

EMAAR OIL & GAS SERVICES

ABOUT US

OUR PROJECTS

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COMPANY PROFILE

www.emmareng.com



EMAAR OIL&GAS

EMAAR United Engineering SPC, headquartered in Muscat Oman, is a leading provider of innovative and sustainable solutions in the oilfield production chemicals sector. The company leverages operational excellence and a strong regional presence in the Middle East, and is committed to delivering advanced chemical solutions that address the evolving challenges of the global energy industry



VISION

To become a leader and a company of choice for our customers in Oman and in the region on our technical expertise to provide talent development services and integrated end to end cost effective solutions for challenges related to Oil and gas services and not limited to chemical R&D sector, Material/Corrosion/Risk based Inspection/RLA,FFS material supply and well services



MISSION

- To put emphasis on knowledge & expertise transfer to the young Omani Engineer community in the field of R&D, Integrity Risk Assessment , Material/ Corrosion and Inspection.
- Identify challenges that are giving pain to owners and operators within the Oil & Gas Industry and Introduce innovative solutions through our expertise and the use of technology to improve do ability , cost / time optimization and Safety enhancement.



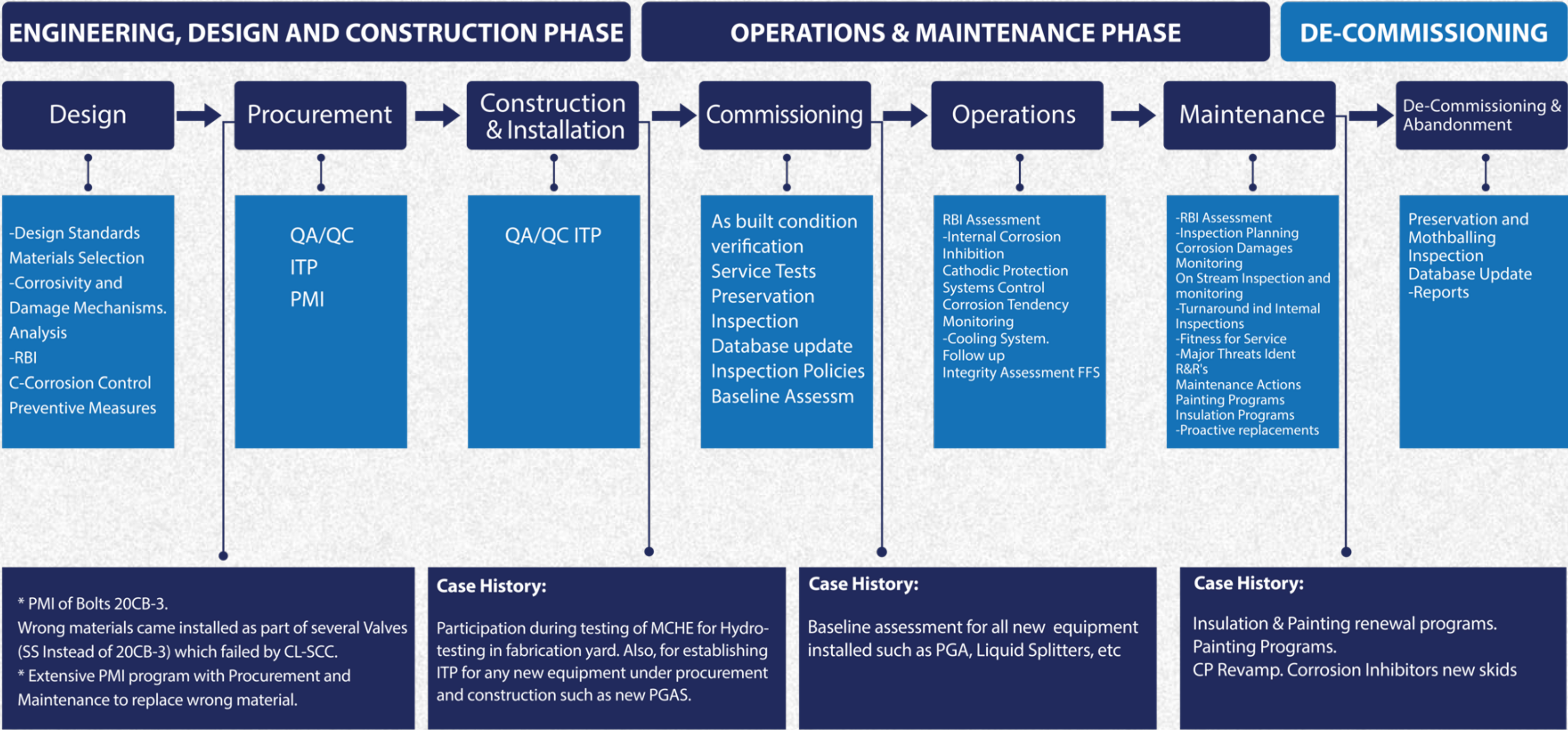
WHO WE ARE AND WHAT WE DO?



