

TenEx Technologies, LLC, develops proprietary, materials-based technology solutions for the oil & gas industry. TenEx focuses on generating the lowest cost per barrel of oil using innovative, high performance materials that can be tailored for every reservoir.

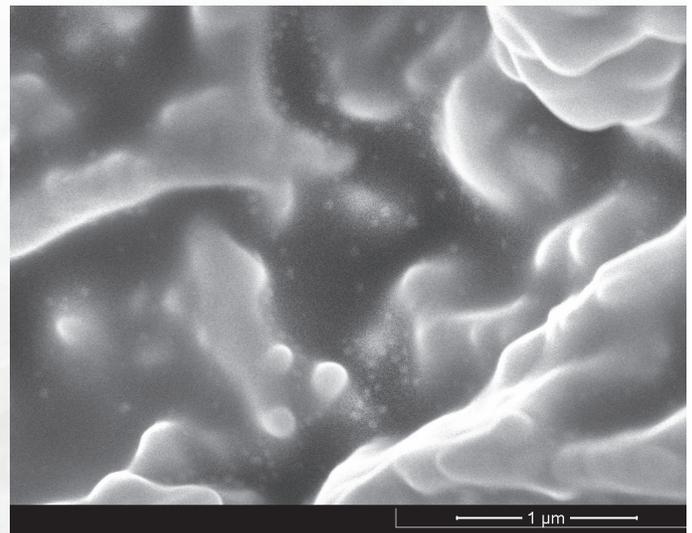


NANOCLEAR® CEC | COMPLETION ENHANCEMENT CHEMICAL

NanoClear® is a patent-pending portfolio of high performance, materials-based solutions tailored for specific treatments designed for oil well and reservoir stimulation.

How Does NanoClear® Work?

NanoClear® CEC is a water-based nanofluid which alters the wettability of the formation to increase oil production. NanoClear® CEC contains nanoparticles which are 10-30 nm in size and are able to penetrate natural and induced fractures where traditional proppants do not reach. Shown here under Scanning Electron Microscope are NanoClear® CEC's nanoparticles coating the inside of a core which reflects the nanoparticles' capability to alter wettability.



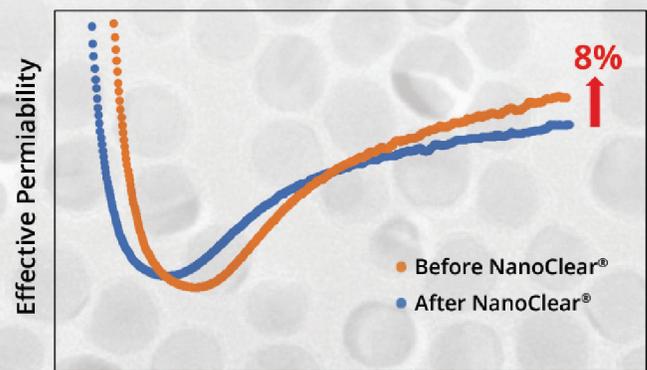
SEM image of NanoClear® CEC nanoparticles coating the inside of a core

The Impact of NanoClear® CEC on Improving Oil Recovery

Core flood testing showed the effectiveness of NanoClear® CEC in enhancing water flowback and increasing oil recovery.

- Effective water permeability improved by 8% during flowback post NanoClear® CEC treatment.
- Residual oil saturation post NanoClear® CEC treatment dropped by 21%.
- NanoClear® CEC can effectively sweep pore spaces in the core mobilizing the oil, thereby resulting in higher oil recovery.

Water Flowback Improvement (Waterflood)



Water Injected Volume

Wettability Alteration

Contact Angle

Contact Angle testing has been completed on various cores. Figure 1 shows the contact angle between water droplet and oil covered Eagle Ford Shale rock. The presence of NanoClear® CEC reduces contact angle by 22%.

In comparison testing, NanoClear® CEC has a reduction of 16% in contact angle vs. traditional nanofluid, which demonstrates its higher performance in wettability alteration.

