

Magang Steel

Application of **Moist//scan**® MA-500HD on sinter product.

8th June 2006

Introduction

A Moistscan MA-500HD was installed at Magang Steel on the sinter mixture prior to pelletising. Moisture is attempted to be controlled at 6.4% for this site, however the moisture fluctuates with the raw ingredients hence the correct quantity of moisture to be added is always a difficult task when no on-line moisture techniques have been proven successful. Magang Steel has tried unsuccessfully in applying both conductive and NIR analysers.

The picture below shows the Moistscan MA-500HD installed at Magang Steel.

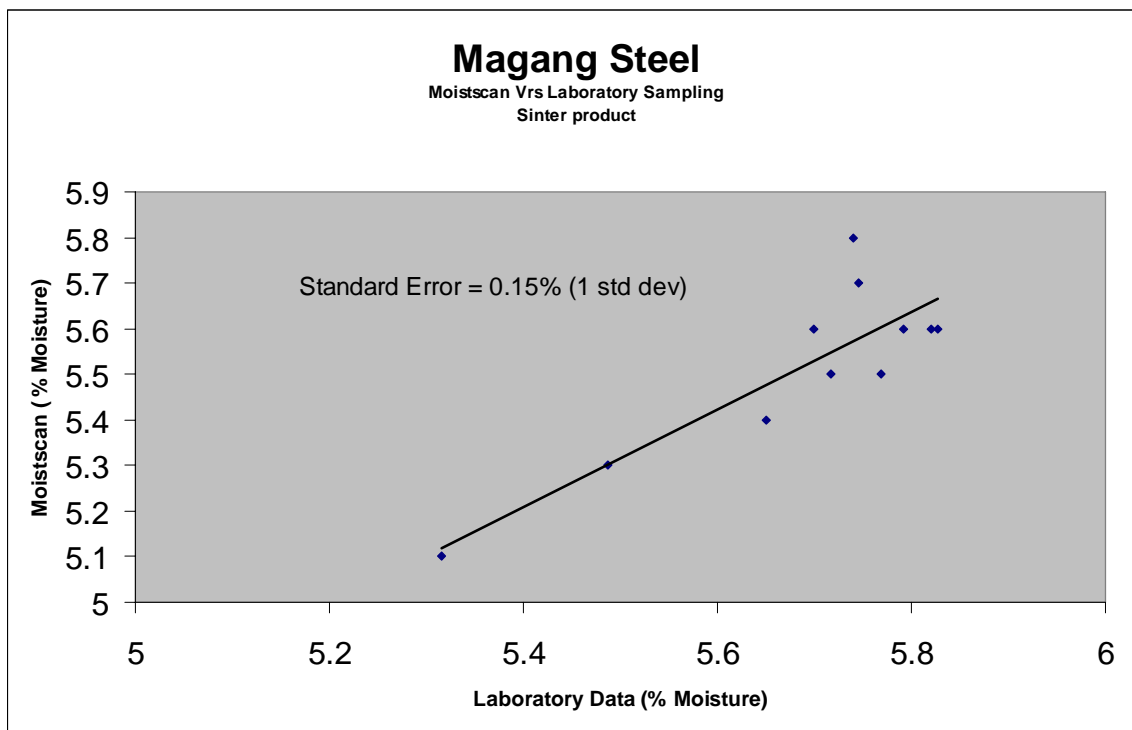


Moistscan MA-500HD (Series 2)



Results

During the verification of the Moistscan MA-500HD a number of samples were taken and compared with the laboratory. The laboratory result was obtained by taking a single scoop from the top of a moving conveyor.

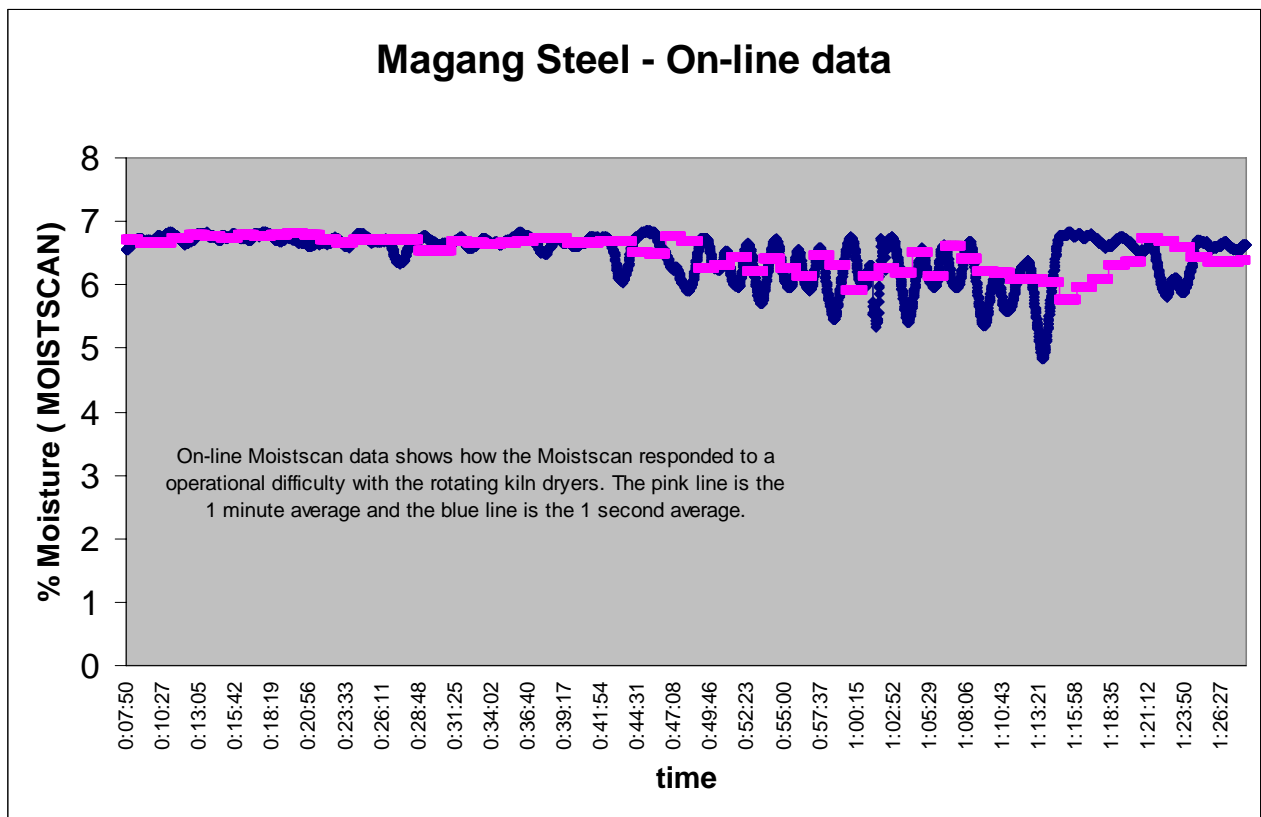


The verification of the Moistscan MA-500HD determined that the accuracy of the analyser was approximately 0.15% (1 std dev).



On-Line performance

Once the Moistscan was calibrated, data was logged and recorded to examine the dynamic “on-line” response of the analyser. During the logging of data the rotational drying kiln immediately before the analyser experienced problems which caused the product to be “over dried”.



The analyser displayed this occurrence very well and highlighted to the Magang personnel that the analyser could successfully alert the operators to problems in their process.