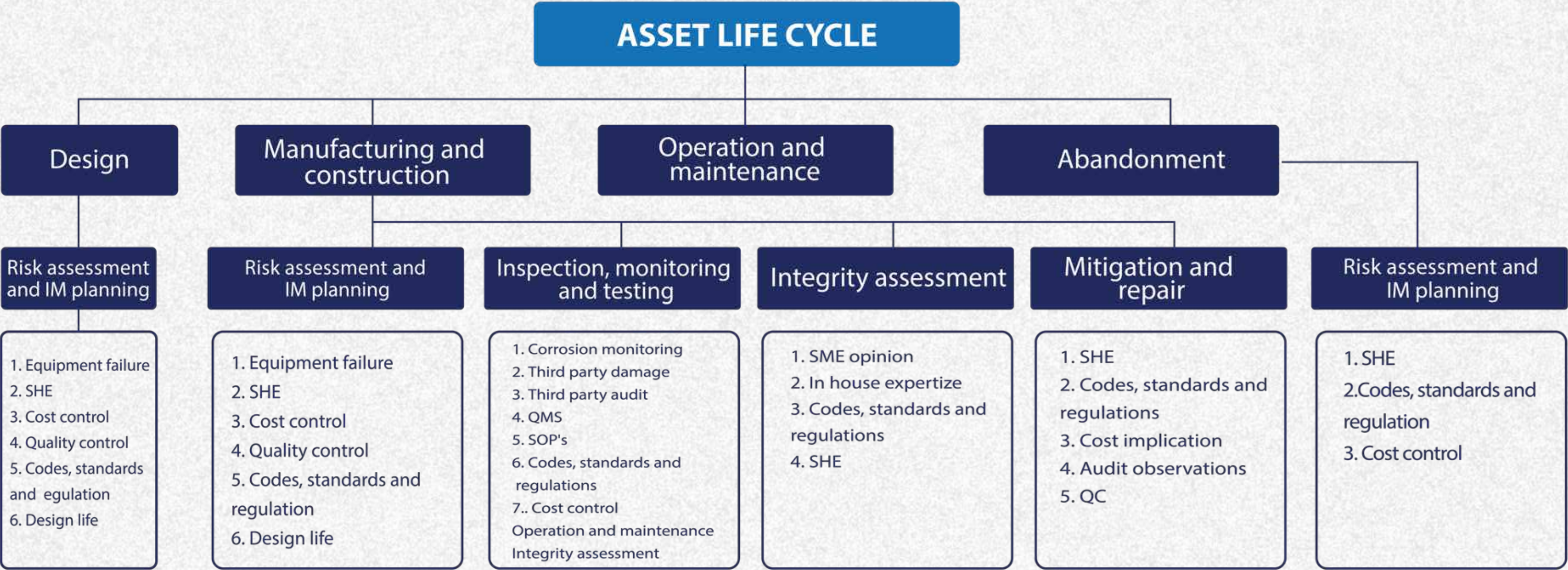
- OPAL and all major Oil Omani SME Company registered with Riyada Oman such as PDO & Gas companies in Oxy. Daleel etc.
- Expertise in Oil & Gas Industry with a cumulative hands on experience of over 80 years
- Introduce appropriate solutions for asset integrity chronic Challenges.
- Engineering, Designing, Inspection & Maintenance.
- Asset Integrity Management by specialized Subject matter studies and end to end support experts i.e. RLA/RBI/FFS/MSR/CMF/material supply& well service etc...



EMAAR SERVICES



SERVICES FOR AMBER PLANT UP TO PLANT LIFE CYCLE



OUR EXPERTISE

80+ YEARS OF COMBINED MANAGEMENT AND HANDS ON EXPERIENCE FOR:-

- Build up asset integrity from Feed to RLA
- Benchmark in the chemical R&D sector for crude oil, produced water and gas treatment, promoting sustainable practices and high-performance solutions that drive the future of energy.
- Supply all oil & gas equipment's , valves, flow line, pipeline as per ASME cods.
- Identification of Safety critical element & establishing performance Standard
- Oversee Quality in projects (ie QA / QC, HSEQ and hazard mitigation etc..
- Conduct/ facilitate RBI, RLA HAZOP, RCA, FFS studies,
- Turn Around Planning and inspections and all types of Maintenance
- Materials selection for sweet & Sour services NACE-175/Iso15156.
- Carry out Intrusive & non-intrusive NDT and conduct FFS

Expertise on all the activities related to codes (ie ASME Sec VIII Div.1 /2, ASTM, AWS, TEMA, API 571, 577, 580, 934 NACE, Shell DEP, API- 510, 570,571, 653, 579, BS7910, ASME B31G, ASME, etc.) for compliance to assurance or with Government regulations and companies' Technical ,HSE and Operating requirement.

We conduct training , coaching and development in our area of expertise supporting young Omani engineers to obtain accredited and internationally recognized certification ie API-510, 570, 653, 577, 571, RBI 580/581,B31G, RCA, FFS API-579 / ASME FFS , NDT ASNT TCA level1 & 2, etc...

OUR JOINT VENTURES



AIMS & RBI PRIMALUX Technology	Inspection OUMARCO SARLU Co.	Cobalt Well Services Co.	Robotic Tank Cleaning INITIATES PLC Environmental Services
Process Equipment SS ENERGY EQUIPMENT CO.	Boiler Decoking SYNDESI ASSOCIATES Ltd, a company	Chemical Supply <i>Shandong Nuoer Biological technology Co.</i>	
PUMPS SUPPLY	VALVES SUPPLY Sanco Valves Pvt. Ltd.	ENGINEERING SUPPORT ZEECO GLOBAL	Chemical Supply STARTwell Co.

OIL & GAS EQUIPMENT SERVICES

EMAAR and our joint venture was founded in 2007 and has a history of over 26 years which provides

1. Equipment manufacturing business for the petroleum and petrochemical industries such as Separators, Heat Exchanger, Towers etc.
2. Air quality control solutions (AQCS), investment and operation of waste-to-energy (W2E), hydrogen energy (H2E).
3. Supplied thousands of modules for oil & gas processing, heating system, gas purification, separation, waste heat recovery system, power generation etc. for oil & gas industry, offshore or onshore, following GB, GOST, ASME, DIN, API and other standards.

EMAAR and our subcontractor main customers are

1. Shell
2. Worley Parsons
3. Samsung
4. FLOUR
5. Honeywell



INNOVATION AND TECHNOLOGY

WE BRING INNOVATIVE SOLUTIONS AND TECHNOLOGIES TO OUR CUSTOMER'S DOORSTEP. WE PROVIDE RESOURCES TO REVIEW AND EVALUATE TECHNOLOGIES AMONG OUR AVAILABLE TECHNOLOGIES:-

- 1.R&D: Drives technological innovation that enables optimized exploration and production, develops advanced extraction and processing techniques, and extends the life of mature oil fields. It also focuses on creating solutions for complex challenges like harsh environments.
- 2.Tank cleaning techniques (Robotic without hot-tapping)
- 3.Smokeless flare technology to meet Oman Vision 2030
- 4.Soil contaminated treatment technology.
- 5.Inspection techniques and Drones
- 6.Corrosion Monitoring techniques (Mobil corrosion monitoring)
- 7.Steam Boiler Tubing decoking and Inspection
- 8.Sever corrosion well tubing prevention
- 9.Thermal well tubing for paraffinic wells and anti-wearing and fine sand well tubing.
- 10.ILI-UT Inspection for non piggable pipelines and process plant.
- 11.Small bore connections and corrosion under-insulation.

