



## ENHANCING OPERATIONAL EFFICIENCY: ARAMCO PILOT CASE STUDY OVERVIEW

WOG Technologies is executing a Ceramic Membrane Pilot Plant at Saudi Aramco's facility to address the critical challenge of reducing Total Suspended Solids (TSS) and oil content in high-temperature wastewater.

With a capacity of 40–80 m³/hr, the plant is designed to evaluate the performance of advanced ceramic membranes under real operating conditions, aiming to deliver reliable, efficient removal of oil and solids without extensive pre-treatment.

Target Outlet
Parameters

• Oil Products: < 10 mg/L

• TSS: < 3 mg/L

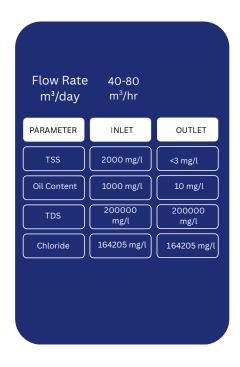
## Project Objective

- Evaluate ceramic membrane performance for oil & TSS removal with/without pretreatment.
- Optimize operational parameters: flow scheme, mode (deadend/crossflow) and cleaning protocols.
- Establish design basis and recovery rates for fullscale implementation.
- Assess sludge and oil generation from the process.

## Technical Highlights

- Membrane Type: Ceramic membranes
- Operation Modes: Dead-end & Crossflow
- Flow Rates Tested: 40-80 m³/hr
- Cleaning Features: Backwash, CEB, CIP, Flushing
- Sludge Dewatering: Integrated to assess waste stream quality





For detailed techno-commercial proposal or site visit coordination,

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## **Impact**

This pilot plant demonstrates WOG Technologies' capability to deliver high-performance membrane systems for complex, high-temperature oily wastewater with proven ceramic technology and modular design ready for full-scale scale-up.