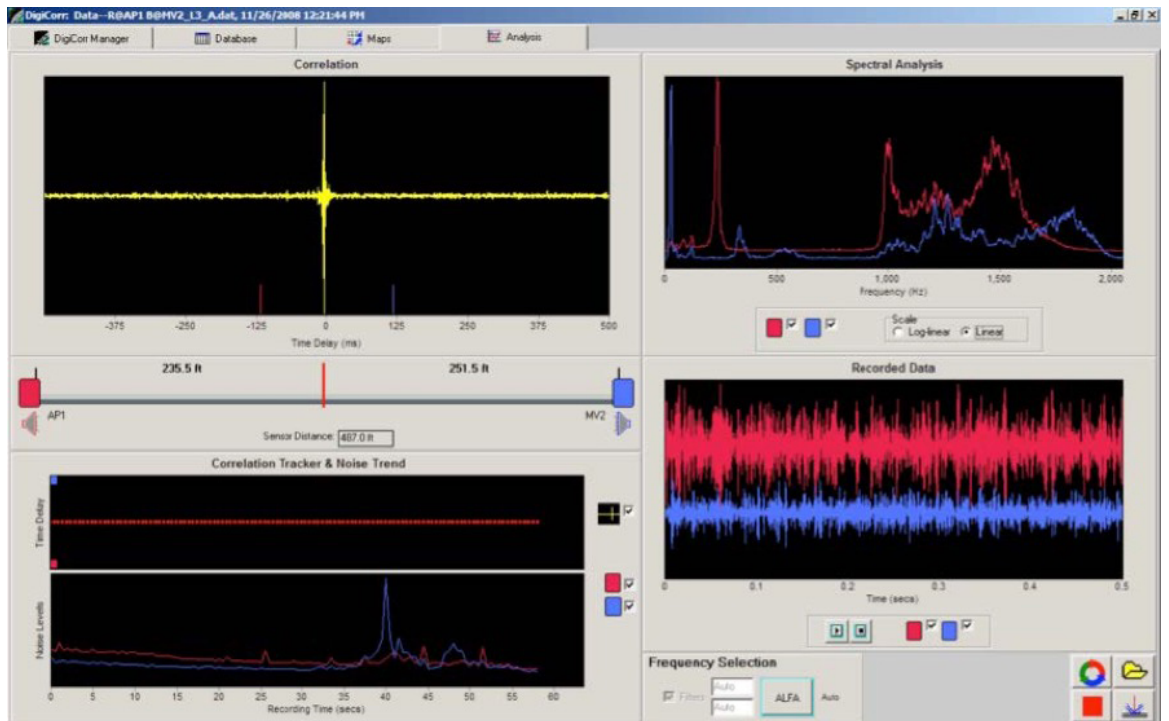


LEAK DETECTION SURVEY REPORT



OUR GOALS ARE TO CONSERVE RESOURCES AND SAVE YOU MONEY

Leak Detection Survey Report

The Survey Company

Vital Leak Detection provides state-of-the-art leak detection services to public and private water system customers. The surveyor, Allan Williams has specialized exclusively in digital leak detection for over twenty-five years. He can be contacted at:

(978) 793-2104, and at
allan@vitalleakdetection.com

Equipment and Methods Used

Vital Leak Detection utilizes the following modern, high-resolution equipment:

- Digital contact microphones;
- Digital ground microphones;
- Digital leak correlators and software;
- Digital correlating loggers and software;
- Various ancillary equipment

All surveys are performed following Industry best practices.

The Survey Area

The water distribution system has approximately _____ miles of distribution main piping, together with associated fire hydrants, valves, services and ancillary fittings.

Infrastructure & Survey Conditions

The infrastructure is old and the town has a worsening problem of leakage. A pipe replacement program is underway. The ground on which the town sits is composed predominantly of gravel bed and sand; drainage is excellent and leaks rarely surface. Due to the harsh winters that the area can undergo, the distribution mains are generally

buried deeply, further hampering attempts at leak detection using ground microphony. In-house leak detection efforts have some success but are necessarily limited by the difficulties mentioned and the equipment available.

Five leaks were identified and pinpointed during the survey. Estimated combined loss rate for all leakage is 145 gals/min. The estimated annual saving following repair of this leakage is approximately \$67,000 in variable operating costs only. A list of all leaks is given below and includes volume of leakage by source and estimated annualized losses.

The cost estimates were calculated using the EPA, AWWA and IWA average costs figures published in 2011 of \$0.98 per Kgal (Variable Operating Costs) and \$3.67 per Kgal Total Real Costs). Costs do vary by water system.

A detailed report for each leak can be found on the pages following the leak list.

Until completion of the pipe replacement program, new leakage is likely to continue to be high. In order to minimize losses and to avoid unnecessary catastrophic pipe failures and consequential damage in the town, it is recommended that in-house leak detection efforts be supplemented by a comprehensive, pro-active, digital leak survey of the type just completed, at least every 24 months.



Vital Services
365 Boston Post Rd, #145
Sudbury, MA 01776

Tel: +1 (978) 793-2104

email: info@vitalleakdetection.com

Website: www.vitalleakdetection.com

Individual Leak Report

Client Name **Client Address**

Survey Area **Survey Date** **Leak #**

Leak Address

GPS **Ref. Point** **Map #**

Leak Category **Pipe Material** **Diameter**

Cover **Loss Rate** **Status**

Remarks





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