Pipeline and Tank Storage Inspection Services

NDT Global Services Ltd
Inspection Services
NDT Global Services Limited is a specialist Non-Destructive Testing and Inspection company operating nationally and globally, providing innovative engineering and services for a multitude of industries including oil, gas, chemical and offshore.

Services include:
- inspection of pipelines,
- storage tanks,
- jetty inspection,
- offshore and marine environments,
- boilers/ heat exchangers,
- decommissioning, rehabilitation, installation and modification of pipelines,
- rope access systems

We utilise techniques and methods such as Long Range Ultrasonic Testing (LRUT), Ground Penetrating Radar (GRP), Pigging, IRIS Inspection and Remote Visual Inspection (RVI).

NDT Global Services Ltd has built a reputation for innovation and solution based logistical thinking, inspection and engineering excellence, and the provision of its own experience and trusted inspection engineers for high quality and precision projects.

Global Inspection Locations
Long Range Ultrasonic Testing

Wavemaker™ Pipe Screening Service

NDT Global Services specializes in Long Range Ultrasonic Testing (LRUT) and have been operating the bespoke Guided Wave Technology (GWT) for 15+ years. NDT GSL have experience worldwide and highly trained engineers including levels 1 and levels 2 inspectors.

Long Range Ultrasonic Testing using the Wavemaker Pipe Screening System uses ultrasonic guided waves, sent along the length of pipe, to non-destructively test pipes for defects and other irregularities by detecting changes in the cross sections of the pipe.

It is a non-invasive inspection technique permitting for the inspection of a vast range of long lengths of pipes in difficult access areas to be quickly screened for corrosion or other defects. Operating on pipes from 1” to 84” diameter, the Wavemaker System employs lightweight transducer rings to send guided ultrasonic waves up to 50m in each direction along the pipe.
Long Range Ultrasonic Testing

Inspection capabilities include

- Inspection under insulation
- Road crossings and hidden penetrations
- Surface Pipelines
- Elevated lines
- Lamp Posts
- Jetty legs
- Subsea pipelines
- Offshore Risers
- Offshore Caissons
Radiodetection
PCM™+Pipeline Current Mapper

NDT Global Services offer specialist pipeline and mapping services. The Pipeline Current Mapper (PCM) determines the location and measurement of pipelines and analyses areas of corrosion using electromagnetic detection devices.

The PCM+ locator unit is used to locate the pipeline, even in heavily congested areas such as conduits, and then provides the operator with a measurement of depth current strength and signal direction applied by the transmitter to quickly pinpoint corrosion related problems.

Real time mapping analysis (PDA or PC) using Radiodetection Survey software
To provide faster analysis of mapped information, the PCM+ connects wirelessly with a PDA or PC, uploading all the information immediately and linking it with GPS into a database using the Radiodetection Survey software.

LOCATE
Accurately find buried pipes, establish centerline depth, then troubleshoot coating defects.

DATA UPLOAD
Bluetooth® link to PDA/PC for real time logging with GPS into Radiodetection Survey Application.

REVIEW
All uploaded data displayed in graphical format for immediate or post survey analysis.

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Discovery Smart Pig®

INTELLIGENT PIGGING

The Intelligent Pigging method enables our engineer to monitor trends and detect anomalies in a non-disruptive way. It is low risk, low cost, regular inspection and monitoring of Oil & Gas pipelines.

SMART PIGS- The advanced eddy current technology will measure the location and thickness of any scale, wax or water drop-out in the pipeline as well as inspecting for corrosion underneath these deposits. There is no requirement to clean the pipeline before using these inspection tools and they have little or no impact on production operations. The Discovery Foam Pigs are designed for high frequency use so data trending and anomaly monitoring can be achieved over the lifetime of the pipeline.