STAT OF ART TECHNOLOGY ONLY IN EMAAR

SOIL CONTAMINATED TREATMENT

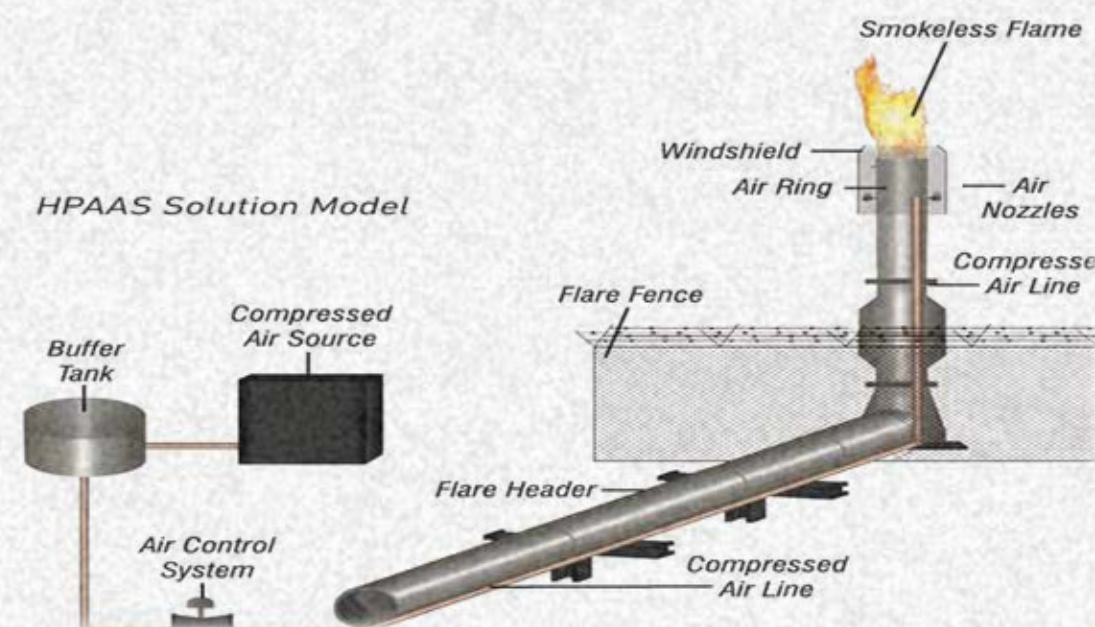
This approach differs from traditional mechanical, physicochemical, or biological approaches. With the continued support of our dedicated teams and our extensive experience, we have been able to strengthen our position as a key player in the oil and gas industry in the region



Smokeless High-Pressure Air Assist System (HPAAS).

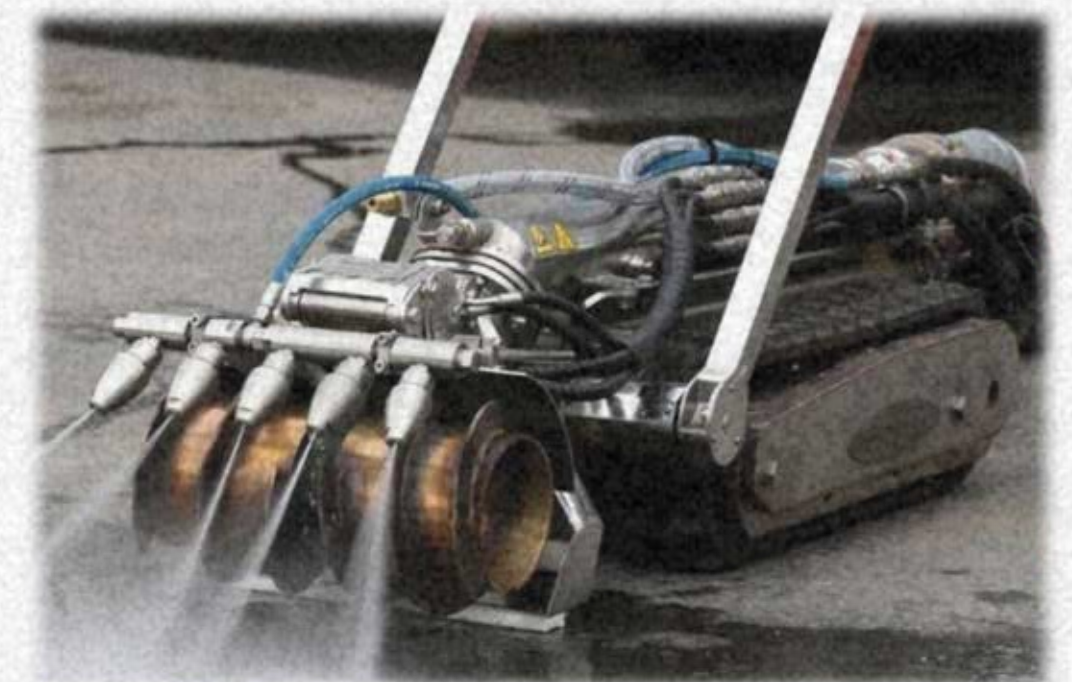
Smokeless High-Pressure Air Assist System (HPAAS).

HPAAS is a patented technology developed through extensive R&D efforts with our Joint venture to meet Oman Vision 2030 fearless



ROBOTIC TANK CLEANING

The technology presented is out of box solutions either for hot tapping (which carries inherent risks like ignition or structural damage) and for oil-recovery from sludge (which carries inherent risks by using heater and chemical)



SMOKELESS HIGH-PRESSURE AIR ASSIST SYSTEM (HPAAS).



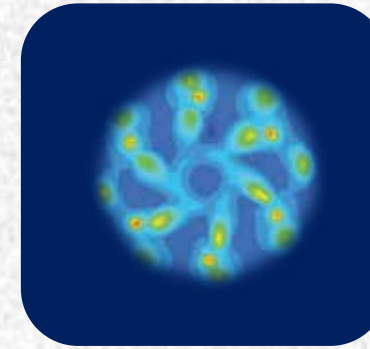
The replacement of smoke flare to smokeless become the 1st priority to promote cleaner energy production at their facilities To meet increasingly strict environmental regulations and to meet Oman visions 2030.



