



## **PHASED ARRAY AREA SCANNING OF SCC COLONIES**

**Ginzel Robert**

Eclipse Scientific Products Inc., Kitchener, Canada

Eclipse Scientific currently uses conventional tandem element back diffraction techniques for the detection and sizing of Stress Corrosion Cracking. The transfer of these techniques to the Phased Array technology, using custom designed transducers, wedges and applied focal laws, was achieved in 2006. The developed technique was targeted to the portable OmniScan system which provided encoded positional information along with full waveform data collection. Developed phased array detection and sizing techniques for individual cracks has demonstrated excellent results for accuracy, repeatability and operator ease-of-use characteristics. The opportunity to advance the inspection approach using both the Eddy Current Array (ECA) technology along with an area scan generated by the Phased Array Stress Corrosion Cracking (PA-SCC) probe was viewed as the next logical step. This paper will present scan results and the various advantages of the post-processing, and will demonstrate sizing of cracks within the SCC colony data set.