



UNIVERSIDAD TÉCNICA PARTICULAR DE LOJA
La Universidad Católica de Loja

PROJECT: SOIL MECHANICS STUDY FOR FOUNDATION DESIGN OF THREE BUILDINGS AND TWO WATER RESERVOIRS OF 50 m³ OF CAPACITY. THE PROJECT IS LOCATED IN THE SAN FRANCISCO AREA IN MALACATOS (LOJA CITY, PROVINCE OF LOJA)

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Consultancy auxiliary: Ing. José Guartán

Laboratory auxiliary: José Montoya M, Guido Torres

Financing: Sr. Ira Stainer.

Beginning date: May 2005

Culmination date: June 2005

Approximate Cost: \$ 1626

Status: End.

SUMMARY

The present report has as objective the study of foundations for the design of three environmental houses.

For the realization of this project a preliminary visit was made with the Geotechnical personnel of the area to the project place to have an idea of the soil kind that appear in the project, like the following: soft floors, expansible floors, unstable floors, this allowed to decide the kind of test to carry out that will allow us to know the physical and mechanical properties of the soil. In order to know the physical and mechanical properties of the soil the next test were made:

To carry out the geotechnical studies, standard penetration test and collect of unaffected samples were made, to determine the soils resistance properties when cupped of and litologica classification of the kinds of soils.

A Geologic Mapping was also made in the zone were the project was carried out and also to the project area.

Calculus theories: For the soil admissible capacity calculus the Terzaghi theory was apply for general flaws.



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Photos #. 1 y 2 Panoramic picture of the Malacatos town



Photos #. 3 y 4 Underground waters drainage and calicata



Photos #. 5 y 6 Prospecting works