

C A S E S T U D Y



Membrane Systems Pre-Treatment Solution - Cenovus Foster Creek (a containerized Oil Field 1,100-person Camp Potable Water Treatment System)

OVERVIEW

Membrane systems require proper pre-treatment to avoid scaling and biological fouling of the membranes (which shorten membrane life expectancy and high Operation Expenditure, downtime and chemical use).

WATER SYSTEM CHALLENGES

Scale and fouling of the membranes require use of anti-scalants and disinfection solutions and cause not only downtime but also high operation costs (not always taken into consideration when designing operation budget). To avoid using high quantities of high cost anti scalants on one hand, and the high costs involving replacement of membranes on the other, **ScaleBuster** technology was adopted.

SOLUTION

In July 2013, a 2" **ScaleBuster** SB50 conditioner and a 1-½" side stream (based on a SB40 1-½" conditioner, equipped with a nominal 1 micron bag filter) were installed as part of the pre-treatment for the UF and NF membrane systems.

RESULTS

For over 2 years, the NF membrane system (with Green Sand Filters, **ScaleBuster** and UF membranes as the pre-treatment) performs perfectly with relatively (*) low operation costs.

(*) VS. other similar system not equipped with **ScaleBuster** technology

ABOUT THE TECHNOLOGY

The patented **ScaleBuster**® technology completely replaces traditional chemical treatment; providing control of scale and corrosion in various water process systems to create an exceptionally clean system. This dramatically reduces energy and water consumption, while reducing or, in certain cases, eliminating toxic water discharge to the environment.