



Mark's municipality cleans the water with ozone

**The iron and manganese
levels were well below limit
values**

MELLIFIQ

Öxabäck's Waterworks, Mark, Sweden

In Mark's Municipality, citizens receive their water from several small water sources, all with good quality of raw water. The water is purified at the municipality's waterworks before it is pumped out into the mains to the inhabitants as drinking water.

All wastewater from the residents is taken to the municipal wastewater treatment plant where it is purified in order to be released back into nature again. Manganese is a metal found naturally in groundwater, often together with iron. Groundwater from drilled wells often contains dissolved iron and manganese. The raw water in the groundwater well in Mark's Municipality has levels of iron and manganese that exceed the Swedish Food Agency's recommendations and are therefore purified before it is distributed to the households.

Facts

Name:	Öxabäck's Waterworks
Location:	Marks Municipality, Sweden
Industry:	Municipal water treatment
Purpose:	Iron and manganese reduction
Air volume:	260 m ³ /h

Solution:

Ozonetech RENA high-performance ozone system

Dimensions (HxWxD):	400 x 400 x 200 mm
Input power:	1 kW
Noise level:	49 dB

The problem

In early 2013, the media reported that Öxabäck's Waterworks had suffered a breakdown which meant that the water could not be purified from manganese. The manganese content was too high, which discolored the water, which, however, was not dangerous for adults to drink. Children and infants, on the other hand, must not drink the water or mix it with formula.



Wastewater treatment plant in Marks Municipality.

The solution

Mark's Municipality contacted us for information on how ozone can be used to purify drinking water. In a short time, a smaller ozone system was installed which, at the very moment it was put into operation, began to purify the water. In connection with commissioning, we made recommendations for optimization of the total system. The plant was optimized, among other things, with regard to the amount of ozone added and the dissolving of ozone into the water.

Evaluation

Ozone works great for purifying manganese from drinking water. The plant was delivered and optimized in a very short time, as the need to clean the drinking water was urgent.

"Mellifiq proved to be highly competent in the field of ozone-based purification of water. After a short period of consultation, a new facility could be sized and delivered. Early assumptions about sizing were revised and it was found that a smaller RENA ozone system than initially thought would provide sufficient purification. With Mellifiq's help, the plant now works well. We ended up well below the manganese limit value."

About Mellifiq

Mellifiq is a multi-awarded environmental service company group, that has since the early nineties evolved into a world leading system and solution provider with multiple groundbreaking applications for industrial, municipal, and real estate clients. We supply cutting-edge technologies to manage the most sophisticated air, water, and energy challenges.

Mellifiq offers a complete range of air and water treatment technologies and solutions across multiple industries such as processing industry, energy sector, food and beverage, pharmaceutical, wastewater treatment and commercial real estate.

Mellifiq offers strong and renowned brands, such as Ozonetech, Nodora and Water Maid, and world-class engineering services combined an excellent track record of more than 40 years of innovation. We help our clients achieve the most efficient and sustainable solutions while creating the maximum value for their businesses.

With several business units across Europe, Mellifiq is headquartered in Stockholm where research and development, production, QA and certification all take place. Our unique technology and our extensive expertise have made us the Center of Excellence for the world's most complex projects, and a global player with installations on all six continents.

Everyday millions of people rely on our solutions for ventilation, disinfection, sanitation, and odor control. We are committed to raising the bar for the concept of clean and the industry standard for engineering, technical services and general contracting.

For additional information, visit our website at www.mellifiq.com

MELLIFIQ