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ORGANIC GEOCHEMISTRY OF WELL STATOIL 6407/1-2 AND CHARACTERISATION OF RESERVOIR HYDROCARBONS

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ORGANIC GEOCHEMISTRY OF WELL STATOIL 6407/1-2 AND CHARACTERISATION OF RESERVOIR HYDROCARBONS

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CONTENTS

1.0 SUMMARY

Based on detailed geochemical analysis including measurement of yield and composition of light and heavy hydrocarbons and pyrolysis products as well as vitrinite reflectance measurements for canned cutting and sidewall core samples and one oil sample from well Statoil 6407/1-2 the following principal geochemical conclusions have been reached:

1.) MATURITY: Based on vitrinite reflectance data any potential source beds bearing predominantly hydrogen-rich amorphous organic matter have experienced adequate temperatures to initiate effective hydrocarbon generation below a depth of about 2800m (0.5% R_m). The corresponding depth level for source beds bearing hydrogen-lean, terrestrial-derived organic matter is around 4300m (0.7m % R_m).

2.) ORGANIC RICHNESS: The entire section penetrated by this well from the Miocene and below reveals organic carbon contents, which are above the threshold for hydrocarbon source rocks. The Kimmeridge Clay Fm. has TOC contents between 1.4 and 4.3%.

3.) QUALITY OF SOURCE ROCKS: Based on pyrolysis yield data obtained from Rock-Eval measurements all of the organic carbon containing intervals of this well bear a gas-prone kerogen of a hydrogen-lean type III nature, which is predominantly derived from terrestrial vegetation. No oil-prone type II kerogen bearing samples were encountered in this section.

4.) GENERATION OF PETROLEUM HYDROCARBONS: Based on elevated yields and favorable composition of C_{15+}-soluble organic matter (around 100 mg extract/g TOC and 50 mg hydrocarbons/ g TOC) the Kimmeridge shales can be classified as good quality petroleum source rocks, which have entered the liquid window and have actively generated hydrocarbons.

5.) GENERATION OF GASOLINE-RANGE HYDROCARBONS: Considerable amounts of gasoline-range hydrocarbons have been generated by source beds in the Kimmeridge, the Heather and the Coal Unit. Organic-rich strata of the Miocene have a too low maturity to initiate gasoline-range hydrocarbon generation to a significant degree.

6.) RE-DISTRIBUTION OF HYDROCARBONS: There is ample evidence that extensive re-distribution of hydrocarbons has occurred in the section penetrated by this well. Based on migration-sensitive light hydrocarbon compound ratios the following intervals are enriched by migrated gas: 500-800m, 1000-1100m, 1435m, 1900-2200m, 3580-3595m, 3625-3655m, 3700-3715m and 3775m. Indications for migration of petroleum-bearing formation waters were obtained for most of the Tertiary section (down to 2300m), the lowermost Cretaceous, the Heather and the upper part of the Middle Jurassic sandstone interval.

7.) CHARACTERISATION OF RESERVOIR HYDROCARBONS: The oil from interval 3659-3669m has a high proportion of volatiles (45.5%) and is of a paraffinic nature (in excess of 60% saturated hydrocarbons) and a rather low content of NSO-compounds (8%).

Based on the composition of the C_{15+}-saturated hydrocarbon and the C_{11+}-aromatic hydrocarbon fractions this oil is rated as a mature crude oil which, according to the MPI-index was expelled from a source rock of a maturity at around 0.80% vitrinite reflectance.

8.) GEOCHEMICAL CORRELATION: Based on a screening-type correlation utilising a statistical evaluation of selected light hydrocarbon compound ratios the oil from 3669m reveals a high degree of compositional similarity with potential source rocks at 3535m, 3610m and 3625m.

2.0 INTRODUCTION

A suite of canned cuttings, core and sidewall core samples covering the depth interval from 400 to 4560 m of well Statoil 6407/1-2 along with a reservoir hydrocarbon sample from this well were subjected to geochemical analysis. The objectives of this study were to collect information which would answer the following questions concerning:

a.) CHARACTERISATION OF HYDROCARBON SOURCE ROCKS
- Which intervals of well Statoil 6407/1-2 exhibit the best hydrocarbon source potential?
- Which type of hydrocarbons (oil versus gas) did these source strata generate?

b.) DETERMINATION OF THEIR TEMPERATURE AND MATURATION HISTORY
- Which diagenetic/catagenetic stage did the organic matter of any potential source bed in this well reach during its geologic history?

c.) INDICATIONS FOR RE-DISTRIBUTION OF HYDROCARBONS
- Which intervals exhibit evidence for hydrocarbon migration?
- Is there evidence for proximity of reservoired hydrocarbon accumulations (past or present)?

d.) CHARACTERISATION OF RESERVOIR HYDROCARBONS
- What is the composition and the maturity of the recovered oil?

e.) GEOCHEMICAL CORRELATION

- Which rock unit encountered in this well can be correlated to the oil as possible source rock?

For interpretation of the analytical data copies of the "CSU Field Log", 1:500, and information about formation tops were available to the authors of this report. The study of this well was performed in cooperation with the geochemistry group of STATOIL, Stavanger. Dr. Hilary Irwin participated in the early stages of this project during her stay at KFA laboratories in April 1983. The main conclusions from this study were transmitted to STATOIL by telex on July 12th, 1983.

e.) GEOCHEMICAL CORRELATION

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3.0 SAMPLES AND METHODS

A total of 295 different samples from exploration well Statoil 6407/1-2 were submitted for geochemical analysis. In detail one oil sample (DST - 1, 3659-3669 m), two core samples (3661.4 m and 3688.1 m), 14 sidewall core samples (1889-3551.5 m) and 278 cuttings samples (400-4560 m) have been available for the study.

The following numbers of samples from this well were analysed by the geochemical techniques listed below:

Type of geochemical analysis/number of samples analysed

ROCK SAMPLES	
Organic carbon	119
Rock-Eval pyrolysis	119
Light hydrocarbons (C_2-C_8)	71
Heavy hydrocarbons (C_{15+})	
Yield measurement	15
Liquid chromatography (MPLC)	15
GC of saturated hydrocarbons	15
Organic petrology	
Vitrinite reflectance	16
OIL SAMPLE	
Whole oil analysis (C_6-C_{35})	1
Light hydrocarbons (C_2-C_8)	1

Heavy hydrocarbons (C_{15+})

Liquid chromatography (MPLC).................. 1

GC of saturated hydrocarbons.................. 1

GC of aromatic hydrocarbons................... 1

The stratigraphic sequence covers an interval from Tertiary to Triassic. Individual formation tops are given in table I.

Most procedures listed above represent well-established routine analytical techniques and hence are not described here in detail. The ROCK-EVAL pyrolysis procedure is carried out according to Espitalié et al. (1977). Several analytical techniques developed at our institute were employed in this study. Light hydrocarbon analysis was performed by hydrogen stripping and capillary GC analysis (Schaefer et al., 1978a,b). This method combines a gas-phase (hydrogen) stripping of hydrocarbons from wet cuttings and their subsequent capillary gas chromatographic analysis. The standard procedure recovers only a fraction of the hydrocarbons present in the rock. Absolute concentrations can be obtained by a combined thermovapourization technique. This technique however, was not applied in the present study. The hydrogen stripping technique does not include the measurement of methane due to sampling procedures and analytical limitations. A slightly modified method is also applicable to the analysis of oil samples. Methylene chloride extraction was carried out by a modified flowblending" method (Radke et al., 1978) and chromatographic separation of the hexane soluble portion of the extracts by mediumpressure liquid chromatography (Radke et al., 1980). The experimental conditions for the gas chromatographic analysis of the saturated hydrocarbon fractions were the following: glass capillary, 23 m length, 0.3 mm i.d., coated with SE-54 silicone gum, temperature programmed from 80^{o}C (hold for 2 min) to 254^{o}C, heating rate 3^{o}C/min; carrier gas helium. For determination of the maturity of the oil the Methylphenanthrene Index (MPI) was used (Radke et al., 1982a,b; Radke and Welte, 1983). Total aromatics were dissolved in xylene and analysed using a Hewlett-Packard 5731A gas chromatograph equipped with Gerstel inlet and outlet splitters, flame ionization detector (FID) and Tracor flame photometric detector (FPD; 394 nm filter), which was modified to minimize dead volume. Conditions: fused silica capillary column, 50 m length, 0.22 mm i.d., coated with CP Sil 8 silicone gum; temperature programmed from 100^{o}C (hold for 2 min) to 280^{o}C, heating rate 3^{o}C/min; carrier gas helium. Vitrinite reflectance values were determined on kerogen density concentrates (HCl treated, ground samples separated with 1.95 g/ml $KI-CdI_2$ solution and embedded in transoptic powder and polished according to a technique described by Benders et al., 1979).

4.0 ORGANIC RICHNESS

The total organic carbon (TOC) values are listed in tables IIa,b and plotted versus depth in figure 1. Analysis was performed on the cuttings samples selected for light hydrocarbon analysis and on total cuttings samples. For samples where both analyses are reported in table IIa only the measurement of the selected cuttings are given in figure 1. TOC of the sidewall cores, cores and of a single hand picked cuttings sample are given in table IIb.

Above the Miocene the TOC values are low (lowerthan 0.78%). In the Miocene TOC values are higher, mostly around 1.0% (up to 3.8%). The Paleocene and Cretaceous have TOC mostly in the range 0..9-1.2 with a few richer exceptions (up to 8.6%). The two Kimmeridge cutting samples have values of 1.4-4.30% (different sample types) and the SWC in this interval has 8.9%. The Heather is rich in organic carbon mostly above 2%. Somewhat lower values characterise the Middle Jurassic Sandstone (0.9-2.4%). The Drake and Cook have up to 6.7%. The coal from the Coal Unit is well represented in the cuttings (13-50% TOC). In summary, the whole section from the Miocene and below has a high TOC content, which is mostly above the TOC-threshold for hydrocarbon source rocks.

5.O MATURATION

5.1 MATURATION BASED ON MEAN VITRINITE REFLECTANCE

Assessment of the maturation level of the organic matter in potential source beds from well Statoil 6407/1-2 has been made by measurement of mean vitrinite reflectance on 16 polished kerogen density concentrates covering a depth range of 415 m to 4510 m. The results of the vitrinite reflectance measurements are given as frequency distributions for each sample (Fig. 2a to 2p). In table III the mean vitrinite reflectance values (% R_m) are listed and plotted versus depth in Fig. 3.

As obvious from this figure, there is a drastic scatter of mean vitrinite reflectance with depth, which makes it hard to define a trend. This data scatter is believed to be due to a combination of factors: Turbo-drilling in several intervals (which may have enhanced % R_m values locally), organic mud additives (especially lignite and lignosulphonate was observed as predominant constituents in the kerogen concentrates of all samples between 2000 and 4200 m) and cavings. In Fig. 3 the samples, which are believed to have unreliable vitrinite reflectance values due to the above listed reasons, are indicated by question marks. For the remaining samples a depth-trend can then be defined which runs from about 0.37% R_m to about 0.73% R_m at T.D..

It is well documented that the onset of hydrocarbon generation by thermal degradation of organic matter occurs for different kerogen types at different vitrinite reflectance levels (Leythaeuser 1974; Powell et al. 1978; Rogers 1979) which are indicated by broken lines in Fig. 3. Hydrogen-rich type II kerogens, which are of amorphous and sapropelic nature, reach maturity around 0.5% R_m, whereas the hydrogen-lean type III kerogens do not attain maturity before about 0.7% R_m. Therefore, according to Fig. 3 the onset of maturity and significant hydrocarbon generation is in this well at the following approx. depth levels:

2800 m - for hydrogen-rich, type II kerogen-bearing petroleum source rocks

4300 m - for hydrogen-lean, type III kerogen-bearing source rocks.

5.2 MATURATION BASED ON T_{max} FROM ROCK-EVAL

The temperature of maximum pyrolytic degradation of kerogen (T_{max}) is commonly used as a maturity parameter. It may, however, be sensitive to other thermal effects. It is, therefore, important to clarify whether the turbodrilling technique has a significant effect on T_{max} and other Rock-Eval parameters. This can be checked best in the turbodrilled intervals, down to 3580 m, 3970-4195 and 4285-TD in comparison with the corresponding non-turbodrilled intervals 3580-3970 and 4195-4285. As shown in Fig. 4 an expected shift of T_{max} to higher temperatures was not observed. The trend of increasing T_{max} in Heather continues. On the other hand the trend of decreasing T_{max} in Drake continues where turbodrilling is resumed. Also the trends of the other Rock-Eval parameters do not seem to be affected. The T_{max} increases with increasing maturity for a given type of organic matter. Therefore the interpretation of the variation in T_{max} has to take into account also variations in type of kerogen, proportion of bitumen, impregnation by migrated oil and contamination.

The T_{max} values fluctuate in the Tertiary, Miocene, Paleocene, increase steadily only in Cretaceous reaching 430° (Tables IIa,b). The increase continues through Kimmeridge and Heather. These T_{max} values of 435-440° are probably true indicators of maturity and point to an early stage of oil generation in this interval. T_{max} is quite stable in Middle Jurassic Sandstone with only a few fluctuations. These high T_{max} values around 445° at 3820 m (Fig. 4) seem to be a reliable indicator of the maturity level, indicating a level well within the oil window. In Drake there is a marked decrease from about 435° to about 425° which continues well into the Cook, where it increases drastically from 432° to 457° over a short interval of only 300 m. This increase is paralleled by that of vitrinite reflectance.

The fluctuations of T_{max} are almost a mirror of the trend of the production index (PI) pointing to the presence of a more volatile component, possibly impregnation by migrated hydrocarbons. This component is thermally mobilised at temperatures lower than that of the associated kerogen and usually is recorded in the S_1-signal of the Rock-Eval procedure, but in some samples enters also into the S_2-signal resulting in a reduction of the T_{max} (see Figure 5). This effect is observed in the core samples at 3661.4 and 3688.1 m, Middle Jurassic Sandstone (figure 5d), where T_{max} is much lower than in the overlying Heather. The interval 3895-4060 which shows the increase in PI in conjunction with a decrease of T_{max} contains an increasing proportion of liquid hydrocarbons. This interpretation is confirmed by the occurrence of very high extract yields. Based on the T_{max}-trend the onset of oil generation (T_{max} 435-440°C) is located within the Heather interval.

6.0 HYDROCARBON GENERATION AS A FUNCTION OF SOURCE ROCK QUALITY

Provided sufficient organic richness and an adequate subsurface temperature history, amount and type of hydrocarbons generated are controlled by the quality of the organic matter, which is finely disseminated in the source beds. Conclusions with respect to this point are based here on the following types of data:

- hydrogen content of kerogens as measured by ROCK-EVAL pyrolysis procedure
- content and composition of extractable light and heavy hydrocarbons (C_2-C_8 and C_{15+}, respectively).

6.1 QUALITY OF SOURCE ROCKS

The "hydrogen-" and "oxygen-index" values (HI and OI) obtained by the ROCK-EVAL pyrolysis procedure are known to correspond to the H/C and O/C atomic ratios from elemental analysis of kerogen (Espitaliê et al. 1977). Tables IIa and IIb give analytical data for the samples from well Statoil 6407/1-2 and for selected samples the pyrograms (FID responses) are shown in Fig. 5. Selected parameters are plotted versus depth in Fig. 4.

In the section down to the Kimmeridge low HI and high OI values are the rule. However, several samples have HI values greater than 100 mg HC/g TOC. In the Kimmeridge and Heather HI values are in the range 100-200 mg HC/g TOC. In Middle Jurassic Sandstone, Drake, Cook and Coal Unit HI values exceed 200 mg HC/g

TOC. The OI values are high (some abnormally high) in the Tertiary, Miocene and Paleocene which raises a question as to the quality of these samples. Low OI values are recorded in the Jurassic (and Triassic) section. The main reasons for high OI are:

a.) Carbonate minerals. The OI value depends on the composition and properties of the carbonate minerals. This is probably not the main reason for abnormally high OI values of these samples.

b.) Mud additives. The mud additive Resinex used in this well has an OI of about 530 and a low HI about 30. The effect of the mud additive is more pronounced where the amount of the indigenous organic matter is low. The section in which Resinex was added to the drilling mud (as indicated in the logs) is, however, below the section which has high OI values. Indications for contamination by mud additives are detected also in the composition of the C_{15+}-fraction. Detailed information on the type and depth distribution of mud additives utilised would help in providing more reliable interpretation of the geochemical data.

c.) Nature of the organic matter. Humic acids which are not separated and identified by the routine analysis have OI values higher than 250. The occurrence of humic acids in larger amounts is probably restricted to the immature part of the section penetrated by this well. This effect does therefore, not provide an explanation for the high OI values (above 400).

In this study the exact interpretation of OI is not crucial since the section of interest with respect to identification of source and reservoir rocks does not show the extremely high values. However, the characterization of organic matter in the Miocene and Paleocene section is hampered.

The opposite variation with depth for HI and OI in the section below the Cretaceous is caused by variations in the type of organic matter. This antithetic behaviour can be even followed in the different types of samples for the same interval. Based on HI the best quality source rock intervals are in the Kimmeridge and upper Heather, Middle Jurassic Sandstone, Drake, upper Cook and the whole Coal Unit. However, all samples analysed in this well have on the basis of HI to be classified as type III organic matter (Fig. 4).

6.2 GENERATION OF PETROLEUM-RANGE HYDROCARBONS

A total of 12 cuttings samples, 2 core samples and 1 sidewall core sample were analysed for yield and gross composition of the C_{15+}-soluble organic matter. The analytical data are listed in Table IV. Depth plots of the C_{15+}-soluble organic matter yields and of the carbon-normalized yields of C_{15+}-soluble organic matter and C_{15+}-hydrocarbons are presented in Fig. 6. The following is a discussion of the variation of these data with depth and stratigraphic age.

Kimmeridge (samples from 3535.0-3551.5 metres)

The three samples analysed from the Kimmeridge show high C_{15+}-soluble organic matter yields ranging from 1442 ppm at the top of the interval to 9047 ppm at the bottom. The carbon-normalized yields of C_{15+}-soluble organic matter and of C_{15+}-hydrocarbons which are reasonably high at the top of the interval increase somewhat towards the bottom, where they reach high values, such as 101.8 mg/g C_{org} C_{15+}-soluble organic matter and 54.1 mg/g C_{org} C_{15+}-hydrocarbons. Based on these elevated yields the samples can be considered good quality source rocks for oil which have reached oil-window maturity. Furthermore, elevated relative abundances of C_{15+}-hydrocarbons in total extract in excess of 50% indicate that the peak of oil generation is approached but not yet reached. However, on the basis of these yield and gross composition data above, it cannot be ruled out that the samples are enriched by migrated hydrocarbons and/or that organic mud additives have contaminated these C_{15+}-soluble organic matter yields.

Heather formation (samples from 3595 and 3640 metres)

The two samples analysed from the Heather formation exhibit high C_{15+}-soluble organic matter yields of 2500 ppm at the top and of 1250 ppm at the bottom of the interval. The carbon-normalized yields of C_{15+}-soluble organic matter and of C_{15+}-hydrocarbons are moderate at the top of the interval. The yields increase slightly towards the bottom. However, the values are still only moderate at the bottom of the interval, such as 71.8 mg/g C_{org} C_{15+}-soluble organic matter and 36.1 mg/g C_{org}

C_{15+}-hydrocarbons. Provided that the yield values were not influenced by redistribution phenomena and/or a contamination of the samples with mud additives, it is concluded that the Heather formation has only a marginal oil potential, which is significantly lower than that of the Kimmeridge. The relative abundance of C_{15+}-hydrocarbons in total extract is also somewhat lower for the samples from the Heather formation than for the samples from the Kimmeridge.

Middle Jurassic (samples from 3661.4-3820.0 metres)

As expected, the C_{15+}-soluble organic matter yields of the core samples at 3661.40 and 3688.16 metres depth, i.e. from the reservoir zone, are very high and the gross composition of the extracts resembles that of the crude-oil sample from 3659-3669 metres depth. The two cuttings samples at 3730 and 3820 metres depth show high C_{15+}-soluble organic matter yields of 1852 and 885 ppm, respectively. The carbon-normalized yields, such as 50 mg/g C_{org} C_{15+}-soluble organic matter and 30 mg/g C_{org} C_{15+}-hydrocarbons, are only moderate and rate these rock samples as poor source rocks for oil. However, they may have some gas generation potential. The sample at 3820 metres depth shows a high relative abundance of C_{15+}-hydrocarbons in total extract of about 60%, which is indicative of a maturity level close to the peak of oil generation.

Drake equivalent and Cook formations (samples from 3929-4210 metres)

The C_{15+}-soluble organic matter yield which is as high as 2880 ppm at the top of the interval reaches a maximum value of

11540 ppm near the middle of the interval. The carbon-normalized yields of C_{15+}-soluble organic matter and of C_{15+}-hydrocarbons show a parallel increase from 102.5 to 364.0 mg/g C_{org} and from 63.2 to 176.6 mg/g C_{org}, respectively. Values this high are indicative of an oil impregnation and/or a contamination by organic mud additives. Evaluation of the source rock potential is impossible in this case.
The sample at 4210 metres depth exhibits a high C_{15+}-soluble organic matter yield of 1190 ppm. However, the moderate carbon-normalized yields of 54.8 mg/g C_{org} C_{15+}-soluble organic matter and 32.1 mg/g C_{org} C_{15+}-hydrocarbons rate this sample as a poor source rock for oil which possibly has some gas potential. The high relative abundance of C_{15+}-hydrocarbons in total extract of nearly 60% is indicative of a maturity level close to the peak of oil generation.

Coal unit (samples from 4285 and 4510 metres)

Both samples show very high C_{15+}-soluble organic matter yields in excess of 10 000 ppm. The carbon-normalized C_{15+}-soluble organic matter yield of the sample at 4285 metres depth is as high as 186.7 mg/g C_{org}, whereas the carbon-normalized C_{15+}-hydrocarbon yield of 38.8 mg/g C_{org} is only moderate, which is a consequence of the low relative abundance of C_{15+}-hydrocarbons in total extract of about 20%. Probably this sample is contaminated by organic mud additives. The evaluation of its oil potential hence is impossible. The sample at 4510 metres depth contains coaly organic matter, which follows not only from its high organic carbon content but also from the moderate carbon-normalized C_{15+}-soluble organic matter yield of 33.5 mg/g C_{org} and particularly from the very low carbon-normalized C_{15+}-hydrocarbon yield of 1.0 mg/g C_{org}. Further evidence for coaly organic matter is obtained from the very low relative abundance of C_{15+}-hydrocarbons in total extract. This sample is expected to have no oil potential but possibly some gas potential.

Most of the above observations and conclusions can be confirmed from a detailed evaluation of the C_{15+}-saturated hydrocarbon gas chromatograms (depicted in Fig. 7a-o, listing of geochemically significant compound ratios in table V). The three samples analysed from the Kimmeridge shales (one SWC, two cuttings samples) reveal a typical distribution pattern of a mature petroleum source rock: A smooth, front-end biased hydrocarbon distribution. A compositional feature, which is unique among all samples analysed, concerns the low value for the pristane/phytane ratio. Whereas most samples have values significantly above unity for this ratio, the Kimmeridge samples have low values (0.86-0.96, see Table V). It is noteworthy that the oil from 3669 m and the two core samples from the reservoir interval itself have low pristane/phytane ratios as well (T.06-1.14).

The distribution of the C_{15+}-saturated hydrocarbons of the shale/siltstone samples analysed between 3595 m and 3820 m depth reveals compositional features, which are in agreement with the kerogen quality and the maturity level of these samples. From the interval 3925-4285 m five samples were analysed, which exhibit very peculiar and unusual compositional features: The C_{15+}-saturated hydrocarbon distribution is strongly bimodal with a pronounced background hump in the C_{27+} molecular region and high relative concentrations of biological markers (suspected steranes and triterpanes). These compositional features are not in agreement with the maturity level of these samples and are unusual in general. It is, therefore, suspected that the saturated hydrocarbon fraction of these samples was contaminated by organic mud additives.

6.3 GENERATION OF GAS AND GAS CONDENSATES

Light hydrocarbons (C_2-C_8) are not synthesized by living organisms and hence are not found in recent sediments. They are generated from kerogen at increasing rates with increasing maturation. Therefore, they are considered as good indicators for the advancement of subsurface hydrocarbon generation processes, and they are well suited to study hydrocarbon migration phenomena.

In this study 82 rock samples, covering the depth interval from 415 m to 4560 m and the oil sample from 3669 m depth have been analysed for light hydrocarbons. Selected hydrocarbon concentrations are listed in Table VI.

Total and saturated C_2-C_8 hydrocarbon stripping yields are plotted against depth in Figs. 9,10 (rock-weight normalized, ng/g of rock) and Figs. 11,12 (organic carbon normalized, ng/g C_{org}). As obvious from these figures considerable amounts of gas and gasoline-range hydrocarbons have been generated in parts of the section penetrated by this well. Total yields exceeding 10^4 ng/g are reached in the Kimmeridge and Heather formations and in the Coal Unit. Values in the Cretaceous, Drake and Cook formations vary generally between 500 and 4000 ng/g. The Miocene has values between 100 and 800 ng/g in spite of elevated organic carbon contents. These low values are in accordance with the low maturity in the uppermost 2000 m of the well (R_m less than 0.5%). The organic-carbon normalized values (Figs. 11, 12 are highest in the Kimmeridge (10^6 ng/g C_{org}), Heather, Middle Jurassic Sandstone (close to the oil accumulation) in part of the Cretaceous (at about 2450 m and at 3000 m depth) and in one sample of the Coal Unit (4366 m). In these samples (or intervals) more than $3x10^5$ ng/g C_{org} are observed. However, not in all cases the light hydrocarbons are indigenous to these samples. Parts of these intervals appear to be enriched by migrated hydrocarbons (see chapter 7.0).

Yields of individual hydrocarbon compounds n-butane (representative for the gas compounds) and n-heptane (representing a typical compound of the gasoline-range fraction) are plotted against depth in Figs. 13 to 16. They show more or less the same trend as for the total C_2-C_8 fraction. The increase of the organic-carbon normalized n-heptane yield by two orders of magnitude between 2100 and 2400 m depth, however, can in view of this short depth interval not be explained by maturity progress. Instead, it indicates redistribution processes which have occurred in this depth range. The relative gas content M (proportion of C_2-C_5 of total light hydrocarbon extract), plotted in Fig. 17 reveals strong variations with depth ranging from about 10 to nearly 100%. High relative gas contents are found from 600 m - 700 m (Pliocene), 2000 m - 2200 m (Miocene), 3650 m (Middle Jurassic Sandstone), and 4300 m - 4500 m (Coal Unit).

The light hydrocarbon maturity parameters G ("heptane-value" according to Thompson (1979), slightly modified) and E (n-hexane/ methylcyclopentane + 2.2-dimethylpentane slightly modified acc. to Jonathan et al. 1975), shown in Figs. 18 and 19 (including the values for the crude oil), reveal an extreme variation with depth. It is not yet clear if these variations are due to natural processes (e.g. redistribution) or artificial changes of the maturity, introduced e.g., by turbo-drilling. There is, however, no agreement between the turbo-drilled sections and high light hydrocarbon maturity on the basis of the two parameters shown. The change in composition of the C_5, C_6 and C_7 hydrocarbons with depth are shown in Figs. 20 - 22. Also shown are the corresponding values for the crude oil sample. Extremely toluene-rich rock samples are found from 800 m - 1900 m and from 2200 m - 2300 m depth whereas high benzene contents are observed in most of the Miocene, the Heather, the upper part of the Middle Jurassic Sandstone and the Coal Unit. The values in the Kimmeridge are low as expected for a typical petroleum source rock. The crude oil discovered in this well is also relatively rich in toluene (19%), whereas its benzene content is low (9%).

7.0 REDISTRIBUTION OF HYDROCARBONS

As shown in Figs. 23 and 24, which are depth-plots of our gas-migration (A,B) and gasoline-range hydrocarbon-migration sensitive (C,D) parameters, several intervals contain redistributed hydrocarbons. Enriched by migrated gases (Fig. 23) appear to be the following intervals: 500m-800m,1000m-1100m,1435m, 1900m-2200m (all Tertiary); 3580m-3595m,3625m-3655m (all Heather); 3700m-3715m,3775m (all Middle Jurassic Sandstone). The high A,B values below 4300m depth are attributed to coal seams interbedded in this interval.

Parameters C,D (Fig. 24) indicate relative enrichment by gasoline-range hydrocarbons, possibly due to the movement of hydrocarbon-bearing formation waters, in most of the Tertiary (down to 2300 m, with only some exceptions). Enrichment in the lowermost samples of the Cretaceous, the Heather and the upper part of the Middle Jurassic Sandstone is lower yet still significant. The relatively low values may be due to the movement of a hydrocarbon rather than a water phase. More systematic research will be necessary to clarify this problem. The hydrocarbon yields in these depth intervals, including the Kimmeridge, discussed in Chapter 6.3, are higher than expected for the measured maturity stage. A general enrichment by migrated petroleum-range hydrocarbons is very likely.

8.0 CHARACTERISATION OF RESERVOIR HYDROCARBONS

8.1 GROSS COMPOSITION

The gross composition of the crude-oil sample from 3659-3669 metres depth is presented in Table VII and Figure 25. The content of volatiles is 45.5%, which is rather high and indicative of a mature oil. The stripped crude-oil sample exhibits a high content of saturates in excess of 60%, which rates it as paraffinic. The content of benzene-insolubles, asphaltenes, and residue is negligible. This together with the rather low content of 8% NSO-components points towards a maturity level beyond onset of intense oil generation.

8.2 COMPOSITION OF C_{15+}-SATURATED HYDROCARBONS

The capillary gas chromatogram of the saturated hydrocarbon fraction and the normalized n-alkane distribution of the oil are shown in Figs. 26a and 26b, respectively. Carbon preference indices and isoprenoid hydrocarbon concentration ratios are included in Table V. Based on these data the sample appears to be a mature crude oil:

- CPI close to unity; only a very minor, yet significant, predominance of C_{20},C_{22},C_{24},C_{26} n-alkanes over their odd-numbered homologues can be observed,
- n-alkane envelope maximum below C_{15},
- very low abundance of sterane and triterpane compounds in the C_{27+} range,
- n-C_{17}/n-C_{27} ratio around 4.

On the other hand the pristane/n-C_{17} ratio is somewhat high (0.76) and could indicate a lower maturity.

A fairly similar composition as the oil sample is indicated for the saturated hydrocarbon fractions from the sandstone at 3661.4 m (core) and 3688.10-3688.16 m (core) in the Middle Jurassic Sandstone reservoir zone. The pristane/n-C_{17}, phytane/n-C_{18}, and pristane/phytane concentration ratios are nearly identical to those of the oil. The sample from 3715-3730 m (cuttings), however, which is 1 m below the reservoir zone is quite different from the other two samples. It reveals a significant CPI value of about 1.3 in the high molecular range.

8.3 COMPOSITION OF C_{11+}-AROMATIC HYDROCARBONS

The capillary gas chromatograms of the C_{11+}-aromatic hydrocarbon fraction of the stripped crude-oil sample are presented in Fig. 27. The carbon-normalized concentrations and relative abundances of naphthalenes and phenanthrenes are listed in Tables VIII and IX. The latter are presented also as a normalized diagram in Fig. 28. Maturity parameters based on aromatic hydrocarbons are listed in Table X.

From the Methylphenanthrene Index MPI1 the maturity of the oil was determined to be equivalent to 0.80% vitrinite reflectance (R_c), indicating that the oil most likely was derived from a source rock that has reached a maturity level close to peak oil generation. However, the oil was probably expelled from the source rock before the peak of oil generation, which is confirmed by the various maturity parameters listed in Table X.

9.0 GEOCHEMICAL CORRELATION

A geochemical correlation between the oil sample from 3669 m and any potential source rocks penetrated by this well was attempted only based on light hydrocarbon compositional patterns. The result of a computerized cluster analysis including the oil sample from 3669 m and 71 rock samples of this well, utilizing 14 selected light hydrocarbon concentration ratios as correlation parameters, is shown as a dendrogram in Fig. 29. According to this statistical analysis the oil reveals a high degree of compositional similarity, i.e. it correlates well with the rock samples of 3610 m,3745 m,3805 m,3835 m,3895 m,3910 m and 3925 m. This is also obvious from Fig. 30 where the correlation coefficient between the oil and the light hydrocarbon composition of each rock sample is plotted against depth. A correlation coefficient in excess of 0.9 which, according to our experience, indicates a significant compositional similarity is observed at 2395m, 2455m, 3010m, 3535m, 3610m, 3625m, 3700m, 3775m, 3805m, 3835m, 3850m, 3865m, 3895m, 3910m and 3925m. With very few exceptions the whole interval from 3535 m to 3925 m (i.e., from Kimmeridge to the upper part of the Drake equivalent) correlates fairly well with the oil. On the basis of this statistical analysis alone it is not possible to distinguish clearly between those intervals which are the actual source rocks for the oil and other intervals which are impregnated by migrated oil. However, considering intervals of impregnated reservoir rocks and caving effects, the most likely candidates of genuine source rocks among the above listed samples with high correlation are the samples at 3535m, 3610m and 3625m. It is emplasized that more detailed geochemical analyses (e.g. distributions of steranes and triterpanes by GC/MS) are required in order to reach more definite conclusions about source rock/crude oil correlation in this well.

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Table VII: Gross composition of the crude oil sample from 3659-3669 metres depth from well Statoil 6407/1-2.

Table VIII: Carbon-normalized concentrations (mg/g C_{org}; first row) and normalized abundance (wt %; second row) of alkylnaphthalene homologs for the stripped crude oil sample from well Statoil 6407/1-2.

Table IX: Carbon-normalized concentrations (mg/g C_{org}; first row) of phenanthrene and its methylhomologs for the stripped crude oil sample from well Statoil 6407/1-2.

Table X: Maturity parameters based on aromatic hydrocarbons for the crude oil sample from well Statoil 6407/1-2.

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Figure 5: Rock-Eval pyrograms (FID trace) of selected samples from well Statoil 6407/1-2:

a) 2995 m CRE: HI-85,OI-19,PI 0.05, T_{max} 431°C; S_1 is delayed, S_2 very broad indicating a heterogenous composition.

b) 3790 m MJS: HI-178,OI-38,PI-0.20, T_{max} 435°C; S_1 starts immediately, S_2 has a shoulder, impregnation.

c) 3820 m MJS: HI-218,OI-47,PI-0.08, T_{max} 446°C; narrow S_2 of residual kerogen.

d) 3688.1 m MJS: HI-416,OI-12,PI-0.71, T_{max} 414°C; bimodal S_2 indication for reservoir.

e) 3880 m MJS: HI-130,OI-92,PI-0.30, T_{max} 433°C; (similar to b)). Impregnation detected by extraction.

f) 4060 m COK: HI-323,OI-123,PI-0.22, T_{max} 423°C; broad S_2 signifying heterogenous organic matter. Impregnation detected by extraction.

g) 4510 m CUN: HI-192,OI-4,PI-0.12, T_{max} 457°C; S_2 bimodal, despite low PI value impregnation is suspected.

Figure 6: Organic carbon content, content of C_{15+}-soluble organic matter (SOM), and carbon-normalized content of C_{15+}-hydrocarbons (HC) vs. depth for selected rock samples from well Statoil 6407/1-2.

Figure 7a-o: Capillary gas chromatograms of C_{15+}-saturated hydrocarbons for selected rock samples from well Statoil 6407/1-2. Selected n-alkanes indicated by their carbon number; Pri = Pristane, Phy = Phytane.

Figure 8a-o: N-alkane distribution of same samples as displayed in figure 7. X-axis = carbon number per n-alkane; Y-axis = relative proportion.

Figure 9: Total C_2-C_8 hydrocarbon yield (ng/g of rock = ppb) versus depth for rock samples from well Statoil 6407/1-2.

Figure 10: Saturated C_2-C_8 hydrocarbon yield (ng/g of rock = ppb) versus depth for rock samples from well Statoil 6407/1-2.

Figure 11: Organic-carbon normalized total C_2-C_8 hydrocarbon yield (ng/g C_{org}) versus depth for rock samples from well Statoil 6407/1-2.

Figure 12: Organic-carbon normalized saturated C_2-C_8 hydrocarbon yield (ng/g C_{org}) versus depth for rock samples from well Statoil 6407/1-2.

Figure 13: n-Butane yield (ng/g of rock) versus depth for rock samples from well Statoil 6407/1-2.

Figure 14: Organic-carbon normalized n-butane yield (ng/g C_{org}) versus depth for rock samples from well Statoil 6407/1-2.

Figure 15: n-Heptane yield (ng/g of rock) versus depth for rock samples from well Statoil 6407/1-2.

Figure 16: Organic-carbon normalized n-heptane yield (ng/g C_{org}) versus depth for rock samples from well Statoil 6407/1-2.

Figure 17: Relative gas content $M=100 \cdot (C_2-C_5)/(C_2-C_8)$ versus depth for rock samples from well Statoil 6407/1-2.

Figure 18: Maturity parameter G ("heptane-value", according to Thompson (1979), slightly modified) versus depth for rock samples of well Statoil 6407/1-2. Oil sample marked by black triangle.

Figure 19: Maturity parameter E (according to Jonathan et al. (1975), slightly modified, see text for details) versus depth for rock samples from well Statoil 6407/1-2. Oil sample marked by black triangle.

Figure 20: Composition of C_5-hydrocarbons (sum of n-pentane, branched pentanes and cyclopentane normalized to 100%, plotted from left to right) versus depth for rock samples and crude oil (indicated by triangles) from well Statoil 6407/1-2.

Figure 21: Composition of C_6-hydrocarbons (sum of n-hexane, branched hexanes, cyclic C_6-hydrocarbons and benzene normalized to 100%, plotted from left to right) versus depth for rock samples and crude oil (indicated by triangles) from well Statoil 6407/1-2.

Figure 22: Composition of C_7-hydrocarbons (sum of n-heptane, branched heptanes, cyclic C_7-hydrocarbons, and toluene normalized to 100%, plotted from left to right) versus depth for rock samples and crude oil (indicated by triangles) from well Statoil 6407/1-2.

Figure 23: Gas-migration-sensitive light hydrocarbon parameters "A" (plotted from zero to the right) and "B" (plotted to the left) versus depth for rock samples from well Statoil 6407/1-2.

Figure 24: Non-gaseous light hydrocarbon parameters "C" (plotted from zero to the right) and "D" (plotted to the left), sensitive for migration and type of organic matter, versus depth for rock samples from well Statoil 6407/1-2.

Figure 25: Capillary gas chromatogram of the C_6-C_{35}-fraction of the crude oil sample from well Statoil 6407/1-2.

Figure 26a,b: Capillary gas chromatogram of the C_{15+}-saturated hydrocarbons and normalized n-alkane distribution of the crude oil from well Statoil 6407/1-2.

Figure 27: Capillary gas chromatograms of the C_{11+}-aromatic hydrocarbon fraction of the stripped crude oil sample from well Statoil 6407/1-2 obtained from simultaneous flame ionization detection (FID) and sulfur-selective flame photometric detection (FPD).

Figure 28: Relative intensities (%) of naphthalene and phenanthrene components for the stripped crude oil sample from well Statoil 6407/1-2.

Figure 29: Dendrogram showing similarity of light hydrocarbon composition of rock samples and crude oil sample from well Statoil 6407/1-2.

Figure 30: Correlation coefficient between crude oil sample and rock samples plotted versus depth for well Statoil 6407/1-2.

Table I: Stratigraphy Well Statoil 6407/1-2

Tertiary (TER)	500 m
- Miocene (MIO)	1419 m
- Paleocene (PAL)	2188 m
Cretaceous (CRE)	2319 m
Jurassic	3526 m
- Kimmeridge Clay (KIM)	3526 m
- Heather (HEA)	3557 m
- Middle Jurassic Sandstone (MJS)	3658.5 m
- Drake Equivalent (DRE)	3896 m
- Cook (COK)	4050 m
- Coal unit (CON)	4261 m
Triassic (TRI)	4550 m
T.D.:	4560 m

Hydrocarbon Reservoir Interval: 3659 - 3716 m.

Table IIa:

LHC samples						total cuttings samples				
Depth	TOC	HI	OI	T_{max}	PI	TOC[1)]	HI	OI	T_{max}	PI
415	0.15	286	139	488	0.20					
520	0.77	21	261	424	0.08					
625	0.15	14	261	392	0.17					
730	0.15	8	213	n.d.	0.31					
805	0.21	36	831	424	0.15					
895	0.12	23	381	n.d.	0.24					
985	0.14	42	825	425	0.10					
1075	0.09	18	n.d.	394	0.19					
1165	0.11	49	424	431	0.07					
1255	0.09	13	336	n.d.	0.44					
1345	0.78	100	109	425	0.02					
1435	0.40	56	188	427	0.13					
1525	0.66	38	246	415	0.08					
1600	1.33						100	141	420	0.08
1615	1.26	51	145	426	0.06					
1630							119	119	423	0.07
1645	1.80	88	118	419	0.11					
1665	1.82	101	170	420	0.07					
1695	3.81						161	90	414	0.05
1710	2.86	113	120	409	0.10					

UNITIES

- Depth: m
- TOC: %
- HI: mg HC/g TOC
- OI: mg CO_2/g TOC
- T_{max}: ^oC
- PI: -

[1)] TOC of total cuttings is reported in this column for samples which were analysed both for LHC (selected cuttings) and total cuttings.

Table IIa: cont. 2

	LHC samples					total cuttings samples				
Depth	TOC	HI	OI	T_{max}	PI	TOC[1]	HI	OI	T_{max}	PI
1740	2.16	165	75	413	0.06					
1755	3.01	116	110	407	0.10					
1785	1.92	138	114	408	0.09					
1840	1.68	117	358	421	0.09					
1855	1.18						117	246	416	0.08
1870	1.46	48	244	418	0.08					
1900	1.68	96	170	423	0.09					
1915	1.44						92	227	429	0.06
1945	1.59	64	234	421	0.11					
1975	1.32	45	353	417	0.10					
2005	0.51						71	482	416	0.11
2035	0.79						66	470	412	0.12
2080	0.97	69	395	415	0.10					
2170	0.94	48	590	420	0.23					
2245	0.46	31	765	414	0.20					
2320	1.10	40	172	414	0.23					
2395	0.68	28	450	416	0.12					
2455	1.03	36	124	419	0.14					
2545	1.12	115	124	424	0.13					
2620	1.35	134	125	419	0.14					

1) TOC of total cuttings is reported in this column for samples which were analysed both for LHC (selected cuttings) and total cuttings.

Table IIa: cont. 3

	LHC samples					total cuttings samples				
Depth	TOC	HI	OI	T_{max}	PI	TOC[1)]	HI	OI	T_{max}	PI
2695	1.24	193	211	417	0.12					
2770	1.19	59	193	416	0.14					
2845	1.19	129	129	424	0.13					
2920	1.22	103	143	430	0.06					
2965	0.92	40	131	422	0.06					
2995	14.10						85	191	431	0.05
3010	1.22	63	77	428	0.11					
3055	0.87	7	152	409	0.11					
3085	8.63						97	189	431	0.07
3100	1.05	49	128	428	0.12					
3130	0.98	13	82	428	0.08					
3160	1.09	41	120	419	0.07					
3175	1.44						45	126	429	0.08
3205	0.94	29	112	427	0.17					
3235	0.92	23	102	426	0.07					
3250	1.96						68	148	429	0.07
3280	0.93	25	170	428	0.11					
3310	1.82						59	153	430	0.08
3325	0.93	18	69	426	0.12					
3355	0.91	25	124	428	0.11					
3385	0.87	18	71	429	0.12					

1) TOC of total cuttings is reported in this column for samples which were analysed both for LHC (selected cuttings) and total cuttings.

Table IIa: cont. 4

	LHC samples					total cuttings samples				
Depth	TOC	HI	OI	T_{max}	PI	TOC[1)]	HI	OI	T_{max}	PI
3400	1.25						54	116	432	0.09
3430	0.88	23	175	425	0.19					
3460	2.05						49	138	436	0.09
3475	0.92	26	82	428	0.12					
3505	1.03	12	88	430	0.29					
3520	0.88	12	216	433	0.45	0.62	22	137	428	0.25
3535	1.39	50	65	435	0.09	1.77	122	32	433	0.14
3550	1.74	45	54	431	0.13	4.30	145	20	433	0.20
3565	2.01	45	49	434	0.11					
3580	4.02	181	59	436	0.09					
3595	2.80	172	48	437	0.10	3.20	180	39	435	0.14
3610	1.92	211	62	434	0.08	2.16	148	91	439	0.10
3625	2.01	127	110	437	0.06					
3640	2.2	155	40	434	0.10	1.7	99	68	439	0.11
3655	2.5	114	41	433	0.10	2.9	104	50	438	0.12
3700	1.56	113	85	437	0.05					
3715	2.22	190	42	440	0.08					
3730	3.38						220	6	437	0.21
3745	2.40	107	30	435	0.11					
3775	1.84	131	39	437	0.07					
3790	2.50						178	38	435	0.20

1) TOC of total cuttings is reported in this column for samples which were analysed both for LHC (selected cuttings) and total cuttings.

Table IIa: cont. 5

	LHC samples					total cuttings samples				
Depth	TOC	HI	OI	T_{max}	PI	TOC[1)]	HI	OI	T_{max}	PI
3805	2.30	137	30	436	0.10					
3820	1.83	223	14	444	0.26	1.65	218	47	446	0.08
3835	0.94	113	80	437	0.14					
3850	1.33	119	55	437	0.07					
3865	1.27	110	51	437	0.10					
3880	1.7						130	92	433	0.30
3895	0.80	114	65	437						
3910	0.73	56	167	434	0.13					
3925	1.38	103	47	437	0.09	2.8	157	132	431	0.21
4000	3.56	310	90	421	0.24	5.4	194	153	427	0.26
4060	6.76	447	80	420	0.23	3.2	323	123	423	0.22
4135	4.53	298	122	420	0.24					
4210	2.04	90	204	433	0.15	4.4	104	200	430	0.23
4285	13.05	211	33	437	0.11	7.7	244	58	434	0.20
4360	8.25	233	12	445	0.10					
4366	28.49	227	7	448	0.16					
4435	39.00	177	3	454	0.10					
4510	50.16	169	4	457	0.09	30.0	192	4	459	0.12
4560	19.79	165	5	457	0.09					

1) TOC of total cuttings is reported in this column for samples which were analysed both for LHC (selected cuttings) and total cuttings.

