



*An Oil & Gas Environmental Solution with Further
Application in Water Treatment*

ReXtract will initially address three key areas of fluid problems faced by the Upstream industry. Ongoing field operations in each of the three areas are clearly showing strong ROI.

Flowback & Production

- Harvesting more oil from the separator provides **more revenue** for the Operator
- Reduction of Demulsifying Chemicals represents a **significant cost saving**
- Reduction of paraffin build up in flowlines **reduces cost** of hot cleaning treatments

Disposal

- Further separation at the SWD well provides up to 99.999% hydrocarbon capture, providing **further revenue uplift**
- Viscosity & Contaminants reduction allows higher bbls/day disposal rates and **higher revenues**
- Reduction of Demulsifying Chemicals represents a **significant cost saving**

Tank & Pit Cleaning

- Tanks and Pits are cleaned by circulating the sludge through the system extracting oil creating **higher revenue**
- Dry oil and solids are retrieved and **less expensively** managed as waste
- Reduction of Chemicals required in the process represents a **significant cost saving** both in chemicals and in chemical handling

ReXtract's technology induces high level energy pulsed at specific frequencies that break the adhesive and cohesive forces within complex fluids, disrupting the molecular attractions that cause emulsions. The conditioning accelerates phase separation by altering the interfacial tension & viscosity of polar fluids, thereby making Stokes' Law more efficient.

ENHANCES DISPERSION

Surface Polarity Focus

Increasing the contact angle reduces water's cohesive properties and promotes dispersion of dissimilar materials

REDUCES ADHESION

Interfacial Tension Focus

Reducing adhesive forces between the liquid phase of water and either a solid, liquid or gas phase of another substance

ACCELERATES SEPARATION

Zeta Potential Focus

Disrupting surface charges that keep particles in suspension accelerates their separation from a fluid

REDUCES VISCOSITY

Viscosity Focus

Manipulation of oilfield fluids allows improved flow – by reducing the magnitude of internal friction of the fluid

REDUCES COHESION

Surface Tension Focus

Reduction allows water to spread more easily over a substrate and reduce the cohesive nature of water

Current Focus in Oil & Gas

- Improved efficiency in separating marketable oil from produced water
- Lower consumption of chemicals and additives in oilfield water reclamation, recycling and disposal
- Accelerated solid and biological contaminant removal from produced water
- Enhanced settling of suspended solids/release of entrained gases
- Instantly process varying flow rates/product concentrations

Future Growth Areas in Oil and Gas

- Reduced scale and other deposits such as paraffin in downhole, oilfield piping, conduits and production equipment
- Marine and Land Oil Spill cleanup
- Higher Recovery Factors in EOR applications by accelerating recovery with higher pumping rates and efficiencies
- Improved mixing of Fracking fluids, drilling muds and blending of completion fluids
- Midstream and Downstream water management efficiencies
- Oil Sands increased recovery

Areas of Future Focus in Other Industries

- Rare Earth Element Extraction
- Removal of solids and plastics from waste water
- Ship Onboard Ballast cleanup
- Waste-water treatment
- Desalination
- Domestic water purification (swimming pools, dishwashers, etc.)
- Drug & Chemical Manufacturing and Processing



Biological Sludge blended with cationic polymer
without ReXtract conditioning
(shown on Belt Press)



Biological Sludge blended with cationic polymer
after ReXtract conditioning
(shown on Belt Press)

ReXtract tested at a municipal wastewater plant, reduced polymer usage by >50%