 10). High pristane/phytane and (in the Jurassic oils) pristane/n-heptadecane ratios (pr/ph = 3.6-5.5; pr/n-C_{17} = 1.0-1.3 : Figs. 2-7) indicate that their precursor terrigenous organic matter was exposed to oxic conditions en route to its final site of accumulation in a peat swamp environment (Fig. 11) where it was reworked by anaerobic acidophilic bacteria. The somewhat lower pristane/n-heptadecane ratios of the Permian oils (pr/n-C_{17} = 0.46-0.84) reflect their higher maturity (Tables 5, 6).

Bacteria were the precursors of the C_{15} and C_{16} drimanes (m/z 123), C_{27}-C_{35} hopanes (m/z 191) and (in lesser concentration) methylhopanes (m/z 205) found in the oils (Fig. 9, Appendix 2).

Regular (head-to-tail) acyclic isoprenoids up to C_{40} have been tentatively identified in these oils (m/z 183, Fig. 9). These isoprenoid distributions differ in detail from those found in oils generated from source rocks deposited under stable *anoxic* conditions, and therefore attributed to methanogenic archaebacteria (McKirdy *et al.*, 1984, 1986). The higher isoprenoids (C_{21+}) in these Jurassic and Permian crudes are more likely to be derived from long-chain oligoterpenyl alcohols which occur in higher plants (Philp and Gilbert, 1986).

The m/z 123 and 259 mass fragmentograms of the oils (retention time 25-30 mins.: Fig. 8) confirm the presence of the tetracyclic diterpanes, phyllocladane and (in lesser abundance) beyerane and kaurane. These particular C_{20} hydrocarbons are biological markers of conifer leaf resins (Noble *et al.*, 1985). It is noteworthy that beyerane and kaurane, hitherto considered to occur only in Mesozoic and younger sediments (R. Alexander, pers. comm.), are here more abundant (relative to phyllocladane) in the Permian oils than in the Jurassic oils (Fig. 8; parameter 22, Table 4). Clearly, these biomarkers cannot now be used to distinguish Permian from Mesozoic-sourced oils in the Eromanga/Cooper Basin.

4.3 Maturity and Migration

Sterane and terpane-based biomarker maturation indices (Table 3) suggest that the Jurassic and Permian crudes in question are mature. Sterane isomerisation is complete in all samples. However, comparison of their respective Tm/Ts trisnorhopane and Ts/C_{30} hopane ratios (parameters 9 and 10, Table 3) suggests that the Permian oils are considerably more mature than the Jurassic oils. In the Permian oils no Tm ("maturable" trisnorhopane) could be detected.

Such a maturity difference is indeed apparent from their aromatic hydrocarbons (Figs. 13, 14). Methylphenanthrene index (MPI) measurements (Table 5) convert to calculated source maturities of VR = 0.54-0.77% for the Jurassic oils and VR = 1.03-1.09% for the Permian oils. Other aromatic hydrocarbon ratios listed in Tables 5 and 6 accord with this assessment of maturity. Additional signs of the lower maturity of the Jurassic crudes include

1) higher pristane/n-heptadecane ratios ($pr/n\text{-}C_{17} \geqslant 1$: Tables 2, 3); and

2) C_{12+} n-alkane profiles skewed towards higher carbon number, particularly in the case of Kenny-1 oil (Birkhead : maximum at $n\text{-}C_{25}$) in which the waxy C_{23+} n-alkanes also display a marked odd/even predominance (Figs. 2-7).

When these oil maturities are compared with the present-day maturation levels of their Jurassic and Permian reservoirs (Table 7), it is evident in all but two cases that the oil is more mature than its host reservoir, consistent with migration from a structurally lower source kitchen.

The first exception is Kenny-1 (Birkhead) where early expulsion from a local, low maturity source (VR = 0.54%) may have been followed by further subsidence and maturation of the source/reservoir sequence.

The second exception is Yanpurra-1 (Tirrawarra), a much more mature oil (source VR = 1.09%) which is trapped in a Permian reservoir at an estimated present-day maturation level of VR = 1.30%. In this case, the original oil charge must have undergone considerable cracking and gasification in the reservoir. Such *in situ* maturatin is consistent with the fact that the Yanpurra-1 crude has the lowest proportion of C_{23+} n-alkanes (section 4.1), and the lowest C_{29} sterane 20S/20R ratio, of the three Permian oils (cf. Lewan *et al.*, 1986).

The sterane C_{29} $\alpha\alpha\alpha$ 20S/20R and $\alpha\beta\beta/\alpha\alpha\alpha$ 20R ratios of all the oils (parameters 4 and 6, Table 3) display evidence of geochromatographic fractionation that can be attributed to long-distance migration (Fig. 11). This may also account for their high C_{29} diasterane/sterane ratios (parameter 7, Table 3). It is significant that the Moolion-1 (Poolawanna) and Yanpurra-1 (Tirrawarra) crudes appear to be more migrated than the other oils plotted in Figure 11. These two oils are the most out-of-place in terms of their calculated source maturities (Table 7).

4.4 Oil-Oil Correlation

In addition to their higher aromatic maturities (Tables 5-7) and aromatic/saturates ratios (Section 4.1), the Permian oils differ from the Jurassic crudes in having higher rearranged/regular C_{16} drimane ratios (Appendix 2), thus:

Well	Reservoir	RHD/HD[1,2]
Bookabourdie-1	Birkhead	0.17
Kenny-1	Birkhead	0.22
Moolion-1	Poolawanna	0.18
Fly Lake-1	Tirrawarra	0.29
Moorari-1	Tirrawarra	0.28
Yanpurra-1	Tirrawarra	0.28

1. HD = homodrimane (C_{16})
   RHD = rearranged homodrimane (C_{16})

2. Dynamic range of this parameter in Eromanga/Cooper Basin oils and condensates is 0.13-0.42 (n = 26)

The Permian oils, as a group, are also characterised by unusual triterpane distributions (m/z 191, Fig. 9). In particular, regular hopanes are present in unusually low concentrations relative to C_{27} trisnorneohopane (Ts), C_{30} pentacyclic terpane, moretanes, steranes and tetracyclic terpanes (see parameters 8, 10, 12, 18, 20 and 21, Tables 3 and 4). A related phenomenon (viz. total lack of hopanoid triterpanes) has been reported previously in a Permian oil from the Tirrawarra Field (McKirdy, 1985). These features presumably arise from the relatively high maturity (source and reservoir) of the Permian oils (see Section 4.3), in which case preferential cracking of hopanes would appear to be the most likely explanation. Likewise, cracking of pristane to 2,6,10-trimethyltridecane (TMTD) during *in situ* maturation of the Permian oils would explain their high TMTD/pr values (Tables 2, 3; cf. McKirdy, 1982).

Accordingly, the marked differences between Jurassic and Permian oils, evident in the following primarily *source-related* parameters, may in this case be due to the pronounced thermal alteration of the latter crudes:

Parameters	Jurassic	Permian
C_{30} pentacyclic terpane/C_{30} hopane	0.08–0.09	1.6 –3.4
C_{30} hopane/C_{29} steranes	1.4 –3.8	0.10–0.27
C_{24} tetracyclic terpane/C_{30} hopane	0.07–0.37	1.0 –2.0
16βH-phyllocladane/C_{30} hopane	0.06–0.98	2.0 –4.2

Within the Jurassic suite of oils, the Moolion-1 (Poolawanna) and probably also Bookabourdie-1 (Birkhead) crudes have atypical C_{25+} isoprenoid alkane distributions (Fig. 9), as highlighted by the following data:

Well	Reservoir	C_{30}/C_{39} Regular Isoprenoid
Bookabourdie-1	Birkhead	[1.4]
Kenny-1	Birkhead	0.41
Moolion-1	Poolawanna	1.7
Fly Lake-1	Tirrawarra	0.60
Moorari-1	Tirrawarra	0.61
Yanpurra-1	Tirrawarra	0.71

[ ] approximate value because of low S/N ratio in m/z 183 mass fragmentogram

5. CONCLUSIONS

1. The three Jurassic and three Permian oils from the Patchawarra Trough examined in this study are of similar paraffinic bulk composition and terrestrial source affinity.

2. The Jurassic oils tend to be more waxy and have lower C_{12+} aromatics/saturates ratios. Their high pristane/phytane and pristane/n-heptadecane ratios indicate derivation from land-plant organic matter deposited in a peat swamp environment.

3. The Permian oils appear to belong to one genetic family; whereas the unusual C_{25+} regular isoprenoid distributions of the Moolion-1 (Poolawanna) and Bookabourdie-1 (Birkhead) oils distinguish them from the other Jurassic crude analysed.

4. The Jurassic oils were expelled from their respective source rocks at lower maturation levels (VR = 0.54-0.77%) than were the Permian oils (VR = 1.03-1.09%). The latter crudes have since undergone appreciable thermal alteration (cracking) in the reservoir. Such alteration caused *inter alia* preferential destruction of hopanoid triterpanes and has severely modified several key source-dependent biomarker ratios (e.g. hopane/sterane ratio).

5. Oil source maturities (VR_{calc}) and presend-day reservoir maturities (VR_{meas}), in conjunction with sterane and diasterane geochromatographic data, suggest that relative migration distances are as follows:

   <u>Jurassic</u>

   Kenny 1 < Bookabourdie-1 < Moolion-1

   <u>Permian</u>

   Fly Lake-1 < Moorari-1 < Yanpurra-1

6. Tetracyclic diterpane distributions cannot be used to differentiate Jurassic oils from those of Permian origin.

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TABLE 1: PATCHAWARRA TROUGH OILS SELECTED FOR GC-MS ANALYSIS

Well	Reservoir Formation	Test	Depth ft
Bookabourdie-1	Birkhead	DST 12	6946-7002
Kenny-1	Birkhead	DST 1	6768-6827
Moolion-1	Poolawanna	DST 1	8004-8026
Fly Lake-1	Tirrawarra	Production	9297-9383
Moorari-1	Tirrawarra	DST 6	9562-9640
Yanpurra-1	Tirrawarra	DST 7	9488-9606

TABLE 2: OIL ANALYSES, C_{12+} FRACTION, PATCHAWARRA TROUGH

Well	Depth (ft) & Formation	C_{12+} Composition					Alkane Ratios				
		N+Iso %	Naph %	Arom %	Res %	Asph %	TMTD/Pr	Np/Pr	Pr/Ph	Pr/n-C_{17}	Ph/n-C_{18}
Bookabourdie-1	6946-7002 Birkhead	48.7	33.1	5.7	12.0	0.5	0.48	0.26	5.5	0.98	0.20
Kenny-1	6768-6827 Birkhead	68.6	14.7	5.8	10.0	0.9	0.45	0.32	4.6	1.1	0.21
Moolion-1	8004-8026 Poolawanna	53.5	25.4	4.7	16.0	0.4	0.61	0.31	4.4	1.3	0.31
Fly Lake-1	9297-9383 Tirrawarra	48.3	23.5	9.2	16.8	2.2	1.0	0.44	3.6	0.46	0.13
Moorari-1	9562-9640 Tirrawarra	43.0	21.9	11.9	22.9	0.3	0.89	0.36	4.5	0.67	0.16
Yanpurra-1	9488-9606 Tirrawarra	49.6	22.8	12.4	14.2	1.0	0.73	0.31	5.5	0.84	0.19

N+Iso = normal + iso-alkanes
Naph = naphthenes
Arom = aromatic hydrocarbons
Res = resins
Asph = asphaltenes

TMTD = 2,6,10-trimethyltridecane
Np = norpristane
Pr = pristane
Ph = phytane
n-C_{17} = n-heptadecane
n-C_{18} = n-octadecane

TABLE 3: BIOMARKER PARAMETERS OF SOURCE, MATURITY, MIGRATION AND BIODEGRADATION IN SIX OILS FROM THE PATCHAWARRA TROUGH

AMDEL Sample No.	Well	Formation	Steranes							Terpanes						Acyclic Alkanes			
	*Parameter		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
MS-310	Bookabourdie-1	Birkhead	–	–	4.1	–	–	–	–	–	–	–	–	–	–	5.5	0.48	0.98	0.20
MS-311	Kenny-1	Birkhead	–	–	7.4	0.96	1.4	1.42	1.4	0.08	1.9	0.12	1.2	0.13	–	4.6	0.45	1.1	0.21
MS-312	Moolion-1	Poolawanna	–	–	6.9	1.07	1.2	1.60	2.3	0.09	3.8	0.10	1.4	0.16	–	4.4	0.61	1.3	0.31
MS-313	Fly Lake-1	Tirrawarra	–	–	5.7	1.05	1.4	1.36	1.1	3.4	0.00	2.5	–	0.44	–	3.6	1.0	0.46	0.13
MS-314	Moorari	Tirrawarra	–	–	4.8	1.02	1.4	1.39	1.8	1.6	0.00	1.3	1.3	0.28	–	4.5	0.89	0.67	0.16
MS-315	Yanpurra-1	Tirrawarra	–	–	6.9	0.98	1.5	1.73	1.3	3.1	0.00	2.3	–	–	–	5.5	0.73	0.84	0.19

*See key (next page) for derivation and specificity of each parameter

KEY TO BIOMARKER PARAMETERS OF SOURCE, MATURITY, MIGRATION AND BIODEGRADATION

Parameter	* Derivation	Specificity
1	C_{27} : C_{28} : C_{29} 5α(H)14α(H)17α(H) 20R steranes	Source
2	C_{29} 5α(H)14α(H)17α(H) 20R sterane / C_{27} 5α(H)14α(H)17α(H) 20R sterane	Source
3	C_{29} 13β(H)17α(H) 20R diasterane / C_{27} 13β(H)17α(H) 20R diasterane	Source
4	C_{29} 5α(H)14α(H)17α(H) 20S sterane / C_{29} 5α(H)14α(H)17α(H) 20R sterane	Maturity, Biodegradation
5	C_{27} 13β(H)17α(H) 20S diasterane / C_{27} 13β(H)17α(H) 20R diasterane	Maturity
6	C_{29} 5α(H)14β(H)17β(H) 20R sterane / C_{29} 5α(H)14α(H)17α(H) 20R sterane	Maturity, Migration
7	C_{29} 13β(H)17α(H) 20R+20S diasteranes / C_{29} 5α(H) steranes	Migration, Source
8	C_{30} pentacyclic terpane/C_{30} 17α(H)21β(H) hopane	Source
9	C_{27} 17α(H)-22,29,30-trisnorhopane / C_{27} 18α(H)-22,29,30-trisnorhopane (T_m/T_s)	Maturity, Source
10	T_s / C_{30} 17α(H)21β(H) hopane	Maturity
11	C_{32} 17α(H)21β(H) 22S homohopane / C_{32} 17α(H)21β(H) 22R homohopane	Maturity
12	C_{30} 17β(H)21α(H) moretane / C_{30} 17α(H)21β(H) hopane	Maturity
13	C_{29} 17α(H)-25-norhopane / C_{29} 17α(H)-30-norhopane	Biodegradation
14	pristane / phytane	Source
15	2,6,10-trimethyltridecane / pristane	Maturity
16	pristane / n-heptadecane	Source, Biodegradation, Maturity
17	phytane / n-octadecane	Source, Biodegradation, Maturity

* Ratios calculated from peak areas as follows:

Parameters 1-6 m/z = 217 mass fragmentogram
Parameter 7 m/z = 217, 259 mass fragmentograms
Parameters 8-13 m/z = 191 mass fragmentogram
Parameters 14-17 capillary gas chromatogram of alkanes or whole oil/extract

TABLE 4: SUPPLEMENTARY SOURCE-DEPENDENT BIOMARKER RATIOS IN SIX OILS FROM THE PATCHAWARRA TROUGH

Well	Formation	C_{30} Hopane / C_{29} Steranes	C_{31} Me Hopane / C_{30} Hopane	C_{24} Tetracyclic / C_{30} Hopane	16βH-Phyll / C_{30} Hopane	*ent*-Bey:16βH-Phyll:*ent*-16βH-Kaur
Bookabourdie-1	Birkhead	–	–	0.37	0.98	–
Kenny-1	Birkhead	3.8	0.06	0.07	0.06	–
Moolion-1	Poolawanna	1.4	0.09	0.28	0.88	12:67:21
Fly Lake-1	Tirrawarra	0.10	–	2.0	3.9	26:56:18
Moorari-1	Tirrawarra	0.27	–	1.0	2.0	26:57:17
Yanpurra-1	Tirrawarra	0.11	–	1.4	4.2	23:57:20
*Parameter		18	19	20	21	22

*Measured from mass fragmentograms as follows:

Parameter 18	m/z 191, 217
Parameter 19	m/z 191, 205
Parameter 20	m/z 191
Parameter 21	m/z 123, 191
Parameter 22	m/z 259

show

preferred value

TABLE 5: OIL MATURITY BASED ON AROMATIC HYDROCARBON DISTRIBUTIONS*, PATCHAWARRA TROUGH

AMDEL Sample No.	Well/Formation	MPI	MPR	DNR	VR_{calc} (a)	(b)	(c)	(d)
MS-316	Bookabourdie-1 (Birkhead)	0.60	0.50	3.49	0.76	1.94	0.64	N/A
MS-317	Kenny-1 (Birkhead)	0.23	0.18	2.21	0.54	2.16	0.20	N/A
MS-318	Moolion-1 (Poolawanna)	0.61	0.69	2.46	0.77	1.93	0.78	N/A
MS-319	Fly Lake-1 (Tirrawarra)	1.06	1.34	5.22	1.03	1.67	1.06	1.13
MS-320	Moorari-1 (Tirrawarra)	1.15	1.45	8.72	1.09	1.61	1.10	1.29
MS-321	Yanpurra-1 (Tirrawarra)	1.15	1.44	5.63	1.09	1.61	1.10	1.15

*See key (next page) for derivation of listed parameters

N/A = not applicable

KEY TO AROMATIC MATURITY INDICATORS

Methylphenanthrene index (MPI), methylphenanthrene ratio (MPR), dimethylnaphthalene ratio (DNR) and calculated vitrinite reflectance (VR_{calc}) are derived from the following equations (after Radke and Welte, 1983; Radke *et al.*, 1984):

$$\text{MPI} = \frac{1.5\ (2\text{-MP} + 3\text{-MP})}{\text{P} + 1\text{-MP} + 9\text{-MP}}$$

$$VR_{calc}\ (a) = 0.6\ \text{MPI} + 0.4\ (\text{for VR} < 1.35\%)$$

$$VR_{calc}\ (b) = -0.6\ \text{MPI} + 2.3\ (\text{for VR} > 1.35\%)$$

$$\text{MPR} = \frac{2\text{-MP}}{1\text{-MP}}$$

$$VR_{calc}\ (c) = 0.99\ \log_{10}\ \text{MPR} + 0.94\ (\text{for VR} = 0.5\text{–}1.7\%)$$

$$\text{DNR} = \frac{2,6\text{-DMN} + 2,7\text{-DMN}}{1,5\text{-DMN}}$$

$$VR_{calc}\ (d) = 0.046\ \text{DNR} + 0.89\ (\text{for VR} = 0.9\text{–}1.5\%)$$

Where P = phenanthrene
1-MP = 1-methylphenanthrene
2-MP = 2-methylphenanthrene
3-MP = 3-methylphenanthrene
9-MP = 9-methylphenanthrene
1,5-DMN = 1,5-dimethylnaphthalene
2,6-DMN = 2,6-dimethylnaphthalene
2,7-DMN = 2,7-dimethylnaphthalene

Peak areas measured from m/z 155+156 (dimethylnaphthalene), m/z 178 (phenanthrene) and m/z 191+192 (methylphenanthrene) mass fragmentograms of diaromatic and triaromatic hydrocarbon fraction isolated by thin layer chromatography.

TABLE 6: SUPPLEMENTARY AROMATIC MATURITY RATIOS IN SIX OILS FROM THE PATCHAWARRA TROUGH

Well/Formation	DNR-5	DNR-6	TNR-1	MPR-2
Bookabourdie-1 (Birkhead)	196	4.89	0.54	0.91
Kenny-1 (Birkhead)	97.3	3.30	0.44	0.33
Moolion-1 (Poolawanna)	196	-	-	1.28
Fly Lake-1 (Tirrawarra)	*	6.28	1.07	2.60
Moorari-1 (Tirrawarra)	*	7.73	1.18	2.73
Yanpurra-1 (Tirrawarra)	*	6.60	0.90	2.71

$$\text{DNR-5} = \frac{\text{1,6-DMN}}{\text{1,8-DMN}}$$

$$\text{DNR 6} = \frac{\text{2,6-DMN + 2,7-DMN}}{\text{1,4-DMN + 2,3-DMN}}$$

$$\text{TNR-1} = \frac{\text{2,3,6-TMN}}{\text{1,4,6-TMN + 1,3,5-TMN}}$$

$$\text{MPR-2} = \frac{\text{2-MP + 3-MP}}{\text{1-MP}}$$

*1,8-DMN not detected

TABLE 7: COMPARISON OF OIL AND RESERVOIR MATURITY DATA, PATCHAWARRA TROUGH

Well/Formation	Oil	Reservoir	$VR_{oil}-VR_{res}$
	VR_{calc}[1] %	VR_{meas}[2] %	
Bookabourdie-1 (Birkhead)	0.76	0.70[3]	0.06
Kenny-1 (Birkhead)	0.54	0.62	-0.08
Moolion-1 (Poolawanna)	0.77	0.67	-0.10
Fly Lake-1 (Tirrawarra)	1.03	0.98	0.05
Moorari-1 (Tirrawarra)	1.09	0.95	0.14
Yanpurra-1 (Tirrawarra)	1.09	1.30[4]	-0.21

1. Preferred value from Table 5.
2. VR at middle of reservoir formation; read from depth-reflectance profile of each well
3. Top Birkhead; estimated from regional reflectance map
4. Estimate by J. Hunt

FIGURE 1

CRUDE OIL TYPE
PATCHAWARRA TROUGH

1. Bookabourdie-1 (Birkhead)
2. Kenny-1 (Birkhead)
3. Moolion-1 (Poolawanna)
4. Fly Lake-1 (Tirrawarra)
5. Moorari (Tirrawarra)
6. Yanpurra-1 (Tirrawarra)

