

CASE STUDY

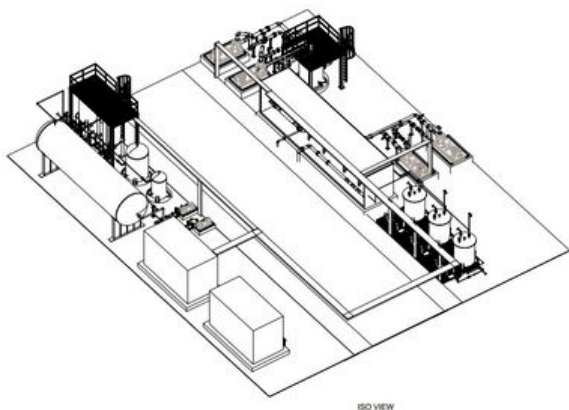
Peerless

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 H₂S 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 H₂S 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% H₂S degasification to remove H₂S from contaminated Water
- 1 x 100% H₂S degasser + Adsorber to remove H₂S from contaminated Air
- 2 x 100% High Surface Area adsorber for H₂S 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 H₂S removal system as well as high saline RO membrane suitable for high temp. 48°C.