Table IIb:

Depth	TOC	HI	OI	T_{max}	PI
		SWC			
1889	1.15	48	108	409	0.11
1906	1.50	45	67	413	0.10
2113	0.20	32	-	412	0.17
2254	0.14	59	414	-	0.21
2260	0.52	24	188	421	0.24
2474.1	0.90	63	125	425	0.11
2480.9	0.80	47	73	420	0.11
2831	1.24	50	70	428	0.07
3000.4	0.96	38	61	420	0.11
3446	0.76	25	50	433	0.12
3481.9	0.32	20	143	407	0.27
3495.0	1.02	19	90	432	0.21
3506.1	1.11	22	111	434	0.21
3551.5	8.89	206	3	435	0.21
		core			
3661.4	0.34	262	25	423	0.73
3688.1	0.43	416	12	414	0.7
		hand picked sample			
3595	3.86	263	8	438	0.13

Table III

Sample Depth (m)	R_m a)	S b)	n c)	Remarks
460	0.37	0.06	43	Predominantly lignite particles
1345	0.37	0.05	42	
1615	0.38	0.05	32	Relatively high percentages of figured liptinites, pollens, dinoflagellates etc.; presumably type II kerogen
1740	0.41	0.09	35	
2035	0.48	0.09	10	abundant unfigured liptinites and bituminous liptinitic groundmasses; presumably type I kerogen
2320	0.34	0.05	27	Predominantly lignite particles and cavings
	0.51	0.02	4	
2455	0.33	0.03	26	
	0.56	0.02	8	
2995	0.28	0.03	30	
3085	0.39	0.05	25	
3550	0.34	0.05	50	
3595	0.59	0.10	39	abundant unfigured liptinites + coaly particles; assumed type II kerogen
3640	0.65	0.06	30	
3925	0.31	0.03	38	Predominantly lignite particles
4210	0.31	0.03	44	
4285	0.66	0.06	34	Orange fluorescent vitrinite particle & mineral rich bituminous groundmasses
	0.69	0.06	25	
4510	1.07	0.03	50	Coal seam with orange fluorescent vitrinites and orange fluorescent bitumen in the cell lumens of the inertinites.

a) R_m = mean vitrinite reflectance; b) S = standard deviation; c) n = number of grains measured

1	2	3	4	5	6	7	8
3535.00	1.77	1442.	81.5	42.6	22.0	30.3	47.7
3550.00	4.30	4135.	96.2	50.2	21.6	30.6	47.8
3551.50	8.89	9047.	101.8	54.1	19.3	33.9	46.8
3595.00	3.86	2500.	64.8	30.3	19.2	27.6	53.2
3640.00	1.74	1250.	71.8	36.1	24.5	25.8	49.7
3661.40	0.34	3204.	942.4	792.5	58.0	26.1	15.9
3688.16	0.43	6554.	1524.2	1297.1	57.6	27.5	14.9
3730.00	3.38	1852.	54.8	28.9	23.0	29.8	47.2
3820.00	1.83	885.	48.4	28.7	30.8	28.5	40.7
3929.00	2.81	2880.	102.5	63.2	32.0	29.7	38.3
4000.00	5.39	9387.	174.2	109.9	32.8	30.3	36.9
4060.00	3.17	11540.	364.0	176.6	23.8	24.7	51.5
4210.00	2.17	1190.	54.8	32.1	34.3	24.2	41.5
4285.00	7.66	14302.	186.7	38.8	10.4	10.4	79.2
4510.00	29.98	10050.	33.5	1.0	1.2	1.9	96.9

LEGEND:

1- DEPTH (M)
2- CORG (%)
3- C15+ SOLUBLE ORGANIC MATTER (PPM)
4- C15+ SOLUBLE ORGANIC MATTER (MG/G C-ORG)
5- C15+ HYDROCARBONS (MG/G C-ORG)
6- C15+ SATURATED HYDROCARBONS (% OF NR.3)
7- C11+ AROMATIC HYDROCARBONS (% OF NR.3)
8- N,S,O- COMPOUNDS, RESIDUE (% OF NR.3)

TABLE IV: YIELD AND GROSS COMPOSITION OF ORGANIC MATTER FOR

STATOIL 6407/1-2

CPI (19-25) = CPI 1
CPI (25-31) = CPI 2
CPI (29) = CPI 3
CPI (27-29) = CPI 4
LHCPI (17-21/27-31)= LHCPI

PRISTANE / N-C 17 = ISO 1
PHYTANE / N-C 18 = ISO 2
PRISTANE / PHYTANE = ISO 3
PRI +PHY / 17 +18 = ISO 4

SAMPLE NUMBER			CPI 1	CPI 2	CPI 3	CPI 4	LHCPI	ISO 1	ISO 2	ISO 3	ISO 4
E17079 -1	3520M - 3535M		0.94	0.97	0.97	0.93	4.30	0.80	0.94	0.93	0.87
E17080 -1	3535M - 3550M		0.94	0.96	0.99	0.96	3.64	0.74	0.93	0.86	0.83
E17199 -1	3551.5M	CORE	0.94	0.96	0.98	0.93	3.52	0.80	0.93	0.96	0.86
E17147 -1	3580M - 3595M		1.00	1.13	1.18	1.15	2.07	1.21	0.64	2.03	0.94
E17150 -1	3625M - 3640M		1.04	1.18	1.24	1.22	1.83	1.35	0.56	2.70	0.98
E17804 -1	3661.4M	CORE	0.96	1.00	1.02	0.98	2.65	0.75	0.71	1.06	0.73
E17805 -1	3688.1M-3688.16M	CORE	0.96	1.01	1.04	1.00	2.93	0.72	0.71	1.10	0.72
E17156 -1	3715M - 3730M		1.05	1.26	1.34	1.32	3.55	0.65	0.41	1.79	0.53
E17162 -1	3805M - 3820M		1.15	1.15	1.17	1.14	4.01	0.57	0.21	2.76	0.39
E17169 -1	3910M - 3925M		1.03	1.19	1.25	1.22	5.71	0.59	0.44	1.52	0.52
E17711 -1	3985M - 4000M		1.02	1.03	1.07	1.05	4.60	0.57	0.43	1.58	0.51
E17715 -1	4045M - 4060M		1.01	0.99	0.91	0.97	2.68	0.61	0.49	1.35	0.55
E17725 -1	4195M - 4210M		1.08	1.11	1.16	1.14	10.87	0.60	0.41	1.67	0.51
E17730 -1	4270M - 4285M		1.01	1.01	1.00	1.00	3.31	0.85	0.56	1.61	0.71
E17758 -1	4495M - 4510M		1.05	1.03	1.00	1.00	4.61	0.52	0.19	3.17	0.36
E17877 -1	3659M - 3669M	OIL	0.98	1.04	1.08	1.02	4.36	0.76	0.73	1.14	0.74

Table V

Table VI: LIGHT HYDROCARBON YIELD DATA FOR ROCK SAMPLES FROM WELL STATOIL 6407/1-2

ABBREVIATIONS

PROBE	:	SAMPLE NUMBER
TF	:	DEPTH (M)
OC	:	ORGANIC CARBON CONTENT (WEIGHT-%)
SE	:	SATURATED C2-C8 HYDROCARBON YIELD (NG/G OF ROCK)
SEA	:	TOTAL C2-C8 HYDROCARBON YIELD (NG/G OF ROCK)
SC	:	SAME AS 'SE', BUT ORGANIC CARBON NORMALIZED (NG/G C-ORG)
SCA	:	SAME AS 'SEA', BUT ORGANIC CARBON NORMALIZED (NG/G C-ORG)
ETHAN	:	ETHANE (NG/G C-ORG)
(ETHAN)	:	ETHANE (NG/G OF ROCK)
PROPAN	:	PROPANE (NG/G C-ORG)
(PROPAN)	:	PROPANE (NG/G OF ROCK)
MC3	:	METHYLPROPANE (NG/G C-ORG)
(MC3)	:	METHYLPROPANE (NG/G OF ROCK)
N-C4	:	N-BUTANE (NG/G C-ORG)
(N-C4)	:	N-BUTANE (NG/G OF ROCK)
2,2DMC3	:	2,2-DIMETHYLPROPANE (NG/G C-ORG)
(2,2DMC3)	:	2,2-DIMETHYLPROPANE (NG/G OF ROCK)
MC4	:	METHYLBUTANE (NG/G C-ORG)
(MC4)	:	METHYLBUTANE (NG/G OF ROCK)
N-C5	:	N-PENTANE (NG/G C-ORG)
(N-C5)	:	N-PENTANE (NG/G OF ROCK)
CYC5	:	CYCLOPENTANE (NG/G C-ORG)
(CYC5)	:	CYCLOPENTANE (NG/G OF ROCK)
2-MC5	:	2-METHYLPENTANE (NG/G C-ORG)
(2-MC5)	:	2-METHYLPENTANE (NG/G OF ROCK)
N-C6	:	N-HEXANE (NG/G C-ORG)
(N-C6)	:	N-HEXANE (NG/G OF ROCK)
MCYC5	:	METHYLCYCLOPENTANE (NG/G C-ORG)
(MCYC5)	:	METHYLCYCLOPENTANE (NG/G OF ROCK)
BENZOL	:	BENZENE (NG/G C-ORG)
(BENZOL)	:	BENZENE (NG/G OF ROCK)
CYC6	:	CYCLOHEXANE (NG/G C-ORG)
(CYC6)	:	CYCLOHEXANE (NG/G OF ROCK)
2-MC6	:	2-METHYLHEXANE (NG/G C-ORG)
(2-MC6)	:	2-METHYLHEXANE (NG/G OF ROCK)
N-C7	:	N-HEPTANE (NG/G C-ORG)
(N-C7)	:	N-HEPTANE (NG/G OF ROCK)
MCYC6	:	METHYLCYCLOHEXANE (NG/G C-ORG)
(MCYC6)	:	METHYLCYCLOHEXANE (NG/G OF ROCK)
ECYC5	:	ETHYLCYCLOPENTANE (NG/G C-ORG)
(ECYC5)	:	ETHYLCYCLOPENTANE (NG/G OF ROCK)
TOLUOL	:	TOLUENE (NG/G C-ORG)
(TOLUOL)	:	TOLUENE (NG/G OF ROCK)
2-MC7	:	2-METHYLHEPTANE (NG/G C-ORG)
(2-MC7)	:	2-METHYLHEPTANE (NG/G OF ROCK)
N-C8	:	N-OCTANE (NG/G C-ORG)
(N-C8)	:	N-OCTANE (NG/G OF ROCK)

PROBE	TF	OC	SE	SEA	SC	SCA
E 16286	415.	0.71	0.279E 02	0.301E 02	0.393E 04	0.424E 04
E 16293	520.	0.13	0.661E 00	0.733E 00	0.509E 03	0.564E 03
E 16300	625.	0.15	0.104E 01	0.105E 01	0.695E 03	0.700E 03
E 16307	730.	0.15	0.100E 01	0.100E 01	0.668E 03	0.670E 03
E 16312	805.	0.21	0.117E 01	0.477E 01	0.559E 03	0.227E 04
E 16318	895.	0.12	0.185E 01	0.204E 01	0.154E 04	0.170E 04
E 16324	985.	0.14	0.104E 02	0.190E 02	0.745E 04	0.136E 05
E 16330	1075.	0.09	0.256E 01	0.950E 01	0.285E 04	0.106E 05
E 16336	1165.	0.11	0.197E 01	0.396E 01	0.179E 04	0.360E 04
E 16342	1255.	0.09	0.115E 01	0.277E 01	0.128E 04	0.307E 04
E 16348	1345.	0.78	0.211E 01	0.321E 01	0.271E 03	0.412E 03
E 16354	1435.	0.40	0.288E 01	0.122E 02	0.720E 03	0.304E 04
E 16360	1525.	0.66	0.341E 02	0.130E 03	0.517E 04	0.197E 05
E 16366	1615.	1.26	0.108E 03	0.154E 03	0.853E 04	0.122E 05
E 16368	1645.	1.80	0.108E 03	0.177E 03	0.601E 04	0.983E 04
E 16370	1665.	1.82	0.126E 03	0.207E 03	0.692E 04	0.114E 05
E 16373	1710.	2.86	0.170E 03	0.457E 03	0.595E 04	0.160E 05
E 16376	1755.	3.01	0.177E 03	0.374E 03	0.588E 04	0.124E 05
E 16378	1785.	1.92	0.932E 02	0.286E 03	0.485E 04	0.149E 05
E 16380	1840.	1.68	0.161E 03	0.251E 03	0.957E 04	0.149E 05
E 16382	1870.	1.46	0.101E 03	0.187E 03	0.691E 04	0.128E 05
E 16384	1900.	1.82	0.251E 03	0.301E 03	0.138E 05	0.165E 05
E 16387	1945.	1.59	0.140E 03	0.247E 03	0.883E 04	0.155E 05
E 16389	1975.	1.32	0.896E 02	0.971E 02	0.679E 04	0.736E 04
E 16396	2080.	0.97	0.364E 03	0.369E 03	0.376E 05	0.381E 05
E 16402	2170.	0.94	0.623E 03	0.634E 03	0.662E 05	0.675E 05
E 17616	2245.	0.46	0.325E 03	0.401E 03	0.706E 05	0.872E 05
E 17621	2320.	1.10	0.105E 04	0.118E 04	0.957E 05	0.108E 06
E 17626	2395.	0.68	0.214E 04	0.232E 04	0.314E 06	0.341E 06
E 17630	2455.	1.03	0.411E 04	0.477E 04	0.399E 06	0.463E 06
E 17636	2545.	1.12	0.117E 04	0.127E 04	0.104E 06	0.114E 06
E 17641	2620.	1.35	0.237E 04	0.257E 04	0.175E 06	0.190E 06
E 17646	2695.	1.24	0.151E 04	0.158E 04	0.122E 06	0.127E 06
E 17651	2770.	1.19	0.717E 03	0.792E 03	0.603E 05	0.666E 05
E 17656	2845.	1.19	0.175E 04	0.180E 04	0.147E 06	0.151E 06
E 17038	2920.	1.22	0.486E 03	0.530E 03	0.398E 05	0.434E 05
E 17041	2965.	0.92	0.234E 04	0.254E 04	0.254E 06	0.277E 06
E 17044	3010.	1.22	0.392E 04	0.420E 04	0.321E 06	0.344E 06
E 17047	3055.	0.87	0.161E 04	0.171E 04	0.185E 06	0.197E 06
E 17050	3100.	1.05	0.146E 04	0.156E 04	0.139E 06	0.149E 06
E 17052	3130.	0.98	0.652E 03	0.699E 03	0.665E 05	0.713E 05
E 17054	3160.	1.09	0.773E 03	0.816E 03	0.710E 05	0.749E 05
E 17057	3205.	0.94	0.323E 03	0.353E 03	0.344E 05	0.376E 05
E 17059	3235.	0.92	0.782E 03	0.825E 03	0.850E 05	0.897E 05
E 17062	3280.	0.93	0.192E 04	0.204E 04	0.206E 06	0.219E 06
E 17065	3325.	0.96	0.560E 02	0.611E 02	0.583E 04	0.636E 04
E 17067	3355.	0.91	0.597E 03	0.657E 03	0.656E 05	0.722E 05
E 17069	3385.	0.93	0.140E 03	0.145E 03	0.150E 05	0.156E 05
E 17072	3430.	0.88	0.851E 03	0.957E 03	0.967E 05	0.109E 06
E 17075	3475.	0.92	0.635E 03	0.720E 03	0.690E 05	0.783E 05
E 17077	3505.	1.03	0.300E 03	0.460E 03	0.291E 05	0.447E 05
E 17078	3520.	0.88	0.383E 03	0.517E 03	0.435E 05	0.587E 05
E 17079	3535.	1.39	0.837E 04	0.956E 04	0.602E 06	0.688E 06
E 17080	3550.	1.74	0.146E 05	0.168E 05	0.837E 06	0.965E 06
E 17081	3565.	2.01	0.564E 04	0.729E 04	0.280E 06	0.363E 06
E 17146	3580.	4.02	0.685E 04	0.857E 04	0.170E 06	0.213E 06
E 17147	3595.	2.80	0.679E 04	0.849E 04	0.242E 06	0.303E 06
E 17148	3610.	1.92	0.968E 04	0.112E 05	0.504E 06	0.582E 06
E 17149	3625.	2.01	0.564E 04	0.674E 04	0.281E 06	0.336E 06
E 17150	3640.	2.16	0.627E 04	0.734E 04	0.290E 06	0.340E 06

Table VI (continued)

PROBE	TF	OC	SE	SEA	SC	SCA
E 17151	3655.	2.48	0.841E 04	0.960E 04	0.339E 06	0.387E 06
E 17154	3700.	1.56	0.431E 04	0.520E 04	0.277E 06	0.333E 06
E 17155	3715.	2.22	0.617E 04	0.770E 04	0.278E 06	0.347E 06
E 17157	3745.	2.39	0.461E 04	0.539E 04	0.193E 06	0.225E 06
E 17159	3775.	1.84	0.275E 04	0.337E 04	0.149E 06	0.183E 06
E 17161	3805.	2.30	0.436E 04	0.511E 04	0.190E 06	0.222E 06
E 17163	3835.	0.94	0.166E 04	0.197E 04	0.177E 06	0.210E 06
E 17164	3850.	1.33	0.165E 04	0.195E 04	0.124E 06	0.146E 06
E 17165	3865.	1.27	0.213E 04	0.256E 04	0.168E 06	0.202E 06
E 17167	3895.	0.75	0.150E 04	0.175E 04	0.200E 06	0.233E 06
E 17168	3910.	0.73	0.844E 03	0.949E 03	0.116E 06	0.130E 06
E 17169	3925.	1.38	0.188E 04	0.217E 04	0.136E 06	0.157E 06
E 17711	4000.	3.56	0.186E 04	0.197E 04	0.523E 05	0.552E 05
E 17715	4060.	6.76	0.160E 04	0.179E 04	0.236E 05	0.265E 05
E 17720	4135.	4.53	0.139E 04	0.148E 04	0.308E 05	0.327E 05
E 17725	4210.	2.04	0.527E 03	0.564E 03	0.258E 05	0.276E 05
E 17730	4285.	13.05	0.448E 04	0.460E 04	0.344E 05	0.353E 05
E 17748	4360.	8.25	0.155E 04	0.162E 04	0.188E 05	0.196E 05
E 17763	4366.	28.49	0.743E 05	0.789E 05	0.261E 06	0.277E 06
E 17753	4435.	39.00	0.131E 05	0.134E 05	0.337E 05	0.344E 05
E 17758	4510.	50.16	0.112E 05	0.115E 05	0.224E 05	0.229E 05
E 17762	4560.	19.79	0.524E 04	0.541E 04	0.265E 05	0.274E 05
E 17877A	3669.	0.00	0.181E 05	0.202E 05	0.000	0.000
E 17877B	3669.	0.00	0.204E 05	0.229E 05	0.000	0.000

Table VI (continued)

PROBE	TF	ETHAN	(ETHAN)	PROPAN	(PROPAN)	MC3	(MC3)
E 16286	415.	0.390E 02	0.277E 00	0.949E 02	0.673E 00	0.157E 02	0.112E 00
E 16293	520.	0.840E 02	0.109E 00	0.122E 03	0.158E 00	0.722E 02	0.939E-01
E 16300	625.	0.114E 03	0.171E 00	0.164E 03	0.246E 00	0.961E 02	0.144E 00
E 16307	730.	0.159E 03	0.238E 00	0.181E 03	0.271E 00	0.490E 02	0.736E-01
E 16312	805.	0.656E 02	0.138E 00	0.893E 02	0.187E 00	0.388E 02	0.816E-01
E 16318	895.	0.140E 03	0.167E 00	0.262E 03	0.315E 00	0.730E 02	0.876E-01
E 16324	985.	0.112E 03	0.156E 00	0.178E 03	0.249E 00	0.715E 02	0.100E 00
E 16330	1075.	0.139E 03	0.125E 00	0.808E 03	0.727E 00	0.241E 03	0.217E 00
E 16336	1165.	0.160E 03	0.176E 00	0.253E 03	0.278E 00	0.115E 03	0.126E 00
E 16342	1255.	0.171E 03	0.154E 00	0.323E 03	0.291E 00	0.948E 02	0.854E-01
E 16348	1345.	0.655E 02	0.511E 00	0.892E 02	0.696E 00	0.229E 02	0.179E 00
E 16354	1435.	0.805E 02	0.322E 00	0.182E 03	0.728E 00	0.671E 02	0.268E 00
E 16360	1525.	0.194E 03	0.128E 01	0.856E 03	0.565E 01	0.668E 03	0.441E 01
E 16366	1615.	0.153E 03	0.193E 01	0.115E 04	0.145E 02	0.152E 04	0.191E 02
E 16368	1645.	0.130E 03	0.233E 01	0.835E 03	0.150E 02	0.907E 03	0.163E 02
E 16370	1665.	0.477E 03	0.868E 01	0.148E 04	0.270E 02	0.986E 03	0.179E 02
E 16373	1710.	0.268E 03	0.767E 01	0.104E 04	0.296E 02	0.772E 03	0.221E 02
E 16376	1755.	0.665E 03	0.200E 02	0.125E 04	0.375E 02	0.845E 03	0.254E 02
E 16378	1785.	0.568E 03	0.109E 02	0.909E 03	0.175E 02	0.683E 03	0.131E 02
E 16380	1840.	0.785E 03	0.132E 02	0.104E 04	0.174E 02	0.110E 04	0.184E 02
E 16382	1870.	0.113E 04	0.166E 02	0.110E 04	0.161E 02	0.108E 04	0.157E 02
E 16384	1900.	0.416E 04	0.758E 02	0.237E 04	0.431E 02	0.148E 04	0.269E 02
E 16387	1945.	0.169E 04	0.268E 02	0.173E 04	0.275E 02	0.977E 03	0.155E 02
E 16389	1975.	0.117E 04	0.154E 02	0.158E 04	0.209E 02	0.879E 03	0.116E 02
E 16396	2080.	0.693E 04	0.672E 02	0.120E 05	0.117E 03	0.701E 04	0.680E 02
E 16402	2170.	0.433E 04	0.407E 02	0.112E 05	0.105E 03	0.126E 05	0.118E 03
E 17616	2245.	0.588E 04	0.271E 02	0.413E 04	0.190E 02	0.457E 04	0.210E 02
E 17621	2320.	0.428E 04	0.470E 02	0.985E 04	0.108E 03	0.623E 04	0.686E 02
E 17626	2395.	0.679E 04	0.462E 02	0.215E 05	0.146E 03	0.122E 05	0.829E 02
E 17630	2455.	0.119E 05	0.123E 03	0.451E 05	0.465E 03	0.189E 05	0.194E 03
E 17636	2545.	0.189E 02	0.212E 00	0.621E 04	0.696E 02	0.447E 04	0.500E 02
E 17641	2620.	0.217E 04	0.293E 02	0.925E 04	0.125E 03	0.567E 04	0.766E 02
E 17646	2695.	0.183E 04	0.227E 02	0.777E 04	0.963E 02	0.421E 04	0.522E 02
E 17651	2770.	0.215E 04	0.256E 02	0.649E 04	0.772E 02	0.414E 04	0.493E 02
E 17656	2845.	0.177E 04	0.210E 02	0.849E 04	0.101E 03	0.721E 04	0.858E 02
E 17038	2920.	0.162E 04	0.198E 02	0.590E 04	0.720E 02	0.301E 04	0.368E 02
E 17041	2965.	0.177E 05	0.163E 03	0.539E 05	0.496E 03	0.165E 05	0.152E 03
E 17044	3010.	0.114E 04	0.140E 02	0.905E 04	0.110E 03	0.612E 04	0.747E 02
E 17047	3055.	0.616E 04	0.536E 02	0.220E 05	0.191E 03	0.925E 04	0.805E 02
E 17050	3100.	0.127E 04	0.133E 02	0.610E 04	0.641E 02	0.474E 04	0.497E 02
E 17052	3130.	0.381E 02	0.373E 00	0.889E 04	0.871E 02	0.448E 04	0.439E 02
E 17054	3160.	0.314E 04	0.342E 02	0.103E 05	0.112E 03	0.453E 04	0.493E 02
E 17057	3205.	0.411E 04	0.386E 02	0.686E 04	0.645E 02	0.185E 04	0.174E 02
E 17059	3235.	0.498E 04	0.458E 02	0.759E 04	0.699E 02	0.480E 04	0.442E 02
E 17062	3280.	0.500E 04	0.465E 02	0.150E 05	0.139E 03	0.793E 04	0.738E 02
E 17065	3325.	0.197E 03	0.189E 01	0.549E 03	0.527E 01	0.220E 03	0.212E 01
E 17067	3355.	0.981E 03	0.893E 01	0.351E 04	0.320E 02	0.261E 04	0.238E 02
E 17069	3385.	0.487E 03	0.453E 01	0.994E 03	0.925E 01	0.357E 03	0.332E 01
E 17072	3430.	0.562E 04	0.494E 02	0.137E 05	0.121E 03	0.508E 04	0.447E 02
E 17075	3475.	0.698E 04	0.642E 02	0.125E 05	0.115E 03	0.320E 04	0.294E 02
E 17077	3505.	0.123E 04	0.126E 02	0.536E 04	0.552E 02	0.802E 03	0.826E 01
E 17078	3520.	0.390E 04	0.343E 02	0.109E 05	0.956E 02	0.120E 04	0.105E 02
E 17079	3535.	0.694E 04	0.965E 02	0.329E 05	0.458E 03	0.132E 05	0.184E 03
E 17080	3550.	0.239E 05	0.416E 03	0.805E 05	0.140E 04	0.215E 05	0.374E 03
E 17081	3565.	0.191E 05	0.384E 03	0.335E 05	0.674E 03	0.846E 04	0.170E 03
E 17146	3580.	0.120E 05	0.481E 03	0.401E 05	0.161E 04	0.665E 04	0.267E 03
E 17147	3595.	0.134E 05	0.374E 03	0.555E 05	0.156E 04	0.104E 05	0.290E 03
E 17148	3610.	0.165E 05	0.316E 03	0.765E 05	0.147E 04	0.194E 05	0.372E 03
E 17149	3625.	0.304E 05	0.611E 03	0.744E 05	0.150E 04	0.113E 05	0.228E 03
E 17150	3640.	0.213E 05	0.459E 03	0.755E 05	0.163E 04	0.147E 05	0.317E 03

Table VI (continued)

PROBE	TF	ETHAN	(ETHAN)	PROPAN	(PROPAN)	MC3	(MC3)
E 17151	3655.	0.417E 05	0.103E 04	0.103E 06	0.256E 04	0.192E 05	0.477E 03
E 17154	3700.	0.252E 05	0.393E 03	0.801E 05	0.125E 04	0.132E 05	0.207E 03
E 17155	3715.	0.238E 05	0.529E 03	0.317E 05	0.703E 03	0.148E 05	0.329E 03
E 17157	3745.	0.317E 05	0.758E 03	0.422E 05	0.101E 04	0.726E 04	0.174E 03
E 17159	3775.	0.155E 05	0.286E 03	0.384E 05	0.706E 03	0.670E 04	0.123E 03
E 17161	3805.	0.175E 05	0.402E 03	0.411E 05	0.945E 03	0.750E 04	0.173E 03
E 17163	3835.	0.140E 05	0.131E 03	0.369E 05	0.347E 03	0.732E 04	0.688E 02
E 17164	3850.	0.839E 04	0.112E 03	0.250E 05	0.333E 03	0.552E 04	0.735E 02
E 17165	3865.	0.112E 05	0.142E 03	0.337E 05	0.428E 03	0.707E 04	0.898E 02
E 17167	3895.	0.600E 04	0.450E 02	0.267E 05	0.200E 03	0.730E 04	0.547E 02
E 17168	3910.	0.363E 04	0.265E 02	0.118E 05	0.859E 02	0.299E 04	0.218E 02
E 17169	3925.	0.778E 04	0.107E 03	0.242E 05	0.334E 03	0.494E 04	0.682E 02
E 17711	4000.	0.150E 03	0.533E 01	0.946E 03	0.337E 02	0.616E 03	0.219E 02
E 17715	4060.	0.132E 03	0.894E 01	0.444E 03	0.300E 02	0.179E 03	0.121E 02
E 17720	4135.	0.108E 04	0.490E 02	0.179E 04	0.809E 02	0.311E 03	0.141E 02
E 17725	4210.	0.434E 04	0.885E 02	0.363E 04	0.740E 02	0.820E 03	0.167E 02
E 17730	4285.	0.178E 05	0.233E 04	0.642E 04	0.838E 03	0.508E 03	0.663E 02
E 17748	4360.	0.124E 05	0.102E 04	0.323E 04	0.266E 03	0.170E 03	0.140E 02
E 17763	4366.	0.287E 05	0.817E 04	0.258E 05	0.735E 04	0.146E 05	0.415E 04
E 17753	4435.	0.226E 05	0.881E 04	0.718E 04	0.280E 04	0.336E 03	0.131E 03
E 17758	4510.	0.156E 05	0.783E 04	0.261E 04	0.131E 04	0.144E 03	0.722E 02
E 17762	4560.	0.156E 05	0.310E 04	0.192E 04	0.380E 03	0.114E 03	0.226E 02
E 17877A	3669.	0.000	0.190E 02	0.000	0.331E 03	0.000	0.361E 03
E 17877B	3669.	0.000	0.642E 01	0.000	0.215E 03	0.000	0.347E 03

Table VI (continued)

PROBE	TF	N-C4	(N-C4)	2,2DMC3	(2,2DMC3)	MC4	(MC4)
E 16286	415.	0.197E 02	0.140E 00	0.234E 01	0.166E-01	0.595E 02	0.422E 00
E 16293	520.	0.416E 02	0.541E-01	0.353E 02	0.459E-01	0.440E 02	0.571E-01
E 16300	625.	0.842E 02	0.126E 00	0.894E 01	0.134E-01	0.143E 03	0.215E 00
E 16307	730.	0.832E 02	0.125E 00	0.516E 01	0.774E-02	0.968E 02	0.145E 00
E 16312	805.	0.228E 02	0.479E-01	0.613E 01	0.129E-01	0.181E 03	0.381E 00
E 16318	895.	0.762E 02	0.914E-01	0.302E 02	0.362E-01	0.430E 03	0.516E 00
E 16324	985.	0.659E 04	0.922E 01	0.358E 02	0.502E-01	0.654E 02	0.916E-01
E 16330	1075.	0.795E 02	0.716E-01	0.568E 02	0.511E-01	0.570E 03	0.513E 00
E 16336	1165.	0.955E 02	0.105E 00	0.320E 02	0.352E-01	0.318E 03	0.350E 00
E 16342	1255.	0.695E 02	0.626E-01	0.543E 02	0.489E-01	0.182E 03	0.163E 00
E 16348	1345.	0.107E 02	0.835E-01	0.564E 01	0.440E-01	0.271E 02	0.212E 00
E 16354	1435.	0.405E 02	0.162E 00	0.822E 01	0.329E-01	0.109E 03	0.436E 00
E 16360	1525.	0.327E 03	0.215E 01	0.461E 01	0.304E-01	0.104E 04	0.689E 01
E 16366	1615.	0.653E 03	0.823E 01	0.168E 02	0.212E 00	0.207E 04	0.261E 02
E 16368	1645.	0.891E 03	0.160E 02	0.200E 01	0.359E-01	0.137E 04	0.247E 02
E 16370	1665.	0.755E 03	0.137E 02	0.481E 01	0.875E-01	0.130E 04	0.236E 02
E 16373	1710.	0.699E 03	0.200E 02	0.334E 01	0.956E-01	0.103E 04	0.293E 02
E 16376	1755.	0.632E 03	0.190E 02	0.534E 01	0.161E 00	0.753E 03	0.227E 02
E 16378	1785.	0.473E 03	0.909E 01	0.123E 02	0.236E 00	0.611E 03	0.117E 02
E 16380	1840.	0.559E 03	0.940E 01	0.117E 02	0.196E 00	0.141E 04	0.237E 02
E 16382	1870.	0.475E 03	0.693E 01	0.150E 02	0.219E 00	0.100E 04	0.146E 02
E 16384	1900.	0.886E 03	0.161E 02	0.352E 02	0.640E 00	0.117E 04	0.213E 02
E 16387	1945.	0.706E 03	0.112E 02	0.350E 02	0.557E 00	0.626E 03	0.995E 01
E 16389	1975.	0.684E 03	0.903E 01	0.218E 02	0.288E 00	0.540E 03	0.713E 01
E 16396	2080.	0.563E 04	0.547E 02	0.149E 03	0.145E 01	0.273E 04	0.264E 02
E 16402	2170.	0.104E 05	0.982E 02	0.488E 03	0.459E 01	0.146E 05	0.137E 03
E 17616	2245.	0.630E 04	0.290E 02	0.258E 03	0.119E 01	0.144E 05	0.664E 02
E 17621	2320.	0.160E 05	0.176E 03	0.133E 03	0.147E 01	0.121E 05	0.133E 03
E 17626	2395.	0.364E 05	0.248E 03	0.222E 03	0.151E 01	0.274E 05	0.186E 03
E 17630	2455.	0.529E 05	0.545E 03	0.247E 03	0.254E 01	0.298E 05	0.307E 03
E 17636	2545.	0.134E 05	0.151E 03	0.703E 02	0.788E 00	0.884E 04	0.990E 02
E 17641	2620.	0.137E 05	0.185E 03	0.117E 03	0.158E 01	0.123E 05	0.166E 03
E 17646	2695.	0.786E 04	0.974E 02	0.917E 02	0.114E 01	0.761E 04	0.943E 02
E 17651	2770.	0.493E 04	0.586E 02	0.136E 03	0.162E 01	0.642E 04	0.764E 02
E 17656	2845.	0.108E 05	0.129E 03	0.197E 03	0.234E 01	0.106E 05	0.126E 03
E 17038	2920.	0.488E 04	0.595E 02	0.243E 02	0.296E 00	0.346E 04	0.422E 02
E 17041	2965.	0.427E 05	0.393E 03	0.165E 03	0.152E 01	0.187E 05	0.172E 03
E 17044	3010.	0.151E 05	0.184E 03	0.161E 03	0.197E 01	0.227E 05	0.276E 03
E 17047	3055.	0.177E 05	0.154E 03	0.150E 03	0.131E 01	0.125E 05	0.109E 03
E 17050	3100.	0.833E 04	0.875E 02	0.903E 02	0.948E 00	0.613E 04	0.644E 02
E 17052	3130.	0.819E 04	0.803E 02	0.973E 02	0.954E 00	0.511E 04	0.501E 02
E 17054	3160.	0.696E 04	0.759E 02	0.491E 02	0.535E 00	0.387E 04	0.422E 02
E 17057	3205.	0.320E 04	0.301E 02	0.227E 02	0.213E 00	0.130E 04	0.122E 02
E 17059	3235.	0.974E 04	0.896E 02	0.114E 03	0.105E 01	0.747E 04	0.687E 02
E 17062	3280.	0.131E 05	0.122E 03	0.207E 03	0.193E 01	0.118E 05	0.110E 03
E 17065	3325.	0.387E 03	0.371E 01	0.471E 01	0.452E-01	0.255E 03	0.245E 01
E 17067	3355.	0.456E 04	0.415E 02	0.777E 02	0.707E 00	0.350E 04	0.319E 02
E 17069	3385.	0.694E 03	0.645E 01	0.708E 01	0.658E-01	0.453E 03	0.421E 01
E 17072	3430.	0.102E 05	0.898E 02	0.976E 02	0.859E 00	0.641E 04	0.564E 02
E 17075	3475.	0.482E 04	0.443E 02	0.576E 02	0.530E 00	0.239E 04	0.220E 02
E 17077	3505.	0.452E 04	0.466E 02	0.477E 03	0.491E 01	0.116E 04	0.119E 02
E 17078	3520.	0.495E 04	0.436E 02	0.392E 03	0.345E 01	0.988E 03	0.869E 01
E 17079	3535.	0.815E 05	0.113E 04	0.192E 02	0.268E 00	0.461E 05	0.640E 03
E 17080	3550.	0.118E 06	0.206E 04	0.675E 01	0.118E 00	0.619E 05	0.108E 04
E 17081	3565.	0.486E 05	0.976E 03	0.457E 03	0.919E 01	0.181E 05	0.364E 03
E 17146	3580.	0.338E 05	0.136E 04	0.916E 01	0.368E 00	0.933E 04	0.375E 03
E 17147	3595.	0.497E 05	0.139E 04	0.150E 02	0.419E 00	0.144E 05	0.404E 03
E 17148	3610.	0.963E 05	0.185E 04	0.606E 02	0.116E 01	0.321E 05	0.617E 03
E 17149	3625.	0.518E 05	0.104E 04	0.184E 02	0.369E 00	0.130E 05	0.261E 03
E 17150	3640.	0.601E 05	0.130E 04	0.476E 02	0.103E 01	0.160E 05	0.346E 03

Table VI (continued)

PROBE	TF	N-C4	(N-C4)	2,2DMC3	(2,2DMC3)	MC4	(MC4)
E 17151	3655.	0.649E 05	0.161E 04	0.894E 02	0.222E 01	0.175E 05	0.434E 03
E 17154	3700.	0.582E 05	0.908E 03	0.225E 02	0.351E 00	0.127E 05	0.199E 03
E 17155	3715.	0.649E 05	0.144E 04	0.293E 02	0.651E 00	0.184E 05	0.409E 03
E 17157	3745.	0.313E 05	0.749E 03	0.200E 02	0.478E 00	0.864E 04	0.207E 03
E 17159	3775.	0.302E 05	0.555E 03	0.148E 02	0.271E 00	0.728E 04	0.134E 03
E 17161	3805.	0.336E 05	0.773E 03	0.249E 02	0.572E 00	0.985E 04	0.227E 03
E 17163	3835.	0.343E 05	0.322E 03	0.203E 02	0.190E 00	0.975E 04	0.916E 02
E 17164	3850.	0.249E 05	0.331E 03	0.222E 02	0.295E 00	0.728E 04	0.968E 02
E 17165	3865.	0.330E 05	0.419E 03	0.170E 02	0.216E 00	0.980E 04	0.124E 03
E 17167	3895.	0.367E 05	0.275E 03	0.238E 02	0.178E 00	0.127E 05	0.950E 02
E 17168	3910.	0.169E 05	0.123E 03	0.185E 02	0.135E 00	0.675E 04	0.492E 02
E 17169	3925.	0.228E 05	0.315E 03	0.157E 02	0.216E 00	0.783E 04	0.108E 03
E 17711	4000.	0.319E 04	0.113E 03	0.382E 01	0.136E 00	0.234E 04	0.835E 02
E 17715	4060.	0.945E 03	0.639E 02	0.404E 02	0.273E 01	0.672E 03	0.454E 02
E 17720	4135.	0.158E 04	0.716E 02	0.258E 01	0.117E 00	0.735E 03	0.333E 02
E 17725	4210.	0.202E 04	0.412E 02	0.518E 01	0.106E 00	0.895E 03	0.183E 02
E 17730	4285.	0.206E 04	0.269E 03	0.146E 01	0.191E 00	0.486E 03	0.634E 02
E 17748	4360.	0.762E 03	0.629E 02	0.595E 01	0.491E 00	0.161E 03	0.133E 02
E 17763	4366.	0.274E 05	0.780E 04	0.857E 02	0.244E 02	0.195E 05	0.556E 04
E 17753	4435.	0.165E 04	0.644E 03	0.587E 00	0.229E 00	0.222E 03	0.868E 02
E 17758	4510.	0.743E 03	0.373E 03	0.302E 00	0.151E 00	0.157E 03	0.790E 02
E 17762	4560.	0.557E 03	0.110E 03	0.423E 01	0.837E 00	0.241E 03	0.476E 02
E 17877A	3669.	0.000	0.154E 04	0.000	0.436E 01	0.000	0.143E 04
E 17877B	3669.	0.000	0.161E 04	0.000	0.505E 01	0.000	0.159E 04

Table VI (continued)

PROBE	TF	N-C5	(N-C5)	CYC5	(CYC5)	2-MC5	(2-MC5)
E 16286	415.	0.116E 03	0.822E 00	0.000	0.000	0.155E 02	0.110E 00
E 16293	520.	0.581E 02	0.755E-01	0.000	0.000	0.000	0.000
E 16300	625.	0.708E 02	0.106E 00	0.000	0.000	0.745E 00	0.112E-02
E 16307	730.	0.600E 02	0.900E-01	0.000	0.000	0.645E 00	0.968E-03
E 16312	805.	0.326E 02	0.684E-01	0.000	0.000	0.273E 02	0.573E-01
E 16318	895.	0.121E 03	0.145E 00	0.000	0.000	0.695E 02	0.833E-01
E 16324	985.	0.776E 02	0.109E 00	0.620E 01	0.868E-02	0.234E 02	0.327E-01
E 16330	1075.	0.159E 03	0.144E 00	0.000	0.000	0.259E 03	0.233E 00
E 16336	1165.	0.151E 03	0.166E 00	0.392E 01	0.431E-02	0.104E 03	0.115E 00
E 16342	1255.	0.129E 03	0.116E 00	0.529E 01	0.476E-02	0.385E 02	0.347E-01
E 16348	1345.	0.106E 02	0.830E-01	0.000	0.000	0.628E 01	0.490E-01
E 16354	1435.	0.456E 02	0.182E 00	0.130E 01	0.519E-02	0.440E 02	0.176E 00
E 16360	1525.	0.274E 03	0.181E 01	0.312E 02	0.206E 00	0.318E 03	0.210E 01
E 16366	1615.	0.408E 03	0.514E 01	0.870E 02	0.110E 01	0.487E 03	0.614E 01
E 16368	1645.	0.296E 03	0.533E 01	0.929E 02	0.167E 01	0.258E 03	0.464E 01
E 16370	1665.	0.290E 03	0.527E 01	0.960E 02	0.175E 01	0.253E 03	0.460E 01
E 16373	1710.	0.329E 03	0.940E 01	0.837E 02	0.239E 01	0.298E 03	0.853E 01
E 16376	1755.	0.301E 03	0.905E 01	0.539E 02	0.162E 01	0.242E 03	0.727E 01
E 16378	1785.	0.307E 03	0.589E 01	0.446E 02	0.857E 00	0.209E 03	0.400E 01
E 16380	1840.	0.410E 03	0.689E 01	0.877E 02	0.147E 01	0.439E 03	0.737E 01
E 16382	1870.	0.279E 03	0.407E 01	0.545E 02	0.796E 00	0.196E 03	0.287E 01
E 16384	1900.	0.582E 03	0.106E 02	0.879E 02	0.160E 01	0.418E 03	0.761E 01
E 16387	1945.	0.568E 03	0.903E 01	0.470E 02	0.747E 00	0.323E 03	0.513E 01
E 16389	1975.	0.364E 03	0.481E 01	0.380E 02	0.502E 00	0.194E 03	0.256E 01
E 16396	2080.	0.991E 03	0.961E 01	0.836E 02	0.811E 00	0.271E 03	0.263E 01
E 16402	2170.	0.389E 04	0.366E 02	0.224E 03	0.211E 01	0.137E 04	0.128E 02
E 17616	2245.	0.649E 04	0.298E 02	0.595E 03	0.274E 01	0.360E 04	0.166E 02
E 17621	2320.	0.143E 05	0.157E 03	0.119E 04	0.131E 02	0.410E 04	0.451E 02
E 17626	2395.	0.414E 05	0.282E 03	0.249E 04	0.169E 02	0.187E 05	0.127E 03
E 17630	2455.	0.396E 05	0.408E 03	0.396E 04	0.408E 02	0.164E 05	0.169E 03
E 17636	2545.	0.111E 05	0.124E 03	0.111E 04	0.125E 02	0.475E 04	0.532E 02
E 17641	2620.	0.161E 05	0.217E 03	0.119E 04	0.160E 02	0.103E 05	0.139E 03
E 17646	2695.	0.809E 04	0.100E 03	0.687E 03	0.852E 01	0.603E 04	0.748E 02
E 17651	2770.	0.529E 04	0.630E 02	0.416E 03	0.495E 01	0.303E 04	0.361E 02
E 17656	2845.	0.115E 05	0.137E 03	0.771E 03	0.918E 01	0.955E 04	0.114E 03
E 17038	2920.	0.346E 04	0.422E 02	0.350E 03	0.426E 01	0.177E 04	0.215E 02
E 17041	2965.	0.232E 05	0.213E 03	0.228E 04	0.210E 02	0.783E 04	0.720E 02
E 17044	3010.	0.375E 05	0.457E 03	0.220E 04	0.269E 02	0.225E 05	0.275E 03
E 17047	3055.	0.150E 05	0.130E 03	0.127E 04	0.110E 02	0.907E 04	0.789E 02
E 17050	3100.	0.776E 04	0.815E 02	0.586E 03	0.615E 01	0.766E 04	0.804E 02
E 17052	3130.	0.577E 04	0.565E 02	0.417E 03	0.409E 01	0.319E 04	0.312E 02
E 17054	3160.	0.463E 04	0.505E 02	0.336E 03	0.366E 01	0.313E 04	0.341E 02
E 17057	3205.	0.209E 04	0.196E 02	0.118E 03	0.111E 01	0.102E 04	0.961E 01
E 17059	3235.	0.924E 04	0.850E 02	0.537E 03	0.494E 01	0.477E 04	0.439E 02
E 17062	3280.	0.157E 05	0.146E 03	0.107E 04	0.993E 01	0.122E 05	0.113E 03
E 17065	3325.	0.413E 03	0.397E 01	0.198E 02	0.190E 00	0.307E 03	0.295E 01
E 17067	3355.	0.460E 04	0.419E 02	0.273E 03	0.249E 01	0.378E 04	0.344E 02
E 17069	3385.	0.626E 03	0.583E 01	0.301E 02	0.280E 00	0.683E 03	0.635E 01
E 17072	3430.	0.800E 04	0.704E 02	0.428E 03	0.377E 01	0.461E 04	0.405E 02
E 17075	3475.	0.296E 04	0.272E 02	0.166E 03	0.153E 01	0.251E 04	0.231E 02
E 17077	3505.	0.300E 04	0.310E 02	0.278E 03	0.287E 01	0.761E 03	0.784E 01
E 17078	3520.	0.261E 04	0.230E 02	0.169E 03	0.149E 01	0.886E 03	0.779E 01
E 17079	3535.	0.910E 05	0.126E 04	0.117E 05	0.163E 03	0.332E 05	0.461E 03
E 17080	3550.	0.110E 06	0.192E 04	0.147E 05	0.257E 03	0.417E 05	0.725E 03
E 17081	3565.	0.331E 05	0.666E 03	0.648E 04	0.130E 03	0.104E 05	0.208E 03
E 17146	3580.	0.171E 05	0.686E 03	0.310E 04	0.124E 03	0.397E 04	0.159E 03
E 17147	3595.	0.256E 05	0.716E 03	0.459E 04	0.129E 03	0.592E 04	0.166E 03
E 17148	3610.	0.632E 05	0.121E 04	0.814E 04	0.156E 03	0.144E 05	0.277E 03
E 17149	3625.	0.236E 05	0.474E 03	0.401E 04	0.807E 02	0.583E 04	0.117E 03

Table VI (continued)

PROBE	TF	N-C5	(N-C5)	CYC5	(CYC5)	2-MC5	(2-MC5)
E 17151	3655.	0.227E 05	0.563E 03	0.389E 04	0.965E 02	0.561E 04	0.139E 03
E 17154	3700.	0.229E 05	0.358E 03	0.410E 04	0.639E 02	0.436E 04	0.681E 02
E 17155	3715.	0.312E 05	0.692E 03	0.585E 04	0.130E 03	0.726E 04	0.161E 03
E 17157	3745.	0.152E 05	0.362E 03	0.254E 04	0.608E 02	0.370E 04	0.884E 02
E 17159	3775.	0.128E 05	0.235E 03	0.229E 04	0.422E 02	0.266E 04	0.490E 02
E 17161	3805.	0.176E 05	0.406E 03	0.255E 04	0.587E 02	0.446E 04	0.103E 03
E 17163	3835.	0.180E 05	0.169E 03	0.259E 04	0.244E 02	0.419E 04	0.394E 02
E 17164	3850.	0.131E 05	0.175E 03	0.179E 04	0.238E 02	0.289E 04	0.384E 02
E 17165	3865.	0.174E 05	0.221E 03	0.271E 04	0.344E 02	0.426E 04	0.541E 02
E 17167	3895.	0.234E 05	0.176E 03	0.321E 04	0.240E 02	0.673E 04	0.504E 02
E 17168	3910.	0.137E 05	0.997E 02	0.157E 04	0.115E 02	0.453E 04	0.330E 02
E 17169	3925.	0.136E 05	0.187E 03	0.184E 04	0.253E 02	0.428E 04	0.590E 02
E 17711	4000.	0.486E 04	0.173E 03	0.386E 03	0.137E 02	0.214E 04	0.761E 02
E 17715	4060.	0.174E 04	0.118E 03	0.220E 03	0.149E 02	0.745E 03	0.504E 02
E 17720	4135.	0.159E 04	0.721E 02	0.195E 03	0.884E 01	0.853E 03	0.386E 02
E 17725	4210.	0.106E 04	0.217E 02	0.132E 03	0.270E 01	0.700E 03	0.143E 02
E 17730	4285.	0.716E 03	0.934E 02	0.114E 03	0.149E 02	0.257E 03	0.335E 02
E 17748	4360.	0.244E 03	0.201E 02	0.257E 02	0.212E 01	0.100E 03	0.825E 01
E 17763	4366.	0.207E 05	0.589E 04	0.164E 04	0.466E 03	0.949E 04	0.270E 04
E 17753	4435.	0.396E 03	0.154E 03	0.217E 02	0.847E 01	0.120E 03	0.469E 02
E 17758	4510.	0.214E 03	0.108E 03	0.115E 02	0.575E 01	0.210E 03	0.105E 03
E 17762	4560.	0.324E 03	0.641E 02	0.193E 02	0.383E 01	0.467E 03	0.924E 02
E 17877A	3669.	0.000	0.237E 04	0.000	0.273E 03	0.000	0.124E 04
E 17877B	3669.	0.000	0.262E 04	0.000	0.302E 03	0.000	0.139E 04

Table VI (continued)

PROBE	TF	N-C6	(N-C6)	MCYC5	(MCYC5)	BENZOL	(BENZOL)
E 16286	415.	0.761E 02	0.540E 00	0.000	0.000	0.000	0.000
E 16293	520.	0.471E 02	0.612E-01	0.000	0.000	0.549E 02	0.714E-01
E 16300	625.	0.745E 00	0.112E-02	0.224E 01	0.335E-02	0.447E 01	0.671E-02
E 16307	730.	0.329E 02	0.494E-01	0.000	0.000	0.129E 01	0.194E-02
E 16312	805.	0.242E 02	0.509E-01	0.169E 02	0.356E-01	0.283E 02	0.595E-01
E 16318	895.	0.704E 02	0.845E-01	0.278E 02	0.333E-01	0.320E 02	0.384E-01
E 16324	985.	0.671E 02	0.939E-01	0.429E 02	0.600E-01	0.646E 02	0.904E-01
E 16330	1075.	0.135E 03	0.121E 00	0.419E 02	0.377E-01	0.511E 02	0.460E-01
E 16336	1165.	0.105E 03	0.115E 00	0.809E 02	0.889E-01	0.719E 02	0.791E-01
E 16342	1255.	0.618E 02	0.556E-01	0.350E 02	0.315E-01	0.541E 02	0.487E-01
E 16348	1345.	0.708E 01	0.553E-01	0.479E 01	0.373E-01	0.135E 02	0.105E 00
E 16354	1435.	0.254E 02	0.101E 00	0.359E 02	0.144E 00	0.332E 02	0.133E 00
E 16360	1525.	0.167E 03	0.110E 01	0.187E 03	0.123E 01	0.122E 03	0.808E 00
E 16366	1615.	0.254E 03	0.319E 01	0.345E 03	0.435E 01	0.127E 03	0.160E 01
E 16368	1645.	0.167E 03	0.301E 01	0.245E 03	0.440E 01	0.376E 03	0.676E 01
E 16370	1665.	0.154E 03	0.280E 01	0.271E 03	0.493E 01	0.724E 03	0.132E 02
E 16373	1710.	0.185E 03	0.530E 01	0.256E 03	0.732E 01	0.943E 03	0.270E 02
E 16376	1755.	0.154E 03	0.462E 01	0.207E 03	0.625E 01	0.122E 04	0.368E 02
E 16378	1785.	0.149E 03	0.286E 01	0.242E 03	0.464E 01	0.104E 04	0.200E 02
E 16380	1840.	0.225E 03	0.378E 01	0.956E 03	0.161E 02	0.155E 04	0.261E 02
E 16382	1870.	0.110E 03	0.161E 01	0.531E 03	0.776E 01	0.127E 04	0.186E 02
E 16384	1900.	0.240E 03	0.437E 01	0.675E 03	0.123E 02	0.214E 04	0.390E 02
E 16387	1945.	0.243E 03	0.386E 01	0.528E 03	0.840E 01	0.104E 04	0.166E 02
E 16389	1975.	0.147E 03	0.194E 01	0.365E 03	0.482E 01	0.569E 03	0.751E 01
E 16396	2080.	0.194E 03	0.188E 01	0.460E 03	0.447E 01	0.511E 03	0.496E 01
E 16402	2170.	0.992E 03	0.933E 01	0.854E 03	0.802E 01	0.172E 03	0.162E 01
E 17616	2245.	0.331E 04	0.152E 02	0.228E 04	0.105E 02	0.524E 03	0.241E 01
E 17621	2320.	0.471E 04	0.518E 02	0.436E 04	0.480E 02	0.197E 04	0.217E 02
E 17626	2395.	0.280E 05	0.190E 03	0.141E 05	0.957E 02	0.321E 04	0.218E 02
E 17630	2455.	0.235E 05	0.242E 03	0.185E 05	0.190E 03	0.108E 05	0.111E 03
E 17636	2545.	0.641E 04	0.718E 02	0.646E 04	0.724E 02	0.139E 04	0.155E 02
E 17641	2620.	0.153E 05	0.206E 03	0.905E 04	0.122E 03	0.120E 04	0.162E 02
E 17646	2695.	0.876E 04	0.109E 03	0.638E 04	0.791E 02	0.430E 03	0.533E 01
E 17651	2770.	0.305E 04	0.363E 02	0.333E 04	0.396E 02	0.377E 03	0.449E 01
E 17656	2845.	0.138E 05	0.164E 03	0.569E 04	0.677E 02	0.522E 03	0.621E 01
E 17038	2920.	0.191E 04	0.233E 02	0.197E 04	0.241E 02	0.564E 03	0.688E 01
E 17041	2965.	0.992E 04	0.912E 02	0.898E 04	0.826E 02	0.449E 04	0.413E 02
E 17044	3010.	0.376E 05	0.459E 03	0.205E 05	0.250E 03	0.298E 04	0.364E 02
E 17047	3055.	0.118E 05	0.103E 03	0.945E 04	0.822E 02	0.226E 04	0.196E 02
E 17050	3100.	0.129E 05	0.136E 03	0.598E 04	0.627E 02	0.162E 04	0.170E 02
E 17052	3130.	0.400E 04	0.392E 02	0.241E 04	0.236E 02	0.992E 03	0.972E 01
E 17054	3160.	0.454E 04	0.495E 02	0.209E 04	0.228E 02	0.645E 03	0.703E 01
E 17057	3205.	0.179E 04	0.168E 02	0.201E 04	0.189E 02	0.103E 04	0.972E 01
E 17059	3235.	0.646E 04	0.594E 02	0.292E 04	0.268E 02	0.116E 04	0.107E 02
E 17062	3280.	0.174E 05	0.162E 03	0.980E 04	0.911E 02	0.215E 04	0.200E 02
E 17065	3325.	0.549E 03	0.527E 01	0.209E 03	0.201E 01	0.144E 03	0.138E 01
E 17067	3355.	0.538E 04	0.490E 02	0.242E 04	0.220E 02	0.212E 04	0.193E 02
E 17069	3385.	0.140E 04	0.130E 02	0.363E 03	0.337E 01	0.150E 03	0.140E 01
E 17072	3430.	0.673E 04	0.592E 02	0.296E 04	0.261E 02	0.240E 04	0.211E 02
E 17075	3475.	0.350E 04	0.322E 02	0.123E 04	0.113E 02	0.646E 04	0.595E 02
E 17077	3505.	0.167E 04	0.172E 02	0.843E 03	0.868E 01	0.863E 04	0.889E 02
E 17078	3520.	0.207E 04	0.182E 02	0.561E 03	0.494E 01	0.989E 04	0.870E 02
E 17079	3535.	0.542E 05	0.754E 03	0.390E 05	0.542E 03	0.321E 05	0.446E 03
E 17080	3550.	0.655E 05	0.114E 04	0.488E 05	0.850E 03	0.542E 05	0.942E 03
E 17081	3565.	0.160E 05	0.322E 03	0.148E 05	0.297E 03	0.414E 05	0.832E 03
E 17146	3580.	0.653E 04	0.262E 03	0.687E 04	0.276E 03	0.212E 05	0.851E 03
E 17147	3595.	0.955E 04	0.267E 03	0.993E 04	0.278E 03	0.292E 05	0.816E 03
E 17148	3610.	0.283E 05	0.543E 03	0.227E 05	0.437E 03	0.344E 05	0.661E 03
E 17149	3625.	0.100E 05	0.202E 03	0.901E 04	0.181E 03	0.285E 05	0.573E 03
E 17150	3640.	0.902E 04	0.195E 03	0.910E 04	0.197E 03	0.266E 05	0.574E 03

