



Case Study Category: CADW

Case Study Title: San Francisco Public Utilities Commission's Development of In-Line Magnetic Flux Leakage Technology for Condition Assessment of Large Diameter, Mortar-Lined, Steel Gravity Water Pipelines in San Francisco, California

Utility Name: San Francisco Public Utilities Commission

Case Study Abstract: In 2008, Electromagnetic Technologies, Inc., now a subsidiary of Pure Technologies, was hired by the San Francisco Public Utilities Commission to assess the condition of large diameter, cement mortar lined steel pipelines operated by the Hetch Hetchy Water and Power Project. Smart pigging using magnetic flux leakage electromagnetic technology is commonly used in unlined steel pipelines used by the oil and gas industry. A customized magnetic flux leakage tool, a caliper tool, and propulsion equipment were developed for use in full-scale field inspection of mortar lined water pipelines over a three year period. The results were useful in managing the pipeline asset. This method of condition assessment is compared to the use of the more traditional method of using records and indirect indicators of pipeline condition.

Case Study Link: <http://waterid.org/content/san-francisco-public-utilities-commissions-development-line-magnetic-flux-leakage-technology>