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May 12, 2014

**RE: Particulate Matter less than 90% uptime at Cold Lake South monitoring station
Reference #283348**

On April 16, 2014, problems were encountered while attempting to calibrate the NOx analyzer in the Cold Lake South station. The problem was eventually traced to a mis-connected sample line between the sample manifold and the analyzer's sample inlet. As a result of this error, the analyzer would have been drawing sample air from the interior of the trailer rather than the exterior. Based on a review of the data gathered during this period, and in the absence of any contradictory evidence, it must be presumed that this error occurred at the completion of the preceding calibration (March 13, 2014).

As a result of this, operational uptime for the NOx parameters in March was only 40.7% (441 hours invalidated). The Reference number for this incident is 283348 (a separate incident number will be obtained for April once those data are reported.)

LICA's investigation of this issue showed that our standard procedures were followed correctly (i.e. following the completion of the calibration activities, reconnection of the analyzer to the sample manifold was actively checked). However, at this station: (1) an additional (spare) sample line was installed and (2) sample filters are not immediately adjacent to the analyzers. This resulted in one end of one sample line being connected to the sample manifold while the other end of another (spare) sample line was connected to the analyzer. As the sample lines are contained within a conduit, this would not have been apparent during final checks.

LICA has already removed the spare sample line to prevent the reoccurrence of this exact error. LICA also intends to make minor changes to the layout of the Cold Lake South station to more closely match other stations in the LICA network. This will reduce the likelihood that a similar event can occur.

Should you have any questions, please don't hesitate to contact me.

Respectfully,

A handwritten signature in blue ink that reads "Michael Bisaga".

Michael Bisaga

Manager, Environmental Monitoring Programs
Lakeland Industry and Community Association

cc (email): LICA Office

ESRD reference – 283348