# ASSESSMENT OF QUALITY OBJECTIVES OF CAVED BENCH MINING METHODS

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#### ABSTRACT

The research has as main goal to assess the effects of the dynamic of basic qualitative parameters of mining products exploited, in the context of alteration of quantitative weight for the mining methods employed, consequently to the increasing scale operation with the use of caved bench mining method MEBS.

## GENERAL CONSIDERATION

In order to approach, even synthetically, we consider useful to remind that the survival of an enterprise highly depends of his client's existence; to be able to maintain a client, it is required constantly to meet his more and more complex, evolutionary and exacting needs. Consequently, the industrial unit should constantly be in progress, being supported on the contribution of his personnel members from the quality department.

The quality management process consists in applying all the statistic principles and techniques in all the stages: design, production, operation and maintenance, in order to economically satisfy the demands.

To elaborate the quality characteristics for a product it will be employed the concept of optimization, meaning satisfaction both of client's and supplier's needs, with minimal cost prices.

MEBS – represents a process – "a systematic serie of actions directed towards reaching the coal exploitation from the deposit". The term "process" includes both the human factor and the equipment's and the environment, he accomplishes also the following criteria:

- *he is systematic:* the activities within the process are interconnected in a unique concept;

- *he detainees capability*: the final result of quality plans is a process which is able to reach the objectives concerning quality in given existing operating conditions;

- *is legitimate*: the process is developed through authorized paths; he will be approved by those to whom the assigned responsibilities were commissioned.

The quality objectives are issued from number of client's requirements and from the variable characteristics of mined out coal output and selected mine technologies.

Most of the quality objectives were established at bottom and mean levels of the hierarchy. Objectives are assesses very often on technological basis, expressed mainly by the ash content / qualitative parameter to be monitored by quality responsible and by workers.

The relationship between quality and selling a product are for the date, not enough understood, but the research work carried out are emphasising a direct connection between quality and benefits. The most efficient valorisation way for the mined out coal outputs, as far as the maximal cash is concerned, is not yet approached in his whole complexity.

To prioritise quality, it must be taken into account whit maximal weight when estimating the managing skills and performances whit now are having as first goals. Overall physical mined out output and working efficiency in physical units.

### ESTIMATING THE CAPABILITY OF THE CAVED BENCH MINING METHOD

The studied the mining method belongs to a group of new tehnologies applied in the collieries from Valea Jiului coal basin, so it is a process containing some characteristics over taken from former processes / for whom operational knowledge exist and certain characteristics not completed by practical experience. In the sometime, the mining method be considered as a critical process, presenting some specific occupational safety and environmental problems, but also the risk of loosing important amounts of money as a consequence of the lower process capability.

The caved bench mining methods are designed to provide an average output of 1500 t exploited coal in every working face.

The processes excessively variable are not able to complete their objectives regarding the quality.

While the method has as main goal the reaching objectives of efficiency and reaching the proposed outputs per working face, we are foreseeing that miners will deliberately ignore the quality checking in the tehnological processes.

The capacity of the process to active quality products has two aspects