Water Treatment Solutions
Tactical support for produced water challenges
Win the water battle

The Schlumberger arsenal of water treatment solutions combines reliable technologies with decades of water expertise. Whether you need to treat oilfield water for disposal or establish 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 and flowback are complex. Our dedicated oilfield water treatment experts quickly identify and resolve water challenges, enabling smoother oil and gas production that improves operating margins.

Turn disadvantage into advantage
Oilfield water disposal or injection is not your only option. We help you reuse produced water and flowback, providing more water for your frac jobs and limiting disposal volumes in saltwater disposal (SWD) wells.

Bring in the reinforcements
Our team works with you to deliver flexible water treatment infrastructure and management solutions that meet your goals over the lifetime of your field.
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 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

When it comes to treating oilfield water, doing the basics right can make a big difference in operational and cost efficiencies. 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 the Voraxial* impeller-induced cyclonic separator, which prepares oil and solids for removal. 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.

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.

1. Dual-technology trailer
2. Dissolved air flotation unit
3. Continuous multipoint inline water measurement and analysis trailers
4. Power generation
5. Air compressors
6. Backwash tanks
7. Solids slurry tanks
8. Holding tank
9. Media treatment vessels
10. Voraxial separator
11. Remote control cabin
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 the Voraxial impeller-induced cyclonic separator, 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 impeller-induced cyclonic separator**
Voraxial separator 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 the Voraxial separator 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. Our team has 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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Oil Droplet Size</th>
<th>Products</th>
<th>Separation 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>MYCELX RE-GEN media</td>
<td>Advanced media filtration adsorption</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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