■ Jurassic
● Permian

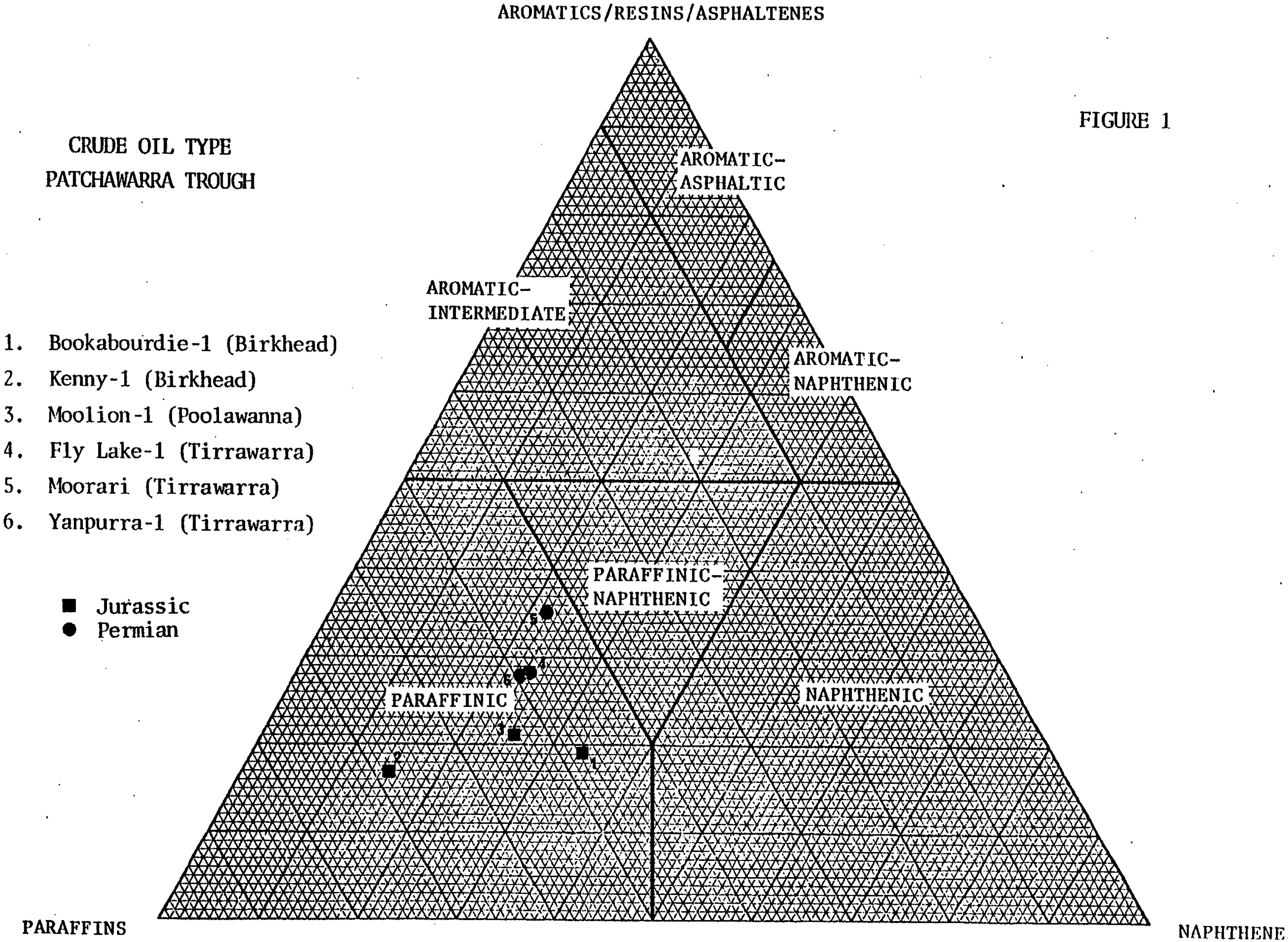


FIGURE 2

BOOKABOURDIE-1

DST 12, 6946-7002 ft, Birkhead

SATURATES

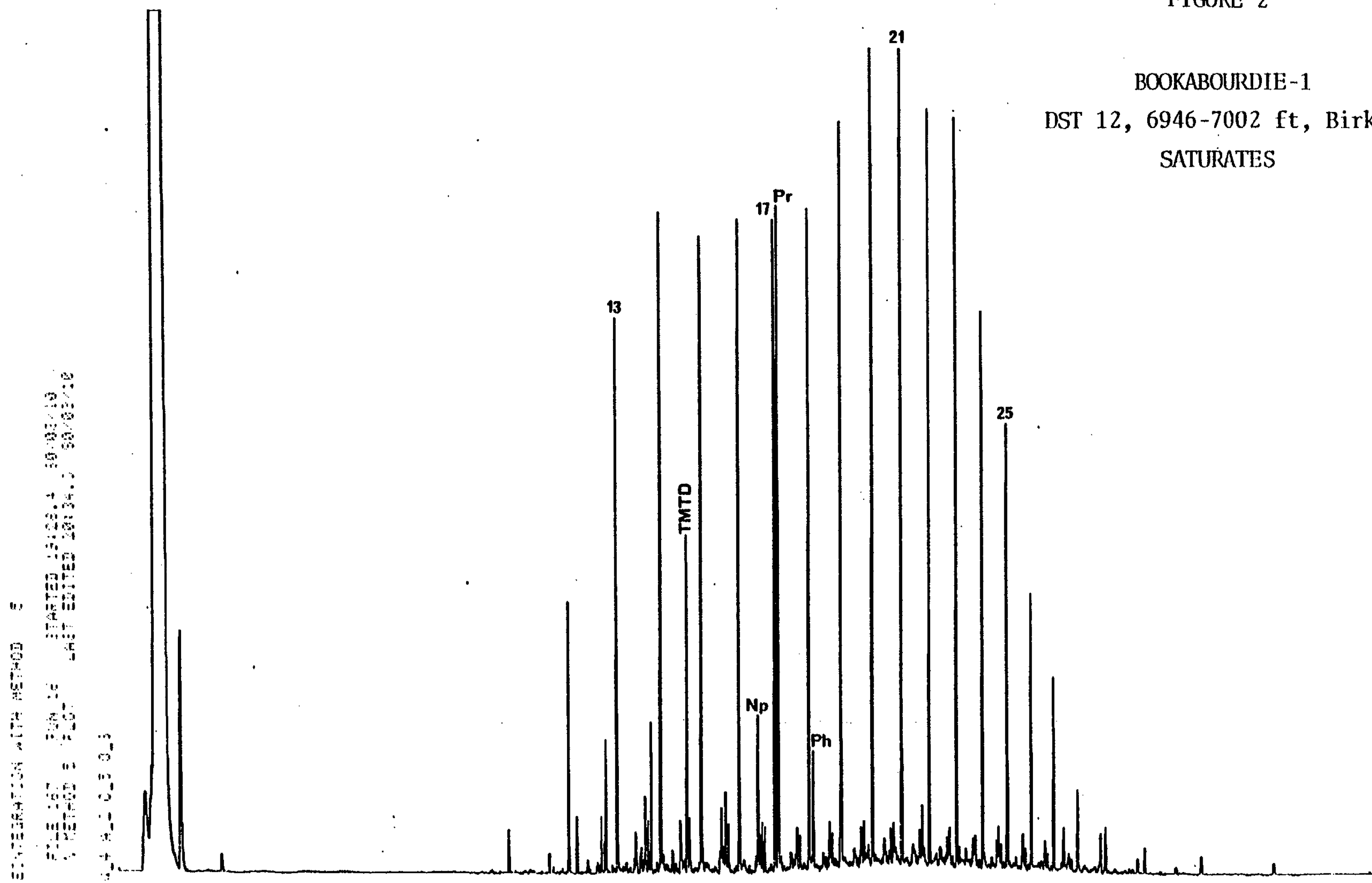


FIGURE 3

KENNY-1
DST 1, 6768-6827 ft, Birkhead
SATURATES

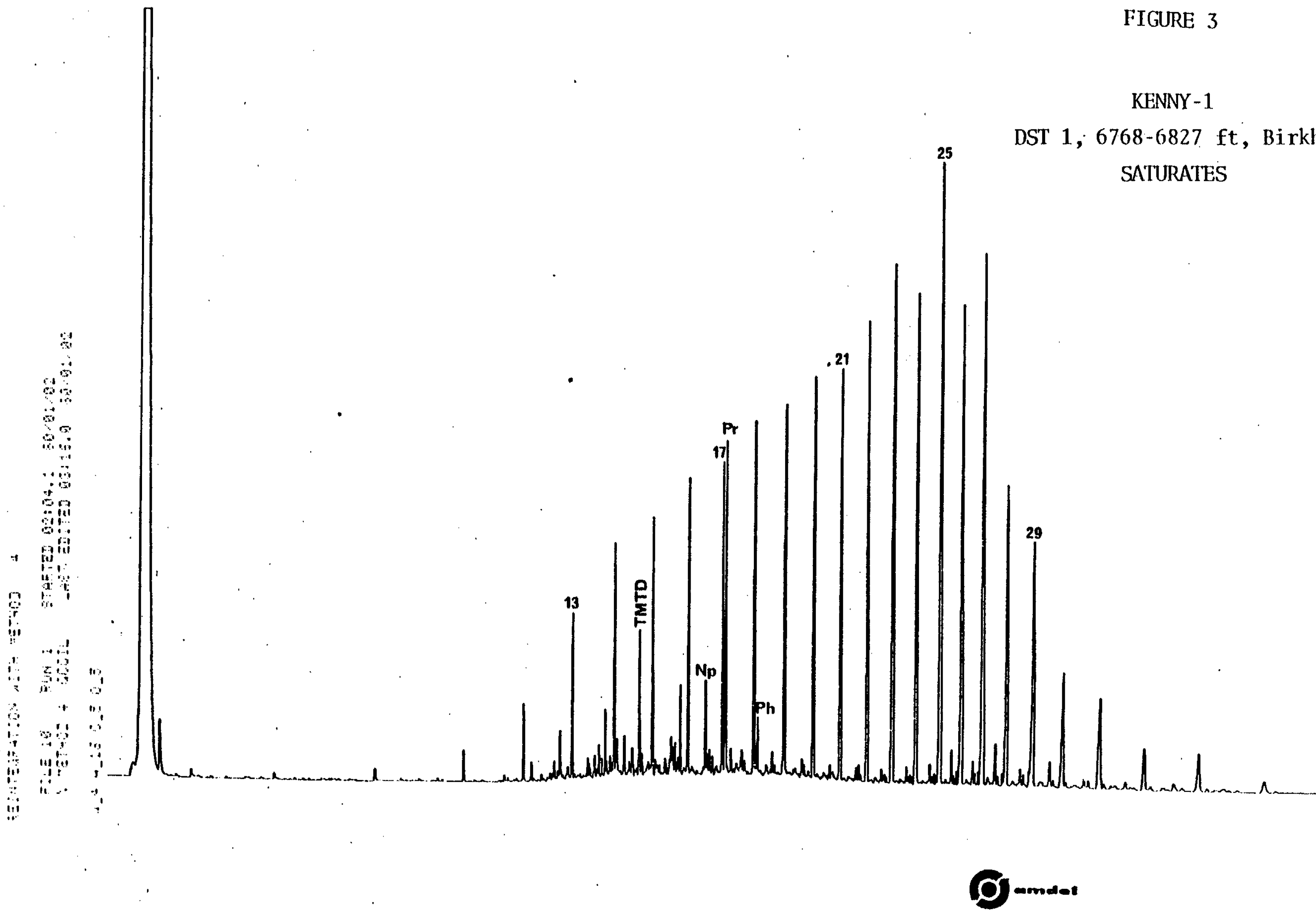


FIGURE 4

MOOLION-1

DST 1, 8004-8026 ft, Poolawanna

SATURATES

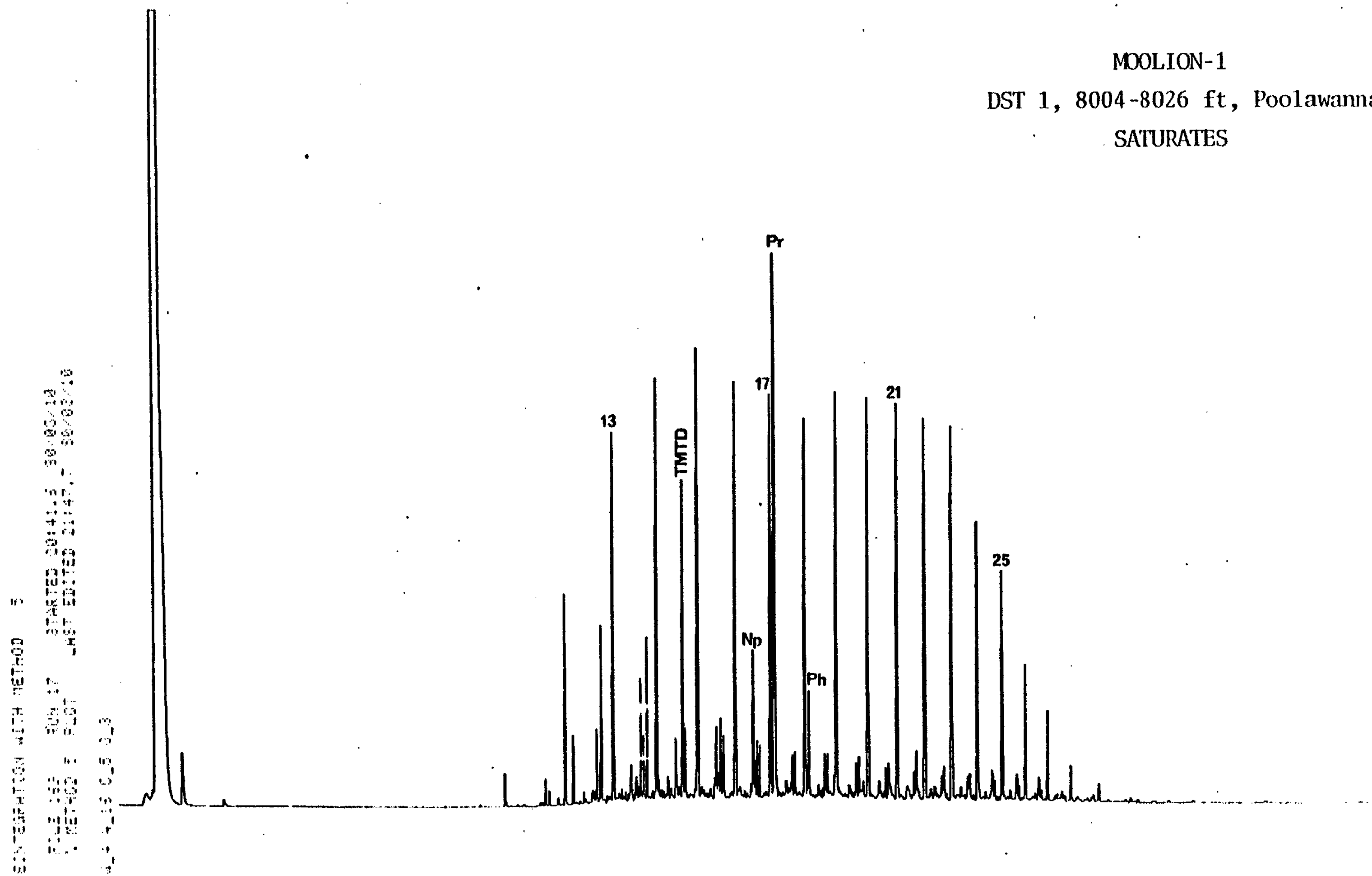


FIGURE 5

FLY LAKE-1
Production, 9297-9383 ft, Tirrawarra
SATURATES

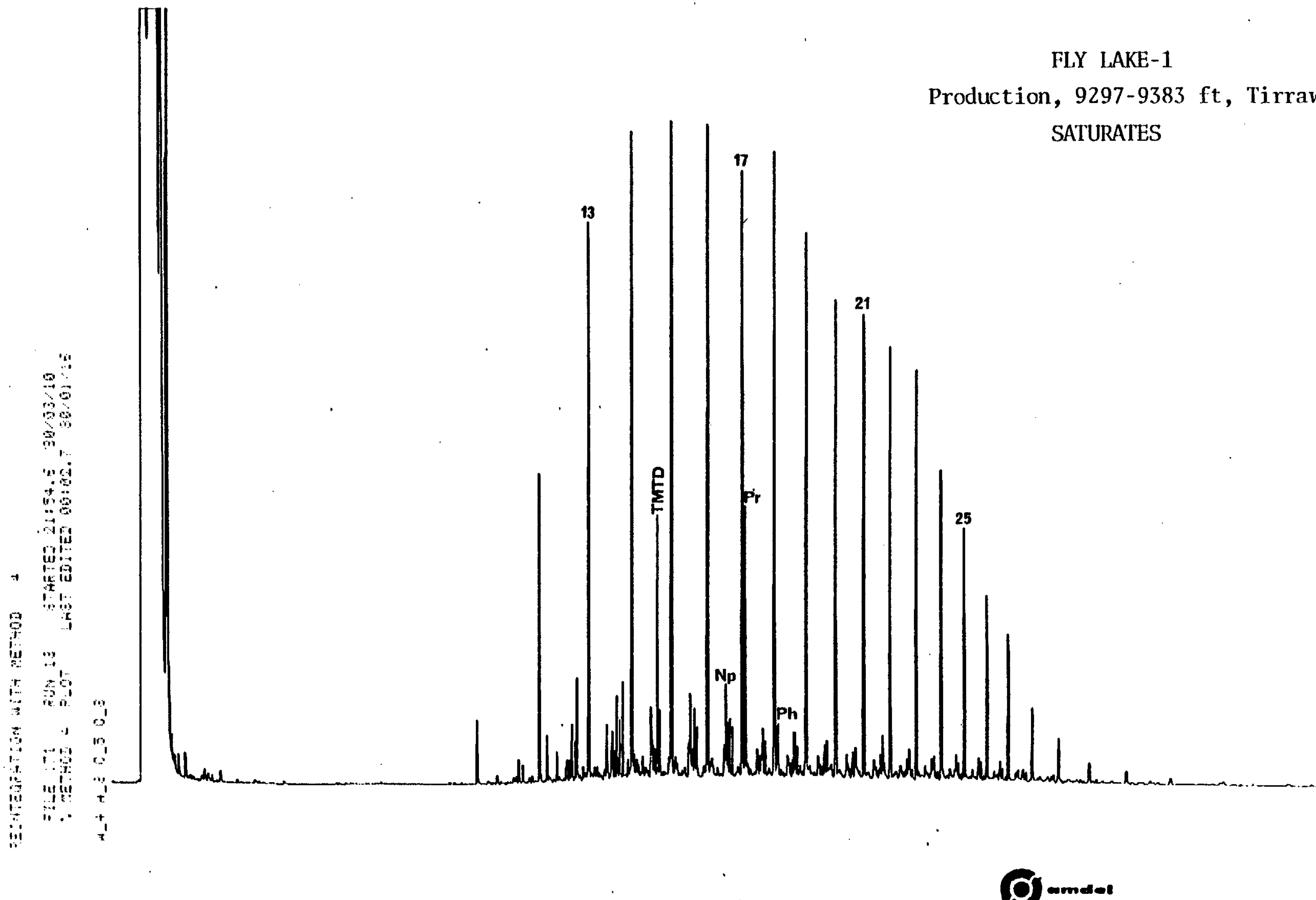


FIGURE 6

MOORARI-1
DST 6, 9562-9640 ft, Tirrawarra
SATURATES

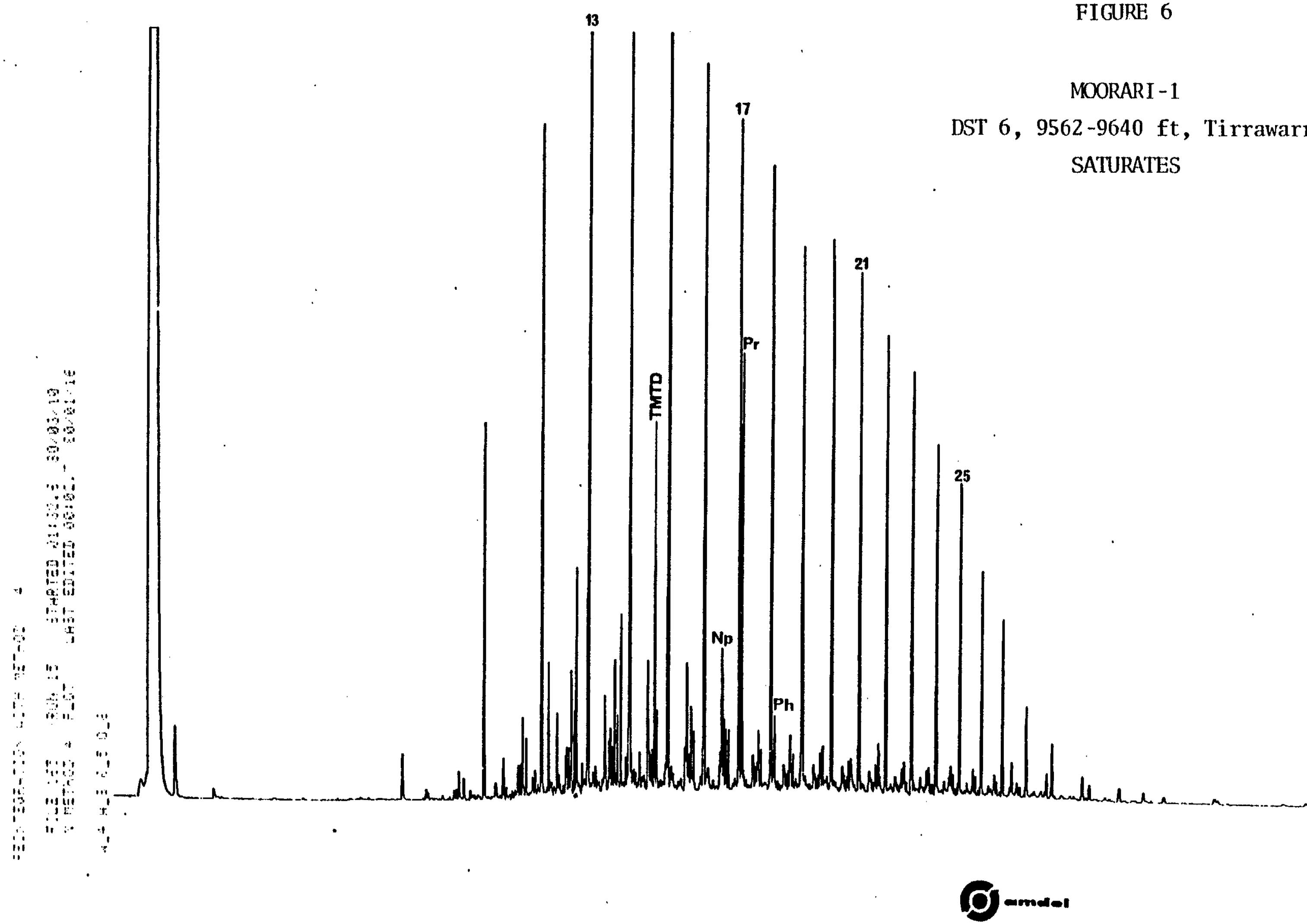
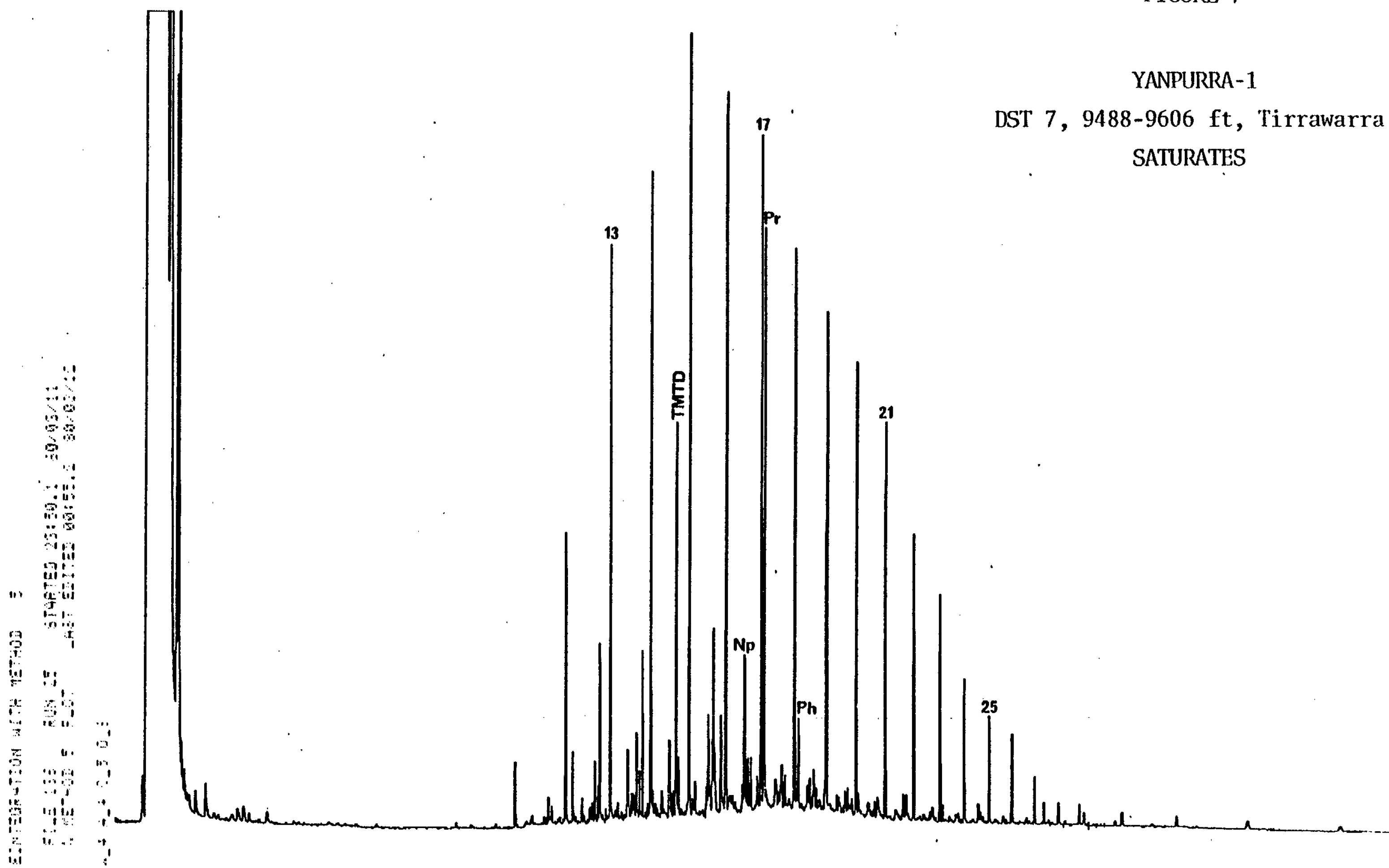


FIGURE 7

YANPURRA-1
DST 7, 9488-9606 ft, Tirrawarra
SATURATES



FIGURES 8-10

MASS FRAGMENTOGRAMS OF NAPHTHENES IN JURASSIC AND PERMIAN OILS, PATCHAWARRA TROUGH

Fig. 8 :	m/z 123, 259	tetracyclic diterpanes
Fig. 9 :	m/z 183	acyclic isoprenoid alkanes
	m/z 191	triterpanes (incl. hopanes, moretanes)
Fig. 10 :	m/z 217, 218	steranes

A. Bookabourdie-1 (Birkhead)

B. Kenny-1 (Birkhead)

C. Moolion-1 (Poolawanna)

D. Fly Lake-1 (Tirrawarra)

E. Moorari-1 (Tirrawarra)

F. Yanpurra-1 (Tirrawarra)

KEY TO MASS FRAGMENTOGRAMS

m/z 123, 259 (diterpanes)

1	C_{19}	isopimarane
2	C_{20}	_ent_-beyerane
3	C_{20}	isopimarane
4	C_{20}	16β(H)-phyllocladane
5	C_{20}	_ent_-16β(H)-kaurane
6	C_{20}	16α(H)-phyllocladane
7	C_{20}	_ent_-16α(H)-kaurane

m/z 183 (acyclic isoprenoid alkanes)

15-40	numbers indicate number of carbon atoms in compound
*	irregular (head-to-head)

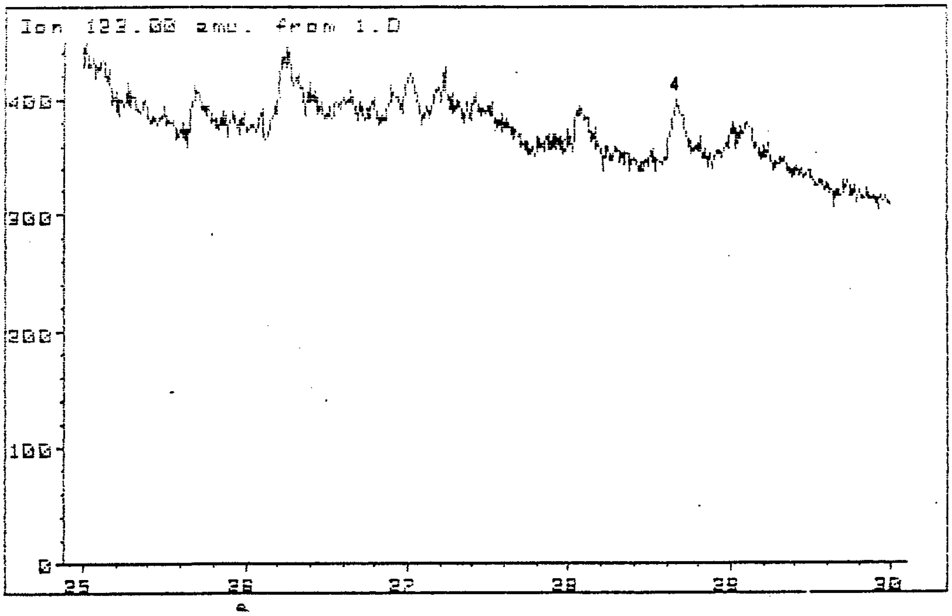
m/z 191 (terpanes)

1-6	C_{20}-C_{25}	tricyclic terpanes
7	C_{24}	tetracyclic terpane
8	C_{26}	tricyclic terpane
9	C_{27}	18α(H)-22,29,30-trisnorhopane (Ts)
10	C_{27}	17α(H)-22,29,30-trisnorhopane (Tm)
11	C_{28}	17α(H)-28,30-bisnorhopane
12	C_{29}	17α(H)-25-norhopane
13	C_{29}	17α(H)21β(H) norhopane
14	C_{30}	pentacyclic terpane
15	C_{29}	17β(H)21α(H) moretane
16	C_{30}	17α(H)21β(H) hopane
17	C_{30}	17β(H)21α(H) moretane
18-22	C_{31}-C_{35}	17α(H)21β(H) 22S (left) and 22R (right) homohopanes

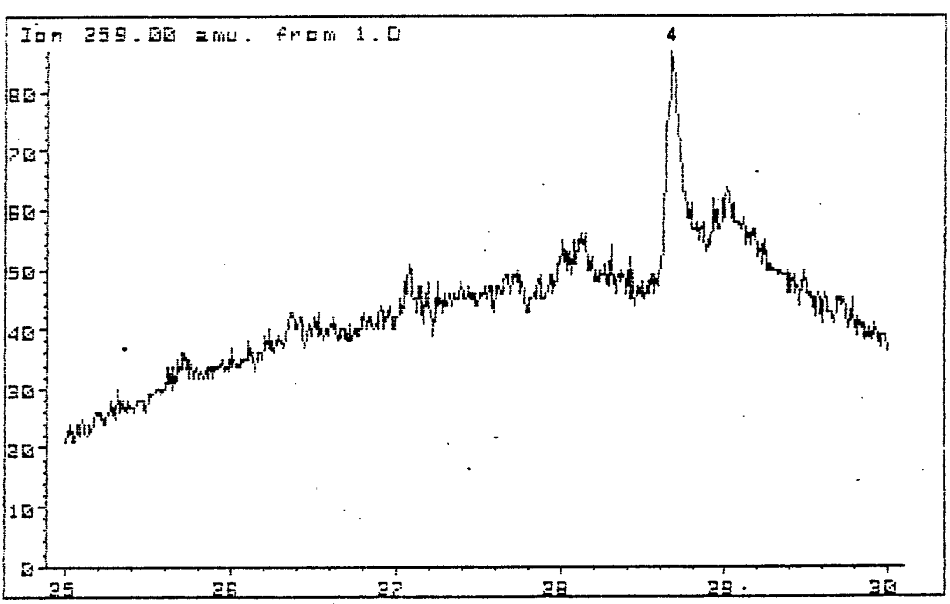
m/z 217, 218, 259 (steranes, diasteranes)

1	C_{21}	sterane
2	C_{22}	sterane
3&4	C_{27}	20S and 20R diasteranes
5&8	C_{27}	5α(H)14α(H)17α(H) 20S and 20R steranes
6	C_{27}	5α(H)14β(H)17β(H) 20R sterane
7	C_{27}	5α(H)14β(H)17β(H) 20S sterane + C_{29} 20S diasterane
9	C_{29}	20R diasterane
10&13	C_{28}	5α(H)14α(H)17α(H) 20S and 20R steranes
11&12	C_{28}	5α(H)14β(H)17β(H) 20R and 20S steranes
14&17	C_{29}	5α(H)14α(H)17α(H) 20S and 20R steranes
15&16	C_{29}	5α(H)14β(H)17β(H) 20R and 20S steranes

