

34/2-2 .3
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REGISTRATION
UNIT

GEOCHEMICAL DATA

Geochemical samples were collected for source rocks analysis from the interval 2000 - 3940 m RKB.

IKU (Continental Shelf Institute) in Trondheim carried out comprehensive source rock analyses for the interval 2000 - 34000 m i.e. the Tertiary/Cretaceous sections, and Robertson Research International, for the interval 3400 - 3840 m i.e. the Jurassic /Triassic section. However, as Robertson Research Intl. conducted the Paleontological age dating over the entire bore hole interval, they also carried out for correlating purpose a routine petroleum geochemical evaluation of the Tertiary/Cretaceous interval.

Both institutons have provided comprehensive reports of their work which have been distributed to the 34/2 partners under separate cover.

IKU

Report No.0321/1/81 Part 1, June 22, 1981

Report No.0321/1/81 Part 2, August 5, 1981

Robertson Research:

Report No.4664 P/D November, 1981

A brief summary of the results is given below. The Tertiary/Cretaceous section was subdivided into seven zones and the Jurassic/Triassic into three zones based on head space gas, cutting gas analyses and lithologic description:

2000 - 2180 m CLAYSTONE, immature, fair potential as source rock for gas;

2180 - 2240 m CLAYSTONE, LIMESTONE, immature, fair potential as source rock for gas (and oil). Indications of three hydrocarbons in the Limestones;

2240 - 2340 m CLAYSTONE with less LIMESTONE, as section above;

2340 - 2540 m CLAYSTONE, immature, fair potential as source rock for gas (and oil);

- 2540 - 2580 m CLAYSTONE and SANDSTONE, immature, CLAYSTONE with fair potential as source rock for gas (and oil), no evidence for migrated hydrocarbons in SANDSTONE
- 2580 - 2700 m CLAYSTONE and SANDSTONE, immature, fair potential as source rock for gas, free heavy hydrocarbons in SANDSTONE;
- 2700 - 3400 m CLAYSTONE, immature increasing to moderate mature, fair potential as source rock for gas. Due to the occurrence of coal at the 3300 m level slightly higher source rock potential.
- 3400 - 3455 m SHALE and SILTSTONE, middle mature, no source potential, minor amounts of biodegraded oil in SILTSTONE;
- 3455 - 3975 m SILTSTONE and SANDSTONE, middle mature, no significant oil generating potential. Occasional coals may generate minor to fair quantities of gas, possibly with some condensate, at a higher thermal level. Minor amounts of biodegraded oil.
- 3975 - 4074 m SILTSTONE and SANDSTONE, middle mature, no hydrocarbon generating potential.