Emirates
Industrial Laboratory
Oilfield • Marine • Industrial



COMPANY PROFILE 2026

# Your Quality Partner
# for Testing & Inspection Excellence

Non-Destructive Testing · Field Inspection · Asset Integrity · Heat Treatment
Mechanical · Metallurgical · Corrosion · Chemical Testing

**SINCE 1984**

ISO/IEC 17025 · ISO/IEC 17020 - EIAC accredited
ISO 9001 · ISO 14001 · ISO 45001 - SGS

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**www.eilab.ae**

AT A GLANCE

# Four decades of testing & inspection excellence

Founded in 1984 inside Drydocks World Dubai, Emirates Industrial Laboratory (EILAB) is a one-roof laboratory and inspection company serving the oil & gas, petrochemical, marine, power, construction and environmental sectors across the UAE and the wider region.

**40+**
Years in business

**1M+**
Tests completed

**50+**
PWHT machines

**200+**
Qualified professionals

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01 ABOUT US

# One destination for testing & inspection

From an embryonic beginning in 1984 as the captive material testing laboratory of what is today Drydocks World Dubai, Emirates Industrial Laboratory has grown into a credible, independent testing and inspection company for the Oil & Gas, Marine, Power and General Engineering industries.

EILAB is a one-destination center: Metallurgy, Mechanical Testing, Chemistry, NDT, Field Inspection, Asset Integrity, PWHT and Welding Consultancy - all under one roof inside Drydocks World, Port Rashid, Dubai, with an operations base at ICAD I, Abu Dhabi.

Our name has become synonymous with quality. Clients across the UAE and GCC trust EILAB as their quality representative, assured of independent, competent and professional testing and inspection services.

## Milestones

**1984**
Founded inside Drydocks World Dubai

**1995**
ISO 9000 quality management certification

**2018**
ISO/IEC 17020 inspection body accreditation

**2019**
ISO/IEC 17025 accreditation issued by EIAC

**2022**
ADNOC approved vendor (Ariba 10000500)

**2025**
ISO certifications & EIAC accreditations renewed

## Why EILAB

### All disciplines under one roof

Laboratory testing, field inspection, asset integrity and heat treatment from a single, coordinated team - faster turnaround, one point of contact.

### Accredited & certified

EIAC accredited to ISO/IEC 17025 and ISO/IEC 17020; ISO 9001, ISO 14001 and ISO 45001 certified by SGS.

### Qualified people

ASNT & PCN/ISO 9712 NDT technicians, Level III NDE advisors, API, CSWIP/AWS, NACE/BGAS inspectors, metallurgists and chemists.

### Onshore, offshore & at heights

Field teams, IRATA rope access and on-site laboratory services for plants, platforms, vessels and yards.

# What drives us

## VISION

To create and maintain a one-destination hub for cross-functional, multi-disciplinary testing and inspection services, offering our customers the best combination of quality, service and cost.

## MISSION

To serve our customers through a work culture based on integrity, teamwork, intellectual honesty and the desire to create real value - as a principled organization constantly searching for opportunities to improve and prosper.

## VALUES

Quality & Customer Satisfaction. Safety. Leadership & Teamwork. Professionalism.

## Our core values

### Quality & Customer Satisfaction

Commitment to quality and to the satisfaction of every customer.

### Safety

Priority and strict adherence to HSE practices - "Safety is our highest priority".

### Leadership & Teamwork

Common goals, individual skills, effective communication, transparency, trust and mutual respect.

### Professionalism

A high level of professionalism through adherence to standards, values and responsibilities.

## Team of professional experts

- Metallurgists
- Chemists & microbiologists
- QA/QC engineers
- Welding inspectors (CSWIP & AWS)
- API inspectors (API 510, 570, 653, 580)
- Painting / coating inspectors (NACE & BGAS)
- Corrosion engineers
- Level III NDE advisors
- ASNT / PCN Level I & II NDT technicians
- Experienced PWHT technicians
- IRATA Level III rope access supervisors
- IRATA Level I & II rope access NDT technicians

### INTEGRATED MANAGEMENT SYSTEM

Quality, environment and occupational health & safety are managed through one integrated system certified to ISO 9001, ISO 14001 and ISO 45001. Every employee receives QHSE induction, toolbox talks are held regularly and every near-miss is investigated for corrective and preventive action.

