



CORPORATE PROFILE



OUR JOURNEY HARD HATS, BOOTS AND BEYOND

THE TEAM FROM ADMIRAL ARE A COLLECTION OF EXPERTS FROM VARIOUS FIELDS OF OIL AND GAS ENCOMPASSING TECHNICAL EXPERTISE IN UPSTREAM, MIDSTREAM AND DOWNSTREAM.

The team from Admiral are a collection of experts from various fields of Oil and Gas encompassing technical expertise in Upstream, Midstream and Downstream. Initially focused on Non-Destructive Testing and Engineering Inspection services, Admiral has morphed its service portfolio into a provider of engineered products and services.

Today, we drive in-house innovation through the development of our own Asset Integrity Software, work with world-class partners on Remote Inspection Technologies, and offer clients analytical solutions with specialized engineering analyses whilst maintaining our footprint in our core business.

We are proud of our Hard Hats and Boots. We are prouder of our Beyond.

VISION

To be a Market Leader in all our Operating Segments and infuse New Technology in our products and services.

MISSION

We provide efficient and effective solutions, creating optimized operations safely and responsibly, with the highest integrity.

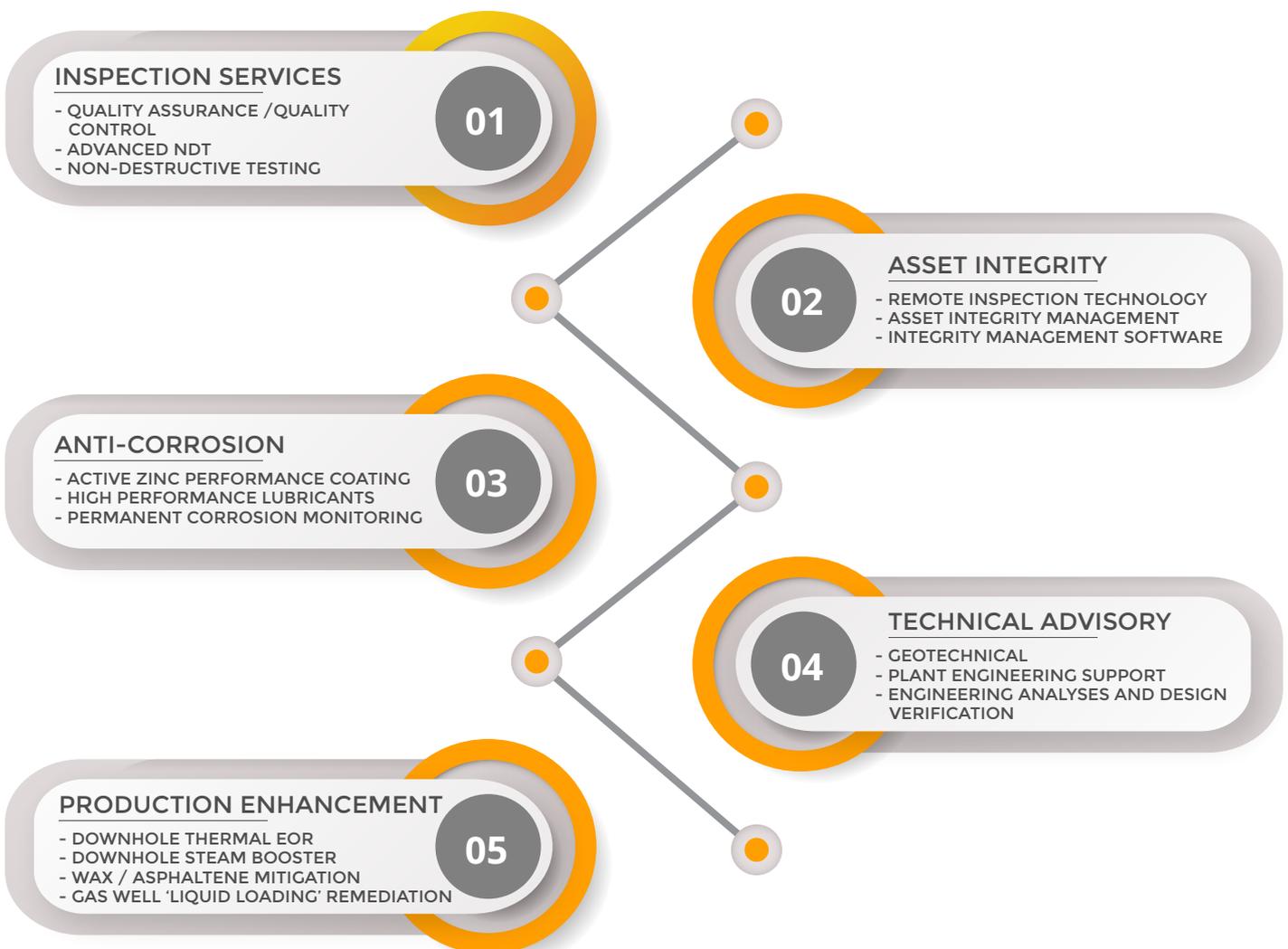




ABOUT Admiral

We are a 100% Malaysian company headquartered in Terengganu, Malaysia. Admiral is proud to be one of the emerging leaders in the energy industry services market in Malaysia. Our hybrid approach to our business incorporates elements of United Nations Sustainable Development Goals.

OUR SERVICES



PROUD TO BE REGISTERED WITH:





INSPECTION SERVICES

We offer an integrated approach to inspection services, providing verification on every stage of a project and the asset lifecycle. Our extensive multidisciplinary experience with project quality management expertise serves the oil and gas, renewables, infrastructure, power, petrochemical and mining sectors; enabling our clients to manage the risk of quality, eliminating costly rework and failure.

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OUR KEY

DIFFERENTIATORS

We have the ability to combine our inspection services with a risk based approach. Working in tandem with our AIM experts with asset owner backgrounds, we are able to bring O&M experience into every inspection service. This means Admiral becoming a real partner to our clients at every stage of inspections: from inspection strategy to inspection data management and analysis, including recommendations on asset management.



