



SENSOR NETWORKS, INC.

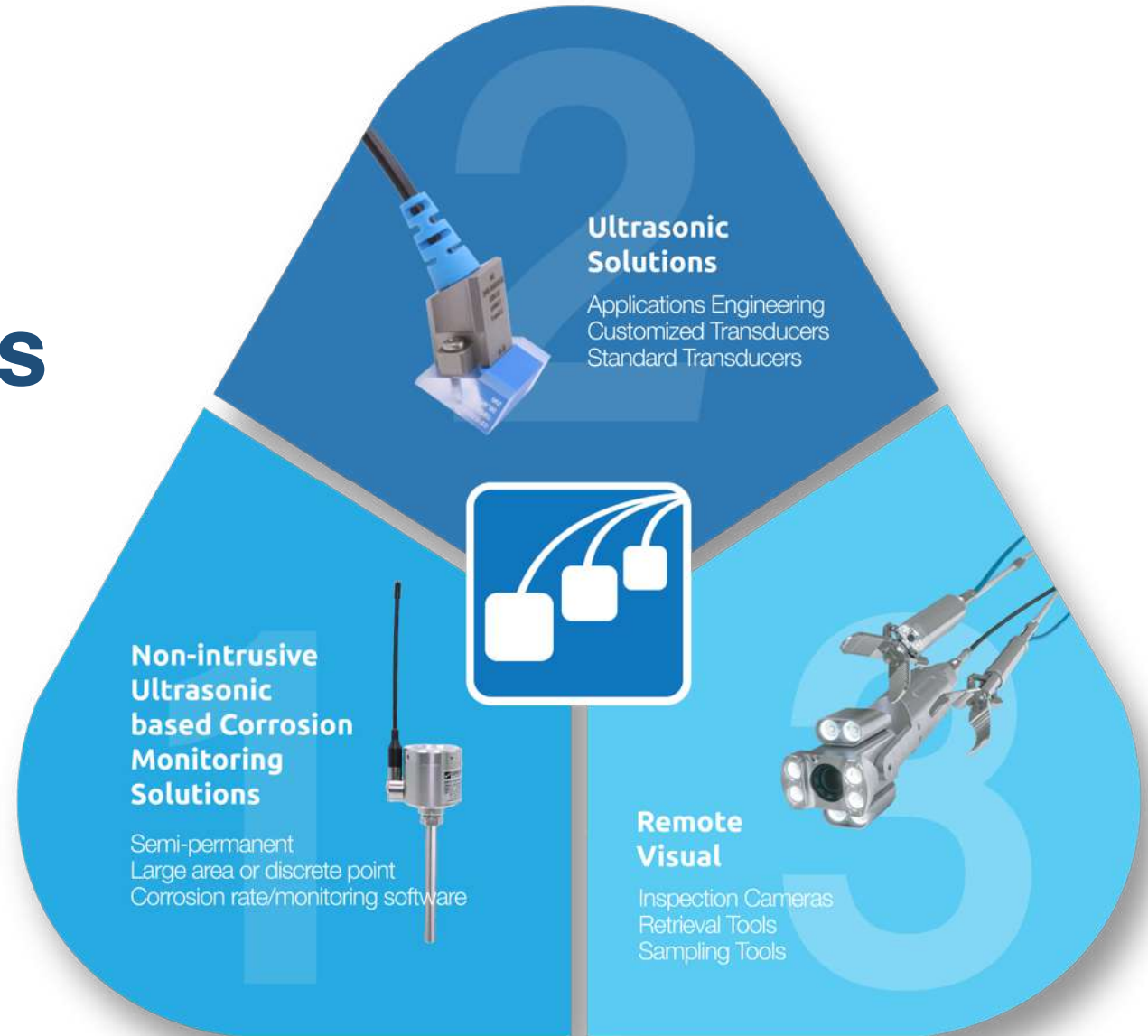
COMPANY OVERVIEW

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Smarter Solutions For Your Complex Asset-Integrity Challenges

SENSORNETWORKSINC.COM

Smarter Solutions for your complex asset-integrity challenges



NON-INTRUSIVE UT CORROSION MONITORING **MEETS THE INTERNET OF THINGS**

... seamlessly translate remote ultrasonic thickness measurements into on-stream corrosion rates & asset-integrity data used for real time infrastructure life extension, safety & retirement protection ...

