AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING

sewage disposal and ground water pollution

BY

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A THESIS

Submitted in Partial fulfillment for the requirements for the Degree of M.Sc. in Civil Engineering

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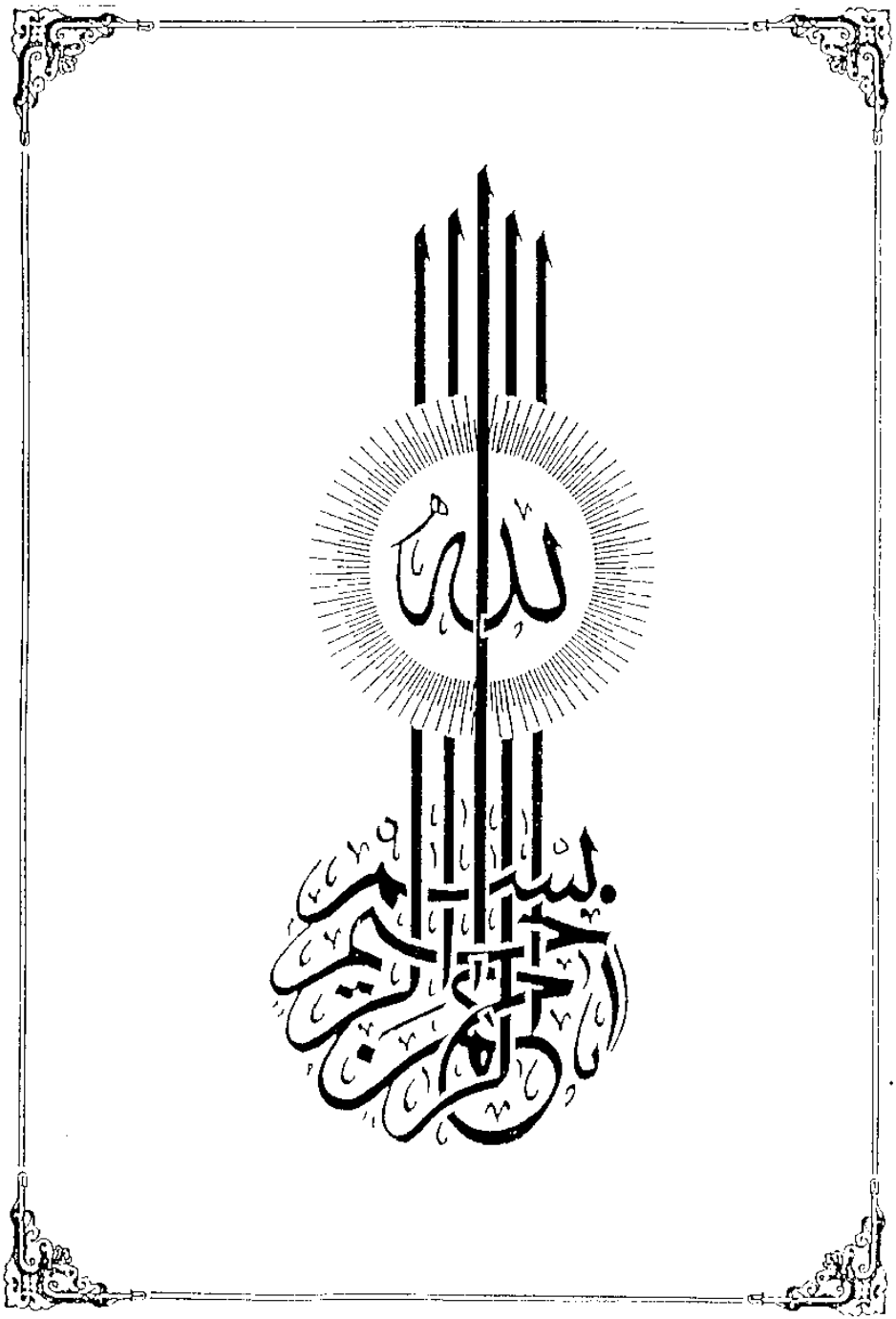

STATEMENT

This dissertaion is submitted to Ain Shams University for the degree of M.Sc. in civil Engineering.

The work included in this thesis was carried out by the author in the department of public works, Faculty of Engineering, Ain Shams University from April 1987 to May 1990.

No part of this thesis has been submitted for a degree of a qualification at any other University or institution.

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Abstract:

Groundwater offers the only real solution to the problem of the world's water supply and the quality of this valuable resource must be preserved.

As a result of various human activities, particulary those involving sewage disposal, the qualityof groundwater is being increasly threatened by the continuing and expanding release of both chemical and biologiacl pollutants.

On-site sanitation units inevitably impose a pollution hazard to grondwater resources. Their effluents infiltrate the groundwater beneath the latrine pit and sooner or later percolates to the water table.

The aim of this study has been to investigate the effect of sewage disposal, especially on-site facilities on the physical and chemical characteristics of the groundwater.
The water samples collected from the existing water supplies at the study area were analized

The results revealed that the water is polluted.
Accordingly the author recommend to designate protection zones of 50 ms in radius and the rural wells are the centre to protect them, within these zones all activities should be forbidden.
Also, the use of shallow handpumps near soakaways should be restricted.

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