BNN Treatment System Triples Volume of Recycled Frack Water* *TEQUATIC™ PLUS Filters Reliably Removes Particles to 20 microns*



The Challenge

- Desire to reduce water costs and environmental impact by increasing recycled produced water in hydraulic fracking operations.
- Microbial control made storage of produced water difficult. Existing bag filter (100 microns) system could not easily adjust to varying supply/demand conditions.



The Solution

Use TEQUATIC PLUS Filters to reduce TSS down to 20 microns.
 Cleaner water aids microbial control during storage and increases suitability for fracking. Labor costs, reliability and flexibility can be enhanced through self-cleaning properties and remote control.



The Results*

- Consistently removed particles down to 20 microns.
- Helped triple volume of recycled produced water from 30% to ~100%.
- Estimated potential savings: \$2/bbl of water, reducing water-related operating costs by ~60%.
- Capability to remotely monitor and control filter operations to match changing conditions expected to enhance reliability and economics.



Oil Producer Reduces TSS, Simplifies Operations* TEQUATIC™ PLUS Filter Addresses Cost & Safety Concerns



The Challenge

- Find more cost-effective way to filter high solids from flowback and produced water to < 25 microns prior to well injection while retaining 99.5% water recovery.
- Concerns with bag filter maintenance / safety.



The Solution

 Use the TEQUATIC PLUS Filter to reduce TSS under 25 microns, increasing uptime.



The Results*

- Consistently delivered quality filtrate </= 20 microns with >99.5% water recovery.
- TSS removal between 49-74% (insoluble solids).
- No fouling, chemicals, filter changes or backwash cycles.
- Minimal maintenance; high uptime.
- Reduced safety and environmental concerns.

^{*}Results may vary depending on specific operating conditions

