OriginClear’s proprietary Electro Water Separation™ (EWS) technology can be combined into pre-existing conventional gravity separation systems, for improved oil-water separation.

OriginClear’s Single Step Extraction (SSE) reactor tubes, the first stage of the EWS Petro process, can easily be incorporated ahead of, or in, a slip-stream design with any conventional gravity based separation process. Oil-water separation and system capacity of existing systems can be improved by performing in-line emulsion breaking and/or micro-bubble flotation, depending on the influent type.

In the data shown below, OriginClear’s SSE reactors were operated to provide an in-situ coagulation and flotation for the water column within a gun barrel containing a 70% water cut emulsion. Processing of the emulsion increased the rate of oil separation from 277 mg/sec for standard gravity based separation alone, up to 3,125 mg/sec, when combined with SSE tubes.

**APPLICATION NOTE**

**Enhancing Separation**

**EWS Enhances Conventional Separation Methods**

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**Breakthrough water cleanup technology.**
A 1000 barrel per day SSE Reactor skid and control system can be self contained within a 24 ft² (2.23 m²) footprint and installed and integrated to existing systems onsite.

**Removal of Suspended Solids and Dispersed Oil**

EWS Petro technology removes suspended solids & dispersed oil fraction, while providing bacterial disinfection for advanced downstream polishing in third party testing.

The testing presented here quantifies the separation of hard to remove suspended solids and the dispersed Oil & Grease fraction, both of which interact negatively with frac fluid & proppant and increase the risk of damaging reservoir and fluid integrity.

The tests evidence a 99.9% reduction in dispersed oil and a 99.5% reduction in suspended solids. They show a dramatic decrease in oil and suspended particles.

Ben Spaulding, Lab Manager, Fluid Imaging Technologies:

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