QUALITY ASSURANCE / QUALITY CONTROL

Key Offerings during Design and Construction, In-Operation, Failure & Investigation include:

2nd and 3rd Party Inspection Services, Mechanical Integrity, Quality Assurance/ Quality Control Services, Expediting, Vendor Assessments, Vendor Inspections, Site Inspections, Shutdown inspections, RBI Planning and Management.



ADVANCED NDT

Key Offerings include:

- ▶ Eddy Current Testing (ECT)
- ▶ Remote Field Testing (RFT)
- ▶ Magnetic Flux Leakage Testing (MFLT)
- ▶ Internal Rotary Inspection System (IRIS)
- ▶ Near Field Testing (NFT)
- ▶ Eddy Current Array (ECA)
- ▶ Corrosion Monitoring (C-Scan)
- ▶ Time of Flight Diffraction (TOFD)
- ▶ Phased Array Ultrasonic Testing (PAUT)
- ▶ Thermography
- ▶ Alternating Current Field Measurement (ACFM)
- ▶ Wire Rope Inspection
- ▶ MFL Tank Floor Scanning



NON-DESTRUCTIVE TESTING (NDT)

Key Offerings include:

- ▶ Ultrasonic Flaw Detection (UTFD)
- ▶ UT Thickness Measurement (UTTM)
- ▶ Magnetic Particles Testing (MPT)
- ▶ Dye Penetrant Testing (DPT)
- ▶ Radiography Testing (RT)
- ▶ Hardness Testing (HT)
- ▶ Eddy Current Surface Scanning
- ▶ Positive Material Identification (PMI - XRF/ARC)





ASSET INTEGRITY

We offer Integrity Management Consultancy, Advanced Inspection Services using Remote Inspection Technology and Integrity Management Software. Our extensive multidisciplinary experience with asset operational experience of our key personnel serves the oil and gas, renewables, infrastructure, power, petrochemical and mining sectors enabling our clients to manage the risk of quality, eliminating costly rework and failure.



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We aim to unlock efficiencies, enhancing performance and integrity for operating facilities. We also provide services for new builds, providing remote inspection technology through out the lifecycle of assets. Our in-house software **Master™** integrates our services into one holistic package, addressing key challenges in asset and process optimization, leveraging on a managed service delivery model enabling our clients to focus on their core production.



