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Study on the distribution of aliphatic and aromatic hydrocarbon in surface water and sediment in waters off Pulau Perhentian / Darius Wu Tze Shung.

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Pengarang DARIUS WU TZE SHUNG		No. Panggilan LP	
Judul Study on the distribution of aliphatic and aromatic		FST	
Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
11/4/05	4.12 pm	UK 10064	Fhs
25/6/05	2/30 pm	UK 8129	Fhs
13/7/05	1.50 pm	UK 8129	W
14/07/05	4.10 pm	UK 8129	W
10/07/05	7.30 pm	UK 7708	W
	1.00 pm	UK 8129	W

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STUDY ON THE DISTRIBUTION OF ALIPHATIC AND AROMATIC
HYDROCARBON IN SURFACE WATER AND SEDIMENT IN
WATERS OFF PULAU PERHENTIAN

BY

DARIUS WU TZE SHUNG

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHARA

This project report is submitted in partial fulfillment of
the requirements for the Degree of
Bachelor of Science (Marine Science)

Faculty of Applied Science and Technology
UNIVERSITY PUTRA MALAYSIA
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ABSTRACT

The distribution of hydrocarbons in the water and sediment samples near Pulau Perhentian was studied. Nine sampling station were established.

The overall mean hydrocarbon in water for TAH and PAH ranged between 2.521 ppb to 11.582 ppb and from undetectable levels to 13.8046 ppb respectively. As for the sediment, the hydrocarbon ranged were 4.161 ppm to 19.677 ppm and undetectable levels to 13.804 ppm. The results indicate that the area around Pulau Perhentian was still unpolluted with hydrocarbon. There was no correlation between the hydrocarbon levels and the total organic carbon in the sediment.

The concentration of TAH is higher than PAH in water while a reserve observation were observe in the sediment. The dominant species of TAH found in water at most station were C24 and C25 while the species of PAH was Benzo(a)pyrene. The dominant species of TAH found in sediment at most station was C18 while the species of PAH was Anthracene.

ABSTRAK

Kajian tentang taburan hidrokarbon di dalam air dan sediment di perairan Pulau Perhentian telah dijalankan. Terdapat sembilan stesen penyampelan di kawasan kajian.

Keseluruhan min hidrokarbon di dalam air untuk TAH dan PAH adalah di antara 2.521 ppb – 11.582 ppb dan tidak dikesan – 13.8046 masing – masing. Untuk sedimen, kandungan adalah di antara 4.161 ppm – 19.677 ppm dan tidak dikesan – 19.677 ppm. Keputusan di atas menunjukkan bahawa tiada pencemaran hidrokarbon di Pulau Perhentian. Di samping itu, tiada korelasi di antara kepekatan hidrokarbon dengan organic karbon di dalam sediment.

Kepekatan TAH di dalam air adalah lebih tinggi daripada PAH sementara keputusan yang sebaliknya didapati di dalam sediment. Spesis TAH yang paling banyak dijumpai di dalam air ialah C24 dan C25 sementara sepsis PAH yang paling banyak dijumpai ialah Benzo(a)pyrene. Spesis TAH di dalam sediment pula ialah C18 sementara sepsis PAH di dalam sediment ialah Anthracene.