SeaWave℠ Chemical-Free Water Treatment System Enables Safe Discharge in Strictly Regulated Offshore Environment.

Location: Offshore, Southern Brazil

Overview

In offshore wells, Southern Brazil, where environmental regulations are among the strictest and rig costs among the highest in the world, one Major Operator is using the SeaWave system from Multi-Chem, a Halliburton Service to successfully treat flowback and produced water for safe and compliant discharge from a number of platforms.

Eliminating the drawbacks of use and transport of chemicals, the SeaWave system instead uses the electrical process of electrocoagulation (EC) to destabilize and coagulate suspended colloidal matter in water, which then passes through a dual-chamber oil-water separator for clarification and treatment.

The transportable system design and small 20’L x 8’W x 17’H footprint allow the SeaWave system to be optimally positioned on the rig for spot treating “as needed”, with real time PLC sensor monitoring to ensure compliance for safe discharge.

For this Operator, Multi-Chem used the SeaWave system to treat a wide variety of flowback waters, always to the discharge specification defined in this application as an average 29ppm (mg/l) per month, with a maximum daily average of 42ppm. To date, typical results include bringing average oil-in-water content from as high 440ppm to just 5ppm in one case where 2447bbls were treated, and from 833ppm to 7ppm in another, where 644bbl were treated.

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<thead>
<tr>
<th>CHALLENGE</th>
<th>SOLUTION</th>
<th>RESULT</th>
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<td>Treat flowback and produced water for safe and compliant discharge from a number of platforms in high-cost, strictly regulated environment.</td>
<td>SeaWave system electrocoagulation process for safe, effective water treatment for offshore platforms, eliminating hazards of transport, handling, and disposal of chemicals and treated waters.</td>
<td>SeaWave system successfully treated wide variety of flowback waters, always to strict regulatory discharge specification, ensuring compliance for safe discharge.</td>
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On these platforms where cost per meter makes rig space among the most expensive real estate in the world, the SeaWave service offers a small footprint, and saves additional space by enabling treated water to be safely discharged, rather than having to store it for later transport and disposal.