FIGURE 8A

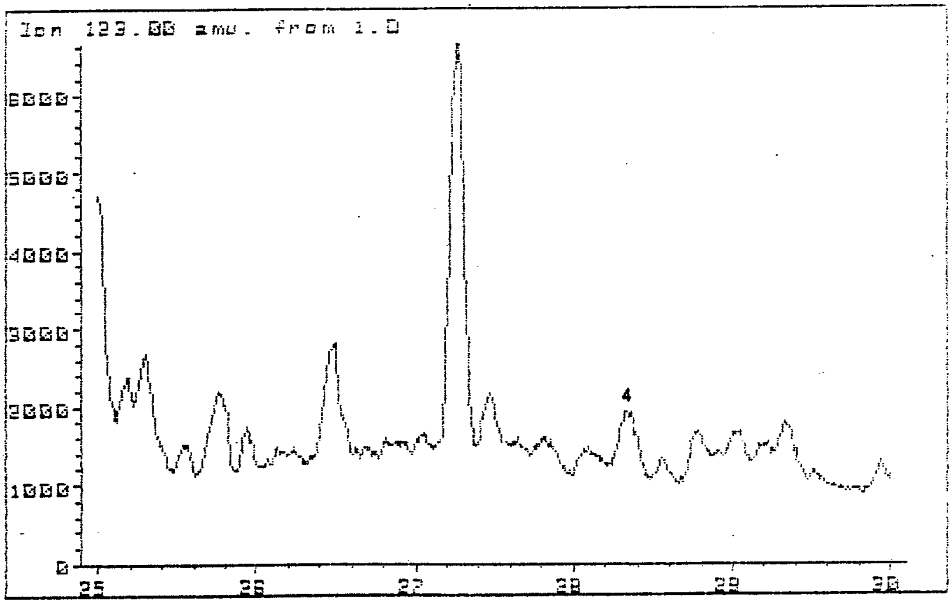


Ion 123.00 amu. from 1.D
4
400
300
200
100
0
25
26
27
28
29
30

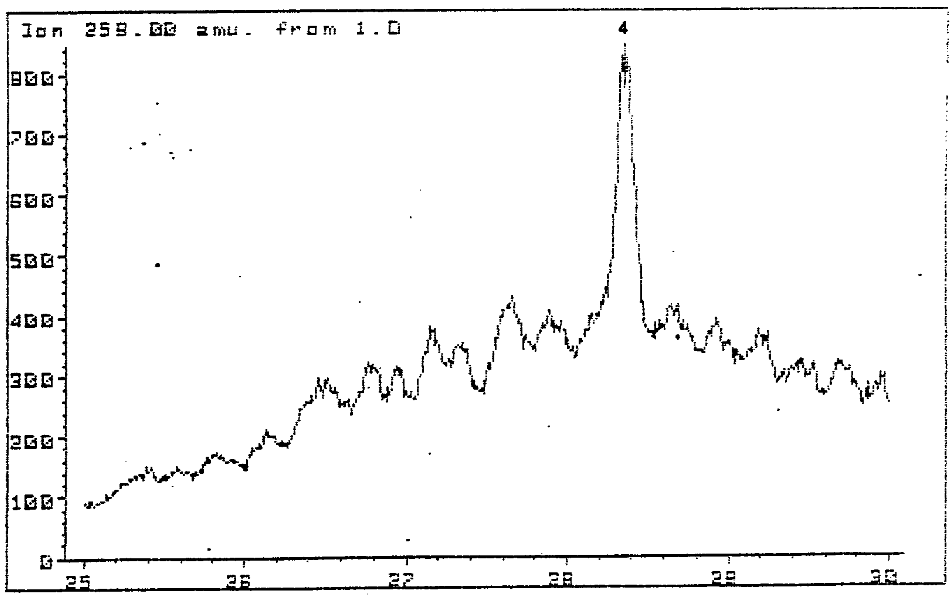


Ion 259.00 amu. from 1.D
4
80
70
60
50
40
30
20
10
0
25
26
27
28
29
30

FIGURE 8B

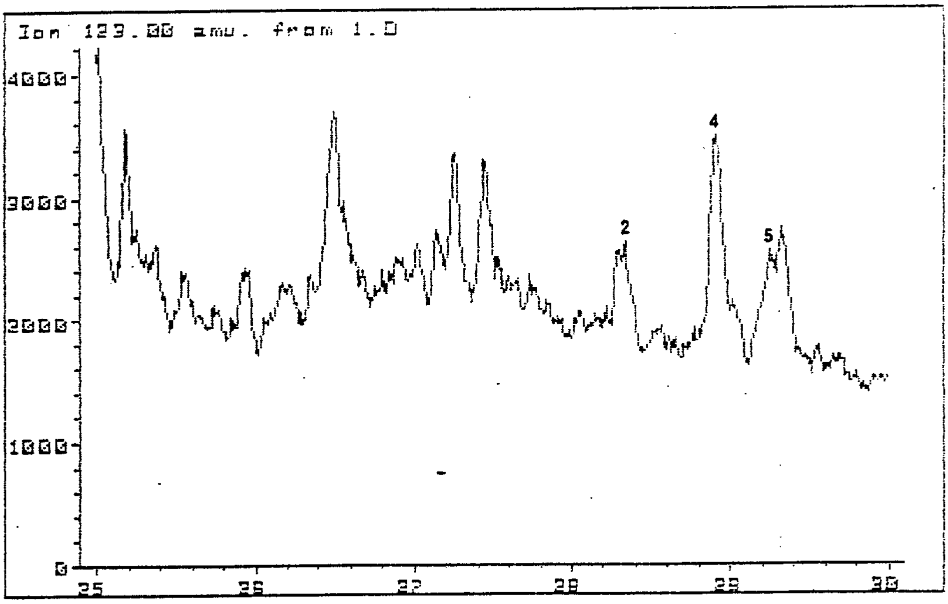


Ion 123.00 amu. from 1.D
6000
5000
4000
3000
2000
1000
0
4
25
26
27
28
29
30



Ion 259.00 amu. from 1.D
4
800
700
600
500
400
300
200
100
0
25
26
27
28
29
30

FIGURE 8C


Ion 123.00 amu. from 1.D
4000
3000
2000
1000
0
25
26
27
28
29
30
2
4
5

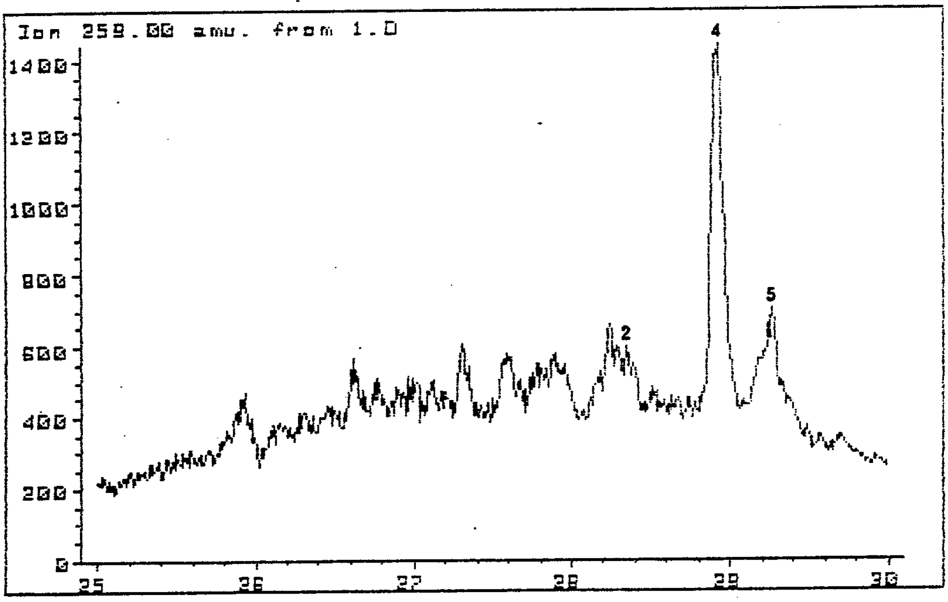
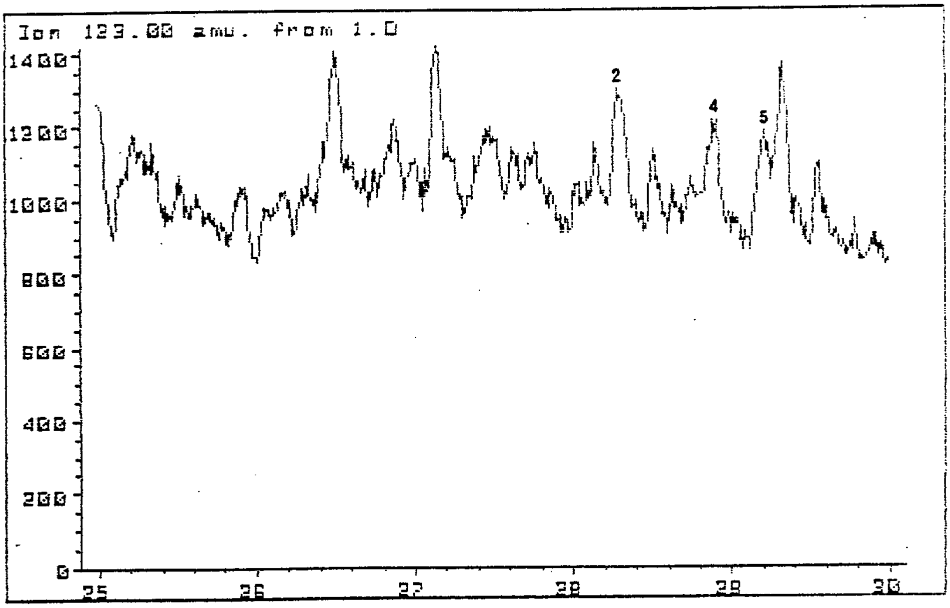
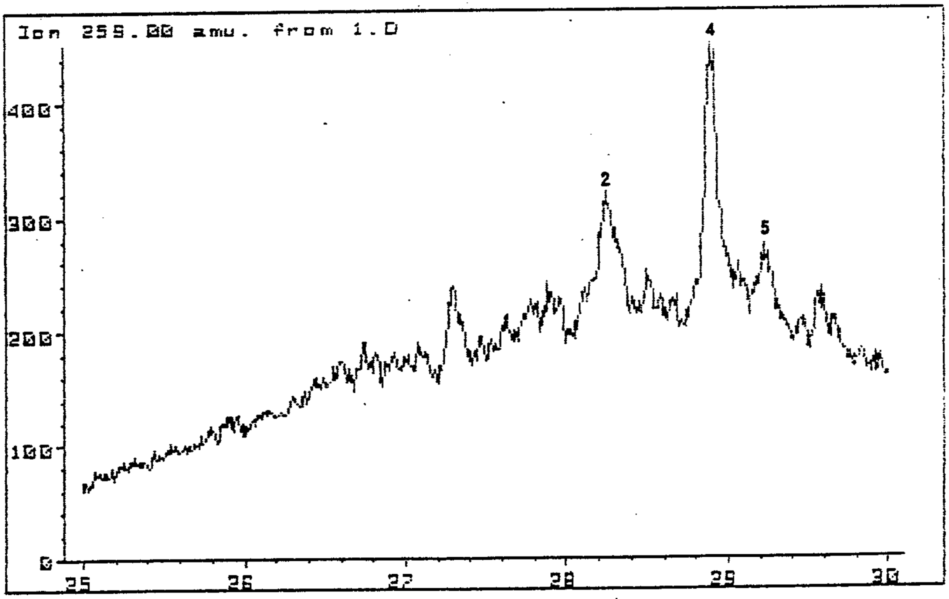

Ion 259.00 amu. from 1.D
1400
1200
1000
800
600
400
200
0
25
26
27
28
29
30
4
5
2

FIGURE 8D

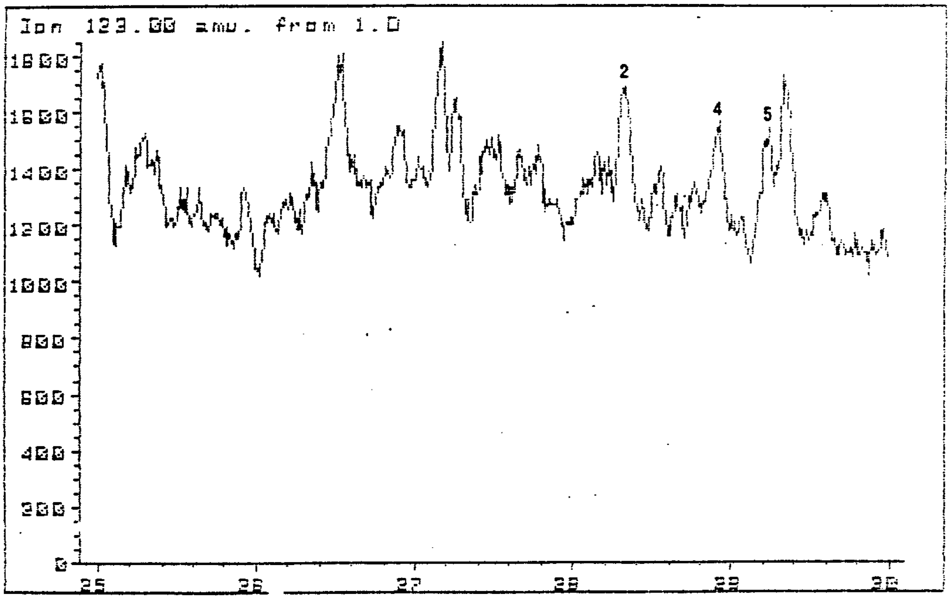


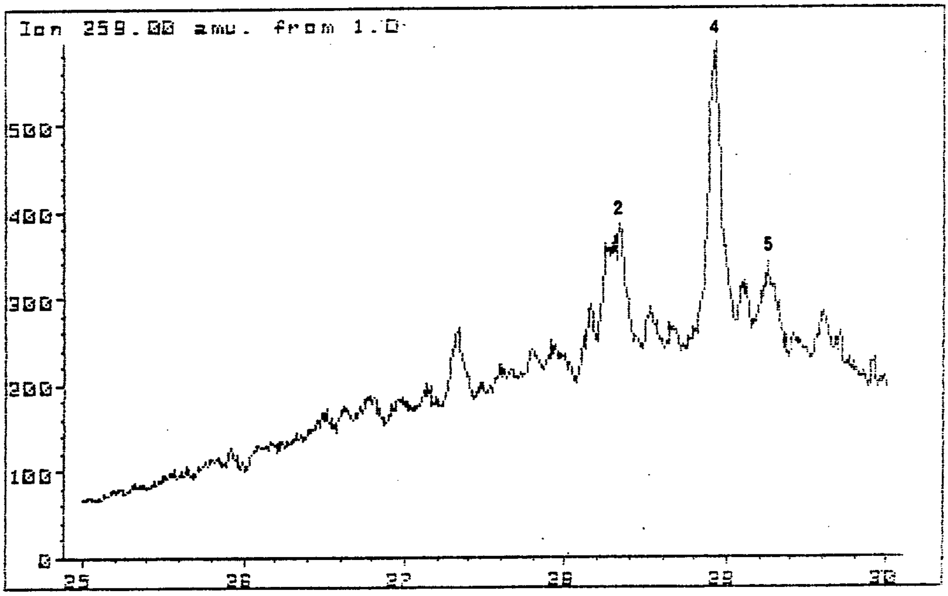
Ion 123.00 amu. from 1.D
1400
1200
1000
800
600
400
200
0
25
26
27
28
29
30
2
4
5



Ion 259.00 amu. from 1.D
400
300
200
100
0
25
26
27
28
29
30
2
4
5

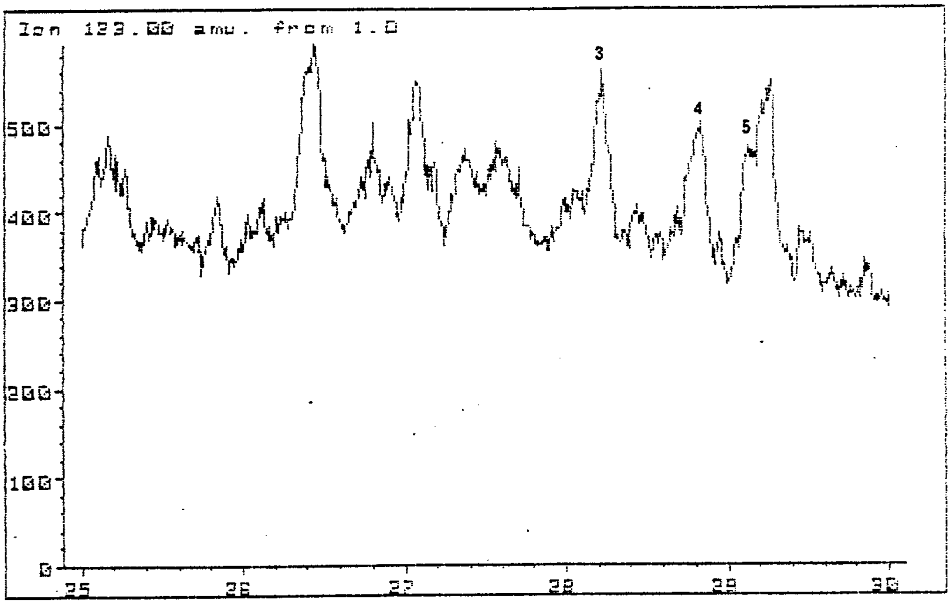
FIGURE 8E



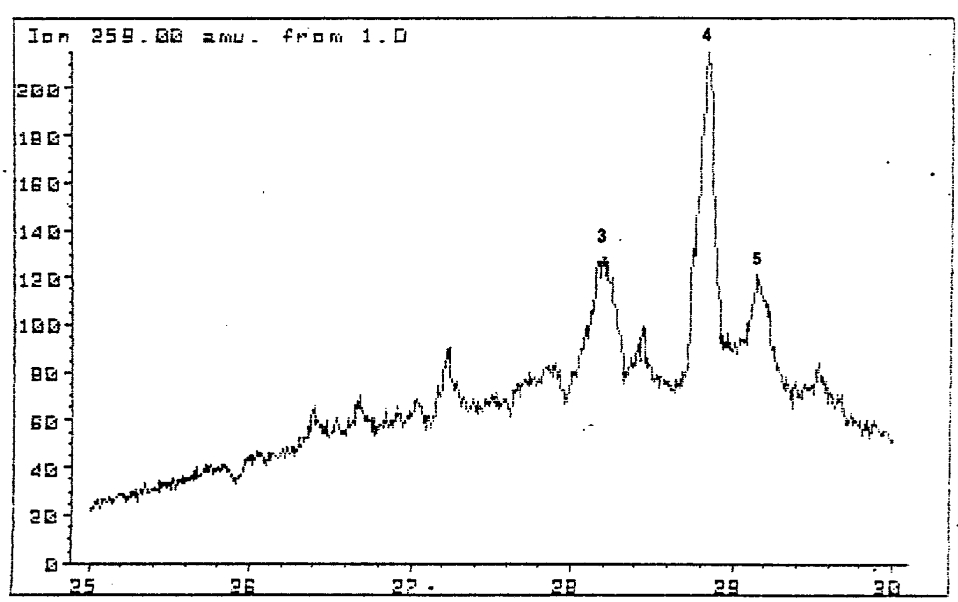


amdel

FIGURE 8F

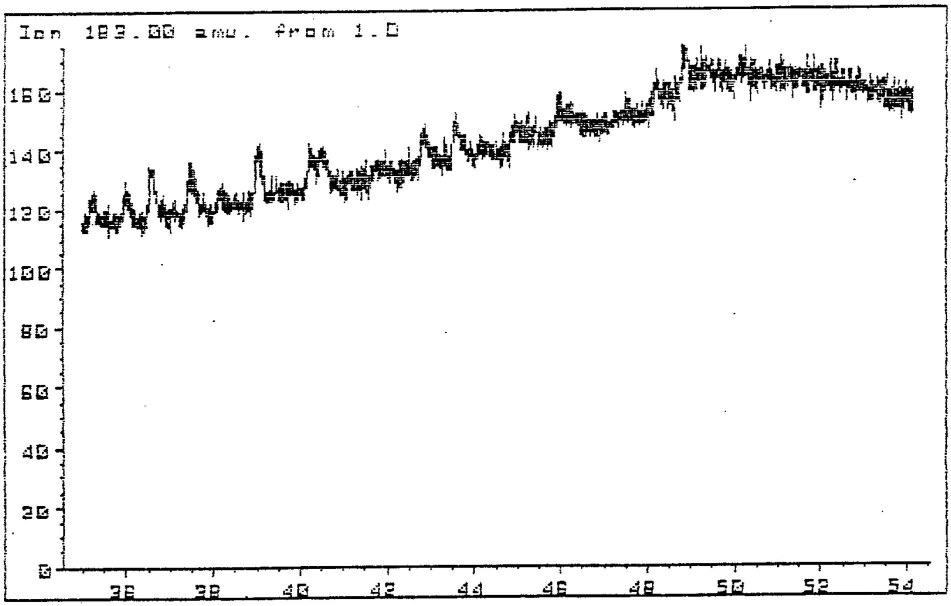


Ion 123.00 amu. from 1.D
3
4
5
500
400
300
200
100
0
25
26
27
28
29
30



Ion 259.00 amu. from 1.D
4
3
5
200
180
160
140
120
100
80
60
40
20
0
25
26
27
28
29
30

FIGURE 9A


Ion 183.00 amu. from 1.D
160
140
120
100
80
60
40
20
0
36
38
40
42
44
46
48
50
52
54

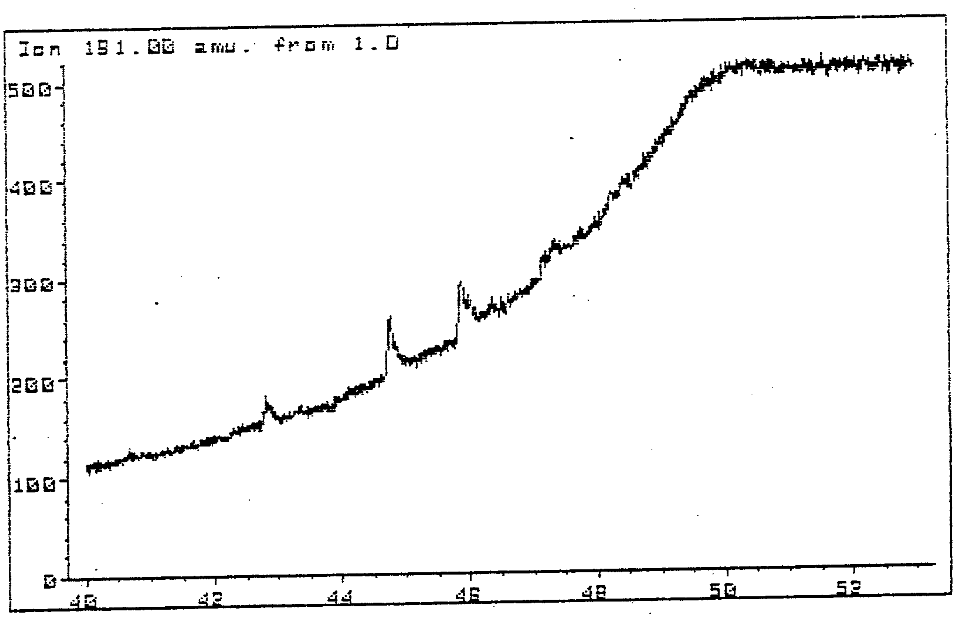
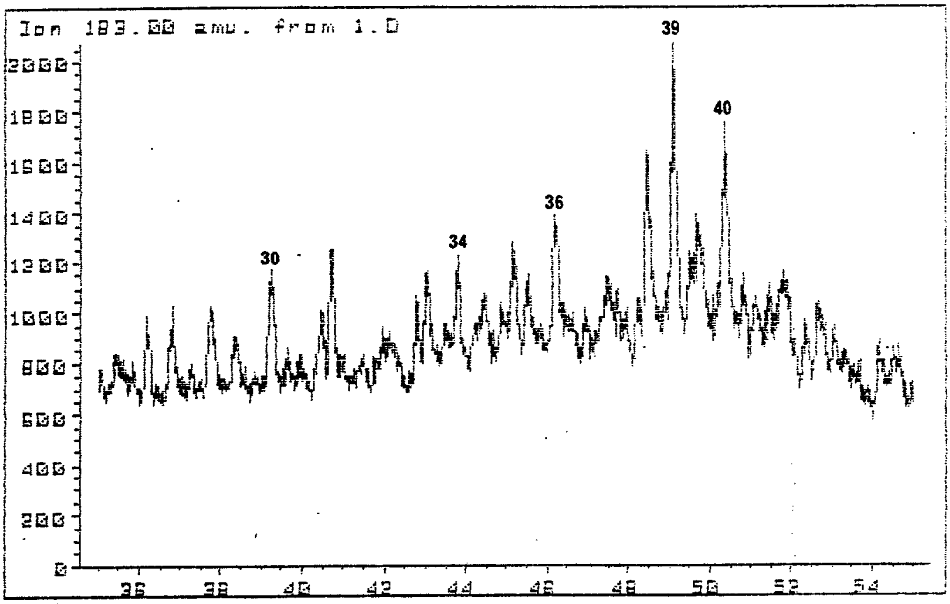
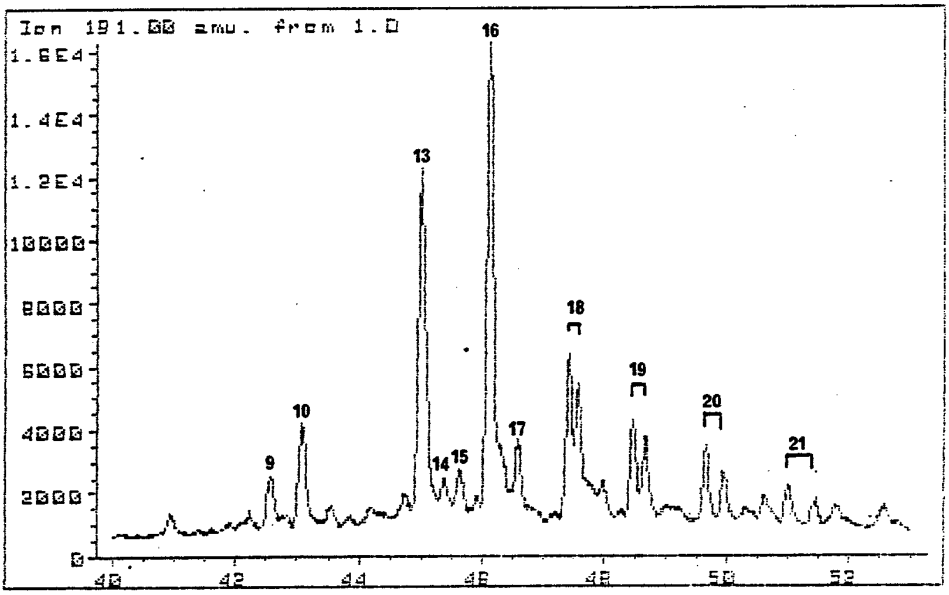
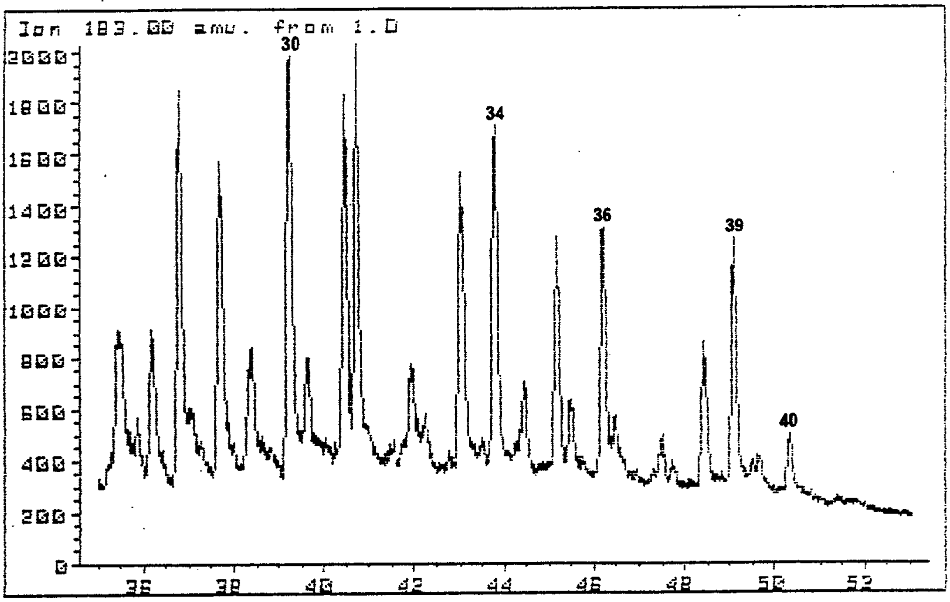
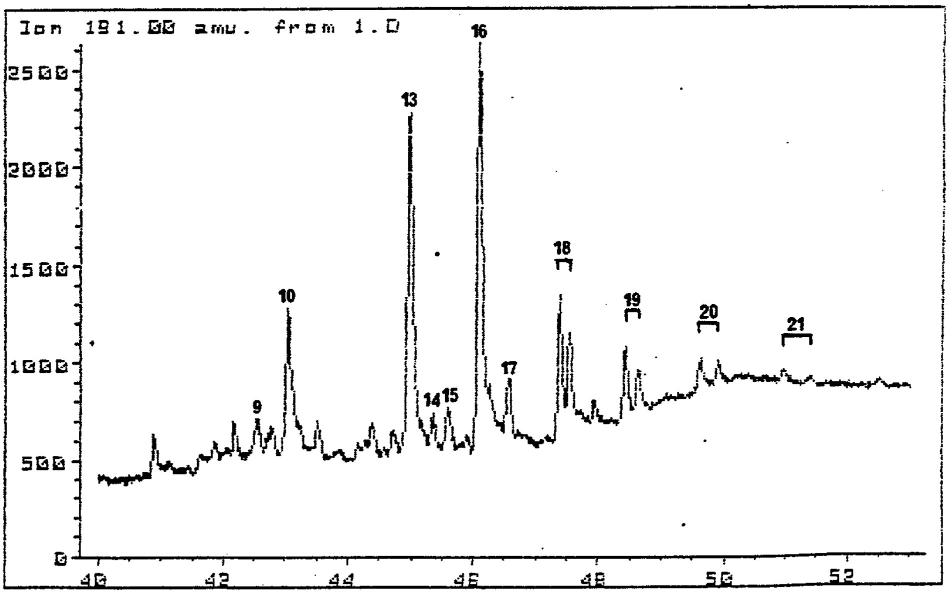

Ion 151.00 amu. from 1.D
500
400
300
200
100
0
40
42
44
46
48
50
52

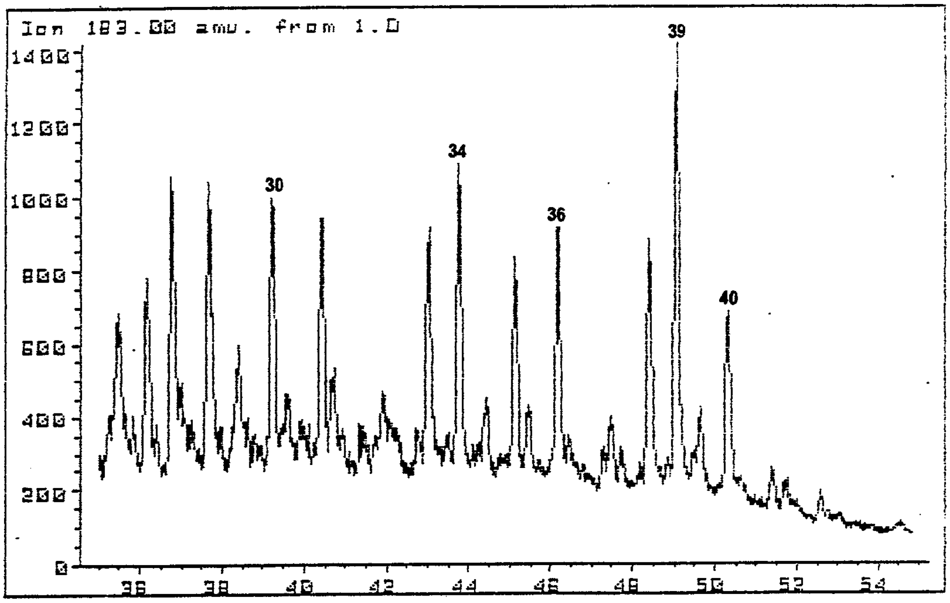
FIGURE 9B


Ion 183.00 amu. from 1.D
2000
1800
1600
1400
1200
1000
800
600
400
200
0
36
38
40
42
44
46
48
50
52
54
30
34
36
39
40

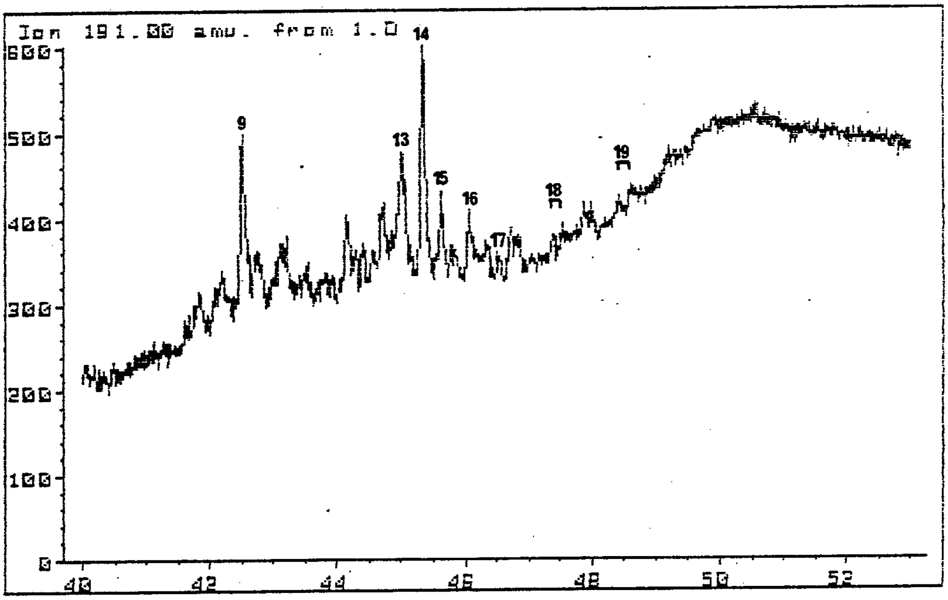

Ion 191.00 amu. from 1.D
1.6E4
1.4E4
1.2E4
10000
8000
6000
4000
2000
0
40
42
44
46
48
50
52
9
10
13
14
15
16
17
18
19
20
21


