

THE UNDERWATER EVALUATION OF THE PERFORMANCE OF BULK COMMERCIAL EXPLOSIVES

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ABSTRACT

An explosives underwater test facility has been established and commissioned in the Hunter Valley, New South Wales, Australia which allows the measurement of the actual shock and gas energies of the explosive.-During the studies it is also possible to determine the influence of factors such as :

- charge diameter
- degree of confinement
- loading density
- product contamination
- product age
- product homogeneity

on the overall performance of the explosive. Equipment has been developed to allow the rapid measurement and calculation of explosive strength data.

This paper will discuss the philosophy behind underwater testing, setting up the pond for the tests and some of the results of the pond testing of a range of explosive types.-In addition the implications this facility has in terms of product performance and development will also be discussed.