# Accredited, certified and approved

Our management system and technical competence are independently audited by accreditation, certification and approval bodies - giving clients confidence in every result we issue.

| Standard | Scope | Issued by | Certificate |
|---|---|---|---|
| **ISO/IEC 17025:2017** | Testing laboratory - mechanical, metallurgical & corrosion testing | EIAC (ILAC-MRA) | LB-TEST-018 |
| **ISO/IEC 17020:2012** | Inspection body (Type A) - non-destructive testing, incl. magnetic inspection of wire ropes | EIAC (ILAC-MRA) | IB-141 |
| **FANR Licence** | Industrial radiography & analytical techniques with radiation sources | FANR | FANR/2016/138.5 |
| **DNV-CP-0640** | NDT service supplier (classification projects) - MT, PT, UT, RT incl. Digital Radiography | DNV | AOSS0000GHR |
| **ISO 9001:2015** | Quality management system | SGS | AE26/00000230 |
| **ISO 14001:2015** | Environmental management system | SGS | AE26/00000229 |
| **ISO 45001:2018** | Occupational health & safety management system | SGS | AE26/00000228 |

## Approvals & recognitions

- Civil Defense, FANR and Municipalities - approval for radiography with radioactive isotopes
- DNV - approval for conducting NDT and ultrasonic thickness measurement
- DNV - approved service supplier for MT, PT, UT and RT, including Digital Radiography (DR), on classification projects per DNV-CP-0640 (Cert. No. AOSS0000GHR, valid until 31 May 2029)
- ADNOC approved vendor (Ariba No. 10000500) and approvals by major petroleum companies in the UAE and Middle East
- RTA Dubai - prequalified supplier for equipment safety inspection, test and certification (Reg. No. A020-2114157, valid until 24 Jun 2029)
- In-Country Value (ICV) certified
- Calibration of test equipment traceable to accredited calibration bodies

# A complete quality partner

Our services help asset owners, contractors and fabricators decide how to qualify, accept and keep using their materials, equipment and components.

## 01
### Non-Destructive Testing
Conventional and advanced NDT including PAUT, TOFD, Digital Radiography (DR), Close-Proximity Radiography (SafeRad), eddy current and PMI (LIBS + XRF).

## 02
### Field Inspection
API 510 / 570 / 653 plant inspection, CSWIP & AWS welding inspection, quality and third-party inspection.

## 03
### Asset Integrity
In-line and shutdown inspection, RBI, fitness-for-service and remaining life assessment.

## 04
### PWHT & Heat Treatment
A fleet of 50+ PWHT machines plus annealing, normalizing and quenching & tempering.

## 05
### Mechanical Testing
ISO/IEC 17025 accredited testing and welder / welding procedure qualification.

## 06
### Metallurgy & Failure Analysis
Metallography, SEM/EDS, in-situ replica and root-cause failure investigation.

## 07
### Corrosion Testing
HIC, SSC, IGC, pitting and intermetallic phase testing to NACE and ASTM.

## 08
### Analytical Chemistry
Metals, oils & fuels, water, effluents, scales, drilling fluids, microbiology and environmental monitoring.

## 09
### Rope Access (IRATA)
IRATA qualified supervisors and technicians for inspection at heights and difficult-to-access locations.

*Supported by an in-house machine shop and sampling facility operating around the clock, an excellent technical library and widely appreciated documentation systems.*

# Defects shall not pass

With ASNT and PCN/ISO 9712 Level II technicians guided by Level III NDE advisors, we perform conventional and advanced NDT in our laboratory and at site - onshore, offshore and on marine vessels - across the UAE and GCC.

## CONVENTIONAL NDT

- Visual inspection
- Borescopic examination
- X-ray radiography
- Gamma-ray radiography
- SCAR & close-proximity radiography (SafeRad)
- Ultrasonic flaw detection
- Ultrasonic thickness gauging
- Eddy current testing
- Magnetic particle inspection (visible & fluorescent)
- Liquid penetrant testing
- Vacuum box testing
- Magnetic flux leakage (MFL)

## ADVANCED NDT

- Phased array UT (PAUT) & AUT for pipelines
- Time of flight diffraction (TOFD)
- Pulsed eddy current (PEC)
- IRIS / ECT / RFET / PSEC for heat exchanger tubes
- In-service robotic inspection of storage tanks
- ACFM
- LRUT for inaccessible or buried pipelines
- FTIS for furnace tubes
- Crawler radiography for pipelines
- Corrosion mapping & corrosion under pipe supports
- Leak testing & acoustic emission testing
- Digital Radiography (DR) & film digitisation



