

MOBILE POWER UNITS OIL FIELD POWER SOUTH OIL COMPANY

OWNER / OPERATOR: South Oil Company (SOC)

END USER NAME: Shell Iraq Petroleum Development B.V (SIPD)

PRODUCT: Four 5.7 MWe Taurus[™] 60 Mobile Power Units

CUSTOMER VALUE: Long-Term Cost Efficiency and Flare Gas Reduction

Solar Turbines

The Iragi Ministry of Oil awarded Shell (lead operator), Petronas and Missan a 20-year contract to provide technical assistance in the development of the Majnoon field in 2010. Majnoon is one of the largest oil fields in the world, with an estimated 38 billion STOIIP (stock tank oil initially in place). The Majnoon Project, also known as the Tigres Project, consists of a two-phase development: Phase I to reach first commercial production (FCP) and Phase II to develop the full field (FFD). In 2014, FCP exceeded the target, reaching an average of 210 kbbls/day. To sustain the development and extraction works of the Majnoon oil field and reduce the strain on the country's electricity supply a specific, sustainable and reliable power plant solution was needed and SOC selected mobile power units (MPUs) from Solar Turbines. Irag is facing an acute shortage of electricity in the country and one of the main project goals is to send the sweet gas to a power plant in north Rumaila that will generate power supply to the grid.

A Caterpillar Company

Mobile Power Units - Oil Field Power



PLANT DATA

Six 5.7 MWe Taurus 60 Mobile Power Units Four Commissioned in 2014; Two in 2016

Two Mars 100 Compressor Sets Driving Two C336EL HP and Two C51LL LP Compressors

Fuel: Associated Gas

Process Gas Cooler

Glycol Cooler and Regeneration Skid

INCREASED PRODUCTION RAPID DEPLOYMENT FLARE GAS REDUCTION INCREASED EFFICIENCY SECURE ONSITE POWER

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OUR PRODUCTS AND SERVICES

Taurus 60 Mobile Power Units, Mars Compressor Sets, and Auxiliary Equipment

Startup and Commissioning

InSight Platform[™] Equipment Health Management System

Machinery Management Services Agreement

Operation and Maintenance Training (On Site and Instructor Led at Solar Turbines Dubai Facility)

The four Taurus 60 MPUs generate electricity from flare gas to feed Pioneer Camp and the central processing facility at Majnoon Oil Field. Pioneer Camp includes offices for staff/contractors, recreation centers, dining hall, kitchen and approximately 500 residential units. The sour oil is processed prior to exporting by pumps to Degassing Station 1 about 25 kms away. Majnoon oil field's daily production is about 220,000 barrels.

After the commissioning of the two additional Taurus 60 MPUs in 2016 that will replace diesel generators, Solar Turbines equipment will be supplying power to the majority of the oil field. The use of associated gas instead of diesel dramatically reduces operation and maintenance costs and supports the worldwide flare reduction policies.

In addition to the equipment listed above, Solar has also supplied local equipment rooms, nitrogen and instrument air skids, utility skids, process gas coolers, glycol regeneration skids, glycol cooler skids, discharge coalescing skids, inlet separator skids, process skids, pipe racks, and all miscellaneous cables, cable trays and piping.

