RELATIONSHIP OF DIAMETRICAL AND AXIAL METHODS OF TESTING FOR POINT LOAD INDEX OF ROCK

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TABLE OF CONTENTS

SYNOPSIS

The study is concerned with the use of the point load testing measurements to predict the point load strength. The estimated point load index, $Is(50)$ are found from the formula of size correction factor time the point load strength index, Is. While, the point load strength index, Is, been determined from the load applied at the diameter of the specimen.

The comparison of the two output, i.e Axial point load index, Isa and Diametral point load index, Isd. The point load test are carried out on the samples of malaysian rocks i.e. Sandstone and Granite.

The experimental data of point load index is related with the theories given by the researchers such as Brooch and Franklin, Bieniawski and etc.

CHAPTER 1.0

INTRODUCTION

1.1   GENERAL

All civil engineering works of necessity require a fore knowledge of the physical, mechanical and consequently, the mineralogical or rheological properties of earth materials. The geologist calls these materials 'rock' but the engineer them called 'soil' when soft and 'rock' when hard. To the engineer who builds on, in, and by means of rock, the term "rock" signifies firm and coherent or consolidated substances that cannot normally be excavated by manual methods alone. To him, rock is a material having manifold properties, like any other material.

A rock is a mixture of one or more different minerals. It has no definite chemical composition. Rock is an aggregate of fused or compressed discrete mineral particles.