CHAPTER ONE: INSTALLED SENSORS (IS)



smartPIMS®

- Wired, data logger, or cellular
- 16 channel capable

microPIMS®

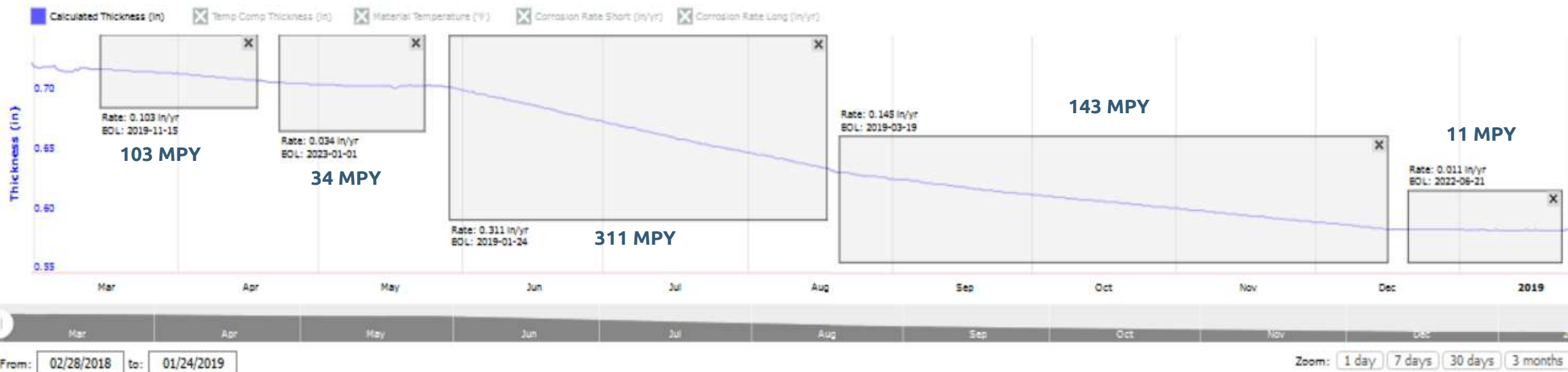
- Single point sensors
- 900 Sub-GHZ wireless

matPIMS™

- Large area scalable mats
- Permanently installed



Real life example of how installed UT sensors were able to trend, monitor, and ultimately help the asset owner remediate corrosion events in a process environment.



A night-time photograph of an industrial facility, likely a refinery or chemical plant. The scene is dominated by a complex network of dark metal pipes, walkways, and structural beams. In the background, several tall, cylindrical distillation columns or towers are visible, some illuminated from within, creating a warm glow against the dark sky. The overall atmosphere is industrial and somewhat mysterious due to the low light and shadows.

CONVENTIONAL AND PHASED-ARRAY TRANSDUCERS **FOR ANY APPLICATION**

STANDARD TRANSDUCERS
CUSTOMIZED TRANSDUCERS
APPLICATIONS ENGINEERING

CHAPTER TWO: ULTRASONIC TRANSDUCERS (UT)



- Utilizing state-of-the-art piezo-composite elements
- Offered with Quick Swap wedges for shear-wave weld inspection
- New MCX-style, low profile, swivel connectors
- Wide variety of sizes and frequencies
- Shipped with certification documents that contain RF waveform, frequency spectrum and average center-frequency calculations



Using industry-preferred design and simulation tools to create an optimized mechanical, electrical and ultrasonic model of the inspection task, including its scan plan.

SolidWorks to CAM and 5-axis CNC

- Parametric 3D CAD
- Mechanical Properties Modeling

AutoCAD

- 2D CAD and Ray-tracing

CIVA

- Acoustic Beam Modeling and Delay Law Calculation for Conventional and Phased Arrays

PiezoCad & Field II

- Transducer Construction & Performance Modeling

UltraVision 3D

- NDT data imaging and analysis software for Conventional and Phased Arrays

ES Beam Tool

- Ultrasonic Inspection Plan Design and Validation Software

Linear & Matrix Models

- Single & Dual
- Annular, Daisy & Circular
- Contact & Immersion
- Flat & Curved
- Can be built with any system connector



REMOTE VISUAL INSPECTION AND RETRIEVAL TOOLS

INSPECTION CAMERAS
RETRIEVAL & SAMPLING TOOLS

CHAPTER THREE: REMOTE VISUAL INSPECTION (RVI)

INSPECTION CAMERA



PTZx

A Pan-Tilt-Zoom-Lights, High-Resolution
Color Video Inspection System



Portable, Industrial, Waterproof Rugged, Intuitive, Field Hardened

- State-of-the-art CCD Camera with white LEDs. > 1700 lumens of cool white-light.
- Add-on auxiliary lighting to brighten the darkest of environments
- Loaded with features to efficiently inspect tanks, vessels, drums and other large areas & confined spaces including piping systems



RGT



JAWS 2.0™

Complete Retrieval Tool Kits

FOREIGN
OBJECT
SEARCH
AND
RETRIEVAL



- Including: alligators, magnets, snares, grippers and more
- Made of rugged, polished stainless steel construction
- Submersible and portable
- Ideal for hazardous environments and confined spaces



SPECS & FEATURES

- Variety of interchangeable end-effectors
- Compact design accesses the most remote areas
- 5" industrial-grade 1080p HD color display in sunlight readable hardened glass
- HDMI output allows recording and/or auxiliary display
- Simple joystick operation
- 6-8hr battery with power-save; recharges in 2hrs
- Radiation Life Expectancy of 30,000 RAD



THANK YOU

Jeff Anderson - President & GM

VERSION 2.1

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