



Moisture Detection Imaging: Our Latest Advancement in the Fight Against CUI



The highest incidence of leaks in the refinery and petrochemical industries are caused by Corrosion Under Insulation (CUI). Large facilities spend an average of \$3M per year on corrosion programs, 90% of which is spent on scaffold and insulation removal. Currently insulation is removed to inspect for CUI, or some non-intrusive NDE such as visual inspection, DR, PEC, and GWUT is performed in the search for CUI indicators. CUI detection technologies are currently evolving, however none of them are capable of meeting all of the challenges.

Moisture Detection Imaging (MDI) is a must-have component of any CUI program. This tool is ideal for insulated process piping, pressure vessels, and SAGD piping. MDI will identify the presence of moisture within or under insulation without the use of any other nondestructive examination or testing and without having to remove the insulation, with visual confirmation in real time.

Detecting moisture is one way to attack the root cause of corrosion versus focusing on symptoms. MDI is part of a comprehensive CUI inspection program providing information that enables operators and owners to make decisions and prioritize where to focus more targeted inspection methods.

The **only** CUI tool that will identify if moisture is, or is not, present without having to remove insulation.

MDI provides visual moisture confirmation in real time without having to remove insulation.



WHY ECHO NDE?

- CUI inspection programs with unparalleled technology, of which MDI is a component
- Single turnkey vendor with 90+ locations to execute comprehensive CUI programs:
 - rope access
 - mature company with investments in technology
 - full suite of NDE technologies
 - engineering expertise and management engagement

PRODUCTIVITY FACTS

- Rapid acquisition rate
- Field engineering services (Skystone) with composite crew mixing available
- Detailed reporting provided within 24 hours of service
- Extremely high detectability of moisture and H₂O
- Ingress, qualitative precision positioning and high data and measurement integrity

Examples:

- Straight Run-600m/1800ft per 12-hour shift
- Complex Piping 300m/900ft per shift
- Complex Piping with RAIS 200m/600ft per shift
- Real time data acquisition, all data stored for client review
- Scan large areas quickly

ENHANCES & ENABLES RISK BASED INSPECTION

This tool, in conjunction with our CUI suite of services, aims to optimize reliability, mitigate risk, avoid unplanned outages, and improve asset safety. This technology allows us to use the output data to help customers identify areas of concern and where they should focus further detailed inspections/examinations. We enable customers to allocate budget dollars to high risk, or priority areas first.

OVERCOMES LIMITATIONS OF OTHER TECHNOLOGIES

MDI isn't subject to the limitations of other moisture detection technologies like thermography/IR, microwave, and visual inspection. Some of the MDI attributes include:

- not influenced by temperature conditions
- consistent and reliable
- affordable
- proven in the field
- data driven
- low labour or material costs
- high efficiency



CONTACT OUR MDI EXPERTS TODAY

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