

## MicroSilicon

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# Flow Assurance

## The Challenge

From reservoir to refinery

The Industry relies on models implied from pressure, temperature and laborious and expensive laboratory measurements

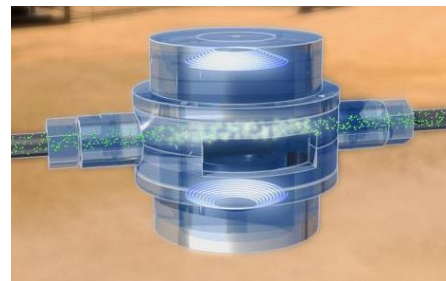
And the Industry is flying blind, lack real-time inline sensor that are direct indicators of conditions

## The Solution

The MicroSilicon Asphaltene Field Analyzer

The first in-field cloud-connected sensor that can measure asphaltene ratio in real-time

Molecular versus gravimetric



# If you can define the problem – there is a solution

## Status

3<sup>rd</sup> offline trial  
successfully  
completed

Long term inline trials  
starting & pending

Proven for asphaltene

Plans to address  
other challenges



## Benefits (pro-active vs. re-active)

Optimize chemical usage

Right chemical, right amount right time

Reduce repairs that are post facto and  
extremely expensive

Extend time between, reduce  
occurrences, be prepared when they  
happen

Reduce deferred/lost production

Reduce length and frequency of outages

Extend life of assets