PATROL PIGS- The Patrol pig uses electromagnetic sensors to provide a direct assessment method for locating the illegal tap and the automated and rapid analysis of data allows maintenance teams to be onsite within hours of tool recovery. The Patrol pig also identifies localised pressure drops within the pipeline as well as any change in composition of the product i.e. if water or other fluids have been added to replace the product stolen.
Discovery Smart Pig®

SUMMARY- KEY ADVANTAGES

- Discovery Pigs do not disrupt production
- They can run in dry gas or multiphase pipelines
- They can negotiate min1.5D back to back bends
- No requirement for prior cleaning
- All sizes are less than 1.1m in length

- They detect all internal anomalies including cracks
- Sensors analyse debris / scale & product
- Local technicians can be trained to use the tools
- Damaged sensor cups are easily replaced
- Battery units are rechargeable

DATA ANALYSIS & REPORTING

- Signal recognition software carries out rapid analysis of data.
- All features are colour coded.
- Non recognised signals are recorded as anomalous and will require further engineer assessment.
- Pressure, temperature and velocity data is recorded at each weld.
- Reports list all the recorded features.
- Anomalous signals have location details based on number of welds from known start location.
- Each inspection run can be overlaid against historic runs for trending over the history of the pipeline.

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Jetty Inspection

NDT Global Services Ltd specialize in jetty structure inspection. NDT GSL provide an extensive range of services and techniques for the inspection of jetty and marine structures.

Jetty Inspection Techniques

- Guided Wave Technology (GWT)
- Manual Ultrasonics
- Visual Inspection
- ACFM advanced non destructive testing
- Magnetic Particle Inspection
- Dye Penetrant NDT
- Risk Based Inspection
- IRATA Rope Access
- Diving Services

Jetty inspection can be performed in any marine environment. NDT Global Services engineers are trained to undertake a vast range of inspection techniques. All equipment necessary for the inspection is supplied by NDT GSL, including all inspection equipment, rope access, divers, boats, pontoons, certified NDT personnel including certified skippers.
Jetty Inspection Data

All data collected is statistically analysed by a professionally qualified NDTGSL statistician to provide informative calculations for each pile/jetty leg.

Relative to the data collected formulae, algorithms, graphs and statistics are provided by NDTGSL to illuminate and display the data in the most accessible and interpretable format.

Material Thickness manual UT

Location of Plates on Jetty Legs

Material Surface Topographical Representation
Tank Storage Inspection

NDT Global Services specialize in tank storage inspection, inspecting numerous storage tanks every year across the globe. NDT GSL provide a extensive range of services and techniques for the inspection of storage tanks both above and below ground.

Tank Inspection Services

- API 653 and EEMUA159 certified inspectors
- Risk based inspections
- Tank cleaning
- Tank floor, shell & roof inspection
- Paint and lining inspection and applications

Tank Shell and Roof Inspection

Ultrasonic thickness gauging is used to measure the thickness of the shell of a tank. This method produces data on which to base calculations that show if the shell is fit for purpose. Methods of ultrasonic thickness guaging include remote access crawlers or manual thickness gauges. It improves the ability of detecting corrosion, permits for in service inspection, quick data collection, remote UT thickness measurements, removes the requirements for scaffolding or rope access and reduces safety incident risk.

Tank Floor

- MFL floor mapping
- Corrosion mapping
- Vacuum box testing

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NDT Global Services Ltd offer API 570 inspection services providing a level of precision and verification in pipeline inspection.

API 570 covers inspection, rating, repair, and alteration procedures for metallic and fiberglass reinforced plastic (FRP) piping systems and their associated pressure relieving devices that have been placed in service. The intent of the code is to specify the in-service inspection and condition-monitoring program that is needed to determine the integrity of piping.

API 570 provides accurate and timely assessments to determine if any changes in the condition of piping could possibly compromise continued safe operation. It is also the intent of this code that owner-users shall respond to any inspection results that require corrective actions to assure the continued safe operation of piping.

API 570 was developed specifically for the petroleum refining and chemical process industries but may be used, where practical, for any piping system. It is intended for use by organizations that maintain or have access to an authorized inspection agency, a repair organization, and technically qualified piping engineers, inspectors, and examiners.
NDT Global Services Ltd undertake inspections and services nationally and globally, working with a multitude of industries including oil, gas, chemical and offshore.

NDT Global Services Ltd has built a reputation for innovation and solution based logistical thinking, inspection and engineering excellence, and the provision of its own experience and trusted inspection engineers for high quality and precision projects.

Our engineers are trained to the highest calibre and undertake all work in a professional and conscientious manner.

It is our aim to collaborate with proficient individuals and innovative companies who are at the cutting edge of the service and inspection industry.

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