Table VI (continued)

PROBE	TF	N-C6	(N-C6)	MCYC5	(MCYC5)	BENZOL	(BENZOL)
E 17151	3655.	0.676E 04	0.168E 03	0.788E 04	0.195E 03	0.259E 05	0.643E 03
E 17154	3700.	0.813E 04	0.127E 03	0.800E 04	0.125E 03	0.295E 05	0.461E 03
E 17155	3715.	0.120E 05	0.266E 03	0.123E 05	0.273E 03	0.319E 05	0.709E 03
E 17157	3745.	0.667E 04	0.160E 03	0.616E 04	0.147E 03	0.144E 05	0.345E 03
E 17159	3775.	0.472E 04	0.869E 02	0.471E 04	0.866E 02	0.155E 05	0.285E 03
E 17161	3805.	0.822E 04	0.189E 03	0.632E 04	0.145E 03	0.131E 05	0.302E 03
E 17163	3835.	0.808E 04	0.759E 02	0.614E 04	0.578E 02	0.136E 05	0.128E 03
E 17164	3850.	0.592E 04	0.788E 02	0.423E 04	0.563E 02	0.879E 04	0.117E 03
E 17165	3865.	0.737E 04	0.936E 02	0.649E 04	0.824E 02	0.136E 05	0.173E 03
E 17167	3895.	0.122E 05	0.914E 02	0.888E 04	0.666E 02	0.115E 05	0.866E 02
E 17168	3910.	0.861E 04	0.628E 02	0.518E 04	0.378E 02	0.423E 04	0.309E 02
E 17169	3925.	0.695E 04	0.959E 02	0.522E 04	0.720E 02	0.805E 04	0.111E 03
E 17711	4000.	0.500E 04	0.178E 03	0.252E 04	0.897E 02	0.247E 03	0.880E 01
E 17715	4060.	0.231E 04	0.156E 03	0.116E 04	0.785E 02	0.709E 03	0.479E 02
E 17720	4135.	0.232E 04	0.105E 03	0.140E 04	0.634E 02	0.338E 03	0.153E 02
E 17725	4210.	0.126E 04	0.257E 02	0.790E 03	0.161E 02	0.269E 03	0.549E 01
E 17730	4285.	0.506E 03	0.660E 02	0.461E 03	0.602E 02	0.220E 03	0.287E 02
E 17748	4360.	0.156E 03	0.129E 02	0.127E 03	0.104E 02	0.350E 03	0.289E 02
E 17763	4366.	0.136E 05	0.387E 04	0.102E 05	0.290E 04	0.185E 04	0.526E 03
E 17753	4435.	0.164E 03	0.641E 02	0.722E 02	0.282E 02	0.238E 03	0.927E 02
E 17758	4510.	0.169E 03	0.849E 02	0.796E 02	0.399E 02	0.223E 03	0.112E 03
E 17762	4560.	0.625E 03	0.124E 03	0.289E 03	0.572E 02	0.276E 03	0.545E 02
E 17877A	3669.	0.000	0.207E 04	0.000	0.125E 04	0.000	0.662E 03
E 17877B	3669.	0.000	0.234E 04	0.000	0.142E 04	0.000	0.750E 03

Table VI (continued)

PROBE	TF	CYC6	(CYC6)	2-MC6	(2-MC6)	N-C7	(N-C7)
E 16286	415.	0.317E 02	0.225E 00	0.171E 03	0.121E 01	0.106E 04	0.752E 01
E 16293	520.	0.000	0.000	0.000	0.000	0.392E 01	0.510E-02
E 16300	625.	0.000	0.000	0.000	0.000	0.298E 01	0.447E-02
E 16307	730.	0.000	0.000	0.000	0.000	0.000	0.000
E 16312	805.	0.000	0.000	0.000	0.000	0.392E 01	0.823E-02
E 16318	895.	0.000	0.000	0.000	0.000	0.767E 02	0.921E-01
E 16324	985.	0.000	0.000	0.000	0.000	0.132E 02	0.185E-01
E 16330	1075.	0.234E 02	0.210E-01	0.102E 03	0.918E-01	0.108E 02	0.968E-02
E 16336	1165.	0.264E 02	0.290E-01	0.182E 02	0.200E-01	0.108E 03	0.119E 00
E 16342	1255.	0.000	0.000	0.000	0.000	0.627E 02	0.564E-01
E 16348	1345.	0.000	0.000	0.159E 01	0.124E-01	0.115E 02	0.895E-01
E 16354	1435.	0.000	0.000	0.000	0.000	0.193E 01	0.773E-02
E 16360	1525.	0.517E 02	0.341E 00	0.255E 02	0.168E 00	0.125E 03	0.825E 00
E 16366	1615.	0.396E 02	0.499E 00	0.296E 02	0.373E 00	0.209E 03	0.263E 01
E 16368	1645.	0.386E 02	0.694E 00	0.162E 02	0.291E 00	0.161E 03	0.291E 01
E 16370	1665.	0.331E 02	0.603E 00	0.132E 02	0.240E 00	0.112E 03	0.204E 01
E 16373	1710.	0.403E 02	0.115E 01	0.173E 02	0.495E 00	0.160E 03	0.457E 01
E 16376	1755.	0.305E 02	0.918E 00	0.121E 02	0.365E 00	0.123E 03	0.369E 01
E 16378	1785.	0.317E 02	0.609E 00	0.127E 02	0.244E 00	0.110E 03	0.210E 01
E 16380	1840.	0.652E 02	0.110E 01	0.316E 02	0.532E 00	0.190E 03	0.320E 01
E 16382	1870.	0.337E 02	0.493E 00	0.108E 02	0.157E 00	0.679E 02	0.992E 00
E 16384	1900.	0.751E 02	0.137E 01	0.269E 02	0.490E 00	0.142E 03	0.259E 01
E 16387	1945.	0.377E 02	0.600E 00	0.244E 02	0.388E 00	0.160E 03	0.254E 01
E 16389	1975.	0.254E 02	0.336E 00	0.176E 02	0.232E 00	0.951E 02	0.126E 01
E 16396	2080.	0.661E 02	0.641E 00	0.806E 01	0.782E-01	0.806E 02	0.782E 00
E 16402	2170.	0.550E 03	0.517E 01	0.166E 03	0.156E 01	0.210E 03	0.198E 01
E 17616	2245.	0.199E 04	0.913E 01	0.804E 03	0.370E 01	0.900E 03	0.414E 01
E 17621	2320.	0.652E 04	0.717E 02	0.435E 03	0.479E 01	0.974E 03	0.107E 02
E 17626	2395.	0.221E 05	0.150E 03	0.520E 04	0.353E 02	0.133E 05	0.908E 02
E 17630	2455.	0.270E 05	0.278E 03	0.658E 04	0.678E 02	0.198E 05	0.204E 03
E 17636	2545.	0.682E 04	0.764E 02	0.185E 04	0.207E 02	0.539E 04	0.604E 02
E 17641	2620.	0.100E 05	0.135E 03	0.454E 04	0.614E 02	0.141E 05	0.190E 03
E 17646	2695.	0.541E 04	0.671E 02	0.350E 04	0.434E 02	0.125E 05	0.155E 03
E 17651	2770.	0.254E 04	0.302E 02	0.879E 03	0.105E 02	0.277E 04	0.329E 02
E 17656	2845.	0.590E 04	0.702E 02	0.442E 04	0.525E 02	0.136E 05	0.162E 03
E 17038	2920.	0.167E 04	0.203E 02	0.466E 03	0.569E 01	0.143E 04	0.175E 02
E 17041	2965.	0.132E 05	0.121E 03	0.200E 04	0.184E 02	0.529E 04	0.487E 02
E 17044	3010.	0.307E 05	0.375E 03	0.631E 04	0.770E 02	0.190E 05	0.232E 03
E 17047	3055.	0.129E 05	0.112E 03	0.295E 04	0.256E 02	0.794E 04	0.690E 02
E 17050	3100.	0.824E 04	0.865E 02	0.464E 04	0.487E 02	0.147E 05	0.155E 03
E 17052	3130.	0.371E 04	0.364E 02	0.122E 04	0.120E 02	0.307E 04	0.301E 02
E 17054	3160.	0.304E 04	0.331E 02	0.167E 04	0.182E 02	0.469E 04	0.511E 02
E 17057	3205.	0.836E 03	0.786E 01	0.644E 03	0.605E 01	0.219E 04	0.206E 02
E 17059	3235.	0.397E 04	0.365E 02	0.149E 04	0.137E 02	0.387E 04	0.356E 02
E 17062	3280.	0.173E 05	0.161E 03	0.478E 04	0.445E 02	0.133E 05	0.124E 03
E 17065	3325.	0.334E 03	0.320E 01	0.156E 03	0.150E 01	0.474E 03	0.455E 01
E 17067	3355.	0.412E 04	0.375E 02	0.188E 04	0.172E 02	0.483E 04	0.440E 02
E 17069	3385.	0.527E 03	0.490E 01	0.678E 03	0.630E 01	0.241E 04	0.224E 02
E 17072	3430.	0.433E 04	0.381E 02	0.196E 04	0.173E 02	0.568E 04	0.500E 02
E 17075	3475.	0.172E 04	0.158E 02	0.222E 04	0.204E 02	0.645E 04	0.593E 02
E 17077	3505.	0.127E 04	0.131E 02	0.530E 03	0.546E 01	0.195E 04	0.201E 02
E 17078	3520.	0.801E 03	0.705E 01	0.120E 04	0.105E 02	0.466E 04	0.410E 02
E 17079	3535.	0.372E 05	0.517E 03	0.967E 04	0.134E 03	0.309E 05	0.430E 03
E 17080	3550.	0.503E 05	0.875E 03	0.125E 05	0.217E 03	0.391E 05	0.680E 03
E 17081	3565.	0.180E 05	0.362E 03	0.331E 04	0.665E 02	0.105E 05	0.210E 03
E 17146	3580.	0.925E 04	0.372E 03	0.102E 04	0.408E 02	0.342E 04	0.137E 03
E 17147	3595.	0.138E 05	0.387E 03	0.132E 04	0.369E 02	0.421E 04	0.118E 03
E 17148	3610.	0.335E 05	0.643E 03	0.433E 04	0.831E 02	0.179E 05	0.344E 03
E 17149	3625.	0.129E 05	0.259E 03	0.168E 04	0.337E 02	0.590E 04	0.119E 03
E 17150	3640.	0.164E 05	0.354E 03	0.125E 04	0.269E 02	0.449E 04	0.970E 02

Table VI (continued)

PROBE	TF	CYC6	(CYC6)	2-MC6	(2-MC6)	N-C7	(N-C7)
E 17151	3655.	0.165E 05	0.408E 03	0.114E 04	0.282E 02	0.338E 04	0.837E 02
E 17154	3700.	0.123E 05	0.191E 03	0.116E 04	0.180E 02	0.468E 04	0.730E 02
E 17155	3715.	0.175E 05	0.388E 03	0.172E 04	0.382E 02	0.596E 04	0.132E 03
E 17157	3745.	0.100E 05	0.240E 03	0.114E 04	0.272E 02	0.463E 04	0.111E 03
E 17159	3775.	0.719E 04	0.132E 03	0.708E 03	0.130E 02	0.276E 04	0.508E 02
E 17161	3805.	0.103E 05	0.236E 03	0.138E 04	0.317E 02	0.569E 04	0.131E 03
E 17163	3835.	0.938E 04	0.882E 02	0.117E 04	0.110E 02	0.526E 04	0.494E 02
E 17164	3850.	0.691E 04	0.919E 02	0.719E 03	0.957E 01	0.363E 04	0.483E 02
E 17165	3865.	0.961E 04	0.122E 03	0.117E 04	0.149E 02	0.438E 04	0.557E 02
E 17167	3895.	0.130E 05	0.975E 02	0.208E 04	0.156E 02	0.843E 04	0.632E 02
E 17168	3910.	0.750E 04	0.548E 02	0.174E 04	0.127E 02	0.719E 04	0.525E 02
E 17169	3925.	0.780E 04	0.108E 03	0.149E 04	0.206E 02	0.494E 04	0.681E 02
E 17711	4000.	0.386E 04	0.137E 03	0.124E 04	0.441E 02	0.583E 04	0.207E 03
E 17715	4060.	0.161E 04	0.109E 03	0.591E 03	0.399E 02	0.368E 04	0.249E 03
E 17720	4135.	0.218E 04	0.989E 02	0.675E 03	0.306E 02	0.380E 04	0.172E 03
E 17725	4210.	0.110E 04	0.225E 02	0.468E 03	0.954E 01	0.200E 04	0.408E 02
E 17730	4285.	0.894E 03	0.117E 03	0.153E 03	0.200E 02	0.788E 03	0.103E 03
E 17748	4360.	0.249E 03	0.205E 02	0.476E 02	0.393E 01	0.194E 03	0.160E 02
E 17763	4366.	0.175E 05	0.498E 04	0.283E 04	0.806E 03	0.946E 04	0.269E 04
E 17753	4435.	0.176E 03	0.684E 02	0.340E 02	0.133E 02	0.103E 03	0.401E 02
E 17758	4510.	0.248E 03	0.124E 03	0.178E 03	0.891E 02	0.327E 03	0.164E 03
E 17762	4560.	0.543E 03	0.107E 03	0.418E 03	0.828E 02	0.111E 04	0.219E 03
E 17877A	3669.	0.000	0.108E 02	0.000	0.473E 03	0.000	0.159E 04
E 17877B	3669.	0.000	0.124E 02	0.000	0.552E 03	0.000	0.189E 04

EOF

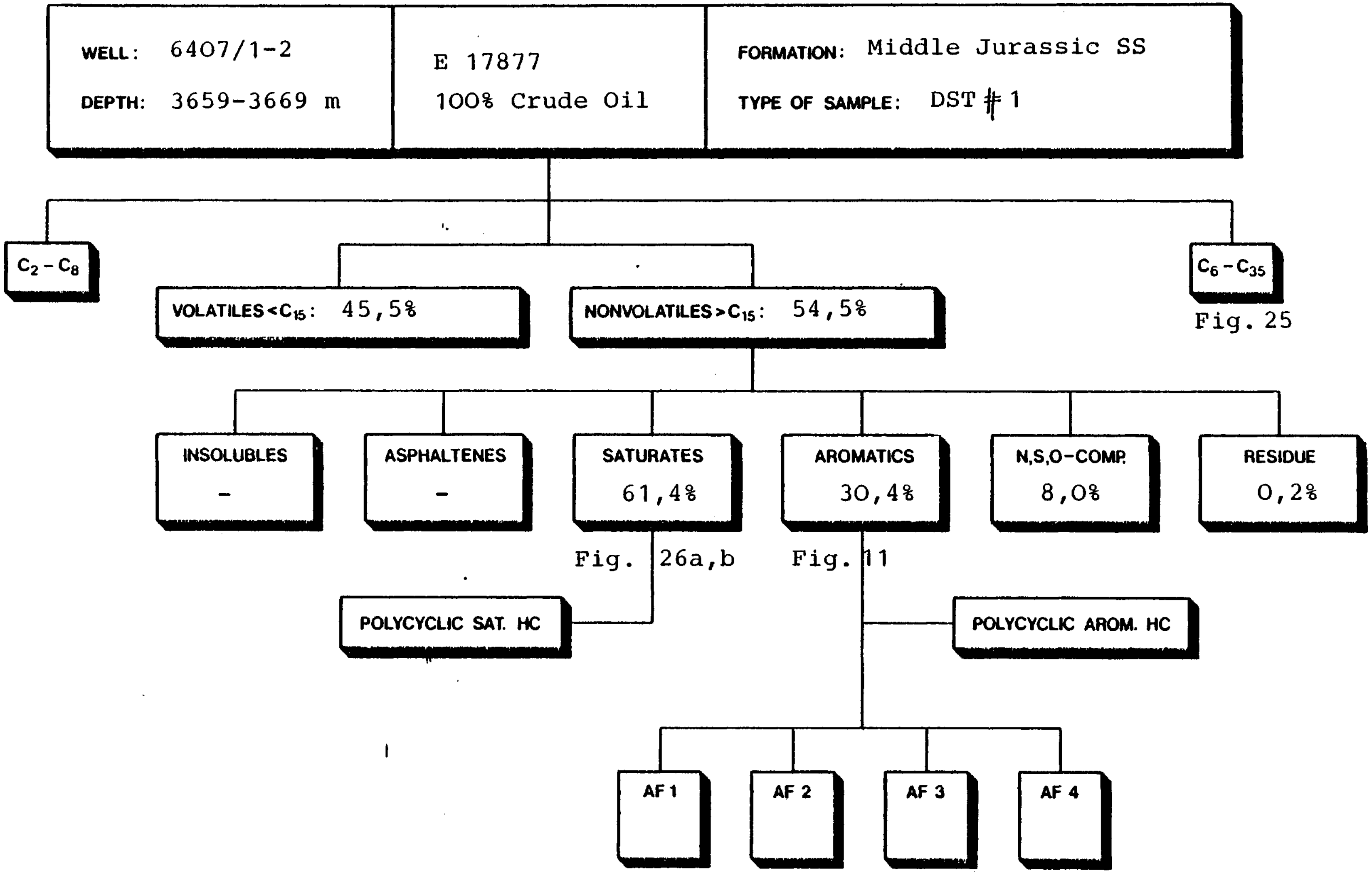
Table VI (continued)

PROBE	TF	MCYC6	(MCYC6)	E-CYC5	(E-CYC5)	TOLUOL	(TOLUOL)
E 16286	415.	0.667E 03	0.474E 01	0.233E 03	0.165E 01	0.313E 03	0.222E 01
E 16293	520.	0.000	0.000	0.000	0.000	0.000	0.000
E 16300	625.	0.000	0.000	0.000	0.000	0.000	0.000
E 16307	730.	0.000	0.000	0.000	0.000	0.000	0.000
E 16312	805.	0.350E 02	0.735E-01	0.000	0.000	0.168E 04	0.354E 01
E 16318	895.	0.663E 01	0.796E-02	0.000	0.000	0.124E 03	0.149E 00
E 16324	985.	0.000	0.000	0.000	0.000	0.605E 04	0.848E 01
E 16330	1075.	0.324E 02	0.291E-01	0.000	0.000	0.766E 04	0.690E 01
E 16336	1165.	0.125E 03	0.137E 00	0.000	0.000	0.174E 04	0.192E 01
E 16342	1255.	0.000	0.000	0.000	0.000	0.174E 04	0.157E 01
E 16348	1345.	0.000	0.000	0.000	0.000	0.128E 03	0.995E 00
E 16354	1435.	0.321E 02	0.128E 00	0.000	0.000	0.229E 04	0.915E 01
E 16360	1525.	0.275E 03	0.181E 01	0.389E 02	0.257E 00	0.145E 05	0.954E 02
E 16366	1615.	0.282E 03	0.355E 01	0.452E 02	0.569E 00	0.354E 04	0.447E 02
E 16368	1645.	0.128E 03	0.231E 01	0.277E 02	0.498E 00	0.345E 04	0.620E 02
E 16370	1665.	0.120E 03	0.218E 01	0.253E 02	0.460E 00	0.375E 04	0.683E 02
E 16373	1710.	0.116E 03	0.331E 01	0.302E 02	0.865E 00	0.908E 04	0.260E 03
E 16376	1755.	0.116E 03	0.350E 01	0.266E 02	0.801E 00	0.532E 04	0.160E 03
E 16378	1785.	0.102E 03	0.196E 01	0.274E 02	0.526E 00	0.902E 04	0.173E 03
E 16380	1840.	0.873E 03	0.147E 02	0.128E 03	0.215E 01	0.381E 04	0.641E 02
E 16382	1870.	0.372E 03	0.542E 01	0.415E 02	0.606E 00	0.460E 04	0.671E 02
E 16384	1900.	0.457E 03	0.832E 01	0.769E 02	0.140E 01	0.603E 03	0.110E 02
E 16387	1945.	0.328E 03	0.522E 01	0.635E 02	0.101E 01	0.565E 04	0.898E 02
E 16389	1975.	0.254E 03	0.335E 01	0.327E 02	0.431E 00	0.239E 01	0.315E-01
E 16396	2080.	0.342E 03	0.331E 01	0.403E 02	0.391E 00	0.215E 02	0.209E 00
E 16402	2170.	0.718E 03	0.675E 01	0.629E 02	0.591E 00	0.105E 04	0.982E 01
E 17616	2245.	0.246E 04	0.113E 02	0.414E 03	0.191E 01	0.161E 05	0.743E 02
E 17621	2320.	0.460E 04	0.506E 02	0.288E 03	0.317E 01	0.997E 04	0.110E 03
E 17626	2395.	0.302E 05	0.205E 03	0.195E 04	0.133E 02	0.238E 05	0.162E 03
E 17630	2455.	0.383E 05	0.394E 03	0.401E 04	0.413E 02	0.532E 05	0.548E 03
E 17636	2545.	0.120E 05	0.134E 03	0.133E 04	0.149E 02	0.826E 04	0.925E 02
E 17641	2620.	0.232E 05	0.313E 03	0.249E 04	0.336E 02	0.136E 05	0.184E 03
E 17646	2695.	0.181E 05	0.224E 03	0.228E 04	0.283E 02	0.542E 04	0.672E 02
E 17651	2770.	0.642E 04	0.763E 02	0.688E 03	0.818E 01	0.592E 04	0.704E 02
E 17656	2845.	0.181E 05	0.215E 03	0.195E 04	0.232E 02	0.375E 04	0.446E 02
E 17038	2920.	0.345E 04	0.421E 02	0.355E 03	0.433E 01	0.309E 04	0.376E 02
E 17041	2965.	0.149E 05	0.137E 03	0.120E 04	0.111E 02	0.179E 05	0.164E 03
E 17044	3010.	0.451E 05	0.551E 03	0.293E 04	0.357E 02	0.203E 05	0.248E 03
E 17047	3055.	0.230E 05	0.200E 03	0.163E 04	0.142E 02	0.100E 05	0.873E 02
E 17050	3100.	0.249E 05	0.261E 03	0.195E 04	0.205E 02	0.783E 04	0.823E 02
E 17052	3130.	0.784E 04	0.768E 02	0.571E 03	0.559E 01	0.378E 04	0.370E 02
E 17054	3160.	0.868E 04	0.946E 02	0.717E 03	0.781E 01	0.326E 04	0.355E 02
E 17057	3205.	0.281E 04	0.264E 02	0.302E 03	0.284E 01	0.219E 04	0.205E 02
E 17059	3235.	0.749E 04	0.689E 02	0.612E 03	0.563E 01	0.352E 04	0.324E 02
E 17062	3280.	0.321E 05	0.298E 03	0.198E 04	0.184E 02	0.107E 05	0.997E 02
E 17065	3325.	0.868E 03	0.833E 01	0.691E 02	0.663E 00	0.389E 03	0.374E 01
E 17067	3355.	0.121E 05	0.110E 03	0.817E 03	0.744E 01	0.453E 04	0.412E 02
E 17069	3385.	0.253E 04	0.235E 02	0.232E 03	0.216E 01	0.363E 03	0.337E 01
E 17072	3430.	0.100E 05	0.881E 02	0.754E 03	0.663E 01	0.962E 04	0.847E 02
E 17075	3475.	0.848E 04	0.781E 02	0.839E 03	0.771E 01	0.279E 04	0.257E 02
E 17077	3505.	0.251E 04	0.259E 02	0.283E 03	0.291E 01	0.690E 04	0.710E 02
E 17078	3520.	0.367E 04	0.323E 02	0.493E 03	0.434E 01	0.534E 04	0.470E 02
E 17079	3535.	0.370E 05	0.515E 03	0.902E 04	0.125E 03	0.534E 05	0.743E 03
E 17080	3550.	0.485E 05	0.844E 03	0.111E 05	0.194E 03	0.737E 05	0.128E 04
E 17081	3565.	0.141E 05	0.283E 03	0.269E 04	0.540E 02	0.411E 05	0.826E 03
E 17146	3580.	0.854E 04	0.343E 03	0.725E 03	0.291E 02	0.217E 05	0.874E 03
E 17147	3595.	0.118E 05	0.330E 03	0.107E 04	0.299E 02	0.318E 05	0.891E 03
E 17148	3610.	0.398E 05	0.765E 03	0.220E 04	0.422E 02	0.430E 05	0.825E 03
E 17149	3625.	0.135E 05	0.271E 03	0.113E 04	0.226E 02	0.263E 05	0.529E 03
E 17150	3640.	0.151E 05	0.327E 03	0.841E 03	0.182E 02	0.233E 05	0.503E 03

Table VI (continued)

PROBE	TF	MCYC6	(MCYC6)	E-CYC5	(E-CYC5)	TOLUOL	(TOLUOL)
E 17151	3655.	0.144E 05	0.356E 03	0.657E 03	0.163E 02	0.218E 05	0.541E 03
E 17154	3700.	0.121E 05	0.189E 03	0.647E 03	0.101E 02	0.273E 05	0.425E 03
E 17155	3715.	0.154E 05	0.343E 03	0.132E 04	0.294E 02	0.368E 05	0.818E 03
E 17157	3745.	0.127E 05	0.304E 03	0.735E 03	0.176E 02	0.180E 05	0.431E 03
E 17159	3775.	0.758E 04	0.140E 03	0.430E 03	0.792E 01	0.181E 05	0.333E 03
E 17161	3805.	0.132E 05	0.303E 03	0.834E 03	0.192E 02	0.194E 05	0.447E 03
E 17163	3835.	0.112E 05	0.105E 03	0.764E 03	0.718E 01	0.190E 05	0.179E 03
E 17164	3850.	0.786E 04	0.104E 03	0.494E 03	0.657E 01	0.134E 05	0.178E 03
E 17165	3865.	0.103E 05	0.131E 03	0.840E 03	0.107E 02	0.202E 05	0.256E 03
E 17167	3895.	0.174E 05	0.131E 03	0.131E 04	0.982E 01	0.216E 05	0.162E 03
E 17168	3910.	0.124E 05	0.906E 02	0.105E 04	0.766E 01	0.101E 05	0.736E 02
E 17169	3925.	0.119E 05	0.164E 03	0.100E 04	0.138E 02	0.132E 05	0.183E 03
E 17711	4000.	0.116E 05	0.411E 03	0.794E 03	0.283E 02	0.264E 04	0.938E 02
E 17715	4060.	0.518E 04	0.350E 03	0.493E 03	0.334E 02	0.217E 04	0.147E 03
E 17720	4135.	0.745E 04	0.337E 03	0.637E 03	0.288E 02	0.158E 04	0.717E 02
E 17725	4210.	0.429E 04	0.875E 02	0.280E 03	0.572E 01	0.151E 04	0.308E 02
E 17730	4285.	0.210E 04	0.274E 03	0.136E 03	0.178E 02	0.673E 03	0.878E 02
E 17748	4360.	0.695E 03	0.573E 02	0.307E 02	0.253E 01	0.444E 03	0.366E 02
E 17763	4366.	0.398E 05	0.113E 05	0.171E 04	0.488E 03	0.142E 05	0.404E 04
E 17753	4435.	0.451E 03	0.176E 03	0.117E 01	0.458E 00	0.431E 03	0.168E 03
E 17758	4510.	0.104E 04	0.524E 03	0.603E 02	0.303E 02	0.294E 03	0.147E 03
E 17762	4560.	0.278E 04	0.550E 03	0.172E 03	0.341E 02	0.606E 03	0.120E 03
E 17877A	3669.	0.000	0.229E 04	0.000	0.218E 03	0.000	0.144E 04
E 17877B	3669.	0.000	0.273E 04	0.000	0.262E 03	0.000	0.171E 04

Table VI (continued)



WELL: 6407/1-2
DEPTH: 3659-3669 m
E 17877
100% Crude Oil
FORMATION: Middle Jurassic SS
TYPE OF SAMPLE: DST # 1
$C_2 - C_8$
VOLATILES < C_{15}: 45,5%
NONVOLATILES > C_{15}: 54,5%
$C_6 - C_{35}$
Fig. 25
INSOLUBLES
-
ASPHALTENES
-
SATURATES
61,4%
AROMATICS
30,4%
N,S,O-COMP.
8,0%
RESIDUE
0,2%
Fig. 26a,b
Fig. 11
POLYCYCLIC SAT. HC
POLYCYCLIC AROM. HC
AF 1
AF 2
AF 3
AF 4

Table VII

NAPHTHALENE DISTRIBUTION OF SAMPLES FROM

STATOIL 6407/1-2

EOGNR	DEPTH	%CORG	2-MN	1-MN	2-EN	1-EN	2,6/ 2,7DN	1,3/ 1,7DN	1,6DN	1,4/ 2,3DN	1,5DN	1,2DN	1. TN	2. TN	3. TN	4. TN	5. TN
E17877	3669.		3.2	2.7	0.9	0.5	2.4	2.7	2.4	1.1	1.3	0.6	0.8	1.1	1.2	0.7	0.5
PERCENTAGE			100.0	84.9	27.8	14.8	76.3	83.9	75.1	34.4	39.7	19.2	26.2	33.8	37.5	21.8	17.0

Abbreviation	Compound
MN	Methylnaphthalene
EN	Ethylnaphthalene
DN	Dimethylnaphthalene
TN	Trimethylnaphthalene

Table VIII

PHENANTHRENE DISTRIBUTION OF SAMPLES FROM

STATOIL 6407/1-2

EOGNR	DEPTH	%CORG	PHE	3MPHE	2MPHE	9MPHE	1MPHE	1.DMP	2.DMP	3.DMP	4.DMP	5.DMP	6.DMP	7.DMP	8.DMP	9.DMP	10DMP
E17877	3669.		0.6	0.3	0.3	0.4	0.3	0.1	0.1	0.2	0.1	0.4	0.3	0.2	0.1	0.1	0.2
PERCENTAGE			100.0	48.3	50.0	65.5	55.2	17.2	24.1	31.0	20.7	60.3	46.6	37.9	20.7	20.7	41.4

Abbreviation	Compound
PHE	Phenanthrene
MPHE	Methylphenanthrene
DMP	Dimethylphenanthrene

Table IX

MATURITY- PARAMETERS BASED ON AROMATIC HYDROCARBONS FROM STATOIL 6407/1-2

DEPTH(M)	MNR	ENR	DNR	TNR	MPR	DPR	MPI1	MPI2	RC(%)
3669.00	1.18	1.87	1.92	0.67	0.91	0.48	0.67	0.68	0.80

Calculation of maturity parameters:

Methylnaphthalene Ratio $MNR = \frac{2\text{-}MN}{1\text{-}MN}$

Ethylnaphthalene Ratio $ENR = \frac{2\text{-}EN}{1\text{-}EN}$

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

Trimethylnaphthalene Ratio $TNR = \frac{TMN\ A+TMN\ B}{TMN\ C+TMN\ D}$

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

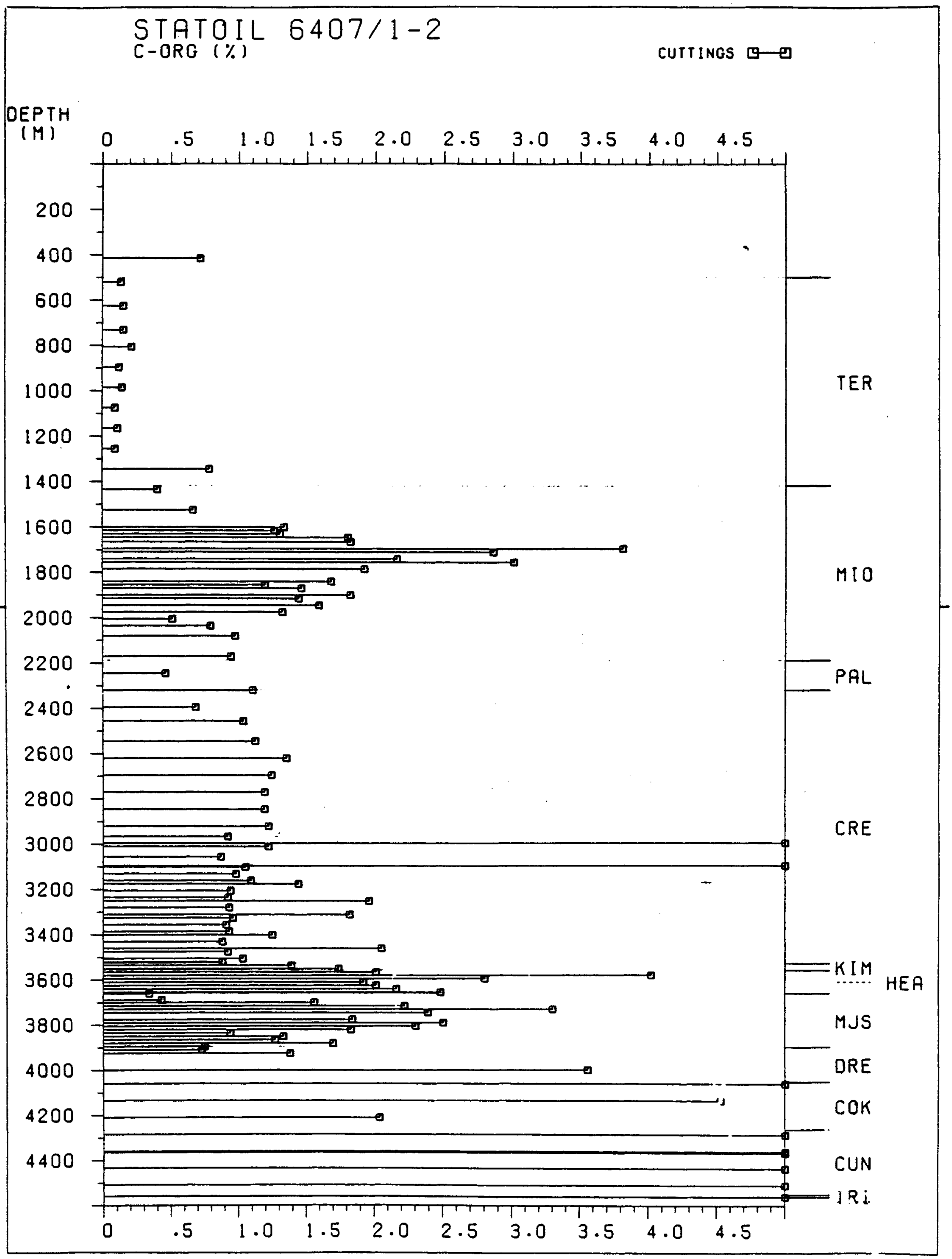
Dimethylphenantrene Ratio $DPR = \frac{DMP\ 3+DMP\ 4}{DMP\ 5+DMP\ 6}$

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

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

Calculated Vitrinite Reflectance $R_c = 0.60\ MPI\ 1 + 0.40$ (for $0.65 \leq R_m \leq 1.35$)

Table X



STATOIL 6407/1-2
C-ORG (%)
CUTTINGS
DEPTH (M)
0 .5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig. 1

Fig. 2a

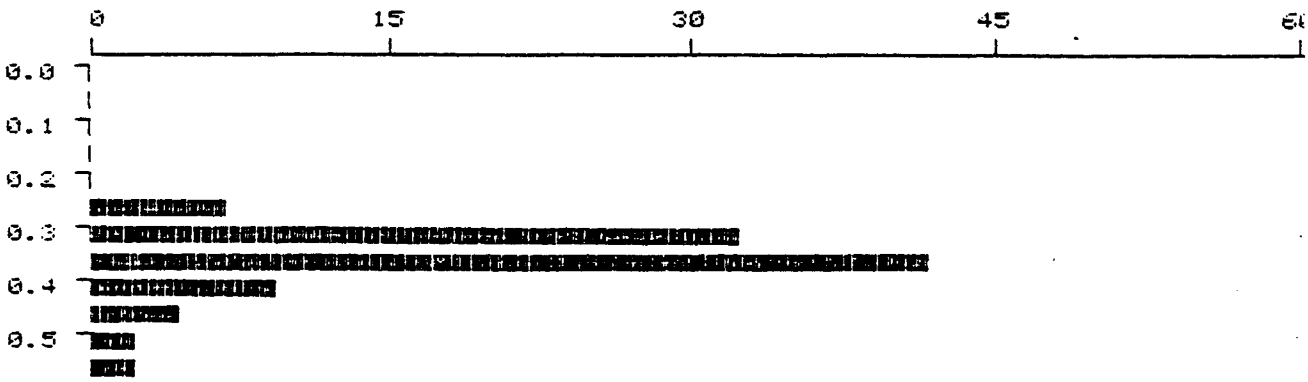
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E16256
DATE/NAME:..................13.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:.........HUMINITE

NUMBER OF MEASURING POINTS: 43

MEAN R[%] = .365
STANDARD DEVIATION = .062
STANDARD ERROR OF THE MEAN = .009

REL. FREQUENCY [%]



0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7

MEAN R[%] = .365
STANDARD DEVIATION = .062
STANDARD ERROR OF THE MEAN = .009

R-CLASS [%]	REL. FREQUENCY [%]
0.25	6.9
0.30	32.5
0.35	41.8
0.40	9.3
0.45	4.6
0.50	2.3
0.55	2.3

REFLECTANCE READINGS:

.47	.32	.35	.31	.39	.35	.32	.42	.39	.37	.36	.49	.33	.37
.37	.31	.35	.35	.37	.36	.52	.37	.25	.33	.31	.33	.39	.32
.36	.31	.29	.42	.33	.28	.38	.43	.37	.33	.37	.41	.33	.57
.34													

[OIL]% (546)

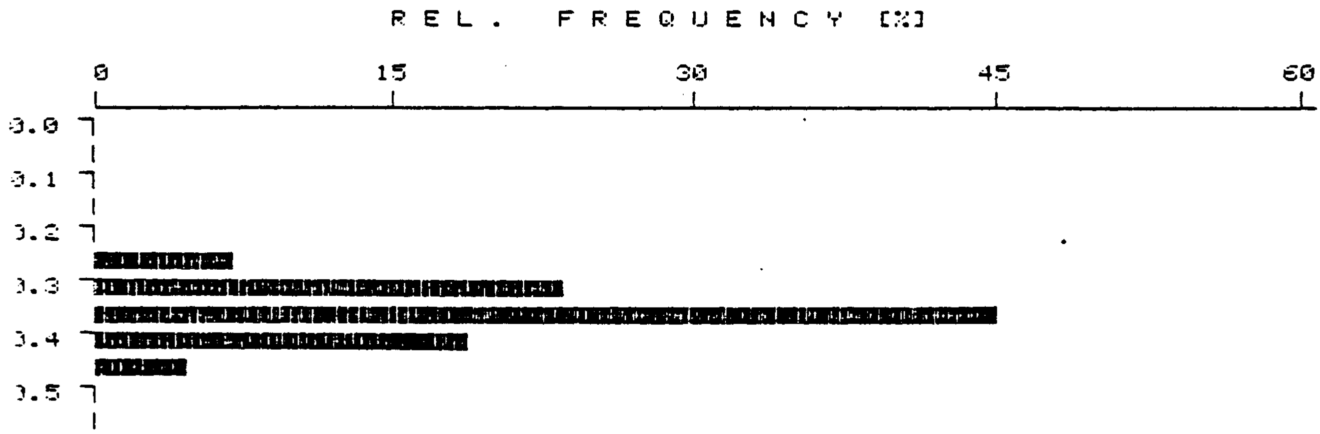
Fig. 2b

LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 16348
DATE/NAME:..................13.06.83
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 1 3 4

NUMBER OF MEASURING POINTS: 42

MEAN R[%] = .369
STANDARD DEVIATION = .048
STANDARD ERROR OF THE MEAN = .007



MEAN R[%] = .369
STANDARD DEVIATION = .048
STANDARD ERROR OF THE MEAN = .007

R-CLASS [%]	REL. FREQUENCY [%]
0.25	7.1
0.30	23.8
0.35	45.2
0.40	19.0
0.45	4.7

REFLECTANCE READINGS:

IDENTIFIED AS NO. 1 (29 POINTS= 69 VOL%)
.38 .42 .29 .37 .48 .45 .33 .38 .37 .49 .39 .43 .39 .36
.34 .35 .36 .36 .37 .42 .29 .34 .32 .41 .41 .33 .38 .32
.40
IDENTIFIED AS NO. 3 (13 POINTS= 31 VOL%)
.26 .38 .35 .42 .32 .34 .35 .35 .34 .32 .38 .39 .37
IDENTIFIED AS NO. 4 (0 POINTS= 0 VOL%)
.00

ILI% (546)

Fig. 2c

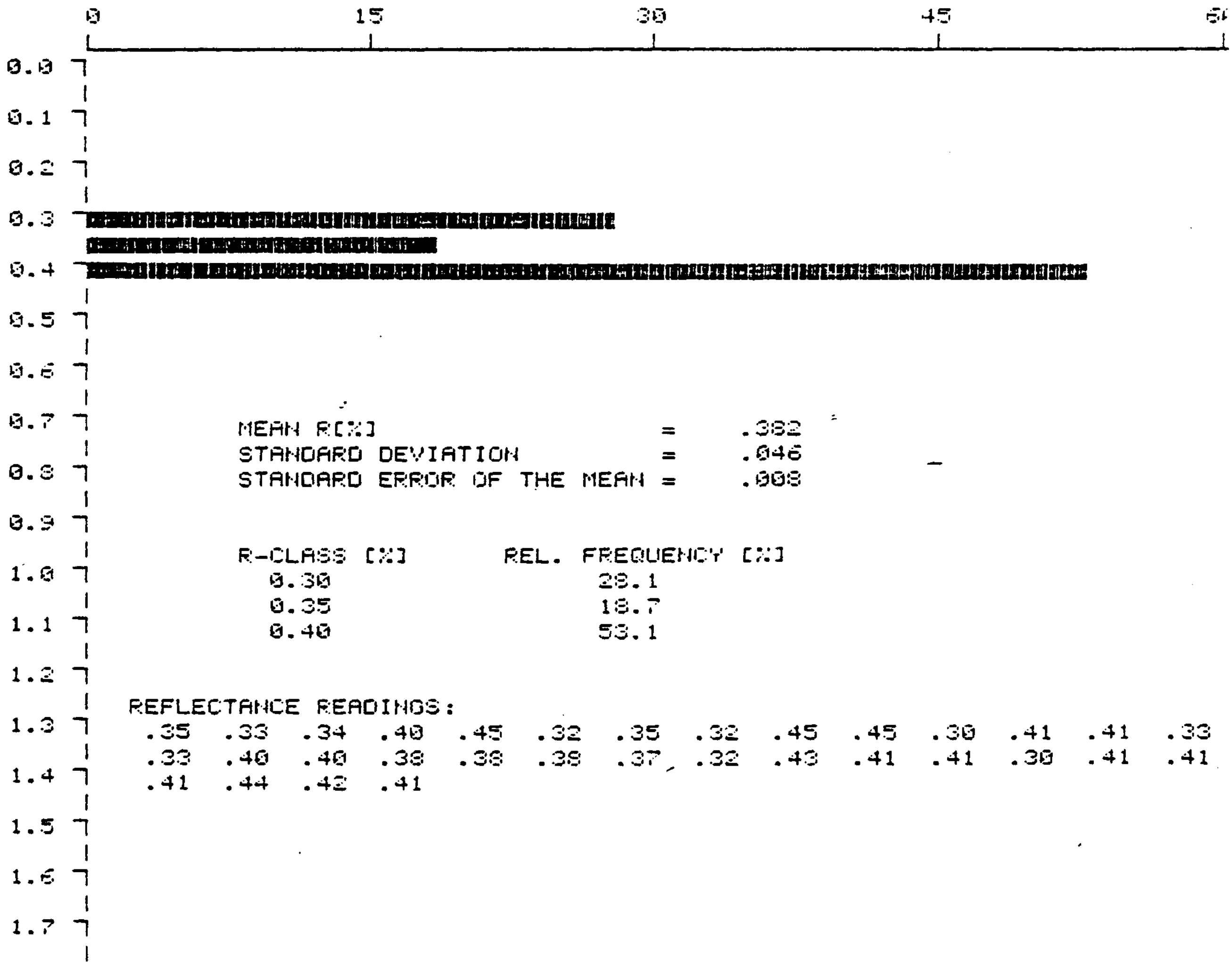
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:.................STATOIL 64/07--E 16366
DATE/NAME:...................13.06.83--HGN
RANDOM REFLECTANCE
STANDARD:....................YAG .88%
TYPE OF OBJECTIVE:...........40X EPIPLAN
MACERAL (SUB-)TYPE:..........HUMOCOLLINIT

NUMBER OF MEASURING POINTS: 32

MEAN R[%] = .382
STANDARD DEVIATION = .046
STANDARD ERROR OF THE MEAN = .008

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .382
STANDARD DEVIATION = .046
STANDARD ERROR OF THE MEAN = .008

R-CLASS [%]	REL. FREQUENCY [%]
0.30	28.1
0.35	18.7
0.40	53.1

REFLECTANCE READINGS:

.35 .33 .34 .40 .45 .32 .35 .32 .45 .45 .30 .41 .41 .33
.33 .40 .40 .38 .38 .38 .37 .32 .43 .41 .41 .30 .41 .41
.41 .44 .42 .41

OIL3% (546)

Fig. 2 d

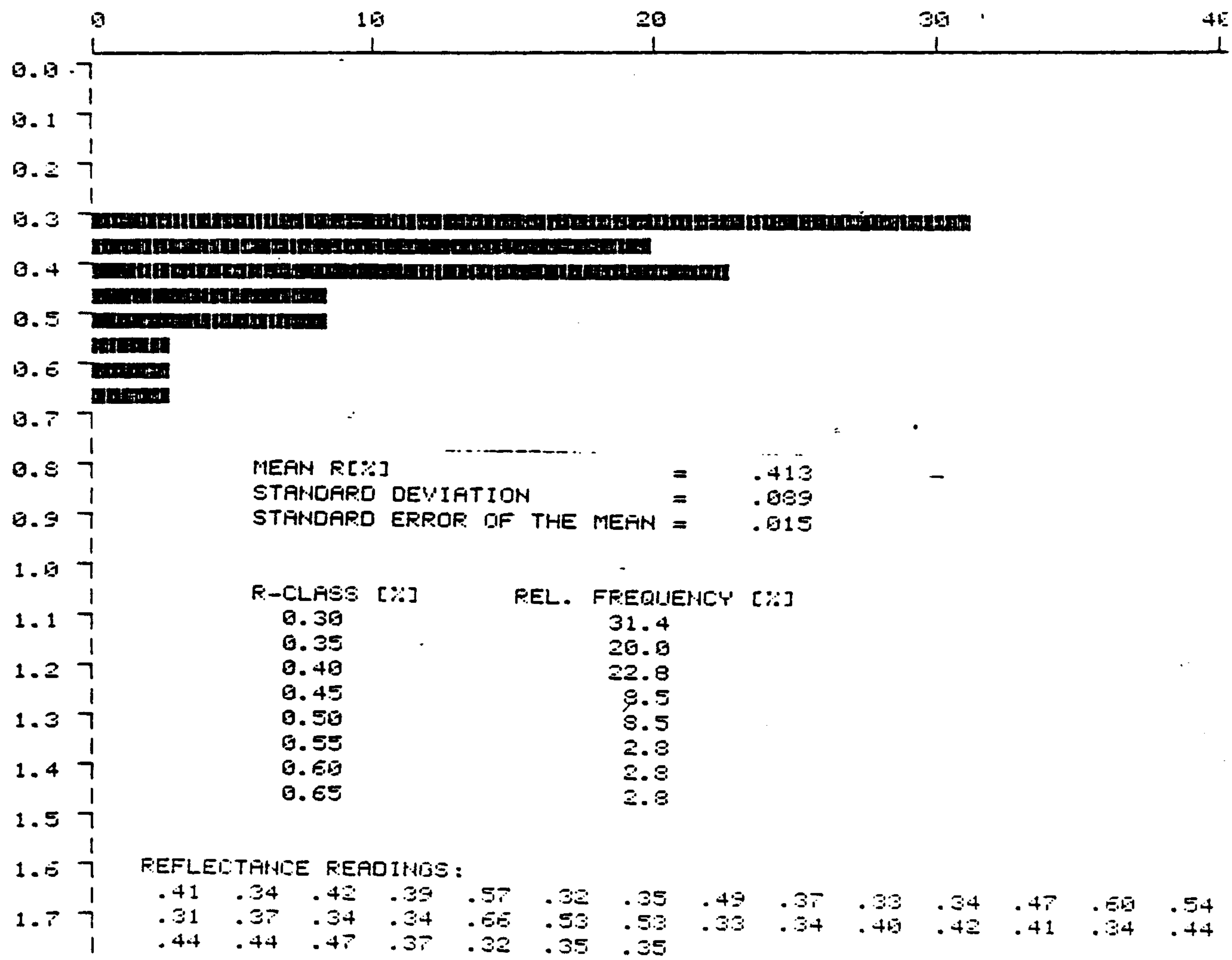
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 16375
DATE/NAME:..................13.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:.........HUMINITE

NUMBER OF MEASURING POINTS: 35

MEAN R[%] = .413
STANDARD DEVIATION = .089
STANDARD ERROR OF THE MEAN = .015

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .413
STANDARD DEVIATION = .089
STANDARD ERROR OF THE MEAN = .015

R-CLASS [%]	REL. FREQUENCY [%]
0.30	31.4
0.35	20.0
0.40	22.8
0.45	8.5
0.50	8.5
0.55	2.8
0.60	2.8
0.65	2.8

REFLECTANCE READINGS:

.41 .34 .42 .39 .57 .32 .35 .49 .37 .33 .34 .47 .60 .54
.31 .37 .34 .34 .66 .53 .53 .33 .34 .40 .42 .41 .34 .44
.44 .44 .47 .37 .32 .35 .35

[OIL]% (546)

Fig. 2 e

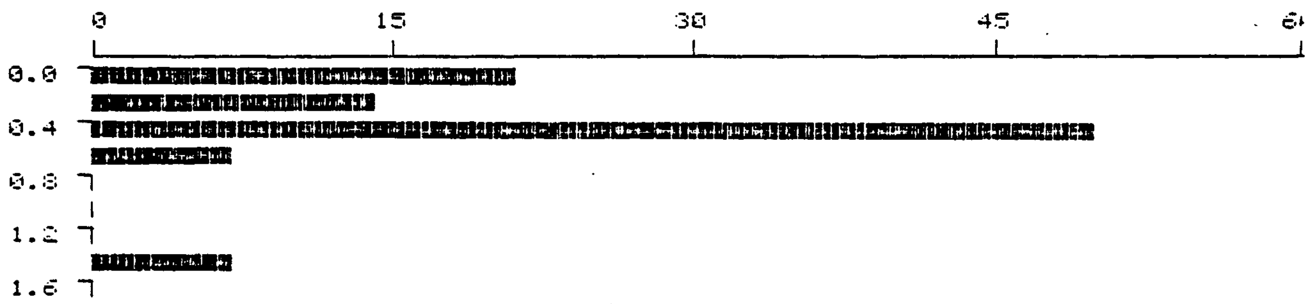
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 16393
DATE/NAME:..................14.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:.........REFLECTOGRAM