REMOTE INSPECTION TECHNOLOGY

- ▶ Caisson Inspection
- ▶ J-tube Inspection
- ▶ Marine Drilling Riser Inspection
- ▶ Riser Inspection
- ▶ Topside Piping Inspection
- ▶ Conductor Inspection
- ▶ In-line pipeline screening



ASSET INTEGRITY MANAGEMENT

- ▶ Corrosion risk assessment & material selection.
- ▶ Identification of Safety Critical Equipment (SCE)
- ▶ Design of corrosion monitoring system.
- ▶ Inspectability assessment - review of model.
- ▶ Input of integrity lesson learnt for design improvements.
- ▶ Development of quality management system.
- ▶ Development of asset specific integrity and corrosion management strategies.
- ▶ Development of initial inspection, corrosion mitigation and monitoring plans.
- ▶ Development of Risk Based Inspection (RBI) . programme.
- ▶ Audit of integrity management system.
- ▶ Asset life extension studies.
- ▶ Implementation of anomaly management system.
- ▶ Development of key performance indicator reporting methodology.



INTEGRITY MANAGEMENT SOFTWARE

- ▶ Asset Register and Asset Information Management
- ▶ Inspection and Maintenance
- ▶ Supporting regulatory certification
- ▶ Integrity Operating Window
- ▶ Risk Based Inspection (RBI)
- ▶ Corrosion Management System (CMS)
- ▶ Risk and Integrity Status Reporting

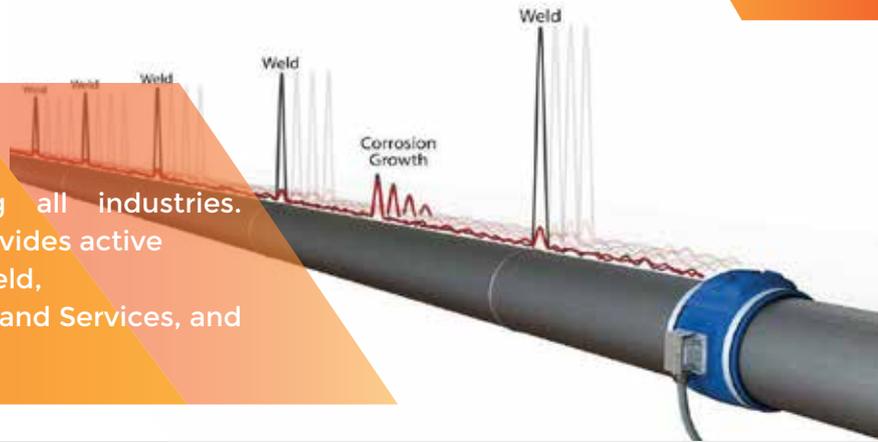




ANTI -CORROSION

We focus on three main areas serving all industries.

- Provision of a film galvanizing system that provides active cathodic protection and a passive physical shield,
- Provision of Corrosion Monitoring Equipment and Services, and
- Provision of High Performance Lubricants



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Our Galvanizing Protection utilizes the science of Cathodic Protection but revolutionary in its film application - positioning us above paints and hot-dip galvanizing in terms of cost and ease of application.

Our Permanent Corrosion Monitoring Equipment is the first in Malaysia that utilizes the science of Long Range ultrasound / Guided Wave ultrasound supporting pipeline inspections in difficult areas including buried pipelines.

ACTIVE ZINC PERFORMANCE COATING

- ▶ A one component zinc rich coating or Film Galvanising System - It is a metallic coating and not a paint.
- ▶ A unique form of corrosion protection because it provides Active protection applied as easy a paint.
- ▶ An active zinc performance coating which works in union with the metal beneath, whereas paints are only passive barriers.



HIGH PERFORMANCE LUBRICANTS

- ▶ High Temperature Grease
- ▶ Extreme Pressure and Heavy Load Greases
- ▶ High Speed Greases (up to a D*N factor of 1,500,000)
- ▶ Water Resistant High Performance Greases
- ▶ Multi Purpose High Performance Greases
- ▶ Centralised Lubrication Greases
- ▶ Open Gear Greases
- ▶ Silicon Greases
- ▶ Wire Rope Compounds
- ▶ Anti-seize Compounds
- ▶ Chuck Paste
- ▶ Chisel Pastes
- ▶ Synthetic Lubricants
- ▶ Chain Lubrication
- ▶ Silicon Oils
- ▶ Food Grade Lubricants
- ▶ Perfluorinated polyether (PFPE) Grease



PERMANENT CORROSION MONITORING

- ▶ Permanently Installed Sensors which uniquely combines the accurate measurement of multi-point thickness measurement with guided wave technology to detect the presence of wall loss in the surrounding pipe.
- ▶ This dual capability gives a much increased confidence that the measured thickness truly represents, or otherwise, a significant length of pipe rather than simply at a single point.
- ▶ Fully Autonomous System with Real Time Capability - to monitor pipe wall loss for critical pipes.





