Indonesia excavation and rock drill modification manual

Does rock mass influence the excavation method and tunnel support system?
The type and quality of the rock mass influence all aspectsof the tunnel excavation method and support system. Consequently,thorough research on the engineering geological characteristics of the rock mass is required. The purpose of this study is to propose an excavation strategy and tunnel support system for the Riam Kiwa Dam in Indonesia.

Can rock mass classification systems be used to determine excavation method?
This person is not on ResearchGate, or hasn't claimed this research yet. This paper presents the implementation of rock mass classification systems to determine the excavation method and the support design of the Spillway Tunnel, Sidan Dam, Bali, Indonesia.

Which excavation method was proposed by RMR and JSCE?
The top heading with benching(1-3 m advance in top heading) was the proposed excavation method by RMR and JSCE. Each classification system advised the combination of reinforced shotcrete and rock bolt for the primary tunnel support with varying shotcrete thickness (30-400 mm),rock bolt length (2.6-6 m),and rock bolt spacing (1-2.5 m).

Which excavation methods are recommended?
Meanwhile,according to the JSCE method,the recommended excavation techniques are the double bench methodfor the D I rock category and the full-face method with an auxiliary bench cut 2-4 m for the C II rock category,with the support systems rock bolt,shotcrete,steel ribs,and lining.

What is the best excavation technique for rukoh dam suppletion tunnel?
However, in the Detail Engineering Design of the Rukoh Dam Suppletion Tunnel, there was no study of the most optimal excavation technique in the construction phase. This study aimed to assess the efficiency of excavation capabilities based on engineering geology conditions.

How to determine the tunnel excavation method at a research site?
Determining the tunnel excavation method at the research site consisted of two fundamental parameters. The first parameter used the Rock Mass Rating(RMR) value as a reference in selecting excavation stages.

The rock mass quality of tunnel ground was determined on drill cores based on ground classification from the Japan Society of Civil Engineers (JSCE). The tunnel support ...

Abstract Rock drilling is widely used in various types of rock engineering. Rock boring is often used in tunneling, underground mining, and nuclear waste depository. This ...

Engineering geological characterisation of rock masses for design of excavation method and support system of Tanju Tunnel, West Nusa ...

Abstract. This paper presents the investigation of surface geology and subsurface engineering geology to analyze the excavation method and stand-up time of the DK99-DK100 Jakarta ...

16.1.1 Working Cycle of Excavation by D & B Drilling and blasting are the most common methods for tunneling and underground excavation. The process begins with holes of predetermined ...

Engineering rock mass classification Rock mass classification schemes have been developing for over 100 years since Ritter (1879) attempted to formalise an empirical approach to tunnel ...

The "Indian Railways onstruction Manual" is prepared by taking content of various letters, guidelines, codes & manuals. Purpose of this manual is to make the relevant information about ...

This paper presents engineering geological investigations for designs of excavation method and support system of a diversion tunnel at Bulango Ulu Dam, Indonesia. Evaluation ...

Empirical analyses of excavation method and tunnel support system based on engineering geology of Tunnel No.8 at Jakarta - Bandung high ...

This paper presents excavation methods and support systems in the diversion tunnel of the Mbay Dam, East Nusa Tenggara, Indonesia, based on ...

The block caving mining method has become increasingly popular in the last two decades. Meanwhile, Indonesia has several potential ore ...

These consist of in-stope development such as drill headings and slot raises, horizontal and vertical openings for personnel access to stope work places, and ore production and transport ...

Foreword The GCO Publication No. 1/90 - Review of Design Methods for Excavations was published in 1990. Although the review was written primarily as a reference document, upon ...

Rock Mass Rating (RMR) and Japan Society of Civil Engineers (JSCE) methods were compared to determine rock mass quality and recommend excavation and support systems.

Developed by one of the world"s leading authorities on drilling technology, the fifth edition of The Drilling Manual draws on industry expertise to provide the latest drilling ...

Results of the rock mass characterization for designs of the tunnel excavation method and support system are

described. The adopted excavation method and support system during the tunnel ...

Mining in areas of soft rock, fractured rock, rock containing clay requiring special treatment which will require more expensive costs. Therefore, all mining and processing costs need to be ...

The block caving mining method has become increasingly popular in the last two decades. Meanwhile, Indonesia has several potential ore bodies which have not yet ...

This paper presents the results of engineering geological investigations and determination of rock mass excavation methods in the main dam area of Matenggeng Dam. The study was carried ...

Empirical analyses of the excavating method and support system based on engineering geology of the Rukoh Dam Suppletion Tunnel, Pidie Regency, Aceh Province, ...

This guideline for road repair will provide road engineers with an easy and clear instruction on repairing various job code. With the pocket format will allow engineers to be able to carry ...

The answer to sustained drilling performance is having a drill with matched, integrated components. Both 50,000 lb./ 22 700 kg and 70,000 lb. / 31 800 kg versions of the T4W"s twin ...

grinding tool nnect one end of the air hose to the nipple provided at the main air line and the other end to the grinding tool . Place the bit to be grinded vertically in the groove in the ...

The type and quality of the rock mass influence all aspects of the tunnel excavation method and support system. Consequently, thorough research on the engineering geological ...

ACE sinker rock drill is a type of pneumatic drill designed for drilling holes in hard rock and mineral formations. It is commonly used in mining, tunneling, and construction applications ...

Abstract. The Meninting Dam under construction on Lombok Island, West Nusa Tenggara, Indonesia, requires a good planning to build a diversion tunnel to support its development and ...

In addition to drill core evaluation, surface engineering geological mapping was carried out to obtain complete parameters of Rock Mass Rating ...

Introduction The specialty geotechnical construction processes of grouting, anchoring, micropiling, soil nailing, and ground freezing all require the drilling of holes through overburden and/or ...

This paper presents the implementation of rock mass classification systems to determine the excavation method and the support design of the ...

Tunnel excavation is mainly controlled by the strength of intact rock, continuity condition, RQD value, RMR, and GSI value (Dagdelenler, 2021). Therefore, rock mass quality and ...

Penanganan pekerjaan meliputi preservasi atau pemeliharaan dan pembangunan atau peningkatan kapasitas kinerja bidang pekerjaan umum, yaitu pada sektor Sumber Daya Air, ...

The excavation of the egress drift through unidentified pillar conditions and below load static cave material requires more investigation to achieve a suitable project outcome. Borehole camera ...

LHD MACHINES In conventional drilling and blasting underground excavation projects, fast and effective work phases are essential. Drilling, charging, face ...

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