

The logo for ARABIAN RELIANCE TRADING COMPANY, featuring the letters 'ARTC' in a bold, blue, sans-serif font. The letter 'A' is stylized with a red vertical bar on its right side.

شركة الاعتماد العربي للتجارة
ARABIAN RELIANCE
TRADING COMPANY

A photograph of an oil rig at sunset. The rig is a complex structure of metal towers and cranes, silhouetted against a bright orange and yellow sky. The sun is low on the horizon, creating a strong glow. The rig is supported by several thick legs extending into the water. The water reflects the colors of the sky. The image is framed by a large, stylized blue and white geometric shape that cuts across the page.

Transforming Oil and Gas with **INNOVATIVE SOLUTIONS**

Smart innovative solutions, consulting, engineering and project management services for oil and gas.

Health Safety and Environmental Consultancy

Environmental Impact Assessment (EIA)

Our environmental specialists carry out Environmental Impact Assessment to achieve both environmental and economic benefits that include less cost and time of project implementation and design, avoiding treatment as well as clean-up costs and impacts of laws and regulations.

The main goal of the EIA studies is to ensure that the decision maker considers the environmental impacts while deciding whether or not to proceed with a project.



Mitigates cost and time of project implementation.

Increases project acceptance

Boosts project performance

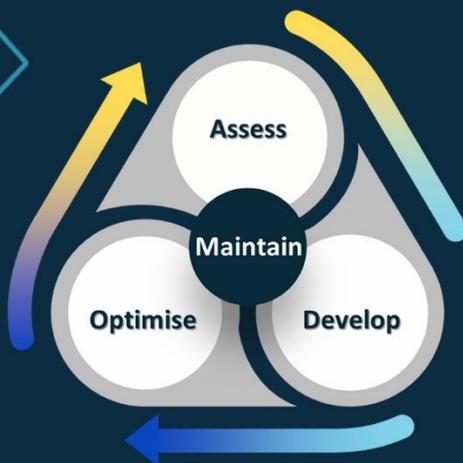
Offers cost-saving alterations in project design

Avoids impacts and violations of laws and regulations.

Prevents treatment or clean-up costs

Manage assets with minimal cost and maximum efficiency

Reliability, Availability and Maintainability (RAM)



Our expert systems engineers (SEs) fully understand the intention and role of Reliability, Availability, and Maintainability (RAM) in the acquisition process, where it happens in systems development and the overall benefits of applying it.

Our expert team of industry professionals provides a statistical basis for the contribution of each asset and conducts the analysis as per international standards, such as OREDA, ISO-14224, BS-5760, BS-EN 61703 and BS 4778-3 utilizing our RAM Analysis/ Modelling Software or Tool .

Identification of Potential Bottlenecks

Estimating the On-Stream Availability of the Unit

Prediction of the Impact of Equipment Redundancy and Sparring

Development and Mitigation Strategies for Expected Failure Modes

Option to Perform a Preliminary Equipment Criticality Analysis

RAM Study and Fault Tree Analysis

SMART, AI BASED, IOT CONNECTED

DIGITAL TWIN

Our Digital Twin solution harnesses the power of data simulation to create a digital replica of your physical assets. This approach allows you to anticipate problems, optimize processes, and improve production efficiency.



**Data Driven
Operational Efficiency**



**Forecast Bottlenecks
Predictive Maintenance**



**Improved Product
Development**



**Safety and Risk
Mitigation**



**Real-Time Remote
Monitoring and Control**

FROM CONCEPT TO DESIGN TO OPERATIONS

FLOW ASSURANCE SERVICE

We perform a comprehensive Flow Assurance study which analyses all areas of the fluid-pipe interaction leading to the development of a design and operational philosophy.

Experience includes liquid systems, gas-condensate systems, HP/HT, heavy oil, solids transport, production/injection systems and deepwater developments.

Fluid Analysis:

Is performed to ensure the fluid basis is representative of the production fluid.

System Hydraulic Capacity:

Pipeline sizing and steady-state thermo-hydraulic studies, pipeline network analysis, production optimisation and well performance.