HPAAS uses supersonic air injection nozzles to inspire combustion air at a much higher efficiency than previous air assisted smokeless flaring technology.



This combustion air produces smokeless flaring, lower radiation levels, and increased flare tip service life. Compressed air can be provided to the system through the existing plant air supply or from a dedicated air compressor.



Saudi Aramco has successfully installed and operated this technology on dozens of flare systems in Saudi Arabia. Today, the patented HPAAS technology is available to the world market through an agreement between Saudi Aramco and EMAAR Joint ventures (ZECO Inc)



A smokeless flaring upgrade using flare technologies such as steam assist or low-pressure air assist may not be technically or economically feasible.



Without Air Assist



HPAAS Smokeless Flaring Technology

EASY RETROFIT (HPAAS)



When a flare is taken out of service for maintenance, replacement, or a retrofit, the corresponding plant must also be shut down. Long plant shutdowns for flare system retrofits result in considerable amounts of lost production and revenue for the plant.

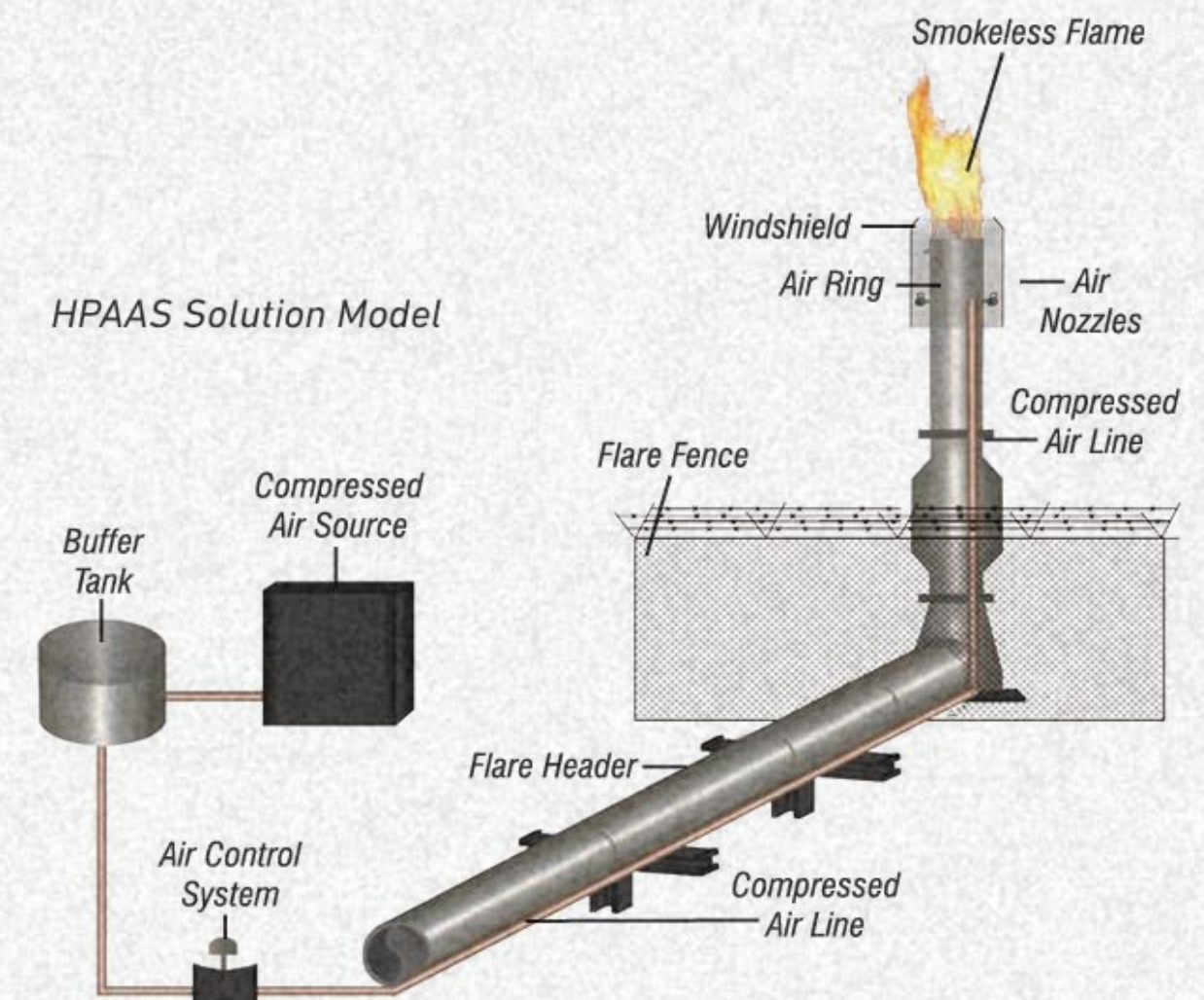
Other flare retrofits such as low-pressure air assist designs are difficult, time consuming, and costly.

The HPAAS flare tips bolt to the existing flare stack and allow for the small air supply line to mount easily to the flare stack with pipe support brackets.

The HPAAS system can be easily retrofitted to an existing flare system in a quick, cost-effective manner, and normal shutdown time for a full HPAAS flare upgrade is typically three days or less. HPAAS systems have been most effective in areas where water for steam is scarce or expensive since the systems do not require steam injection for smoke suppression.

Advantages of HPAAS.

- Easy retrofit to existing flares with minimal installation time
- Adaptable to a wide range of conditions
- No steam or service water required • Robust design • Low utility costs for operation.

