

# SPM Oil & Gas Restores Pump Integrity

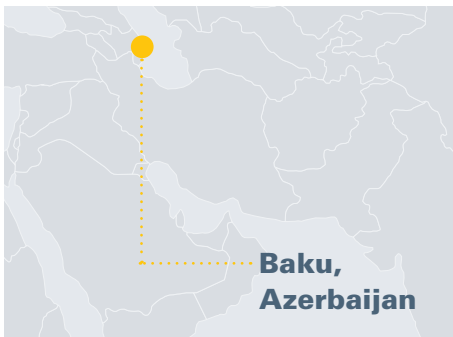
Six Leak Points Repaired, Protecting Pump Casing

## SPM™ Oil & Gas

A Caterpillar Company

### Case Study

SPM Oil & Gas' Center of Manufacturing and Engineering Excellence in Baku enables oil and gas companies to reduce total cost of ownership (TCO) and nonproductive time (NPT) by providing superior engineering expertise to identify and repair damaged pumps quickly with quality materials, backed by a warranty.



### FUN FACTS



**Prevented**  
further equipment damage



**50%+**  
faster turnaround



In-Country  
**Commitment**

### HIGHLIGHTS:

- Repaired pump leak and prevented further equipment damage
- Conformed pump casing to original size parameters
- Returned pump to service in 50 days

### THE CHALLENGE

An exploration and production (E&P) company operating Main Oil Line (MOL) pump in an offshore oil and gas field in Azerbaijan experienced a pump failure, which negatively impacted its productivity. As MOL pumps move oil from the oil field to processing and storage facilities that enable it to be exported to Sangachal terminal, losing the pump risked shutting down the platform. Given the crucial role of the MOL pump in its operation, the E&P sought to restore the pump to proper working condition and return it to service quickly.

### THE APPROACH

The E&P approached SPM Oil & Gas' Center of Manufacturing and Engineering Excellence in Baku for a solution. SPM Oil & Gas' skilled technicians and engineers performed a detailed inspection, which revealed six eroded areas in the discharge outlet contributing to the pump's impaired function.

SPM Oil & Gas technicians welded the six points of corrosion to prevent further damage inside the pump casing. Technicians cut the pump casing to conform to original size parameters, confirming final measurements with standard sizes.

The pump cartridge was disassembled to update internal consumable parts. Impeller clearances were checked, sized and balanced. After reinstalling the pump cartridge, technicians verified the shaft could rotate freely. Finally, a pump pressure test was performed to confirm the repair.

### THE RESULTS

The results of the 140 bar pump casing and 62 bar mechanical seal pressure tests confirmed full structural integrity with zero leaks.

The pump was returned to service in just 50 days, minimizing the operator's downtime.

### THE SOLUTION

SPM Oil & Gas' state-of-the-art Center of Manufacturing and Engineering Excellence in Baku and in-country engineering expertise assure best-in-class quality, delivery, and responsiveness for oil and gas companies across the Eastern Hemisphere. SPM Oil & Gas can solve engineering challenges and improve efficiencies with a global product offering and localized service capabilities that meet the needs of each operating environment. It's strategically located Centers of Excellence, engineering and technical proficiency and locally manufactured parts enable SPM Oil & Gas to reduce turnaround times by more than 50% compared to returning equipment to OEMs.

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