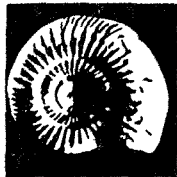


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REPORT TITLE/ TITTEL			
Isotope Analyses on Rock Extracts from Well 6407/2-1			
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Saga Petroleum A/S			
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### SUMMARY/ SAMMENDRAG

A change in organic matter type from 3000-3400m (possibly a change in the amount of amorphous material) is speculated on the basis of isotope compositions of rock extracts.

KEY WORDS/ STIKKORD

These isotope analyses are part of Source Rock analyses on well 6407/2-1 (IKU report number 0-493) and were subcontracted from IKU to:

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The report is authored by Dr. Schoell with minor technical changes and a brief summary by IKU (see title page).

ABSTRACT

Seven samples of extracted saturates and aromatics from well samples from 6407/2-1 between 2800 and 3600m revealed characteristic changes in their carbon isotopic composition. Samples above 3000 m range between -32 and -33 ‰ whereas samples around 3400m are more positive by 3 to 4 ‰. Below 3400m the extracts again gradually change to more negative values.

These results indicate changes in the type of organic matter within the drilled section.

### Samples

Saturates and aromatics from extracted organic matter of seven samples from well 6407/2-1 were submitted for isotope analysis. The samples are from one well comprising a depth range between 2870 and 3700 m. No further information is available for the interpretive report.

### Analytical Procedure

The samples have been analysed in a flow line system according to the description of Schoell et al. (1983). All  $\delta$ -values are reported on the PDB scale with NBS 22 lubricating oil as -29.8 ‰.

### Results and Discussion

The results are listed in Table 1 and graphically displayed in Fig. 1. The isotope composition of the extracts changes within the drilled section considerably. The samples around 2900 m depth revealed the most negative  $\delta^{13}\text{C}$  values of the whole section (-32 to -33 ‰). In the deeper samples the  $\delta^{13}\text{C}$  values systematically change from -29 and -27 ‰ at 3400m depth to more negative values (-32 to -30) at 3700m depth.

These changes indicate changes in the type of organic matter from 3000 to 3400m. Possibly the amount of amorphous organic matter changes. Alternatively the amount of resinite may change in the sampled rock specimens, but without further information interpretation must remain speculative.

TABLE 1

RESULTS OF ISOTOPE ANALYSES ON EXTRACTS

Sample No.	Depth	$\delta^{13}\text{C}$ (‰)	
		SAT	ARO
M-7436	2869-78	-32.48	-31.83
M-7438	2887-96	-33.02	-32.54
M-7440	2905-14	-32.51	-32.16
M-7694	3382-91	-28.52	-26.84
M-7704	3472-81	-30.17	-28.01
M-7716	3578-87	-31.73	-29.73
M-7728	3686-95	-30.15	-29.4

Figure 1

