

**WASTE CHARACTERISTICS AT SEMELING DUMP SITE: A  
CASE STUDY**

By


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## DECLARATION BY THE CANDIDATE

I (Mohamad Noor Hakim bin Abdul Rahman, 2003479361) confirm that the work is my own and that appropriate credit has been given where reference has been made to work of others.

(.....)

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## ABSTRACT

This study is to determine the waste characteristics at Semeling Dump site, Sungai Petani in terms of physical and chemical characteristics. Municipal solid waste composition studies are essential for proper management of waste for a variety of reasons including a need to estimate materials recovery potential, to identify sources of component generation, to facilitate design of processing equipment, to estimate physical, chemical, and thermal properties of the wastes, and to maintain compliance with local, state, and national regulations. The most important reason is to maintain the good environment quality. The composition of generated waste is extremely variable as a consequence of seasonal, geographic and local legislation impacts. A methodology was developed for conducting a composition study for solid waste component in order to determine the physical and chemical characteristics. The methodology has been divided into three phases, which data collection, representative sampling and analysis of data. The major component of municipal solid waste is food waste which is consist 33%, followed by plastic 26% and paper 17%. Carbon and oxygen are the major composition of the solid waste. The characteristics of solid waste are significantly depending on the cultural habit of the public, standard living and season.

**Keywords:** Solid Waste, Composition, Physical, Chemical, waste generate rates, recovery material.

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