TECHNICAL ADVISORY

We partner with leading expertise to provide:

- Geotechnical Consultancy
- Plant Engineering and Support
- Engineering Analyses and Design Verification

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Our clients benefit from an approach which combines on-site presence, international experience on projects in remote locations, and practical solutions for complex engineering challenges.

Our Engineering Analyses Expert Partner are world leaders in the application of advanced engineering software, able to deliver technical solutions to complex problems at any point in your process: from the design optimization or validation of a new product to solving an issue with an operating (or non-operating) asset.



GEOTECHNICAL

- ▶ Geotechnical investigation
- ▶ Geotechnical design
- ▶ Geotechnical design assurance
- ▶ Well conductor design
- ▶ Foundation feasibility study
- ▶ Erosion study, wave action, wave-induced seabed stability and liquefaction



PLANT ENGINEERING SUPPORT

- ▶ Management of baseline Inspection programme
- ▶ Plant turnaround management support
- ▶ Intelligent Pigging (IP) campaign support
- ▶ Implementation of Corrosion Under Insulation (CUI) mitigation programme
- ▶ Implementation of asset rejuvenation programme
- ▶ Review of asset integrity status for acquisition
- ▶ Asset handover management support
- ▶ Failure investigation, metallurgical analysis, flow modelling, root cause identification



ENGINEERING ANALYSES AND DESIGN VERIFICATION

- ▶ Computational Fluid Dynamics
- ▶ Finite Element Analysis
- ▶ Static and Dynamic Analysis
- ▶ Structural Engineering
- ▶ Engineering Design
- ▶ Pipe Stress Analysis
- ▶ Flexible Pipeline Design Verification
- ▶ Deformation Failure Analysis
- ▶ Fracture Failure Analysis





PRODUCTION ENHANCEMENT

Our Production Enhancement solutions focus on four core areas:

- Downhole Steam Booster
- Downhole Thermal EOR
- Gas Well 'Liquid Loading' Remediation
- Wax / Asphaltene Mitigation



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We work together with international experts at Cavitax Energy to solve issues with Viscous oil production challenges, Downhole wax / asphaltene flow assurance challenges, and Premature 'liquid-loading' in gas wells with a single tool called THOR.

THOR is the most cost-efficient, lowest carbon, targeted downhole heater available on the market, is not an artificial lift pump like ESP or PCP, and helps our clients generate Return on Investment in the shortest period compared to Electrical Heating or Topside Steam.



DOWNHOLE STEAM BOOSTER

A THOR system incl. high temperature PMM motor, placed in injection wells, near the perforations. THOR will boost the temperature of the 'hot water' downhole back towards steam.

- ▶ 200-300 BPD heated downhole close to 232-260°C [450-500°F]
- ▶ Operator will achieve same (or better) SOR as their higher rate wells
- ▶ Higher efficiency = lower carbon footprint



DOWNHOLE THERMAL EOR

A THOR system attached to the production tubing and placed below the artificial lift pump, using downhole heat to improve the productivity of the wells by providing.

- ▶ Low cost, High efficiency, thermal EOR
- ▶ Injection fluid heater, produced fluid heater or 'huff and puff' in a single completion
- ▶ Increases production/improves pump efficiency
- ▶ Mitigates waxes
- ▶ Easily retrofitted to existing wells.



GAS WELL 'LIQUID LOADING' REMEDIATION

A THOR system inserted into the gas well and placed within the 'liquid loaded' section. THOR would heat the liquid block, vaporising it back to gas and restoring production.



WAX / ASPHALTENE MITIGATION

A THOR system attached to the production tubing and placed below the artificial lift pump would keep the produced fluid warm and above WAT, giving the following benefits;

- ▶ Targeted heating of fluid to +5-10°C [9-18°F] above WAT
- ▶ Lower fluid viscosity / Increase pump efficiency
- ▶ Remove / delay requirement for pump retrieval/remediation
- ▶ Increase production
- ▶ All in a small, high efficiency package with a low energy requirement



OUR LOCATIONS

Terengganu Office:

Lot 56, Bangunan SEDC,
Bandar Baru Kerteh, 24300 Kerteh,
Kemaman Terengganu,
Malaysia.

Kuala Lumpur Office:

Menara Maxis, 26th Floor,
Kuala Lumpur City Centre,
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