Ion 183.00 amu. from 1.D
30
34
36
39
40
2000
1800
1600
1400
1200
1000
800
600
400
200
0
36
38
40
42
44
46
48
50
52


Ion 191.00 amu. from 1.D
16
13
18
19
20
21
10
9
14
15
17
2500
2000
1500
1000
500
0
40
42
44
46
48
50
52

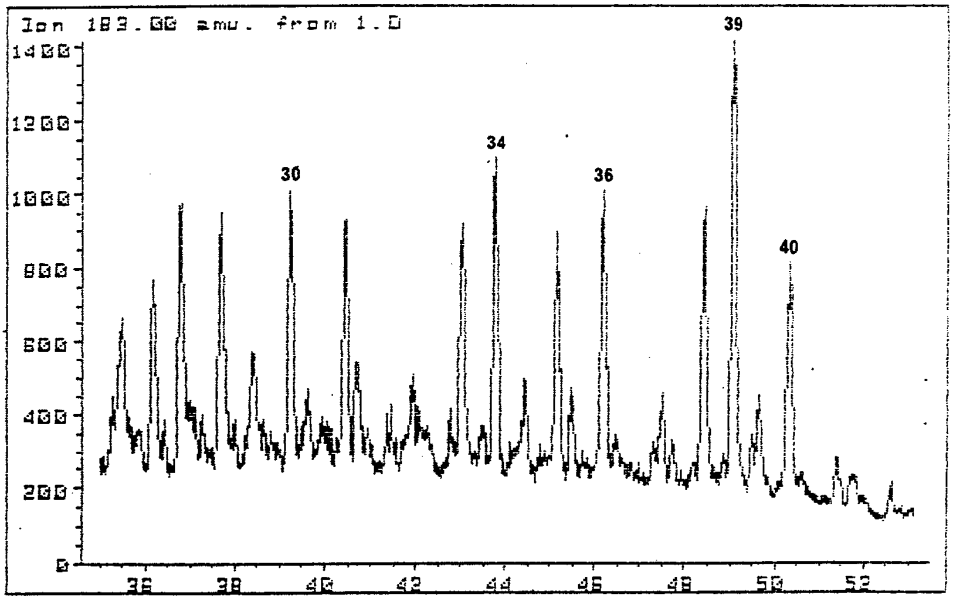


Ion 183.00 amu. from 1.D
1400
1200
1000
800
600
400
200
0
36
38
40
42
44
46
48
50
52
54
30
34
36
39
40



Ion 191.00 amu. from 1.D
600
500
400
300
200
100
0
40
42
44
46
48
50
52
9
13
14
15
16
17
18
19

FIGURE 9E


Ion 183.00 amu. from 1.D
1400
1200
1000
800
600
400
200
0
36
38
40
42
44
46
48
50
52
30
34
36
39
40

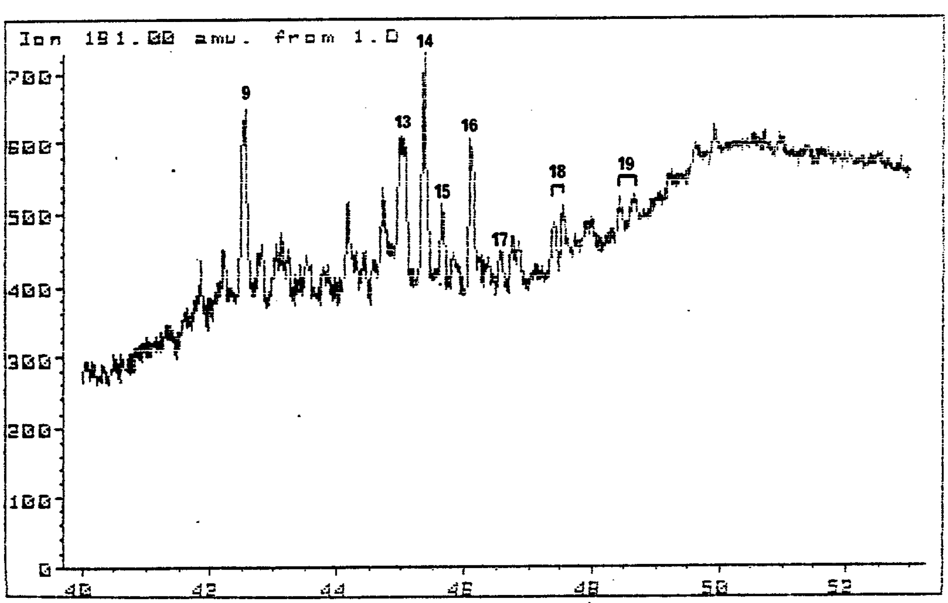
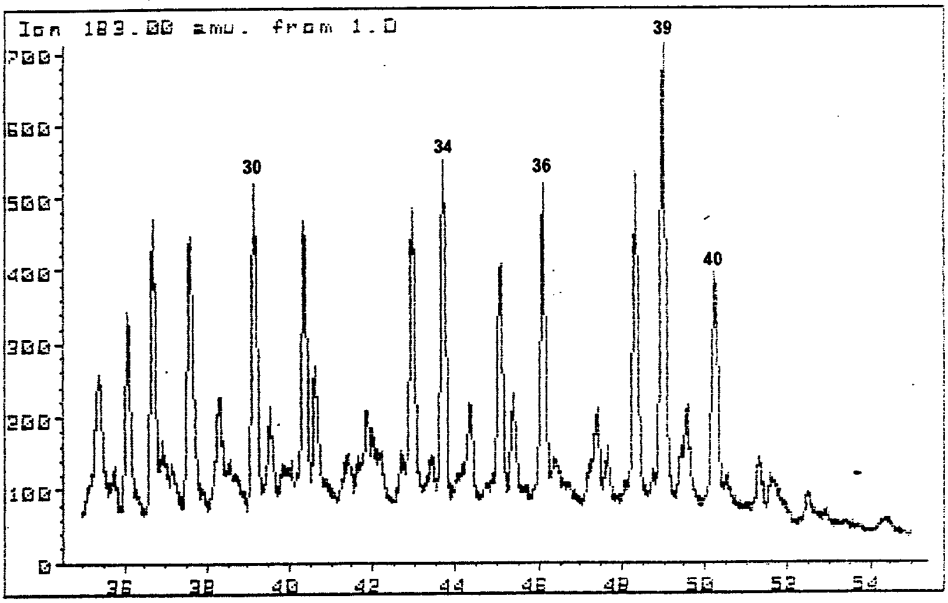
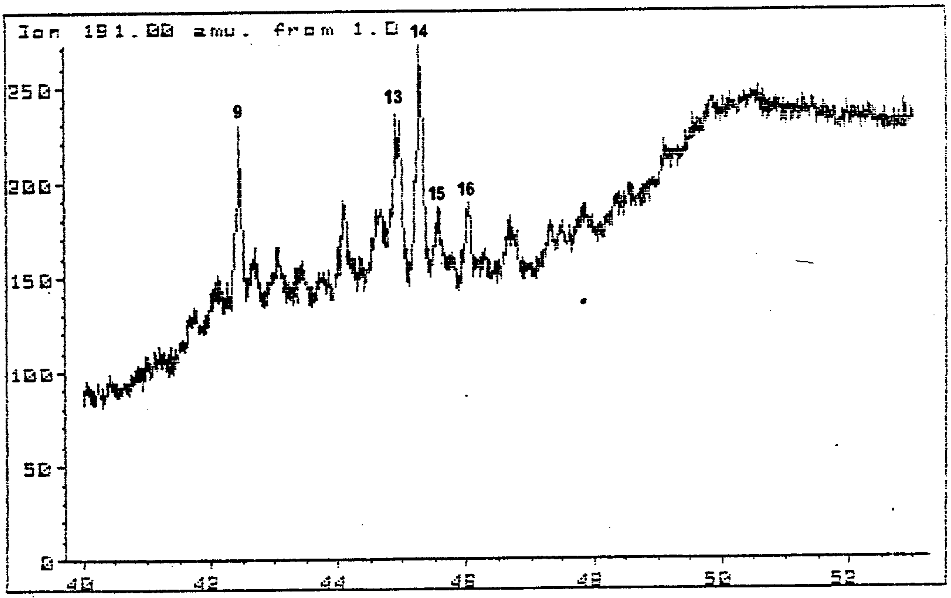

Ion 191.00 amu. from 1.D
700
600
500
400
300
200
100
0
40
42
44
46
48
50
52
9
13
14
15
16
17
18
19

FIGURE 9F

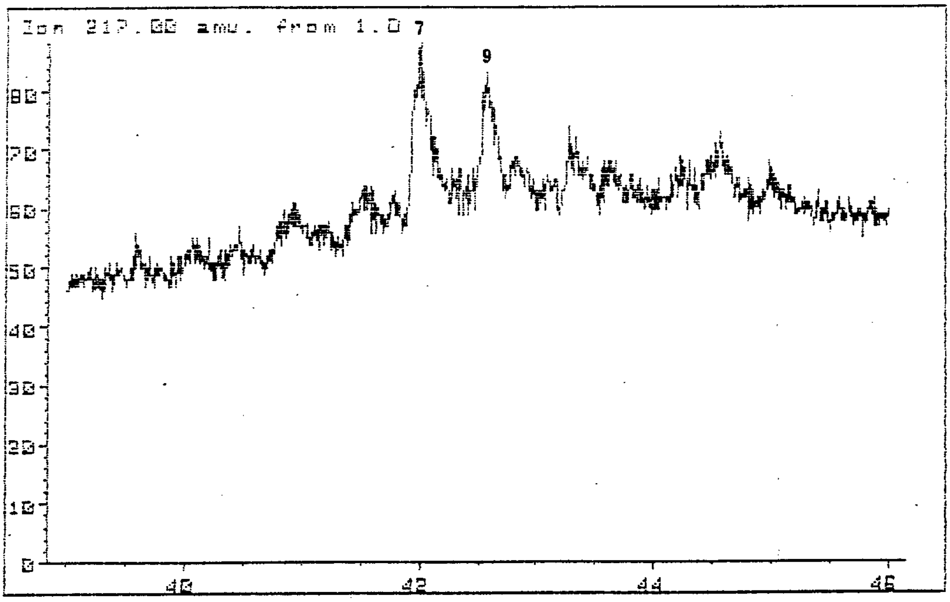


Ion 183.00 amu. from 1.D
700
600
500
400
300
200
100
0
36
38
40
42
44
46
48
50
52
54
30
34
36
39
40



Ion 191.00 amu. from 1.D
250
200
150
100
50
0
40
42
44
46
48
50
52
9
13
14
15
16

FIGURE 10A


Ion 217.00 amu. from 1.D
7
9
80
70
60
50
40
30
20
10
0
40
42
44
46

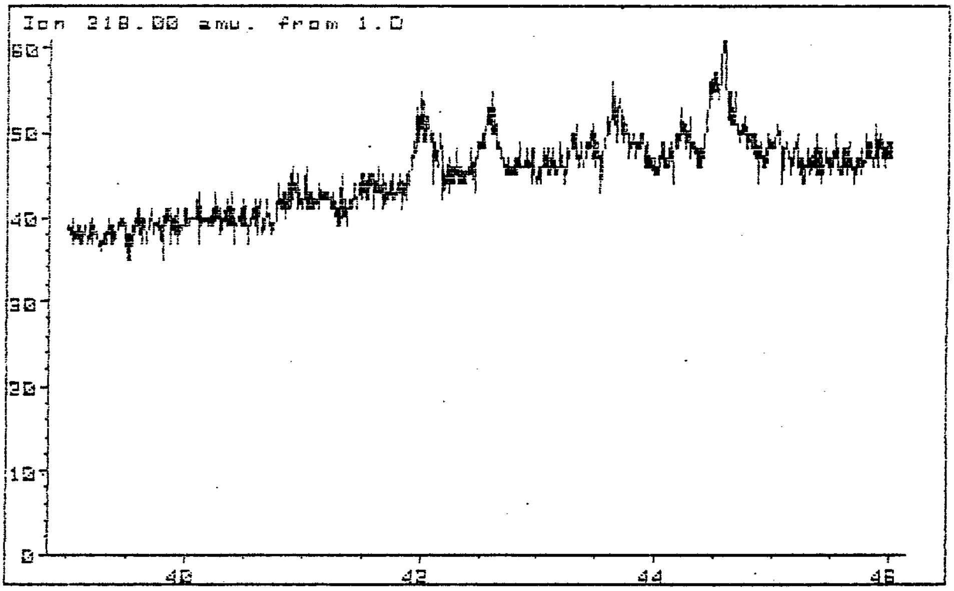
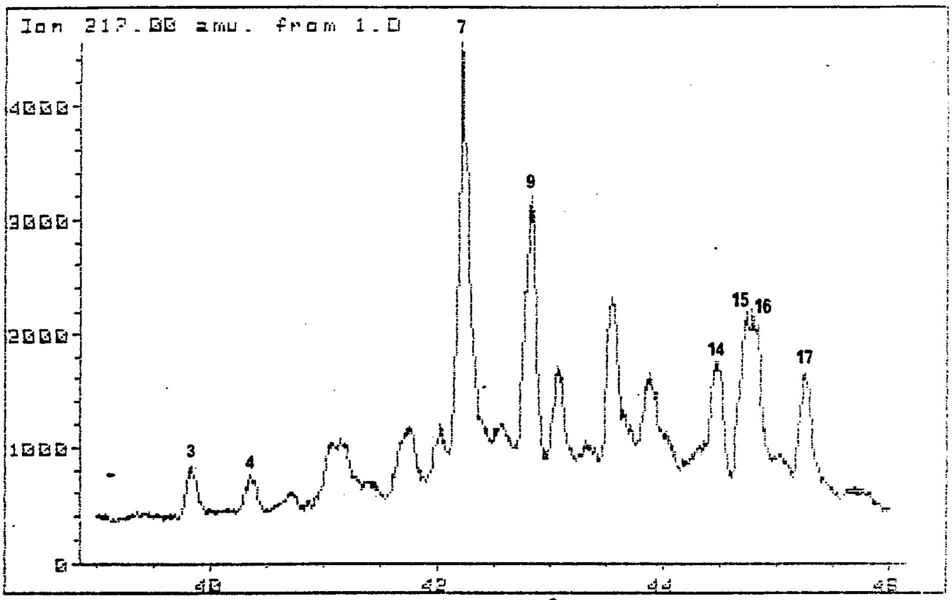

Ion 218.00 amu. from 1.D
60
50
40
30
20
10
0
40
42
44
46

FIGURE 10B


Ion 217.00 amu. from 1.D
4000
3000
2000
1000
0
40
42
44
46
3
4
7
9
14
15
16
17

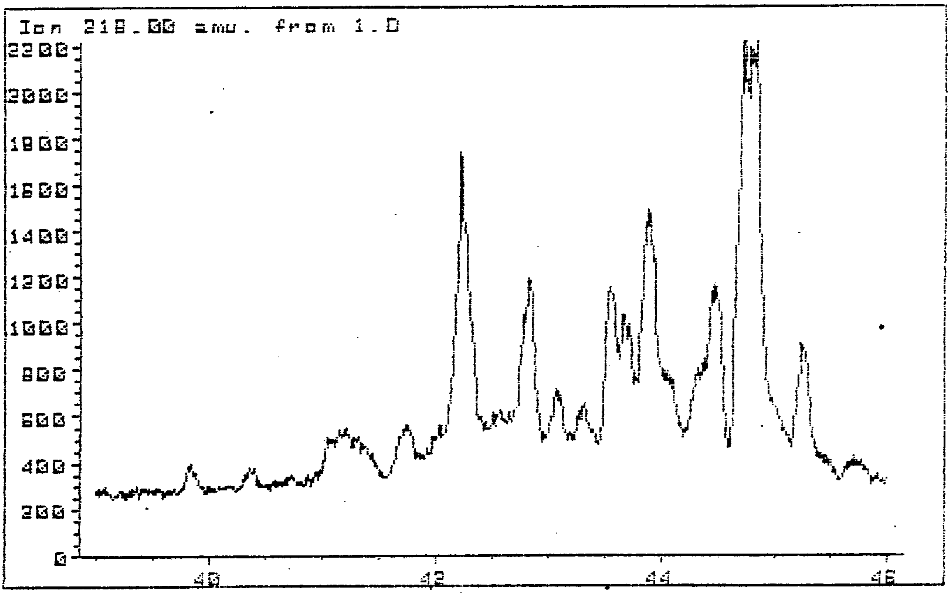
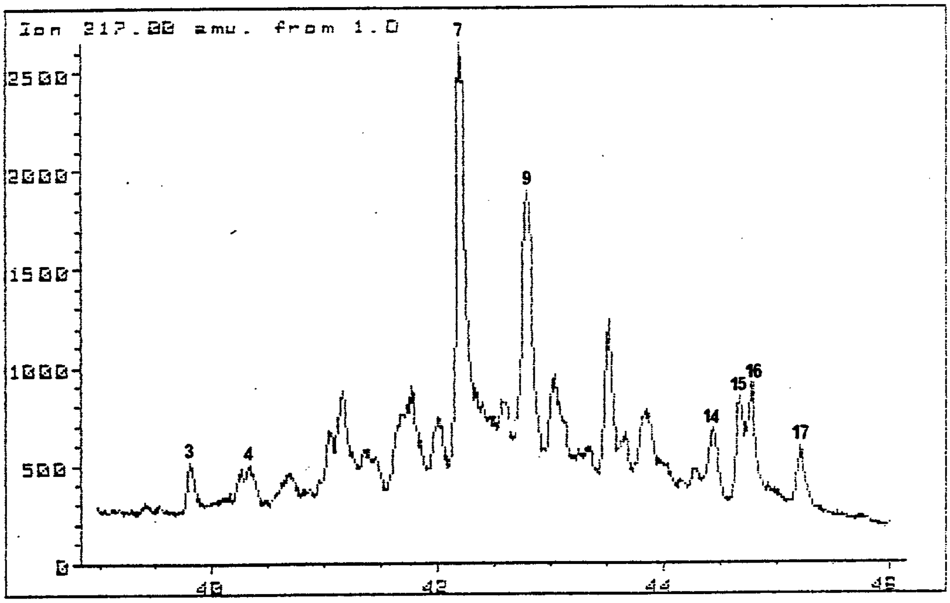
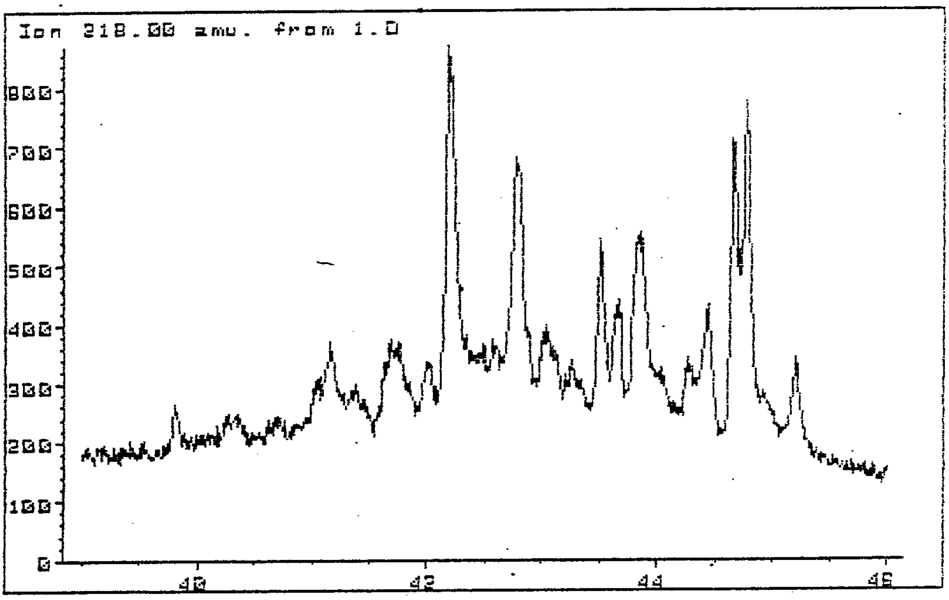

Ion 218.00 amu. from 1.D
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
40
42
44
46

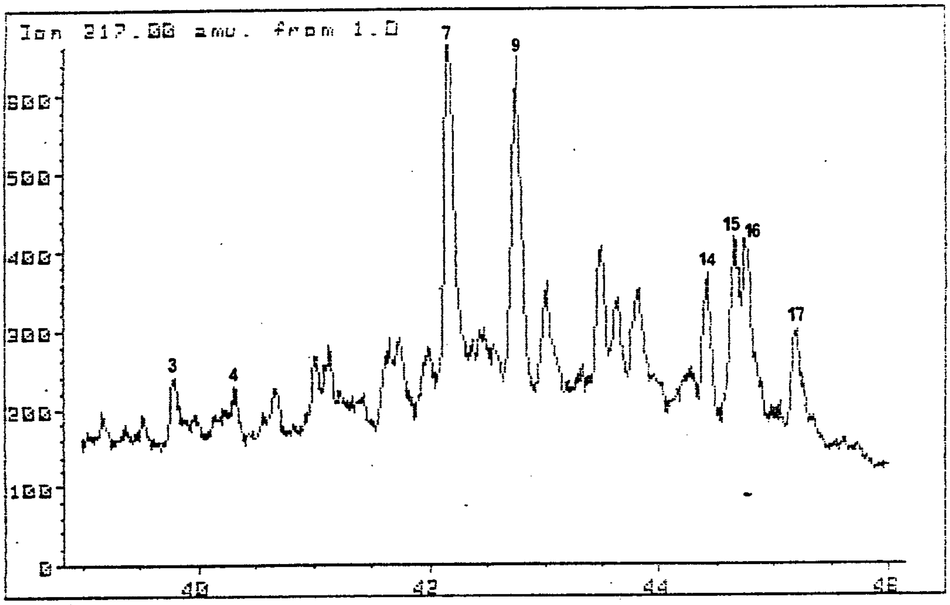
FIGURE 10C



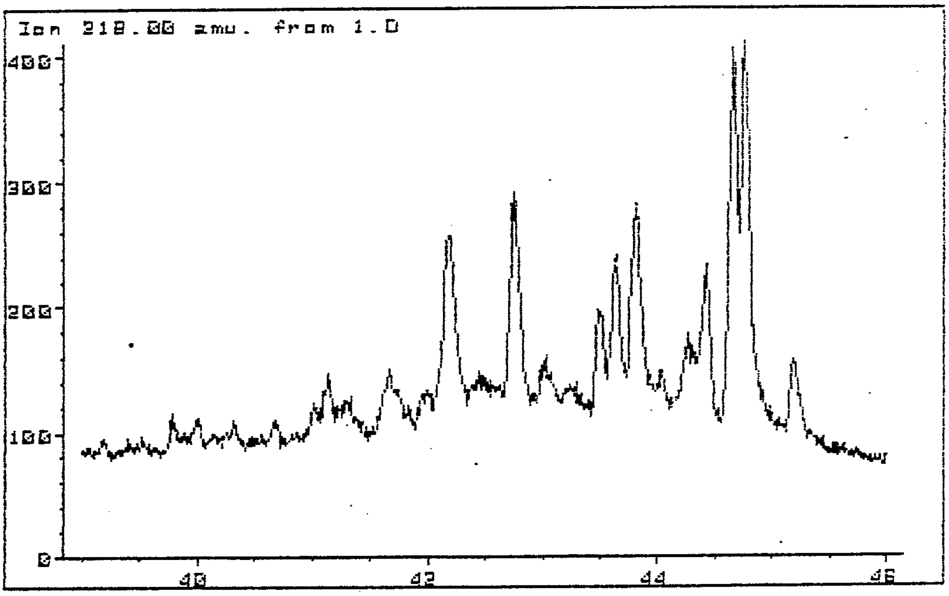


amdel

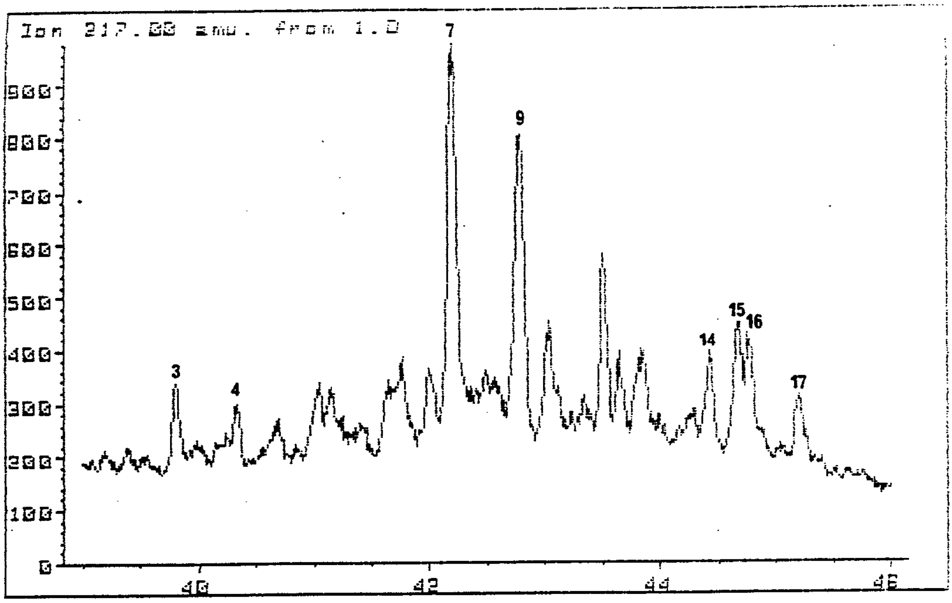
FIGURE 10D



Ion 217.00 amu. from 1.D
600
500
400
300
200
100
0
40
42
44
46
3
4
7
9
14
15
16
17



Ion 218.00 amu. from 1.D
400
300
200
100
0
40
42
44
46


Ion 217.00 amu. from 1.D
900
800
700
600
500
400
300
200
100
0
40
42
44
46
7
9
3
4
14
15
16
17

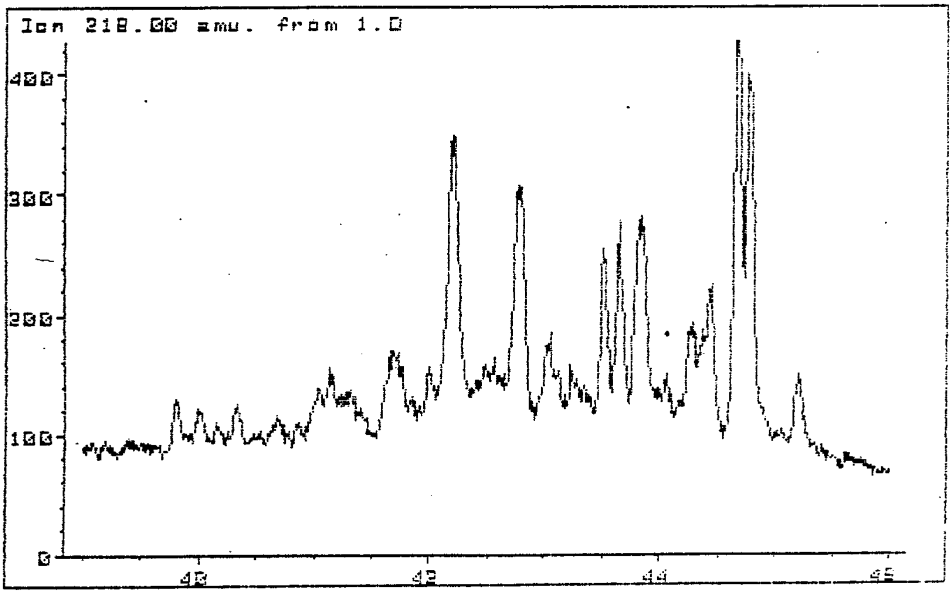
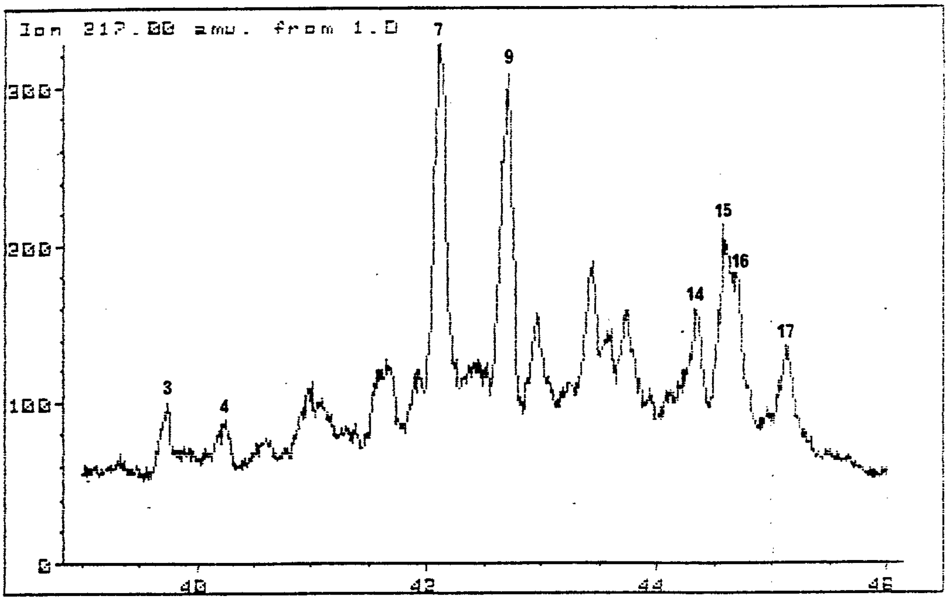
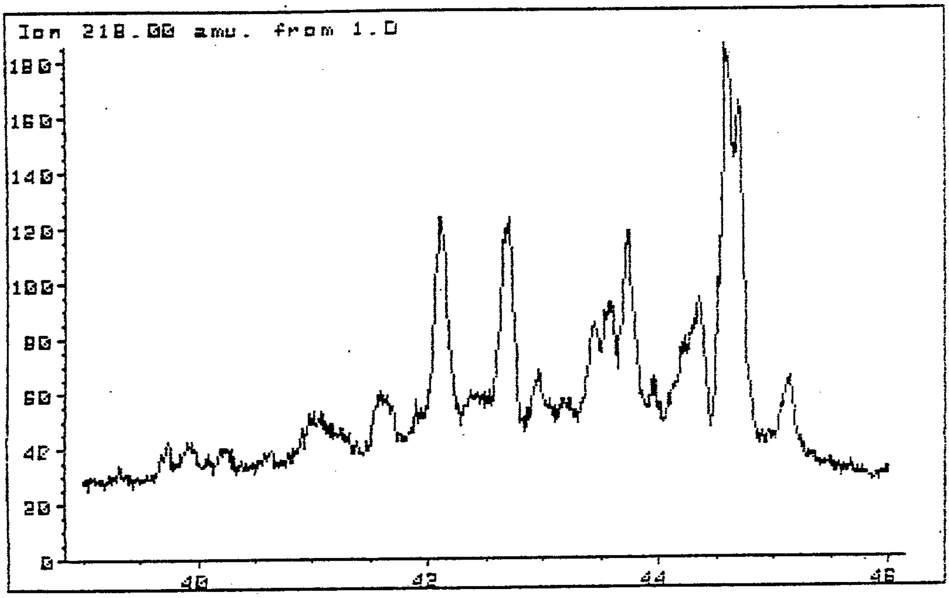

