

Dalrymple Bay Controls Dust With LFM Moisture Analyser

LFM

Moisture Analyser

The Dalrymple Bay Coal Terminal (DBCT) in Queensland, Australia has invested in two LFM Moisture Analysers from Intalysis to improve their coal handling and dust suppression activities.

“Intalysis’ LFMs were installed as part of an overall environmental strategy. They provide us with real-time measurements of coal moisture levels which we can use to control and optimise our water addition.”

Mr Doug Mitchell
Electrical Supervisor,
Babcock & Brown Infrastructure



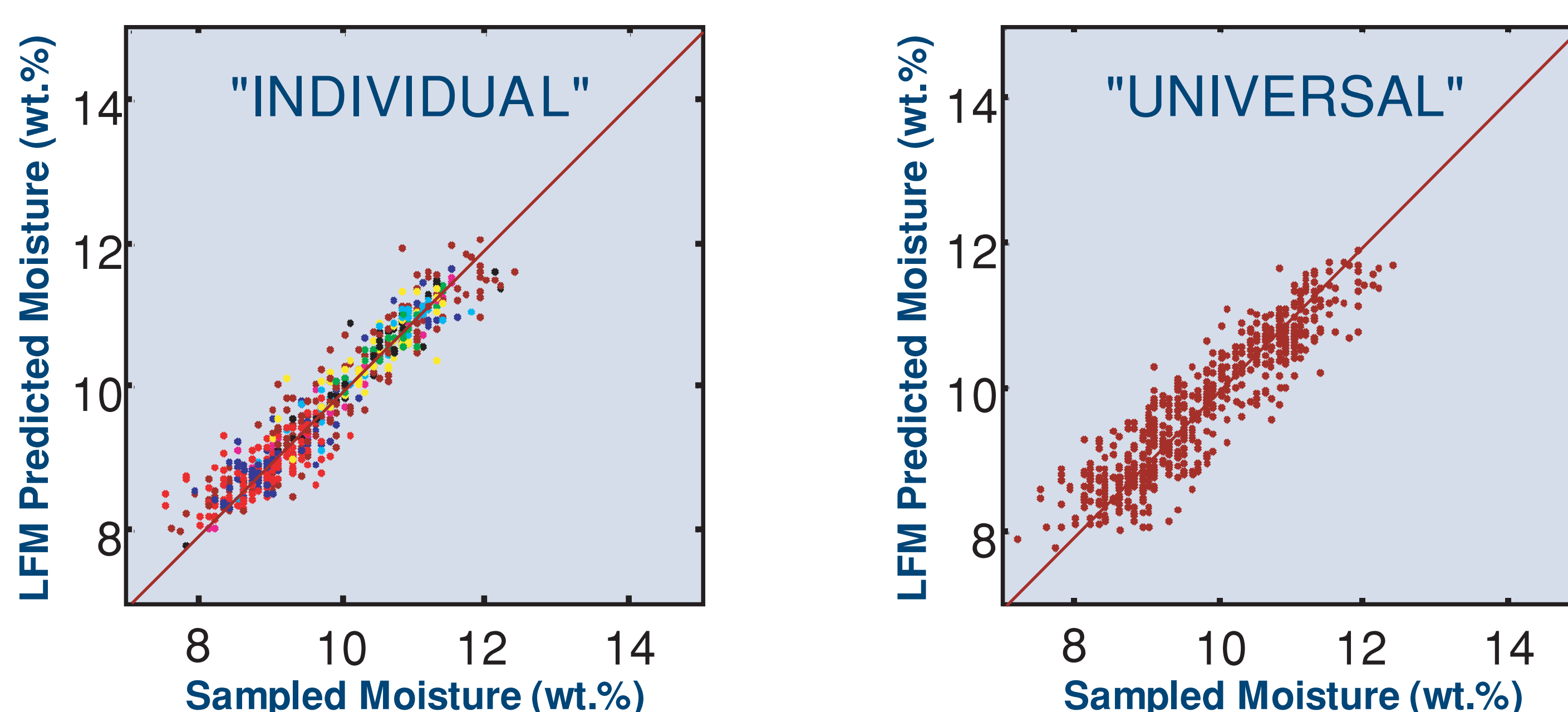
Dalrymple Bay is Queensland’s largest export coal terminal and one of the largest in the world

DBCT installed two LFM Moisture Analysers to provide real-time moisture readings of unloaded coal on plant conveyors. The Analysers were calibrated against extensive ISO sampling, with calibrations obtained for 29 different coal types.

