PICA
Pipeline Inspection and Condition Analysis Corporation

ADVANCED NDT (REMOTE FIELD TESTING)

Aging Infrastructure Challenges

- Pipelines have unknown structural or hydraulic deterioration that negatively impacts pipeline operations
- Detecting precisely where leaks and problem areas are occurring
- Unexpected pipeline failures and subsequent spills
- Increasing customer and community expectations for service continuity and environmental stewardship

Proactive Asset Management

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

Service Solution Overview

PICA's Advanced NDT service solution uses high resolution Remote Field Testing (RFT) technology to provide proactive asset management for metallic and reinforced concrete pressure pipelines ranging from 2 inches to 84 inches (5 cm to 213 cm) in diameter. RFT tools inspect metallic and reinforced concrete pressure pipes for corrosion through internal liners and scale deposits.

RFT is well suited for cast iron pipe, ductile iron pipe, steel pipe, concrete cylinder (bar-wrapped) pipe, reinforced concrete cylinder pipe and prestressed concrete cylinder pipe (PCCP).

Pipeline applications include:

- Water
- Wastewater
- Industrial water
- Raw water
- Sludge
- Slurry
- Hydrocarbons
- Multiphase (oil/gas/water)

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INTERNAL IN-SERVICE ADVANCED NDT

2-inch to 36-inch (5 cm to 91 cm) Pipelines

Description:

- Fully autonomous, multi-channel, high resolution
- Free-swimming for in service pipelines, can be tethered
- Electromagnetic Eddy Current technology
- Tool models: HydraSnake, See Snake, Chimera

Expected Information from Analysis:

- High resolution, through-transmission, cross-sectional pipe wall thickness measurements
- Detection of internal and external areas of wall loss, graphitic corrosion, cracks or local stress concentrators in metal pipes
- Identification of potential critical failure locations, extent of damage (depth and length) looking at both sides (ID and OD) of the pipe for accurate integrity
- Includes wire break measurements, cylinder corrosion and loss of preload for concrete pressure pipes

INTERNAL OUT-OF-SERVICE ADVANCED NDT

36-inch to 96-inch (91 cm to 244 cm) Pipelines

Description:

- Fully autonomous, multi-channel, high resolution
- Tethered/winched tools
- Electromagnetic Eddy Current technology
- Tool models: EMIT, RAFT

Expected Information from Analysis:

- High resolution, through-transmission, cross-sectional pipe wall thickness measurements
- Detection of internal and external areas of wall loss, graphitic corrosion, cracks, or local stress concentrators in metal pipes
- Identification of potential critical failure locations, extent of damage (depth and length) looking at both sides (ID and OD) of the pipe for accurate integrity assessment
- Includes wire break measurements, cylinder corrosion and loss of preload for concrete pressure pipes