



# CLEANPROTECH LABORATORY SERVICES

## ULTIMATE FLOTATION TEST

The UFT provides the closest results to the theoretical flotation response curve, allowing our clients to more accurately analyse resource potential. Standard tests can drastically underestimate the amount of recoverable coal.

## JAMESON CELL TESTING

CleanProTech offers Jameson Cell testing on either a laboratory or pilot scale being able to handle sample sizes from 100 g to 175 kg.

## STANDARD TREE FLOTATION

We can provide standard tree flotation testing if required, although CleanProTech highly recommends using the UFT to truly understand the potential of your resource.

## ANALYTICAL TESTING

CPT also provides commonly used laboratory services such as ash and moisture determination, sizing, drying and dewatering of samples, settling tests, and many types of customised flotation services.

From reagent testing to replication of a full scale flotation installation, contact Clean Process Technologies for all your laboratory requirements.

## STANDARD SIZING

CPT offer particle sizing using standard techniques ranging from over 20 mm down to 20  $\mu\text{m}$  (0.02 mm)

## 'MICRON' SIZING

CleanProTech are proud to provide ultrafine particle sizing at 20, 10, 5, 3 and 2  $\mu\text{m}$ . This allows the finest fraction ( $\sim 38 \mu\text{m}$ ) to be split down further for in-depth analysis. As we use a physical separation process, the entire size fraction remains which then can be further analysed in the laboratory.

## PARTICLE DENSITY (SOMETIMES CALLED RELATIVE DENSITY)

A newly developed technique by CPT allows the average particle density of a sample to be obtained using the entire sample mass. As the whole sample is used in this test, this removes errors introduced by subdivision which can be present in the standard test, which only takes a 2 g sub sample for analysis. Mass Yield by particle density can be used as an alternative to ash value due to the issues associated with the standard ash analysis.

## SOLIDS CONCENTRATION

Solids concentration can be determined on either a mass or volumetric basis. Newly developed techniques allow CPT to very accurately determine solids concentration by volume which currently has no standard and is often done poorly. Often, a mass basis is converted to a volumetric basis by simply multiplying by an estimated particle density. For most test work this is not acceptable and should be performed correctly.

## SAMPLE PREPARATION

When a sample is processed by CPT, you can be assured no further bias is being introduced in sample preparation and/or sub sampling. We use mechanically correct sample splitting devices and preparation techniques to ensure the sample being analysed is representative of the entire sample we receive. Enormous errors can be introduced if these sub sampling apparatus and techniques are performed incorrectly. All devices used for sub sampling conform to Australian Standards unlike many laboratories who use apparatus labelled 'incorrect' by the Australian Standards.

