

Application note

Groundwater monitoring with Colifast ALARM



Application Overview

Groundwater is normally of very good hygienic quality and is consumed without any treatment. However, in some cases the aquifer can get contaminated by intrusion of contaminants of fecal origin.

Technology Overview

Colifast ALARM™ detects coliform bacteria in drinking water using the patented Colifast technology. The fully automated system consists of an on-line instrument and a bacterial growth medium. 100 ml water samples are automatically collected, mixed with growth medium and incubated. The instrument can detect down to 1 cfu per 100 mL, and results are obtained within 6-15 hours. Results are transferred through digital outputs or GSM.

Groundwater Affected by River Infiltration

GIVAS is an inter-municipal water and waste water utility located in eastern Norway. The groundwater is most of the time of excellent hygienic quality, thus the treatment is simple with only an aeration step and no disinfection.

However, the hygienic water quality can deteriorate when nearby river, Glomma (Norway's longest river), is flooding and water is infiltrated into the aquifer. During these periods chlorine is used for disinfection. Chlorination is initiated when the water level in the river reaches a certain level and is terminated when the Colifast ALARM reports negative results. This has led to more accurate chlorination duration, that has shown to be shorter than earlier practice. Hence improved water quality for consumers.



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