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QUARTERLY REPORT – PUBLIC PAGE

Development of Dual Field MFL Inspection Technology to Detect Mechanical Damage

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Technical Status

Pull Tests:

Pull tests of the dual field tool were performed in two pipe sections. One of the pipe sections was provided by Enbridge and had a natural dent in it, while the other pipe section was dented by Battelle according to a supplied layout. Pull tests were performed at speeds of 0.5 m/s, 1 m/s and 1.8 m/s; the pull test setup and feature layout are described in a previous report.

For these pull tests, the low and high field levels measured as the tool travelled through the Enbridge supplied section of pipe were within the specifications provided by Battelle of 4-5.6 kA/m and 11.1-14.3 kA/m. The low field level recorded as the tool passed through the section of pipe supplied by Enbridge was at the upper end, but within the 4-5.6 kA/m range.

The pull tests have been completed and the tool has been shipped to North America from Germany in preparation for the first dual field inspection.

Software and Algorithm Development:

There is no change to the scaling algorithm from the status described in the previous quarterly report.

Work continues on the signal search algorithm and classification algorithms based on the current data from the pull tests described above. After discussions with Battelle it was determined that the values of the amplitudes used in defect classification decision points may need to be modified based on final pull test and inspection results; this needs to be further explored.

Schedule

The first inspection using the dual field tool is currently scheduled for May 12th, 2008.

Issues, Problems or Challenges

Evaluation of search, and defect classification algorithms based on pull test data revealed the need for possible Battelle search and classification algorithm modification. Additionally the methods that will be used for verification of the inspection results need to be discussed with Battelle, PRCI and Enbridge to ensure they will provide valuable information for this project.

Plans for Future Activity

The dual field inspection is currently scheduled to take place on May 12th.