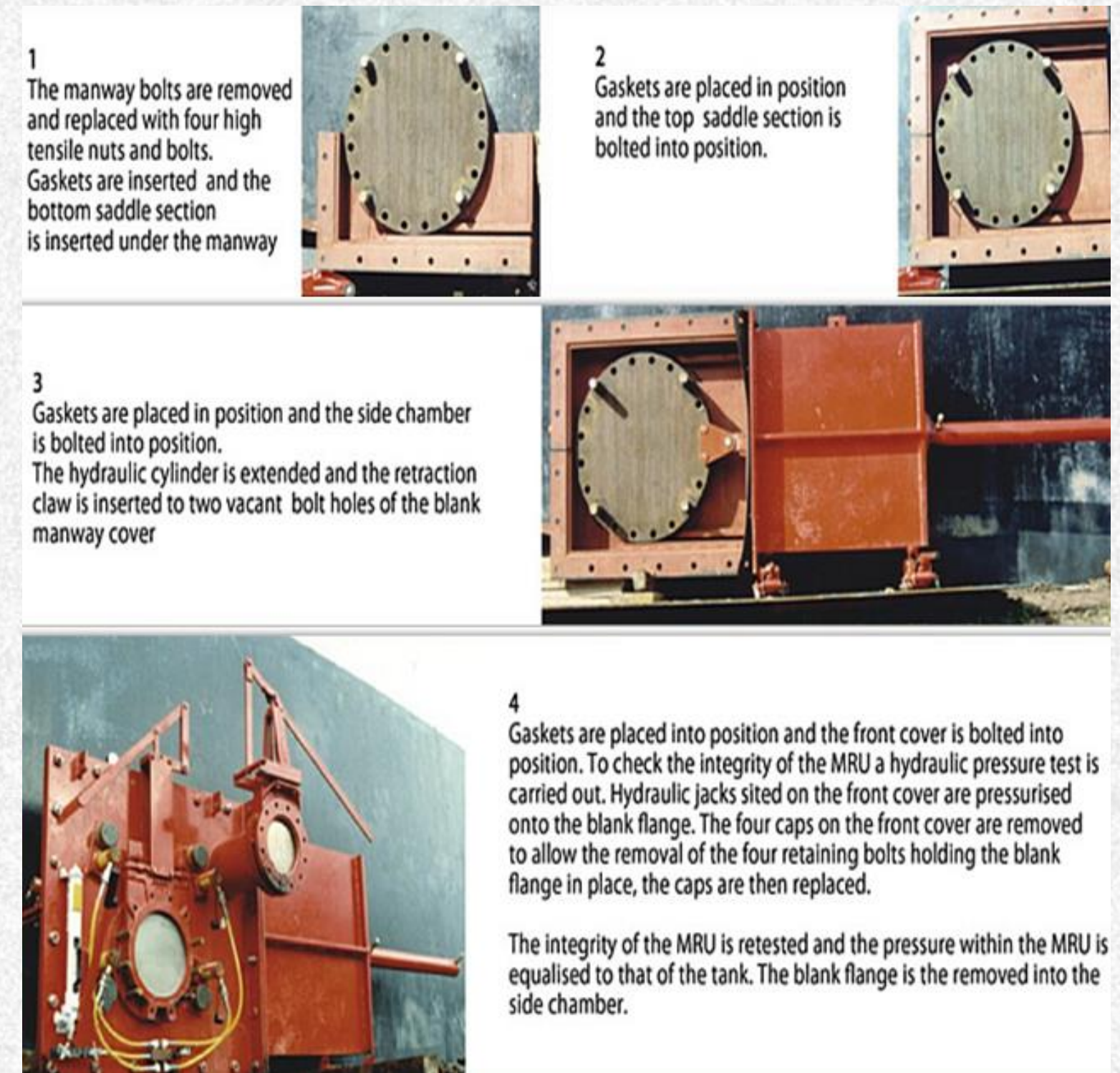


ROBOTIC TANK CLEANING

We deliver a revolutionary approach to tank cleaning by integrating Robotic Tank Cleaning systems with a Manway Removal Unit (MRU) — eliminating the need for traditional hot-tapping, high-pressure manual cleaning, or manned entry inside hazardous environments.

The MRU and robotic cleaning units are delivered as a fully modular system — minimizing setup time, cutting operational costs, and allowing deployment even at remote or restricted-access locations.

Instead of hot-tapping (which carries inherent risks like ignition or structural damage), we use a specialized MRU to safely open access points under controlled conditions. This maintains tank integrity while allowing robotic systems to be deployed without manual intervention



ROBOTIC TANK VACUUM TRANSFER SYSTEM (VTS)

VTS is an Atmosphere's Explosible (ATEX Zone-1) pneumatically powered vacuum transfer pump with non-moving parts.

This Vacuum equipment can create 25 mmHg (0.483419 psi or 0.033331 bar) of pressure, capable of evacuating sludge of various viscosity and different materials from a horizontal distance of 100 meters and a vertical depth of 40 meters

It has an integrated safety protection that ensures continuous grounding; thus the robot cannot operate if there is a breach of the grounding protection.

The CCTV has intrinsically safe cable

Antistatic umbilical connection with quick connection system

Emergency button and safety lever for hydraulic bypass

SOIL REMEDIATION TREATMENT

World class recycling solution cleaning methods technology for soil contaminated treatment differs from traditional mechanical, physicochemical, or biological approaches.

Because these traditional mechanisms have many disadvantages either coastally and, in most cases, not practical.

Oil washing recycling solutions technology offers many benefits including:

- High reliability in the reduction of harmful contaminants.
- A cost-effective alternative to multi-treatment or disposal processes.
- The production of high-quality washed construction sand and aggregates for resell and reuse.
- Reduce the carbon footprint of your processing operation by producing recycled sand and aggregates. closer to market by using the centrifugal system to sperate oi & other contaminated



OIL & GAS WELLS FRACTURING AND EOR WELLS

EMAAR and Joint venture FULTON Tec. are specialized in hydraulic fracturing and gravel packing operations both techniques involve the use of proppant material.

We are the only company to produce the high-quality technical ceramic manufacture supplying frac proppant to oil and gas fields



ENGINEERING, DESIGN AND INSTALLATION FOR COMPLETE PLANTS INCLUDING ALL THE REQUIRED SAFETY SERVICES, EQUIPPING A MULTI-DIAMETER PIPELINE AND FLOWLINE.

