

# CASE STUDY

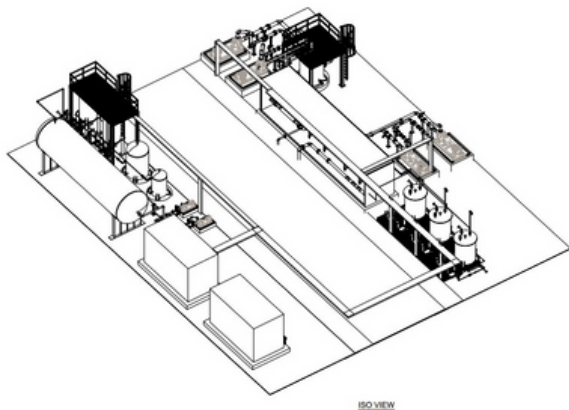
## Peerless

**END USER:** OQ- Oman

**PURCHASER:** Majees Tech. Services - EPC

**LOCATION:** Oman

**PROJECT DESCRIPTION:**  
Multimedia Filter, H2S degasification/Degasser, High Adsorber, RO System, UV Unit, 2-Stage Boron Removal system, Chemical Dosing Station,



## New Water Treatment Plant

**SITUATION:** Majees Technical Services was awarded part of the EPC contract to expand the water treatment plant at Block 60 oil field, which is located in Oman. The oil field has a shortage of utility and potable water.

**CHALLENGE:** The raw water will be received from multiple well sources. It has high salinity, high levels of H<sub>2</sub>S and Boron, and a relatively high well water temperature. To provide a reliable water source for the oil field, a new water treatment plant must provide utility and potable water per the desired water quality.

**SOLUTION:** Peerless provided a complete water solution using a range of technologies to reduce the H<sub>2</sub>S and TDS, along with other pollutants. This solution treated the raw water to meet utility and Omani unbottled water quality requirements.

### PACKAGE:

- 2 x 100% Multimedia Filters
- 1 x 100% H<sub>2</sub>S degasification to remove H<sub>2</sub>S from contaminated Water
- 1 x 100% H<sub>2</sub>S degasser + Adsorber to remove H<sub>2</sub>S from contaminated Air
- 2 x 100% High Surface Area adsorber for H<sub>2</sub>S removal
- 1 x 100% High Temp. Reverse Osmosis System
- 2 x 100% UV Unit
- 1 x 100% Two Stage Boron Removal System
- Chemical Dosing Stations
- MCC and Local Control Panel equipped with redundant PLC and HMI

### ENVIRONMENTAL BENEFITS:

- Peerless designed the new water treatment system to ensure minimum power consumption by using energy recovery systems and minimizing wastewater generated from the selected technologies.
- Utilizing the existing raw water source and converting it to a reliable water source can be used in different applications.

**CECO ADVANTAGE:** Peerless optimized the design of the water treatment package using special type of H<sub>2</sub>S removal system as well as high saline RO membrane suitable for high temp. 48°C.