PMI ONE BOX - LIBS + XRF

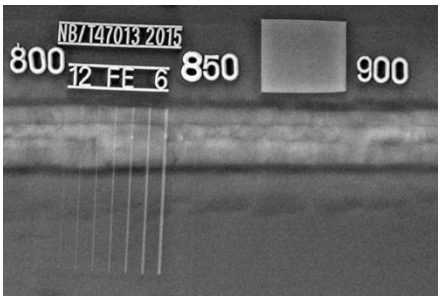
### Positive material identification on site

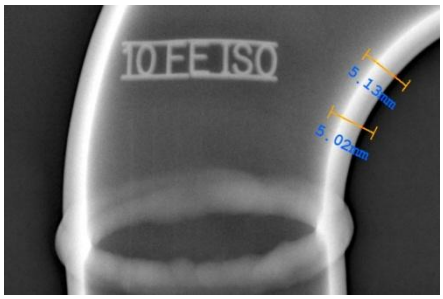
SciAps Z-902 LIBS and X-505 XRF handheld analysers identify and sort any alloy across the periodic table - including carbon down to 70 ppm with instant carbon-equivalent - for fabricators, piping contractors and material verification before and after fabrication.

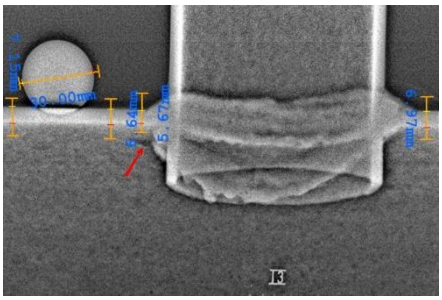
DIGITAL RADIOGRAPHY (DR)

### Film-free radiography with instant results

Wireless flat-panel and flexible DR detectors capture radiographs in minutes on site - no film, chemicals or darkroom. Higher sensitivity than film, remote interpretation, wall-thickness and corrosion measurement, and tamper-proof DICONDE archiving (ASTM E2339), with image quality to BS EN ISO 17636-2.



*Sample DR images: butt weld with wire IQI | small-bore elbow weld | weld with wall-thickness measurement*



06 FIELD INSPECTION & ROPE ACCESS

# Inspection you can rely on

Experienced plant, welding and quality inspectors support shutdowns, new construction and in-service inspection at refineries, gas plants, power plants, tank farms, fabrication yards and offshore installations.

### API Inspection

Shutdown and in-line inspection at process plants by inspectors certified to multiple API codes:

- API 510 - pressure vessels
- API 570 - piping systems
- API 653 - storage tanks
- API 580 - risk based inspection

### Welding Inspection

CSWIP and AWS qualified welding inspectors, all holding ASNT NDT Level II:

- Drawing, symbol & WPS review
- Visual inspection of welds
- Surface crack detection (PT / MT)
- Radiographic & ultrasonic weld inspection

### Quality Inspection

Verification that materials meet specification, regulation and contract requirements:

- MTR & quality documents review
- Drawings review
- Visual & dimensional inspection
- Third-party inspection



ROPE ACCESS - IRATA

### Inspection at heights and in difficult-to-access locations

IRATA Level III supervisors and IRATA Level I / II technicians - all ASNT qualified in NDT - inspect stacks, tanks, structures and offshore platforms safely and cost-effectively, in strict compliance with IRATA guidelines for techniques, training and supervision.

# EIAC-accredited inspection body

EILAB is accredited by EIAC as a Type A inspection body to ISO/IEC 17020:2012 (certificate IB-141) for new-construction and in-service inspection of welds, materials, metallic products and steel wire ropes.

| Inspection method | Inspection criteria |
|---|---|
| **Liquid penetrant (visible & fluorescent)** | ASME Section V \| BS EN ISO 3452-1 |
| **Magnetic particle (visible & fluorescent)** | ASME Section V \| BS EN ISO 17638 |
| **Ultrasonic flaw detection** | ASME Section V \| BS EN ISO 17640 \| AWS D1.1 |
| **Phased array ultrasonic testing (PAUT)** | ASME Section V \| ASTM E2700 \| BS EN ISO 13588 |
| **Ultrasonic thickness measurement** | ASME Section V \| BS EN ISO 16809 |
| **Radiographic examination (RT)** | ASME Section V \| BS EN ISO 17636-1 \| AWS D1.1 |
| **Digital Radiography (DR)** | ASME Section V \| BS EN ISO 17636-2 |
| **Visual examination (direct & remote)** | ASME Section V \| BS EN ISO 17637 |
| **Paint coating thickness** | SSPC PA-9 |
| **Magnetic inspection of wire ropes (MRT)** | ASTM E1571 \| ISO 4309 \| EN 12927 \| EN 13414 \| IMCA LR 004 \| HSSE 023 \| M 197 \| SABS 0293 \| ASME B30.9 \| ANSI B77.1 |
| **Hardness testing** | ASTM E110 \| ASTM A956 |
| **PMI - metal identification & sorting** | ASTM E1476 |
| **Spectrometric testing** | ASTM E415 \| ASTM E1086 |
| **Ferrite measurement** | ASTM A800 \| BS EN ISO 8249 |
| **Leak testing** | ASME Section V |

