Interface FLUIDICS

World leaders in fast, visual, repeatable fluid analysis at the pore scale.

What We Do

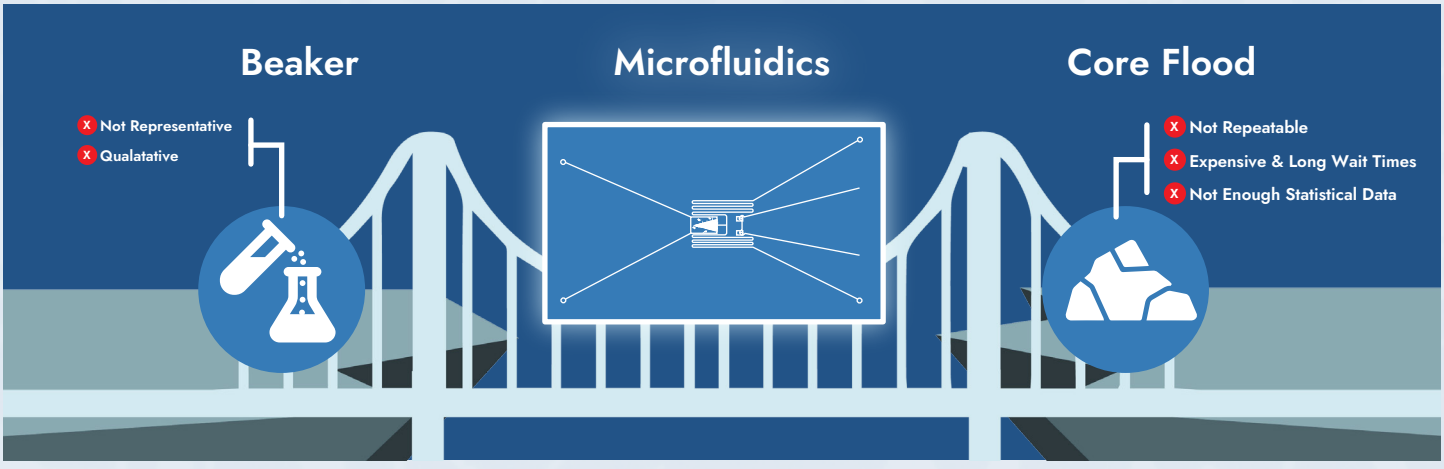
Interface Fluidics, a leading energy lab technology company, combines microfluidic technology with oilfield expertise to analyze fluid behavior and performance under actual reservoir conditions. We offer Fluid Screening, Compatibility Analysis, and Property Measurement to inform decision making in Offshore, Hydraulic Fracturing, Enhanced Oil Recovery, CCS, and beyond.

The 5 Gaps In Traditional Fluid Testing

Established in 2015, Interface Fluidics aimed to address inefficiencies in traditional fluid testing workflows. These inefficiencies hindered asset teams, leading to slow innovation, prolonged timelines, bottlenecks, and inconclusive data.

The traditional workflow primarily used beaker testing for rapid qualitative assessments, while core-floods provided thorough but expensive and time-intensive analyses, often spanning months. The challenge was transitioning from a speedy yet non-representative beaker test to a core-flood test that lacked repeatability and sufficient statistical data for solid conclusions. Interface Fluidics has dedicated itself to bridging these five critical gaps in the fluid testing workflow:

1. Not Representative
2. Qualitative (not measurable)
3. Not Repeatable
4. High Cost and Timely
5. Not Enough Statistical Data



Common Fluid Compatibility Challenges We Can Solve

By adressing the 5 gaps in traditional fluid testing, Interface has solved all these problems for different customers with a track record of over 150 + projects around the world.
If you spot the problem, Interface can solve or optimize it.

- Gas and Fluid Sensitivity
- Miscibile Gas Injection
- pH
- Steam-Additives
- Nano-surfactants
- Salt Precipitation
- Scale
- Breaker
- Regain Conductivity
- Secondary / Tertiary Production
- Conformance Control
- Fluid Management

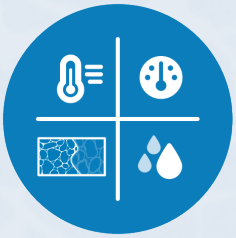
- Waxy Emulsions
- Iron Issues
- Contaminants
- Paraffin Inhibitors
- Produced Water Issues
- Solvent Emulsion
- Frac Fluid Additives
- Foams
- Solid Precipitation
- Wettability
- Polymers
- Chemical Loadings

- Water Sourcing
- Complex Chemistries
- Formation Damage
- Water Injectivity
- Friction Reducer
- Surfactants
- "Black Gunk" / "Sludge"
- Asphaltenes
- Waxes
- Gummy Bears
- Water Disposal
- Slick Water

The Interface Difference

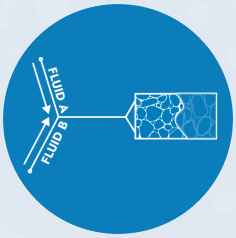
Interface Fluidics addresses the challenges of non-representative tests, qualitative measures, lack of repeatability, high costs, time-intensive processes, and insufficient statistical data. We offer solutions using custom reservoir analogues that mirror your reservoir's unique characteristics, all while utilizing genuine reservoir fluids for unmatched repeatability. This detailed approach enables asset teams to evaluate the behavior of different fluids under specific pore space, pressure, and temperature conditions. Our provision of visual access ensures timely and cost-effective data delivery, enhancing the confidence in your decision-making.

Your Reservoir



- Pressure (Up to 1000 Bar)
- Temperature (Up to 400 F)
- Permeability
- Porosity
- Pore Throat Size
- Wettability
- Representative

Your Fluids



- Live Oil
- Dead Oil
- Formation Water
- Injected Water
- Chemistry
- Solvents
- Foams
- Condensate
- Gases (CO2, N2...etc)
- Real Fluids

Visualization & Analysis

- Visual
- Quantitative
- Qualitative
- Fast
- Less Expensive than Coreflood

When To Come To Interface Fluidics + Our Process

We've established a robust process that has worked for the majority of the world's most trusted energy providers. As dedicated third-party advisors, our team of experts is committed to guiding you towards informed decision-making.

- Any Change in Chemistry Vendor or Modifying Loadings
- New Pad or Asset Being Developed
- Water Composition Changes (Produced Water or Freshwater)
- De-Risking Injection Strategy
- Well Performance Issues
- Production Strategy
- Reducing OPEX
- Complex Chemistry
- Optimizing Fluid Strategy
- Research & Development
- De-Risking Fluid Related Strategy

Understand your process, goals, and challenges.

Recreate your process or problem using your representative testing.

Visualization and analysis with SaphhireLab.

Reporting or narrow down variables to solve for X.

Working with Interface In 4 Easy Steps

To collaborate with Interface, simply follow the four steps outlined below. By scheduling a consultation call, we can guide your asset team towards a solution that aligns with your goals, objectives, and addresses any questions.

1 Collect Reservoir Information
- Permeability, Porosity, Pore Throat Size Distribution
- Wettability
- Reservoir temperature and Pressure

2 Ship Us Samples
- 500ml sample of oil, formation water, chemistry

3 Project Kick Off Meeting
- Fabrication of Reservoir Analogues
- Ask Questions

4 Reporting
- Project turnaround of 3 weeks to 1 month.

Trusted by Completions, Reservoir, and Exploitation Engineers Around the World

> *"The analytical models and microfluidic experiments were able to predict the EUR within the required precision to make investment decisions."*

Dullio Raffa,
Senior Reservoir Engineer

Book a Free Fluid Diagnostic Consultation With Our Experts