



## Arsenic treatment plant for bottled water production

Armenia, 15 m<sup>3</sup>/h

### Aim of the Project

The challenge of this project was to treat a spring water which contains 1 mg/L of Arsenic as well as 5 mg/L of Total Iron. Pilot experiments have been conducted on site in Armenia to evaluate the treatment capacity and to find the best operating parameters for the full-scale installation.

In addition to the pollutants mentioned above, the spring water also contains high concentration of silica, calcium and bicarbonate which could not be removed or affected by the treatment.

Lenntech has engineered and built a full filtration and adsorption system fully automated and resistant to demanding environment. The adsorbers are filled with LennSorb103<sup>®</sup> for arsenic remediation.

This system allows entire flexibility and lead and lag operation considering 3 adsorbers working in series. The backwash of each vessel is triggered on delta pressure or on timer.

The system is built with drinking water certified PVC-U and ACS equipment (when applicable).

### Scope of Work

- ✓ Pilot unit design and assembly
- ✓ Remote pilot data monitoring
- ✓ Engineering, manufacturing and assembly of the full-scale plant
- ✓ Multimedia filtration and LennSorb<sup>®</sup> adsorbers
- ✓ Automatic rinse and backwash sequences
- ✓ Additional customized production sequences
- ✓ Commissioning
- ✓ Remote monitoring and system optimization
- ✓ Supply arsenic removal media

### Plant specs

#### ❑ Feed water quality

As: 1 mg/L                      TDS: 2500 mg/L  
Total Fe: 5 mg/L              Silica: 43 mg/L

#### ❑ Product water quality

As: <10 ppb / potable water

### Project duration

April 2019 – October 2022