

INVESTIGATIVE STUDIES ON THE EXPLOSIVES CHARACTERISTICS OF LOXITE EXPLOSIVES

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1. INTRODUCTION

Liquid oxygen explosives have been used in India for well over 5 decades now. These are being extensively used both for shallow and deep hole blasting in the various opencast mines and quarries for mining of coal, limestone, ironore, bauxite, magnesite etc. IOL Ltd., are the pioneers in the introduction of these explosives in India and are marketing these under the brand name 'LOXITE'.

Loxite Explosives are manufactured Just a few hours before the commencement of the blasting operations at an approved site having the requisite safety distance at the Pit Head by soaking dry cellulosic Loxite cartridges in liquid oxygen in specially constructed insulated soaking vessels which are mounted on trucks.

Since both the dry Loxite cartridges and liquid oxygen are non explosive in character, the explosives properties of Loxite explosives are developed only after the dry cellulosic cartridges have absorbed liquid oxygen and, that too, it remains explosives only so long as it contains sufficient oxygen to produce combustion. These properties relate to soaking, retentivity, explosive, detonating and sensitivity characteristic.. The object of this Paper is to examine some aspects of the explosives characteristics of Loxite as developed in India.