The scope of work for engineering, design, and installation of complete plants, including all safety services and equipping a flowline and multi-diameter pipeline, generally covers the following key aspects:

1. Engineering and Design
2. Installation and Construction
3. Safety Services
4. Multi-Diameter Pipeline Equipping

EMAAR scope elements ensure comprehensive responsibility over engineering design, safety and construction management, and specialized flowlines, pipelines equipping for multi-diameter lines in industrial plant projects



ENGINEERING, DESIGN AND INSTALLING A CENTRAL WATER TREATMENT PLANT

EMAAR intended to cover design, residual, engineering, manufacture, test and inspection at works, delivery to site properly packed for transportation, erection, testing, commissioning, performance demonstration at site and handing over to purchaser of STP, WTP, Rainwater harvesting system and water distribution network as per in the schedule of Requirement and scope of work and as required for reliable and effective Water & Sewage Treatment Plant, Rainwater harvesting system and water distribution network .

That includes and not limiting the following.

1. Sewage treatment plant, EMAAR provides new technology SEQUENTIAL BATCH REACTOR (SBR) to give treated effluent quality as specified.
2. Proposed WTP with filtration system.
3. Proposed Rainwater harvesting system.
4. Proposed External Sewage Collection Network.
5. Proposed water distribution network.



ANTI WEARING TUBING & COMPIlation

SUPPLY THE VERTICAL & HORIZONTAL WELL ANTI-WEARING TUBING AND COMPLETION WITH THE FOLLOWING;

Cobalt internal lined tubing to overcome the main challenge faced in PCP horizontal wells application, where the rod is rotating at high speed, with a direct metal to metal contact with the tubing, especially at the inclination section .

Full set Progressive cavity pumps (PCM) anti-wearing material, anti-corrosion



R&D , ASSET INTEGRITY & LIFE EXTENSION (RLA)

CORROSION MANAGEMENT STUDIES



- Down & upstream chemical solutions
- Corrosion management framework
- Corrosion Management Manual
- Integrity Operating Window (IOW)
- Identifications of thickness measurement locations (TML)

RISK-BASED INSPECTION



- RBI is a process that uses a combined system of methods to identify and understand risk. Put simply, risk can be defined by two elements:
- The consequence of failure (CoF) and the probability of failure (PoF).
- The CoF considers and evaluates the consequences of various outcomes (e.g. health and safety, environmental damage, equipment damage, and economic loss).
- The PoF is the likelihood that a piece of equipment will fail at a given time. Furthermore, both the CoF and the PoF involve qualitative and quantitative assessments.
- RBI can be used to reduce uncertainty about the damage state of a piece of equipment by prioritizing inspection activities. This is usually done by means of NDT.

FITNESS-FOR-SERVICE & REMAINING LIFE ASSESSMENT (RLA)



- There are three levels of FFS assessments, each increasing in level of detail, analysis, and complexity. Typically, conducted in accordance with API579 and also EEMUA for above ground storage tanks
- The outcome of an FFS assessment, Establishing inspection intervals improves the overall safety, reliability, and efficiency of aging equipment or rehabilitation scope after failure.



SPECIALIZED IN PROVIDING SOLUTIONS IN THE FOLLOWING AREAS

OIL & Gas Asset Integrity Consultation	• Provide short- and long-term solutions to overcome corrosion, inspection and material selection. • Provide risk analysis , Risk mitigations for the high critical anomalies to avoid asset failures. • Provide Asset remaining life assessment , and required actions for save operation and asset life extension
REVIEW CORROSION AND MATERIAL SELECTION PROJECT	• 30+ years of Oil and gas experience with major project performing Conceptual, FEED / operation facilities and Detail design of offshore & Onshore facilities. As follows • Material selection & testing, welding , CP, Coating, RBI etc.
CRUDE OIL TANK INTEGRITY MANAGEMENT	• Provide technological solutions and end to end activities' coordination to enhance Tank turn around by 30%
NON PIGGABLE PIPELINE INSPECTION AND INTEGRITY ASSESSMENT	• Inspection of non piggable pipelines, integrity assessments and provide life extension recommendations
BOILER DECOKING AND FULL INTEGRITY MANAGEMENT	• HRSG / OSTG tube cleaning and Inspections. Data analysis and provision of next cleaning and remedial work requirements

CHEMICAL SUPPLY & INFRASTRUCTURE

Filtration Control Agents

1. Starch (Modified / with Biocide)
2. CMC LV / HV (Carboxy Methyl Cellulose)
3. High Temp. Starch
4. PAC LV / R (Polyanionic Cellulose)
5. Resinated Lignite

Infrastructure

Reactors SS316, Glass Line & HDPE Reactor,

1. Distillation Column
2. Spray Dryer & Flaker, Centrifuge,
3. Filter Press, Nutch Filter, Rotary
4. Vacuum Paddler Dryer, Spin Flash
5. Dryer, Scrubbing System. Our
6. Utilities cover Boilers, Thermic Fluid
7. Heaters, Hot Air generators, Brine
8. Chilling Plants, Cooling Towers,
9. Nitrogen plants, Air compressors, RO
- 10.Plants, and DG sets. In-house
- 11.Laboratory.