NUMBER OF MEASURING POINTS: 14

MEAN R[%]	=	.480
STANDARD DEVIATION	=	.313
STANDARD ERROR OF THE MEAN	=	.084

R E L . F R E Q U E N C Y [%]



2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8

MEAN R[%]	=	.480
STANDARD DEVIATION	=	.313
STANDARD ERROR OF THE MEAN	=	.084

R-CLASS [%]	REL. FREQUENCY [%]
0.00	21.4
0.20	14.2
0.40	50.0
0.60	7.1
1.40	7.1

REFLECTANCE READINGS:
.32 .44 .54 .55 .49 .50 .61 .43 .38 .57 1.42 .16 .17 .14

[OIL]% (546)

Fig. 2 f

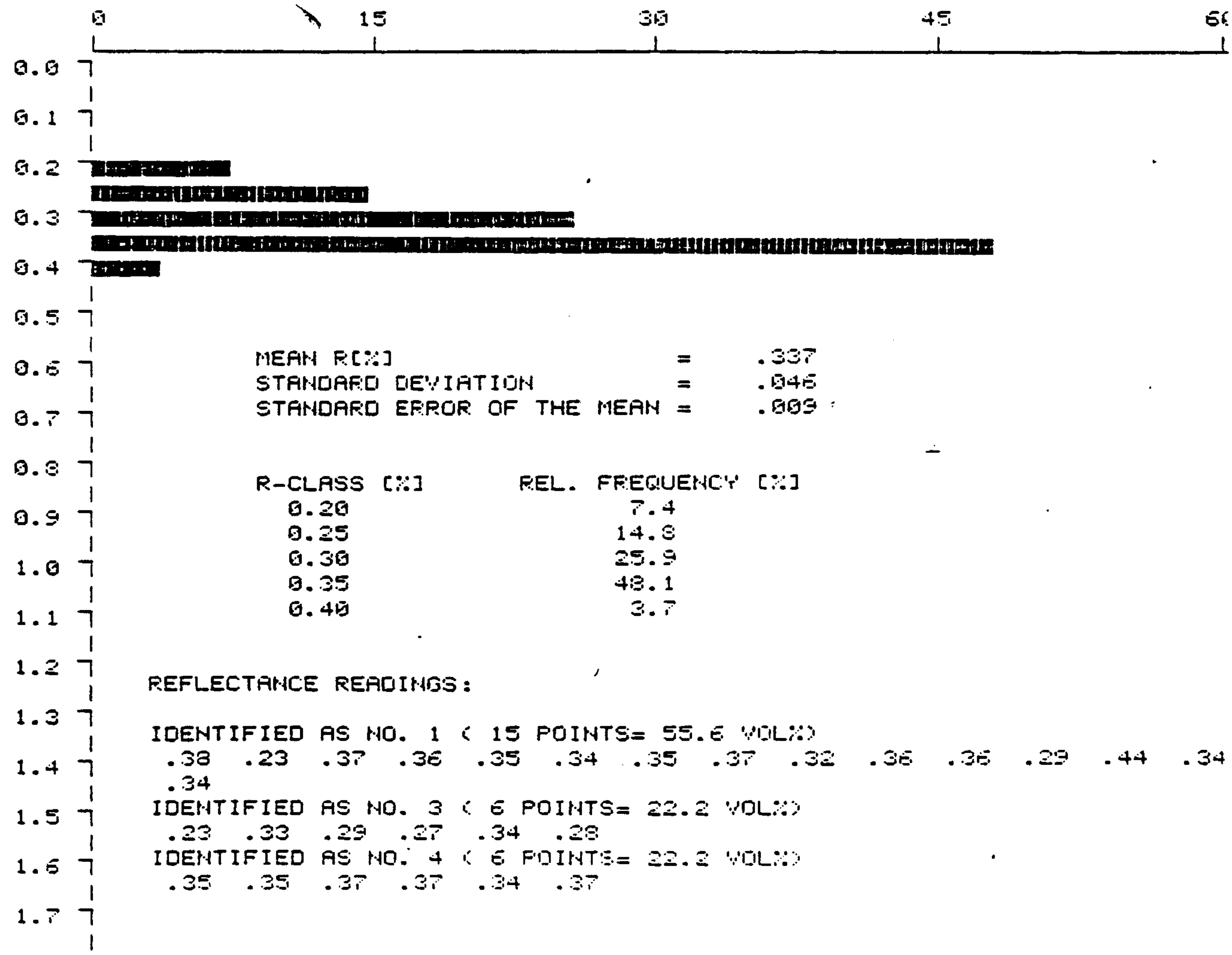
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES **ERDOELS** UND DER **KOHLE**
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17621
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 1 3 4

NUMBER OF MEASURING POINTS: 27

MEAN R[%] = .337
STANDARD DEVIATION = .046
STANDARD ERROR OF THE MEAN = .009

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .337
STANDARD DEVIATION = .046
STANDARD ERROR OF THE MEAN = .009

R-CLASS [%]	REL. FREQUENCY [%]
0.20	7.4
0.25	14.8
0.30	25.9
0.35	48.1
0.40	3.7

REFLECTANCE READINGS:

IDENTIFIED AS NO. 1 (15 POINTS= 55.6 VOL%)
.38 .23 .37 .36 .35 .34 .35 .37 .32 .36 .36 .29 .44 .34
.34
IDENTIFIED AS NO. 3 (6 POINTS= 22.2 VOL%)
.23 .33 .29 .27 .34 .28
IDENTIFIED AS NO. 4 (6 POINTS= 22.2 VOL%)
.35 .35 .37 .37 .34 .37

[OIL]% (546)

Fig. 2 f

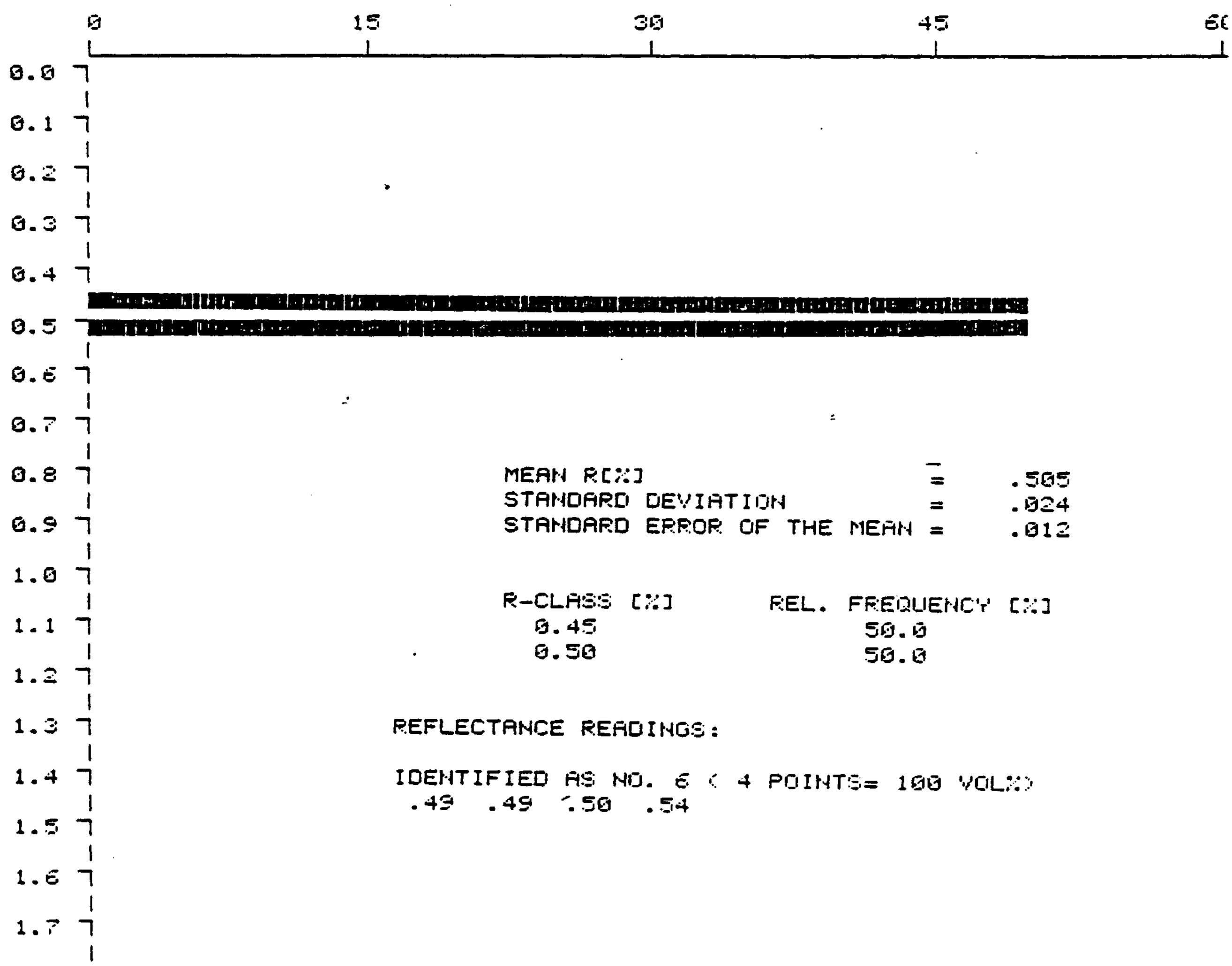
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17621
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 6

NUMBER OF MEASURING POINTS: 4

MEAN R[%]	=	.505
STANDARD DEVIATION	=	.024
STANDARD ERROR OF THE MEAN	=	.012

R E L .   F R E Q U E N C Y [%]



MEAN R[%]	=	.505
STANDARD DEVIATION	=	.024
STANDARD ERROR OF THE MEAN	=	.012

R-CLASS [%]	REL. FREQUENCY [%]
0.45	50.0
0.50	50.0

REFLECTANCE READINGS:

IDENTIFIED AS NO. 6 (4 POINTS= 100 VOL%)
.49 .49 .50 .54

[OIL]% (546)

Fig. 2 g

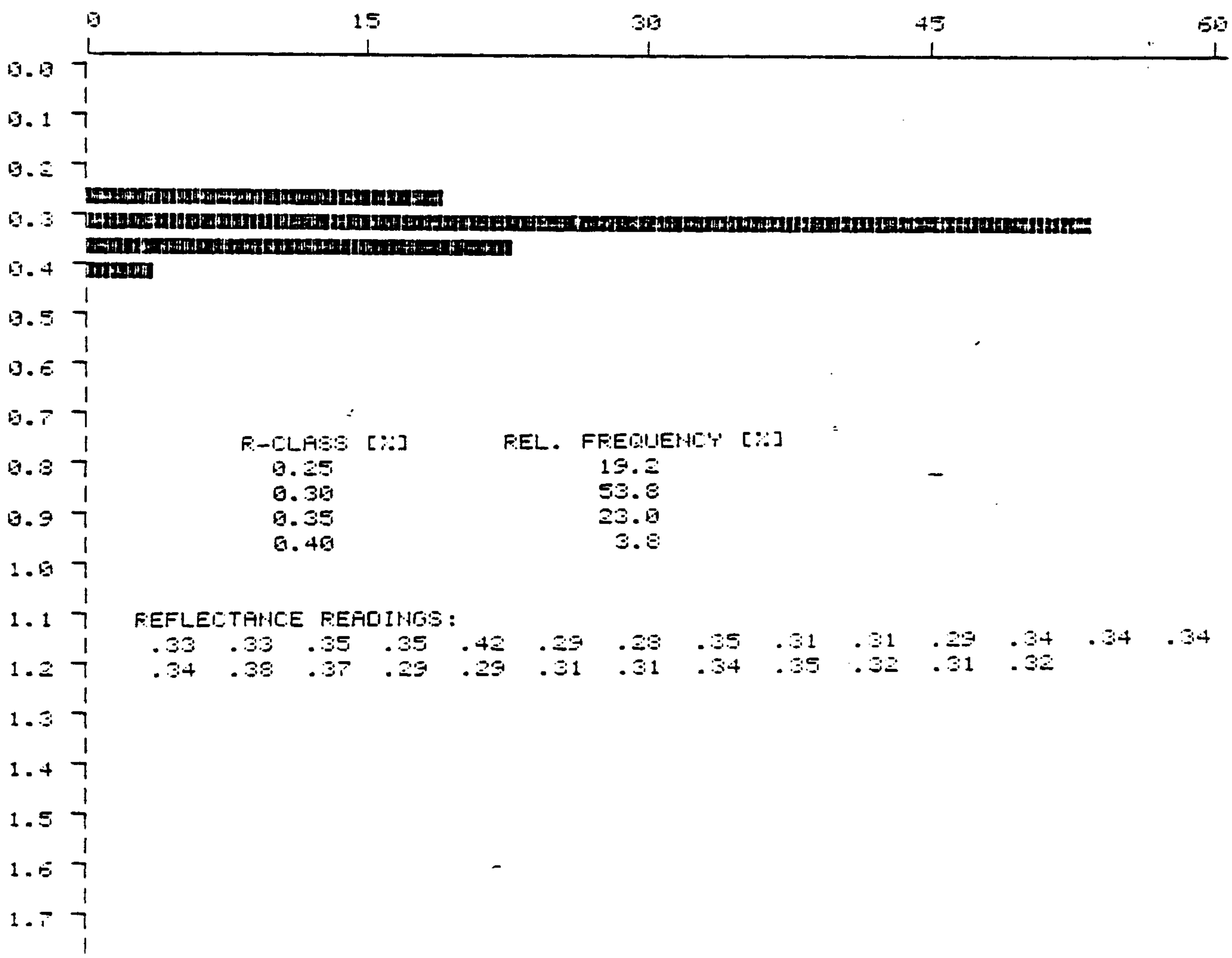
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17630
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN OIL
MACERAL (SUB-)TYPE:.........HUMOCOLLINIT

NUMBER OF MEASURING POINTS: 26

MEAN R[%]	=	.329
STANDARD DEVIATION	=	.032
STANDARD ERROR OF THE MEAN	=	.006

R E L . F R E Q U E N C Y [%]



R-CLASS [%]	REL. FREQUENCY [%]
0.25	19.2
0.30	53.8
0.35	23.0
0.40	3.8

REFLECTANCE READINGS:

.33 .33 .35 .35 .42 .29 .28 .35 .31 .31 .29 .34 .34 .34
.34 .38 .37 .29 .29 .31 .31 .34 .35 .32 .31 .32

OILIX (546)

Fig. 2 g

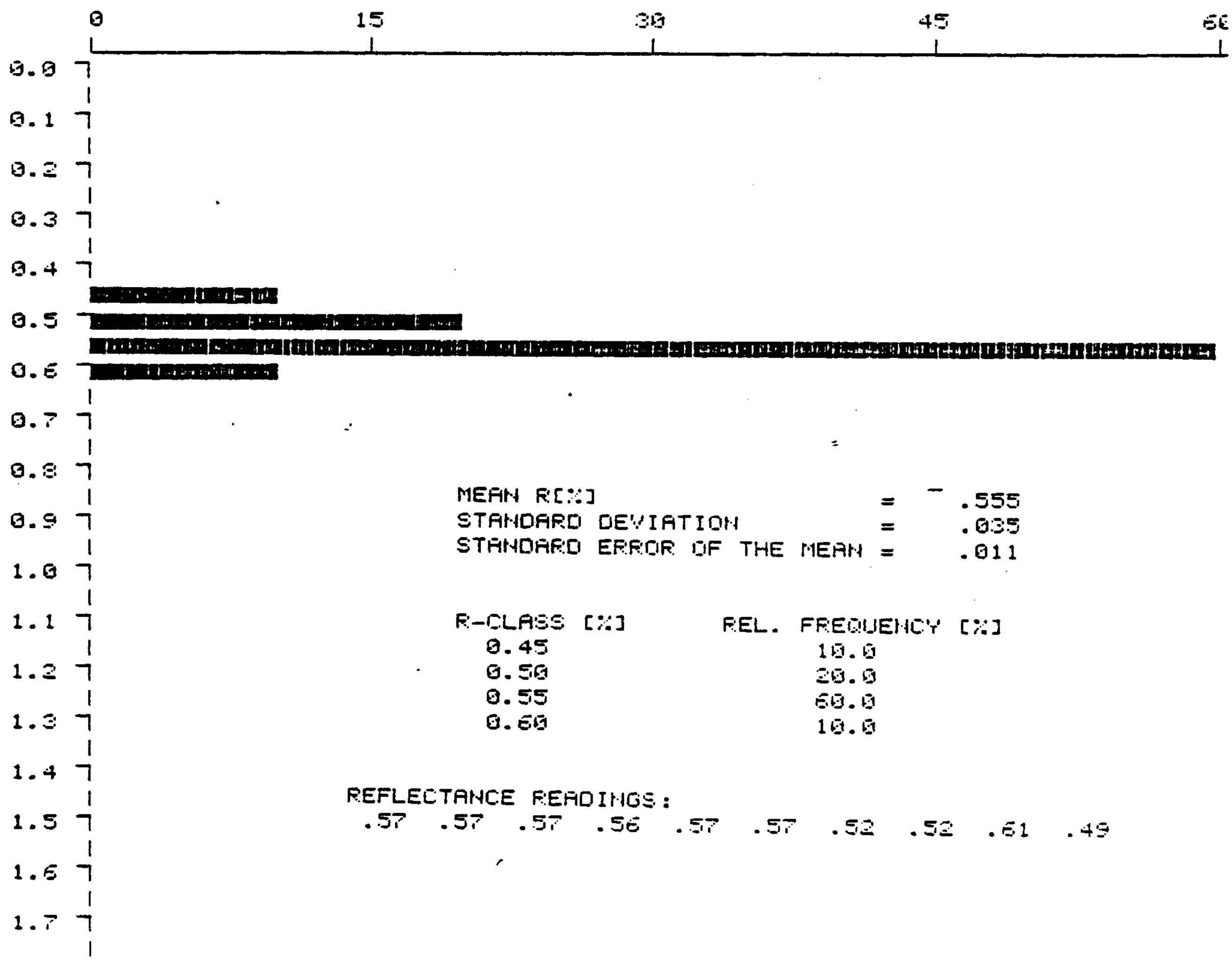
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17630
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40X EPIPLAN OIL
MACERAL (SUB-)TYPE:.........COLLINITE

NUMBER OF MEASURING POINTS: 10

MEAN R[%] = .555
STANDARD DEVIATION = .035
STANDARD ERROR OF THE MEAN = .011

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .555
STANDARD DEVIATION = .035
STANDARD ERROR OF THE MEAN = .011

R-CLASS [%]	REL. FREQUENCY [%]
0.45	10.0
0.50	20.0
0.55	60.0
0.60	10.0

REFLECTANCE READINGS:
.57 .57 .57 .56 .57 .57 .52 .52 .61 .49

OILJ% (546)

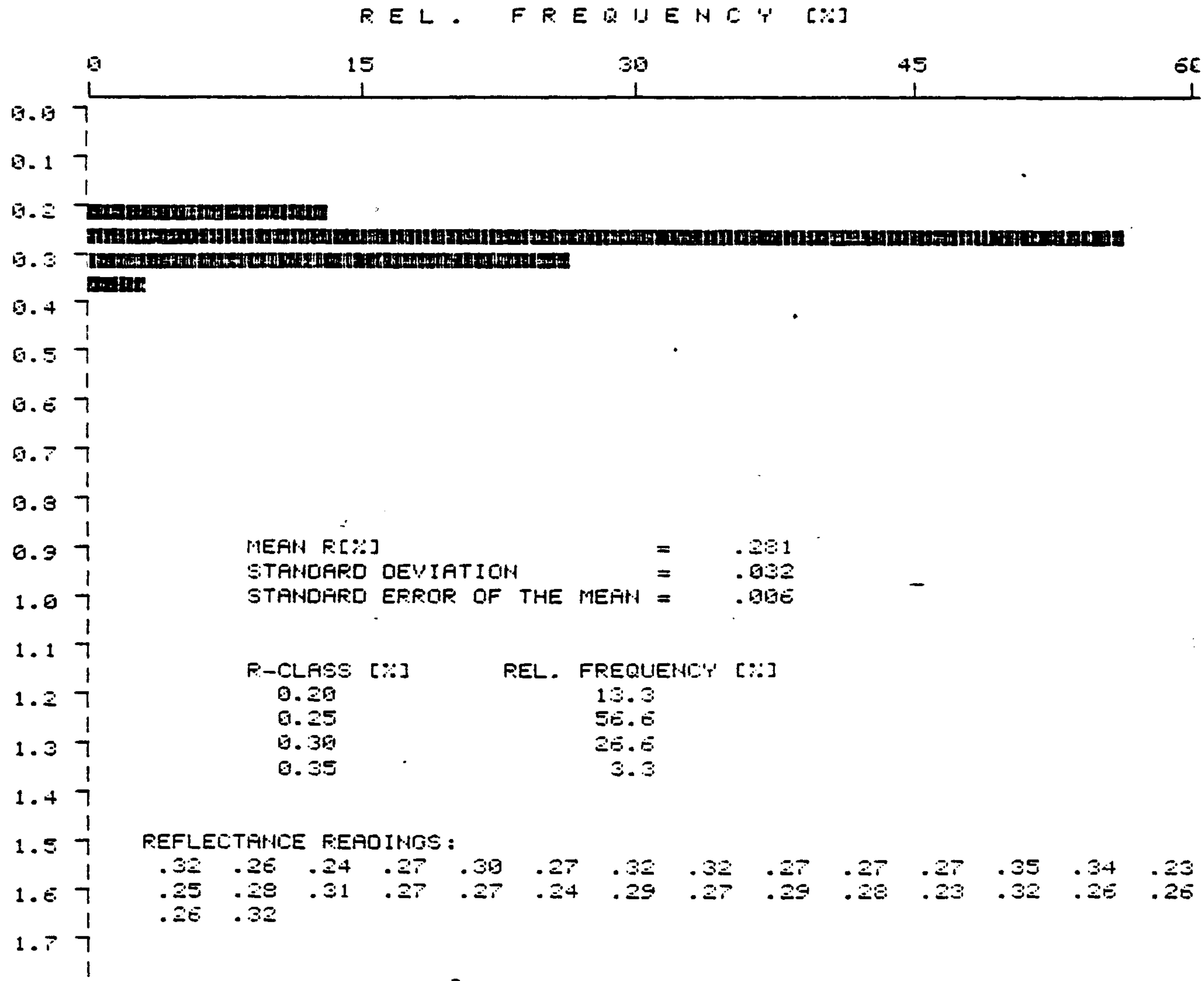
Fig. 2 h

LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................E 17043
DATE/NAME:..................28.06.83
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88
TYPE OF OBJECTIVE:..........40 X EPI OEL
MACERAL (SUB-)TYPE:.........VITRINIT

NUMBER OF MEASURING POINTS: 30

MEAN R[%] = .281
STANDARD DEVIATION = .032
STANDARD ERROR OF THE MEAN = .006



MEAN R[%] = .281
STANDARD DEVIATION = .032
STANDARD ERROR OF THE MEAN = .006

R-CLASS [%]	REL. FREQUENCY [%]
0.20	13.3
0.25	56.6
0.30	26.6
0.35	3.3

REFLECTANCE READINGS:
.32 .26 .24 .27 .30 .27 .32 .32 .27 .27 .27 .35 .34 .23
.25 .28 .31 .27 .27 .24 .29 .27 .29 .28 .23 .32 .26 .26
.26 .32

[OIL]% (546)

Fig. 2 j

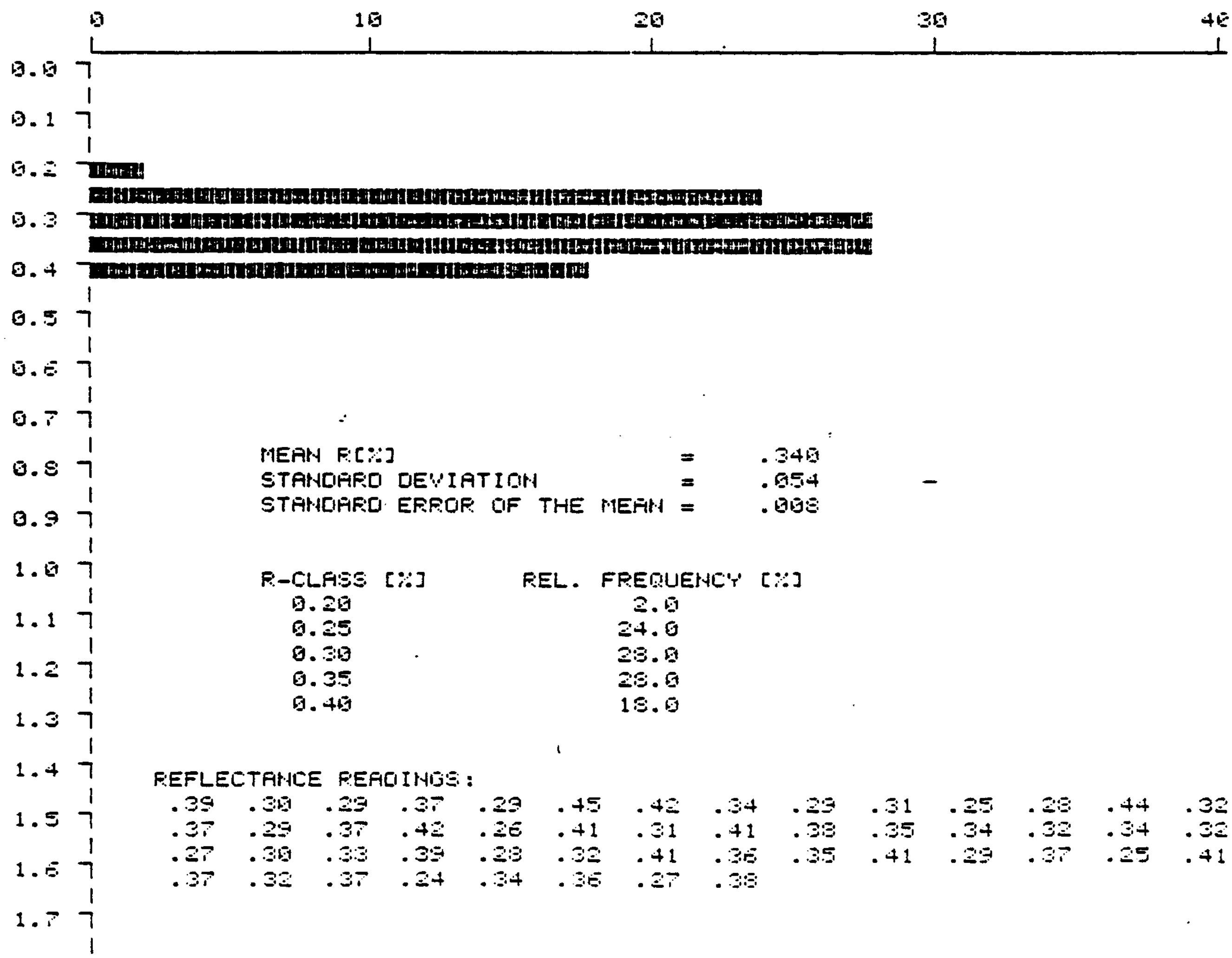
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................E 17080
DATE/NAME:..................28.06.83
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88
TYPE OF OBJECTIVE:..........40X EPI OEL
MACERAL (SUB-)TYPE:.........VITRINIT

NUMBER OF MEASURING POINTS: 50

MEAN R[%] = .340
STANDARD DEVIATION = .054
STANDARD ERROR OF THE MEAN = .008

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .340
STANDARD DEVIATION = .054
STANDARD ERROR OF THE MEAN = .008

R-CLASS [%]	REL. FREQUENCY [%]
0.20	2.0
0.25	24.0
0.30	28.0
0.35	28.0
0.40	18.0

REFLECTANCE READINGS:

.39	.30	.29	.37	.29	.45	.42	.34	.29	.31	.25	.28	.44	.32
.37	.29	.37	.42	.26	.41	.31	.41	.38	.35	.34	.32	.34	.32
.27	.30	.33	.39	.28	.32	.41	.36	.35	.41	.29	.37	.25	.41
.37	.32	.37	.24	.34	.36	.27	.38						

[OIL]% (546)

Fig. 2 i

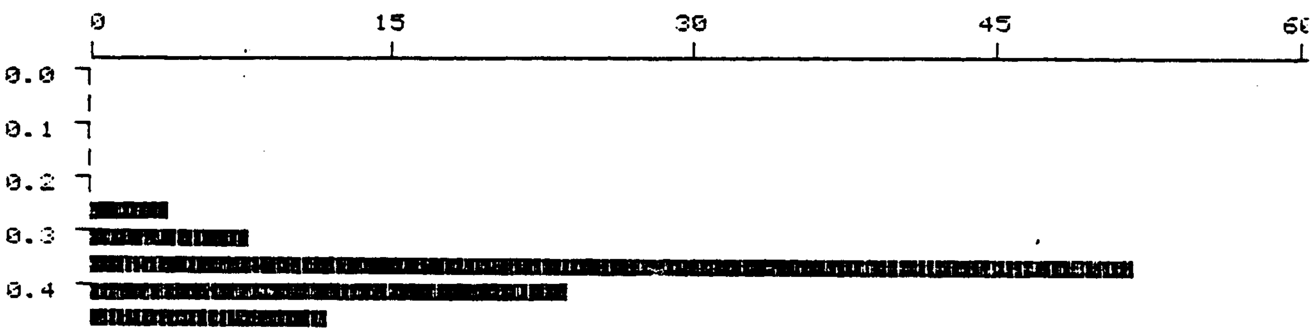
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17049
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40X EPIPLAN
MACERAL (SUB-)TYPE:.........HUMOCOLLINITE AND EU-ULMINITE

NUMBER OF MEASURING POINTS: 25

MEAN R[%] = .386
STANDARD DEVIATION = .053
STANDARD ERROR OF THE MEAN = .011

REL. FREQUENCY [%]



0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7

MEAN R[%] = .386
STANDARD DEVIATION = .053
STANDARD ERROR OF THE MEAN = .011

R-CLASS [%]	REL. FREQUENCY [%]
0.25	4.0
0.30	8.0
0.35	52.0
0.40	24.0
0.45	12.0

REFLECTANCE READINGS:
.37 .32 .49 .49 .49 .39 .39 .41 .42 .41 .41 .42 .26 .36
.36 .34 .35 .36 .41 .37 .37 .35 .35 .39 .38

OIL]% (546)

Fig. 2 k

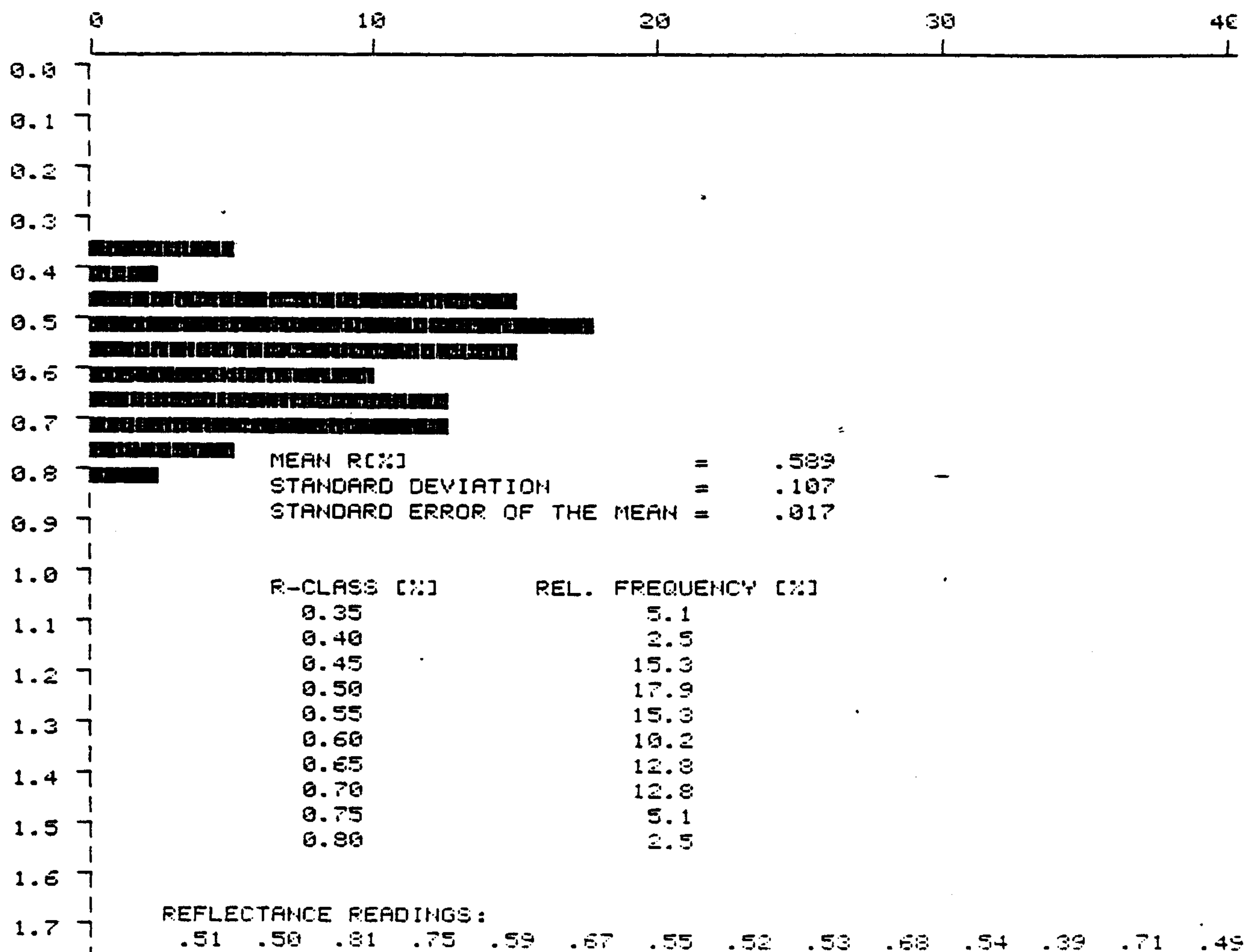
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17147
DATE/NAME:..................14.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:.........HUMINTE/COLLINITE

NUMBER OF MEASURING POINTS: 39

MEAN R[%]	=	.589
STANDARD DEVIATION	=	.107
STANDARD ERROR OF THE MEAN	=	.017

R E L . F R E Q U E N C Y [%]



MEAN R[%]	=	.589
STANDARD DEVIATION	=	.107
STANDARD ERROR OF THE MEAN	=	.017

R-CLASS [%]	REL. FREQUENCY [%]
0.35	5.1
0.40	2.5
0.45	15.3
0.50	17.9
0.55	15.3
0.60	10.2
0.65	12.8
0.70	12.8
0.75	5.1
0.80	2.5

REFLECTANCE READINGS:

.51 .50 .81 .75 .59 .67 .55 .52 .53 .68 .54 .39 .71 .49
.45 .71 .64 .49 .78 .64 .63 .55 .72 .69 .54 .62 .58 .66
.66 .71 .47 .49 .46 .54 .56 .55 .70 .49 .39

OIL]% (546)

Fig. 2 1

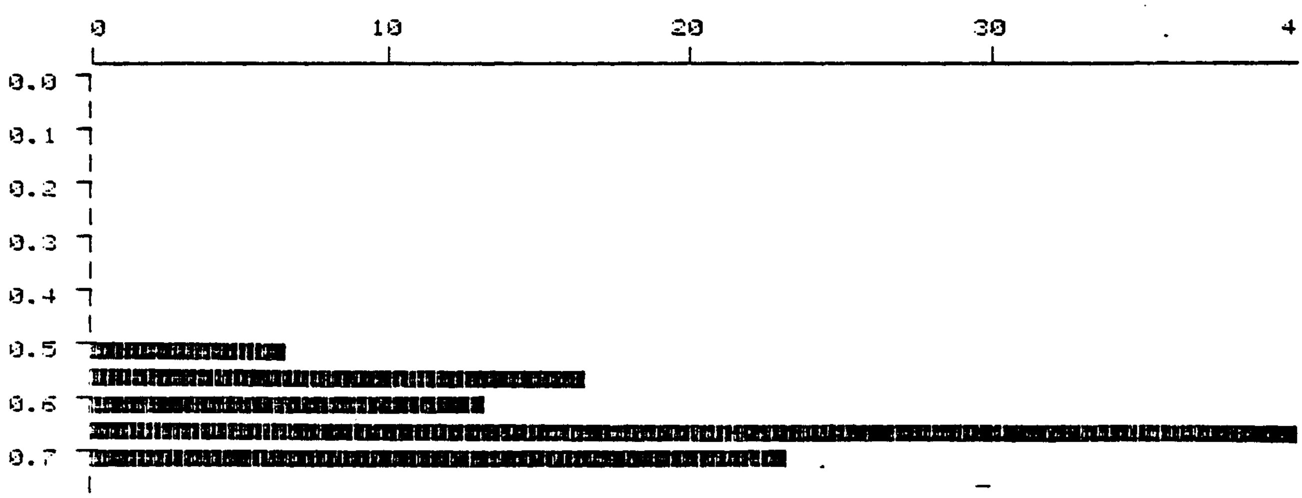
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17150
DATE/NAME:..................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40X EPIPLAN
MACERAL (SUB-)TYPE:.........HUMINITE/COLLINITE

NUMBER OF MEASURING POINTS: 30

MEAN R[%] = .648
STANDARD DEVIATION = .062
STANDARD ERROR OF THE MEAN = .011

R E L . F R E Q U E N C Y [%]



0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7

MEAN R[%] = .648
STANDARD DEVIATION = .062
STANDARD ERROR OF THE MEAN = .011

R-CLASS [%]	REL. FREQUENCY [%]
0.50	6.6
0.55	16.6
0.60	13.3
0.65	40.0
0.70	23.3

REFLECTANCE READINGS:
.72 .71 .70 .69 .68 .66 .69 .69 .58 .65 .66 .65 .55 .58
.54 .74 .53 .60 .59 .60 .60 .69 .66 .67 .73 .73 .62 .67
.71 .55

[OIL]% (546)

Fig. 2 m

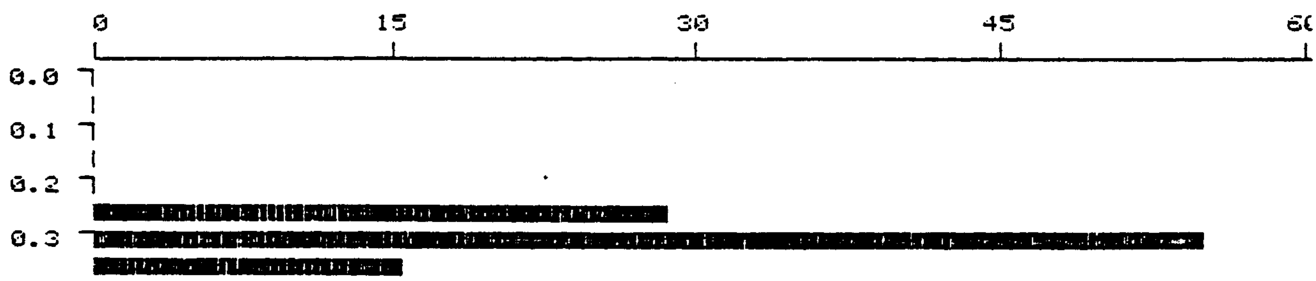
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:.................STATOIL 64/07--E 17169
DATE/NAME:...................23.06.83
RANDOM REFLECTANCE
STANDARD:....................YAG 0.88%
TYPE OF OBJECTIVE:...........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 1 3 4

NUMBER OF MEASURING POINTS: 38

MEAN R[%] = .314
STANDARD DEVIATION = .030
STANDARD ERROR OF THE MEAN = .005

R E L . F R E Q U E N C Y [%]



0.4 … 1.7

MEAN R[%] = .314
STANDARD DEVIATION = .030
STANDARD ERROR OF THE MEAN = .005

R-CLASS [%]	REL. FREQUENCY [%]
0.25	28.9
0.30	55.2
0.35	15.7

REFLECTANCE READINGS:

IDENTIFIED AS NO. 1 (24 POINTS= 63.2 VOL%)
.33 .31 .29 .25 .32 .28 .36 .36 .29 .32 .31 .31 .31 .31
.32 .30 .26 .29 .35 .35 .34 .34 .32 .32
IDENTIFIED AS NO. 3 (11 POINTS= 28.9 VOL%)
.32 .28 .32 .31 .28 .30 .38 .38 .32 .32 .28
IDENTIFIED AS NO. 4 (3 POINTS= 7.9 VOL%)
.32 .29 .29

OIL[% (546)

Fig. 2 n

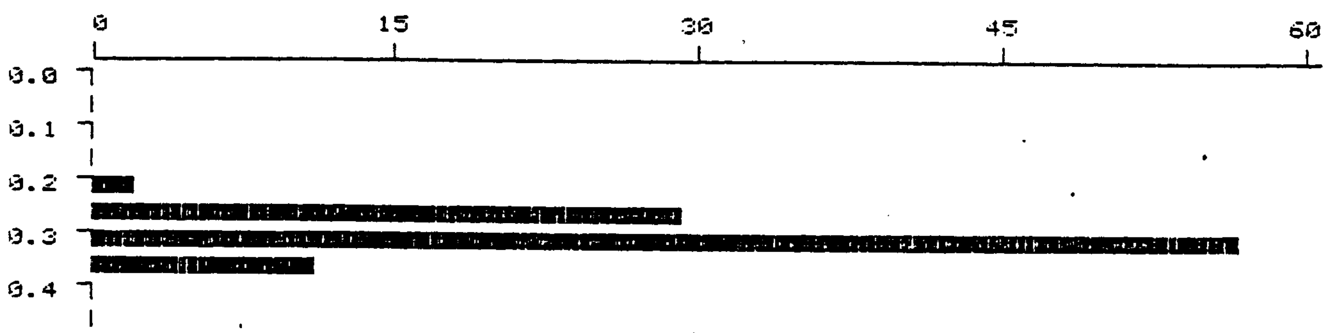
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES **ERDOELS** UND DER **KOHLE**
RWTH AACHEN

SAMPLE CODE:.................STATOIL 64/07--E 17725
DATE/NAME:...................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:....................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 1 3 4

NUMBER OF MEASURING POINTS: 44

MEAN R[%] = .309
STANDARD DEVIATION = .031
STANDARD ERROR OF THE MEAN = .005

REL. FREQUENCY [%]



MEAN R[%] = .309
STANDARD DEVIATION = .031
STANDARD ERROR OF THE MEAN = .005

R-CLASS [%]	REL. FREQUENCY [%]
0.20	2.2
0.25	29.5
0.30	56.8
0.35	11.3

REFLECTANCE READINGS:

IDENTIFIED AS NO. 1 (31 POINTS= 70.5 VOL%)
.27 .25 .35 .34 .32 .33 .34 .31 .31 .32 .29 .32 .35 .35
.29 .32 .29 .26 .27 .32 .32 .32 .31 .34 .33 .33 .33 .33
.37 .37 .26
IDENTIFIED AS NO. 3 (10 POINTS= 22.7 VOL%)
.31 .28 .31 .28 .30 .23 .31 .28 .27 .31
IDENTIFIED AS NO. 4 (3 POINTS= 6.8 VOL%)
.32 .31 .29

ILJ% (546)

Fig. 2 o

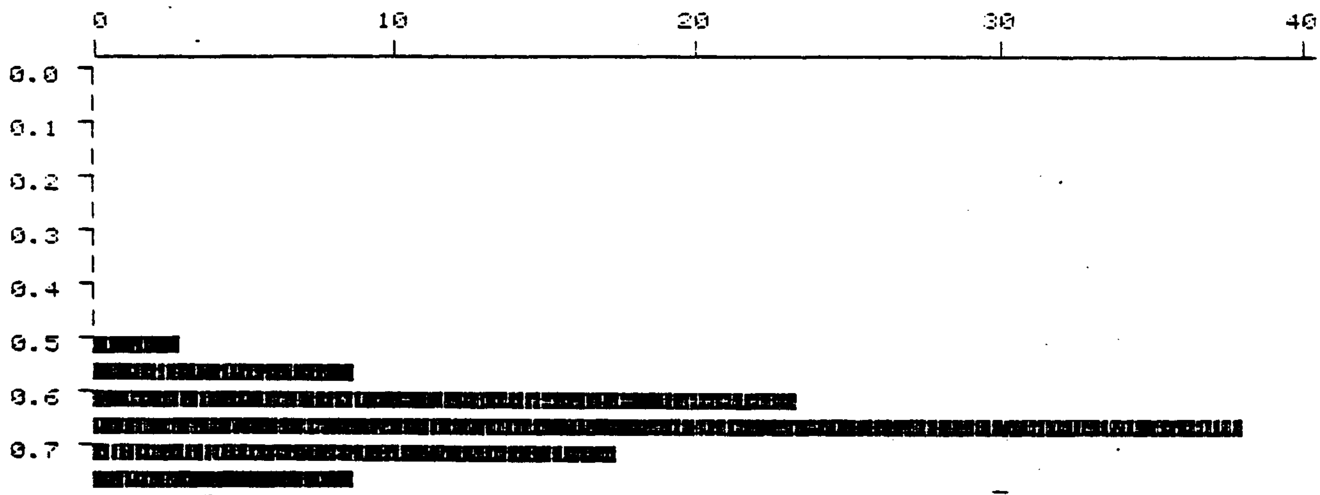
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES **ERDOELS** UND DER **KOHLE**
RWTH AACHEN

SAMPLE CODE:.................STATOIL 64/07--E 17730
DATE/NAME:...................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:....................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN
MACERAL (SUB-)TYPE:......... 6 8

NUMBER OF MEASURING POINTS: 34

MEAN R[%] = .664
STANDARD DEVIATION = .059
STANDARD ERROR OF THE MEAN = .010

R E L . F R E Q U E N C Y [%]



MEAN R[%] = .664
STANDARD DEVIATION = .059
STANDARD ERROR OF THE MEAN = .010

R-CLASS [%]	REL. FREQUENCY [%]
0.50	2.9
0.55	8.8
0.60	23.5
0.65	38.2
0.70	17.6
0.75	8.8

REFLECTANCE READINGS:

IDENTIFIED AS NO. 6 (24 POINTS= 70.6 VOL%)
.60 .69 .62 .77 .65 .60 .65 .63 .56 .69 .68 .72 .72 .7
.76 .66 .66 .57 .69 .69 .68 .54 .67 .58
IDENTIFIED AS NO. 8 (10 POINTS= 29.4 VOL%)
.72 .60 .71 .71 .68 .69 .63 .62 .62 .73

[OIL]% (546)

Fig. 2 o

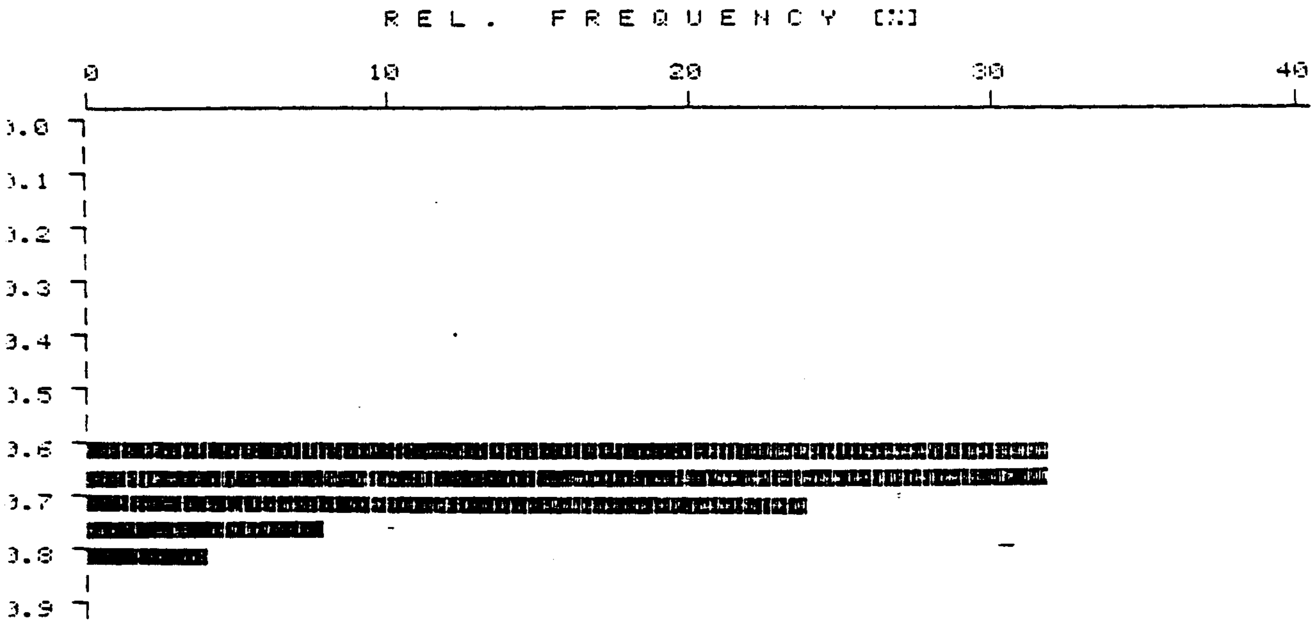
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES E R D OE L S UND DER K O H L E
RWTH AACHEN

SAMPLE CODE:................STATOIL 64/07--E 17730
DATE/NAME:..................23.06.83--HGN)
RANDOM REFLECTANCE
STANDARD:...................YAG 0.88%
TYPE OF OBJECTIVE:..........40% EPIPLAN OIL
MACERAL (SUB-)TYPE:.........COLLINIT

NUMBER OF MEASURING POINTS: 25

MEAN R[%] = .686
STANDARD DEVIATION = .055
STANDARD ERROR OF THE MEAN = .011

R E L . F R E Q U E N C Y [%]



R-CLASS [%]	REL. FREQUENCY [%]
0.60	32.0
0.65	32.0
0.70	24.0
0.75	8.0
0.80	4.0

1.0 · 1.1 · 1.2 · 1.3 · 1.4 · 1.5 · 1.6 · 1.7

REFLECTANCE READINGS:
.69 .69 .74 .74 .74 .66 .61 .68 .65 .64 .65 .72 .72 .63
.63 .62 .64 .64 .65 .78 .78 .80 .72 .64 .69

OILJ% (546)

