

BLAST LOAD EFFECTS RESEARCH IN DRY AND WET SOIL

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Abstract

The Scientifically Instrumented Impulse Measurement Apparatus (SIIMA) was developed to measure the total imparted impulse due to explosive loading. The instrument was designed to be used to compare the effects of variables on the resulting impulse measured. One such variable is the soil moisture content when considering buried charges. Tests were conducted on 8 kg charges buried in both wet and dry soils at three different Stand-Off Distances (SOD). The measured impulse was consistently higher for the charges buried in wet soil. This difference is more significant at lower SODs.