



## **GECRIC ASSET INTEGRITY MANAGEMENT CO. LTD**

We provide asset integrity management services for the energy,  
oil and gas, mining and manufacturing industry.

[www.gecricintegrity.com](http://www.gecricintegrity.com)



# COMPANY PROFILE

---

**GECRIC ASSET  
INTEGRITY MANAGEMENT  
CO. LTD**

---

[www.gecricintegrity.com](http://www.gecricintegrity.com)



# Our Company

Gecric Asset Integrity Management Co. Ltd is an indigenous Ghanaian company established to provide Asset Integrity Management Services to the Energy, Oil and Gas, Mining and Manufacturing industries in West Africa and beyond, using Rope Access Technology as our primary means.

Our primary focus is to provide cost-effective solutions for our clients using the best available global technologies.

Our ability to deliver quality services is based on the wealth of knowledge acquired over years of experience, training and continual improvement.

## OUR MISSION

To provide strategic technical value to our clients by delivering quality and innovative inspection services.

## OUR VISION

To become the trusted inspection services company with the best turnaround time in delivering reliable results to clients.

## OUR TEAM

Our team of professionals have gained rich experience working on various oil and gas projects globally and in Ghana with Internationally recognized standards such as American Petroleum Institute certifications, ASNT (American Society for Non-Destructive Testing) / ISO 9712 Personnel certification Program, CSWIP (Certified Scheme for Welding Inspection Personnel), NACE (National Association of Corrosion Engineers),

# GECRIC INTEGRITY CORE VALUES

**1**

## Respect

We create value with respect for humanity and the environment while Acknowledging the core principles of our stakeholders.

**2**

## Integrity

We provide trusted solutions with openness and honesty.

**3**

## Innovation & Growth

Our commitment to constant growth and improvement enables us to provide value-added and cost-effective solutions for our clients.

**4**

## Teamwork

We believe in the power of unity and cooperation in achieving our mission and vision.

## INDUSTRIES & SECTORS

**1****Oil & Gas****3****Power****5****Marine****2****Mining****4****Manufacturing**



## 1 Oil & Gas

Gecric Integrity works predominantly in the Oil and Gas industry. The industry is one with higher occupational risks than most; hence, the need to maintain a rigorous inspection and maintenance schedule.

Our technicians hold a cumulative 32 years of experience in the industry working across the Africa, are familiar with industry codes and best practices as well as international standards as seen in the. We serve the Upstream, Mid and Downstream sectors. We provide support services for the energy construction sectors as well.

## 2 Mining

Our Non-Destructive Testing services support the Mining industry in testing their machines and assets for defects, ensuring their machines are sites are in good condition.

## 3 Power

The Power Production sector, like the Oil and Gas, requires rigorous maintenance due to the risky nature of operations. Our inspection and maintenance help prevent possible disastrous accidents.

## 4 Manufacturing

We aid firms in the manufacturing industries meet all regulatory standards and requirements carrying out integrity tests on their processing and storage facilities and machines.

## 5 Marine Industry

Firms in the marine industry are exposed to atmospheric conditions that speed up the corrosion. Our Non-Destructive Testing services help them check for corrosion damage while our Fabric Maintenance services help prevent or slow down the Corrosion process.

SAFETY



### Atuabo- Separator Inspection



### Cathodic Protection



### Non-Destructive Testing - Eddy Current



### Non-Destructive Testing- Pipeline Inspection



### Subsea Pipeline Inspection





# Our **Services**

- Rope Access
- Fabric Maintenance
- Cathodic Protection
- Non-Destructive Testing Services
- Pipeline Inspection Services
- Helideck Integrity Testing
- Lifting Equipment and Accessories Inspection & Rigging Services
- Engineering Consultancy Services- QAQC services, RBI





