

**VALIDATING QUALITY AND COMPOSITION – SGS RESERVOIR FLUID (PVT) STUDIES**



# ONSITE AND ON DEMAND RESERVOIR FLUID VALIDATION

The FluidPro PAL™ is equipped with a high pressure, variable temperature PVT cell rated to 20,000 psia at temperatures of 20°F to 350°F. The Mini-PVT™ and Mini-GOR™ systems are capable of performing conventional phase behaviour (PVT) testing normally available only in fixed labs. This includes PVT studies, fluid rheology, compositional measurements to C36+ and physical properties of atmospheric oils and brines – onsite and on demand.

## MINI-PVT MEASUREMENT CAPABILITIES

### Sample Quality Assessment & Compositions

- Oil Base Mud (OBM) contamination by skimming and/or subtraction
- Onsite HP/HT sample validation (and transfers)
- BS&W (conforms to ASTM, IP, API, ISO, DIN and NF M methods)
- Karl Fisher water content (conforms to ASTM, IP, API, BS and ISO methods)
- High-precision gas/oil ratio (GOR) and shrinkage measurements
- Extended gas compositions, heating capacity, gravity, critical properties
- Liquid compositions to C36+ by capillary chromatography
- H<sub>2</sub>S, N<sub>2</sub>, CO<sub>2</sub>, He and natural gas analysis by gas chromatography
- Molecular weight by freezing point depression
- Stock Tank Oil API gravity, density, molecular weight

### Wellstream Recombinations

- Calculated recombined wellstream composition
- Physical recombination to GOR or saturation pressure
- 0-Flash analysis of recombined sample for quality control

### Phase Behaviour Measurements

- Constant Composition Expansion (CCE)
- Differential Liberation (DL) or Constant Volume Depletion (CVD)
- Reservoir Fluid Viscosity by shear-based capillary viscometry
- Separator tests, oil shrinkage and gas/oil ratio

### Technical Specifications

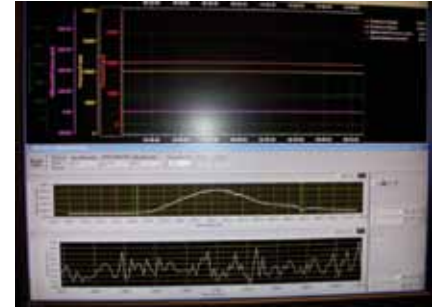
- Temperature Range: 20° F to 350° F
- Pressure Range: 0 psia to 20,000 psia
- Sample Volume Requirement: ~100 ml

### Range of Applications

- Restoration/transfers
- 0-Flash with OBM contamination
- Sample quality assessment tests
- PVT studies
- Fluid rheology

### Range of Samples

- Bottom-hole samples
- Wellhead samples
- Separator samples
- Pipeline samples



FOR MORE INFORMATION ON MINI-PVT,  
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