Fig. 2 p

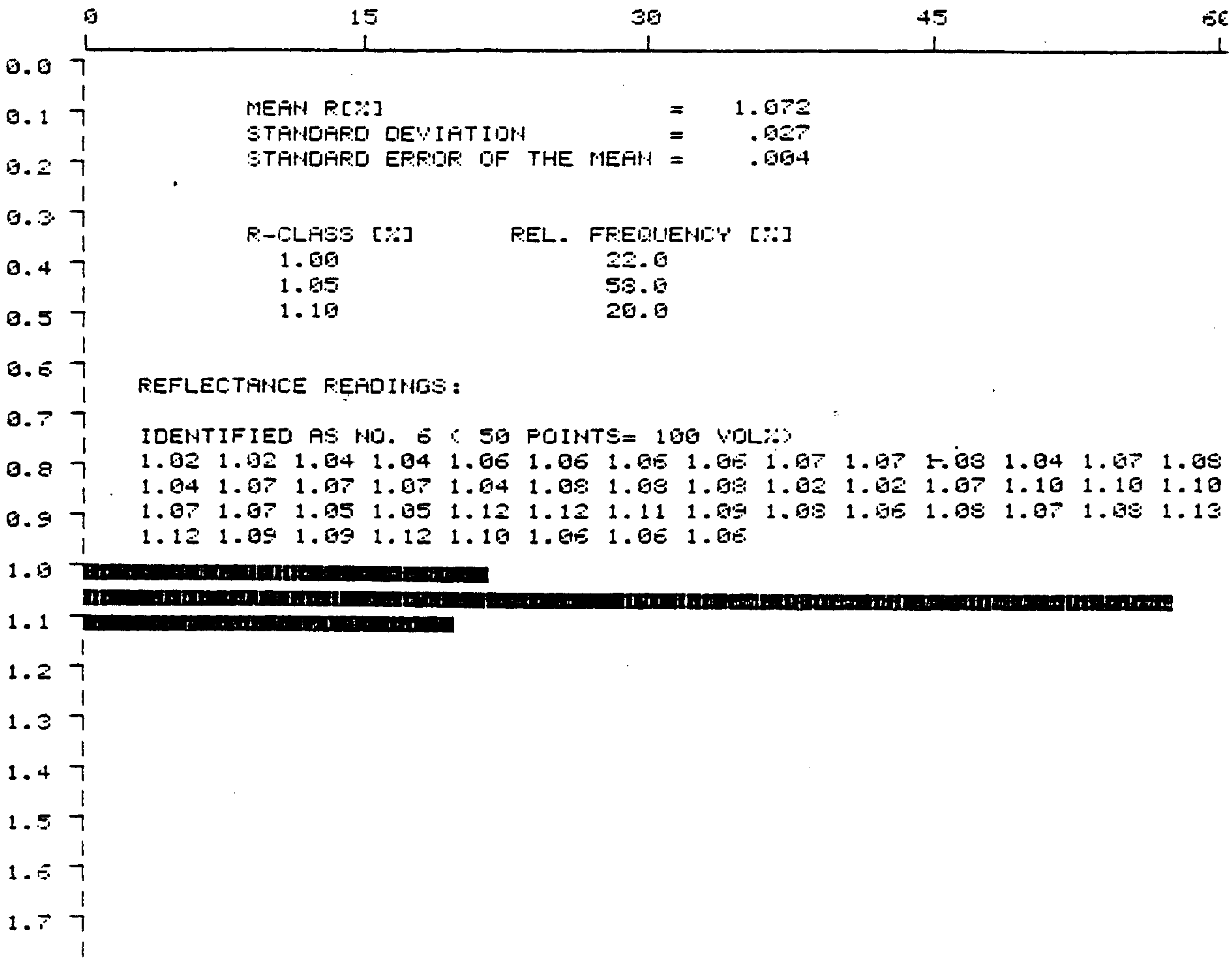
LEHRSTUHL FUER GEOLOGIE, GEOCHEMIE UND LAGERSTAETTEN
DES ERDOELS UND DER KOHLE
RWTH AACHEN

SAMPLE CODE:.................STATOIL 64/07--E 17758
DATE/NAME:...................23.06.83--HGN
RANDOM REFLECTANCE
STANDARD:....................YAG 0.88%
TYPE OF OBJECTIVE:...........40% EPIPLAN
MACERAL (SUB-)TYPE:.........TELOCOLLINITE--HAND PICKED COAL

NUMBER OF MEASURING POINTS: 50

MEAN R[%] = 1.072
STANDARD DEVIATION = .027
STANDARD ERROR OF THE MEAN = .004

R E L . F R E Q U E N C Y [%]



MEAN R[%] = 1.072
STANDARD DEVIATION = .027
STANDARD ERROR OF THE MEAN = .004

R-CLASS [%]	REL. FREQUENCY [%]
1.00	22.0
1.05	58.0
1.10	20.0

REFLECTANCE READINGS:

IDENTIFIED AS NO. 6 (50 POINTS= 100 VOL%)
1.02 1.02 1.04 1.04 1.06 1.06 1.06 1.06 1.07 1.07 1.08 1.04 1.07 1.08
1.04 1.07 1.07 1.07 1.04 1.08 1.08 1.08 1.02 1.02 1.07 1.10 1.10 1.10
1.07 1.07 1.05 1.05 1.12 1.12 1.11 1.09 1.08 1.06 1.08 1.07 1.08 1.13
1.12 1.09 1.09 1.12 1.10 1.06 1.06 1.06

[OIL]% (546)

STATOIL 6407/1-2

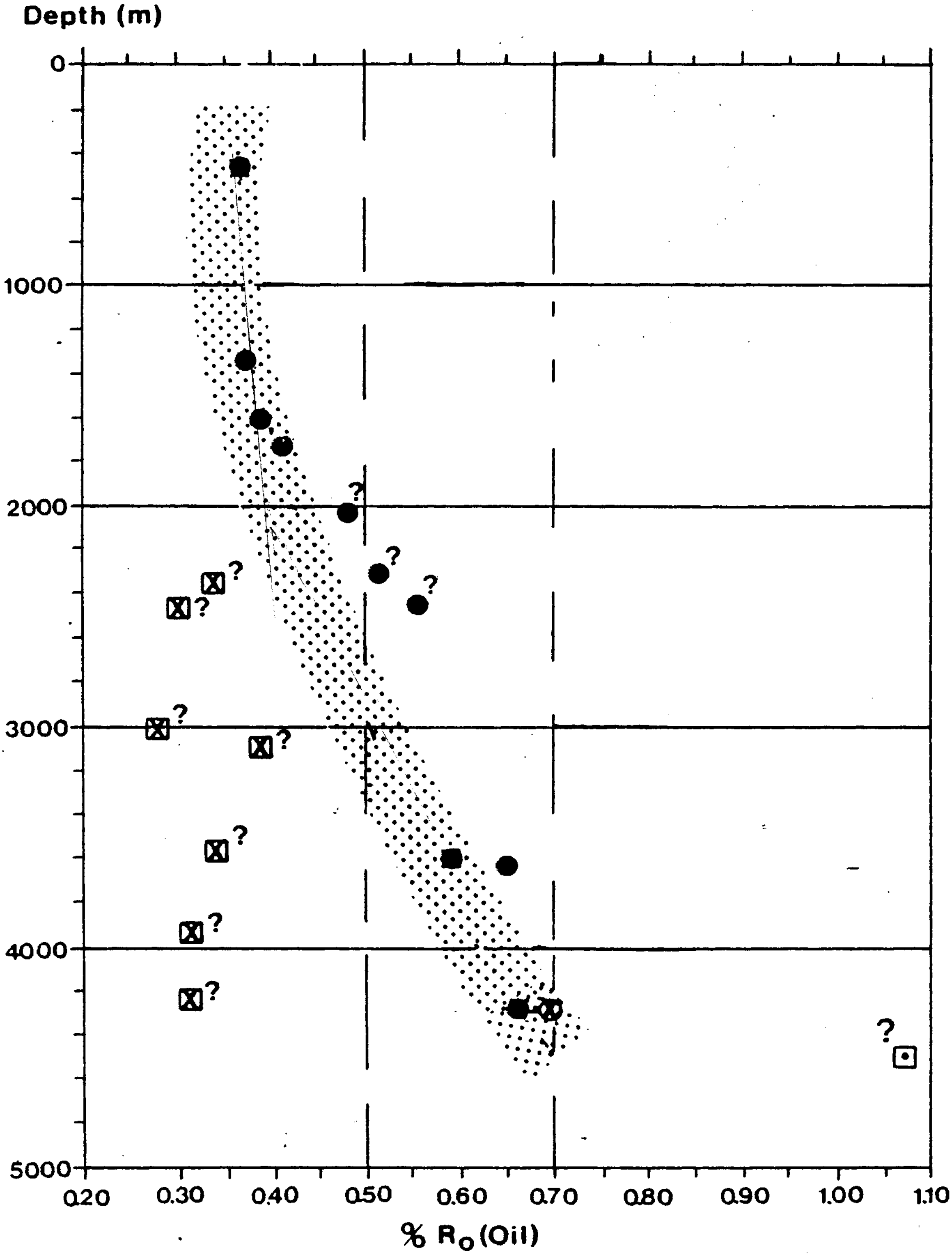
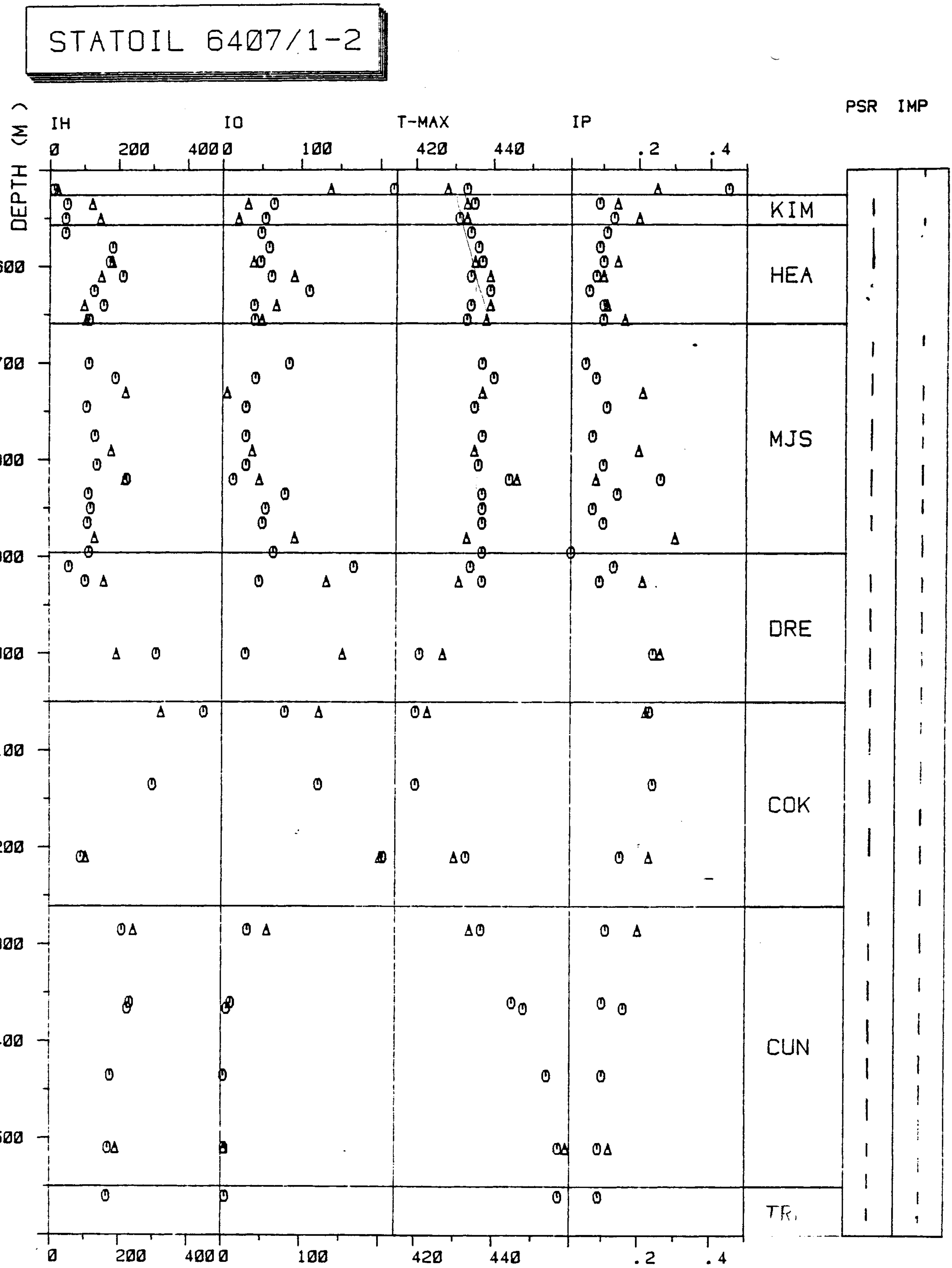


Fig.3



0 Selected (LHC) cuttings
Δ Total cuttings
PSR Potential source rock
IMP Suspected impregnations

Fig. 4

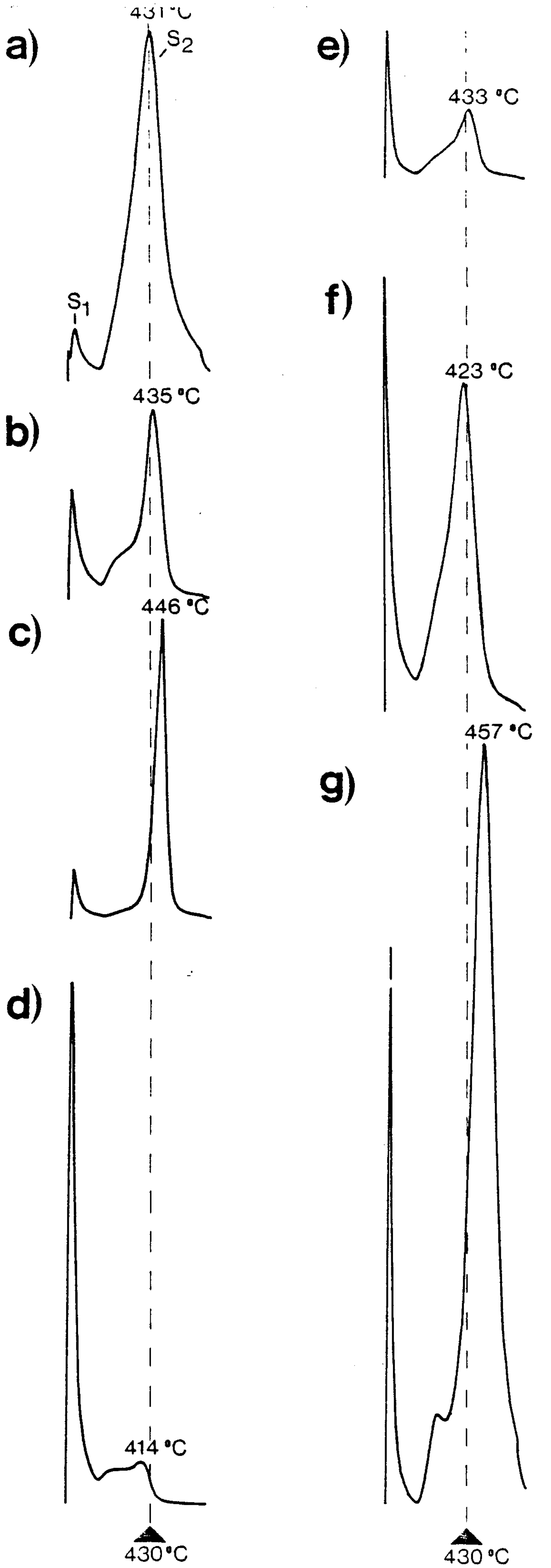


Fig. 5

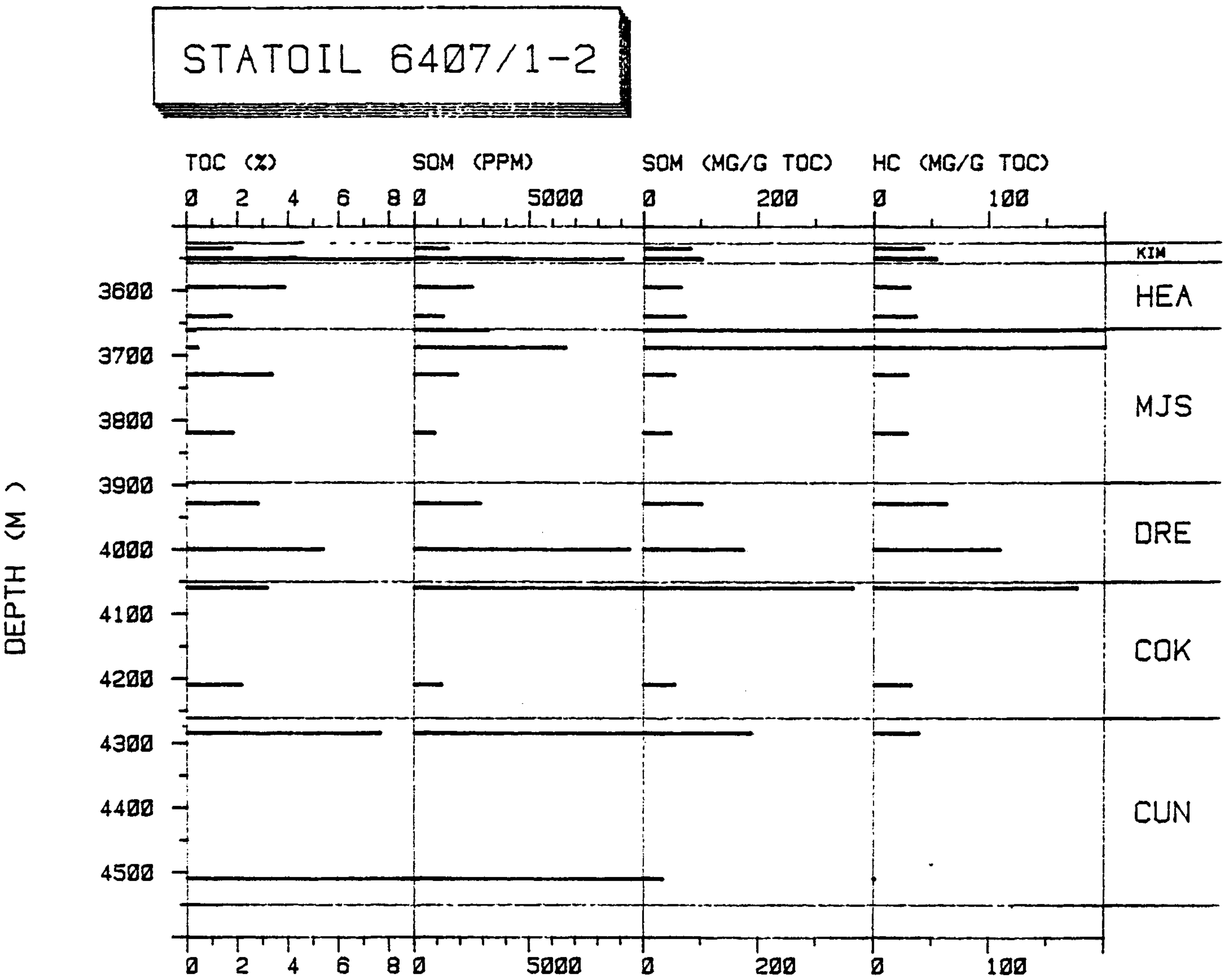

STATOIL 6407/1-2
TOC (%)
SOM (PPM)
SOM (MG/G TOC)
HC (MG/G TOC)
0 2 4 6 8 0 5000 0 200 0 100
DEPTH (M)
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
KIM
HEA
MJS
DRE
COK
CUN

