Lishui rock drill parameter query

Do we know the source rocks in the Lishui SAG?
However,the knowledge of source rocks is limited to a few locations of previous drillings. Therefore,we proposed integrating borehole (sedimentary facies) and seismic data to determine the location and thickness of the source rocks in the Lishui Sag,China.

What parameters should be analysed for rock drilling tests?
For most investigations of rock drilling tests,two critical parameters of drilling responses should be analysed,including the thrust force and torque.

How to determine the input parameters of the rock drilling model?
The conventional rock mechanics tests(UCS test,BTS test and triaxial compression test) were conducted to obtain the input parameters of the rock drilling model,listed in Table 1. The establishment of the rock drilling model and the validation of the numerical simulations in terms of mechanical responses and failure modes

What are the characteristic parameters of rock drilling responses?
The average thrust force and torquewere selected as characteristic parameters of rock drilling responses in this study for validation purposes. Then,the numerical simulation was performed for three types of rocks,and the results were compared with the experimental data.

What are drilling parameters?
Drilling parameters play a large role in helping drillers achieve superior drilling performance and long equipment life. They are basic recommendationsthat help guide a driller avoid burning core bits or damaging other drilling equipment,and help achieve a good rate of penetration and core recovery.

What is the relationship between drilling parameters and rock strength?
A mathematical model was developed through multiple regression analysis to establish a relationship between the drilling parameters and rock strength, based on the results obtained from the sensitivity analysis. The validity of the model was assessed by conducting the F-test and t -test, which are associated with the overall regression model.

Abstract During the drilling process, rock mechanics parameters (RMP) are an important basis for optimizing drilling fluid density, drill bit selection, and wellbore stability. ...

This finding enhances understanding of the drilling parameters and rock mechanical properties, which helps upgrading drilling monitoring test to a standard ...

The characterization of weathered rocks by the use of drilling parameters is presented. Drilling parameters obtained from the drilling process monitoring system during the installation of soil ...

Therefore, we proposed integrating borehole (sedimentary facies) and seismic data to determine the location and thickness of the source rocks in the Lishui Sag, China.

This paper offers a comprehensive review of the current methodologies for estimating rock parameters derived from drilling tests, encompassing experimental, analytical, ...

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In this regard, using 299 groups of drilling parameters collected automatically using intelligent drill jumbos in tunnels for the ...

Title : Use of Drilling Parameters for Enhancing Geotechnical Site Investigations with Applications to Rock Assessment Creator (s) : Benoit, Jean;Souza, Bruma;Regan, John; Corporate Creator ...

2.3 Work Index Reservoir Evaluation For deep and intraburied-hill reservoirs, the drilling time and sigma index shown by mud logging can reflect rock drill ability. However, for the development ...

These recommendations can guide you with a starting point for your parameters. The recommendations will provide a range, from low to high, and it is recommended that you start ...

The results indicate that the developed models can be directly applied to real-time analysis of rock strength characteristics and cuttability based on drilling, tunneling, and mining parameters, ...

The thickness of source rocks in the Lishui Sag near well W2 is the thickest, reaching 500 m. By comparing the other studies, we believe that the combination of geophysics with sedimentary ...

Intelligent Identification Method of Surrounding Rock Grades of Tunnel Face Based on Drilling Parameters (1. Guizhou Road & Bridge Group Co., Ltd., Guiyang 550000;2.

Relationships between drilling parameters of weight on bit, rotary speed, tooth and bearing wear, hydraulic power, and rate of penetration (ROP) as well as drilling bit wear are ...

Fundamental rock-drilling studies are aimed at optimizing the drilling efficiency by identifying the optimal drilling conditions and rock drillability. In this study, a field-drilling test is ...

Some Lishui controllers are offered in a bundle with a suitable bottom bracket torquesensor. The torque signal is connected to the AD1-Pin on the PCB in this case.

The Lishui Sag, located in the East China Sea shelf basin, is one of the most promising offshore oil and gas

exploration areas in China. Drillings in recent years have yielded unsatisfactory ...

Estimating rock strength parameters using operational drilling data can be a fast and reliable method. In this case, several researchers have proposed different analytical models ...

The Lishui Sag, located in the East China Sea shelf basin, is one of the most promising offshore oil and gas exploration areas in China. Drillings in recent ...

Through improvements in the drilling process monitoring (DPM) system, it was possible to quickly, efficiently, and quantitatively obtain the drilling parameters during rock ...

The rock drilling experiments were conducted at least three times for each type of rock sample, and the final results are presented in Table 2 as the average values of the drilling ...

Integrated method for calculating source rock thickness using drilling and seismic reflection: A case study of the Lishui Sag, China

Therefore, we proposed integrating borehole (sedimentary facies) and seismic data to determine the location and thickness of the source rocks in the Lishui Sag, China. The ...

Oil and gas exploration and extraction are complex processes that require careful consideration of various drilling parameters. These parameters play a crucial role in ...

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??,Acta Geophysica?????????"Integrated method for calculating source rock thickness using drilling and seismic reflection: A case study of the Lishui Sag, ...

The characterization of the mechanical parameters of rock mass is a basic problem in the field of rock mechanics, and it is also an important basis for surrounding rock ...

Highlights: A digital-controlled equipment for rock drilling was developed. Equations were derived for extracting rock parameters through the drilling data. A deep learning method was ...

In this paper, the drilling parameters (ROP, WOB, rotational speed, bit torque, pump pressure, pump volume) of Jinchuan Scientific Drill are used to identify rock types through a ...

In this regard, using 299 groups of drilling parameters collected automatically using intelligent drill jumbos in tunnels for the Zhengzhou-Wanzhou high-speed railway in China, an ...

Publications (8) Integrated method for calculating source rock thickness using drilling and seismic reflection: A case study of the Lishui Sag, China Article ...

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