NATURAL VAPORIZATION SYSTEM USING

PLASTIC PLATE

by

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Report submitted in partial fulfillment
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APPROVAL AND DECLARATION SHEET

This project report titled natural vaporization system of lake water using plastic plate was prepared and submitted by MOHD HALIM BIN TUKIMIN(Matrix Number : 071050475) and has been found satisfactory in term of scope, quality and presentation as partial fulfillment of the requirement for the Bachelor of Engineering (Manufacturing Engineering) in University Malaysia Perlis (UniMAP).

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SISTEM PENGEWAPAN SEMULAJADI AIR TASIK MENGGUNAKAN PLASTIK

ABSTRAK

Proses penyejatan semulajadi merupakan satu proses dimana ianya tidak menggunakan tenaga dan bahan bakar dalam penghasilannya. Ia hanya menggunakan matahari sebagai tenaga untuk menjalakan experiment ini. Kertas ini adalah berdasarkan idea dimana air yang tersejat boleh ditukar menjadi air minuman dengan menggunakan proses penyejatan semulajadi. Air tasik digunakan dalam experiment ini dimana pH air akan diambil sebelum dan selepas experiment. Experiment ini akan dijalankan beberapa kali untuk mendapatkan air yang disejat dan air yang disejat akan dikumpulkan untuk dianalisis kandungan kimia dan pH. Secara kesimpulannya, tujuan experiment ini adalah untuk menukar air tasik yang disejat dengan menggunakan prosess penyejatan semulajadi untuk menjadi air minuman berdasarkan keputusan yang diperolehi daripada hasil perbandingan pH dan kandungan kimia air tersebut dengan air mineral dan air paip.

NATURAL VAPORIZATION SYSTEM OF LAKE WATER USING PLASTIC PLATE

ABSTRACT

Natural vaporization process is one of the processes that not use energy or fuel to produce it. It's only use a sun as energy to do this experiment. This paper is based on the idea which is vaporize water can be turn to drinking water using natural vaporization process. Using lake water as a material the pH will take before and after experiment. This experiment will run twice for get more vaporize water and all the water will keep together. Then the water wills analyze about the pH and chemical substance. As a conclusion the objective of this experiment is change the lake water as a drinking water using natural vaporization concept based on the result from pH and chemical substance tap and mineral water.

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°C	Degree Celsius
F	Fahrenheit
BMPs	Best Management Practices
PCBs	PolyChlorinated Biphenyls
$\dot{Q}$	rate of heat transfers
A	area
ΔT	temperature difference
Δx	thickness
k	Thermal conductivity
PMMA	Poly Methyl Methacrylate
AAS	Atomic Absorption Spectrometry
BOD	Biological Oxygen Demand
TDS	Total Dissolved Solids
Ca	Calcium
CaCO3	Calcium Carbonate
MgCO3	Magnesium Carbonate
EPA	Environmental Protection Agency