



## **Drilling parameters: precious datasets to analyse drilling situation and in-situ rock physics**

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Drilling parameters are useful datasets to understand in-situ physical property of the rock. We here present some results from drilling experiments in Japan, where we have acquired a number of surface drilling dataset together with continuous cores. Methods such as Specific Energy (SE) and Equivalent Strength (EST) have been employed to analyse drilling processes and physical characteristics of the rock. We also conducted core scratching experiments that allowed good correlation and validation of the calculated SE with the measured unconfined compressive strength (UCS). Although many factors such as lithology, bit type and the bottom hole assembly (BHA) configuration impact on the drilling datasets, our field examples illustrate that the calculated SE and EST can be used to identify drilling and in-situ rock situations.