Interfacial Tension (IFT)

Interfacial Tension (IFT) between Texas crude oil and different aqueous phases was measured. NanoClear® CEC reduced IFT by 91%. In addition, NanoClear® had a 49% reduction in IFT compared to traditional nanofluid demonstrating NanoClear® CEC's higher performance.

Reduction in contact angle and interfacial tension are key indicators of a product's capability to alter wettability. NanoClear® CEC significantly reduces both contact angle and IFT, indicating its effectiveness in altering wettability.

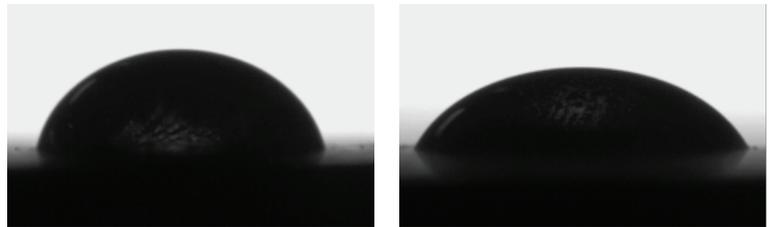
Imbibition Testing

Static testing, shown in Figure 2, shows NanoClear® CEC's effectiveness in removing oil from sandstone. Similarly, Amott Tests show 18% oil recovery improvement with NanoClear® CEC.

De-Emulsification

- Tests were conducted to evaluate de-emulsification capability of NanoClear® CEC.
- As shown in Figures 3 and 4, NanoClear® CEC provides a more effective separation of oil and water with a more distinct interface and higher clarity.

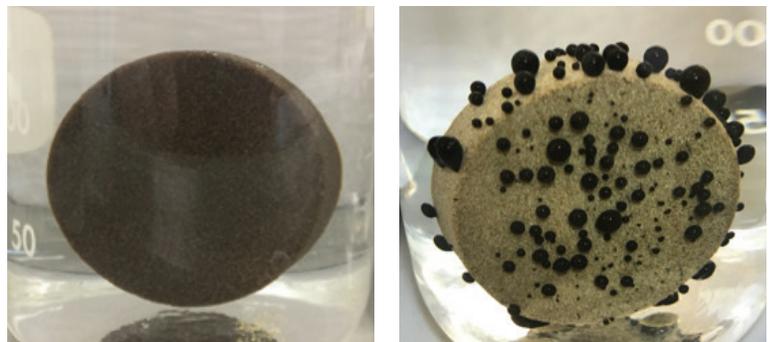
FIGURE 1



Without NanoClear® CEC

With NanoClear® CEC

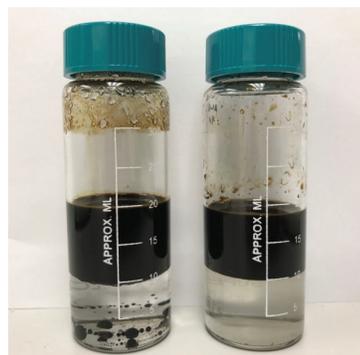
FIGURE 2



Visual static testing showing sandstone rock saturated with oil

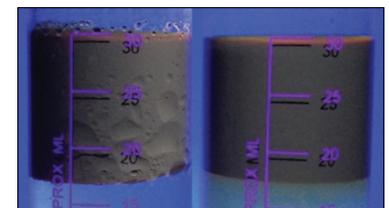
After treatment with NanoClear® CEC

FIGURE 3



Texas crude oil and water (left); Addition of NanoClear® CEC (right)

FIGURE 4



Western Canadian crude oil and water (left); Addition of NanoClear® CEC (right) shown under UV light



The TenEx Principle. In his book, *Zero to One*, author Peter Thiel describes the rules for creating a great business; Rule 1? **Build proprietary technology that is 10x better.** In other words, shoot for game-changing innovation, not incremental steps. At TenEx, it is our mission to develop disruptive solutions for the oil and gas industry by developing high performance, materials-based technologies that maximize productivity, lower costs, and spark imagination.

TENEX

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