Fig. 6

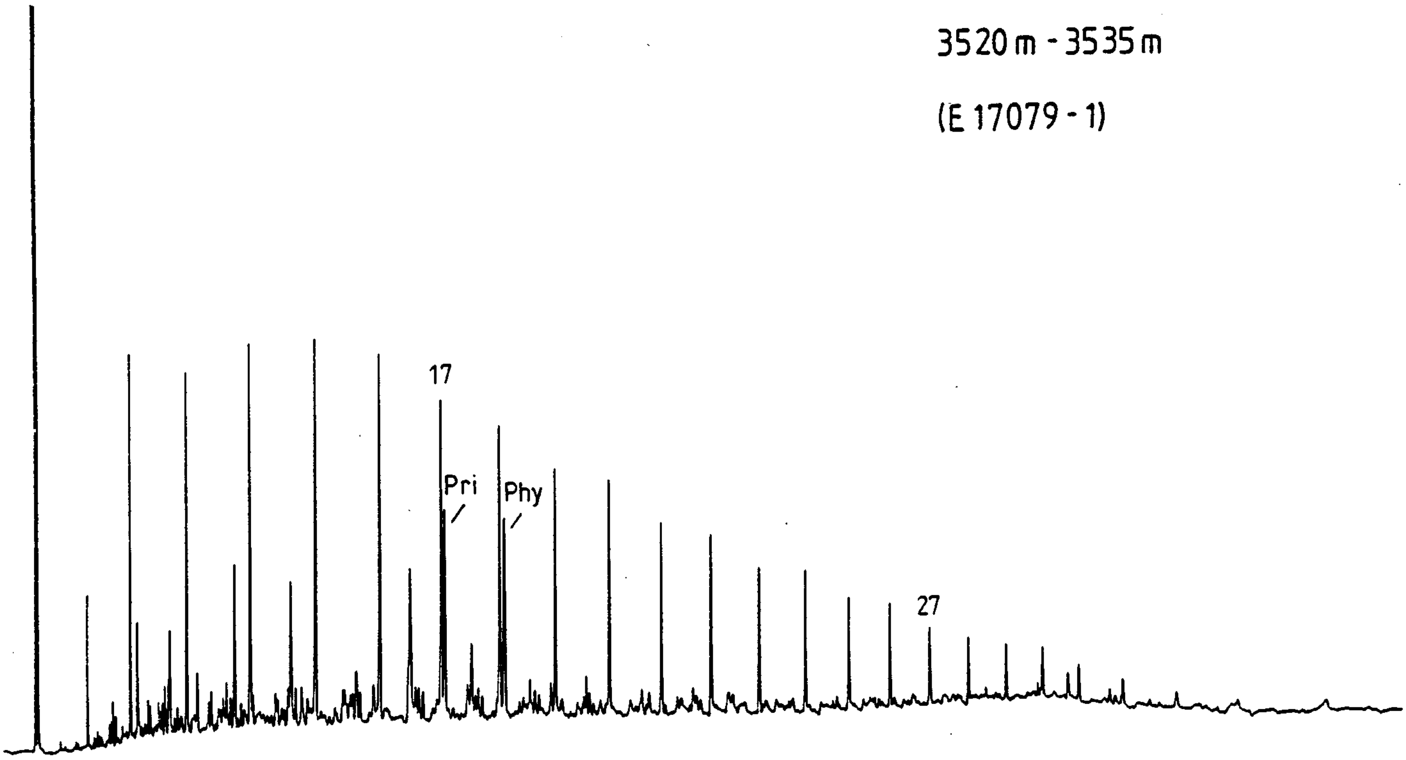

3520m - 3535m
(E 17079 - 1)
17
Pri
Phy
27

Fig. 7a

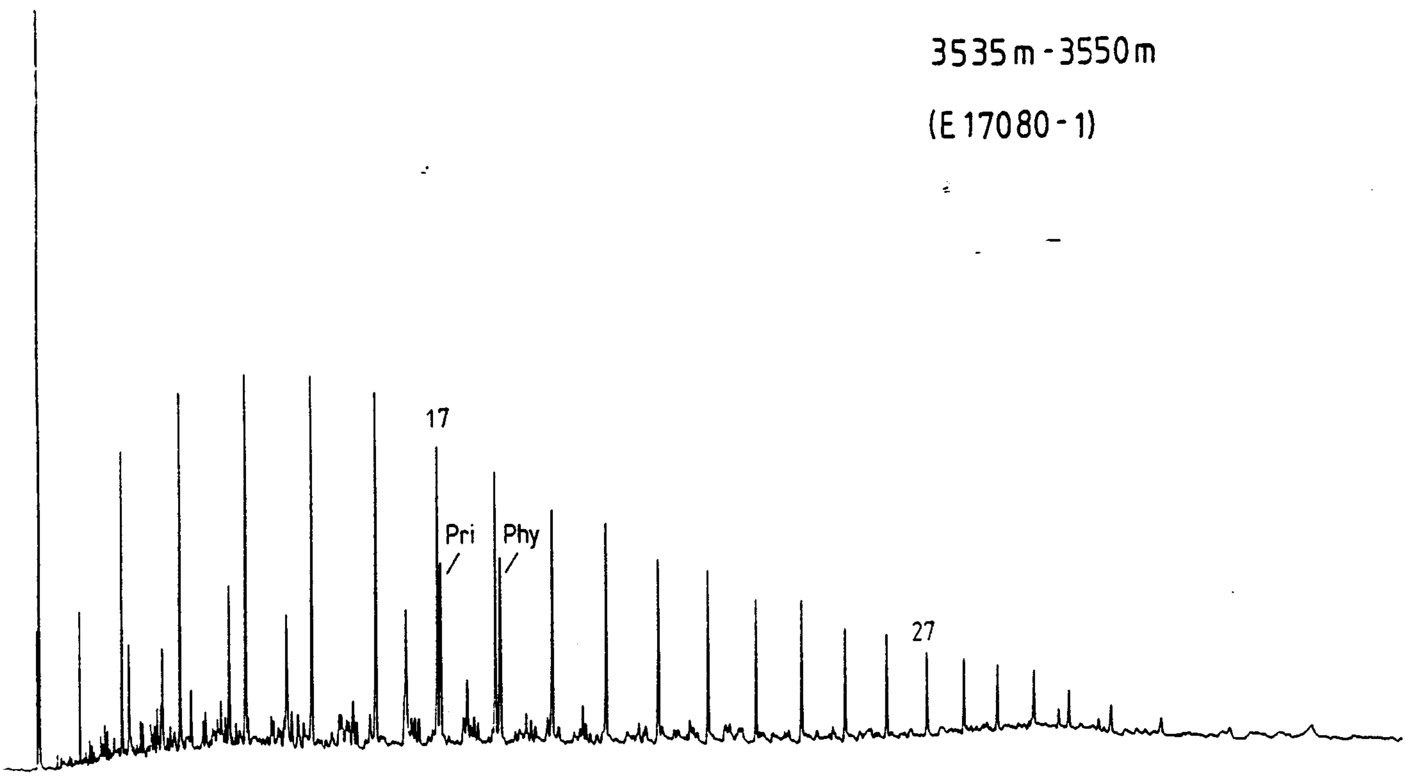

3535m - 3550m
(E 17080 - 1)
17
Pri
Phy
27

Fig. 7b

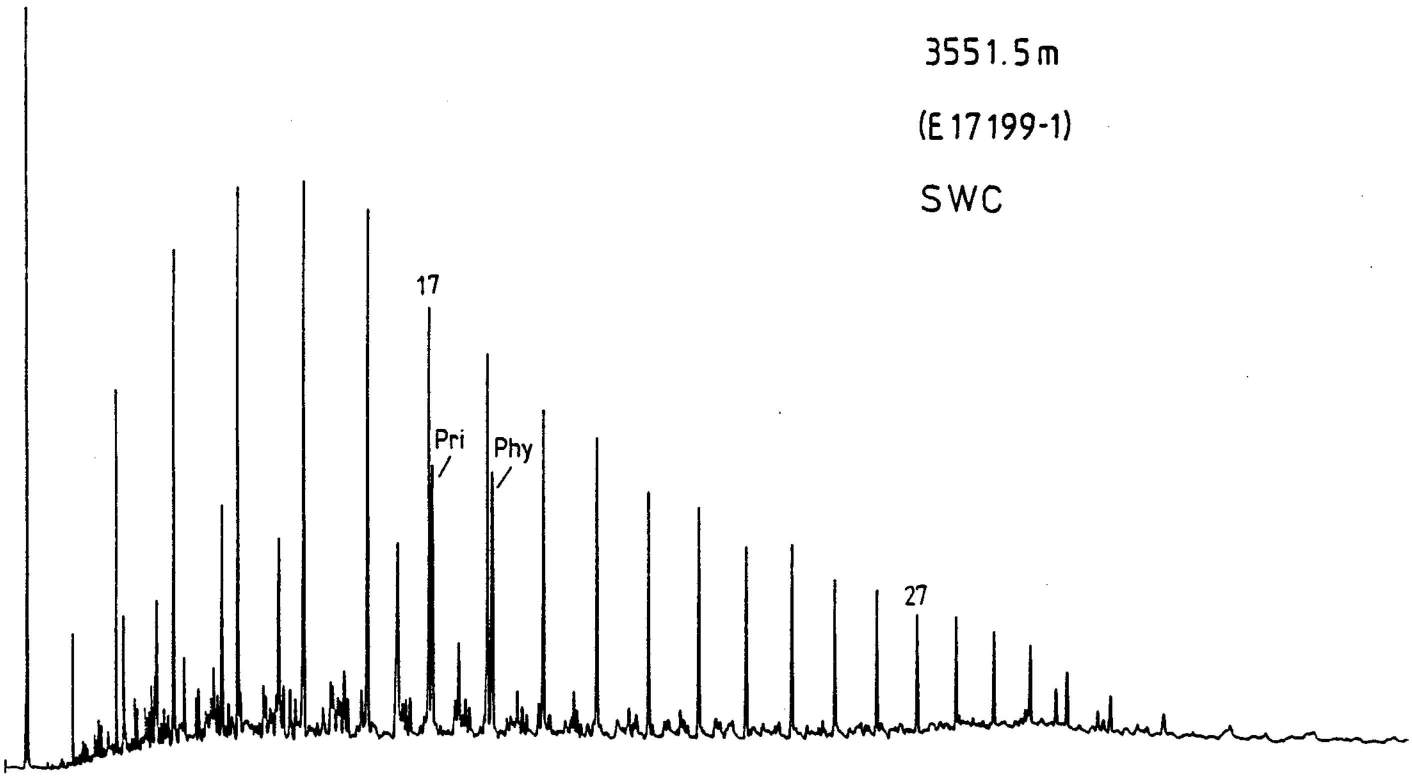

3551.5 m
(E 17199-1)
SWC
17
Pri
Phy
27

Fig. 7c

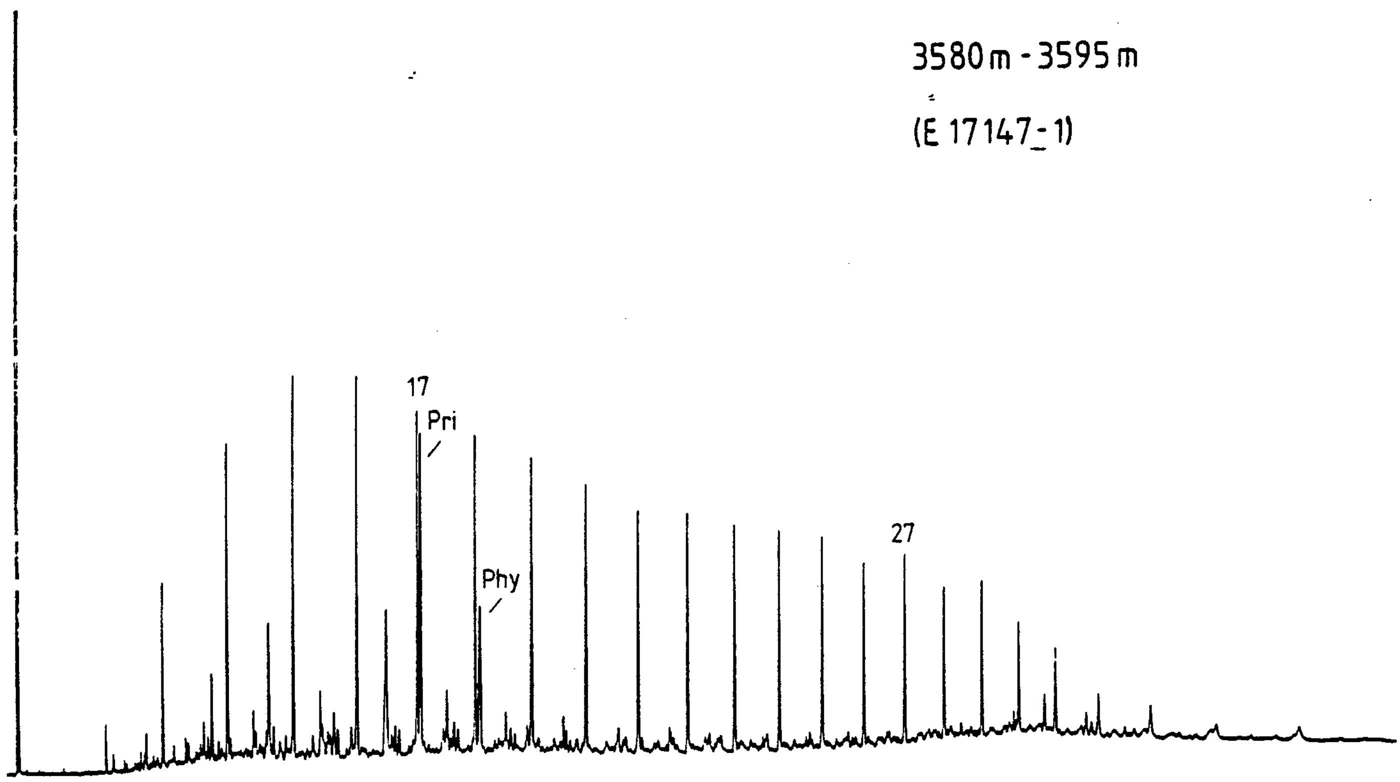

3580 m - 3595 m
(E 17147-1)
17
Pri
Phy
27

Fig.7d

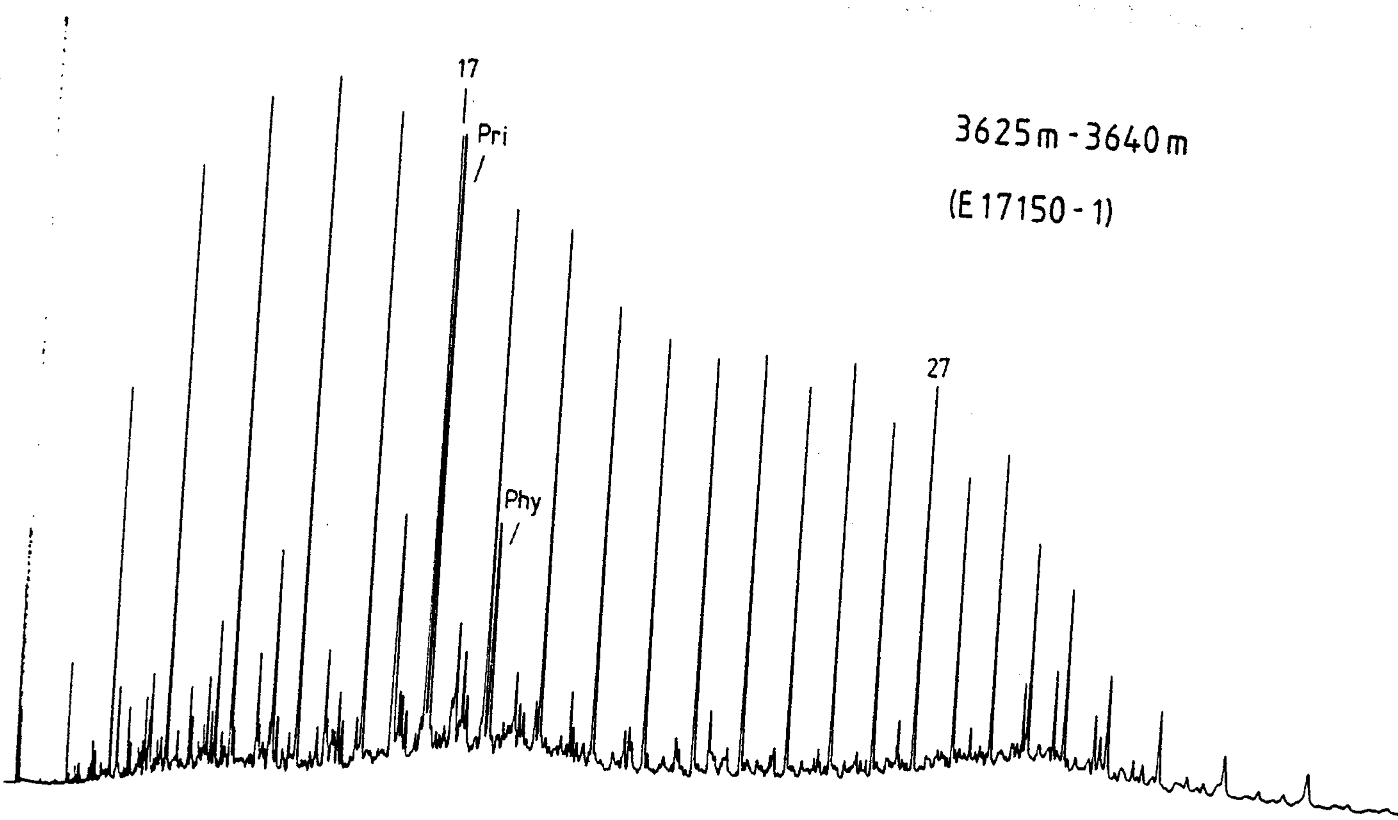

17
Pri
Phy
27
3625m - 3640m
(E17150 - 1)

Fig.7e

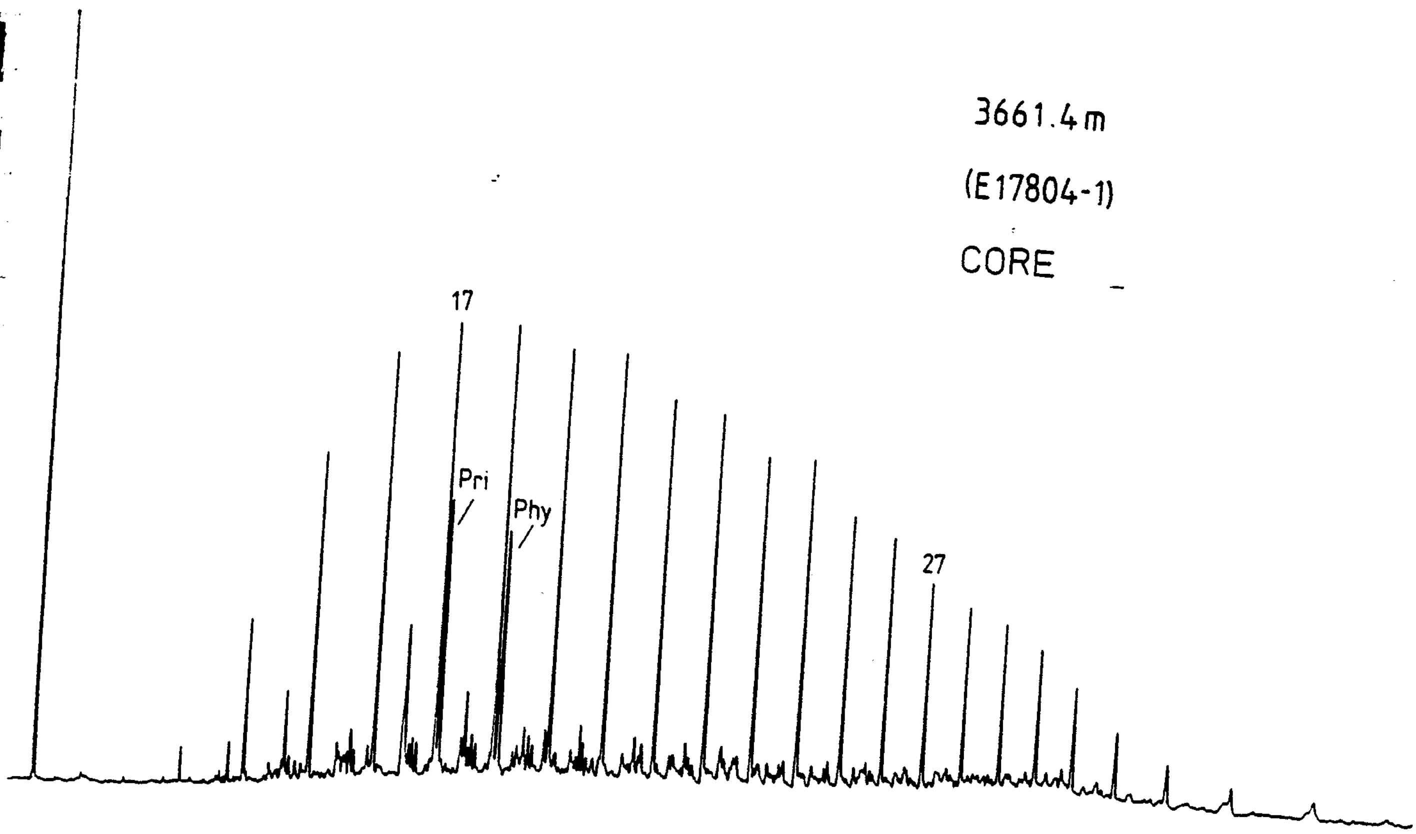

3661.4m
(E17804-1)
CORE
17
Pri
Phy
27

Fig.7f

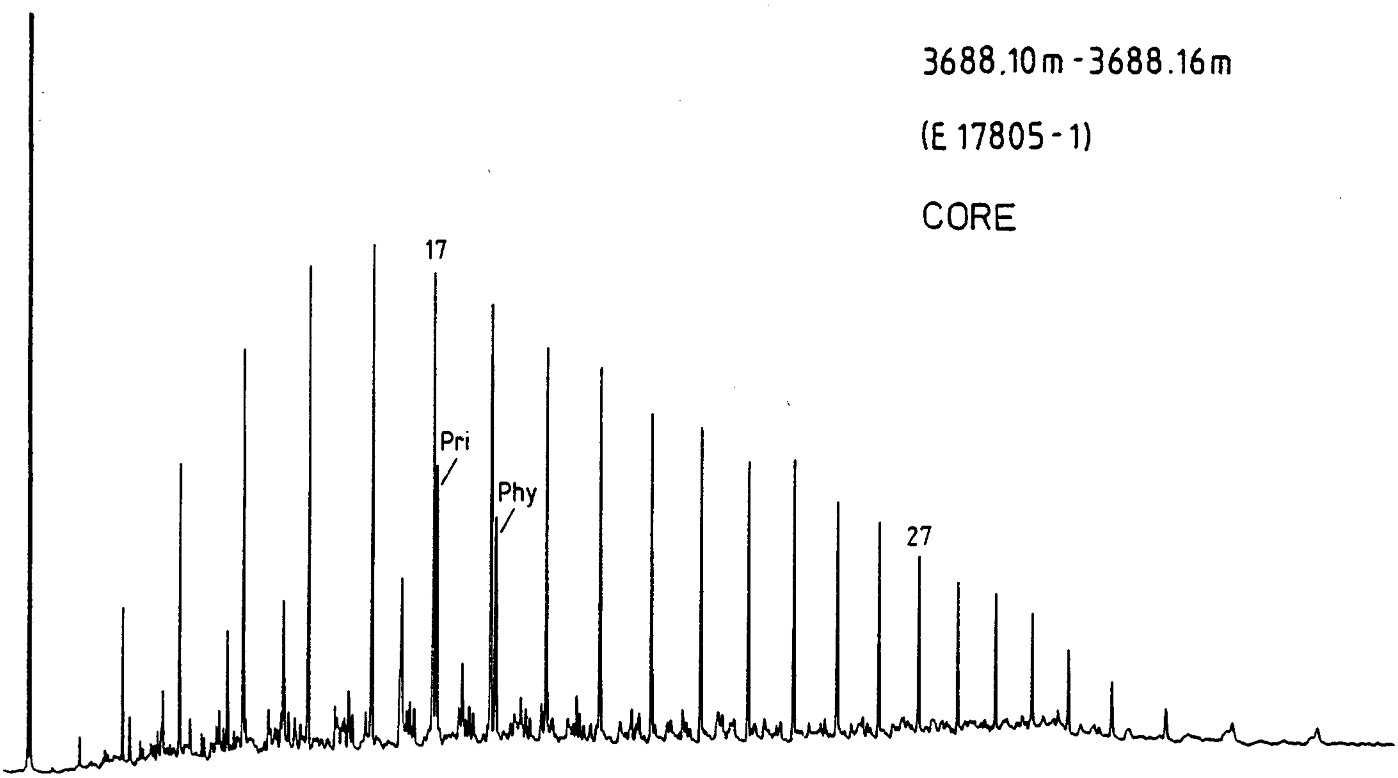

3688.10m - 3688.16m
(E 17805 - 1)
CORE
17
Pri
Phy
27

Fig.7g

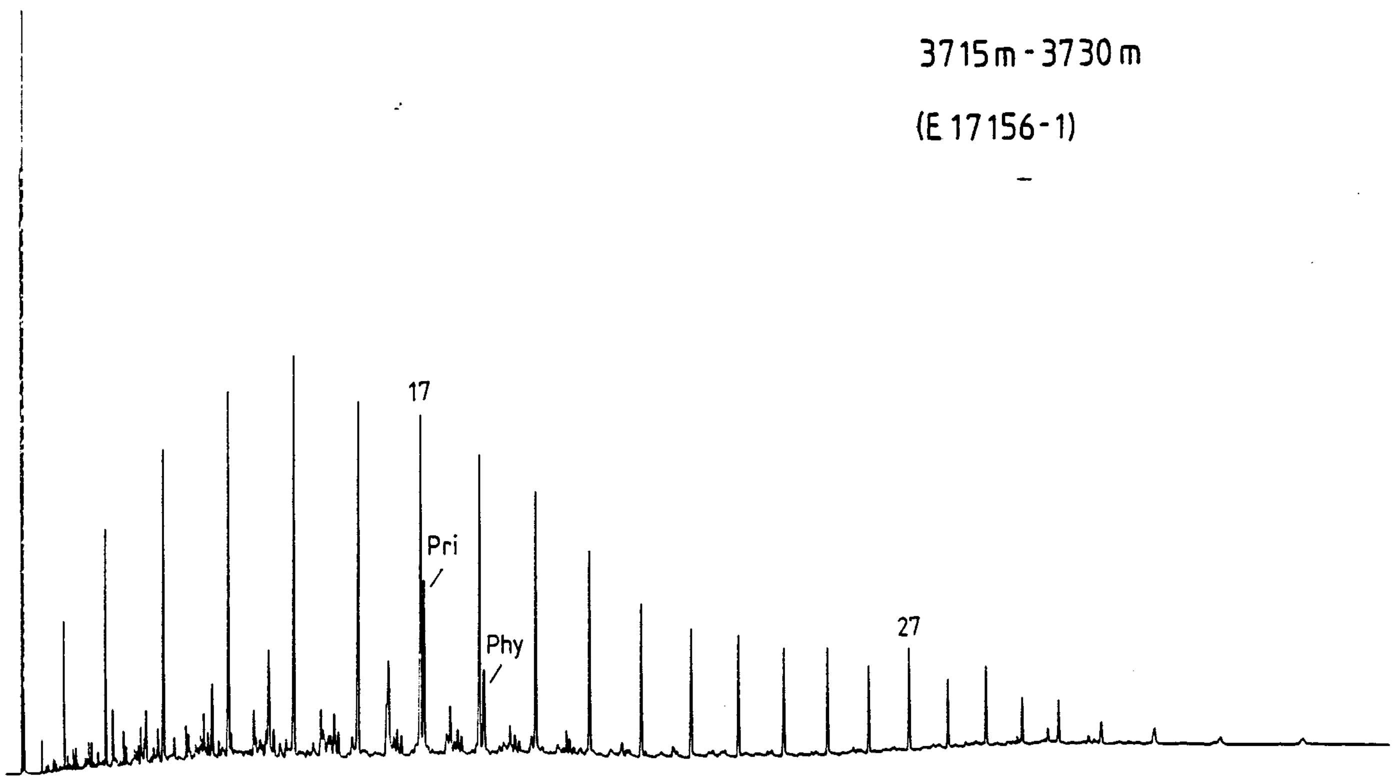

3715m - 3730m
(E 17156 - 1)
17
Pri
Phy
27

Fig.7h

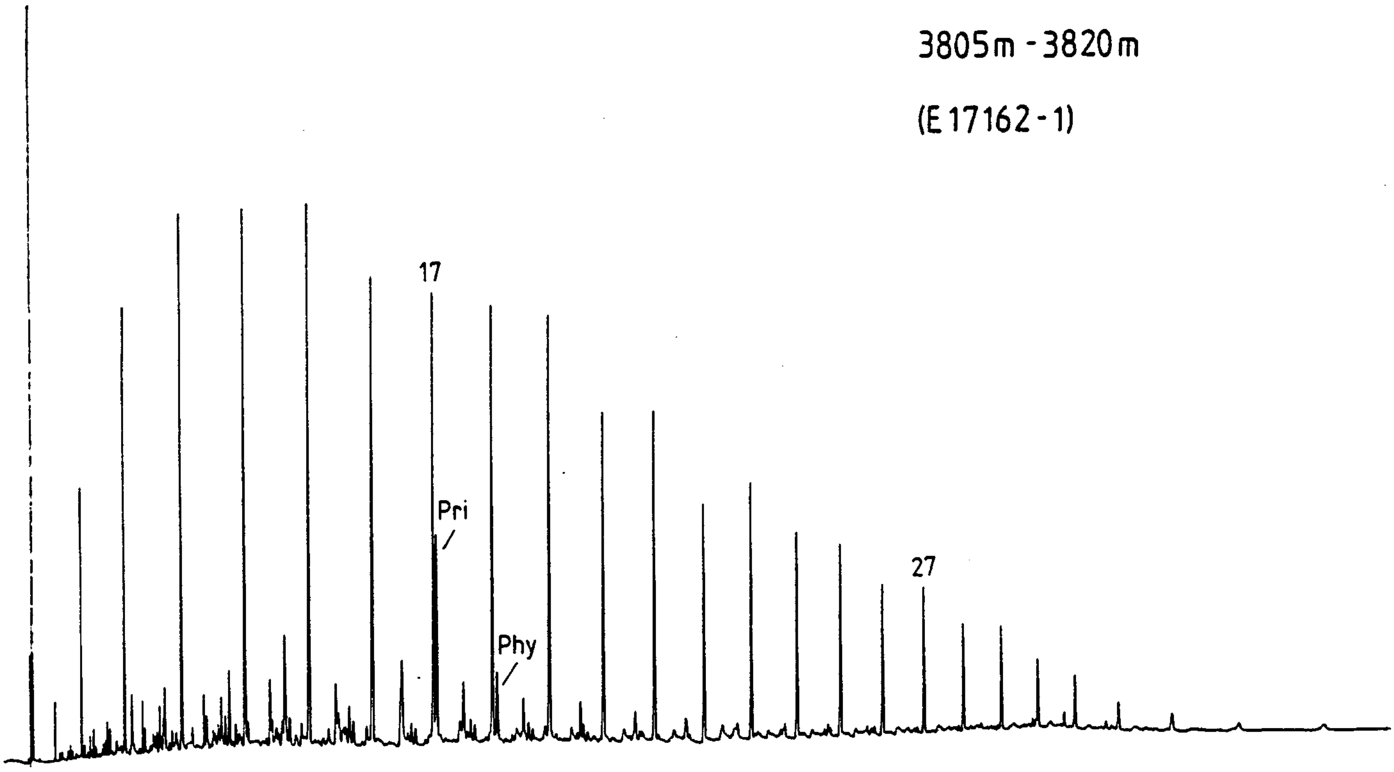

3805m - 3820m
(E 17162 - 1)
17
Pri
Phy
27

Fig.7i

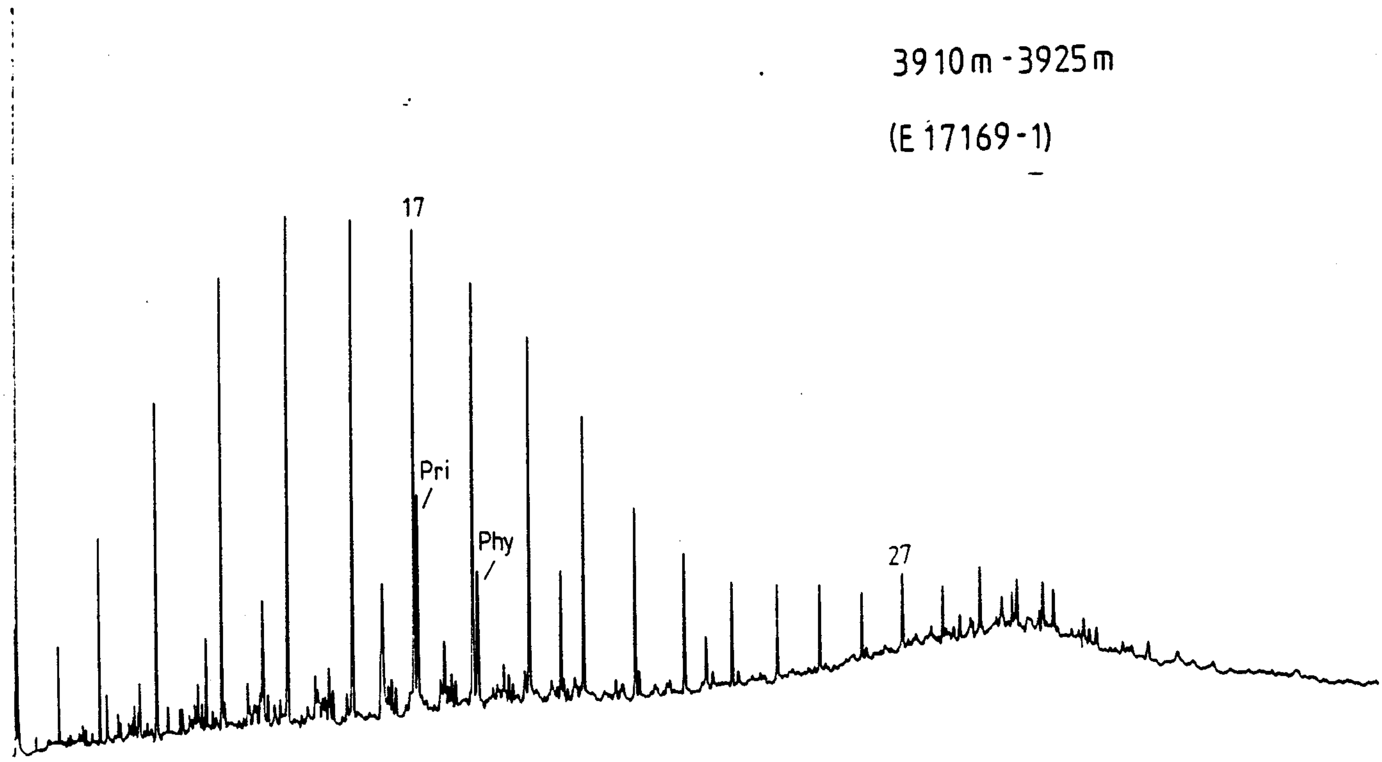

3910m - 3925m
(E 17169 - 1)
17
Pri
Phy
27

Fig.7j

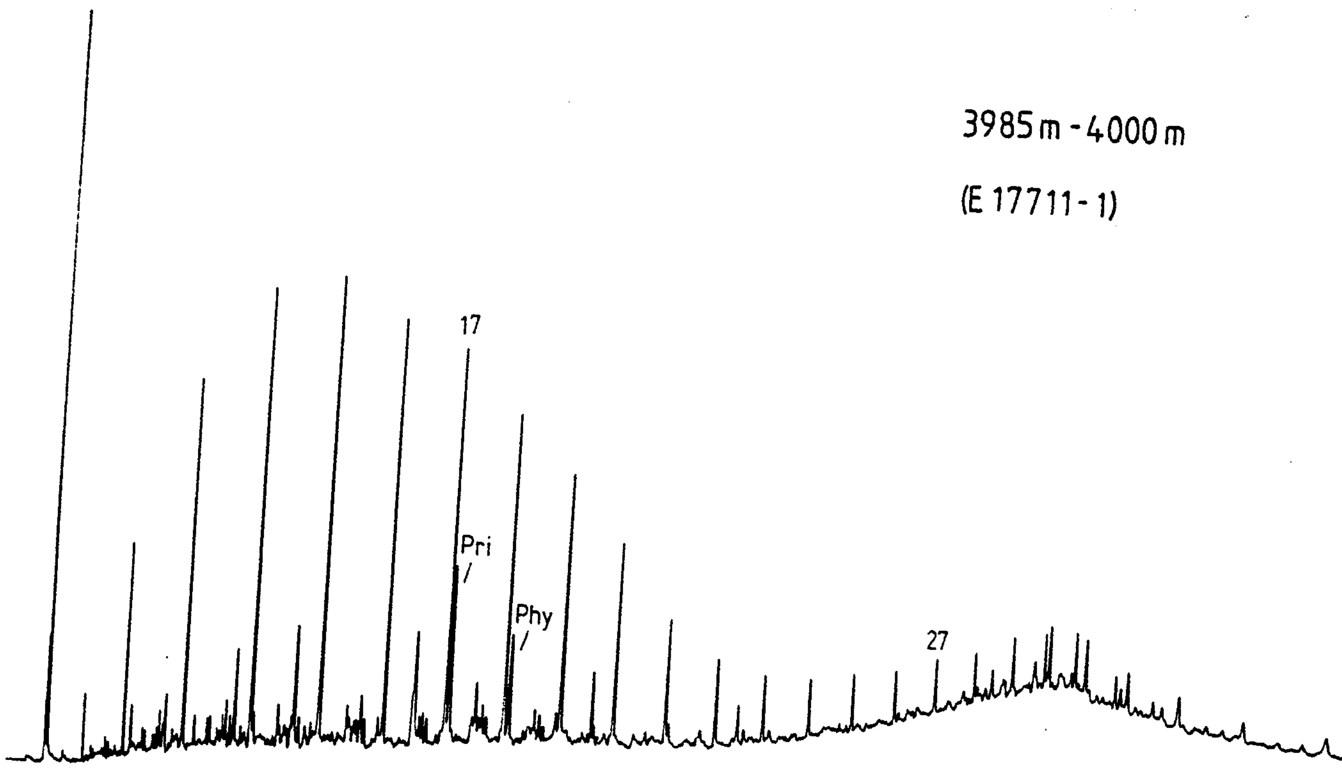

3985m-4000m
(E 17711-1)
17
Pri
Phy
27

Fig.7k

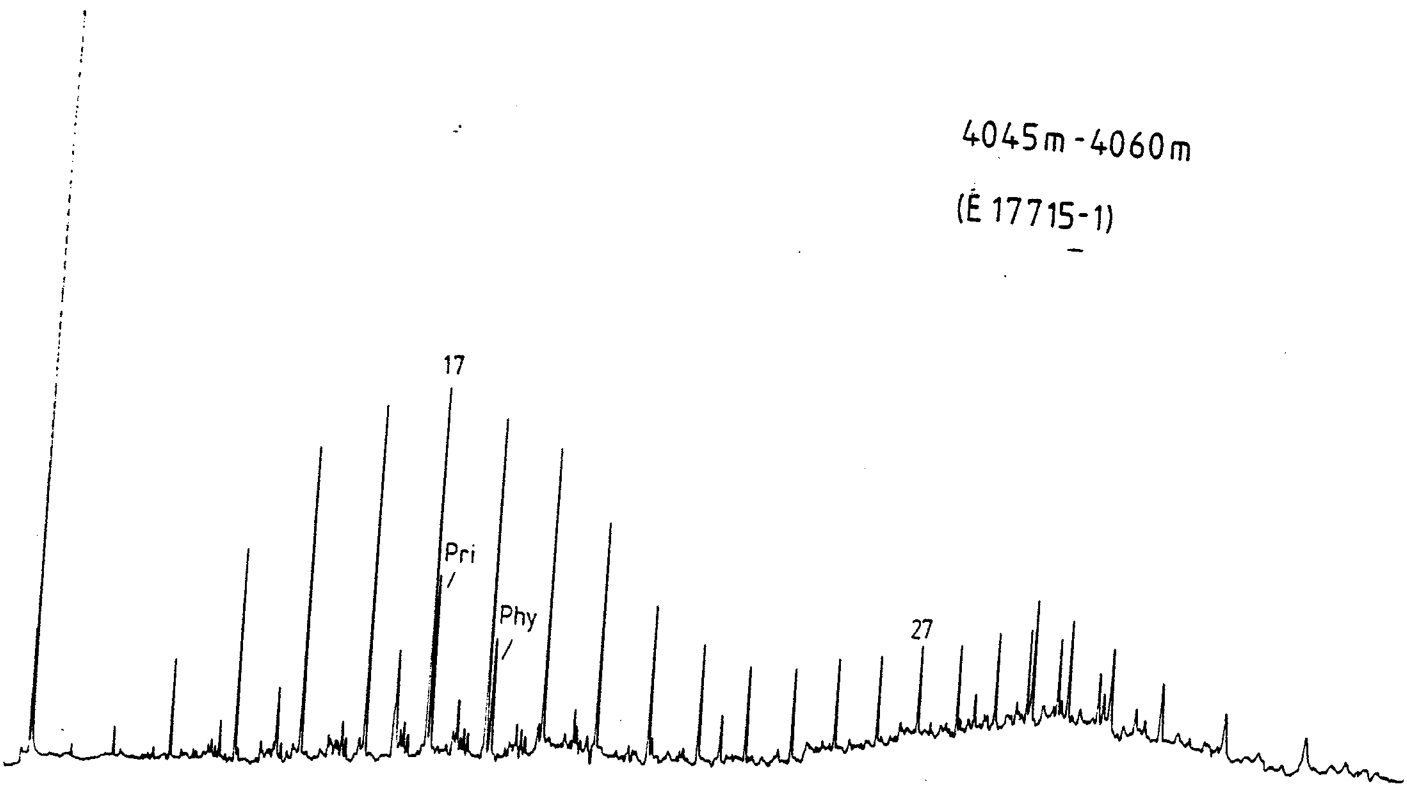
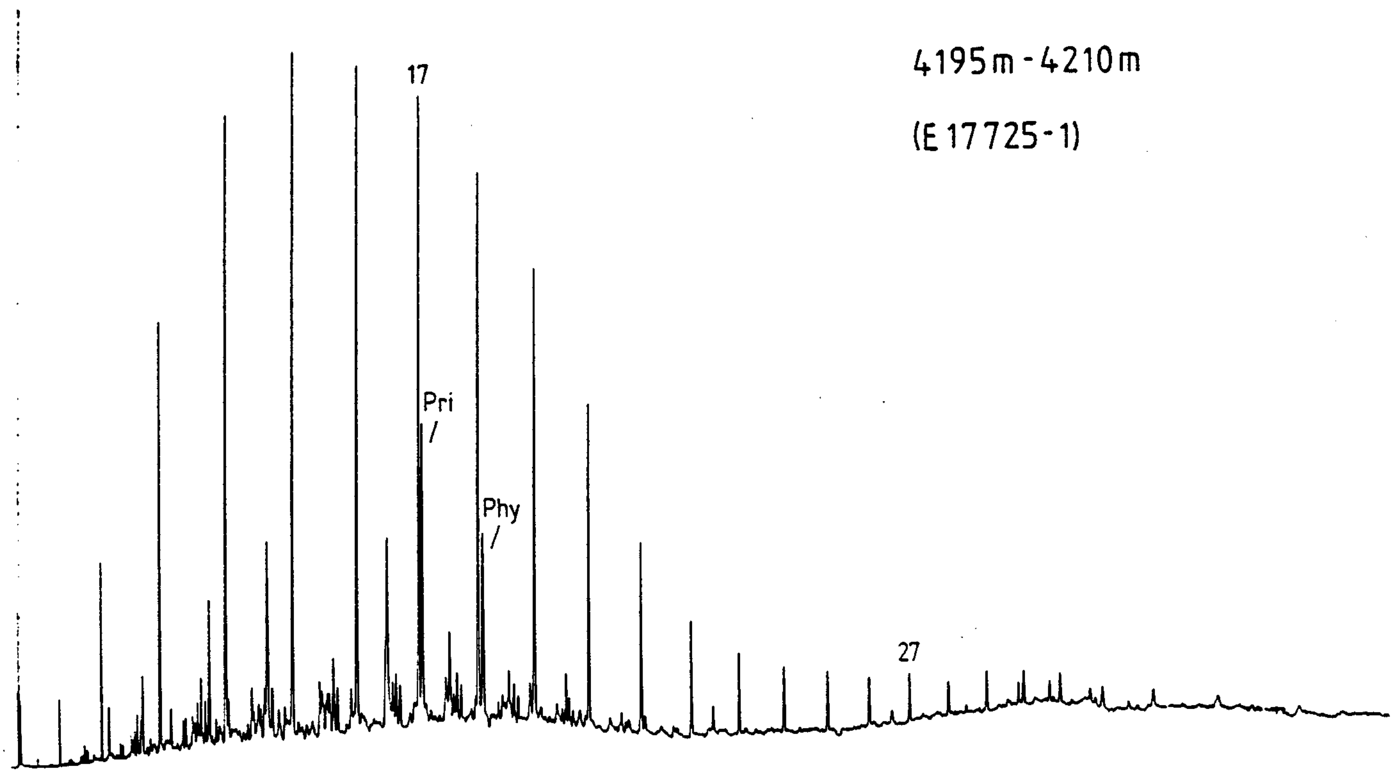
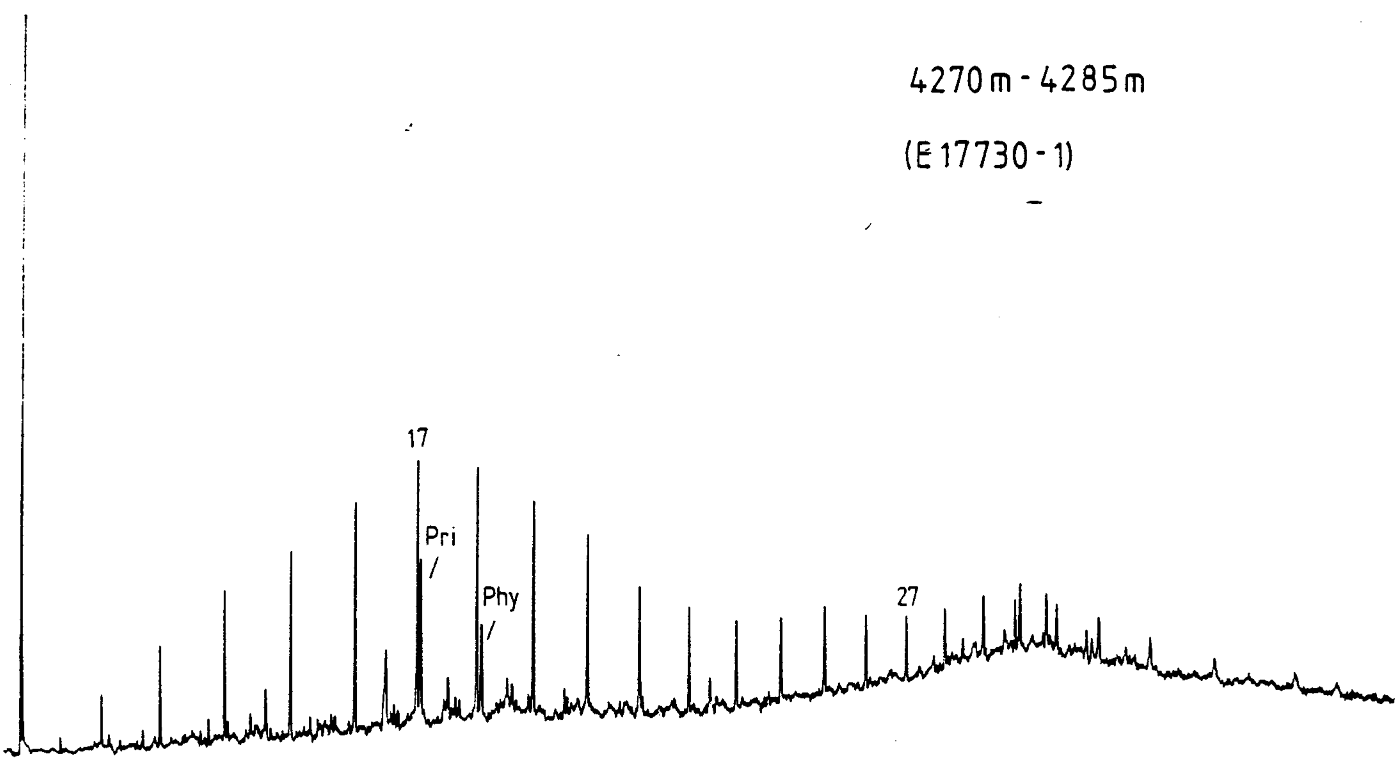

4045m-4060m
(E 17715-1)
17
Pri
Phy
27

Fig.7l



4195m - 4210m
(E 17725-1)
17
Pri
Phy
27

Fig.7m



4270m - 4285m
(E 17730-1)
17
Pri
Phy
27

Fig.7n

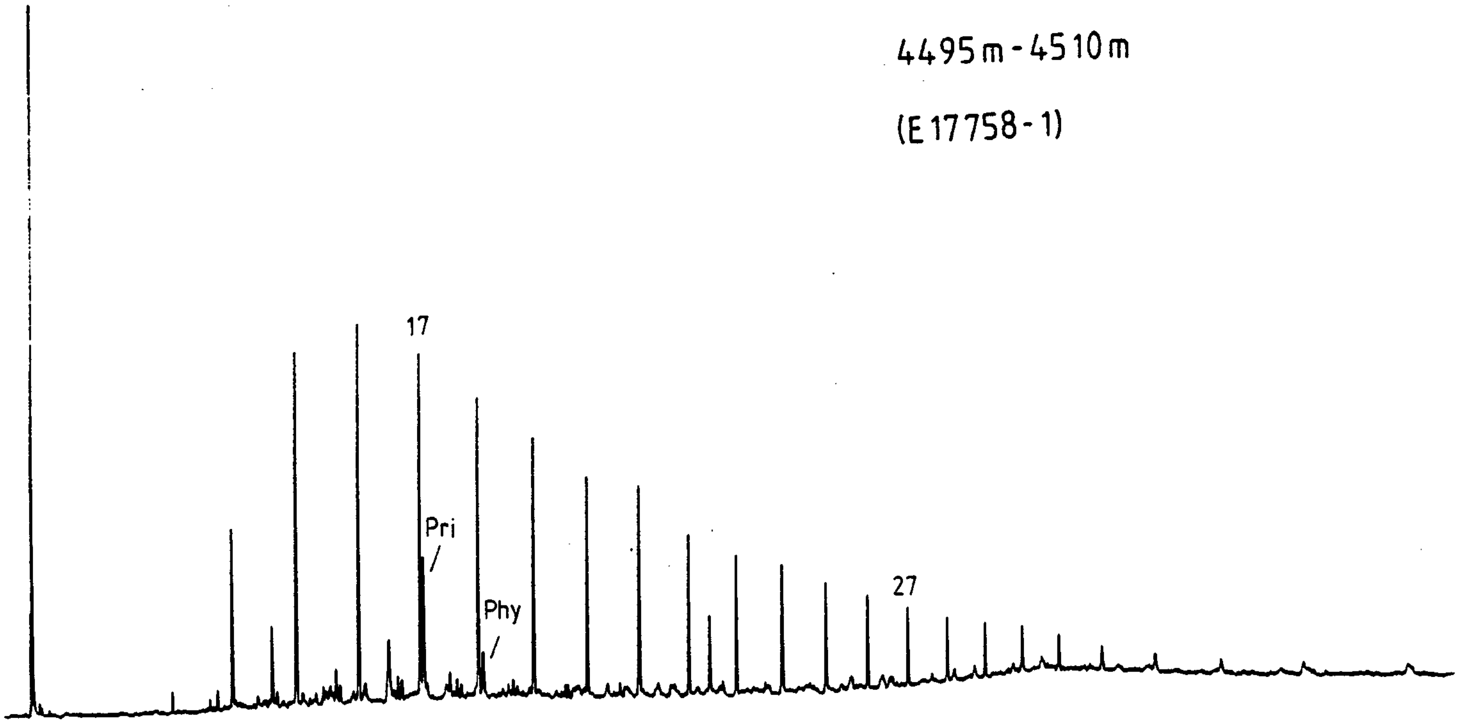
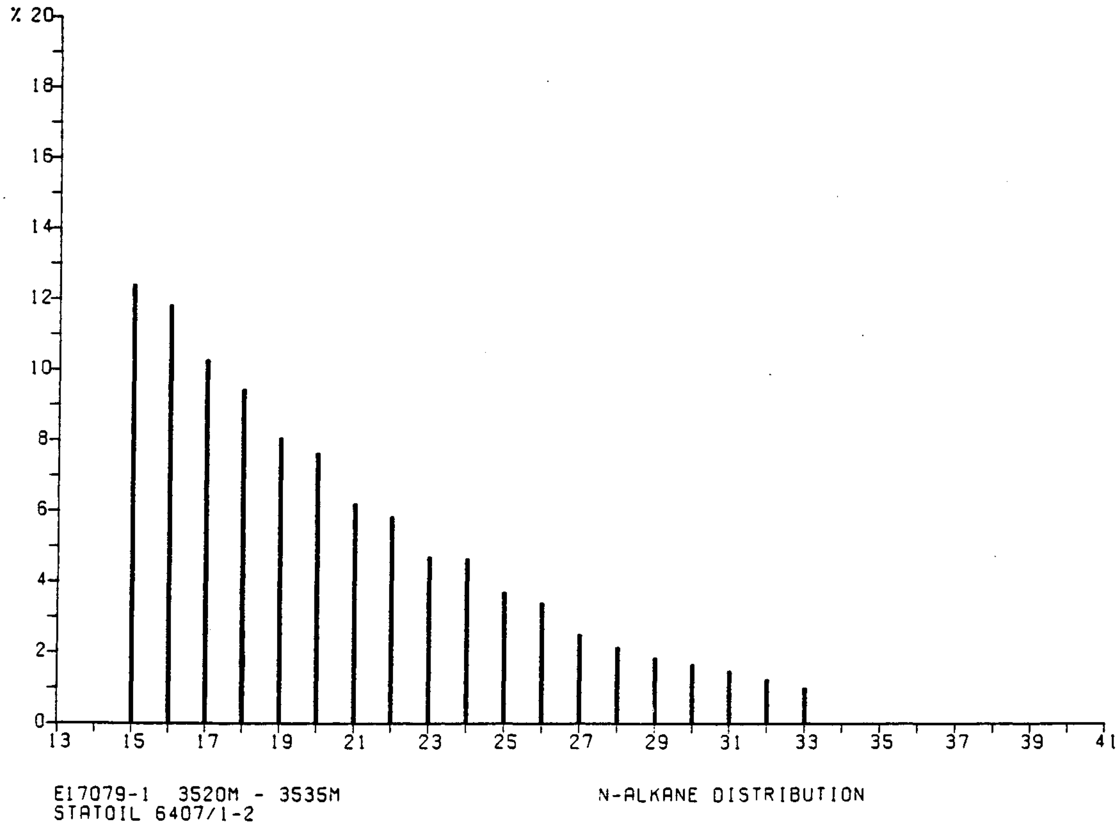


Fig.7 o


% 20
18
16
14
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10
8
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4
2
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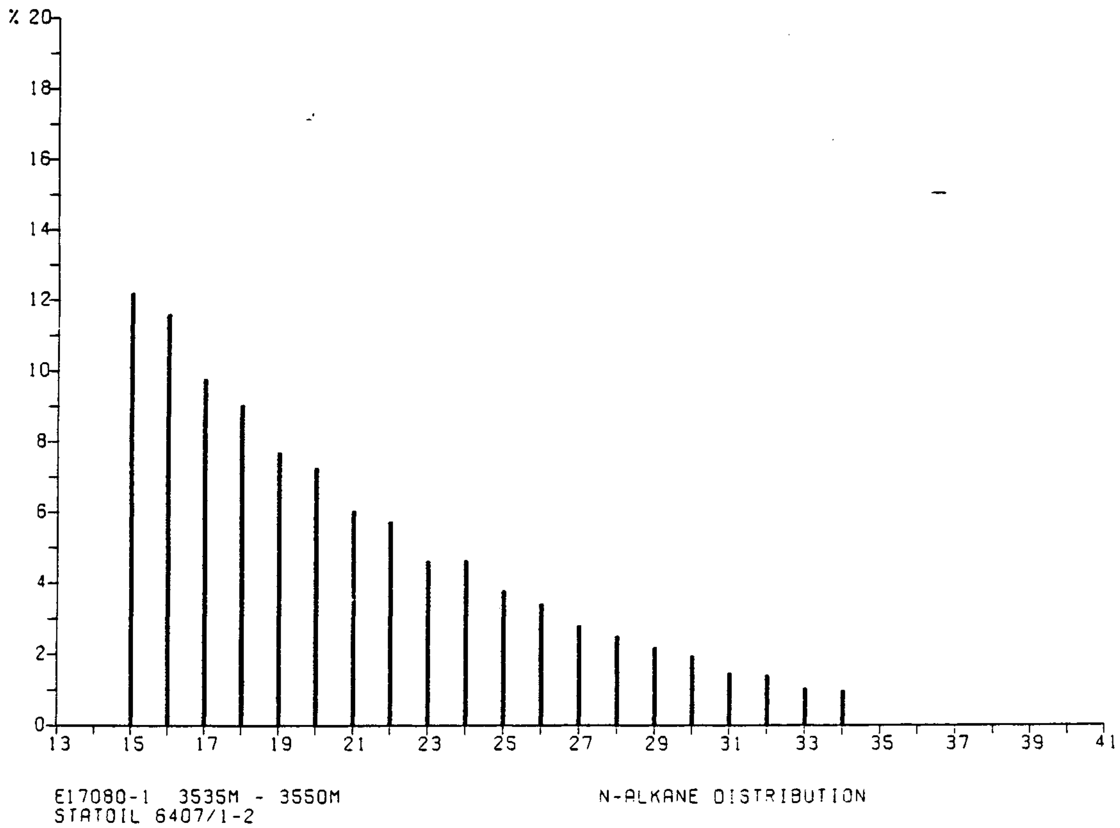
27
29
31
33
35
37
39
41
E17079-1 3520M - 3535M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig. 8a


% 20
18
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27
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35
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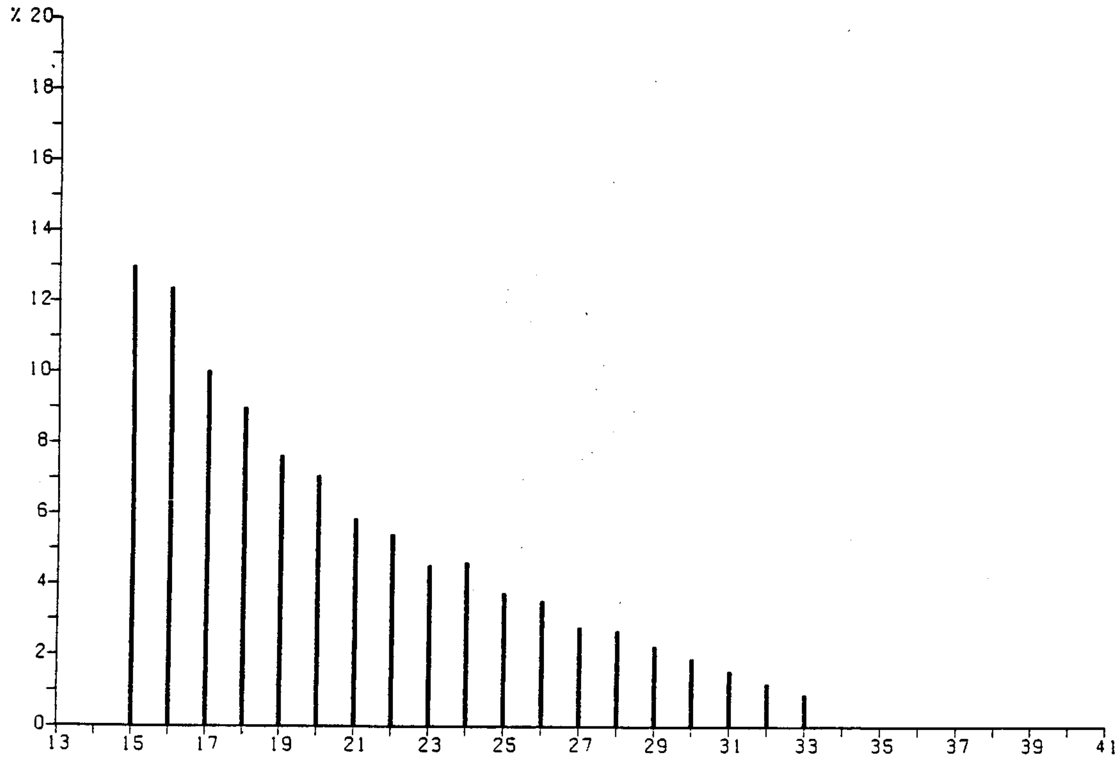
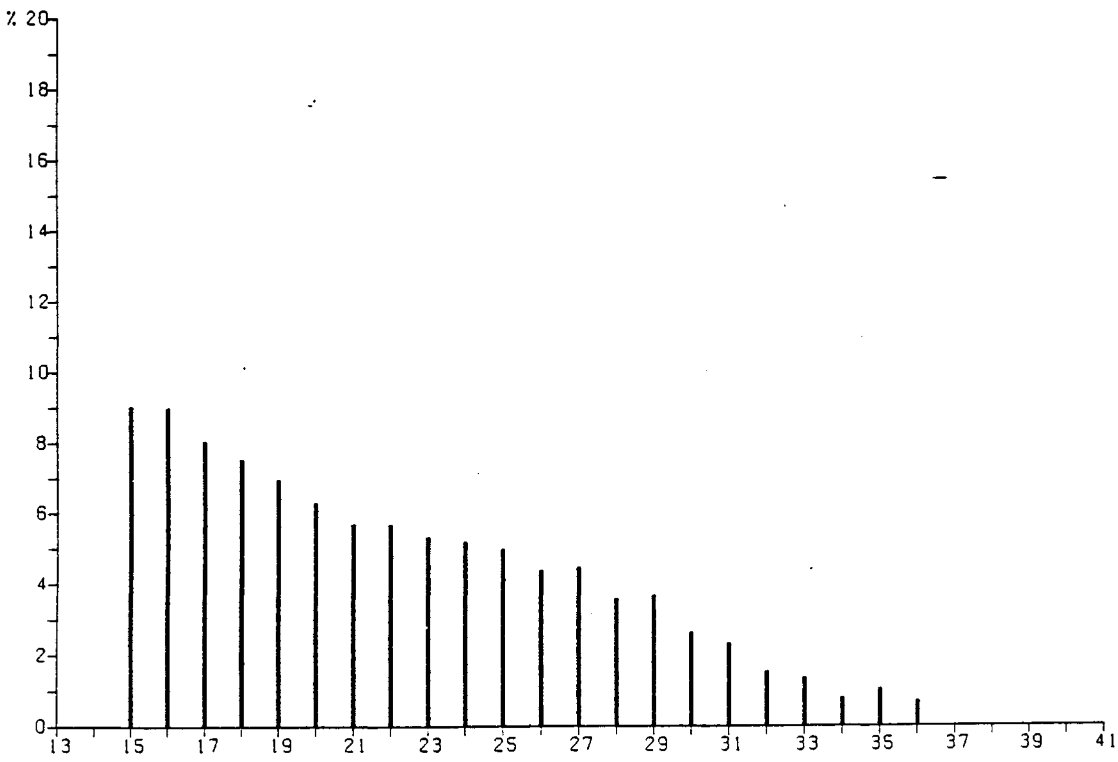
39
41
E17080-1 3535M - 3550M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8b



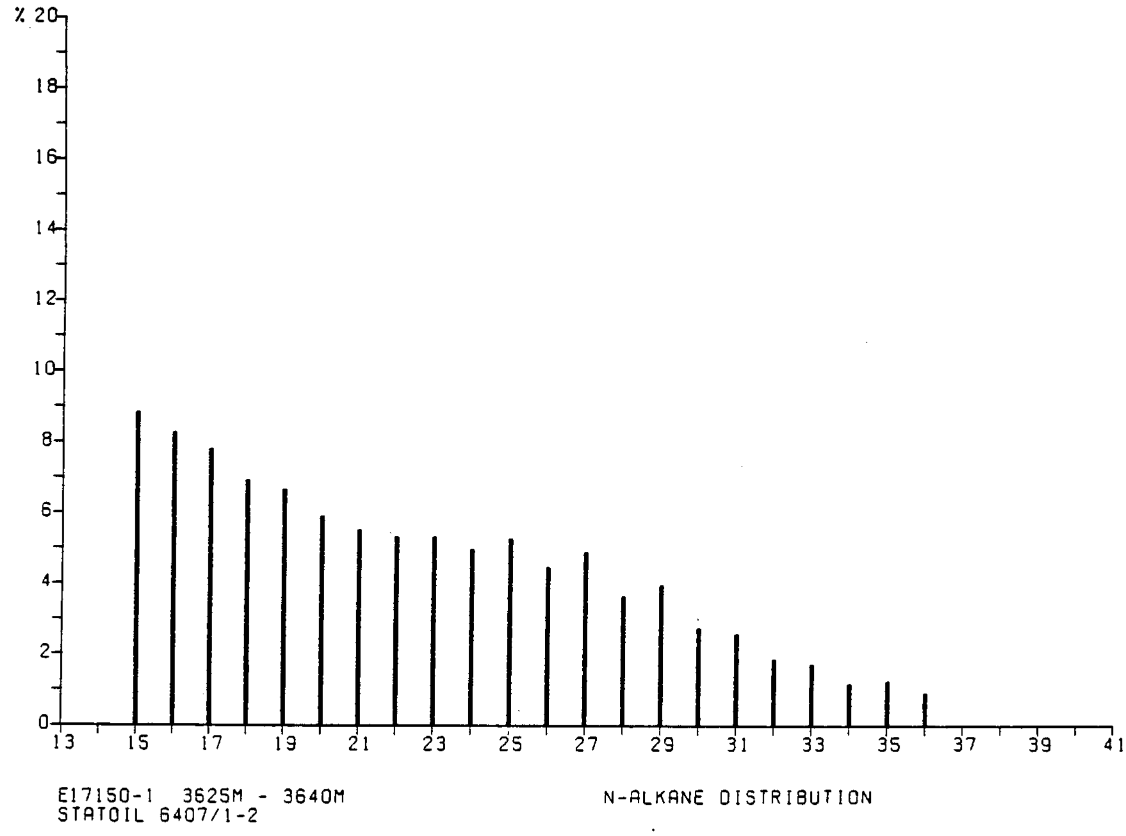
E17199-1 3551.5M CORE N-ALKANE DISTRIBUTION
STATOIL 6407/1-2

Fig.8c



E17147-1 3580M - 3595M N-ALKANE DISTRIBUTION
STATOIL 6407/1-2

Fig.8d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21
23
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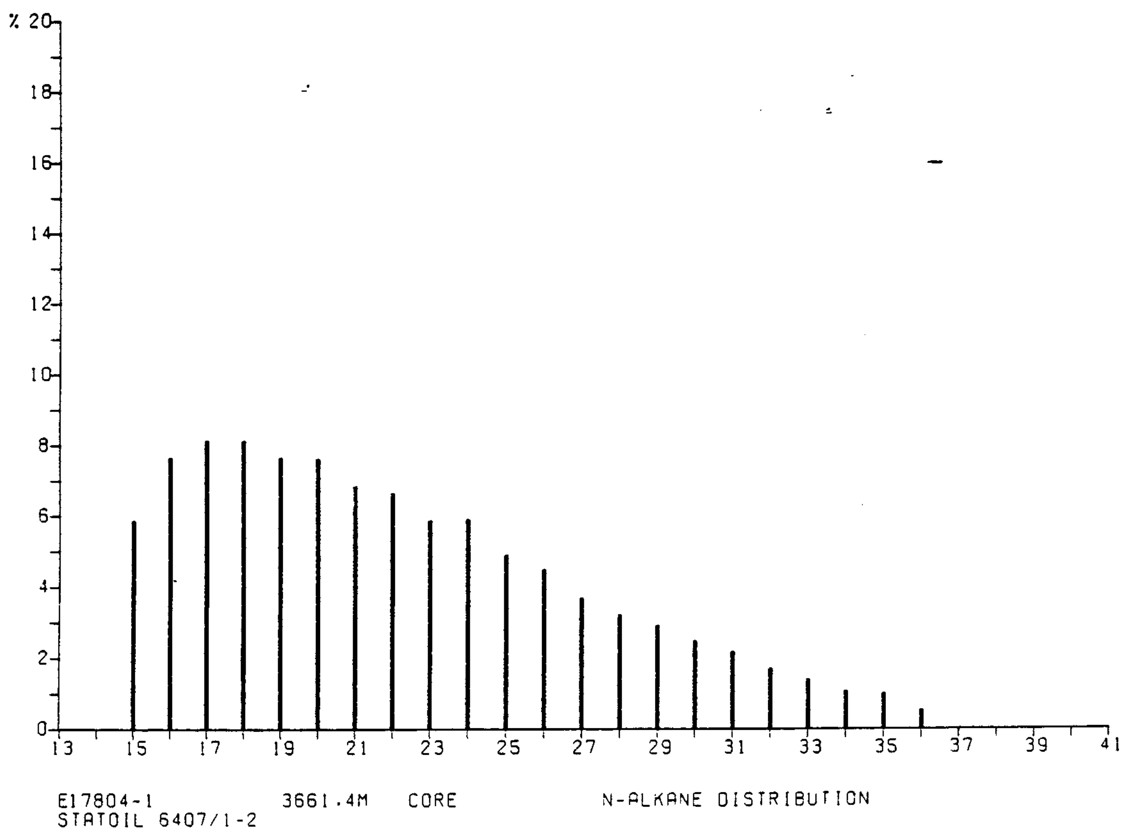
27
29
31
33
35
37
39
41
E17150-1 3625M - 3640M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8e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18
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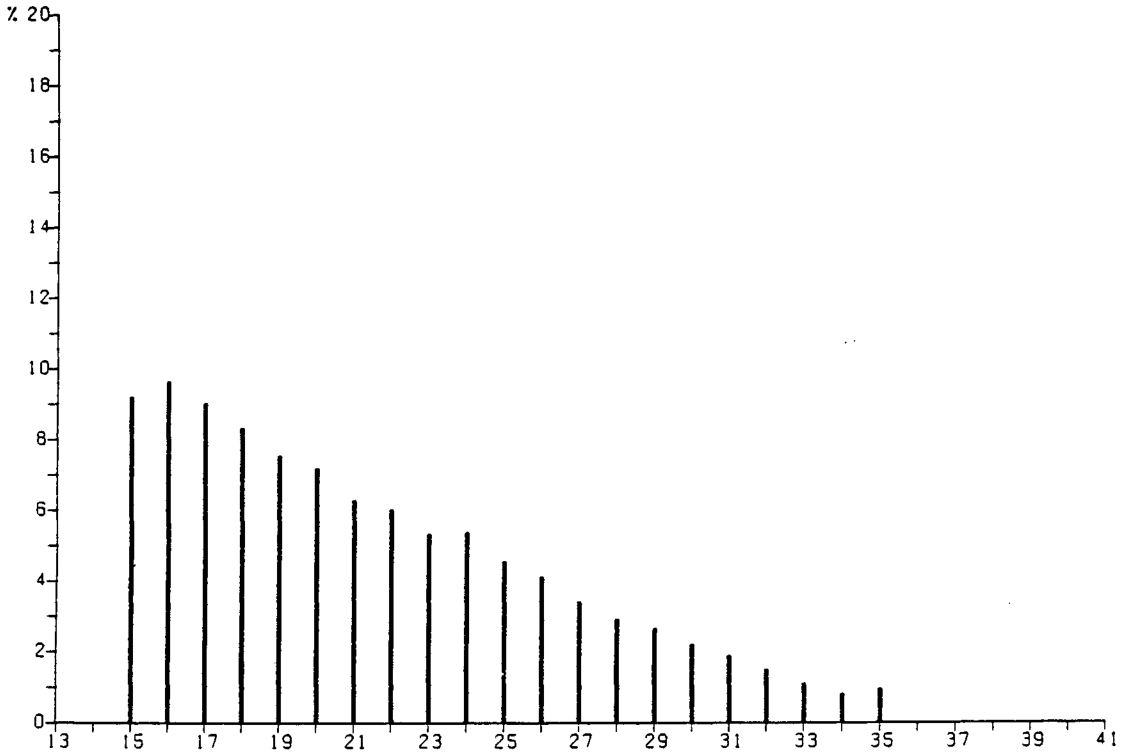
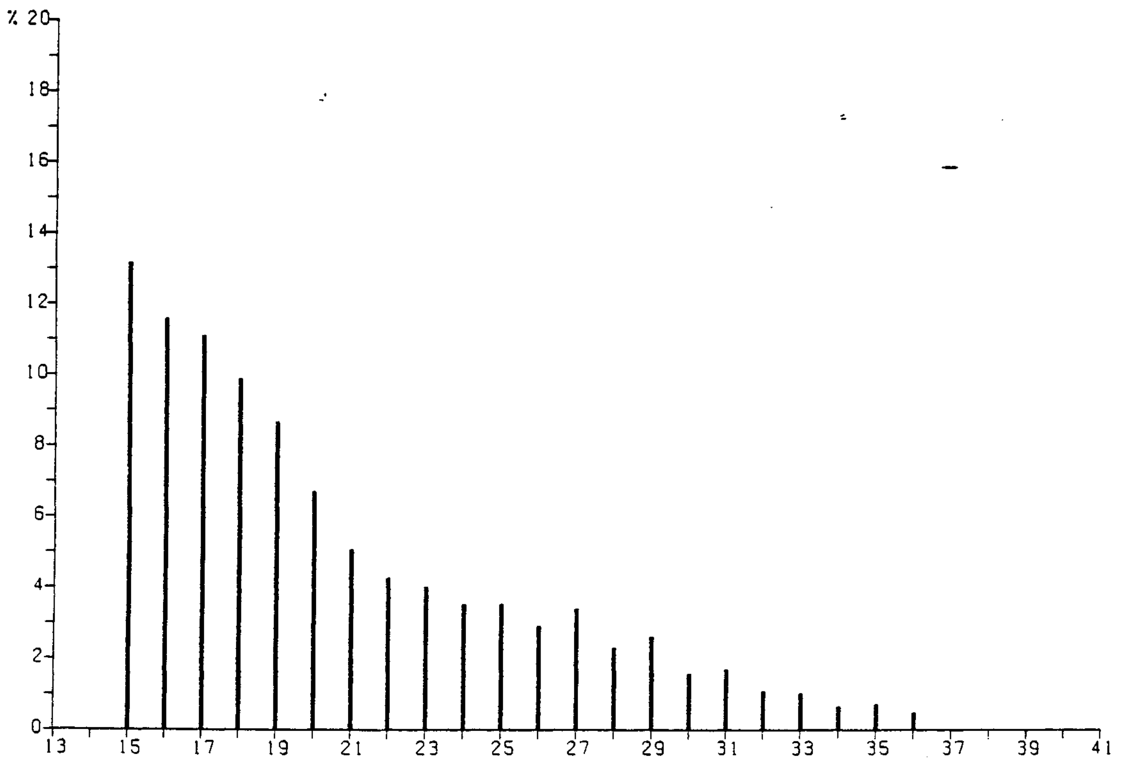
27
29
31
33
35
37
39
41
E17804-1 3661.4M CORE
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8f



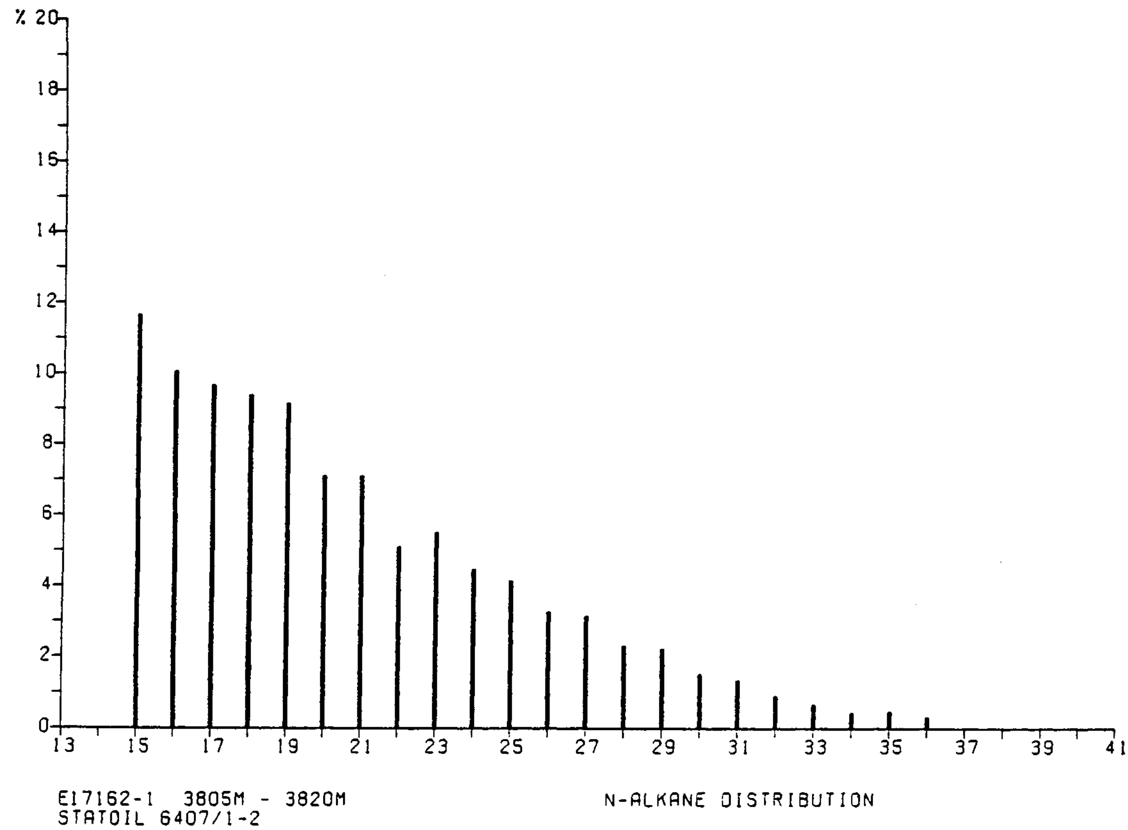
E17805-1 3688.10M-3688.16M CORE N-ALKANE DISTRIBUTION
STATOIL 6407/1-2

Fig.8g



E17156-1 3715M - 3730M N-ALKANE DISTRIBUTION
STATOIL 6407/1-2

Fig.8h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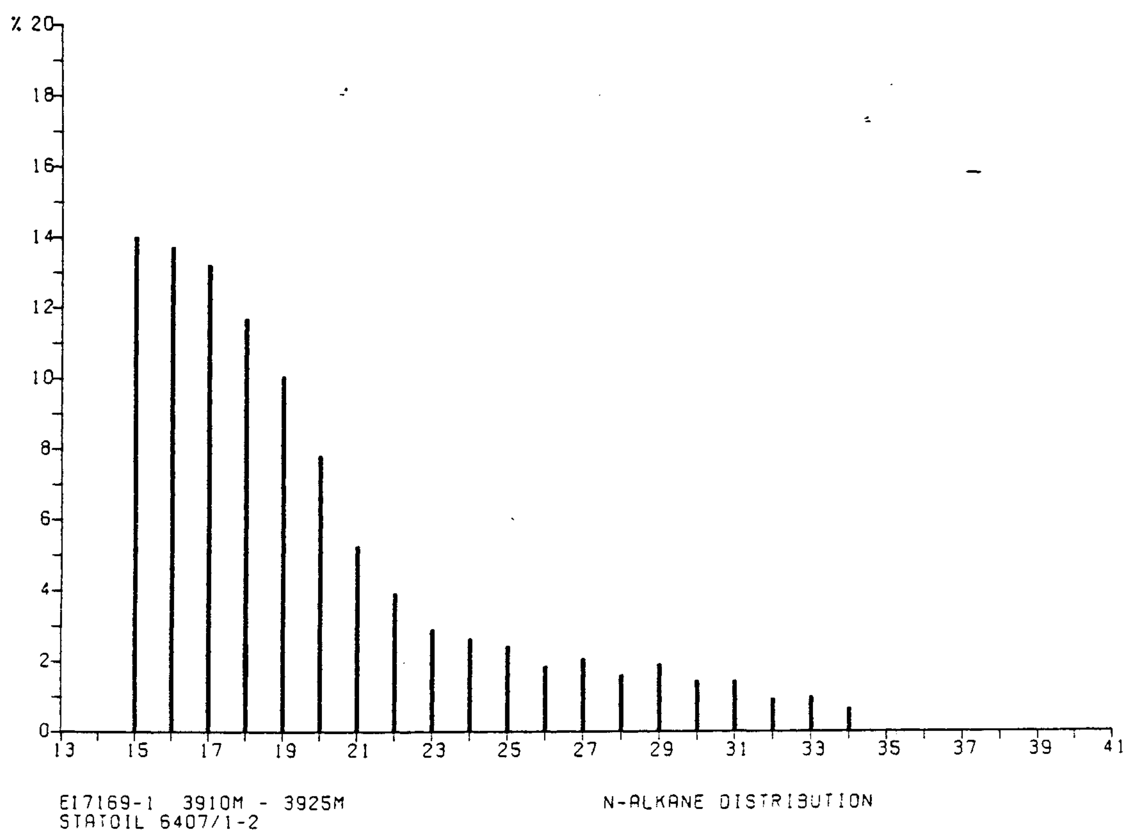
39
41
E17162-1 3805M - 3820M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8i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27
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31
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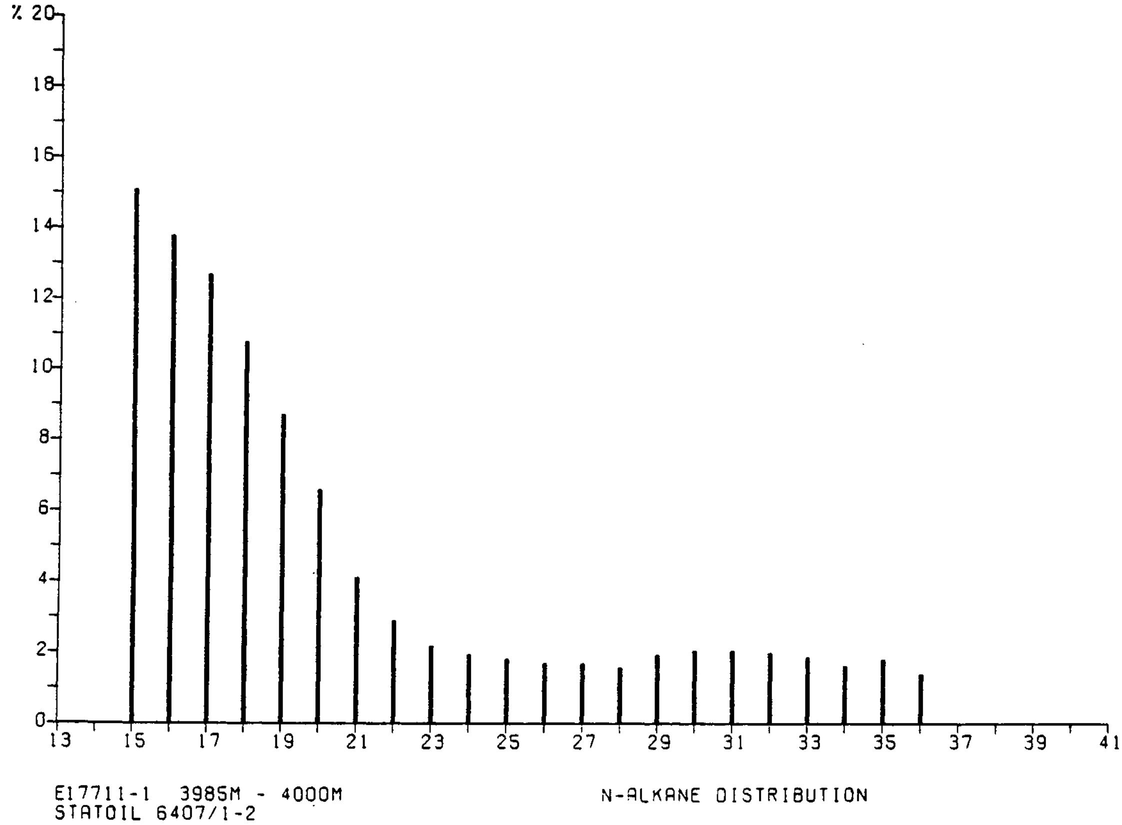
35
37
39
41
E17169-1 3910M - 3925M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8j