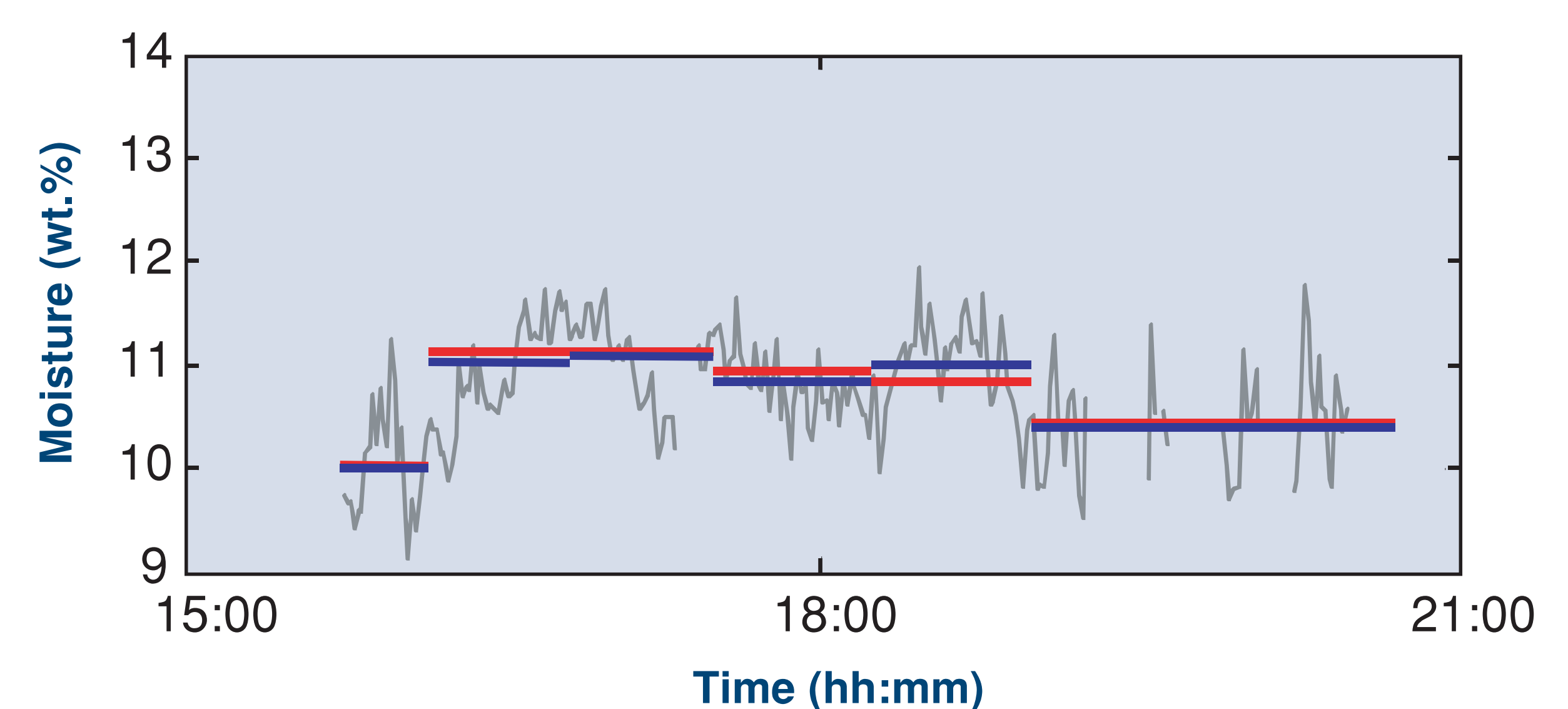
The LFM Moisture Analysers delivered typical accuracies of between 0.2-0.4%, (one standard

deviation) across the coal types. Measurements were achieved at the highest tonnage rates (up to 9000Tph) and auto-switching of calibration curves via a plant interface was effectively demonstrated.

Following a successful commissioning period, DBCT plans to use the LFM Moisture Analysers in control loops for automated water addition.



Graphs showing relationship between predicted and sample moisture, for a large subset of all coal types analysed. The left graph shows the relation between predicted and sample moisture for individual coal types and calibrations, each colour coded, overlaid on the same graph. The graph on the right shows the same data, analysed using a single “universal” calibration curve. Even in this case accuracy is 0.41wt% (1 std deviation).



Graph showing LFM moisture output over time (grey trace). The red bars indicate values of ISO sampling data (extent shows the integration period for the sample). Blue bars show corresponding tonnage-weighted LFM values.