

# WAND Application Example 03

**Customer:** Chemical manufacturer

**Industry:** Petrochemicals

Structures: Sulfuric acid tank shell and piping

**Operating temperature: Ambient** 

Type of degradation: Stress corrosion

Frequency of inspection: Once/year - Once/5 years

## Their challenges



Spots of localized corrosion on the acid tank shell needed to be very precisely monitored to assess whether they were 'active'. Manual UT was not giving a good indication of this, since pinpointing the exact same location each time was not possible, and so this was not providing any meaningful data



Corrosion rate at various locations on the tank shell and piping also needed to be determined. Once again, manual UT was not providing usable data for this, due to poor repeatability

#### **Our solution**

The customer installed WAND sensors at all known spots of localized corrosion on the tank shell and pipework, replacing manual UT. Data from the sensors was collected using the WAND handheld data collector.

### How did they benefit from the WAND?

The spots of localized corrosion were very precisely monitored using the permanently installed WAND sensors. This allowed the customer to determine in a matter of weeks whether the spots were 'active' or not

Similarly, using WAND, the rate of corrosion on the tank and piping could be accurately determined, giving the customer data which they then used to optimize their corrosion management program





Examples of sensors installed on the tank head and connected pipework

#### Where do we work?









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