

Drill Cuttings – An Under-utilized Resource, Advanced Applications and Trends

ABSTRACT

This is a 3-part presentation demonstrating some current applications and issues, which utilize drill cuttings.

Digital Image Analysis of Cuttings and Core

Martin Trobec

Trobec Geology Group

Quantitative reservoir characterization of cuttings and core rock samples through the use of digital imaging. Methods include grain size analysis, grain roundness, grain sorting, grain sphericity, clay volume, pore diameter, and porosity. Data output from the digital imaging processes are correlated to wireline log data and core analysis data for prediction of lithofacies and permeability. A grain size viewer program will be demonstrated showing grain size histograms and grain size classification images of zones with multiple depth samples.

Core Conference attendees may bring their own sample of drill cuttings or core for an on-site analysis.

The Use of Drill Cuttings for Identification of Conglomerate Types

Elin Holvik

Prairie River Petroleum Ltd.

Using the binocular microscope to visually estimate percentages of Conglomerate/Sandstone ratios can help identify Conglomerate types where core is not available. Conglomerate types include Unimodal, Pebble Supported Conglomerate with low sand matrix, Pebble Supported Conglomerate with high Sand matrix, Sand Supported Conglomerate and Pebbly Sandstone. The display will include examples of these conglomerate types in the form of Sample descriptions and corresponding cuttings for viewing.

CSPG Core and Sample Division, Recent Activities

Doug Hayden, Don Yager and John Clow

The Core and Sample Division was formed in the fall of 2000. The focus of this group is in the collection, storage and utilization of core and drill cuttings in Canada. We will present some of the main issues that the group has dealt with including: The toxicity and handling of "invert" drill cuttings by well site Geologists, The AEUB regulation change to the submission of "vialed" (vs. "bagged") drill cuttings, the consideration of the future construction or acquisition of an Alberta core repository for heavy oil cores, and the groups guideline paper for properly washing drill cuttings.