LONGSHORE SEDIMENT TRANSPORT DIRECTION ALONG MERANG TO PENARIK BEACH AREA

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Longshore sediment transport direction along Merang to Penarik Beach area / Siti Ramizah Daud.

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Lihat Sebelah

LONGSHORE SEDIMENT TRANSPORT DIRECTION ALONG MERANG TO PENARIK BEACH AREA

By

Siti Ramizah Binti Daud

Research Report submitted in partial fulfillment of

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DEPARTMENT OF MARINE SCIENCE
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DECLARATION AND VERIFICATION REPORT

RESEARCH PROJECT I AND II

It is hereby declared and verified that this research report entitled:
LONGSHORE SEDIMENT TRANSPORT DIRECTION ALONG MERANG TO PENARIK BEACH AREA By SITI RAMIZAH BINTI DAUD Matric No. UK 15996 have been examined and all errors identified have been corrected. This report is submitted to the Department of Marine Science as partial fulfillment towards obtaining the Degree of SCIENCE (MARINE SCIENCE), Faculty of Maritime Studies and Marine Science, Universiti Malaysia Terengganu.

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LIST OF ABBREVIATIONS

°	Degree Unit
Ø	Phi Unit
µm	Micrometer
Cm	Centimeter
Km	Kilometer
m/s	Meter per Second
Avg	Average
HT	High Tide
MT	Mid Tide
LT	Low Tide
LST	Longshore Sediment Transport
LEO	Littoral Environment Observation

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ABSTRACT

The study of Longshore Sediment Transport Direction was conducted in Merang farther to Penarik beach which both are in the district of Setiu, Terengganu. The study was conducted to figure out the processes responsible in the longshore sediment movement pattern include the physical process, natural event and also sediment distribution pattern. There were nine sampling stations pointed out with the sampling session covers from August to December 2009. The alteration of the beach profile encompasses of erosion and deposition phenomenon for overall station with the steepest gradient of 15.57° of the beach slope which located in Bari Beach. The study area was comprised of 80 % poorly sorted sediment which indicates the coarser sediment dominantly distributed. The physical process predominantly altered the natural condition of the beaches in addition with the natural events such the North East Monsoon season which prevailed between November to December 2009 with the maximum wind speed of 8.5 m/s. Regarding all the parameters measured, the direction of longshore sediment movement was determined from the southeast direction towards the northwest part of Kuala Terengganu.

ABSTRAK

Kajian tentang Arah Pengangkutan Sedimen Pesisir telah dijalankan di Merang sehingga ke Pantai Penarik dimana kedua-duanya adalah di dalam Daerah Setiu, Terengganu. Kajian ini dijalankan bertujuan untuk mengenalpasti proses-proses yang terlibat didalam paten pergerakan sedimen pesisir termasuk proses fizikal, fenomena semulajadi dan juga paten taburan sedimen. Sembilan stesen kajian telah di kenalpasti dengan sesi penyampelan dijalankan sepanjang bulan Ogos dan Disember 2009. Perubahan pantai merangkumi fenomena hakisan dan pengumpulan sedimen bagi kesemua stesen dengan kecerunan maksimum mencecah 15.57° bagi kecerunan pantai iaitu di Kg. Bari. Kawasan kajian merangkumi 80% sedimen yang mempunyai penyisihan tidak sempurna sekaligus menunjukkan bahawa pasir kasar telah disebarkan secara dominan. Proses fizikal merupakan faktor paling utama yang menyebabkan perubahan ke atas keadaan semulajadi pantai ditambah pula dengan fenomena semulajadi seperti musim Monsun Timur Laut yang lazimnya bertiup di antara bulan November dan Disember 2009 dengan kelajuan angin maksimum mencecah sehingga 8.5 m/s. Berdasarkan parameter-parameter yang telah dikajii, arah pergerakan sedimen telah dikenalpasti bergerak dari arah tenggara menuju ke bahagian barat laut Terengganu.