

# Coal handling quality from pits to stockpiles to market specifications

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**Abstract.** In the coal trade, coal quality becomes the main thing that must be consider. The quality of coal that is not following the specifications desired by consumers causes coal prices below. Parameters of coal quality consist of calorific value, water content, an ash content of flying substances, and sulfur content. The quality of this coal will always recheck with every change of place. Before coal is sold, it is better to monitor the quality of the coal starting from the pit. At the coal quality monitoring location, there are four seams, including seam A1, seam A2, seam B and seam C. Monitoring of coal quality is carried out at seam C to be mined. Monitoring of coal quality from the pit to the stockpile is done by taking representative samples from drilling, mining, and stockpile activities. Then the samples were analysed by proximate analysis. Drilling samples was taken by coring sampling from eight drill points. Sample from the pit are taken by channel sampling method, in the mining pit sample are divided into three parts, namely the upper part (coal with 10 cm thick clay insert, called layer 1), the second middle part (coal with 20 cm thick clay insert, called layer 2 ) and the bottom three (coal without clay insertion, called layer 3). The purpose of the division is carried out as a handling coal from being mixed into three parts. Samples from the stockpiles are taken by grab sampling method from three stockpiles originating from layer one, layer two, and layer three. For layer one coal, the difference in ash content in pits and stockpiles is 1.6%, the difference in total sulfur content in pits and stockpiles is 0.7%. For layer two coal, the difference in ash content in pits and stockpiles is 1.5%; the difference in total sulfur content in pits and stockpiles is 0.7%. In layer three. The difference in ash content in pits and stockpiles is 1.5%, the difference in total sulfur content in pits and stockpiles is 0.7%.

## 1. Introduction

In the coal trade, coal quality becomes the main thing that must be considered. The quality of coal that not given with the specifications desired by consumers causes coal prices to below. The main parameters of coal quality include calorie value, water content, the ash content, mineral matter content, and sulfur content [1]. The quality of this coal will always be checking with every coal move. Before coal is sold, it is better to monitor the quality of the coal starting from the pit. This monitoring activity aims to monitor changes in coal quality, from drilling, pits to stockpiles. Monitoring was carried out so that the coal reaches the hands of consumers following with the desired coal specifications [2].

## 2. Methodology research

The methodology for monitoring coal quality is carried out in 3 stages:

- Sampling from coring to determine the initial quality of coal.