Thermal Analysis:

Our thermal analysis studies evaluate the optimal thermal management strategy needed to get the right balance between a robust design, cost and operability.

Transient Analysis:

PETROFLOW performs detailed analysis of the system's response to transient operations such as production shutdown, blowdown, turn-down/ramp-up and start-up.

Slugging Analysis:

Our slugging solution includes slugging prediction in pipeline/risers and slug-mitigation options evaluation.

Hydrate Management:

Develop hydrate prevention philosophy for design and operating procedures.

Wax Management:

Wax prediction, wax deposition studies and removal (recommendation of pigging frequency and operational support).

For DESIGN		
Well Performance	Pipeline and Subsea Equipment Sizing	Input to process, mechanical design and material selection
For PRODUCTION ENHANCEMENT		
ESP Design/Gas-Lift Optimisation	Subsea Processing	Hydraulic Optimisation
For OPERATIONS SUPPORT		
Slugging	Pigging	Chemical Injection
For PRODUCTION RECOVERY		
Well restart	Hydrate Remediation	Wax Removal

Early identification of potential hazards

Hazard Identification (HAZID)

We have a panel of multi-skilled professionals in the field of engineering and technical safety to perform hazard identification.

Generally, HAZID sessions are initiated by an explanation of the proposed process for running the HAZID workshop, and thereafter become an open session and start by auditing the information in a logical and comprehensive way, applying checklist prompts.



Reveals hazards at an early stage, before they occur.

Hazards are properly recorded, managed, or diminished.

Helps document non-critical hazards that may be ignored.

Controllable preventive measures.

Avoids budget overruns.

Establishes hazard screening criteria.

Get a list of hazards for the following evaluation utilizing other risk assessment techniques. This is called 'Failure Case Selection'. Conduct a qualitative evaluation of the consequence of the hazards and the actions for lowering the risks from them.

Structured hazard identification and Safety Integrity Level

Hazard / Safety Integrity (HAZOP/SIL)

HAZOP is used as a technique to identify potential hazards in a system and to analyze operability problems that may result in nonconforming products. HAZOP is generally based on a theory that concludes risk events are caused by deviations from design or operating intentions.

Identifying such deviations is usually facilitated by utilizing sets of 'guide words' as a methodical list of deviation perspectives. This particular approach is an exceptional feature of the HAZOP methodology that enables to stimulate the imagination of the team members while examining potential deviations.

Our uniquely designed SIL study services comply with global standards – IEC-61508, IEC-61511 and ISA TR 84.00.02 – to ensure the safe and reliable operation of the plant.



'Bottom-up' risk identification approach

A qualitative risk evaluation technique

Physical and Operational Environments

Operational and Procedural controls

SIL Methodology, Classification, Verification

Safety Requirement Specification (SRS)

Development, implementation, review and maintenance of the corrosion policy

Corrosion Management Plan (CMP)

Corrosion management addresses the management of threats to mechanical integrity arising from mechanism of material degradation, corrosion and failure.

The most common approach to improve asset corrosion management is to perform an integrity review and use its various products to create or update an asset corrosion management strategy document.



Identification of Corrosion Threats and Risk Assessment

Major Historical Corrosion challenges

Work Processes (Core, Strategic, Tactical, Elemental and Atomic)

Corrosion Control and Mitigation Strategies

Corrosion Monitoring and Inspection Integrity Operating Windows

Program Performance Review and Management

ACCURATELY FORECAST AND PREVENT DOWNTIME PREDICTIVE MAINTENANCE



Powered by the cutting-edge technologies of Artificial Intelligence (AI) and Machine Learning (ML), our platform revolutionizes the way businesses approach asset maintenance, significantly reducing downtime and enhancing operational efficiency.



AI Based Predictions to Minimize Downtime



IOT Sensors and DCS Real-time Data Collection



AI Based Anomaly Detection and Asset's Remaining Life



Multiple Data Sources Integration Capability



Wide Range of Sensor Compatibility



Maintenance Systems and GIS Integration

رؤية
VISION
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

ARTC

شركة الاعتماد العربي للتجارة
ARABIAN RELIANCE
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PROFILE

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