

STANDARD NDT (NEAR FIELD TESTING)

Aging Infrastructure Challenges

- Detecting the precise location of potential problem areas
- Pipelines may have unknown structural or hydraulic deterioration that negatively impacts pipeline operations
- Unexpected pipeline failures
- Increasing customer and community expectations for service continuity and environmental stewardship

Service Solution Overview

PICA's Standard NDT service solution uses electromagnetic Near Field Testing (NFT) technology to accurately detect and quantify five or more adjacent broken wires in dewatered concrete cylinder pipe types, such as prestressed concrete cylinder pipe (PCCP), reinforced concrete cylinder pipe (RCCP) and reinforced concrete pipe (RCP) ranging from 36-inches to 120-inches (91 cm to 305 cm) in diameter.



Pipeline applications include:

- Water
- Wastewater
- Raw water
- Industrial water



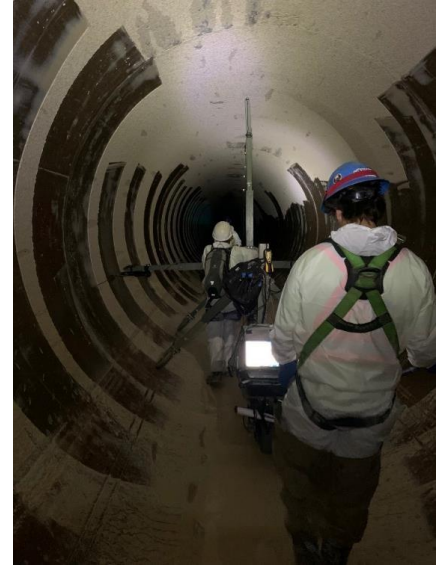
Proactive Asset Management

- Save money with targeted repairs versus full replacement
- Allocate the cost and schedule of rehabilitation efforts by knowing where there are potential issues of pipeline integrity
- Reduce unplanned, emergency repairs keeping pipelines in service more consistently
- Avoid negative consequences with customers and communities

NEAR FIELD TESTING (NFT)

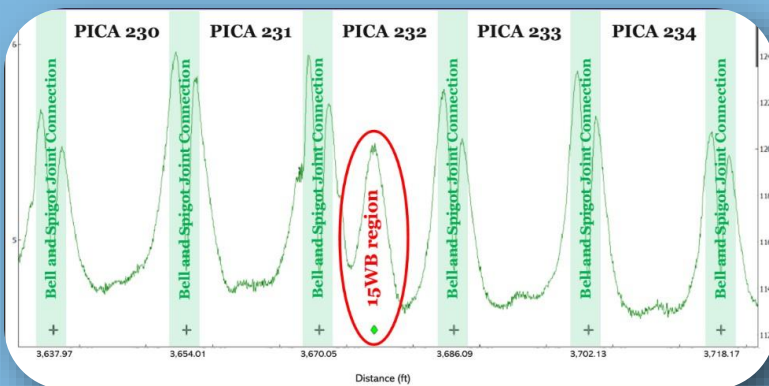
PICA's NFT tools are highly sensitive and rely on "transformer coupling" to induce an electric current in the wires, which can be interrupted if the wires or bars are broken.

- Broken wires or bars are a leading indicator for potential pipeline integrity issues
- Each type of pipe will have a number of broken wires ratio to operating pressure limit before failure is likely to occur
- NFT is available for dewatered pipe applications with minimum 18-inch (45 cm) diameter access MH openings



TECHNOLOGICAL CAPABILITIES

During the electromagnetic (EM) inspection, PICA runs multiple frequencies simultaneously and employs several detectors on the NFT tool to increase resolution and accuracy of wire break data, allowing for a higher level of confidence in the inspection results.



- Sensitive down to 5 adjacent wire loop breaks
- Can be fitted with high-resolution CCTV and LiDAR
- Tethered/winched, self-propelled, staffed cart
- Electric drive wheel conveys the NFT tool through the pipe at approximately 45 fpm (14 m/min)
- Tool components are modular, allowing the entire tool to be assembled inside the pipe