Ion 218.00 amu. from 1.D
400
300
200
100
0
40
42
44
46

FIGURE 10F



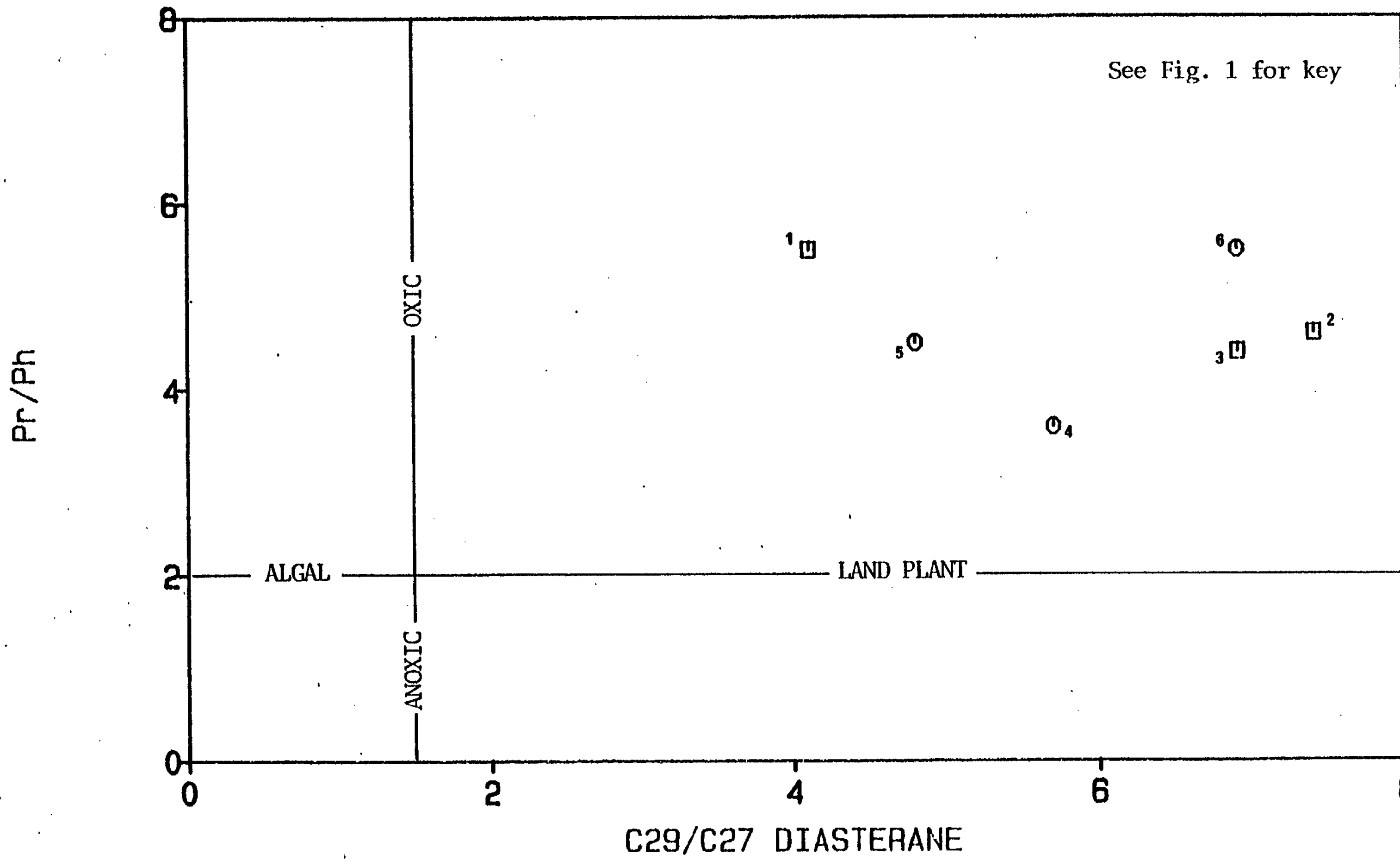
Ion 217.00 amu. from 1.D
300
200
100
0
40
42
44
46
3
4
7
9
14
15
16
17



Ion 218.00 amu. from 1.D
180
160
140
120
100
80
60
40
20
0
40
42
44
46

SOURCE AFFINITY OF PATCHAWARRA TROUGH OILS

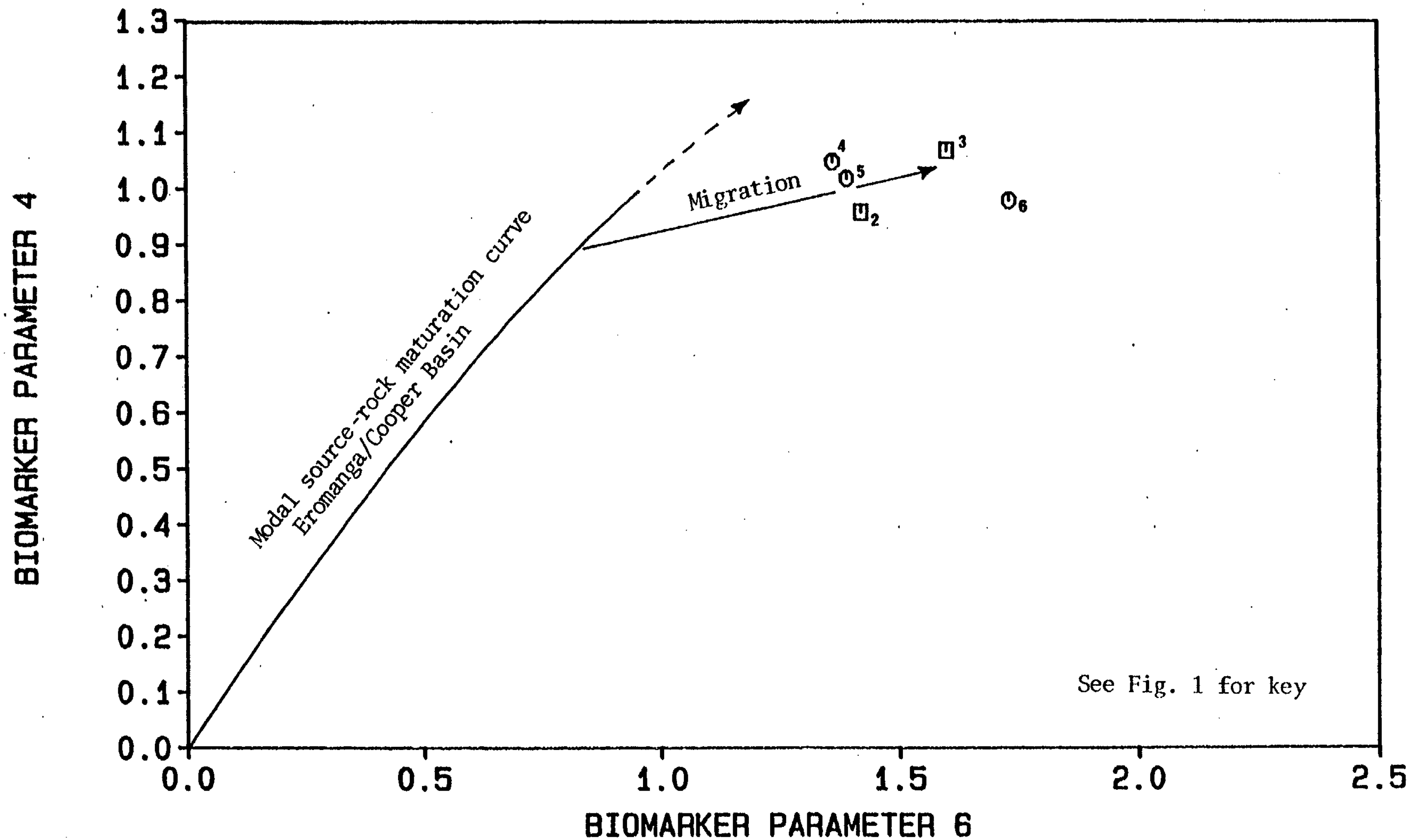
FIGURE 11



amdel

FIGURE 12

C29 STERANE MATURITY - MIGRATION PLOT
PATCHAWARRA TROUGH OILS



FIGURES 13, 14

MASS FRAGMENTOGRAMS OF AROMATIC HYDROCARBONS
IN JURASSIC AND PERMIAN OILS, PATCHAWARRA TROUGH

Fig. 13	:	m/z 155+156	dimethylnaphthalenes
		m/z 169+170	trimethylnaphthalenes
Fig. 14	:	m/z 178	phenanthrene
		m/z 191+192	methylphenanthrenes

A. Bookabourdie-1 (Birkhead)

B. Kenny-1 (Birkhead)

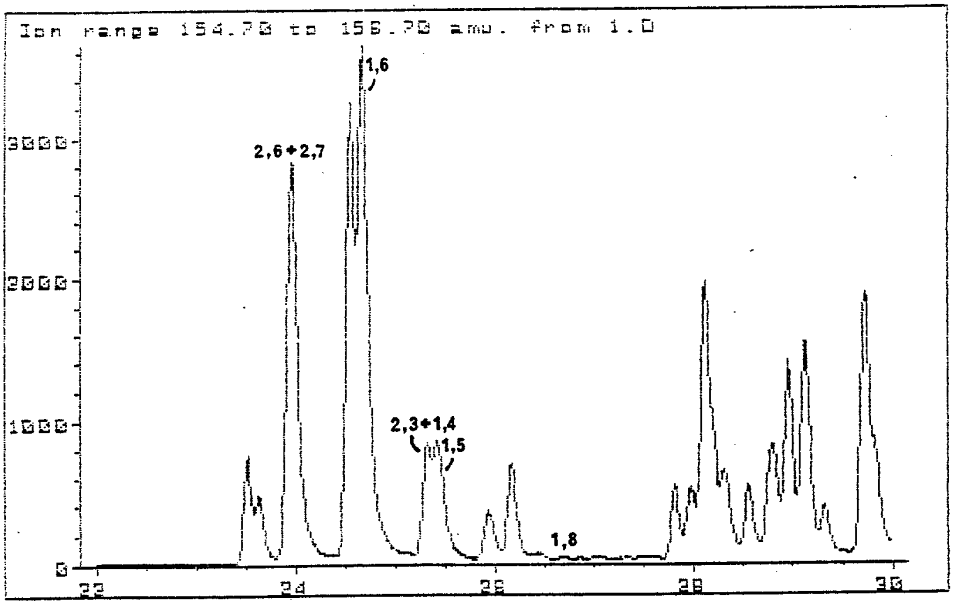
C. Moolion-1 (Poolawanna)

D. Fly Lake-1 (Tirrawarra)

E. Moorari-1 (Tirrawarra)

F. Yanpurra-1 (Tirrawarra)

FIGURE 13A


Ion range 154.70 to 156.70 amu. from 1.D
1,6
2,6+2,7
2,3+1,4
1,5
1,8
3000
2000
1000
0
23
24
25
26
30

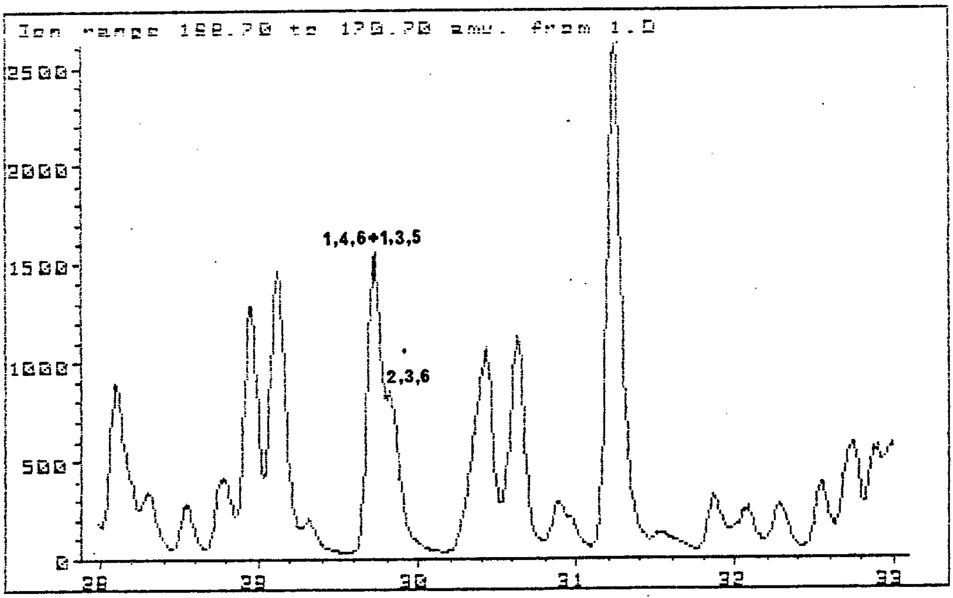
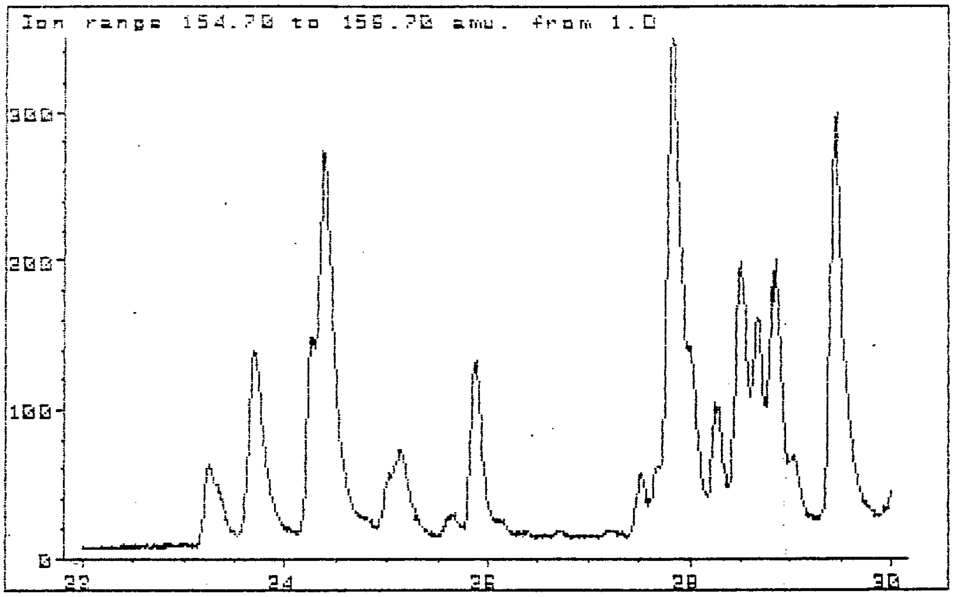

Ion range 168.70 to 170.70 amu. from 1.D
1,4,6+1,3,5
2,3,6
2500
2000
1500
1000
500
0
28
29
30
31
32
33

FIGURE 13B


Ion range 154.70 to 156.70 amu. from 1.D
300
200
100
0
22
24
26
28
30

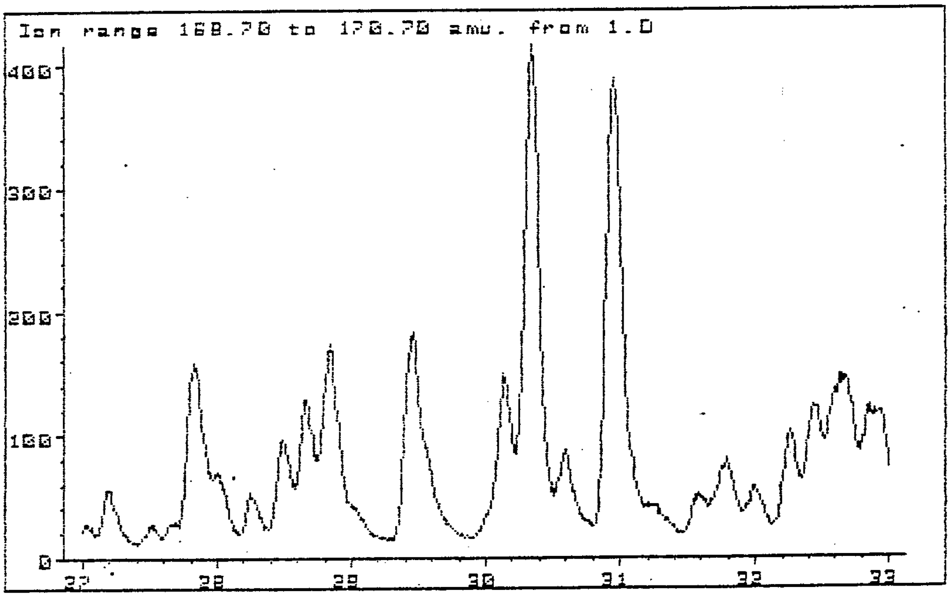
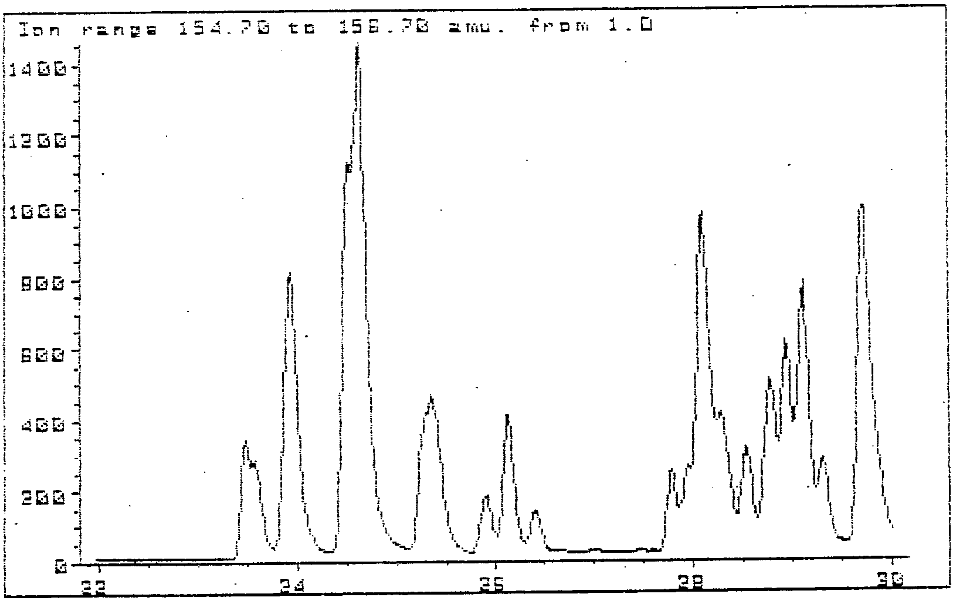

Ion range 168.70 to 170.70 amu. from 1.D
400
300
200
100
0
27
28
29
30
31
32
33

FIGURE 13C


Ion range 154.70 to 158.70 amu. from 1.0
1400
1200
1000
800
600
400
200
0

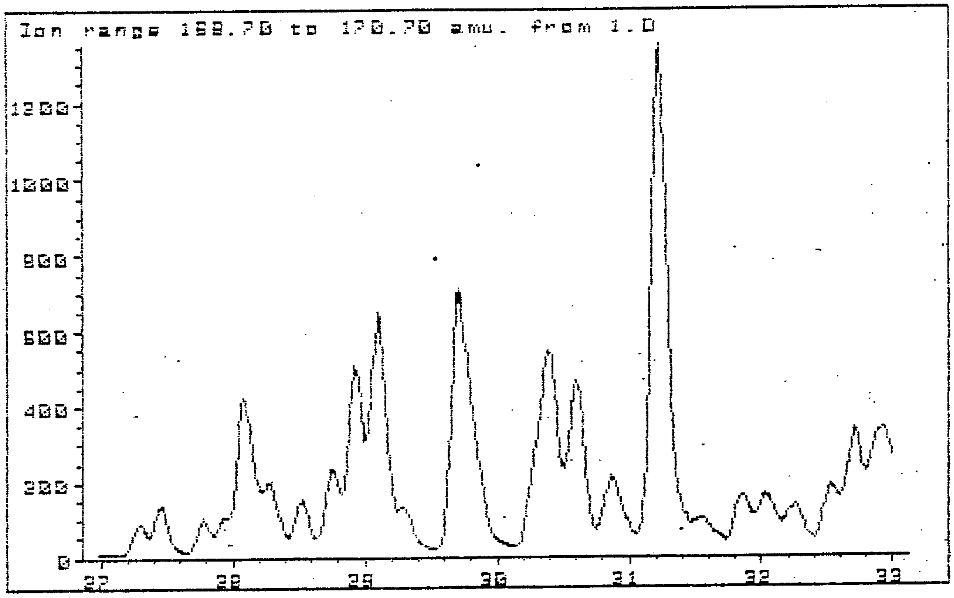
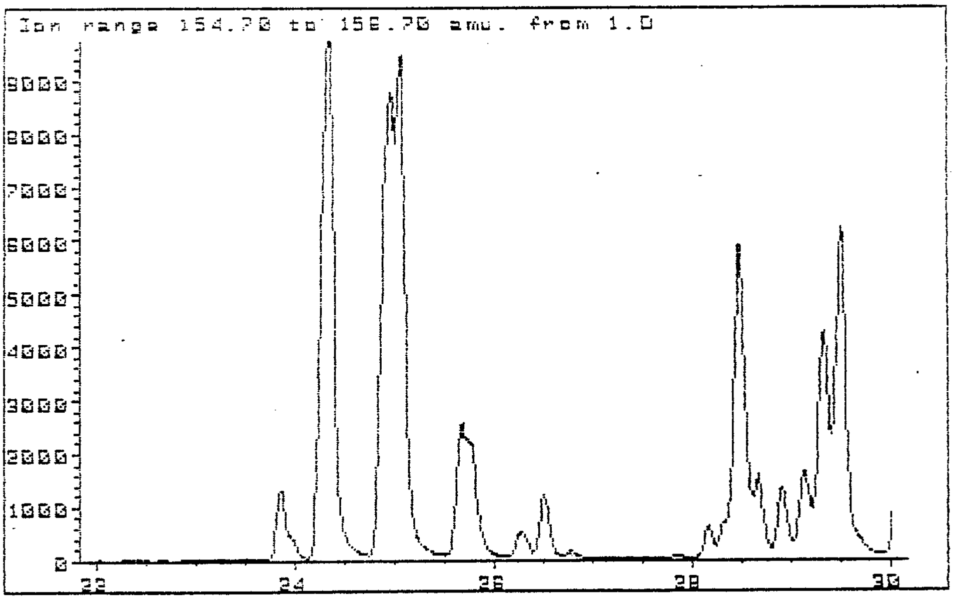

Ion range 168.70 to 170.70 amu. from 1.0
1200
1000
800
600
400
200
0

FIGURE 13D


Ion range 154.70 to 156.70 amu. from 1.D
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
22
24
26
28
30

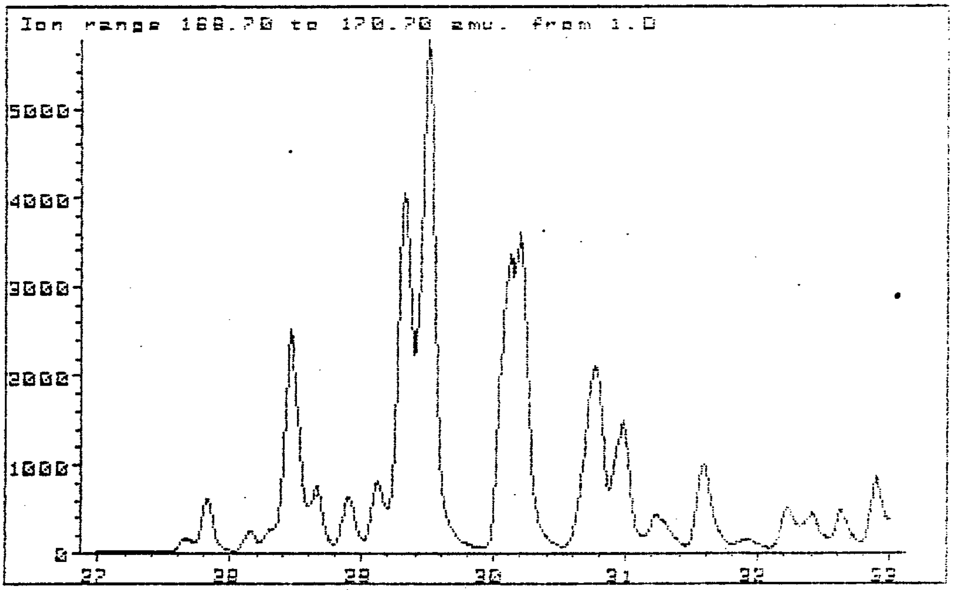
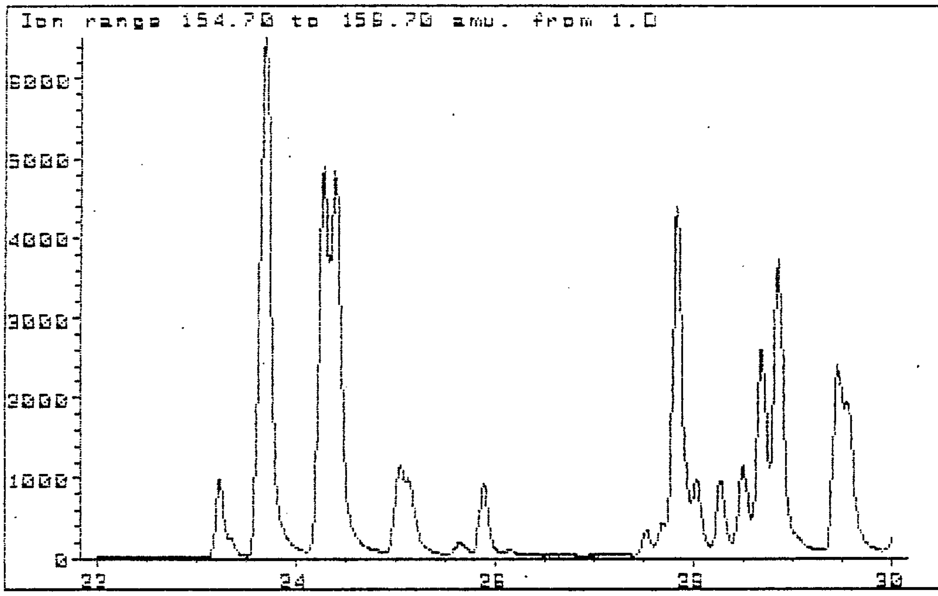
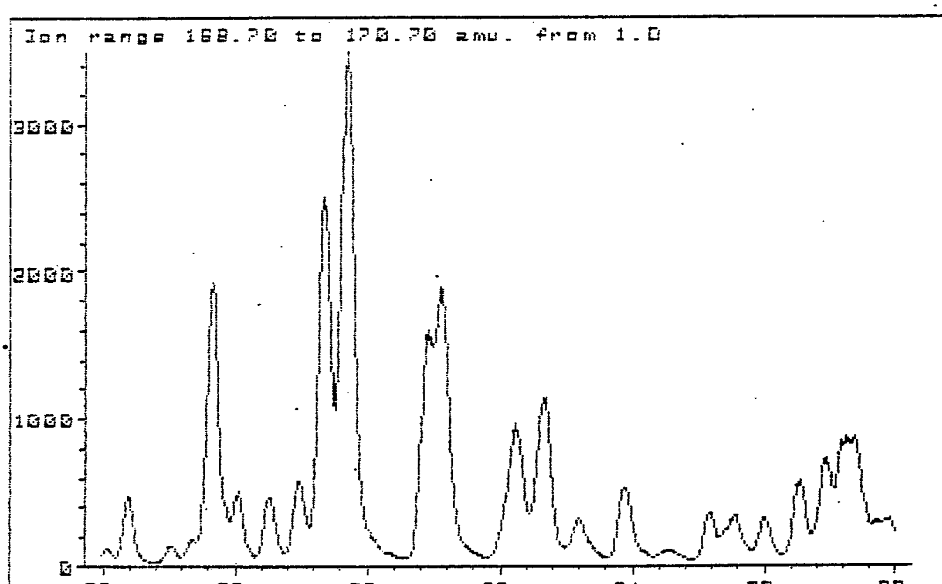

Ion range 168.70 to 170.70 amu. from 1.D
5000
4000
3000
2000
1000
0
27
28
29
30
31
32
33

