Veolia Z.Core* increases water throughput and improves TSS reduction for well injection applications

CASE STUDY | Hydrocarbon Processing

| Challenge

In the hydrocarbon processing industry, companies need produced water filtration for injection into disposal wells. This application contains a number of variable conditions, including contaminants like a high quantity of dirt, a variety of dirt, free oil, and drilling chemicals.

As the well ages, the filter usage increases, causing an increase in material and labor costs. This adds to the overall operating cost of the well.

| Solution

To solve the issues encountered in this application, the company was searching for a high-strength filter to deal with the harsh operating conditions. These conditions include heat, chemical exposure and high-pressure drop. The company also insisted that an internal support core was required in the replacement filter.

To meet these conditions, Veolia's elite partner ESG Filtration Ltd, based in Calgary, Alberta, suggested installing a ZCore 20-40 DOE cartridge filter. ZCore is manufactured using patented Z.Plex* (Figure 1) filter technology. The unique fiber matrix construction allows for excellent removal efficiency, high contaminant capacity and long filter lifetime.

| Results

Over several well injection locations, there was a noticeable increase in the produced water throughput.

In addition to this improvement, there was also an increase in the barrels of produced water per change out. The Z.Core filters were also found to improve the TSS reduction in the water and to have an extended lifetime when compared to the existing product. Due to these positive results from Veolia's Z.Core filter, the company decided to replace all of their existing products with the Z.Core 20-40 DOE cartridge filter.

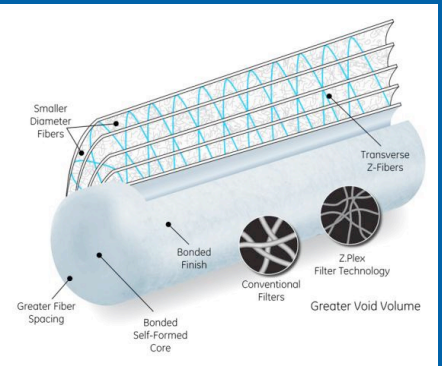

Figure 1: Patented Z.Plex Filter Technology

Patent Numbers: 6,916,395, 6,938,781, 6,986,427

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