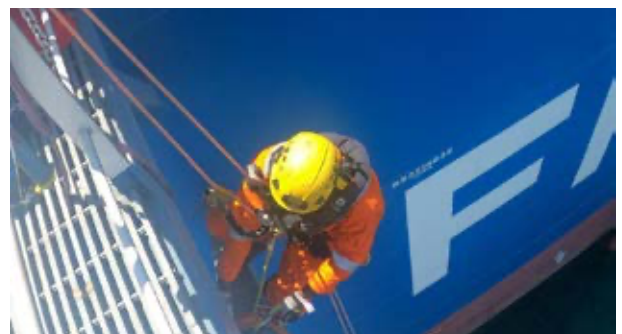


## ROPE ACCESS AND DROPS SURVEY

- Gecric Integrity executes inspection, maintenance, contracted rescue and repair services using Rope Access instead of traditional means such as scaffolds, lifts and cranes. We are certified by IRATA and the Dropped Objects Scheme to inspect objects aloft.
- Gecric Integrity joined the Dropped Objects Prevention Scheme to show our commitment

to safety. An appreciable number of accidents that have occurred Offshore have been as a result of Dropped Objects. The scheme was established to conscientize personnel and create a second-nature Dropped Objects awareness during Operations.

- As members of the Dropped Objects scheme, we are certified to inspect objects aloft for safety and flaw detection.







# NON-DESTRUCTIVE TESTING SERVICES

The fabric of assets tend to deteriorate over time especially with exposure to corroding elements. This eventually leads to periodic breakdowns, inefficient asset operation or worse, total asset failure. Non-Destructive Testing methods allow companies to check for flaws without asset shutdown or fabric destruction. We inspect assets such as Above Ground Storage Tanks, Surface Pipelines, Subsea Pipelines, Lifting Equipment and accessories, Pressure Vessels and Pressure Valves.

Gecric Integrity prides itself on introducing many innovative Non-Destructive Testing methods in the Ghanaian inspection and maintenance scene. Our innovative inspection methods have

saved our clients significant costs and time in having projects executed. Gecric Integrity has multi-skilled technicians that capable of executing complex project scopes easily. We also have IRATA certified technicians who can carry out these tests on assets at height or aloft.

Gecric Integrity has a reputation of introducing innovative global testing methods in the Ghanaian inspection and maintenance scene. These methods have saved our clients significant costs and time. Gecric Integrity has multi-skilled inspection professionals certified in numerous inspection standards. Combining these methods, we offer our clients tailored inspection solutions.

## Conventional Non-Destructive Testing Services

- Ultrasonic Testing (Thickness measurement and Flaw detection)
- Radiographic Testing
- Magnetic Particle Testing
- Liquid Penetrant Testing
- Eddy Current Testing
- Visual Testing

## Advanced (Manual and Automated)

- Long Range (Guided Wave) Ultrasonic Testing
- Time of Flight Diffraction
- Phase Array Ultrasonic Testing
- Alternative Current Field Measurement (ACFM)
- Large Surface corrosion Mapping Using Rapid Motion Scanner (RMS)
- Tube Inspection (RFECT, IRIS)
- Electro Magnetic Acoustic Testing (EMAT)
- Computed Radiography
- Floor Map Imaging
- Remote Visual Inspections
- Magnetic Flux Leakage (MFL) Testing
- M-SKIP (Corrosion under Pipe Support)





# ADVANCED NON-DESTRUCTIVE TESTING

## PIPELINE INSPECTION SERVICES

Gecric Asset Integrity is a leader in pipeline inspection in Ghana. We offer our clients tailored pipeline inspection services by conducting preliminary studies of client pipelines to determine the best inspection methods. We combine different Non-Destructive Testing techniques in our array to ensure inspection is thorough.

Guided Wave Inspection Technology (GWUT) is our preferred method of pipeline inspection. Gecric Integrity is the only Ghanaian company with the capability.

GWUT enables you to locate pipe defects, search for corrosion under insulation, assess internal corrosion, inspect through bends and branches, locate girth

welds on steam piping and screen for pipe and tube wall thinning without disruption of service.

It provides rapid, full-coverage pipe screening, reduces inspection duration and provides ease of access to difficult locations. A large area of piping can be screened within a short period with limited insulation removal and we complement the screening with our range of quantitative tools such as PAUT corrosion Mapping.

With GWUT, 100% of the pipe's integrity can be determined.





