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The shock and release properties of dry and wetted silica sands JAMES PERRY, CHRISTOPHER BRAITHWAITE, NICHOLAS TAYLOR, AN-DREW JARDINE, University of Cambridge — While the shock response of dry sand has been studied at length, the Hugoniots for partially and fully wetted silicaceous granular materials are less well understood. Here, we present an extensive experimental plate impact investigation for a well characterized silica sand under dry, moist and water-saturated conditions. Particular attention is paid to cell design and sample preparation. Furthermore, we have applied our technique for measuring both shock Hugoniot and release to vacuum for granular materials, as presented previously, to the wetted systems studied.

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