CASE STUDY: THE PHYSICAL AND CHEMICAL CHARACTERISTIC OF SEWAGE SLUDGE FROM TAMAN BERCHAM TREATMENT PLANT, IPOH PERAK

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B. Eng (Hons) (Civil)
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By

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Report is submitted as
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DECLARATION BY THE CANDIDATE

I am Mohd Anuar bin Abdul Nasir, 2003339620 confirm that work is my own and that appropriate credit has been given where reference has been made to the work of others.

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(Mohd Anuar b Abdul Nasir)
NOVEMBER 2006

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In the name of Allah, The Most Gracious and The Most Merciful

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ABSTRACT

Sludge are known as waste material or dewatered solid from a commercial or industrial wastewater treatment plant and potable water treatment plants. It consists of clay, microorganisms and chemical generated from the use of coagulant material. The study of sludge is based on municipal treatment plant served by IWK Sdn Bhd. The objectives of the study are to observe the characteristic of the sludge and evaluate its potential for recycle or reused. The characteristic observed is physical properties and chemical properties. In order to meet these objectives the several test were done in the laboratory material such as sieve analysis, pH value test, moisture content, classification to soil engineering and heavy metal test. The result from this study indicates that the sludge is classified as sandy silt according to soil engineering. The behavior of sandy silt are obtain and used as guide data in recycle or reused of this sludge. Meanwhile, three elements were carryout from chemical test. There are Lead Pb, Copper Cu and Zink Zn. The result show those element are below limit that can harm the environment. Beside that this low content element may be advantage while recycle or recompose with this sludge. For example, this sewage sludge can use as raw material to produce lightweight aggregate, absorber for fix-bed, and ceramic manufacture.