# SUBSEA INSPECTION SERVICES

Our pipeline inspection expertise extends to the inspection of subsea pipelines using the special Guided Ultrasonics Limited technology called the gMat. Subsea pipelines are in the category of assets that are hard to reach.

The risk associated with these pipelines is also high as a leakage may cause extensive damage and have great environmental consequences.

We have successfully inspected pipelines in Ghana using this advanced Non-Destructive Testing method.

We also conduct visual subsea inspections to check for marine growths which may cause damage or interfere with facility efficiency.







# NON-INTRUSIVE INSPECTION

Non-Intrusive Inspection (NII) is an effective alternative to Pressure Vessel Inspection. The methods employed do not require vessel entry making it safer and time effective.

- Ultrasonic Testing (UT)
- Phased Array Ultrasonic Testing (PAUT)
- Radiography (RT)
- Acoustic Emission (AE)
- Time-of-Flight Diffraction (TOFD)
- Magnetic Flux Exclusion (MFE)
- Pulsed Eddy Current (PEC)





# Best industry standards

Our team of professionals have gained rich experience working on oil and gas projects globally and in Ghana with strict adherence to international standards and practices that ensure continuous safe operation of client's asset





# ADVANCED NON-DESTRUCTIVE TESTING

Gecric Integrity is undoubtedly a pipeline inspection leader in the Ghanaian Oil and Gas industry. Our inspectors are qualified in these API pipeline inspection codes: API 510, API 570, API 571, API 576, API 578, API 574

## ► Pigging Services

Debris and sludge accumulate in pipelines over time. Using pigging technology, we clean out pipelines promoting the free flow of product. Our inspectors analyze your pipeline and choose the best type of pig for the process. Pigs can also check for corrosion and measure wall thickness.

## ► Flaw detection

Our wide array of Non-Destructive Testing methods and multi-skilled engineers makes us the perfect company for pipeline inspection. Our experts using a combination of advanced and conventional testing methods map out corrosion and other defects which may

be found in your pipeline. We employ methods such as;

- Long-Range Ultrasonic Testing (Guided Wave Technology by GUL,UK)
- Phased Array
- Intelligent Mapping

## ■ Remote Visual Inspection

Remote visual inspection is a non-destructive testing technique that employs the use of remotely operated cameras and crawlers to assess the integrity of components and infrastructure in areas that are too dangerous or remote for direct human intervention. Tubes and Pipeline ranging from ½ inch and above can be inspected with our modern borescope camera well up to 50 meters of length.

### ■ Eddy Current Tube Inspection

Eddy Current Testing (ECT) is the best way of inspecting tubing made of non-ferrous materials such as austenitic stainless steel, brass, titanium, copper etc. Eddy Current Testing (ECT) is based on the use of a probe made of a single coil in which, an alternating current is sent.

This generates a circular magnetic field around the coil which then induces eddy currents of the opposite direction into the pipe wall. Discontinuities or loss of wall thickness alter the eddy current flow which translates into a change of impedance in the coil. This can be visualized by the operator giving the indication of a potential flaw.

### ■ Remote Field Testing

RFT is considered the ideal method of examining carbon and alloy steel tubing with recent probe technology and software measurement tools. Although RFT doesn't differentiate between ID & OD defects, its sizing capabilities of both localised and general wall loss has been greatly increased due to the application of the voltage plane technique, which also give a very precise approximation of the extent of the wall losses

around the circumference of the tubing. Like Eddy Current Tube Inspection, RFT is commonly used as a standalone method.

### ■ Internal Rotary Inspection System (IRIS)

Internal Rotary Inspection System (IRIS) is used for inspection of tubes of heat exchangers and steam generators. The system displays circumferential cross section of tubes (wall thickness of tubes) at any given axial position and reveals both uniform and localized (pitting) corrosion. Based on the ultrasonic immersion testing principle.

Ultrasonic sound wave is generated from a concave probe and transmitted into the 45° mirror mounted in a turbine, which reflect the sound wave to the tube wall. Pressurized water is being used as couplant and rotates the turbine. While the turbine rotates, it collects data around the 360° circumference of the tube.