*Scope issue 10 (12 Nov 2025), valid until 01 Aug 2027.*

## Advanced NDT equipment



### Digital Radiography (DR)

Wireless flat-panel and flexible detectors with instant on-site images - no film or chemicals - and tamper-proof digital archiving.



### SafeRad radiography

Close-proximity Se-75 radiography with barriers at 1.5 m or less: 24-hour continuous work with no interference to other activities and no need to move joints to a bunker.




### OmniScan X4 - PAUT

Portable multi-technology flaw detector for phased array, TOFD and total focusing method (TFM) weld and corrosion inspection.

# Identifying damage - and the mechanisms behind it

We provide inspection at every stage of an asset's life cycle, helping operators manage assets with systematic, synchronised activities for optimal and sustainable use.

| 01 Design | 02 Procurement & construction | 03 Manufacturing & installation | 04 Commissioning | **05 Operation** | 06 Modification | 07 Decommis-sioning |
|---|---|---|---|---|---|---|

## Our services

- In-service inspection & monitoring
- Corrosion survey & extent of deterioration
- Remaining life assessment
- Structural stability assessment
- Fitness-for-service evaluation
- Condition assessment
- Coatings assessment

## Assets we service

- Tanks, pressure vessels, piping
- Chillers & heat exchangers
- Distillation columns
- Water treatment equipment
- Pumps & evaporators
- Jacketed vessels & reactors
- Separators, air receivers, desalters



### Risk Based Inspection

Inspection plans by experienced plant inspectors based on probability and consequence of failure, per API RP 580 and 581.

### Software & FEA

Finite element analysis (Abaqus, Ansys) and data analytics for a modern, proactive and holistic asset strategy.

### Fitness for Service

FFS and remaining life assessment per API 579-1 / ASME FFS-1 and BS 7910 flaw assessment, with a clear repair, inspection and mitigation programme.

### Inspection techniques

Conventional and advanced NDT, in-situ metallography and hardness, coupled with IRATA rope access.

*Industries: oil & gas refineries and platforms, storage tank farms, power plants, chemical & fertilizer plants and pharmaceuticals.*

# Reduce | Relieve | Restructure

Post-weld heat treatment reduces, redistributes and restructures the residual stresses introduced by welding - controlling hardness and retaining or even enhancing material strength.

With a fleet of over 50 PWHT machines and highly skilled technicians, we serve the fabrication and heavy steel industries. Our electrical-resistance equipment is portable, so treatment can be performed in-situ at site or in temporary furnaces, with advanced controllers keeping every cycle within strict tolerances.



## Services

- Pre-heating and inter-pass temperature control
- Post-weld heat treatment (PWHT)
- Annealing
- Normalizing
- Quenching & tempering
- Solution / precipitation hardening