FIGURE 13E

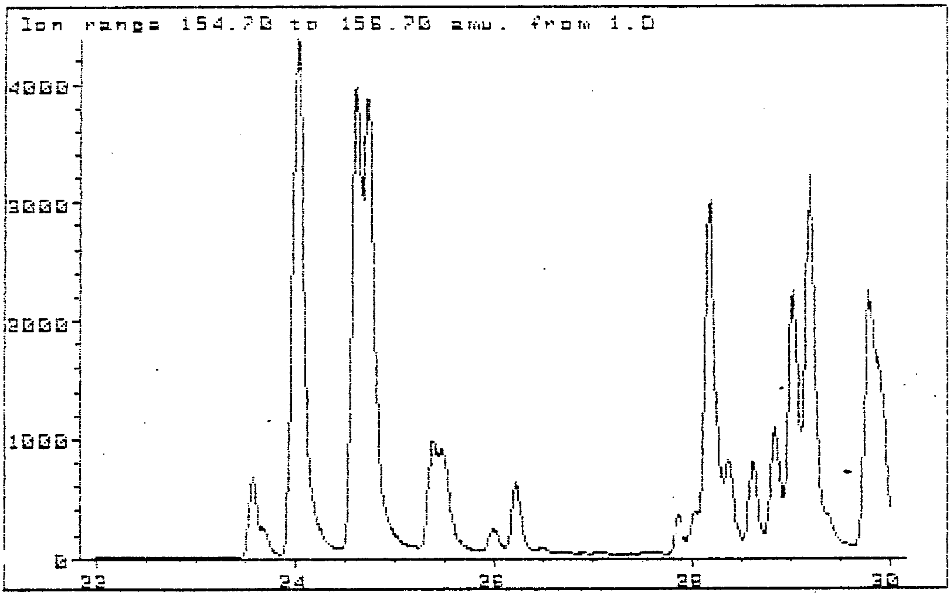


Ion range 154.70 to 156.70 amu. from 1.D
6000
5000
4000
3000
2000
1000
0
22
24
26
28
30



Ion range 168.70 to 170.70 amu. from 1.D
3000
2000
1000
0
27
28
29
30
31
32
33

FIGURE 13F


Ion range 154.70 to 156.70 amu. from 1.0
4000
3000
2000
1000
0
22
24
26
28
30

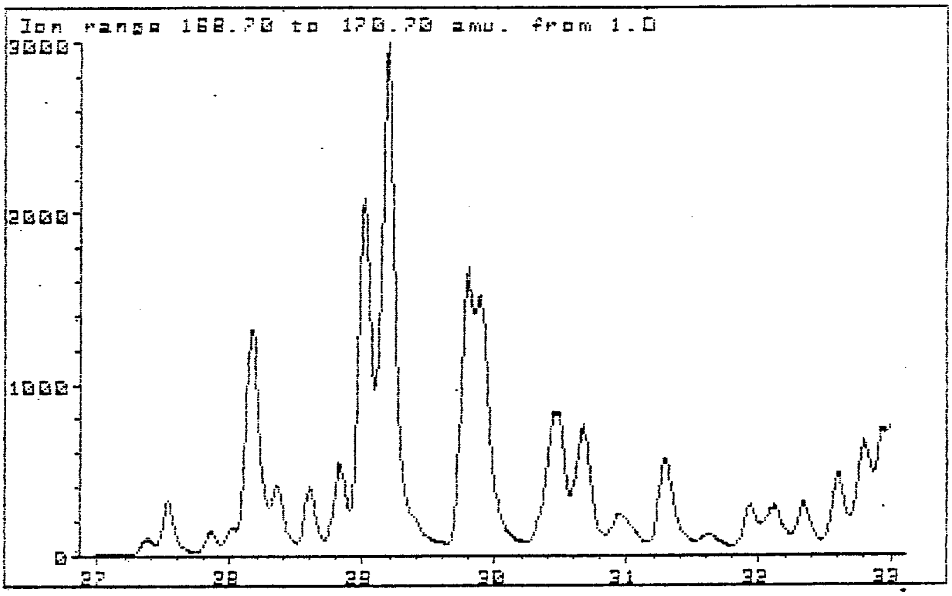
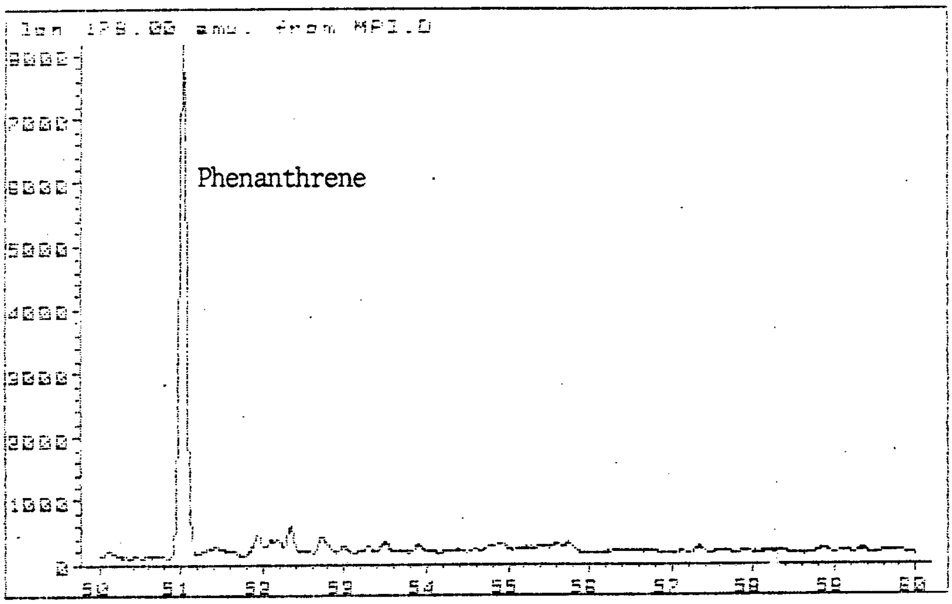

Ion range 168.70 to 170.70 amu. from 1.0
3000
2000
1000
0
27
28
29
30
31
32
33

FIGURE 14A


Ion 178.00 amu. from MPI.D
8000
7000
6000
5000
4000
3000
2000
1000
0
Phenanthrene
50
51
52
53
54
55
56
57
58
59
60

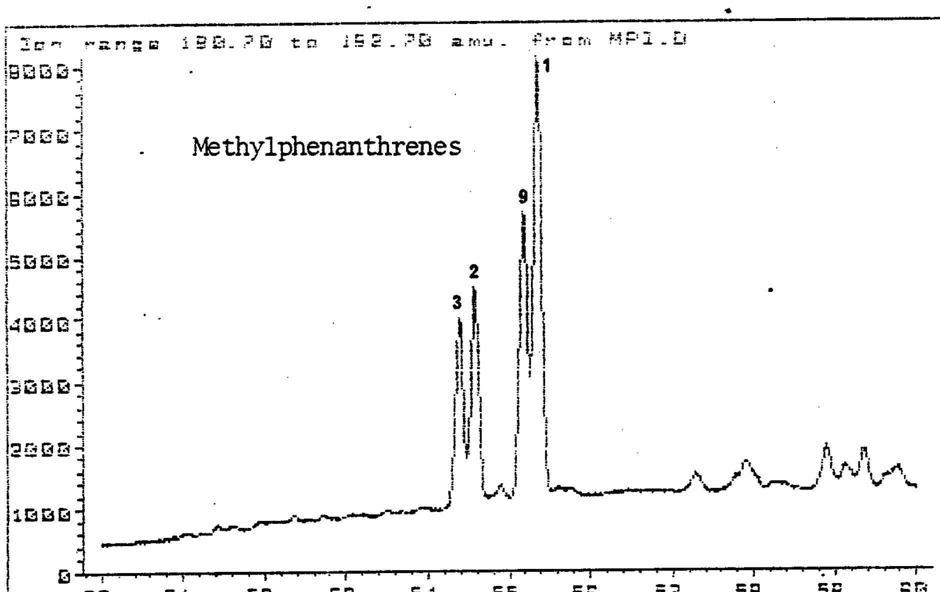
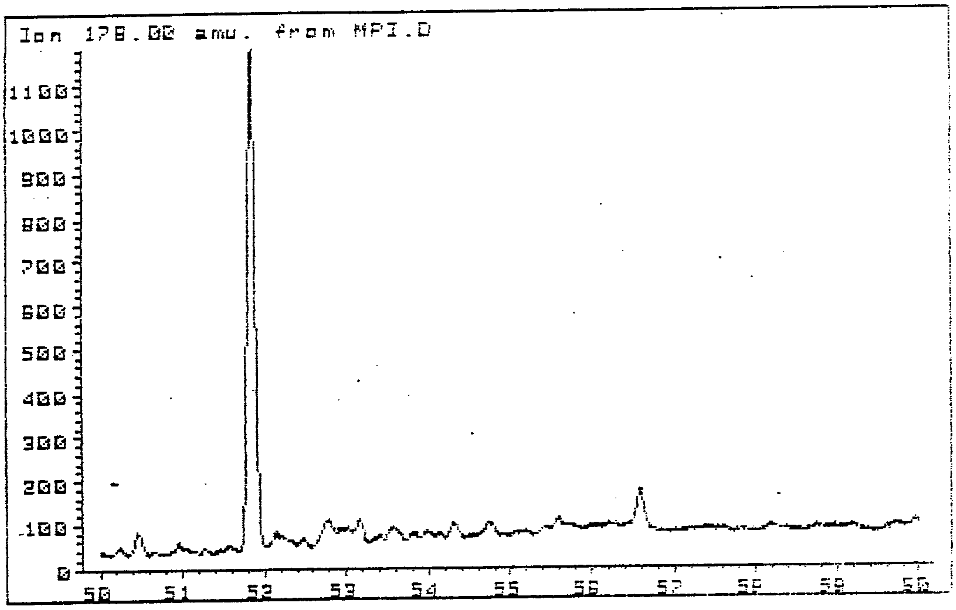
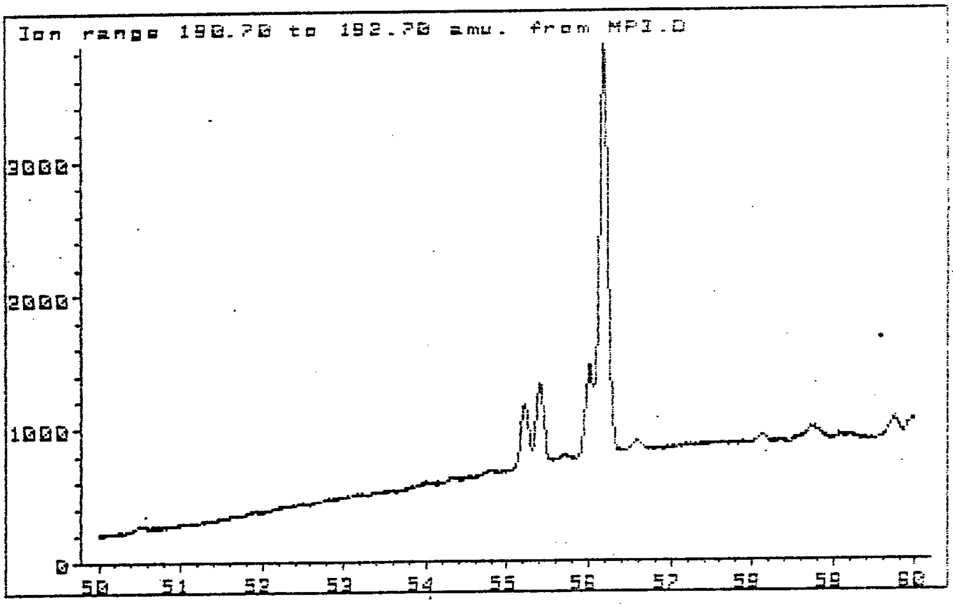

Ion range 190.70 to 192.70 amu. from MPI.D
8000
7000
6000
5000
4000
3000
2000
1000
0
Methylphenanthrenes
3
2
9
1
50
51
52
53
54
55
56
57
58
59
60

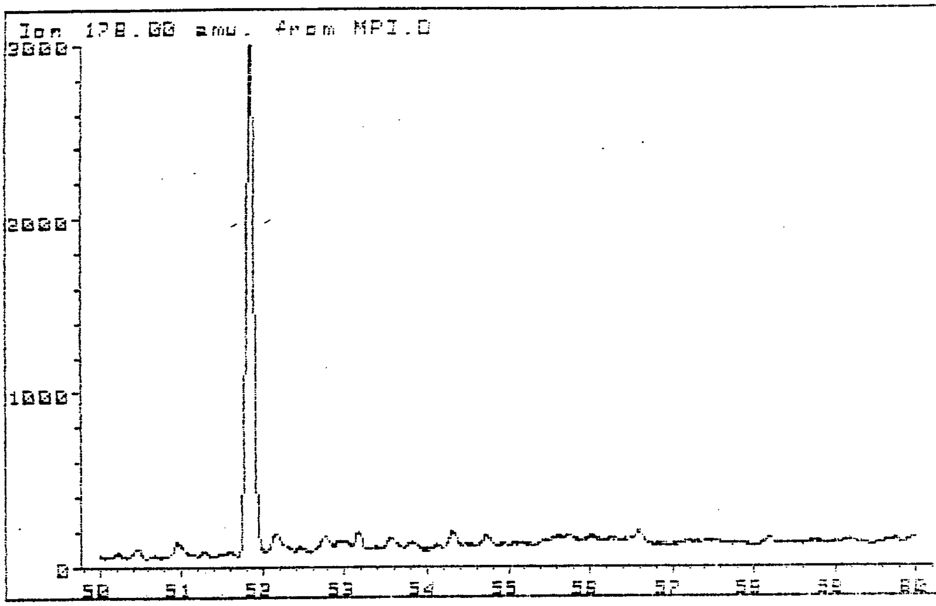
FIGURE 14B



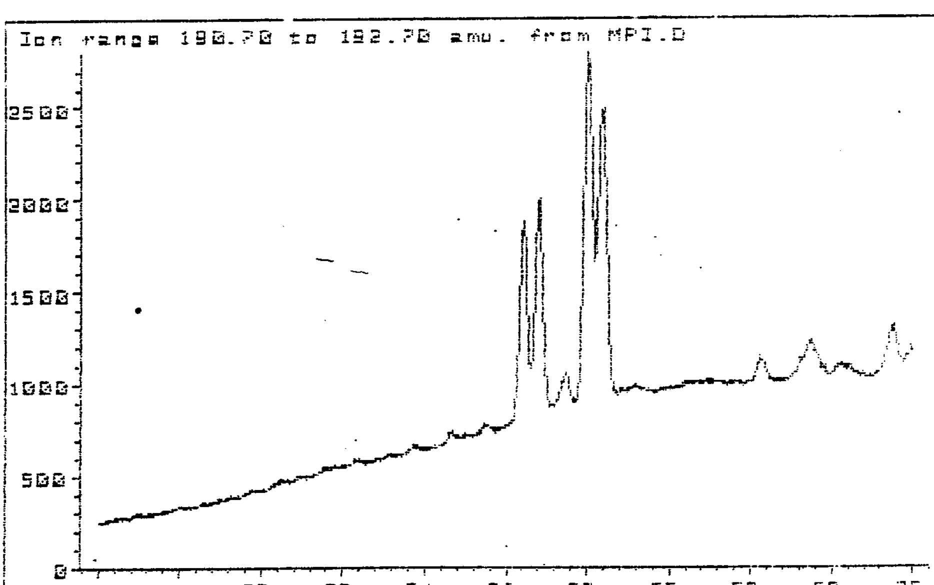


amdel

FIGURE 14C

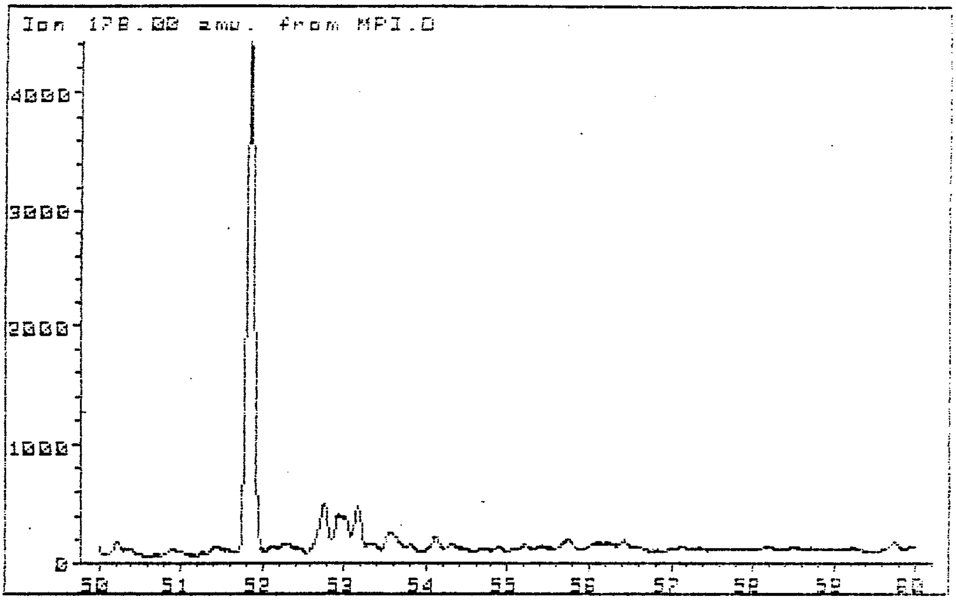


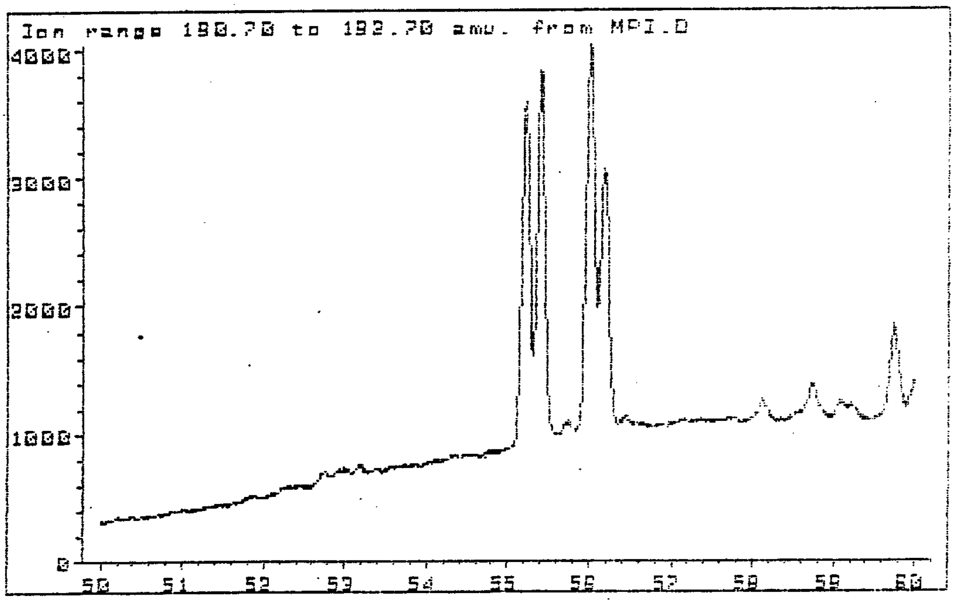
Ion 178.00 amu. from MPI.D
3000
2000
1000
0
50
51
52
53
54
55
56
57
58
59
60

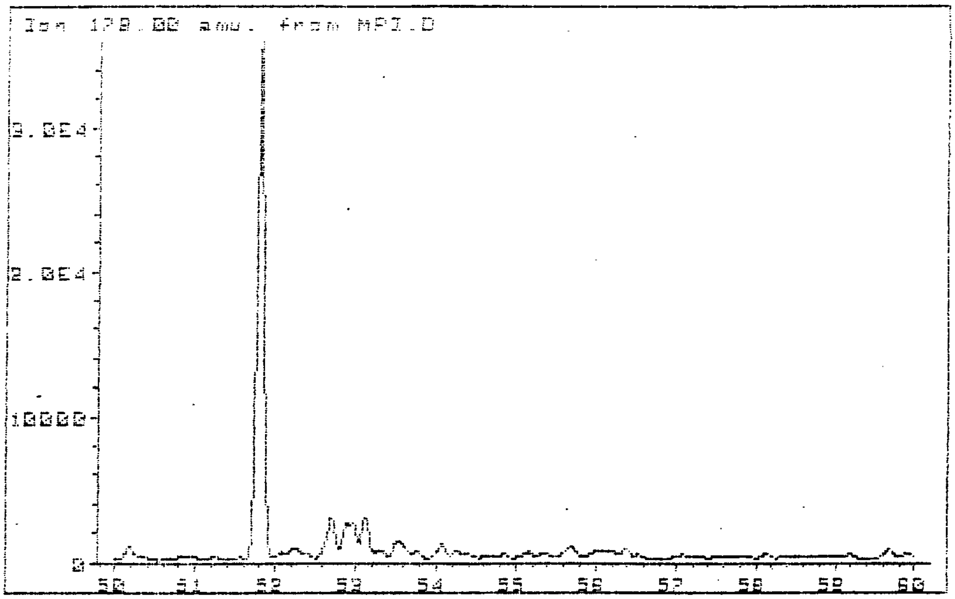


Ion range 190.70 to 192.70 amu. from MPI.D
2500
2000
1500
1000
500
0
50
51
52
53
54
55
56
57
58
59
60

FIGURE 14D


Ion 178.00 amu. from MPI.D
4000
3000
2000
1000
0
50
51
52
53
54
55
56
57
58
59
60


Ion range 180.70 to 182.70 amu. from MPI.D
4000
3000
2000
1000
0
50
51
52
53
54
55
56
57
58
59
60


Ion 178.00 amu. from MPI.D
3.0E4
2.0E4
10000
0
50
51
52
53
54
55
56
57
58
59
60

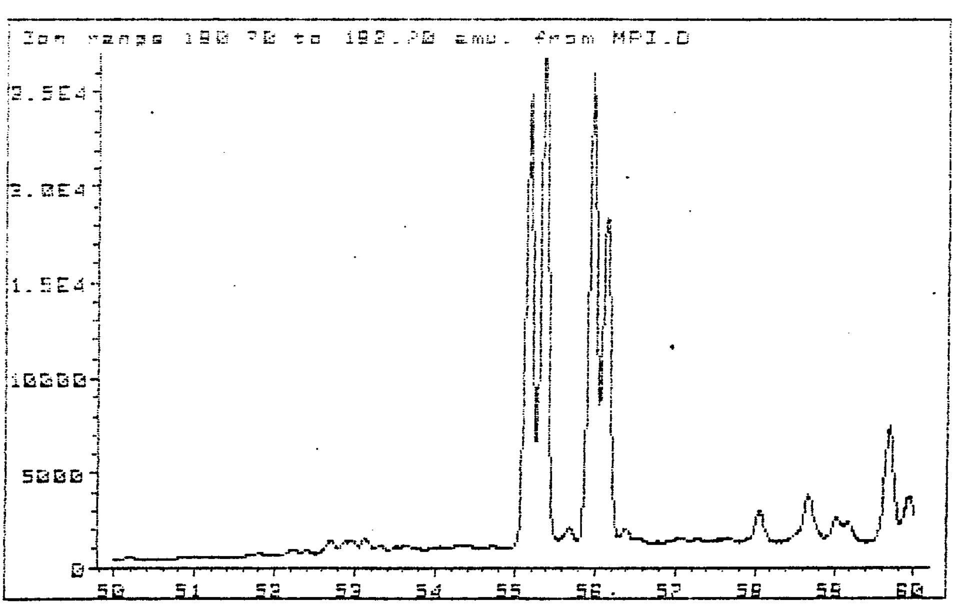
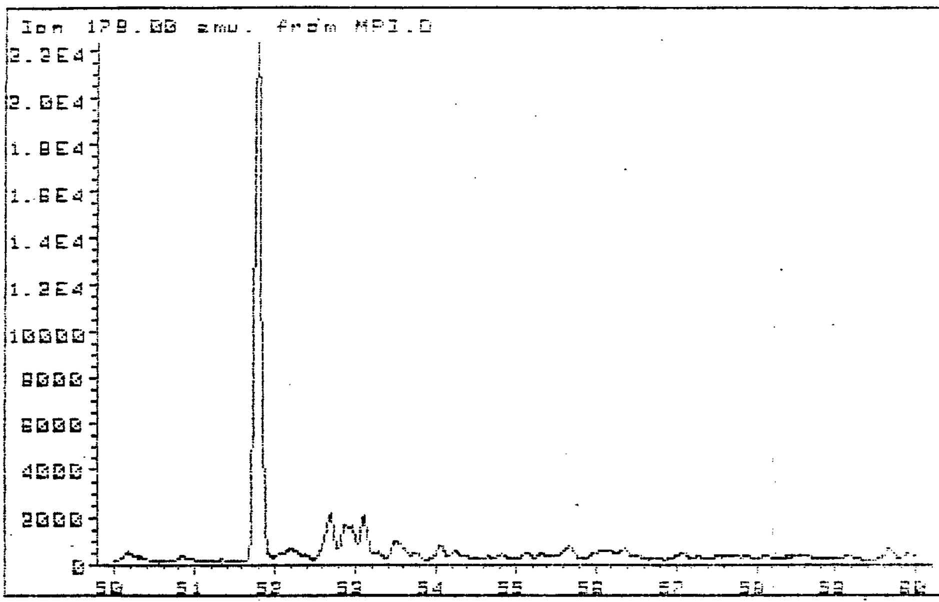
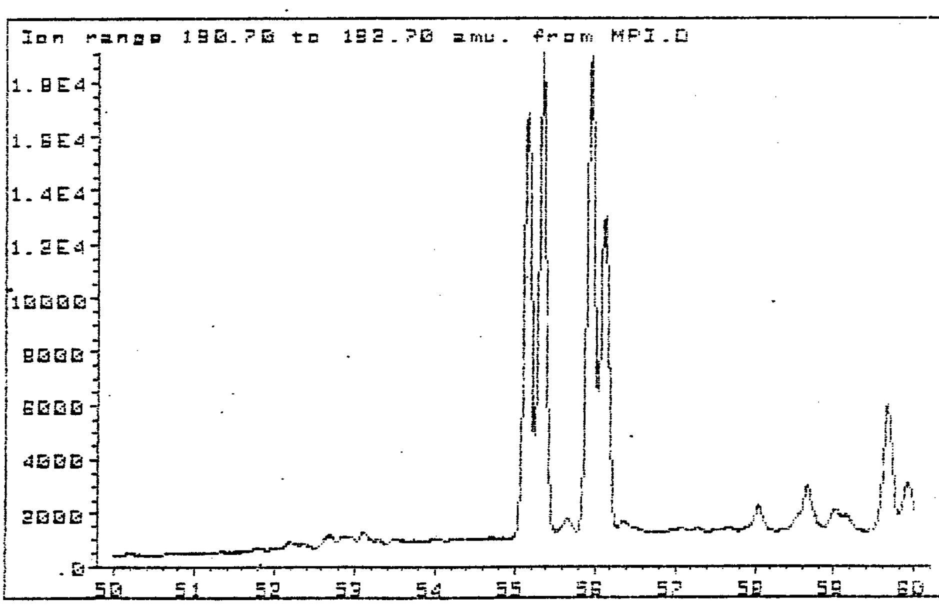

Ion range 180.70 to 182.70 amu. from MPI.D
2.5E4
2.0E4
1.5E4
10000
5000
0
50
51
52
53
54
55
56
57
58
59
60

FIGURE 14F


Ion 178.00 amu. from MPI.D
2.2E4
2.0E4
1.8E4
1.6E4
1.4E4
1.2E4
10000
8000
6000
4000
2000
0
50
51
52
53
54
55
56
57
58
59
60


Ion range 190.70 to 192.70 amu. from MPI.D
1.8E4
1.6E4
1.4E4
1.2E4
10000
8000
6000
4000
2000
.0
50
51
52
53
54
55
56
57
58
59
60

APPENDIX 1

ANALYTICAL METHODS

1. ISOLATION OF C_{12+} FRACTION

The oils were topped to 210°C by distillation.

2. LIQUID CHROMATOGRAPHY

Asphaltenes were precipitated from the topped oils by refluxing with petroleum ether prior to liquid chromatography. The asphaltene-free fraction was separated into hydrocarbons (saturates and aromatics) and polar compounds (resins) by liquid chromatography on activated alumina (sample: adsorbent ratio = 1:100). Hydrocarbons were eluted with petroleum ether/dichloromethane (50:50) and resins with methanol/dichloromethane (65:35). The saturated and aromatic hydrocarbons were then separated by liquid chromatography on activated silica gel (sample: adsorbent ratio = 1:100) eluting in turn with petroleum ether and petroleum ether/dichloromethane (91:9).

3. GAS CHROMATOGRAPHY

The saturated hydrocarbons (alkanes) were examined by gas chromatography using the following instrumental parameters:

Gas chromatograph:	Perkin Elmer Sigma 2 fitted with on-column injector
Column:	25 m x 0.3 mm fused silica, SGE QC3/BP1
Detector temperature:	300°C
Column temperature:	100-290°C at 5° per minute and held at 290°C until all peaks eluted
Quantification:	Relative concentrations of individual normal and isoprenoid alkanes were obtained by measurement of peak areas with a Perkin Elmer LCI 100 integrator

4. THIN LAYER CHROMATOGRAPHY (TLC)

Aromatic hydrocarbons were isolated from the topped oils by preparative TLC using Merck GF_{254} silica plates and distilled AR grade n-pentane as eluent. Naphthalene and anthracene were employed as reference standards for the diaromatic and triaromatic hydrocarbons, respectively. These two bands, visualised under UV light, were scraped from the plate and the aromatic hydrocarbons redissolved in dichloromethane.

5. GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)

Naphthenes (branched/cyclic alkanes) were isolated from the oils by urea adduction of their saturated hydrocarbons.

GC-MS analysis of the naphthenes (urea non-adduct) was undertaken in the selected ion detection (SID) mode. The instrument and its operating parameters were as follows:

System:	Hewlett Packard (HP) 5790 GC coupled with a HP5970A mass selective detector and HP9816S data system
Column:	25 m x 0.34 mm i.d. HP Ultra Performance cross-linked methyl-silicone phase fused silica, interfaced directly to source of mass spectrometer
Injector:	Carlo Erba on-column injector
Carrier gas:	He at 0.2 kg/cm^2 head pressure
Column temperature:	35-280°C at 5°/min
Mass spectrometer conditions:	70 eV; 9-ion selected ion monitoring, 50 millisec dwell time for each ion

The following mass fragmentograms were recorded:

m/z	Compound Type
123	sesquiterpanes (incl. drimanes), diterpanes
177	demethylated triterpanes
183	acyclic alkanes (incl. isoprenoids)
191	triterpanes (incl. hopanes, moretanes)
205	methyl triterpanes
217	steranes
218	steranes
231	4-methyl steranes
259	diasteranes, diterpanes

Integration of the m/z 191 and 217 mass fragmentograms allowed calculation of the biomarker ratios in Tables 3 and 4.

