Computed Tomography (CT) Scanner

Providing precise images of core samples

Trican Geological Solutions, formerly CBM Solutions Ltd., provides expert unconventional reservoir evaluation from rock basins around the globe, and is proud to add to their technology portfolio a Computed Tomography (CT) Scanner.

Computed Tomography scanning provides a method of capturing high-resolution representations of the internal structures of a sample. Scanning can be carried out on bare or encased (aluminium or plastic tubes) samples in their original state with minimal needs for preparation. Computed tomography images enable three-dimensional visualization and quantification of pores, fluids (oil and gas) and fractures. With a clear image of the internal structures/textures of samples in their original state, our expert team is able to better characterize rock properties and select locations for further rock mechanics analysis (RMA).
CT Scanner applications include:

- Defining sample density, pore-spaces (porosity) and mineralogical alterations in conjunction with results from other analytical procedures
- Imaging of fractures planes, vugs and internal structures
- Before and after imaging of RMA samples to assess mechanical deformation effects
- Correlating core with well logs
- Performs time-series measurements to provide real-time monitoring of fluid flow and interaction of fluids with rock matrix materials for reservoir modelling
- Performs tracer and multi-phase flow experiments for the characterization of fluids and porous media
- Aids in carbon sequestration studies, in which absorption or adsorption of CO₂ in core samples from proposed geologic formations for CO₂ storage can be quantitatively and qualitatively determined from analysis of CT data before and after injection of CO₂ into samples

Advantages

- Non-destructive imaging technique
- Visualization of internal structures in three-dimensions
- Representation of heterogeneities and in-situ fluid distribution
- Minimal sample preparation

For more information, please contact Trican Geological Solutions.