Duqm Refinery
Project Overview

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Shareholders are Oman Oil and Kuwait Petroleum
- Refinery Capacity is 230,000 BPD
- Followed by Second Stage of Petrochemical Plant
- Catalyst for growth in Duqm SEZ
Refinery Configuration

FEEDSTOCK

Natural Gas
3.3 MMSCMD

Crude Oil/ 230,000 bpd

65% : 35%
KPC / OEB

REFINERY

CDU
VDU
CAR
CSW
ARU
SWR

Other Open Art/ Foster Wheeler - UK

SRU
DCU
LTU
KTU
HCU
DHT
SGP
HPU

FLUOR
UOP

Chevron Lummus Global (CLG)

REFINED PRODUCT

Jet A1

Diesel

LPG

Naphtha

VR/HSFO

Pet coke

Sulphur
EPCs Packages

**EPC 1: Refinery Process Units**
- Open Art (CDU, VDU, CAR, CSW, ARU, SWS)
- Licensed (SRU, DCU, LTU, KTU, HCU, DHT, SGP, HPU)

**EPC 2: Refinery Utilities and Offsite facilities**
- Utilities (Power, Water, Gas, Steam, Air, N2, ...)
- Tanks (Crude, Products and Intermediate)
- Buildings (Admin, Maint, Lab, Control Room, ...)
EPCs Packages

EPC 3- A: Export Terminal

EPC 3- B: 80 Km Crude Pipeline

EPC 3- C: Crude Oil Storage at Ras Markaz
THANK YOU..
The Project Technical

Project Description

- **230,000 barrels per day Refinery**
  - Flexibility to process a wide range of crudes blends at maximum capacity

- **Key processing units:**
  - Hydrocracking unit (HCU)
  - Delayed Coker unit (DCU)

- **Maximise middle distillate, diesel and kerosene**
  - Flexibility in maximising diesel or kerosene

- **Nelson complexity factor is approximately 8**
Technical Details – Design & Products

- **230,00 BPSD Deep conversion refinery.**
- **Flexibility in crude feedstocks:**
  - API range: 28.8 – 36.7
  - Tan: 0.5 mg KOH/g
  - Sulphur: 2.9% wt
- **Flexibility in Products:**
  - Max diesel / kero modes
  - Products with international market sepc (EURO V)
  - Max high value mid distillate products and zero fuel oil
  - High on-stream factor: 95% plant availability (347 days) & 4 years turnaround.
- **Proven licensed technologies**
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Technical Details – Tankage Overview

DRPIC

Products Storage & Export Facilities

Ras Markaz

Crude Pipeline (28", 80 km)

DRPIC dedicated crude storage tanks

Products Storage Tanks at Duqm Terminal

- 4 x 261 MMbbl
- 6 x 261 MMbbl
- 2 x 261 MMbbl
- 6 x 87 MMbbl

DRPIC

Intermediate Storage Tanks

- 3 x 150 MMbbl
- 3 x 100 MMbbl
- 3 x 40 MMbbl
- 4 x 252 MMbbl

Crude Storage Tanks

- 3 x 300 MMbbl

Crude Storage Tanks at Ras Markaz

- 8x50 MMbbl
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Technical Details – Utilities Overview

Duqm Refinery

- Steam System
  - LP Steam
  - MP Steam
  - HP Steam
- Service Water
- Potable Water
- Demineralized Water
- Fire Fighting Water
- Instrument Air
  - Plant Air
- Process
- Tankages
- HPU Feed
- Natural Gas
- OGC
- Fuel Makeup
- Treated water
- Outfall
- Power
- Marafiq

Water Storage
- Desalinated water
- Marafiq

AIR System
- N2

Metering skid

Substations
- STGs

WWTP

Process

Treated water

Natural Gas

Power

Marafiq

Treated water

Outfall

OGC

Marafiq

Water Storage

Duqm Refinery

Steam System

Service Water

Potable Water

Demineralized Water

Fire Fighting Water

Instrument Air

Plant Air

Process

Tankages

HPU Feed

Natural Gas

OGC

Fuel Makeup

Plant Air

N2

Marafiq

Technical Details – Utilities Overview

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