Water Treatment Solutions
Tactical support for Permian Basin water challenges
Win the water battle

In the Permian Basin, the problem of too much produced water is compounded by limited freshwater resources—especially for today’s water-hungry extended lateral well completions. This has forced operators to find creative ways to manage the water they do not need while effectively sourcing the water they do need.

The Schlumberger arsenal of Permian Basin water treatment solutions combines reliable technologies with decades of water expertise. Whether you need oilfield wastewater treatment for disposal or a fully managed sustainable water treatment program, we deliver fit-for-purpose products and services that improve your field economics.

Know what you are up against
Produced water is complex so you need true oilfield water treatment experts to quickly identify and resolve water challenges. The result is smoother and more efficient oil and gas production that improves your operating margins.

Turn disadvantage into advantage
Wastewater disposal is not your only option. Reusing produced water is one of the most effective ways to manage produced water—enabling you to attain more water for your frac jobs and limit disposal volumes in saltwater disposal (SWD) wells.

Bring in the reinforcements
No other company can scale to meet your needs faster than Schlumberger. With our local area network of people and equipment in the Permian Basin, we can rapidly respond to your most pressing water needs now and help you focus on the longer term with scalable water treatment infrastructure projects.
Have **good chemistry** with your service provider

Addressing oilfield water challenges without knowledge of the underlying chemistry reduces your ability to efficiently manage production operations. Having an ally with both water and oil and gas expertise—and access to all necessary resources—prevents costly symptom-chasing scenarios in which one ineffective solution leads to another. Our expert team quickly identifies the root cause of your water problem and provides a custom solution based on correct chemistry.

- **Dedicated team** of oilfield water treatment engineers and chemists
- **More than 100 years** of combined water experience
- **Chemicals for treating biomass, iron, and sulfides**
Take care of the basics

Essential water treatment services

You do not need to call out the big guns for every water challenge. Sometimes you can just stick to the basics. We provide core services that are the foundation of a comprehensive oilfield water treatment program.

**Pond maintenance**
Ponded frac water is easily flipped to meet regulatory requirements with Voraxial® impeller-induced cyclonics, which removes oil and solids. Inline UV and oxidation treatments are used to effectively neutralize microbes and destroy residual polymers.

**Freshwater treatment**
Bulk and fine contaminants are removed from freshwater directly at the source. This proactive step not only minimizes transport and solids disposal costs but also eliminates potential infrastructure erosion issues and cleanout costs.

**Wastewater disposal**
Oilfield water treatment services can be applied to improve the quality of water destined for disposal. Removing oil that can be sold, solids, and biological matter reduces your disposal costs. In turn, the lifespan and injectivity of SWD wells is improved by reducing the need for cleanouts and workovers.
Frac-grade water on demand

Rather than accessing a freshwater source for your well stimulations, we can reliably generate frac-grade water from multiple sources to improve the economics of your operation. Our oilfield water treatment services enable using surface water for onsite frac water sourcing. We use a wide variety of technologies, including Voraxial impeller-induced cyclonics, to treat flowback and produced water. This substantially reduces the need to access and produce from freshwater aquifers or truck in water supplies for fracking—reducing your overall water costs.

Voraxial cyclonics
Voraxial cyclonics provides single-pass onsite separation of water, oil, and solids to meet the quality and supply requirements for oilfield water.

Dual-technology trailer
Our plug-and-play dual-technology trailer combines Voraxial cyclonics with media filtration to efficiently bring treatment to your water.

MYCELX RE-GEN media
MYCELX® RE-GEN advanced water treatment media provides economically sustainable treatment for 95% removal of oils and suspended solids down to 5 um without chemicals in a single pass.

Reuse it or lose it
Build a winning long-term water strategy

Water facility design, construction, and operation

Sustainable water treatment solutions drive your efficiencies and help you minimize your water treatment costs over time. We have experience designing, building, and commissioning facilities that can process from 50 to 450,000 bbl per day. Modular components, including cyclonic, coalescence, flotation, and filtration technologies, are incorporated into your facility design—resulting in a purpose-built facility that precisely meets your needs. Our experts can also manage your facility, so you can focus on increasing your production instead of managing your water issues.

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<thead>
<tr>
<th>Application</th>
<th>Oil Droplet Size</th>
<th>Products</th>
<th>Enabling Technology</th>
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<tbody>
<tr>
<td>Bulk oil</td>
<td>&gt;120–150 um</td>
<td>UNICEL Vertical Skim Vessel* bulk oil water separator</td>
<td>Gravity</td>
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<tr>
<td>Free oil</td>
<td>&gt;40 um</td>
<td>WEMCO® PACESETTER* separator</td>
<td>Coalescence and gravity</td>
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<td></td>
<td></td>
<td>NATCO* separation technology crossflow scrubber</td>
<td>Coalescence and gravity</td>
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<td></td>
<td></td>
<td>VORTOIL® deoiling hydrocyclone</td>
<td>Centrifugal force</td>
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<td></td>
<td></td>
<td>Voraxial impeller-induced cyclonics</td>
<td>Centrifugal force</td>
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<tr>
<td>Dispersed oil</td>
<td>&gt;3–5 um</td>
<td>WEMCO ISF® hydraulically induced gas flotation system</td>
<td>Hydraulic flotation</td>
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<td>WEMCO DEPURATOR* unit</td>
<td>Mechanical flotation</td>
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<td>UNICEL Vertical IGF* induced-gas flotation unit</td>
<td>Hydraulic flotation</td>
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<td>EPCON CFU* compact flotation unit technology</td>
<td>Dissolved gas hydraulic flotation</td>
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<td>Emulsion</td>
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<td>MYCELX RE-GEN advanced water treatment media</td>
<td>Advanced media filtration</td>
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<td>Polishing filtration</td>
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<td>PETRECO* HYDROMATION* nutshell filter</td>
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<td>MYCELX Polisher oil-in-water polishing filter</td>
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For more information about our oilfield water treatment services, visit slb.com/water-treatment