

# Veolia High Flow.Z\* used to treat water for disposal in an oil and gas application

CASE STUDY | Hydrocarbon Processing

## | Challenge

ESG Filtration Ltd. is a Veolia partner that works with oil companies to help manage the many water systems required for production. One of their customers was experiencing upset conditions in their disposal water system. The water quality being treated fluctuates regularly depending on the amount of hydrocarbons and particulates present in the water. The customer was using a competitor's large diameter filter, and although they were happy with the performance, they were not happy with the price and the delivery. The customer was hesitant to change their filters because they were not willing to sacrifice quality for lower cost and increased run life.

## | Solution

Veolia's High Flow.Z depth cartridge filter uses patented Z.Plex\* technology (Figure 1). The filter composition incorporates small diameter fibers and an innovative 3-dimensional fiber matrix. There are a number of micron ratings available depending on the water source and the fouling potential of the filter.

The filter is a large diameter filter and is able to handle flows up to 100 gpm (22.7 m<sup>3</sup>/h) per filter depending on water quality. The filters are engineered for both nominal and absolute ratings depending on the customer's need.

ESG Filtration Ltd. proposed a trial run with Veolia's High Flow.Z. Depth Filter to evaluate the filtration capability and to compare the downstream treated water quality. The customer purchased 15 and 25 micron filters based the filtration rating of their current competitor filters. The customer replaced the existing filters with Veolia's High Flow.Z's and measured the treated water quality to compare with their existing filters.

## | Results

Based on trial results with High Flow.Z depth filter the customer determined:

- The treated water quality was equivalent to their existing system.
- They saw improved lifespan of the High Flow.Z.
- The High Flow.Z was less expensive than the competitor's large diameter depth filter

The customer decided to change to Veolia's High Flow.Z Filters because the cost per filter decreased, the run life increased without sacrificing quality and because they were happy with the service that ESG Filtration Ltd. and Veolia provide.



Figure 1: High Flow.Z filter (above)  
Inset picture: Handle for change-outs

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