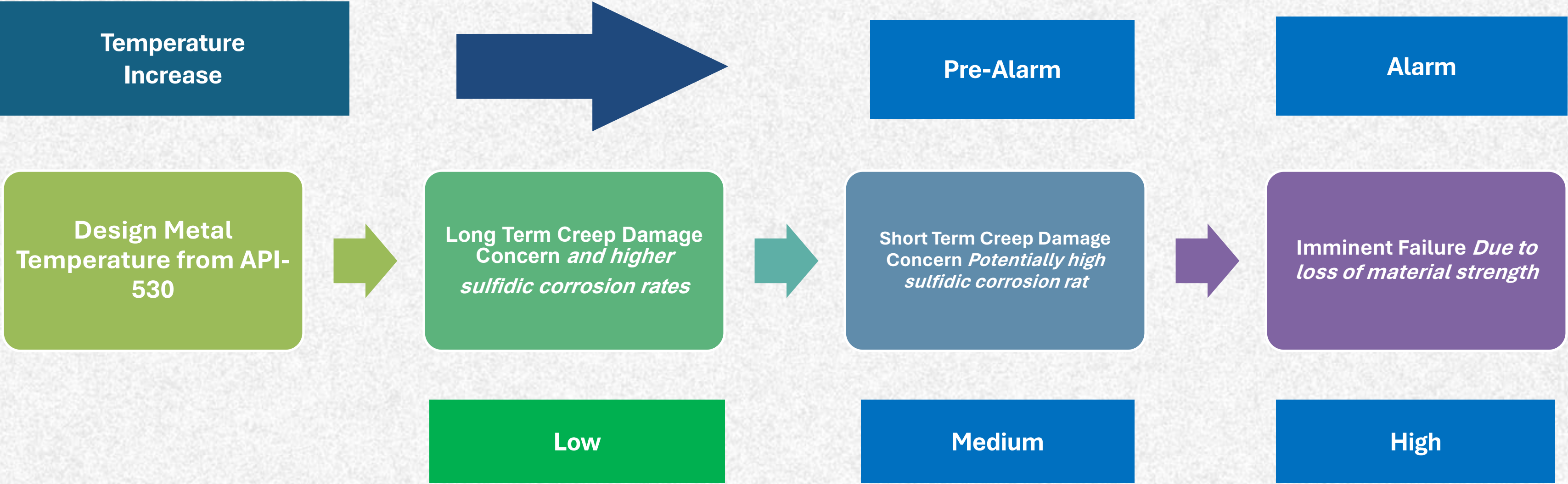
Corrosion & Scale Inhibitors

1. Corrosion Inhibitor – Drilling
2. Choline Chloride
3. Corrosion Inhibitor - All Purpose
4. Alkyl Pyridine Mixture
5. Amine Corrosion Inhibitor (20%-30%)
6. Biocide
7. pH adjustable
8. Oxygen scavenger.
9. others

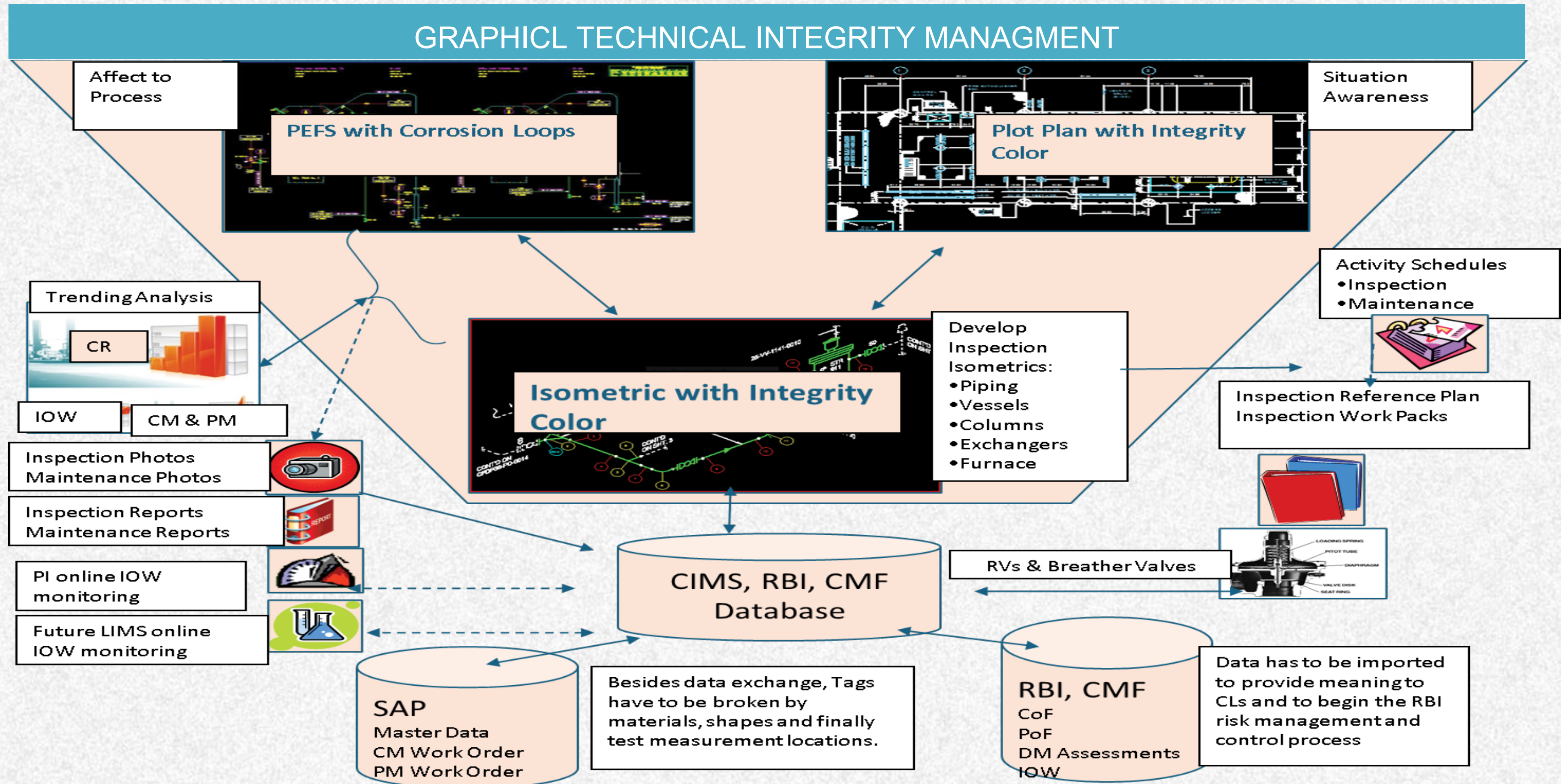


INTEGRITY OPERATING WINDOWS (IOW)

Integrity Operating Windows solution integrates with your Distributed Control System (DCS), data historian, or Supervisory Control and Data base (SAP) system integrated to CIMS s and limits to track changes to your equipment condition in real-time.