TYPICAL CYCLE

**ASTM A106 Gr. B**

Heating 200 °C/h

Soaking 600-620 °C, 1 h

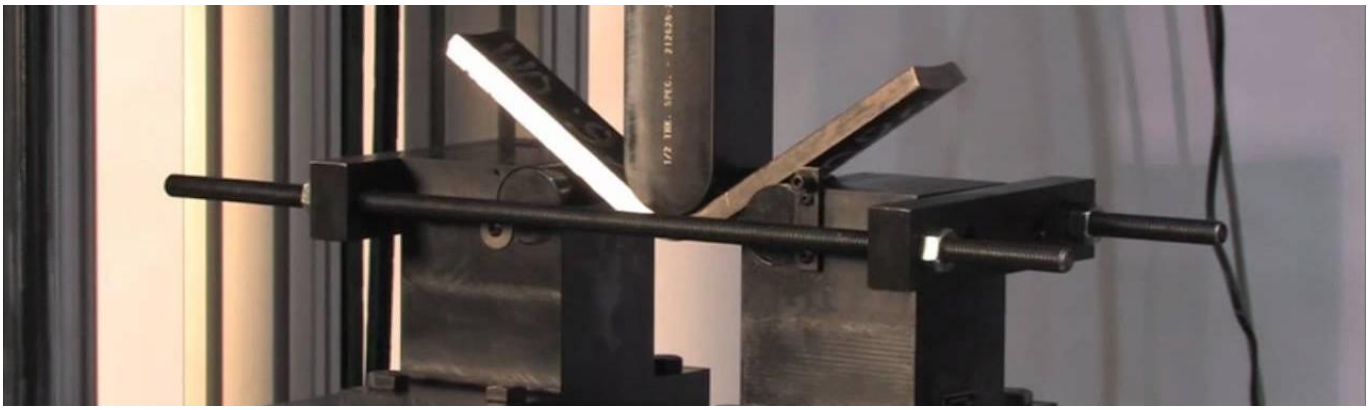
Cooling 200 °C/h

## Advantages

- Improved ductility of the material
- Improved metallurgical structure
- Improved or reduced hardness
- Reduced risk of brittle fracture
- Relaxed thermal stresses and tempered metal
- Removal of diffusible hydrogen to prevent hydrogen-induced cracking









# Tension it all

Our EIAC-accredited mechanical testing laboratory (ISO/IEC 17025:2017, LB-TEST-018) tests ferrous and non-ferrous materials in base and welded condition to international standards.

## MECHANICAL TESTS

- Tensile test - ambient & elevated temperature (yield, UTS, elongation, modulus)
- Bend & re-bend tests - 3 and 4 point, longitudinal / transverse
- Nick break & fracture tests on welded joints
- Charpy impact - ambient to cryogenic temperatures
- Hardness - Brinell, Rockwell, Vickers
- Micro-hardness measurement
- Compression, flattening and load tests
- On-site Leeb hardness and ferrite measurement

## WELDING QUALIFICATION

- Base material tests for compliance to specification
- Welder qualification tests (WQT / WPQ)
- Procedure qualification records (PQR) for WPS

### Codes and class rules

ASME BPVC Section IX | AWS D1.1 | DNV | Lloyd's Register | ABS | ClassNK | IRS | RINA

### Typical qualification tests

RT, UT, PT, MT, tensile, bend, Charpy impact, macro etch, weld hardness survey and microstructure.




HARDNESS TESTING

## Innovatest NEXUS 7700 G2

Universal hardness tester (Brinell, Vickers, Rockwell) with an 11-megapixel camera, infinite optical system and quick-change objectives - testing to ASTM and ISO standards.

# Microstructure reveals




*Olympus BX53M metallurgical microscope with digital imaging - microstructure, grain size and inclusion analysis.*



*Fracture surface - fatigue failure.*

## Metallography

Qualified metallurgists evaluate samples by optical microscopy and SEM/EDS (up to 300,000x) for microanalysis of very small areas of interest.

- Microstructural evaluation & grain size
- Inclusion rating & ferrite content
- Coating thickness & case depth
- (De)carburization & thermal damage
- Micro-hardness

In-situ replica metallography is an EILAB specialty - used for boiler, heat exchanger, reactor and furnace tubes as part of condition assessment and FFS.

## Failure analysis

Determining the root cause of a failure matters for liability - and lets owners and operators improve procedures and maintenance to prevent recurrence.

Our metallurgists combine mechanical, metallurgical and chemical testing - supported by in-house NDT - to build a complete picture of what caused the failure. Reports give the investigation details, causes of failure and remedial recommendations.

*Used by steel manufacturers and distributors, insurers, engineering companies, heavy and petroleum industries and government bodies.*

## Corrosion & specialized tests

| Test | Standard / method |
|---|---|
| **Pitting & crevice corrosion** | ASTM G48 |
| **Intergranular corrosion (IGC)** | ASTM A262 \| ASTM G28 \| ASTM G67 |
| **Hydrogen induced cracking (HIC)** | NACE TM0284 |
| **Sulfide stress cracking (SSC)** | NACE TM0177 |
| **Stress corrosion cracking (SCC)** | Sulfide, chloride and other halide environments |
| **Detrimental intermetallic phases (duplex SS)** | ASTM A923 |
| **Fracture toughness** | CTOD \| K1C (plane-strain fracture toughness) |

# So it reacts

Our chemistry department analyses metals, oils, gases, drilling fluids, chemicals, geological samples, mud and effluents - and supports industry with consultancy on elemental composition, result comparison, investigation and arbitration on material selection.

