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Mining

Determination of Methane Content at Mao Khe Coal Mine from Current Mining to -450 Level in Vietnam

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abstract

Methane gas is one of the most serious dangers of underground coal mining as its buildup can lead to methane gas explosion. In Quang Ninh province- Vietnam, several coal mines such as Trang Khe II-III coal mine, Khe Cham coal mine, especially Mao Khe mine that have high methane content. At the Mao Khe coal mine, experimental data showed that the concentration of methane in coal seams at different depths were not similar. In order to ensure safety, this report has been undertaken to determine a pattern of changing methane contents of coal seams at different exploitation depths in Mao Khe underground coal mine.

Keywords: methane, Mao Khe coal mine



Assessing the Current Status of Underground Mine Ventilation System in Thanh Cong-Cao Thang Area, Hon Gai Coal Company, Quang Ninh Region, Vietnam

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abstract

In underground mine ventilation, there are many causes affecting the efficiency of mine ventilation, even affecting mine safety. In order to have an effective mine ventilation system, the research and evaluation of mine ventilation, in order to get timely solutions to improve the efficiency of mine ventilation, is essential and must be done regularly.

Thanh Cong - Cao Thang coal mine area of Hon Gai Coal Company, Quang Ninh region, Vietnam is a mine exploited underground. The nature of this mine is the consolidation (connecting) of Thanh Cong areas and CaoThang areas in the period of 2016. After consolidation into Thanh Cong - Cao Thang mine, many factors in the mine ventilation system of The mine site is altered and affects the efficiency of mine ventilation. This article has analyzed and evaluated the current status of Thanh Cong - Cao Thang Area Ventilation System to help research and select appropriate solutions to promptly improve the efficiency of mine ventilation and ensure security, ensure a safe environment and reduce the cost of mine ventilation.

Keywords: mine ventilation, working mode of air fan, main air fan, Thanh Cong-Cao Thang area



Solution for Reduce Air Temperature in the 7.3.1. Longwall of Halam Coal Mine, Vietnam

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abstract

Ha Lam coal mine is located in Ha Long city, Quang Ninh province, Vietnam. Currently the mine is exploiting up to -300 and is the deepest mine in Vietnam. During the mining process, market 7.3.1 measured the temperature in the longwall reached 330C, so it exceeded the Vietnam National Standard of 3.50C. That means the longwall will have to stop production. The analyzed article identifies the cause of the temperature rise in the longwall and offers solutions to reduce the temperature in the longwall so that the oven can operate normally.

Keywords: Ha Lam coal mine, Longwall, temperature



Forecast of Coal Seam Methane Escape when Exploiting at Khe Cham 1 Coal Mine in Vietnam

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abstract

Khe Cham 1 Coal Mine is located in Cam Pha City, Quang Ninh Province, which is ranked 3rd in methane according to the regulations of the Ministry of Industry and Trade of Vietnam. The third rated mine of methane is rated to have a high degree of danger when exploited. Therefore, before conducting the longwall operation, it is necessary to calculate the amount of methane released from the coal seam, to have a basis to calculate the appropriate clean air flow to dilute methane. On the other hand, it is also the basis for selecting solutions to ensure safety about gas methane when exploiting. The paper has calculated the concentration of methane gas emitted from coal seam 11 in Khe Cham 1 Coal Mine based on the coal seam methane storage capacity and the mining technology of the longwall designed.

Keywords: methane, Khe Cham 1