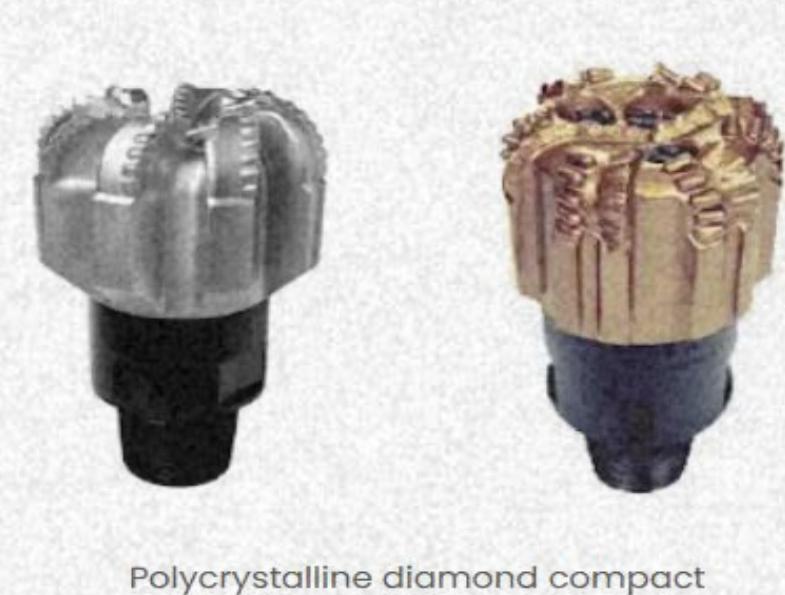
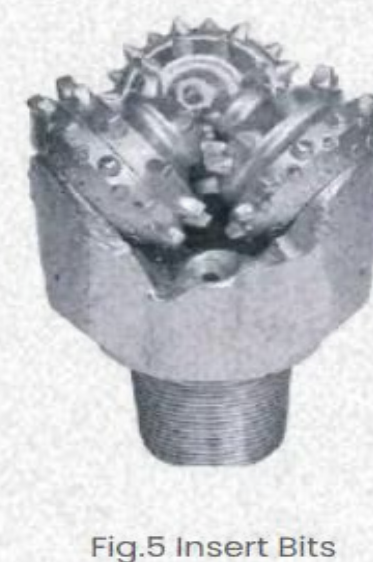
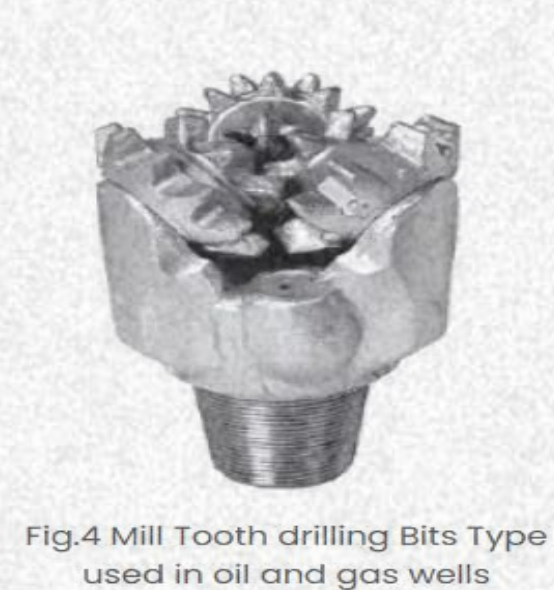
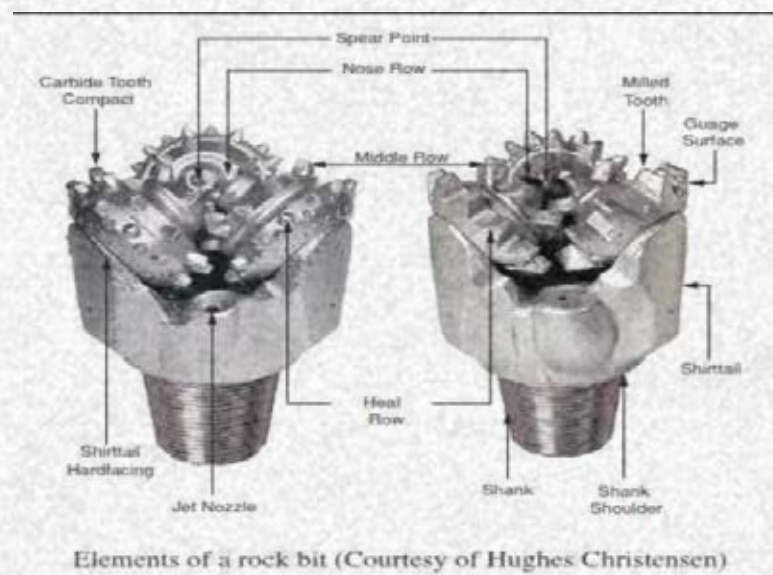
RISK BASED INSPECTION & AIMS



DRILLING-BITS

TYPES LL-BITS AND THEIR USES

1. Development of the roller cone bit
2. Multiple cone and jet arrangements in roller bits
3. Cone lubrication methods
4. Diamond bit drilling and coring procedures
5. Polycrystalline (PDC) drilling-bits



OTHER SERVICES

SUPPLY SERVICES :-

1. Oil Field Supply ie Valves, flanges etc...
2. Catalyst and chemical supply
3. Safety Equipment supply (PPE's) Tools
4. Security Services and eqpt CCTV, consultancy and Project Management etc..
5. Electrical Supplies ie Cables, Insulator, truncking junction boxes etc..



ISO CERTIFICATION



CERTIFICATES



CERTIFICATES

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شركة تنمية نفط عُمان
Petroleum Development Oman



العَمَانِيَّة للغاز الطَّبِيعِيّ المُسَالِّ
Oman LNG



فَلْحَات للغاز الطَّبِيعِيّ المُسَالِّ ش.م.م
Qalhat LNG SAOC



سي سي اينرجي ديفالوپمنت
CC ENERGY DEVELOPMENT



شركة محمد البرواني لخدمات النفط
MB PETROLEUM SERVICES



دليل النفط ش.م.م.
DALEEL PETROLEUM L.L.C.



شركة صلالة للميثانول ش.م.م. (المنطقة الحرة)
Salalah Methanol Company L.L.C. (SFZ)



MEDCOENERGI
Oil & Gas



OOCEP



CONTENTS



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