%
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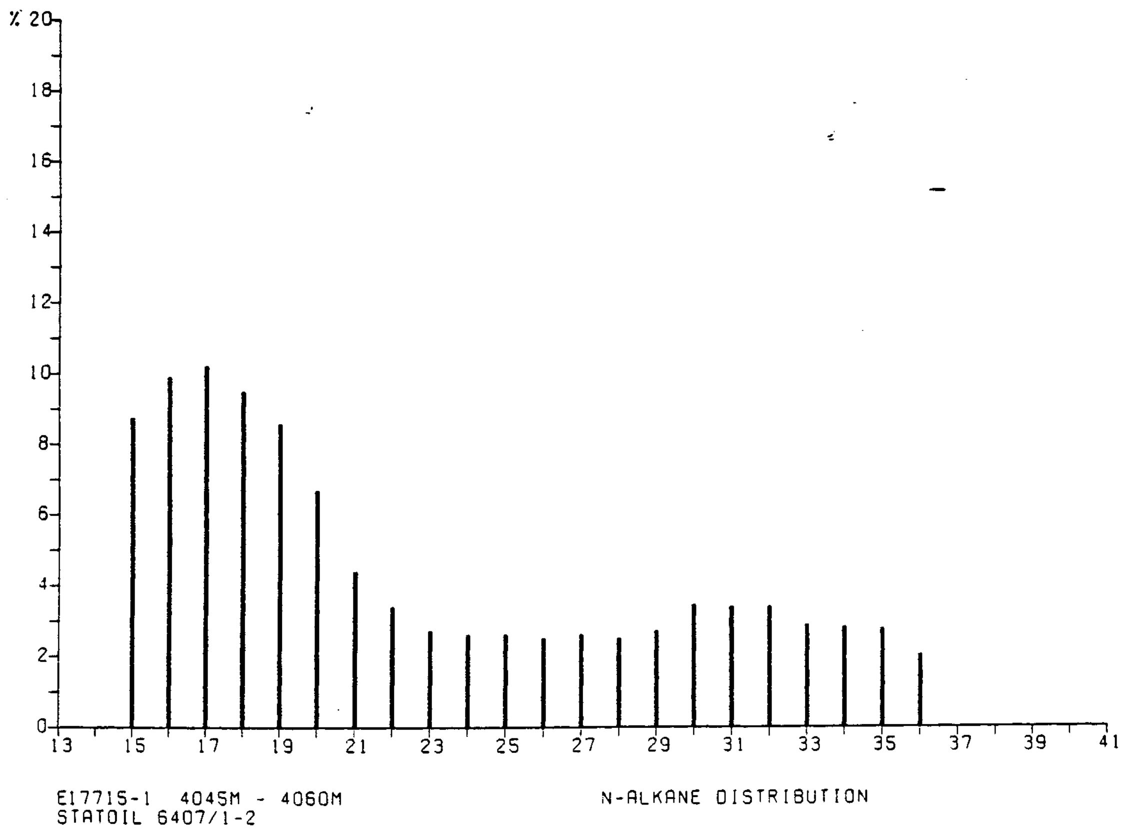
25
27
29
31
33
35
37
39
41
E17711-1 3985M - 4000M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8k



%
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21
23
25
27
29
31
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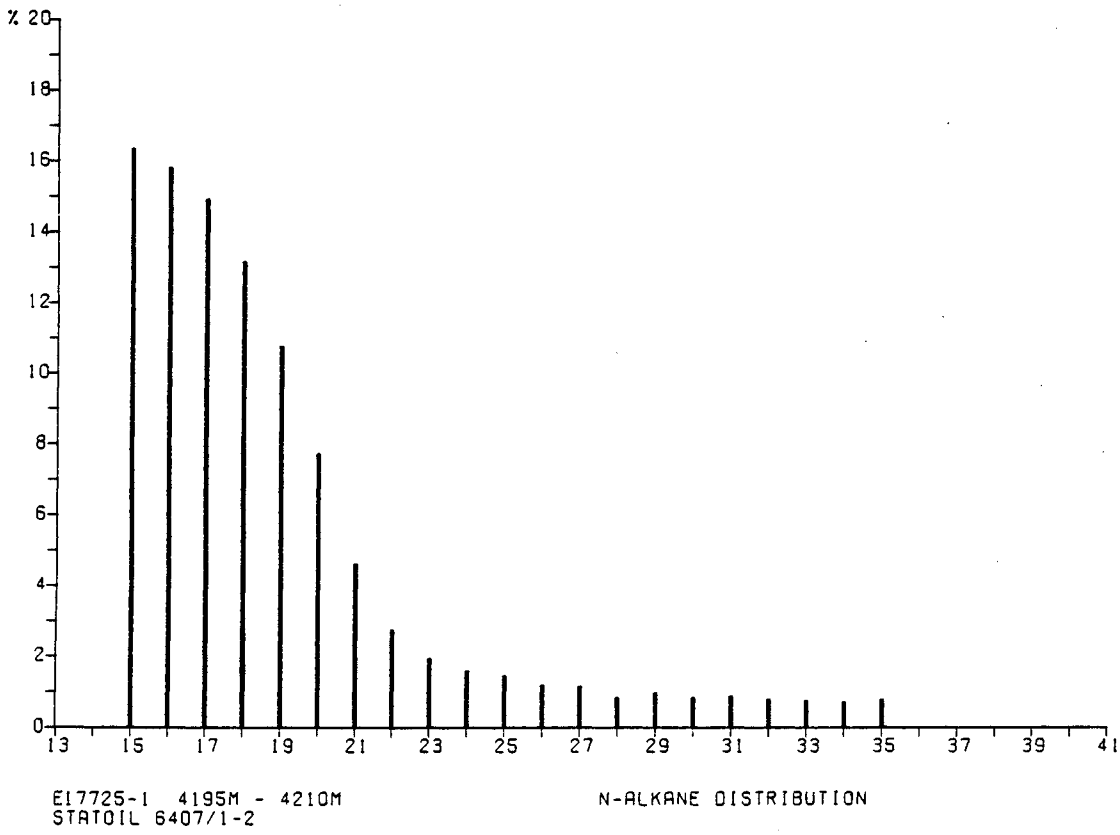
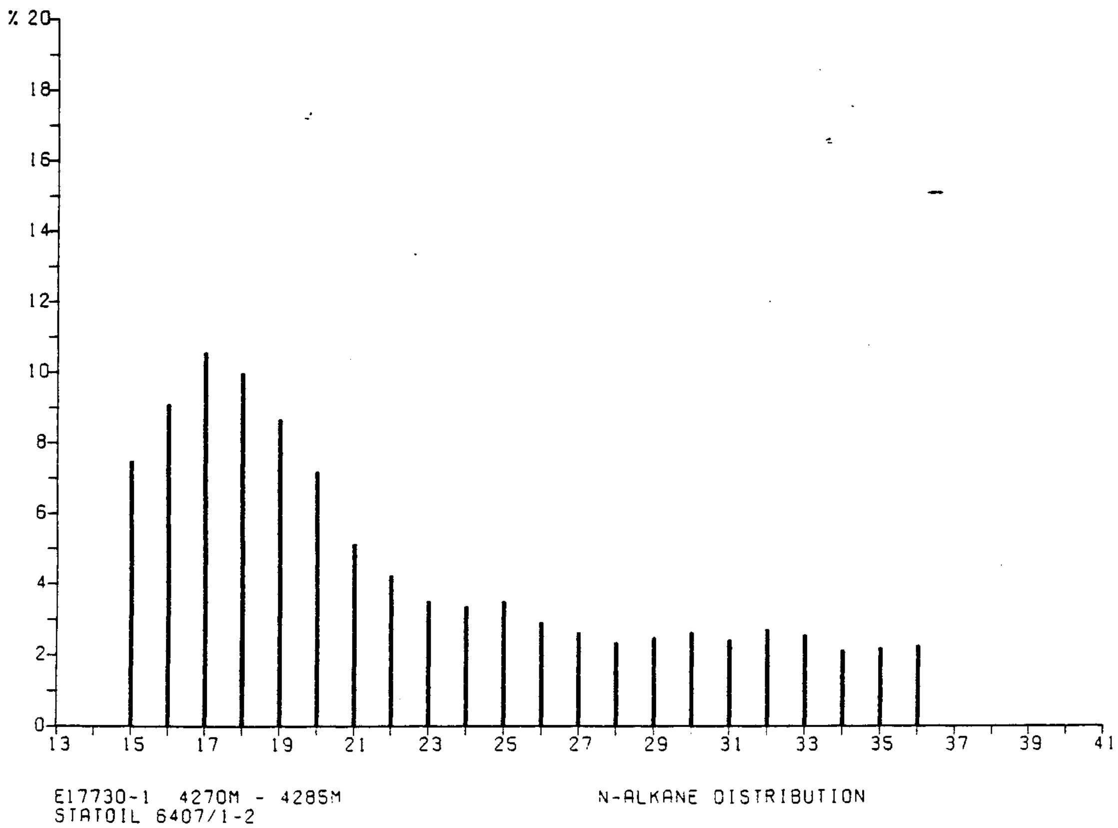
37
39
41
E17715-1 4045M - 4060M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8 l



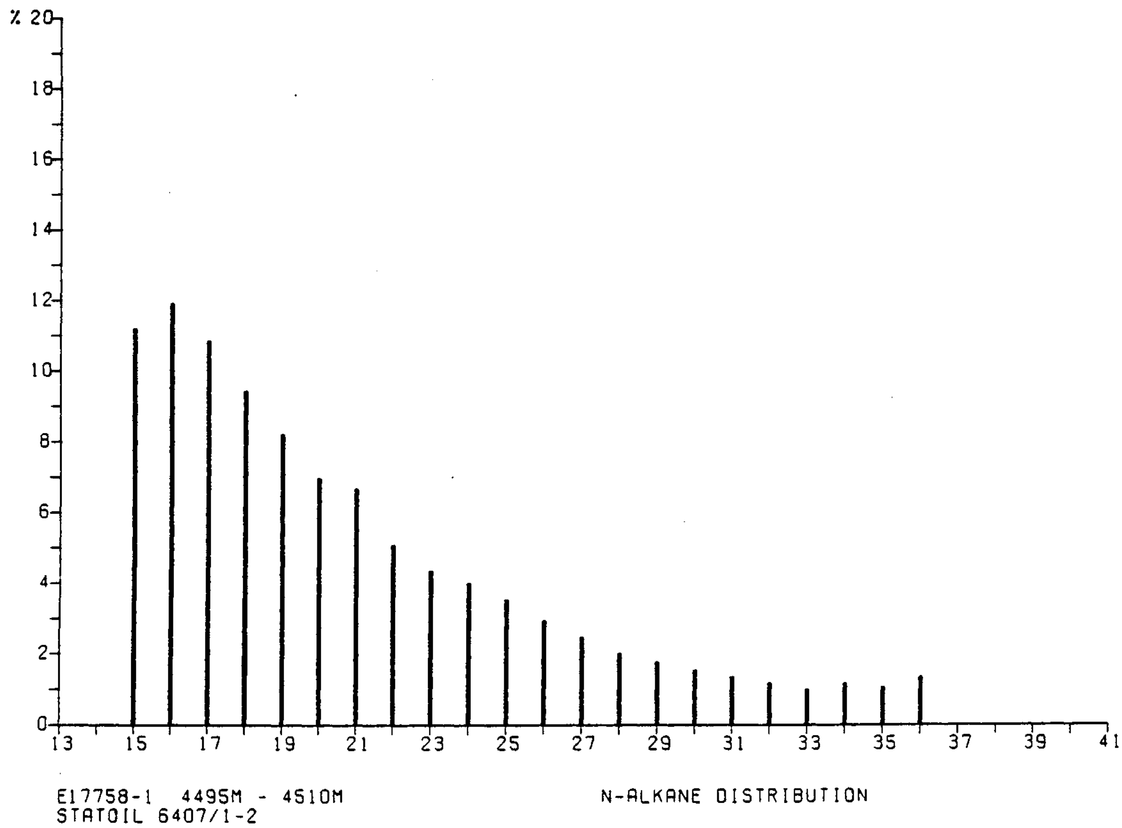
% 20
18
16
14
12
10
8
6
4
2
0
13 15 17 19 21 23 25 27 29 31 33 35 37 39 41
E17725-1 4195M - 4210M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8m



% 20
18
16
14
12
10
8
6
4
2
0
13 15 17 19 21 23 25 27 29 31 33 35 37 39 41
E17730-1 4270M - 4285M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8n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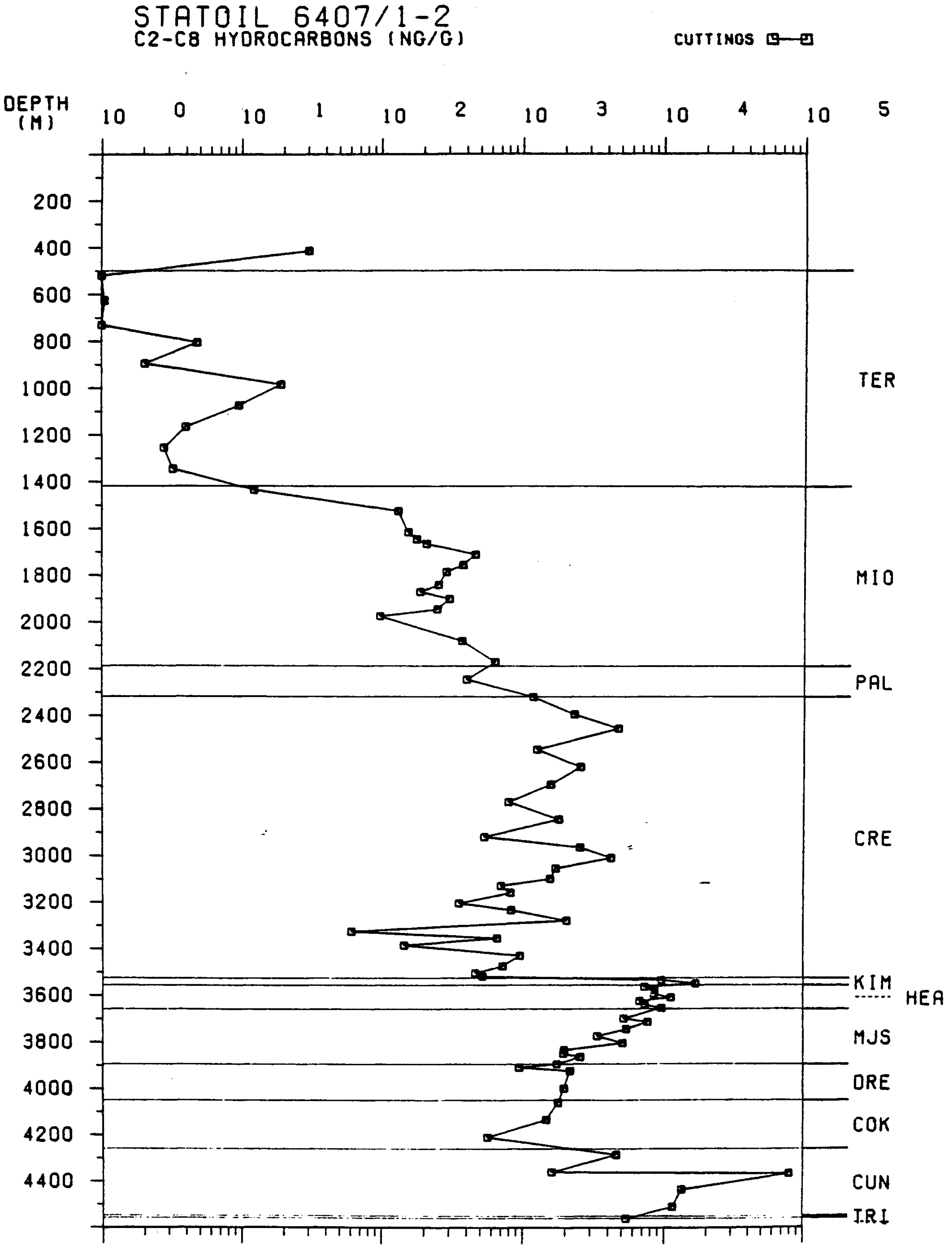
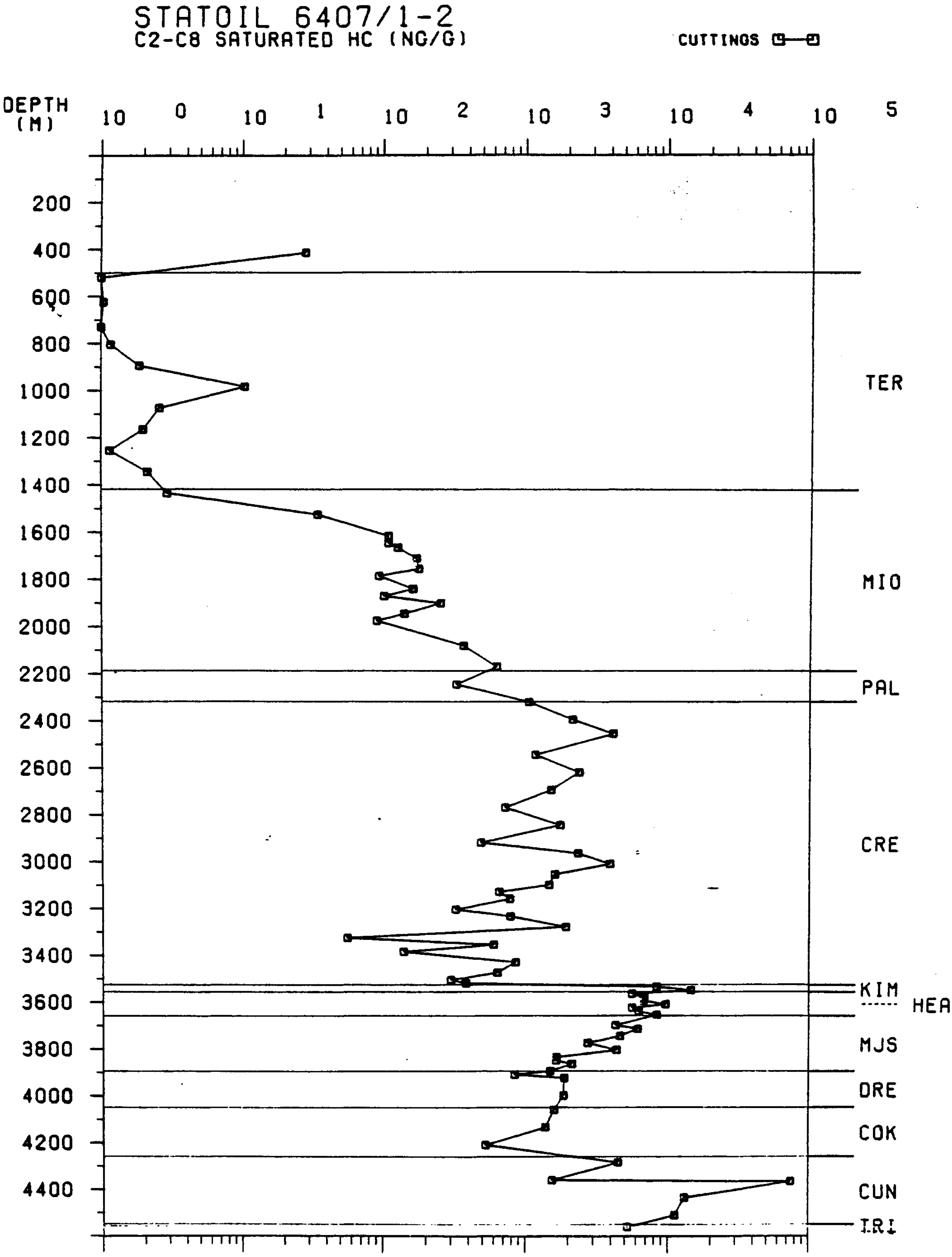
16
14
12
10
8
6
4
2
0
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
E17758-1 4495M - 4510M
STATOIL 6407/1-2
N-ALKANE DISTRIBUTION

Fig.8 o



STATOIL 6407/1-2
C2-C8 HYDROCARBONS (NG/G)
CUTTINGS
DEPTH (M)
10 0
10 1
10 2
10 3
10 4
10 5
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig. 9



STATOIL 6407/1-2
C2-C8 SATURATED HC (NG/G)
CUTTINGS
DEPTH (M)
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10 1
10 2
10 3
10 4
10 5
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.1o

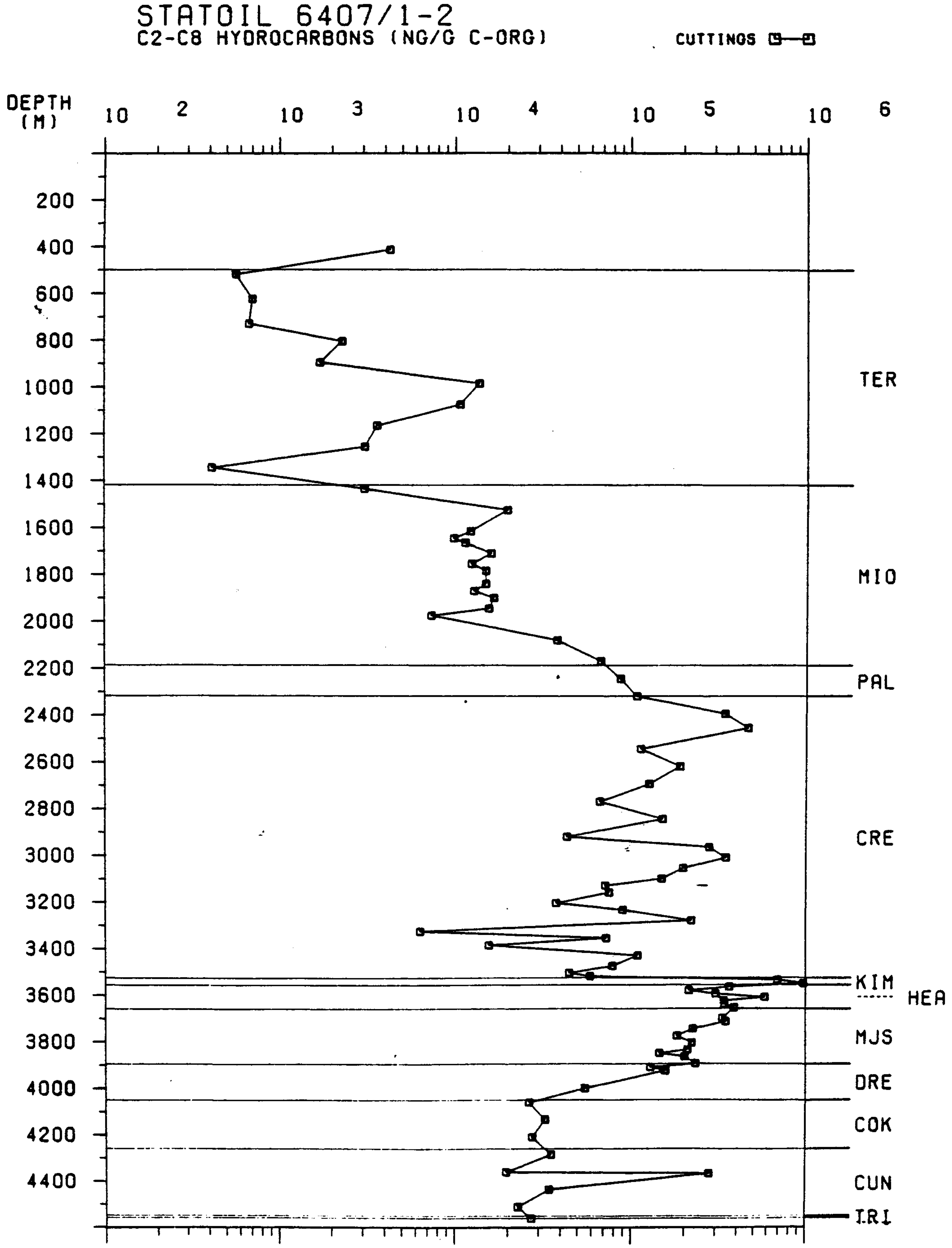

STATOIL 6407/1-2
C2-C8 HYDROCARBONS (NG/G C-ORG)
CUTTINGS
DEPTH (M)
10 2
10 3
10 4
10 5
10 6
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig. 11

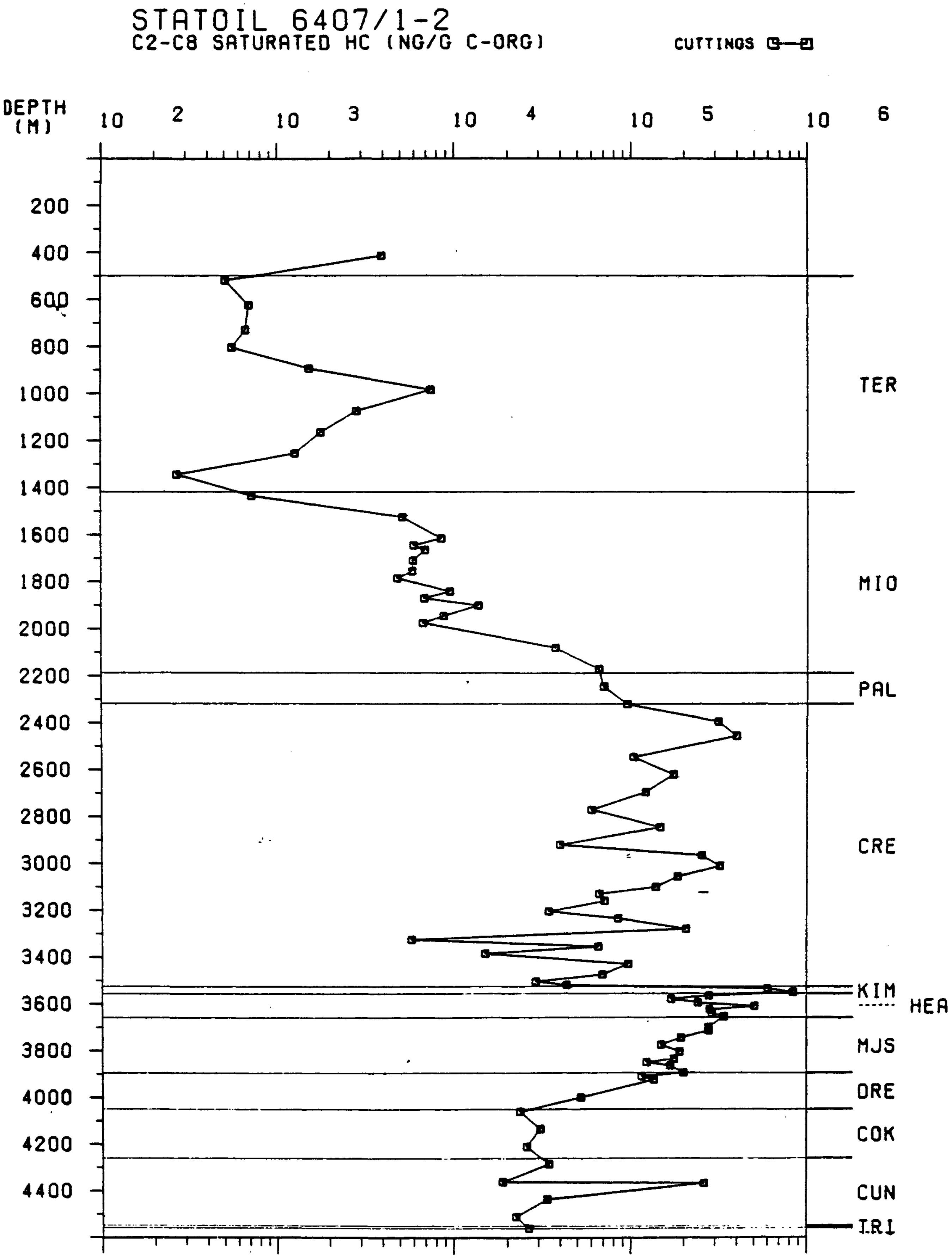
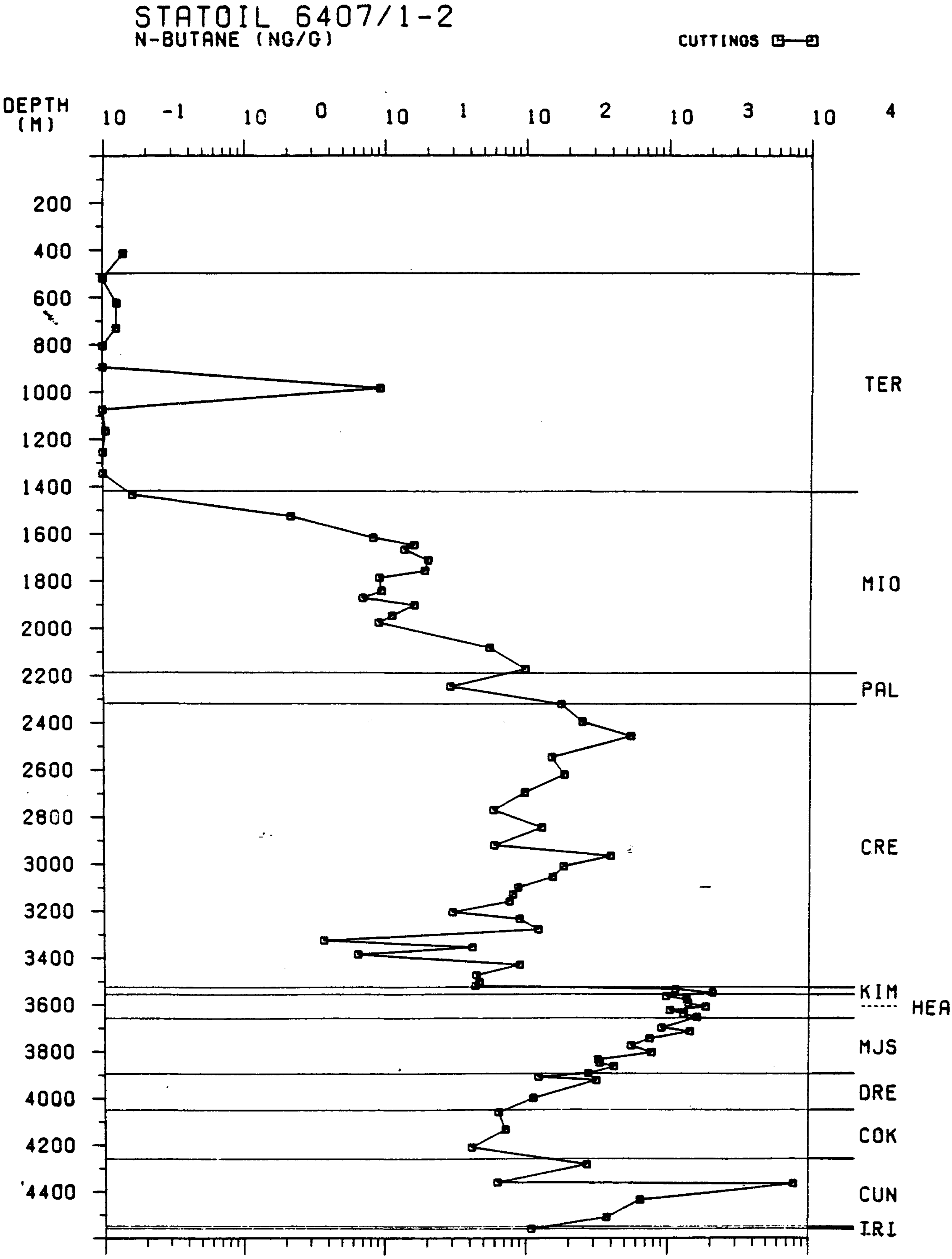
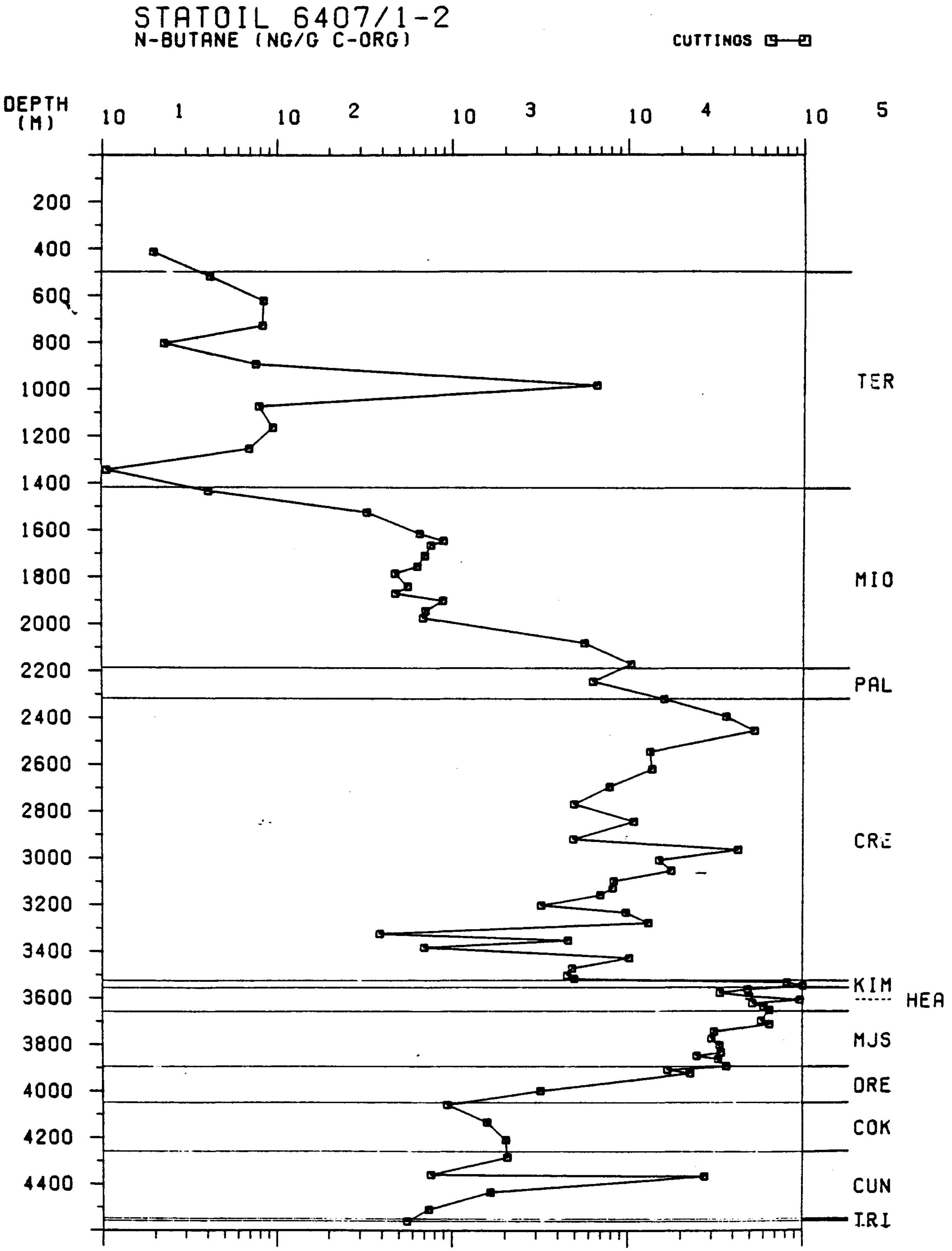

STATOIL 6407/1-2
C2-C8 SATURATED HC (NG/G C-ORG)
CUTTINGS
DEPTH (M)
10 2
10 3
10 4
10 5
10 6
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
ORE
COK
CUN
TRI

Fig.12



STATOIL 6407/1-2
N-BUTANE (NG/G)
CUTTINGS
DEPTH (M)
10^-1 10^0 10^1 10^2 10^3 10^4
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
IRI

Fig. 13


STATOIL 6407/1-2
N-BUTANE (NG/G C-ORG)
CUTTINGS
DEPTH (M)
10 1 10 2 10 3 10 4 10 5
200
400
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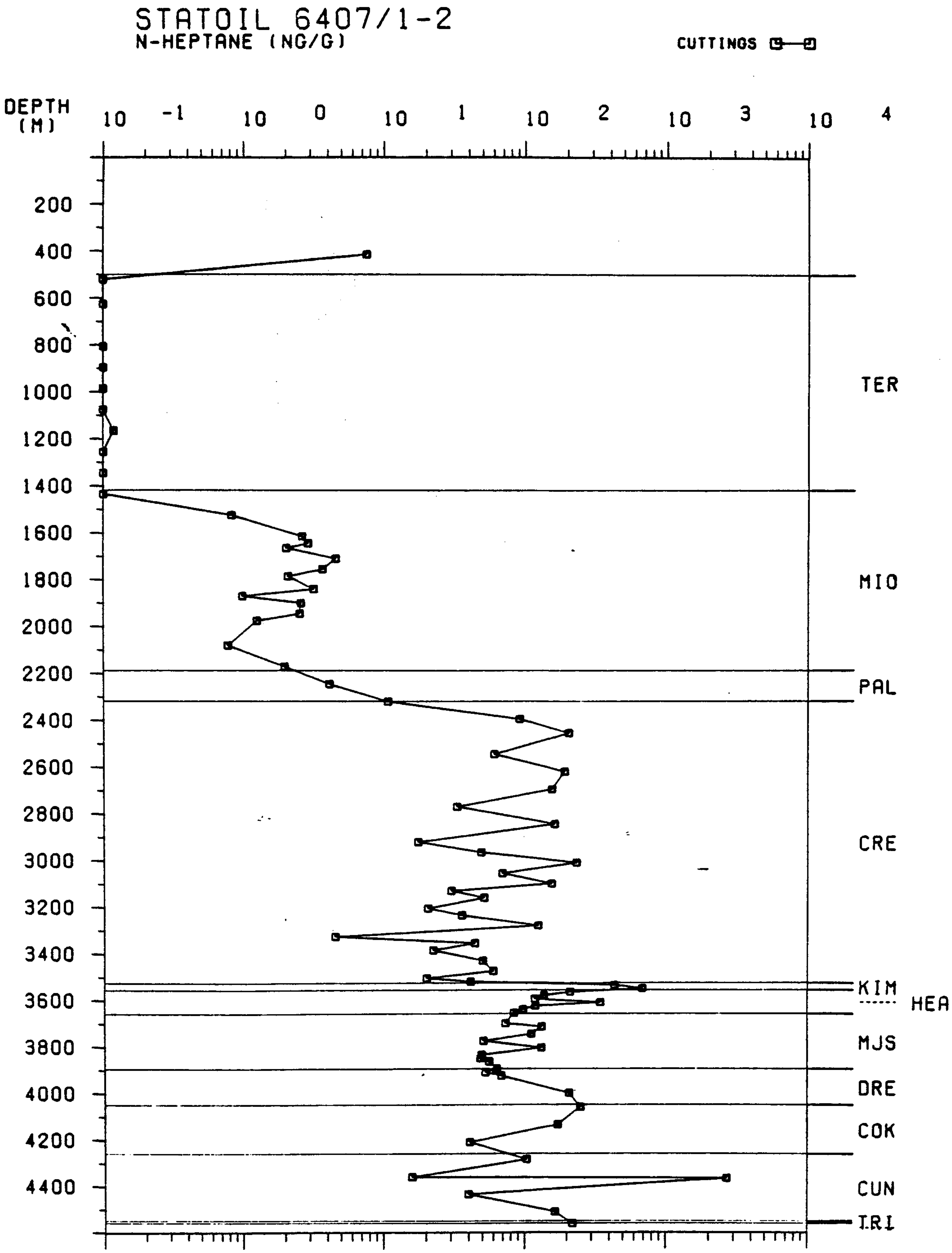
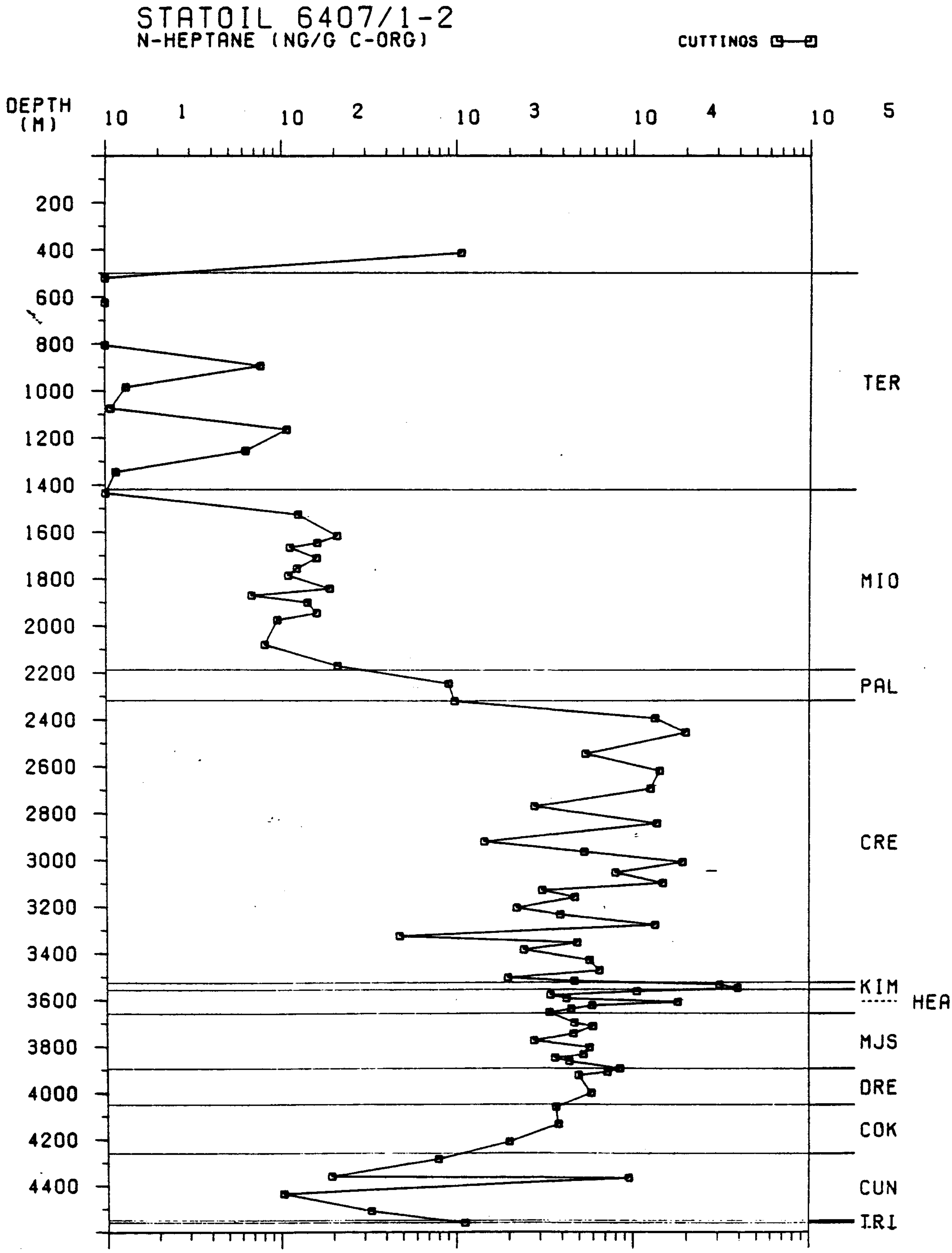
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
ORE
COK
CUN
TRI

Fig.14



STATOIL 6407/1-2
N-HEPTANE (NG/G)
CUTTINGS
DEPTH (M)
10 -1
10 0
10 1
10 2
10 3
10 4
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.15



STATOIL 6407/1-2
N-HEPTANE (NG/G C-ORG)
CUTTINGS
DEPTH (M)
10 1 10 2 10 3 10 4 10 5
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.16

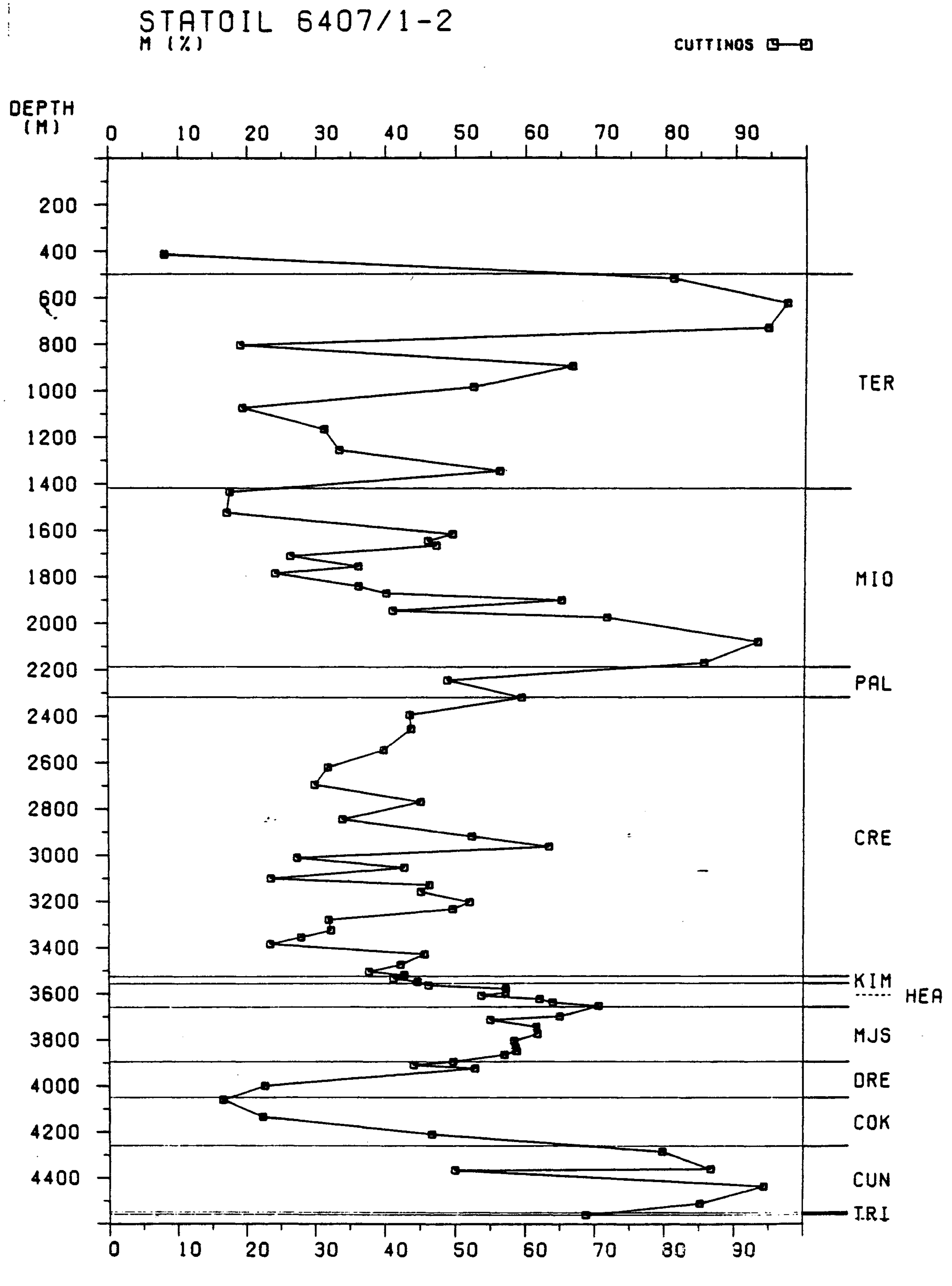

STATOIL 6407/1-2
M (%)
CUTTINGS
DEPTH (M)
0
10
20
30
40
50
60
70
80
90
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.17

