

Ceramah Teknik (Technical Talk)

Saturday Morning Technical Talks Geology Department, University of Malaya 24 July 2004

Organisers

The Malaysian Site Investigators Association
Geological Society of Malaysia

Report

On Saturday, 24 July 2004, three interesting talks were organized jointly by the Malaysian Site Investigators Association (MSIA) and the Geological Society of Malaysia (GSM). It was held at the Department of Geology, University of Malaya. The purpose of the event is to bring together the experts and practitioners to share their knowledge and experience with others. The half-day event started at 9.00am and ended at 12.00pm.

The talks were delivered by three different speakers on three different topics. The first talk entitled *Introduction and discussion on surface and subsurface geophysical method* was delivered by Mr. Wong Ting Kun of Pacific Geoscience Sdn Bhd. The second talk on *Guidelines on site investigation for road projects* was delivered by Ir. Lee Eng Choy of Emas Kiara Sdn Bhd, and the last talk on *Preparation of engineering geological assessment report* was delivered by Mr. Ng Chak Ngon of Subsurface Engineering Sdn Bhd.

There were more than 60 people attending these talks. A lively discussion was followed after each talk. In view of the good participation and response, such event should be organised more frequent in the future.

Summary of the first talk: Introduction and discussion on surface and subsurface geophysical method

Mr. Wong started his talk by highlighting that geophysics has increasingly become an important method in site investigation in Malaysia. He mentioned that greater attention must be given to the accuracy of the interpretation and reporting of geophysical information in engineering terms. There are a few over-enthusiastic geophysicists, geologists and engineers who had oversold some geophysical methods.

The talk discussed the above issues by introducing the available surface and down-the-hole geophysical methods in the market and some guidances in the planning stage, such as what techniques to be use, the advantages, limitations and accuracy of the techniques, how much need to be done and productivity.

The talk also touched on issues related to end-users such as (i) expecting too much from geophysics alone, (ii) thinking they know more about the technique than they really do, and (iii) expecting inexperience personnel to produce meaningful results from inadequate equipment for too little money in too little time!!!.

Summary of the second talk: Guidelines on site investigation for road projects

The talk by Ir. Lee commenced with a brief introduction about site investigation and elaboration of the importance, and the basic purposes of site investigation for road projects. Work procedure and the common soil properties required for the common geotechnical design for road projects were explained with some case histories.

The focus of the talk was on the guidelines on how to plan the necessary scope of site investigation for the design of road embankment, cut slopes, road pavement and road structures. The guidelines also stressed on reference to typical geotechnical design criteria, typical geotechnical problems and methods or tests required to procure the relevant soil properties for the design. Termination criteria for boreholes and rock coring were also explained. Applications and limitations of various field tests and sampling techniques plus the interpretation of site investigation were also highlighted.

Summary of the third talk: Preparation of engineering geological assessment report

Mr. Ng started his talk by explaining the difference between “engineering geological report” and “geological report”. He illustrated the preparation of engineering geological report using several of his own case studies in Malaysia, such as projects in Kerteh, Kuala Lumpur, Kuala Selangor, etc.

Engineering geological report is basically a systematic application of known principles in the “observation, description, experimental investigation and theoretical explanation on natural phenomenon”. When a geological investigation is performed in accordance to known principles, fewer problems will arise during the investigation. Findings and conclusions are credible. Conditions are corrected for safe planning and design is developed with the least expenses. Careful forethought and consideration of various possible geological conditions at specific site, or a thorough evaluation of all the implications of apparent inconsistencies in data, is unfortunately lacking in many engineering geological assessment reports in this country.

The talk ended with a discussion on how the best possible engineering geology assessment report should be prepared in the Malaysia context.

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