The di- and triaromatic hydrocarbons isolated from the deasphaltened oil by thin layer chromatography were also analysed by GC-MS.

Instrumental conditions employed for the SID GC-MS of the aromatics are described above, except that a HP Ultra 2 cross-linked phenylmethylsilicone phase fused column was used.

The following mass fragmentograms were recorded:

m/z	Compound Type
155+156	dimethylnaphthalenes
169+170	trimethylnaphthalenes
178	phenanthrene
191+192	methylphenanthrenes

The area of the phenanthrene peak was multiplied by a response factor of 0.667 when calculating the methylphenanthrene index (MPI).

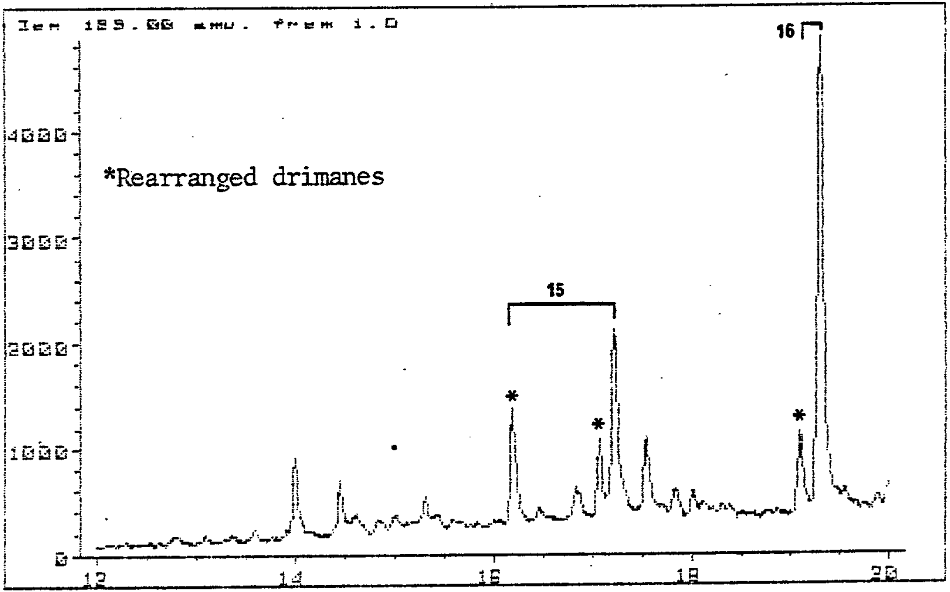
APPENDIX 2

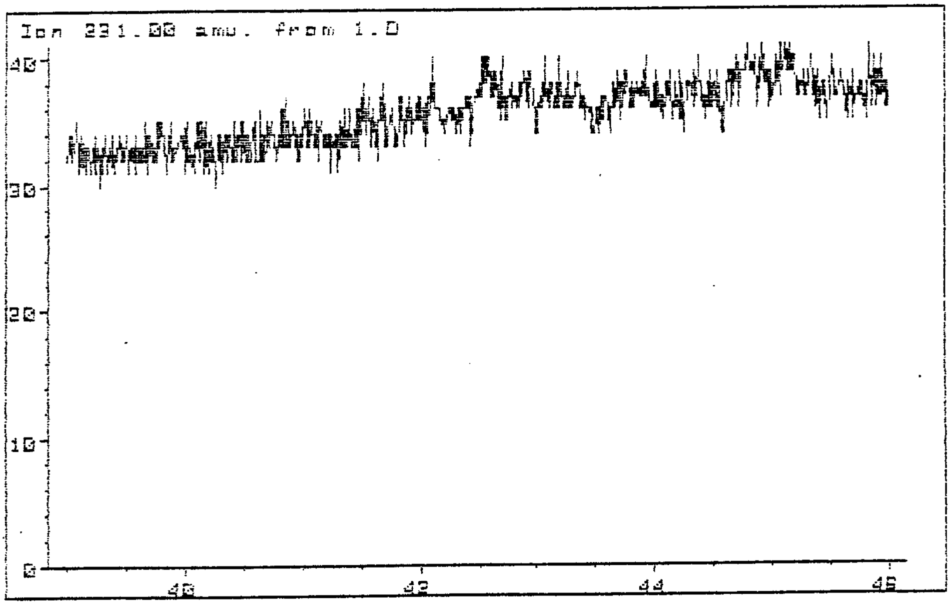
OTHER MASS FRAGMENTOGRAMS OF NAPHTHENES IN JURASSIC AND PERMIAN OILS, PATCHAWARRA TROUGH

m/z 123	drimanes
m/z 177	hopanes, demethylated hopanes
m/z 205	methylhopanes
m/z 231	4-methylsteranes
m/z 259	diasteranes

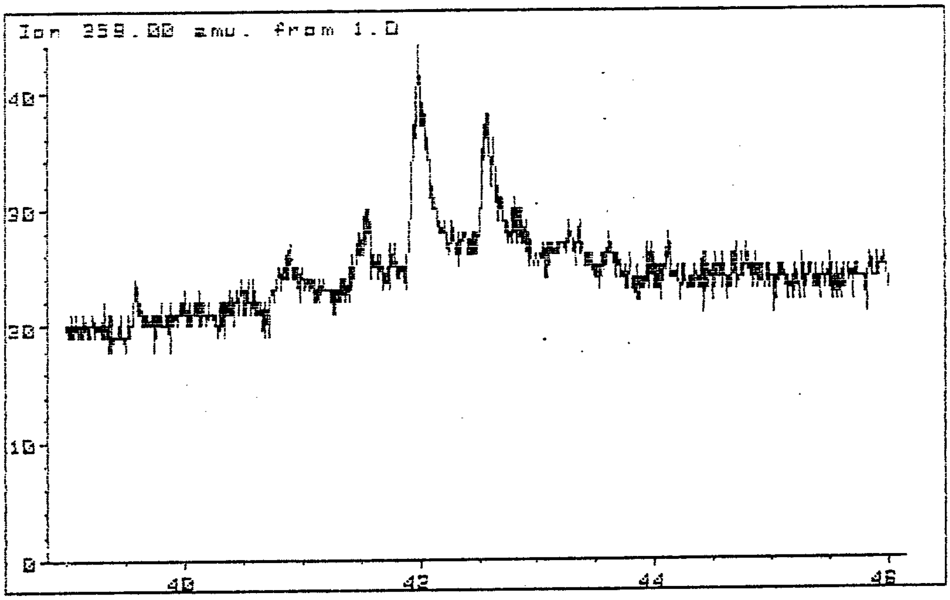
BOOKABOURDIE-1 (Birkhead)

AMDEL Sample MS-310

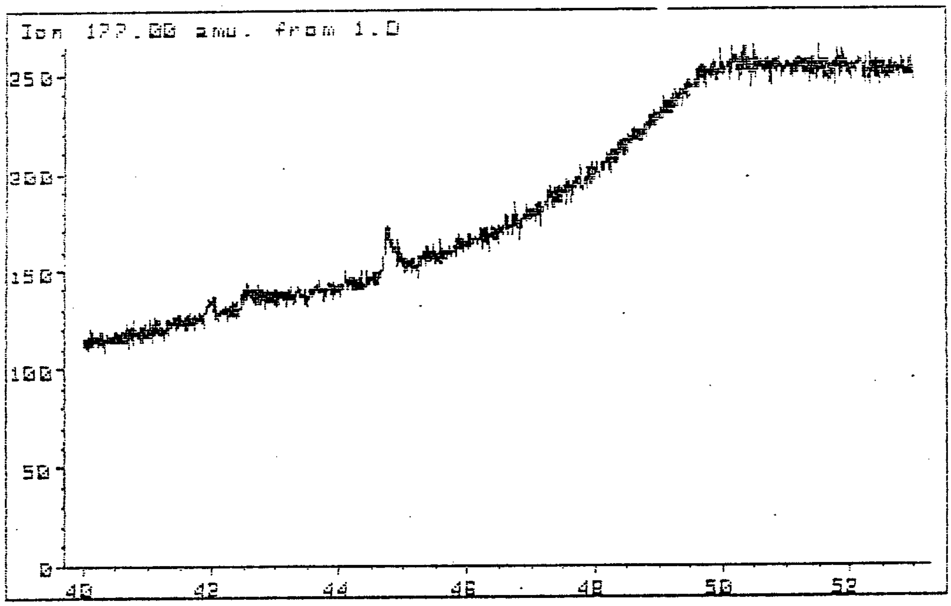

*Rearranged drimanes
15
16
*
4000
3000
2000
1000
0
12
14
16
18
20

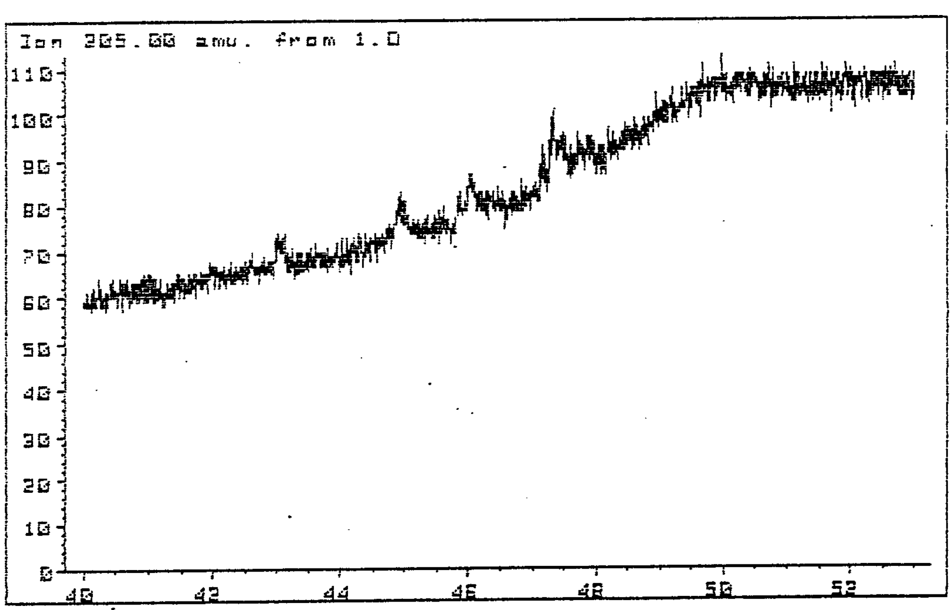


Ion 231.00 amu. from 1.D
40
30
20
10
0
40
42
44
46



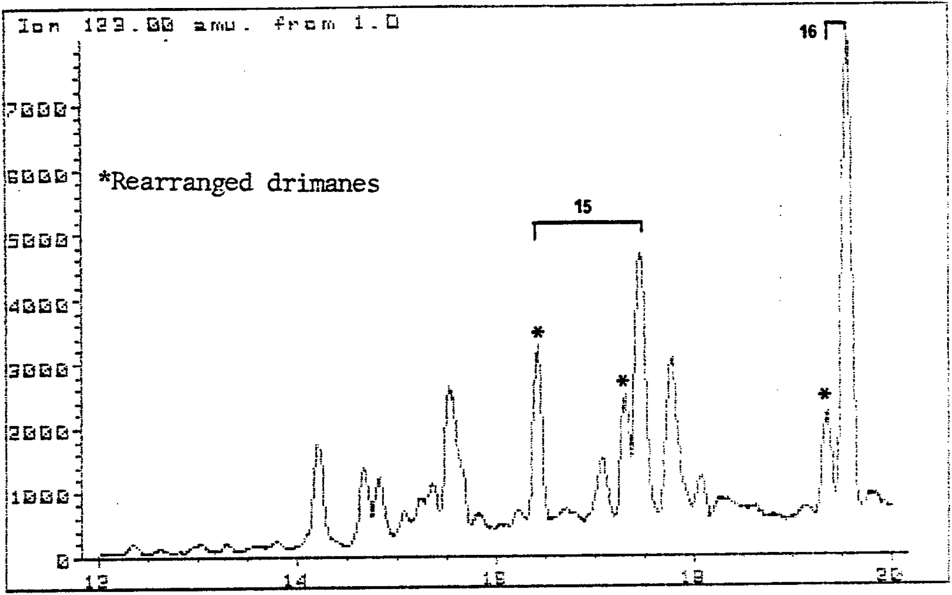
Ion 259.00 amu. from 1.D
40
30
20
10
0
40
42
44
46


Ion 177.00 amu. from 1.D
250
200
150
100
50
0
40
42
44
46
48
50
52

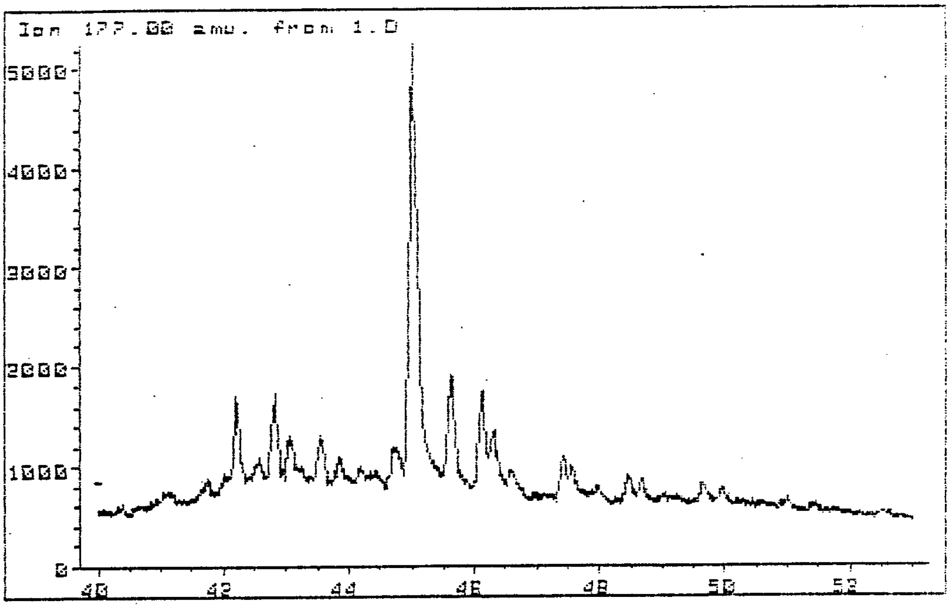

Ion 205.00 amu. from 1.D
110
100
90
80
70
60
50
40
30
20
10
0
40
42
44
46
48
50
52

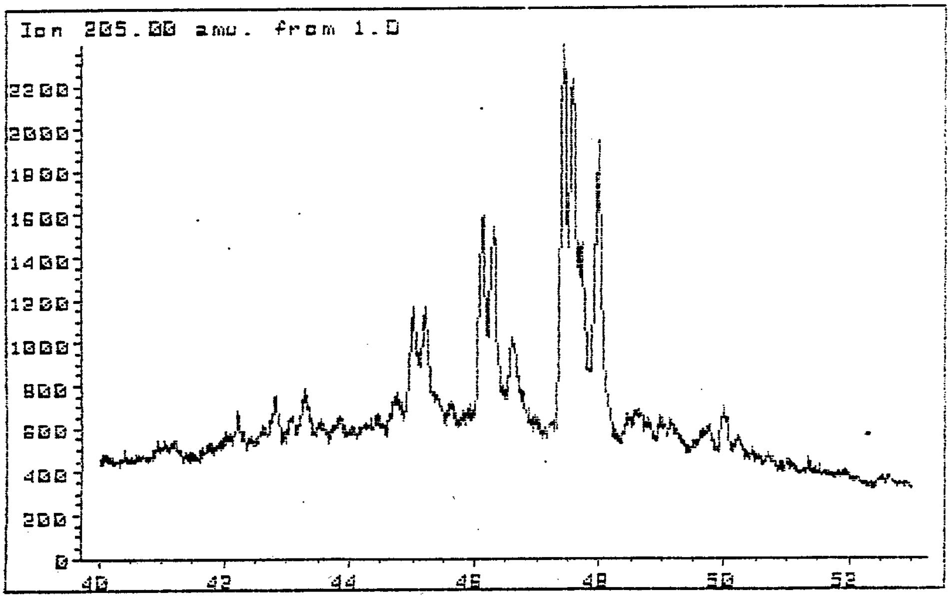
KENNY-1 (Birkhead)

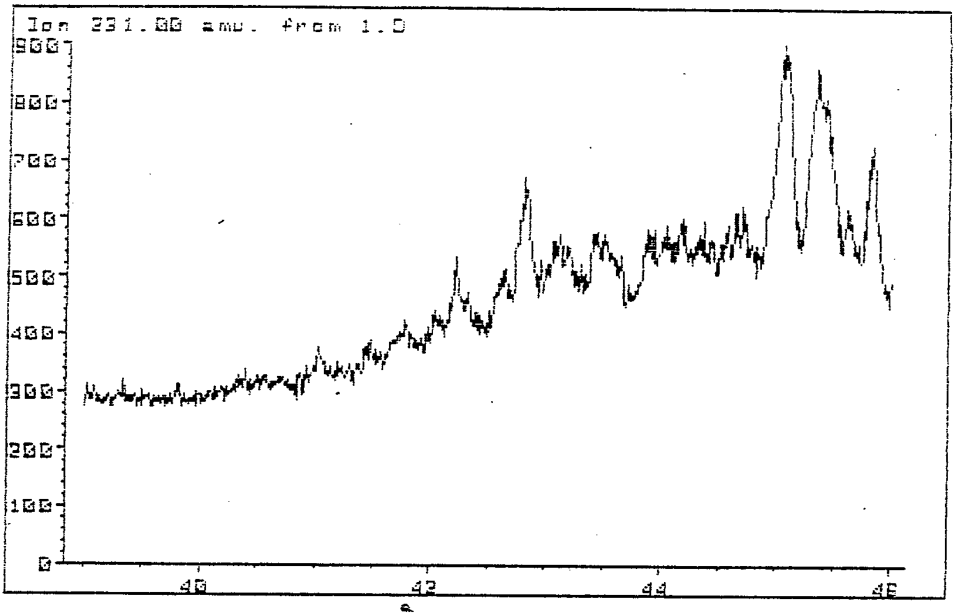
AMDEL Sample MS-311

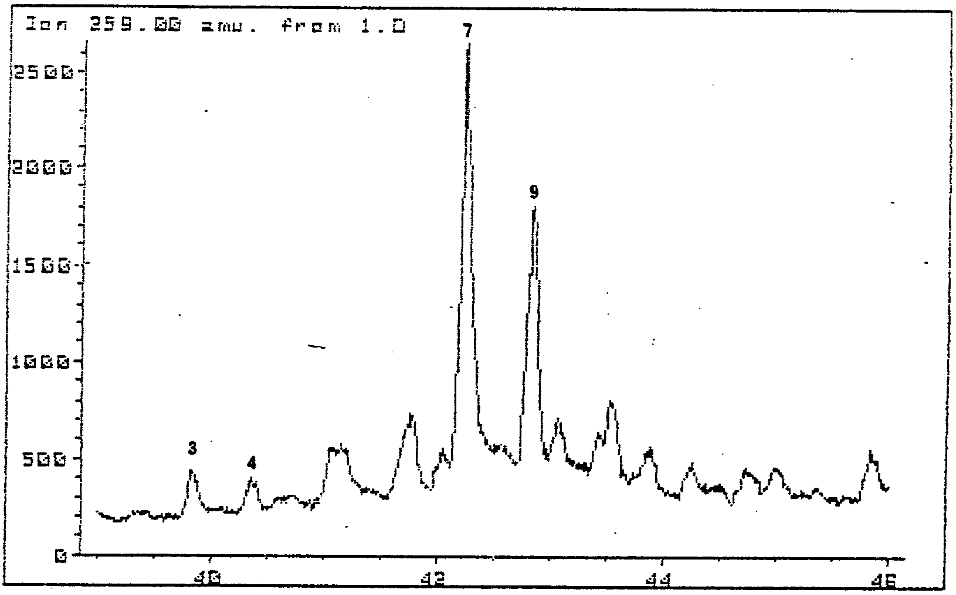


Ion 123.00 amu. from 1.0
16
*Rearranged drimanes
15
*
*
*
7000
6000
5000
4000
3000
2000
1000
0
12
14
16
18
20


Ion 177.00 amu. from 1.D
5000
4000
3000
2000
1000
0
40
42
44
46
48
50
52

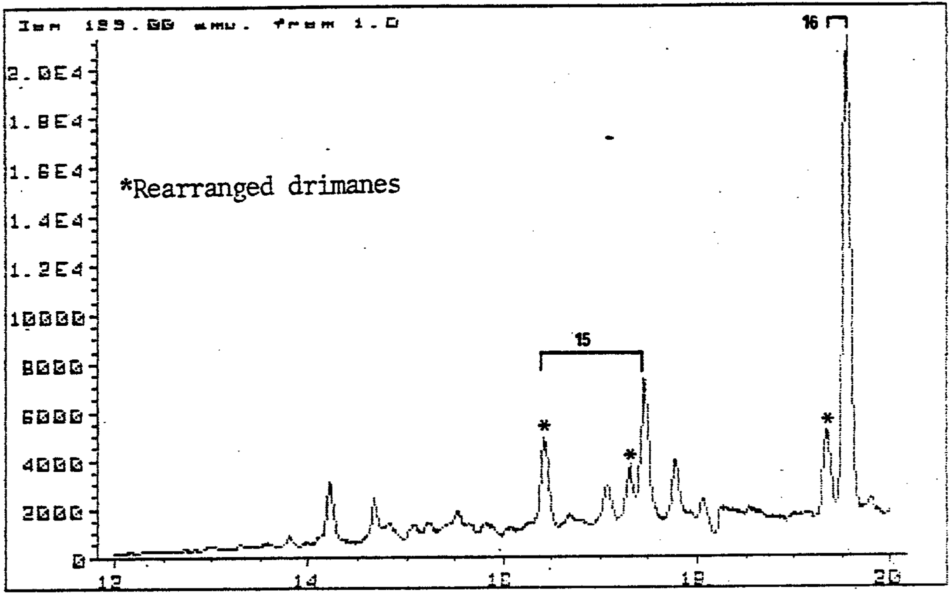

Ion 205.00 amu. from 1.D
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
40
42
44
46
48
50
52


Ion 231.00 amu. from 1.D
900
800
700
600
500
400
300
200
100
0
40
42
44
46

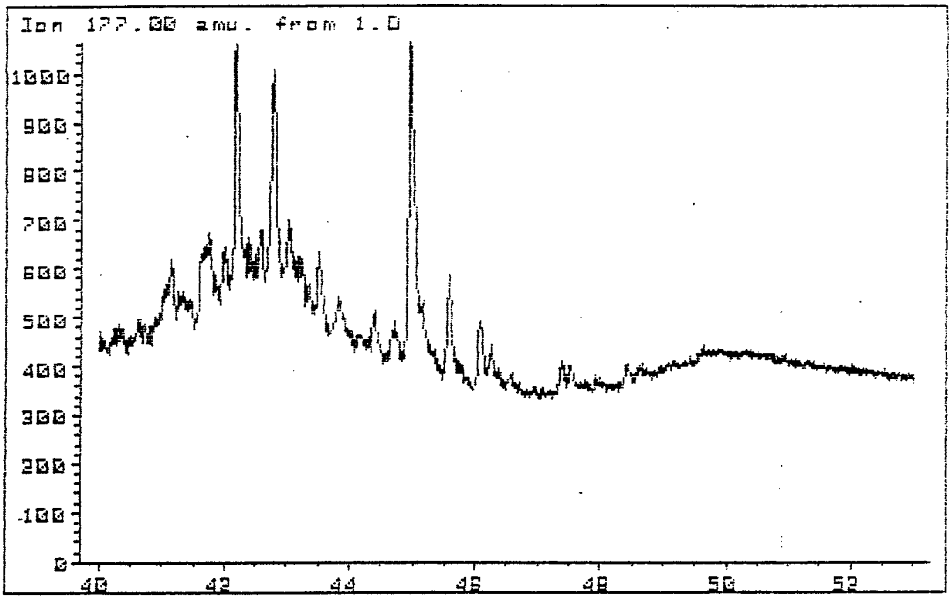

Ion 259.00 amu. from 1.D
2500
2000
1500
1000
500
0
40
42
44
46
7
9
3
4

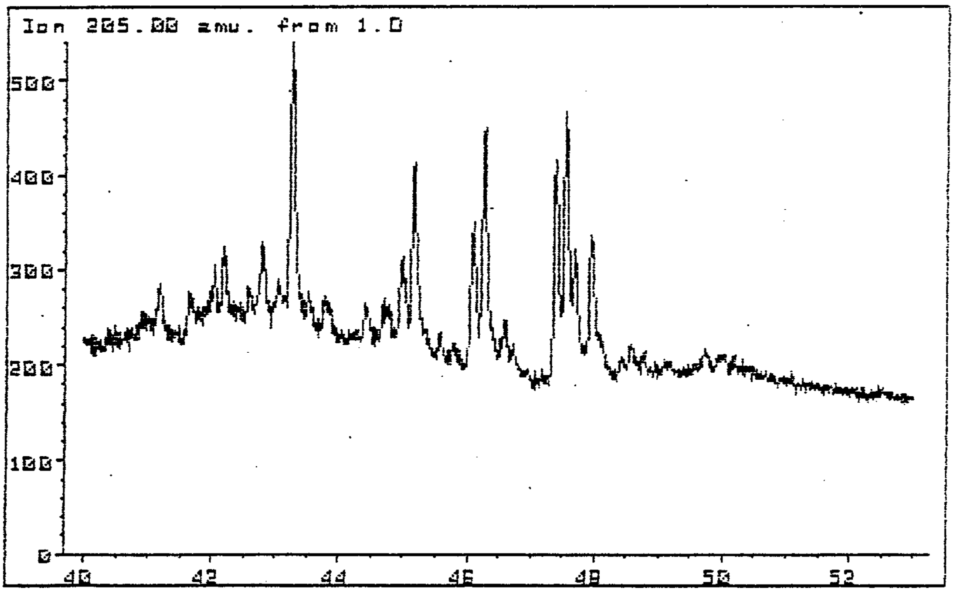
MOOLION-1 (Poolawanna)

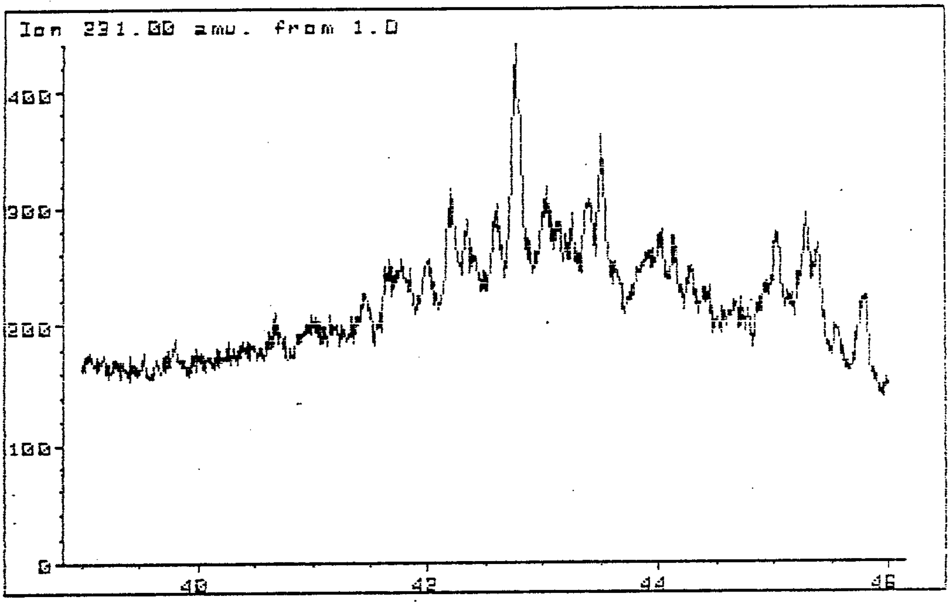
AMDEL Sample MS-312

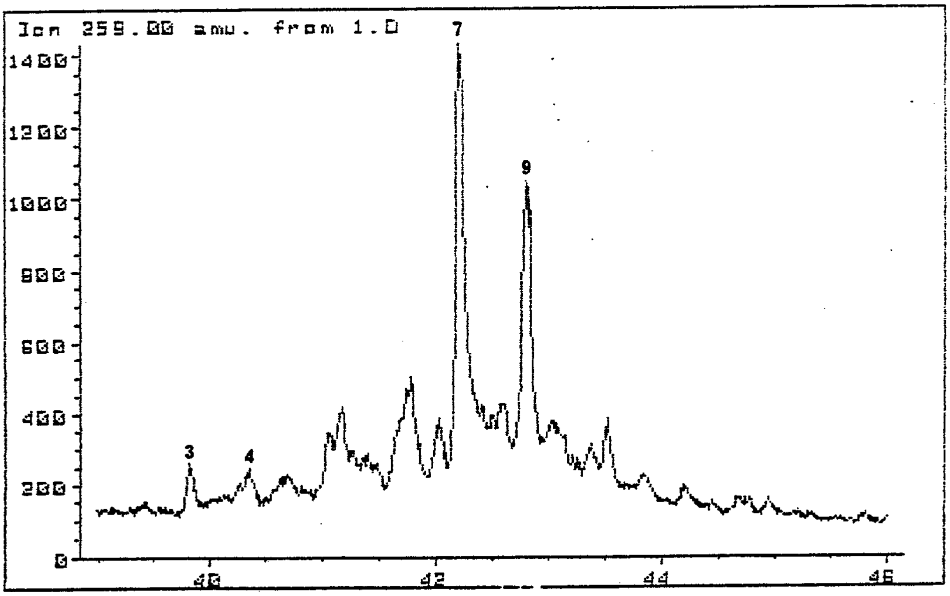


16
2.0E4
1.8E4
1.6E4
1.4E4
1.2E4
10000
8000
6000
4000
2000
0
*Rearranged drimanes
15
*
*
*
12
14
16
18
20