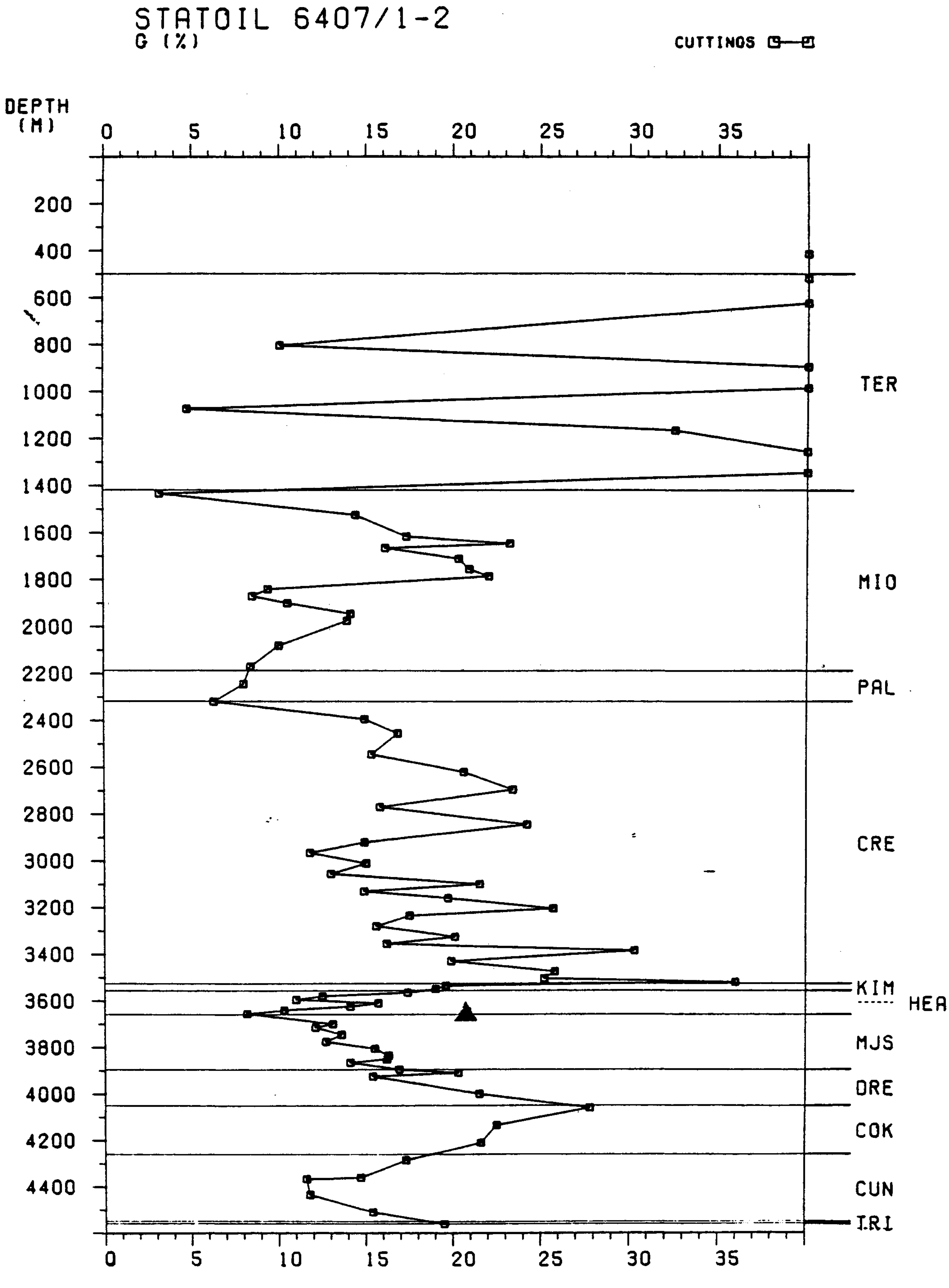
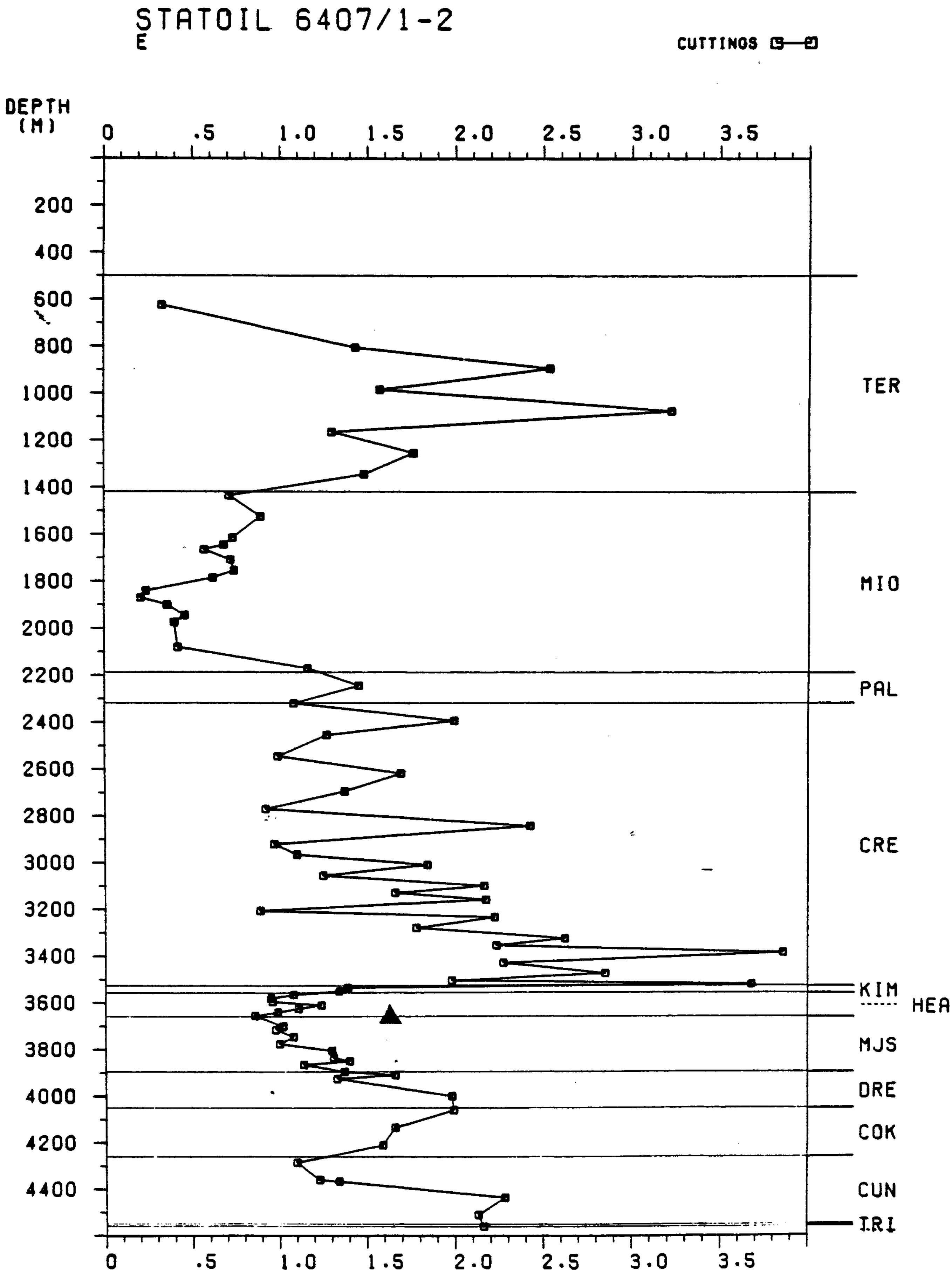

STATOIL 6407/1-2
G (%)
CUTTINGS
DEPTH (M)
0 5 10 15 20 25 30 35
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
ORE
COK
CUN
TRI

Fig.18



STATOIL 6407/1-2
E
CUTTINGS
DEPTH (M)
0
.5
1.0
1.5
2.0
2.5
3.0
3.5
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig. 19

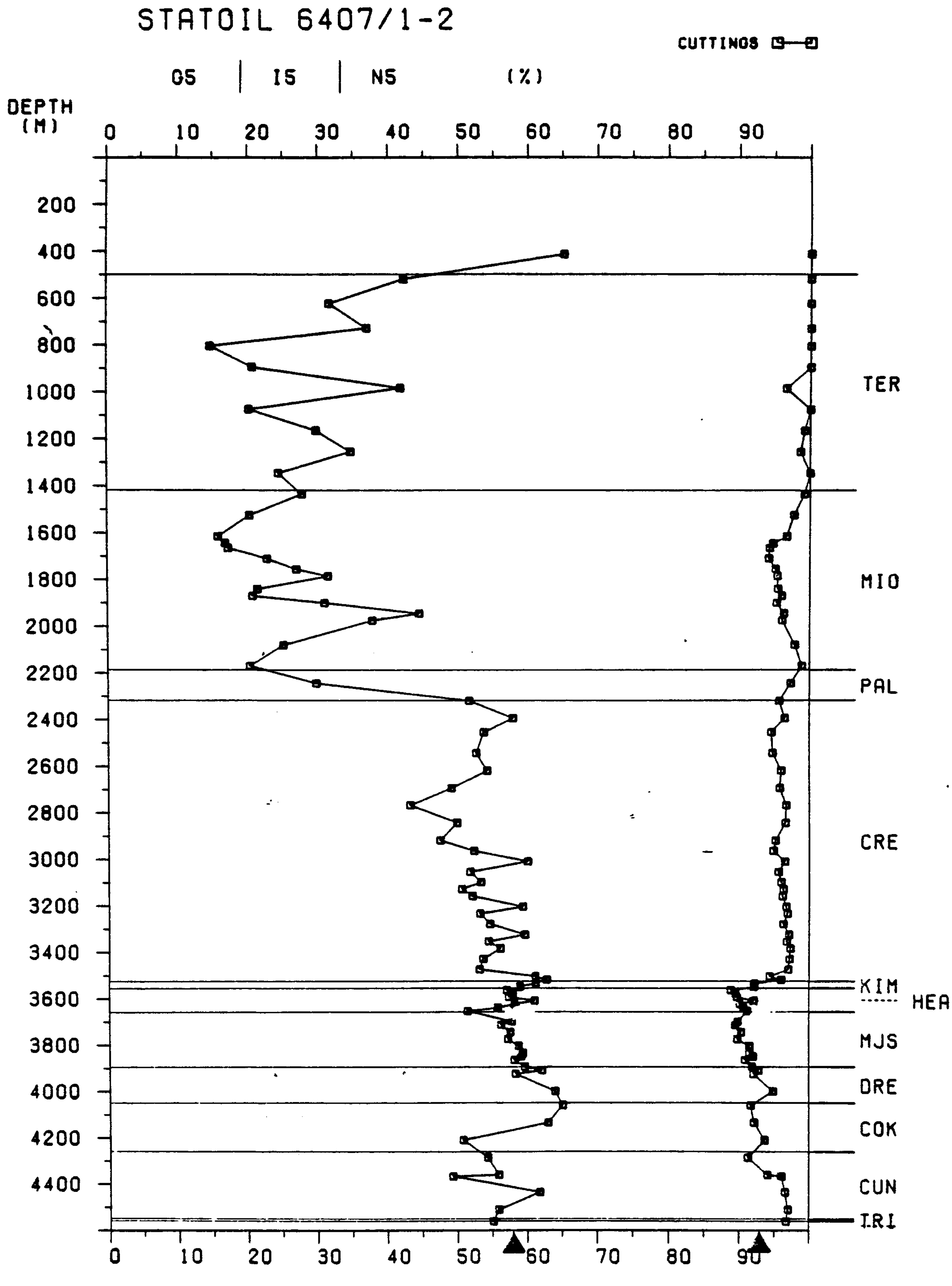
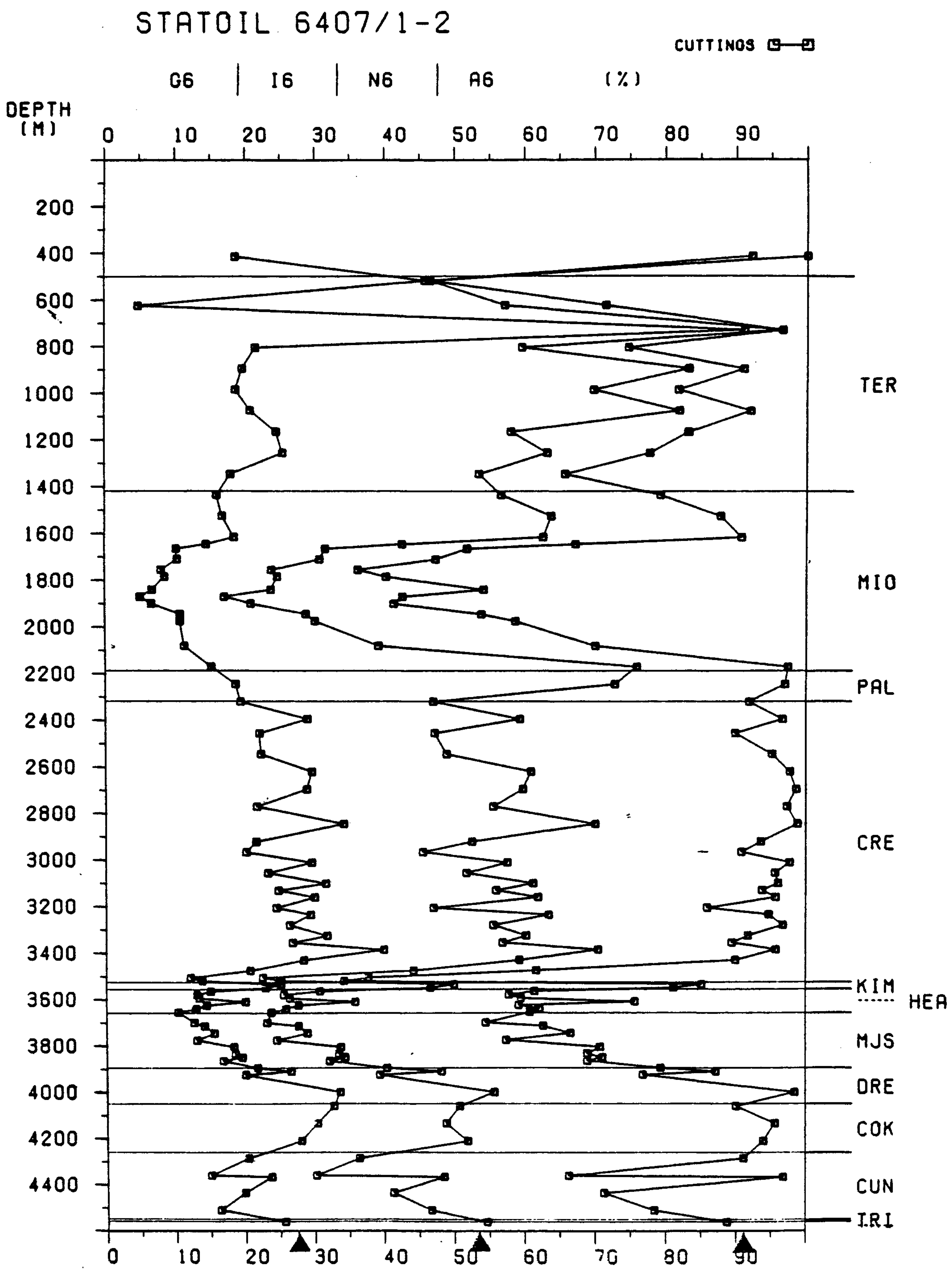
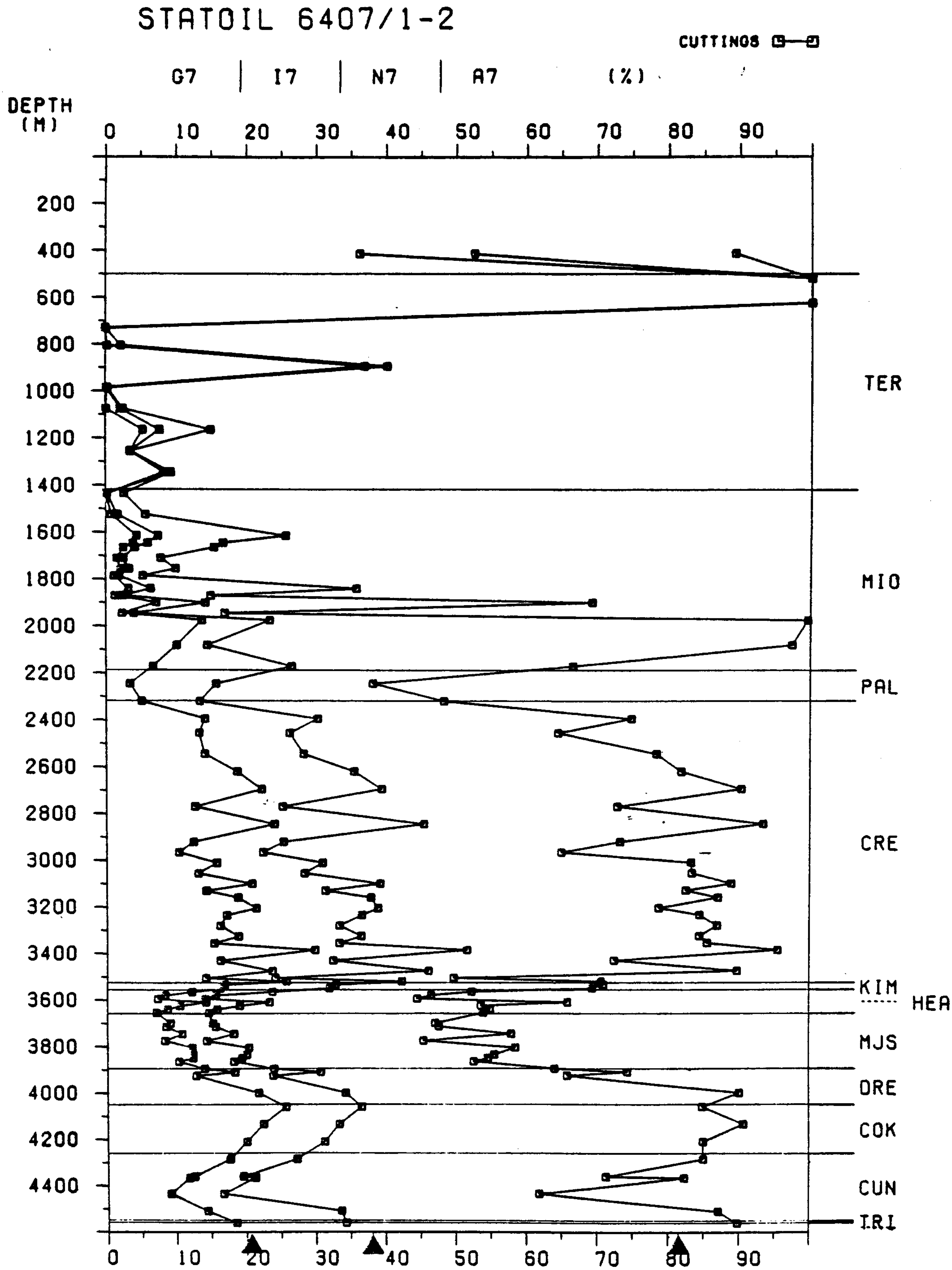

STATOIL 6407/1-2
CUTTINGS
OS | IS | NS (%)
DEPTH (M)
0 10 20 30 40 50 60 70 80 90
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.2o



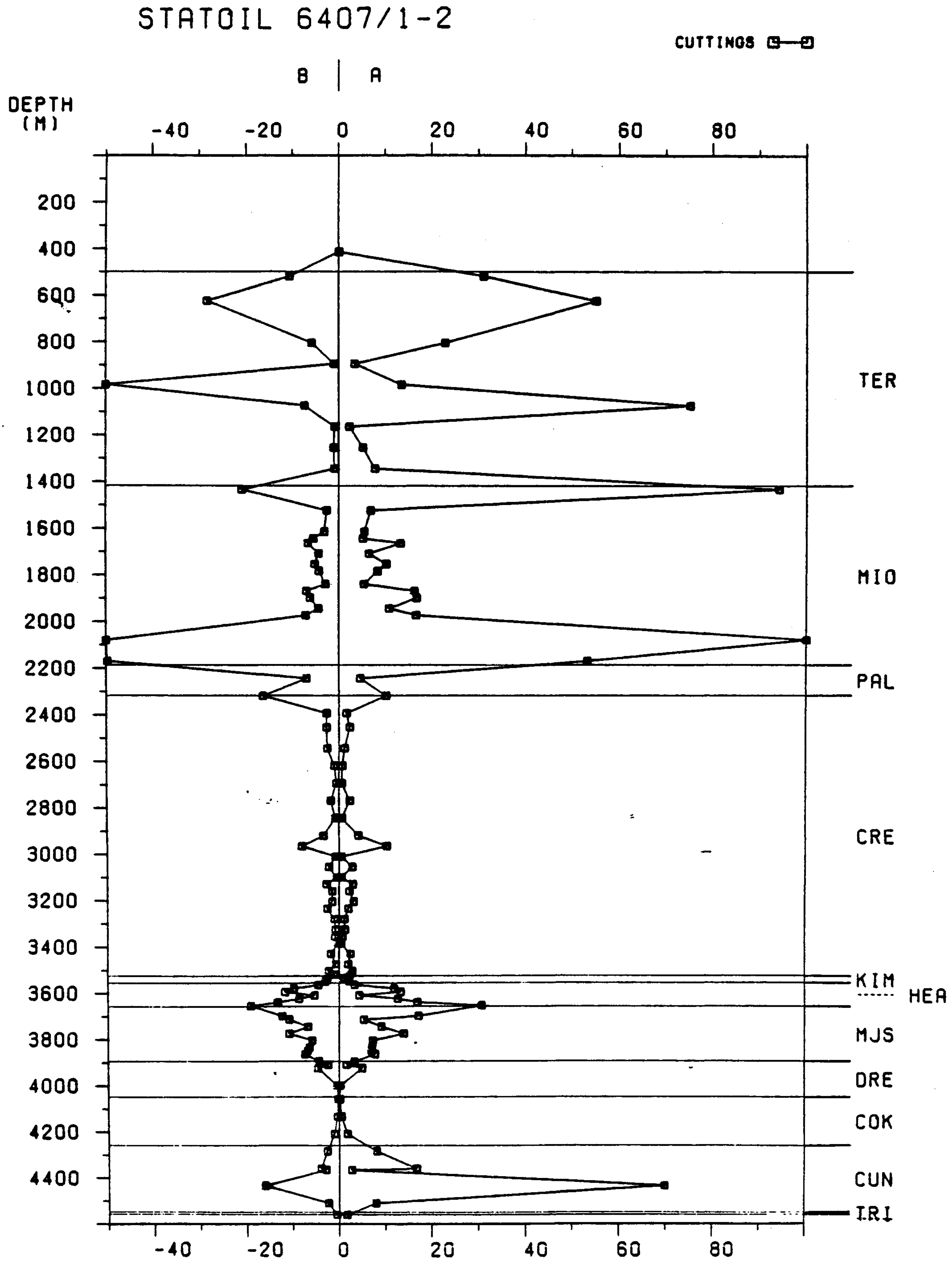
STATOIL 6407/1-2
CUTTINGS
G6 | I6 | N6 | A6 (%)
DEPTH (M)
0 10 20 30 40 50 60 70 80 90
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
ORE
COK
CUN
TRI

Fig.21



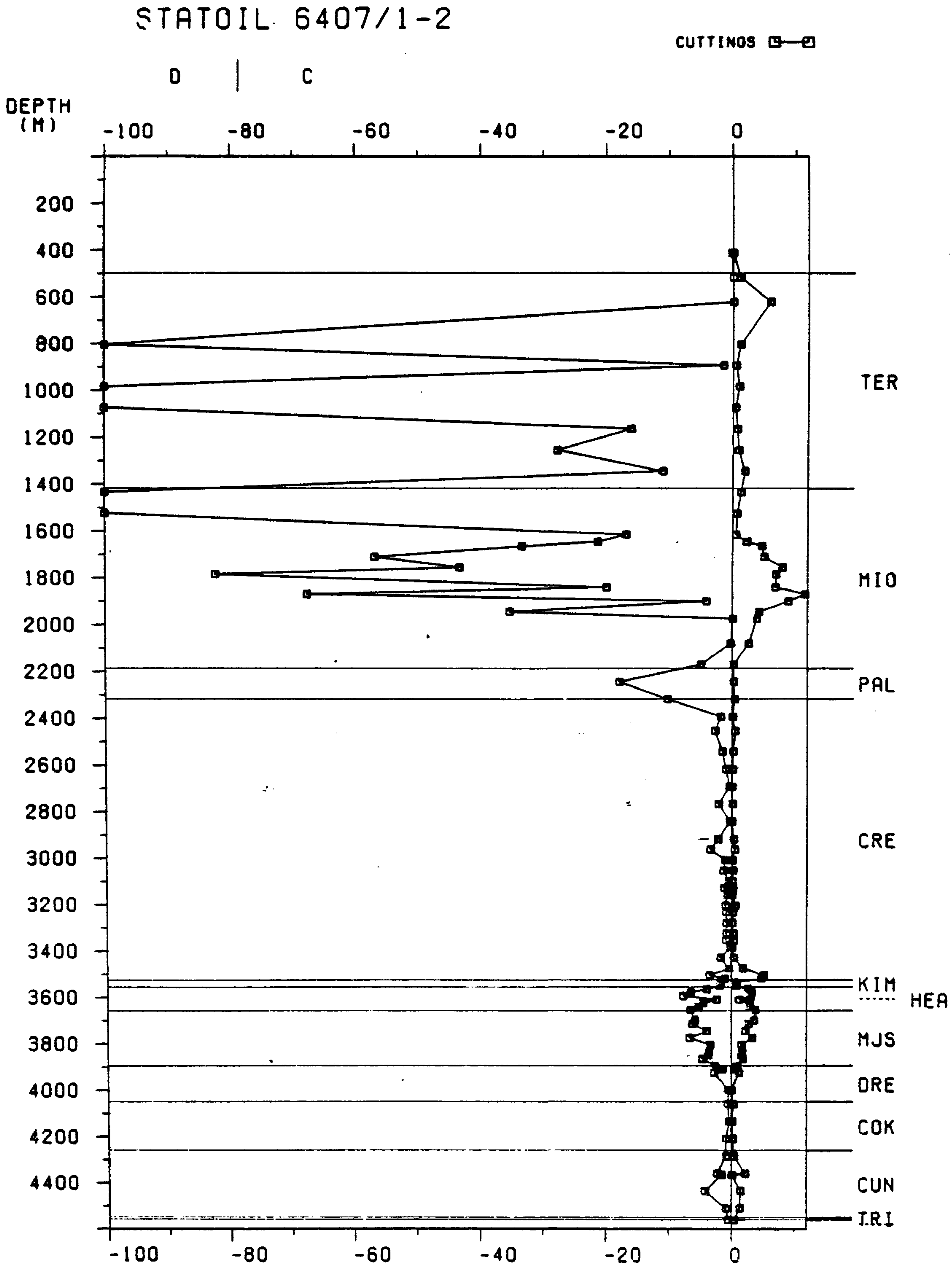
STATOIL 6407/1-2
CUTTINGS
G7
I7
N7
A7
(%)
DEPTH (M)
0
10
20
30
40
50
60
70
80
90
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
ORE
COK
CUN
TRI

Fig.22



STATOIL 6407/1-2
CUTTINGS
B
A
DEPTH (M)
-40 -20 0 20 40 60 80
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig. 23



STATOIL 6407/1-2
CUTTINGS
D
C
DEPTH (M)
-100
-80
-60
-40
-20
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
TER
MIO
PAL
CRE
KIM
HEA
MJS
DRE
COK
CUN
TRI

Fig.24

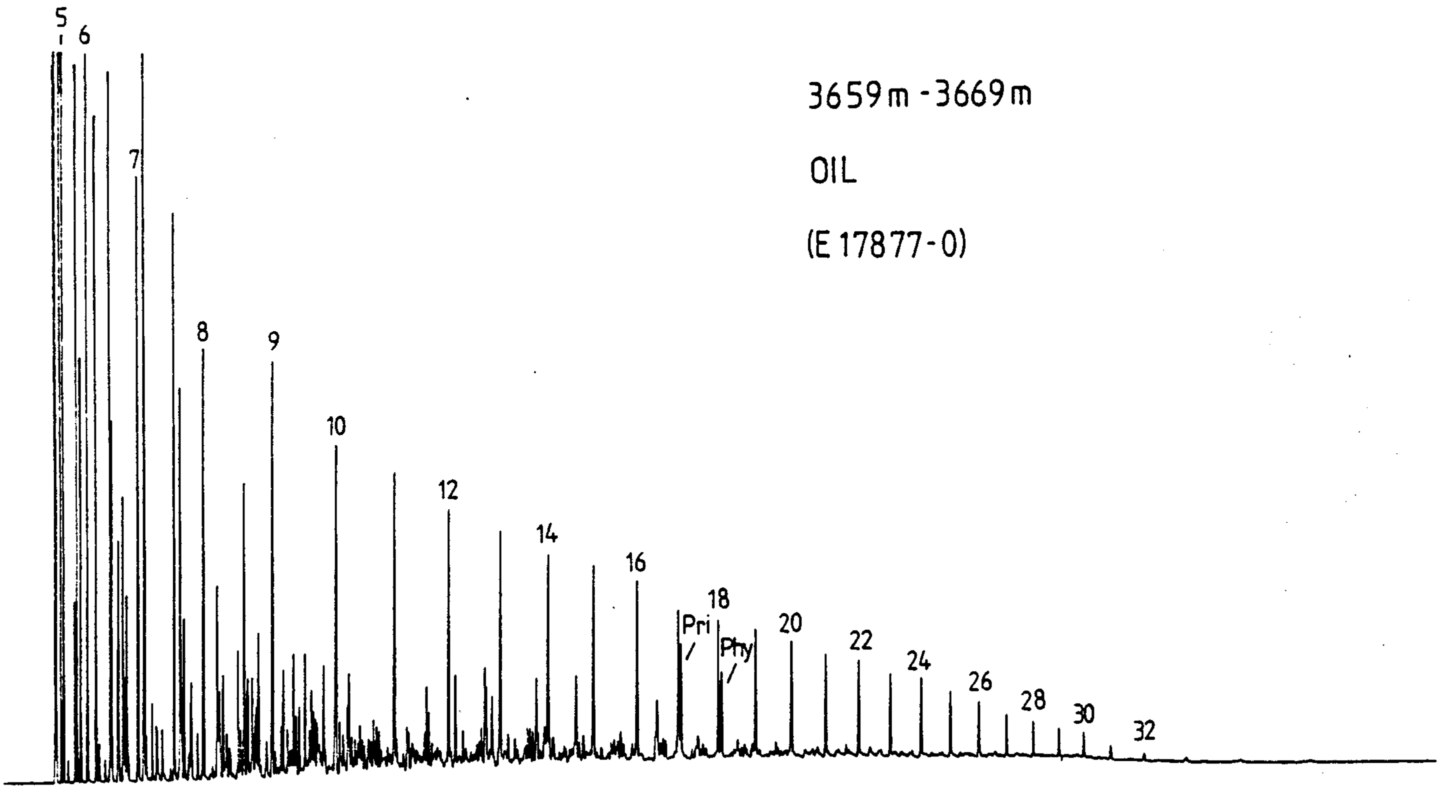

5
6
7
8
9
10
12
14
16
18
Pri
Phy
20
22
24
26
28
30
32
3659m -3669m
OIL
(E 17877-0)

Fig.25

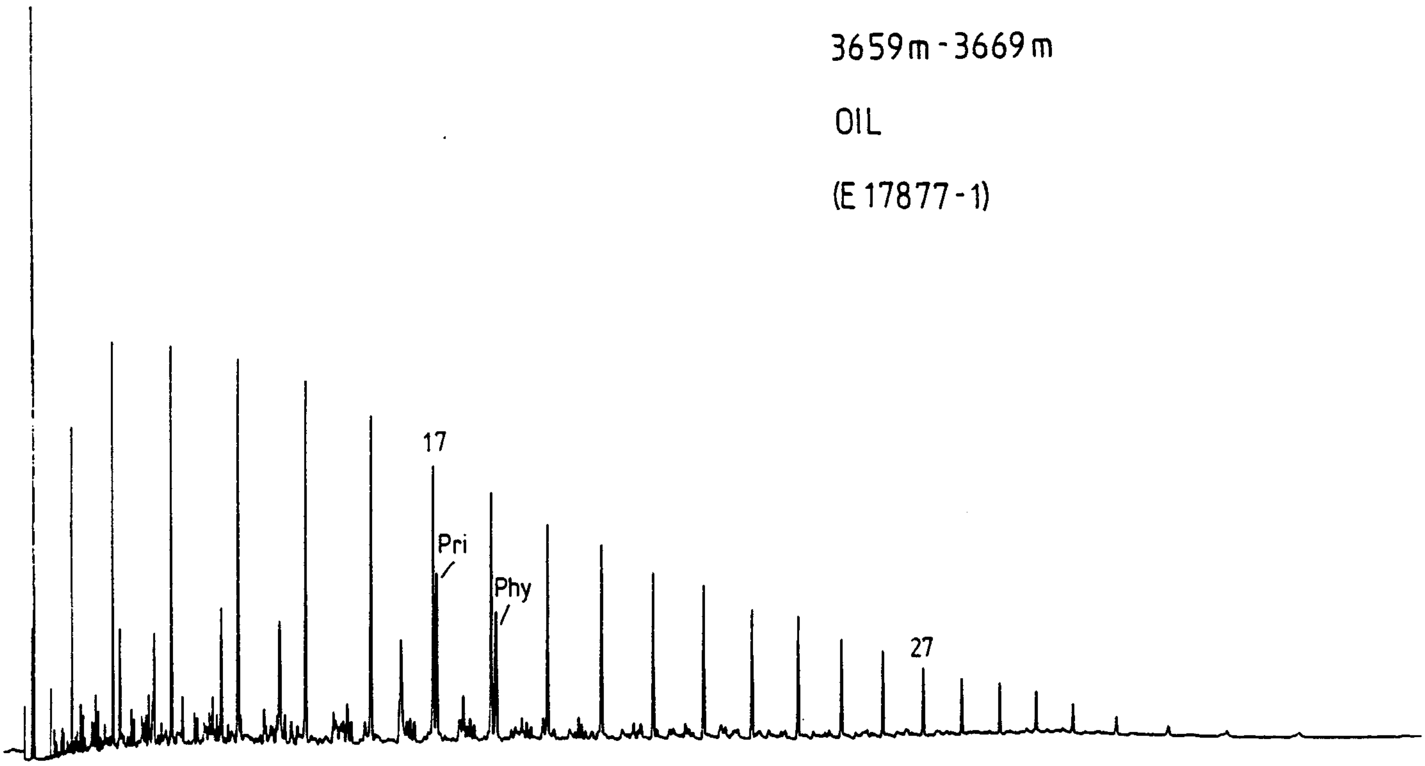


Fig.26a

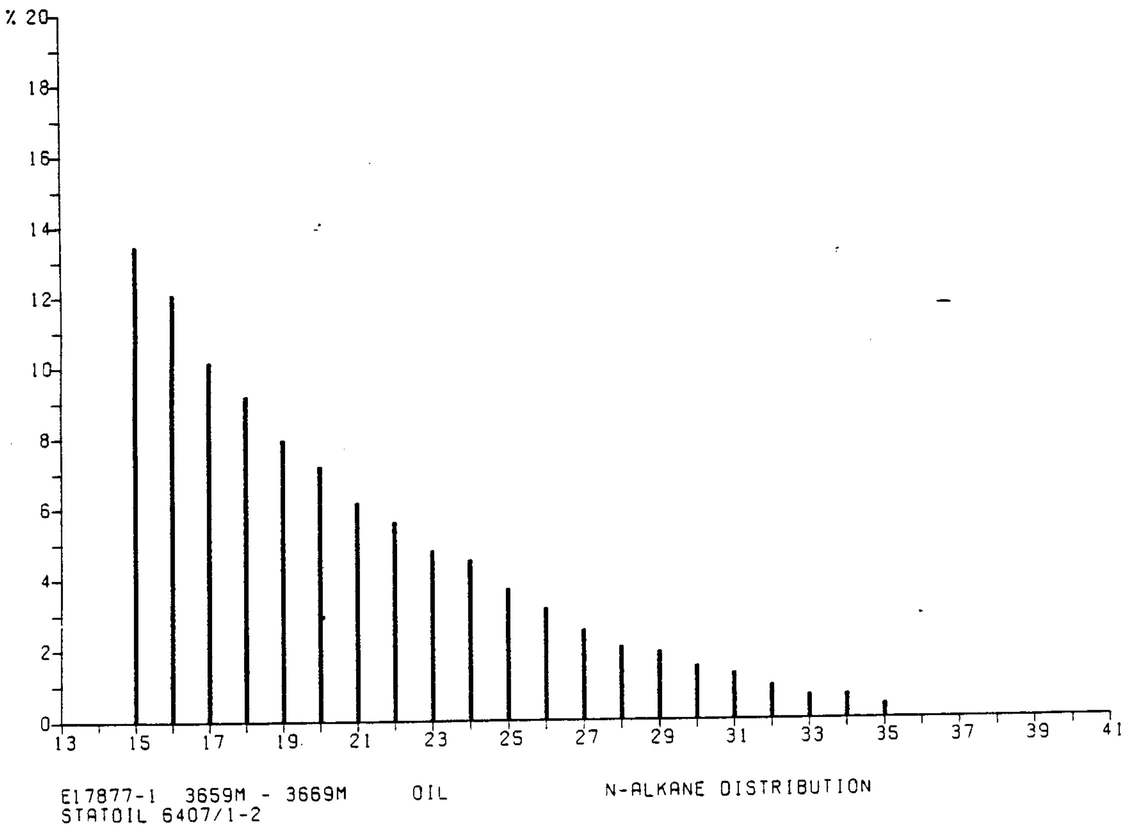


Fig.26b

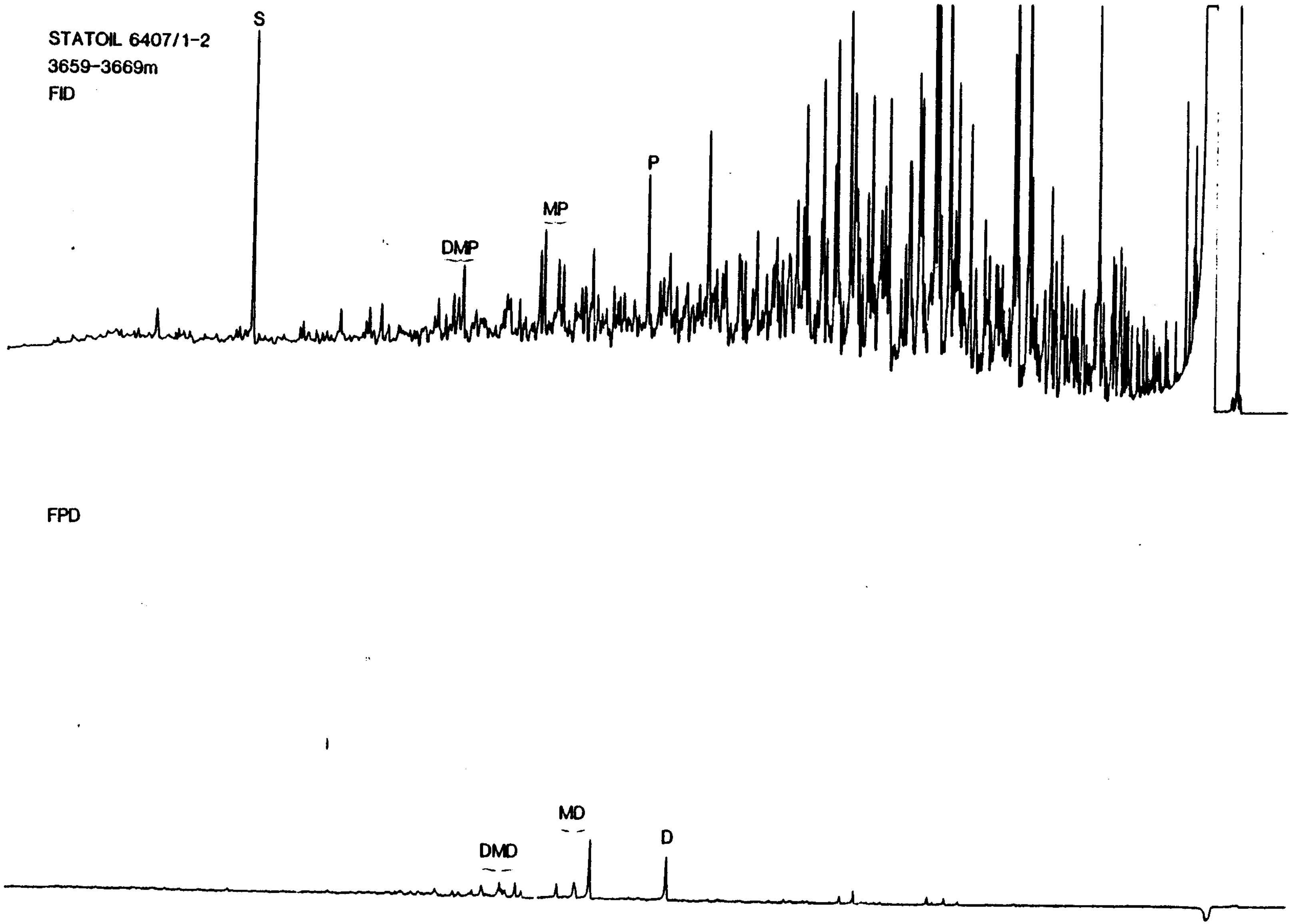


Fig.27

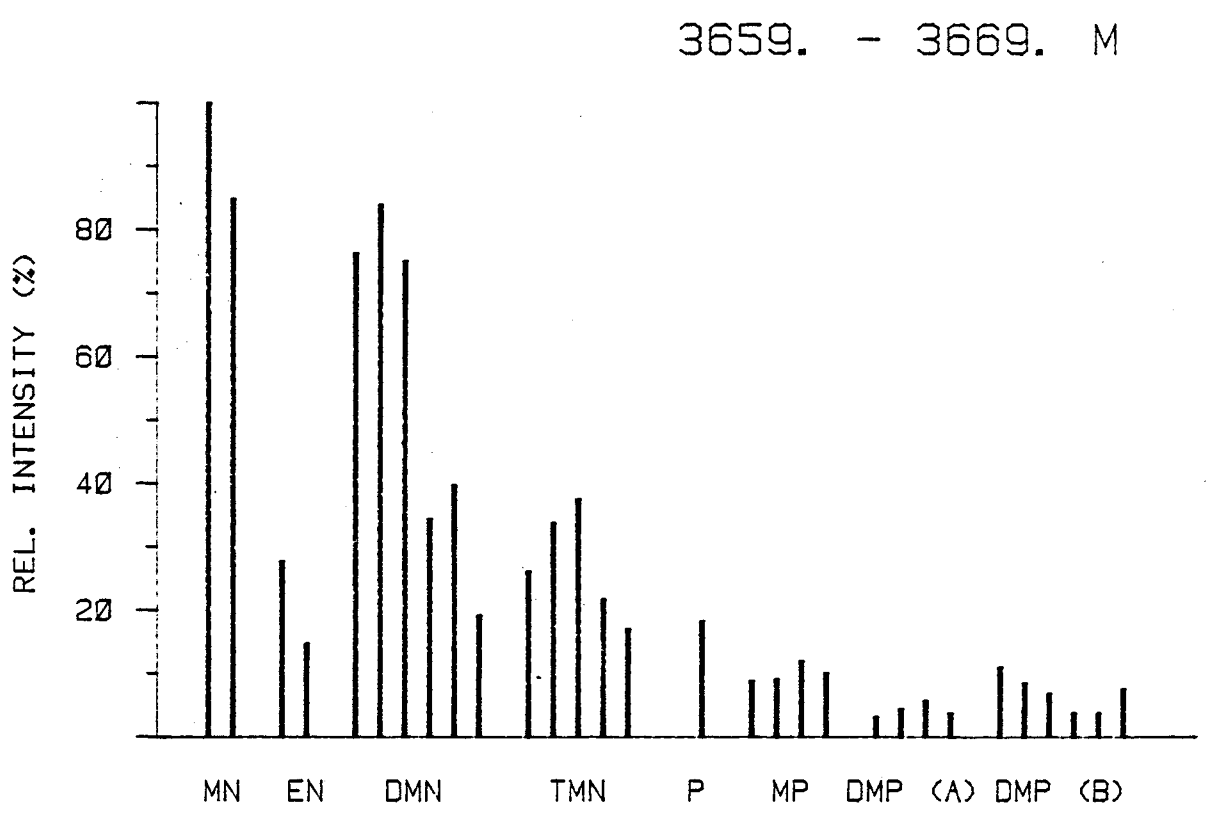
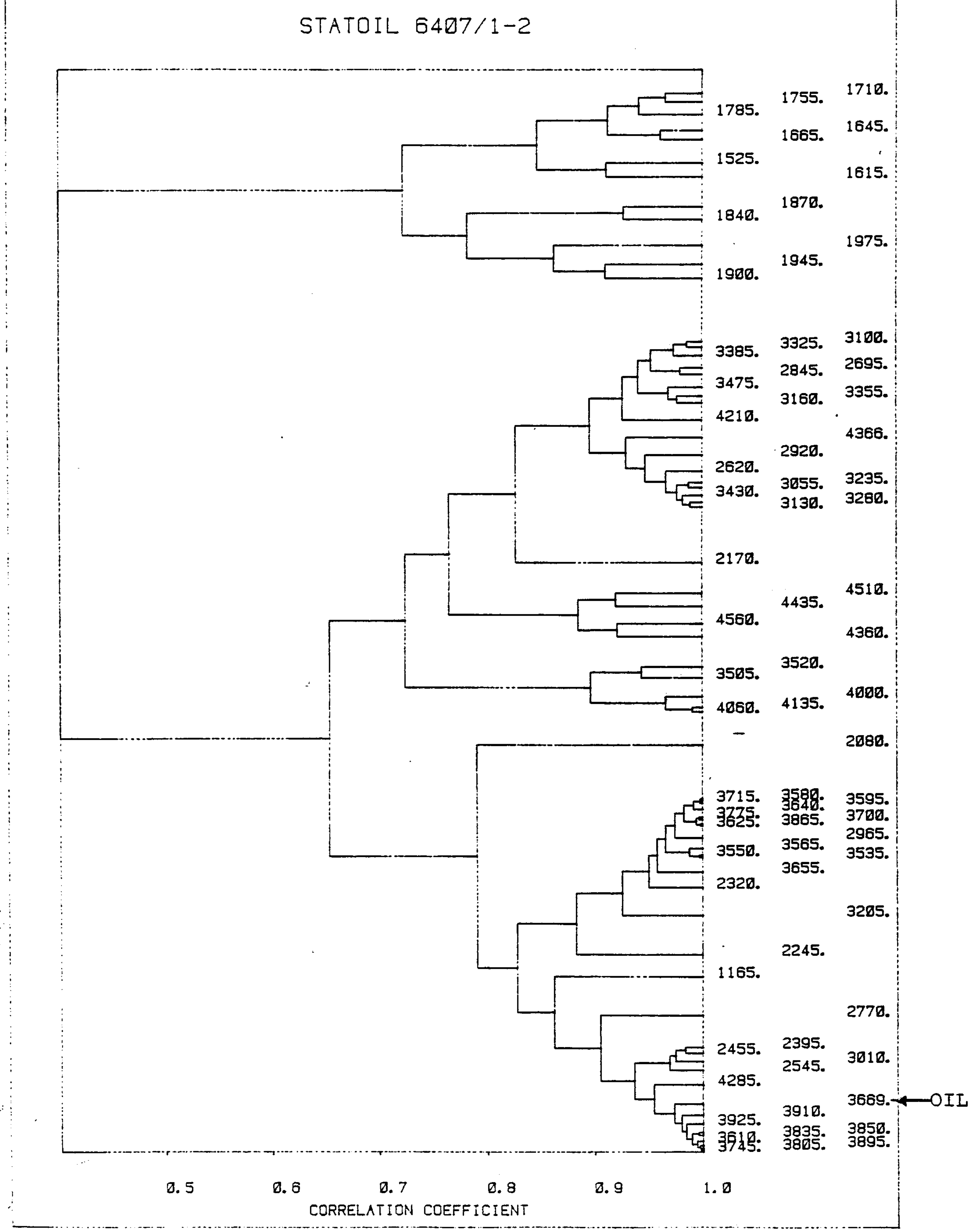
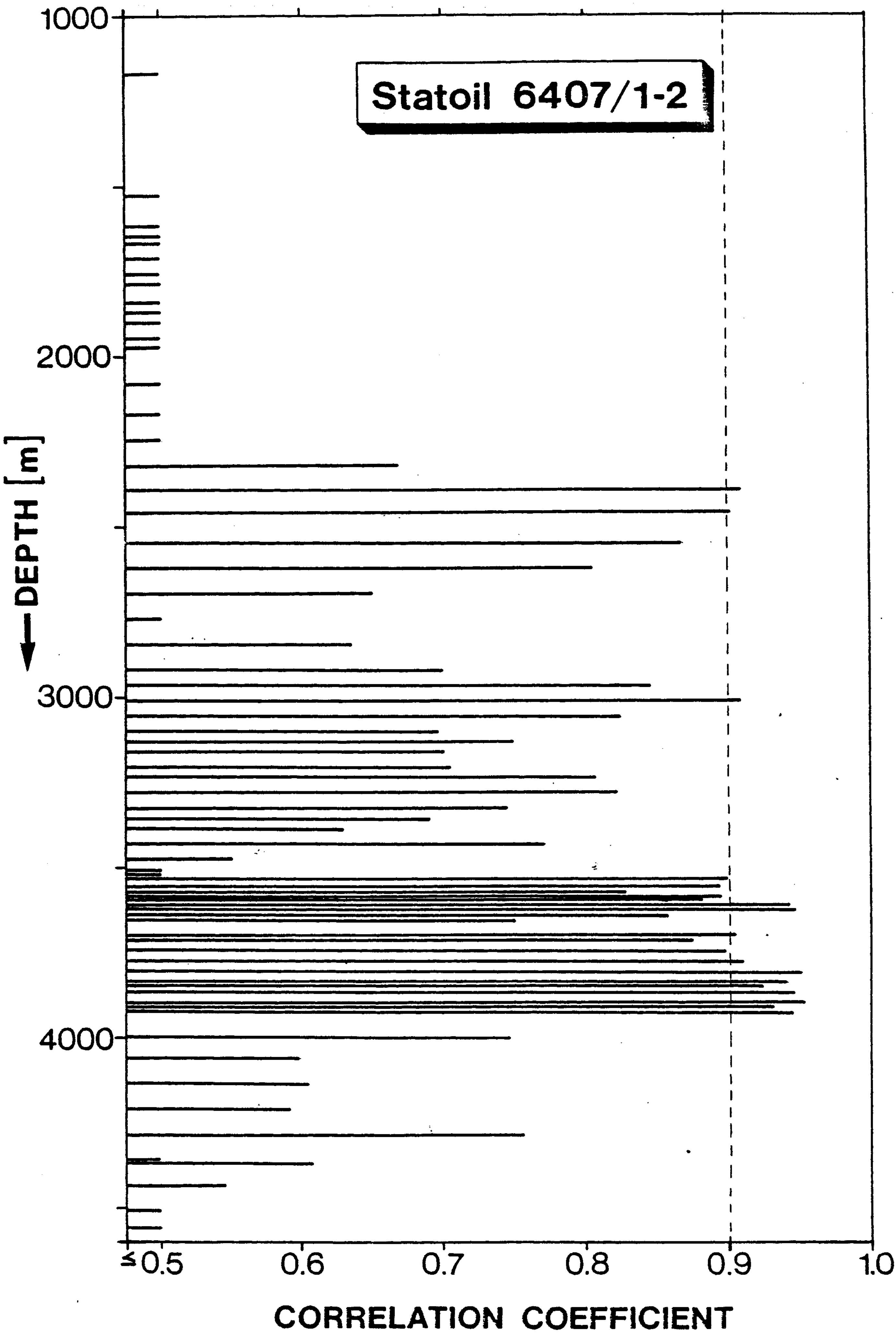

3659. - 3669. M
REL. INTENSITY (%)
80
60
40
20
MN
EN
DMN
TMN
P
MP
DMP (A)
DMP (B)

Fig.28

Fig.29


STATOIL 6407/1-2
1710.
1755.
1785.
1645.
1665.
1525.
1615.
1870.
1840.
1975.
1945.
1900.
3100.
3325.
3385.
2695.
2845.
3475.
3355.
3160.
4210.
4366.
2920.
2620.
3235.
3055.
3430.
3280.
3130.
2170.
4510.
4435.
4560.
4360.
3520.
3505.
4000.
4135.
4060.
2080.
3715.
3580.
3640.
3595.
3775.
3625.
3865.
3700.
2965.
3550.
3565.
3535.
3655.
2320.
3205.
2245.
1165.
2770.
2395.
2455.
3010.
2545.
4285.
3669.
OIL
3910.
3925.
3835.
3850.
3610.
3745.
3805.
3895.
0.5
0.6
0.7
0.8
0.9
1.0
CORRELATION COEFFICIENT



Statoil 6407/1-2
1000
2000
3000
4000
DEPTH [m]
≤0.5
0.6
0.7
0.8
0.9
1.0
CORRELATION COEFFICIENT

Fig.3o