Measures exact remaining wall thickness and online C-Scan presentation. IRIS is a relatively slow technique but gives a high level of accuracy particularly when measuring ID/OD wall loss. Although bends cannot be examined by IRIS it is commonly used for tube examinations as both the primary and prove-up inspection technique.







## PRESSURE VESSEL INSPECTION SERVICES

- Risk based inspection and Fitness for service assessment according API code
- Non-Intrusive inspection
- High Temperature inspection
- ▶ **Techniques & Equipment available**
  1. Conventional Non-Destructive Testing (Ultrasonic Testing, Visual Inspection etc.)
  2. Acoustic Emission
  3. RMS Scanner for Corrosion Mapping
  4. PAUT and TOFD
- ▶ **Above Ground Storage Tanks**
  1. Tank Floor Inspection
  2. Internal Wall Inspection
  3. Shell Inspection
- ▶ **Techniques & Equipment available**
  1. Conventional Non-Destructive Testing (Ultrasonic Testing, Visual Inspection etc.)
  2. Acoustic Emission
  3. RMS Scanner for Corrosion Mapping
  4. Magnetic Flux Leakage
  5. PAUT and TOFD



## TUBE INSPECTION SERVICES

Heat Exchangers are a central component in the operation of production platforms, power producers and other firms in the energy industry. The sensitivity of their purpose requires them to be tested within periodic intervals to check for crack, corrosion, erosion, material degradation and thickness loss, as defects can cause hazardous consequences to the facility, personnel and environment.

Gecric Asset Integrity Management stands as the only indigenous Ghanaian inspection company with the capability to handle tubular heat exchangers inspection, having a proven track record of successfully doing so. Our trained and able inspectors, using the Eddy Current machine, check for anomalies in your tubular heat exchanger and provide a detailed report based on the analysis of the data produced by the digital equipment.

Gecric Integrity has adopted multiple inspection techniques to determine the integrity of ferrous and non-ferrous tubing.

- Remote Visual Inspection
- Eddy Current Tube Inspection
- Remote Field Inspection
- Internal Rotary Inspection System (IRIS)



## FABRIC MAINTENANCE

Materials used in the construction of assets in the Oil and Gas and Mining industries require periodic maintenance to keep assets in a state close to the original. Continuous exposure to the elements leads to more serious corrosion problems.

► **We offer conventional and improved Fabric Maintenance interventions such as:**

1. Blasting and Coating
2. Welding
3. Tank and Vessel Lining.
4. Tank Inspection and Cleaning
5. Composite Wrap Repair

## ENGINEERED COMPOSITE SOLUTIONS

GAIM, together with our technical partners, offer Composite Repair Services. We use exceptionally strong materials specially designed and approved by ISO 24817 and ASME PCC-2 Article 4.1 to provide your asset with the needed re-enforcement.

- Piping Systems
- Structural Repair
- Vessels and Tanks



## HELIDECK INTEGRITY TESTING

► **Helideck Friction Testing**

The landing area is a critical part of the helideck platform and keeping this safe for helicopter landings is a key safety measure. Gecric Integrity has trained personnel who can carry out tests on the helideck based on UKCAA, CAP 437 using the Micro Grid Tester.

► **Helideck Lighting Installation**







## KEY PROJECTS EXECUTED

- Offshore Inspection and Composite Wrap Repair for MODEC Ghana (MV 25 FPSO)
- Subsea Pipeline Inspection using Guided Wave Technology
- Riser Hookup Services for an FRU in Tema
- QA/QC Services on the Turret Remediation Project for MODEC Offshore
- GWUT Inspection of a 5km pipeline in Takoradi
- Cathodic Protection Systems Installation for WAGPCO
- Rope Access, NDT and Lifting Equipment inspection works on Maersk Viking (Total Rig Integrity Management Project)
- GWUT inspection and Data Management for four 6km pipelines in Tema.
- Mill integrity Assessment using Ultrasonic Testing Technique for Kinross Mining Company.
- Internal Inspection of Floating Vessel on FPSO JAK