## Tests we perform

- Precious metals
- Ores, minerals & geochemistry
- Scales and deposits
- Potable & waste water
- Effluent & sludge
- Soil, cement & fly ash
- Refractories
- Drilling fluids & mud
- Industrial effluents
- Paints
- Oils & fuels
- Corrosion inhibitors & defoamers
- Asbestos (polarized light microscopy)

## Analytical instruments

**Optical emission spectrometer (OES)**
Stationary metal analyser - all constituent elements incl. C, P, S and N.

**ICP-OES & atomic absorption (AAS)**
Over 70 elements from ppb level to %, in solution or solid samples.

**Gas chromatography (GC)**
Composition of gases and evaporable liquids across refining and chemical processes.

**LIBS & XRF analysers**
Handheld SciAps Z-902 and X-505 for on-site PMI and alloy sorting.

**Melting & dropping point**
Melting range, boiling, slip melting and cloud point - fully automatic.

**Thermal analysis / calorimetry**
Mass, dimension and heat changes of materials with temperature.

**pH, conductivity & DO meters**
pH, conductivity, ion concentration, ORP and dissolved oxygen.

**Automatic titrators**
High-precision concentration determination for most titration applications.

## Microbiology

Bacterial counts and identification in drinking, process and oil-field water; biocide evaluation, COD and BOD.

## Environmental

Ambient air and stack emission monitoring, dust and noise level surveys, organic pollutants analysis.

## Field laboratory

Our field chemists provide in-situ PMI, sampling and analysis at onshore and offshore sites.





## Our capabilities include:

- Advanced multi-element analysis using ICP-OES and atomic absorption spectroscopy.
- Molecular and material characterization using FTIR spectroscopy.
- Chemical composition and elemental analysis of metals, minerals and industrial materials.
- Lubricant, petroleum product and fuel condition assessment.
- Potable water, wastewater, soil and industrial effluent analysis.
- Chemical identification, contamination investigations and analytical troubleshooting.
- On-site sampling, field testing and technical analytical support.

# Trusted across sectors

### Oil, Gas & Petrochemical
Upstream and downstream, onshore and offshore

### Construction & Infrastructure
Airports, metro, transmission and heavy structures

### Marine
Ship repair, classification, structures, coatings

### General Engineering
Manufacturing, steel fabrication, HVAC, M&E

### Power & Energy
Conventional, solar and renewable energy plants

### Environmental
Monitoring, effluent and waste analysis

## Highlights of major projects

- Noor Energy 1 (DEWA - ACWA Power) - CSP solar park
- Drydocks World Dubai - conversion, new build & repair
- Dubai Municipality - Waste-to-Energy (Hitachi)
- Borouge 4
- Expo 2020 / Expo City Dubai
- Expolink - Dubai Metro Route 2020
- Ain Dubai - inspection & consultancy
- DEWA plants - maintenance contracts
- Oil terminal & jetty at Hamriyah Free Zone
- Dubai International Airport expansion projects
- New Doha International Airport
- Sour service equipment - offshore & Das Island
- Ruwais Refinery expansion
- ADNOC Refining (Takreer) projects
- Foroozan enhancement project
- Mirfa to Habshan project
- ADNOC Offshore (ex-ZADCO) storage tanks
- Palm Jumeirah Sofitel Resort

## Some of our major clients

| | | | | |
|---|---|---|---|---|
| **ADNOC Offshore** | **ADNOC Gas** | **ADNOC Refining** | **Borouge** | **Saudi Aramco** |
| **QatarEnergy** | **Kuwait Oil Company** | **PDO Oman** | **Dubai Petroleum** | **ENOC** |
| **DEWA** | **RTA** | **ACWA Power** | **Noor Energy 1** | **Drydocks World** |
| **Bechtel** | **Saipem** | **Petrofac** | **NPCC** | **Lamprell** |
| **CNPC** | **CEEC** | **CSCEC** | **BESIX** | **ALEC** |
| **Eversendai** | **GPIC** | **General Electric** | **Siemens** | **EGA** |

LET'S WORK TOGETHER

**Talk to our team about your next testing or inspection project.**

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Emirates
Industrial Laboratory
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# Your quality partner for testing & inspection excellence.


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