Ion 177.00 amu. from 1.D
1000
900
800
700
600
500
400
300
200
100
0
40
42
44
46
48
50
52

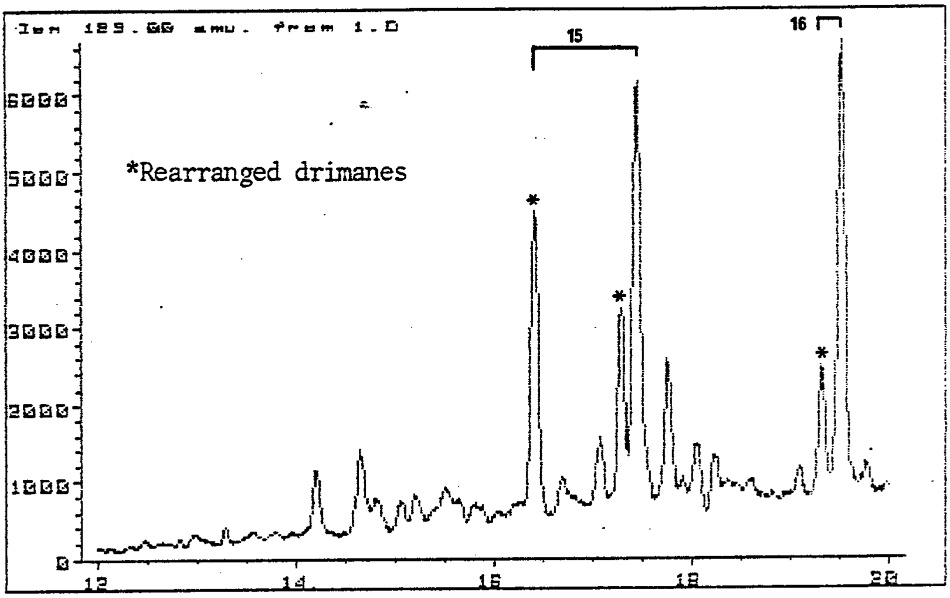

Ion 205.00 amu. from 1.D
500
400
300
200
100
0
40
42
44
46
48
50
52

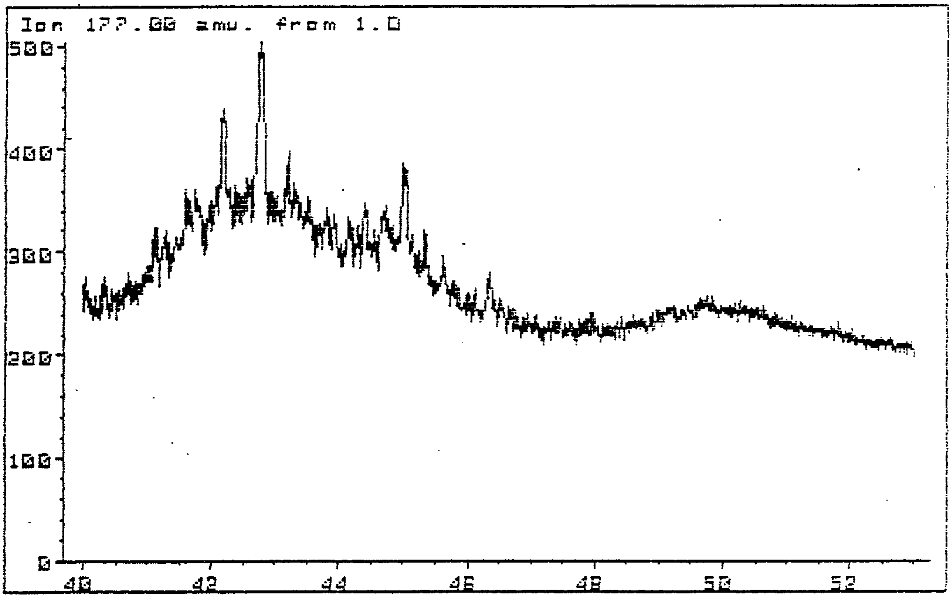

Ion 231.00 amu. from 1.0
400
300
200
100
0
40
42
44
46

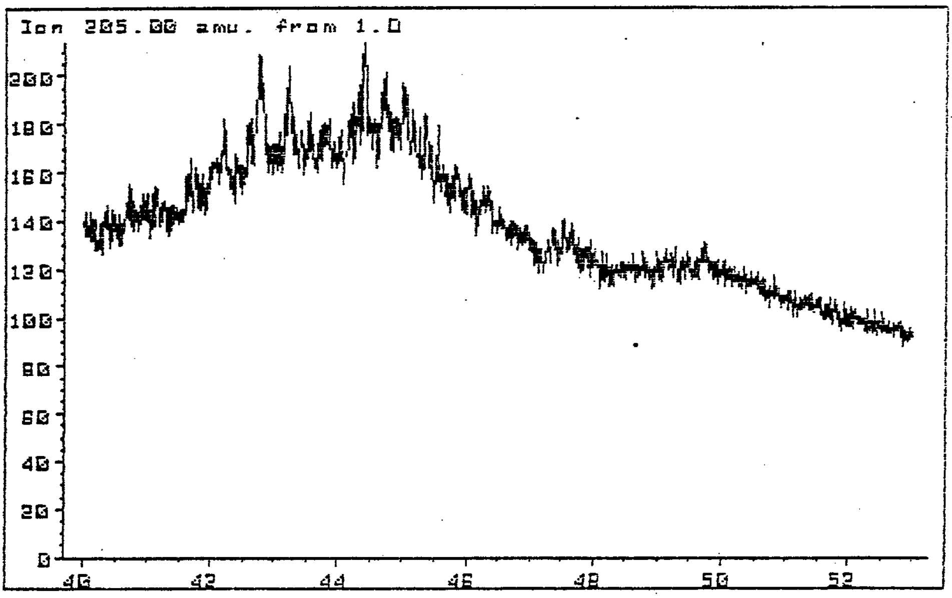

Ion 259.00 amu. from 1.0
7
9
3
4
1400
1200
1000
800
600
400
200
0
40
42
44
46

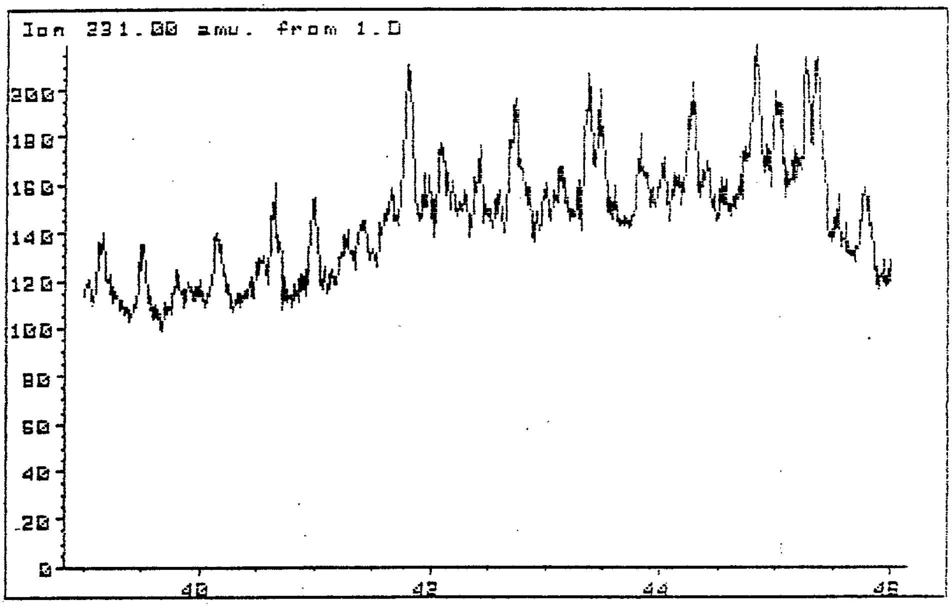
FLY LAKE-1 (Tirrawarra)

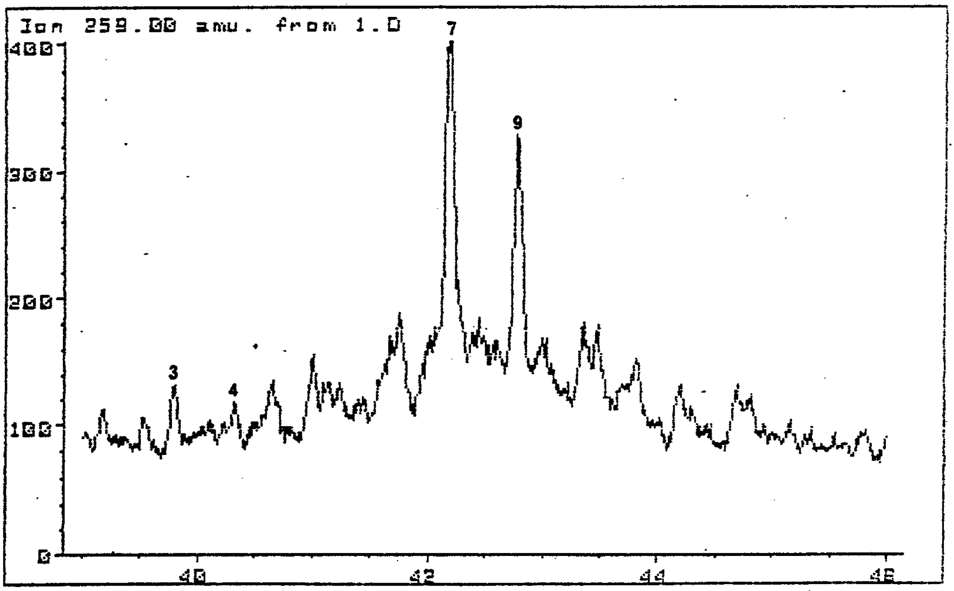
AMDEL Sample MS-313


Ion 123.00 amu. from 1.D
15
16
*Rearranged drimanes
6000
5000
4000
3000
2000
1000
0
12
14
16
18
20


Ion 177.00 amu. from 1.0
500
400
300
200
100
0
40
42
44
46
48
50
52

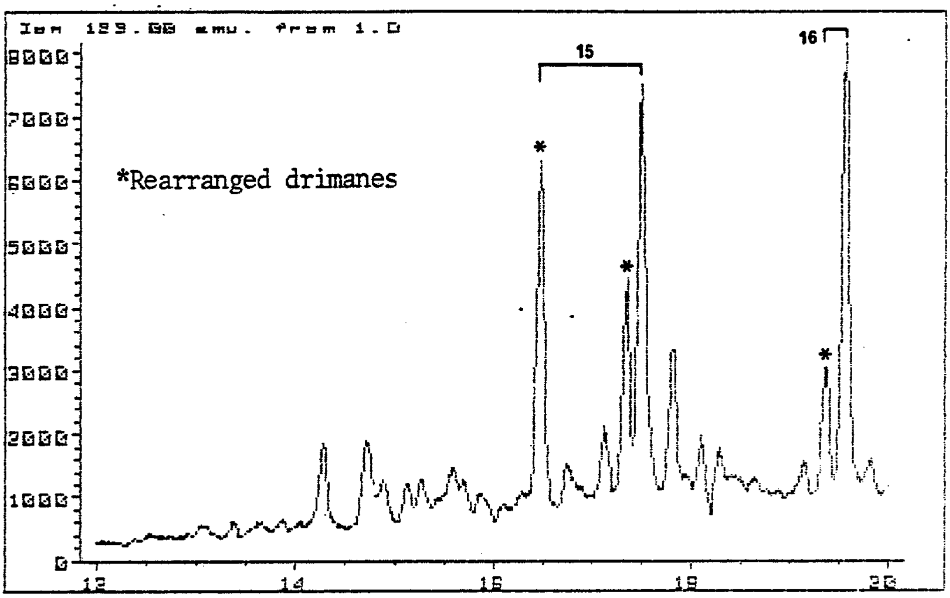

Ion 205.00 amu. from 1.0
200
180
160
140
120
100
80
60
40
20
0
40
42
44
46
48
50
52

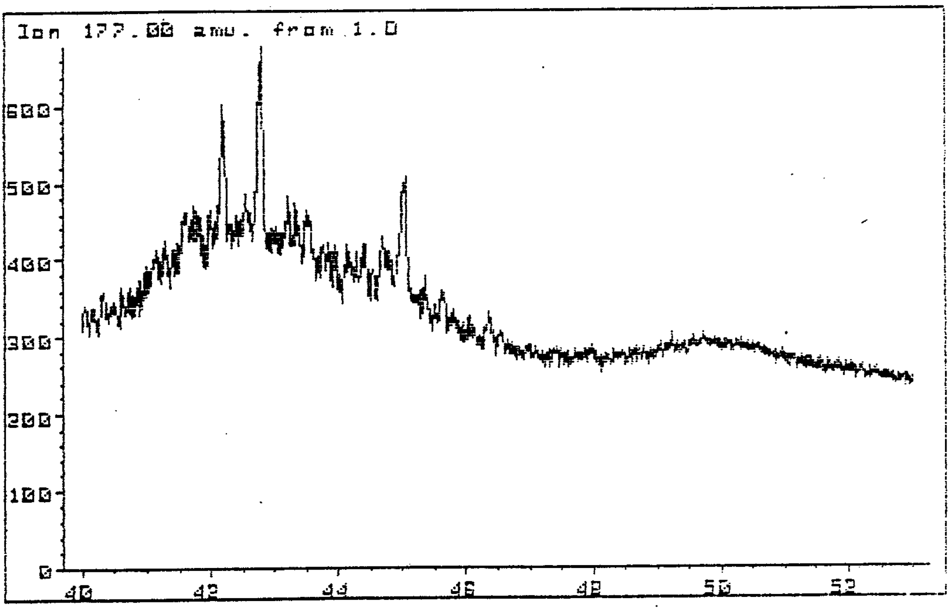

Ion 231.00 amu. from 1.D
200
180
160
140
120
100
80
60
40
20
0
40
42
44
46

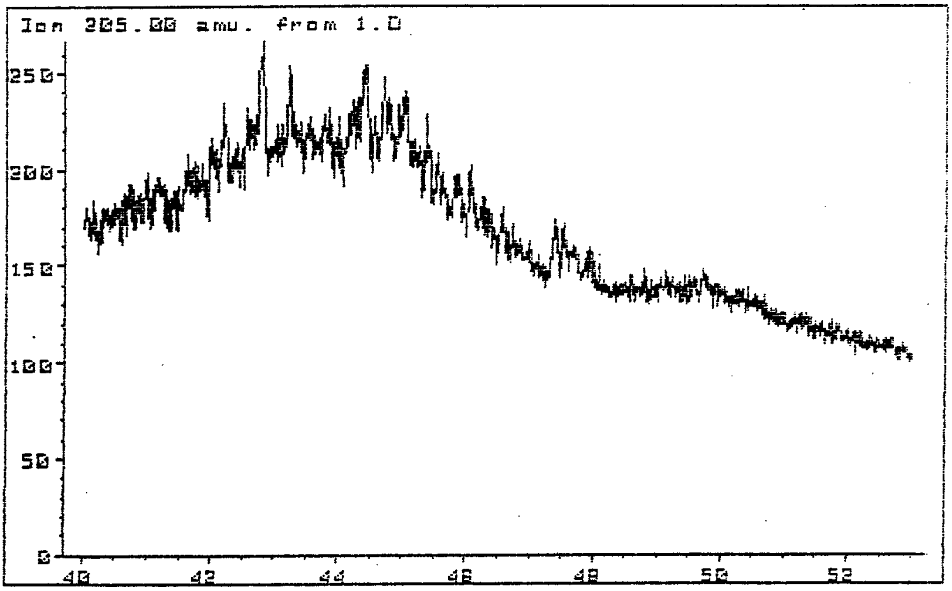

Ion 259.00 amu. from 1.D
400
300
200
100
0
40
42
44
46
7
9
3
4

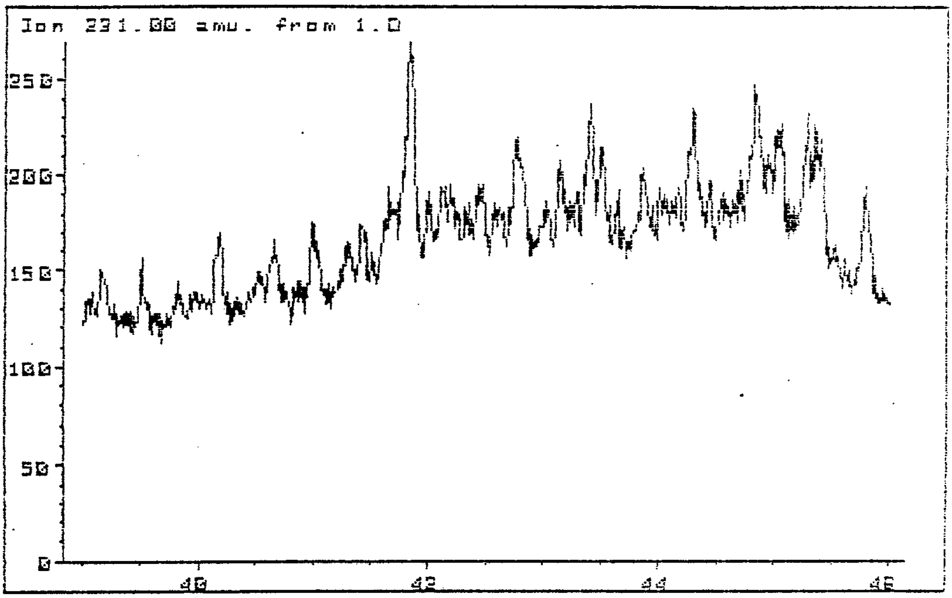
MOORARI-1 (Tirrawarra)

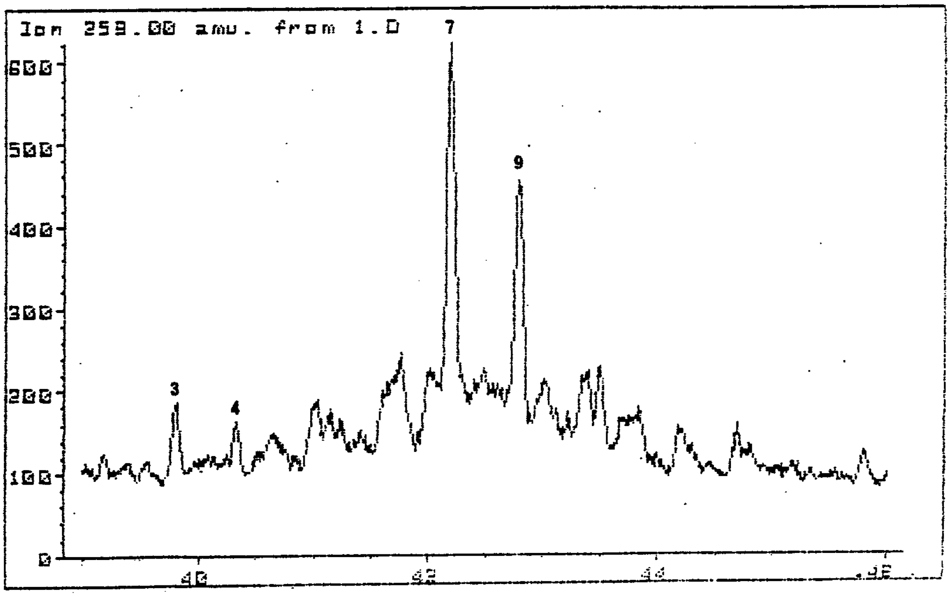
AMDEL Sample MS-314


Ion 123.00 amu. from 1.D
*Rearranged drimanes
15
16
*
*
*
8000
7000
6000
5000
4000
3000
2000
1000
0
12
14
16
18
20


Ion 177.00 amu. from 1.D
600
500
400
300
200
100
0
40
42
44
46
48
50
52

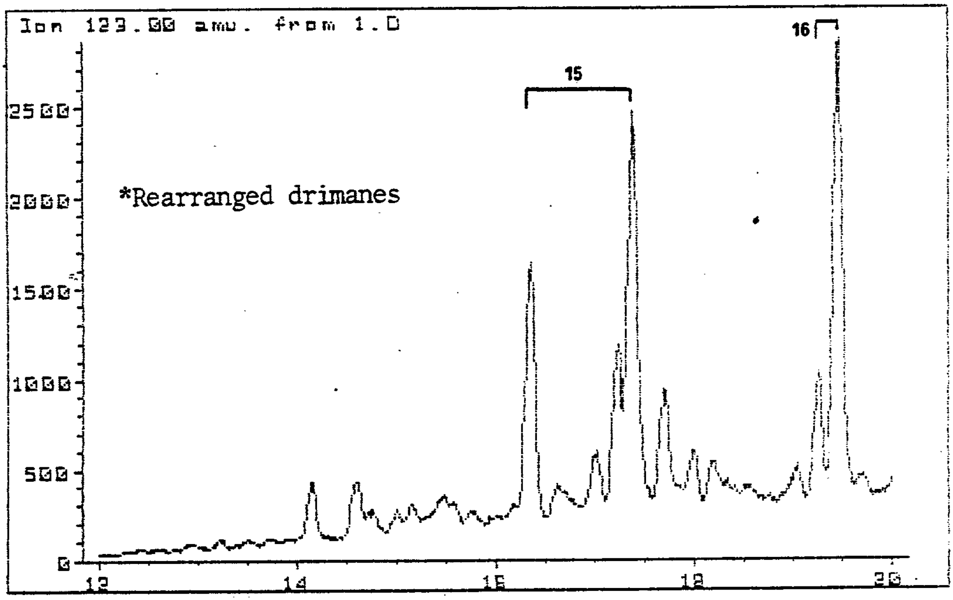

Ion 205.00 amu. from 1.D
250
200
150
100
50
0
40
42
44
46
48
50
52


Ion 231.00 amu. from 1.D
250
200
150
100
50
0
40
42
44
46

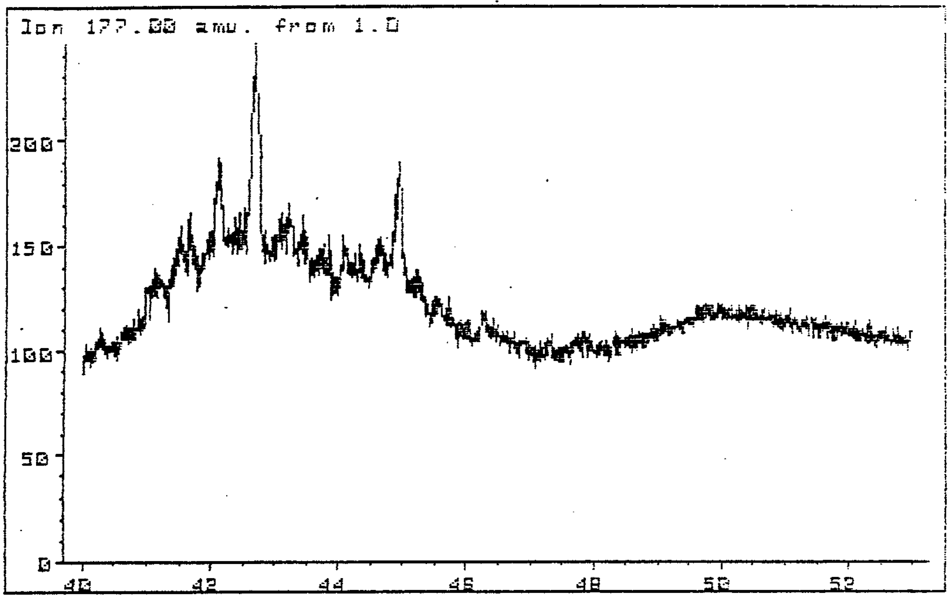

Ion 259.00 amu. from 1.D
7
9
3
4
600
500
400
300
200
100
0
40
42
44
46

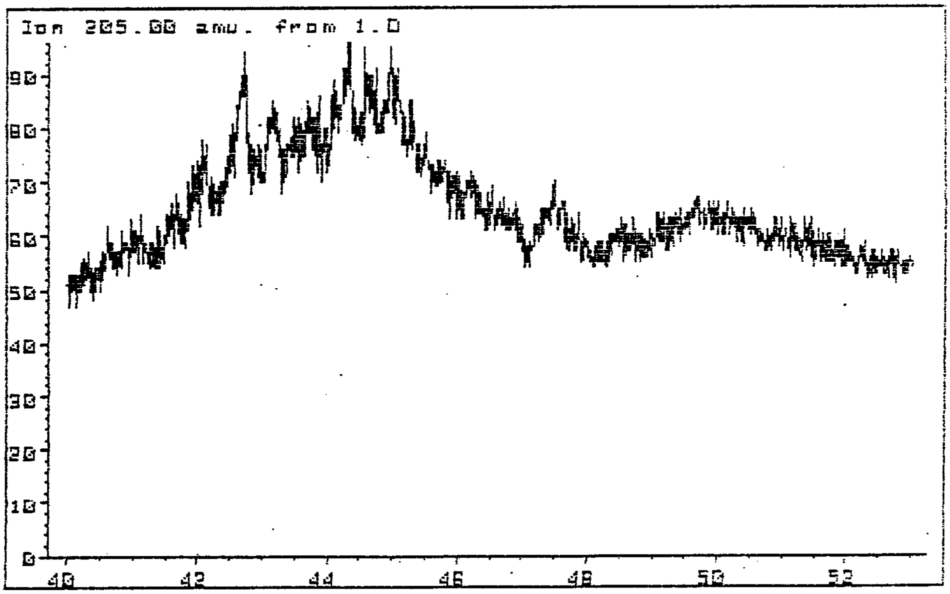
YANPURRA-1 (Tirrawarra)

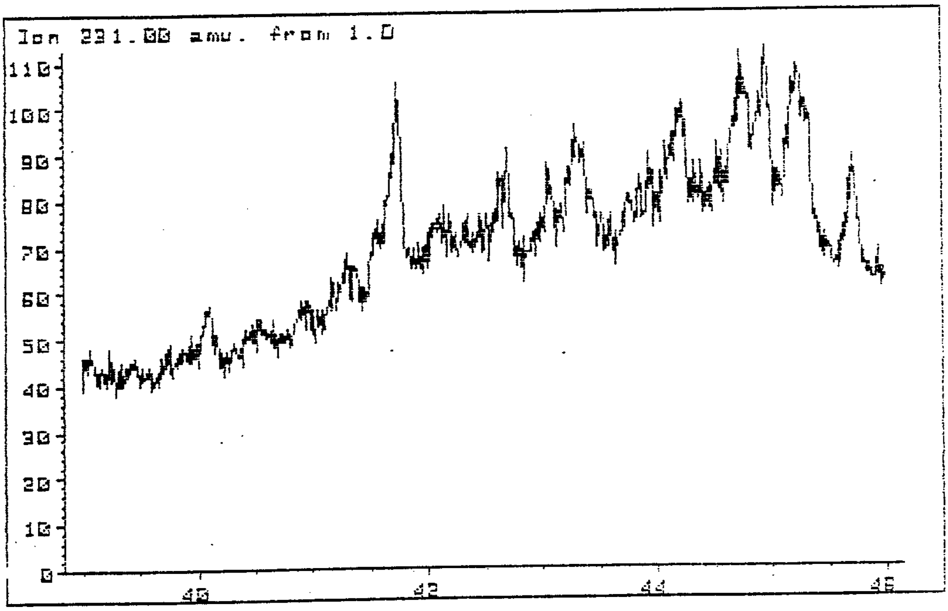
AMDEL Sample MS-315

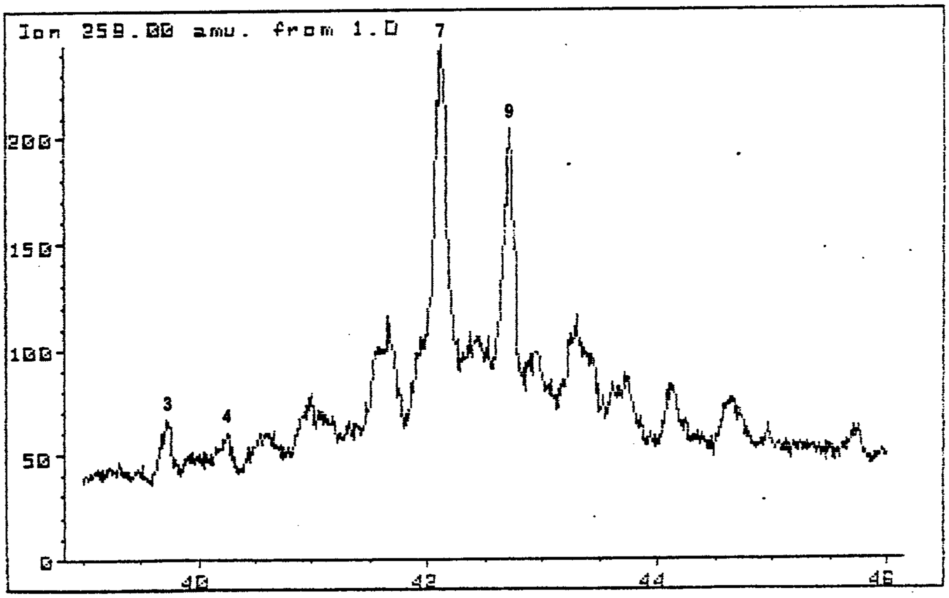


Ion 123.00 amu. from 1.D
15
16
*Rearranged drimanes
2500
2000
1500
1000
500
0
12
14
16
18
20


Ion 177.00 amu. from 1.D
200
150
100
50
0
40
42
44
46
48
50
52


Ion 205.00 amu. from 1.D
90
80
70
60
50
40
30
20
10
0
40
42
44
46
48
50
52


Ion 231.00 amu. from 1.D
110
100
90
80
70
60
50
40
30
20
10
0
40
42
44
46


Ion 259.00 amu. from 1.D
7
9
3
4
200
150
100
50
0
40
42
44
46