## ASSET INTEGRITY CONSULTANCY SERVICES

We provide reliable and objective asset integrity consultancy services to ensure that the people, systems, processes, and resources that deliver integrity are in place, in use, fit for purpose and will perform when required over the whole lifecycle of the asset. Our consultancy services include:

- Risk-Based Inspection (RBI) on Piping, Rotating and Static equipment
- Total Integrity Inspection of Drilling Rigs
- Remaining life Assessment of Piping, Pressure vessel, Boilers and Storage tanks
- Fitness for service evaluation
- Plant Inspection based on API RP 580, API 510, API 570 and API 653 Standards
- Thickness Monitoring Service
- Pipeline Integrity Services
- Identification of periodic inspection intervals
- Shut Down/Turnaround inspection,





## CATHODIC PROTECTION SYSTEMS

Cathodic Protection Systems is a mechanism installed to prevent corrosion on metallic assets that come into contact with moisture (Sea water, Ground Water or Rivers).

Every buried metallic structure requires a form of corrosion control due to exposure to moisture (in the ground or water) to extend the useful life of the asset.

Our NACE-certified engineers are well-trained to install and inspect Cathodic Protection Systems. We provide full feasibility studies, engineering design, consultancy, installation and maintenance of Cathodic Protection Systems



# CASE STUDIES



## CASE 1

**Title:** Onshore Pipeline Inspection by Guided Wave

**Date:** November 2019

**Services:** Advanced Non-Destructive Testing

### Description:

Gecric Asset Integrity completed the inspection of a 5km pipeline in Tema using Guided Wave Technology. We detected sections along the pipeline that had corroded. We followed up using Ultrasonic Testing helping the client to assess the level of the damage. The report presented them with information on the sections of the entire length of the pipeline that enabled them to target repairs, which helped to stop the loss of white product and plan their maintenance.

## CASE 2

**Title:** Eddy Current Tube Inspection on FPSO John Evans Atta Mills

**Date:** December 2020

**Services:** Advanced Non-Destructive Testing

### Description:

The Gecric NDT team also completed the inspection of a pressure valve using Eddy Current Tube Inspection on the FPSO John Evans Atta Mills. Gecric Integrity is the only indigenous Ghanaian company with the capability.

## CASE 3

**Title:** Subsea Pipeline Inspection

**Date:** April 2021

**Services:** Advanced Non-Destructive Testing

### Description:

Gecric Integrity is pioneering the Advanced Non-Destructive Testing scene in the industry executed the inspection of one of Ghana's most important subsea pipelines using Guided Ultrasonics Limited's technology, the gMat Screening technology.

## CASE 4

**Title:** Riser Hookup Operation

**Date:** June 2021

**Services:** Rope Access Services

### Description:

Notable among our projects is the Riser Hookup operation done by Rope Access for a Floating Regasification Unit in Accra. Gecric Integrity is the first Ghanaian company to win the Riser Inspection Contract.

## CASE 5

**Title:** Corrosion mapping of high temperature Pressure vessel.

**Date:** 2022

**Services:** Non-Intrusive Inspection

### Description:

Scope was done offshore on a vessel operating at 204 deg celsius as part of a Non-intrusive inspection assessment for a client.





## SAFETY, HEALTH, ENVIRONMENT & QUALITY – SHEQ

---

Safety, Health, Environment and Quality forms a central part of project execution. The company has developed a culture of HSE consciousness.

We have robust systems in place to ensure maximum safety at all times, both at operation sites and in administrative offices. Our commitment to using innovative solutions reduces negative environmental impacts and aspects.

► **In line with our ISO Environmental Management Systems (ISO 14001) policy and statutory laws, we seek to ensure the following:**

- Full compliance to local and international environmental regulations.
- ZERO injuries and incidents at project sites and offices
- ·Open communication channels for staff on safety issues.



ACCREDITED BY:



Trusted By











Konney Kukulu Street, Mempeasem, East Legon

+233-302-961-433 | + (233) 055-253-2326

info@gecricintegrity.com

Instagram: @gecric\_integrity

LinkedIn: <https://www.linkedin.com/company/gecric-asset-integrity-management>

Facebook: @gecric\_integrity