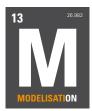


PREPARED FOR IMMEDIATE ANALYSIS WITH SGS FLUID PROPERTIES PORTABLE ANALYTICAL LABORATORY − FLUIDPRO PAL™







MOBILE LABORATORIES

PREPARED FOR DEMANDING ENVIRONMENTS

How do you cut costs and turnaround times for shipping, cylinder rental and fluid testing? Simple, take the lab to the field.

Our Fluid Properties Portable Analytical Laboratory (FluidPro PALTM) is a mobile PVT and water chemistry lab equipped with separator sampling and high-pressure transfer equipment designed specifically for onsite exploration and production applications. The FluidPro PALTM unit is DNV certified for Zone 1 applications and built to operate in harsh environments. All units are staffed by certified chemists to ensure the highest standards of quality and service – onsite and on demand.

FluidPro PALTM laboratories can be operated on-platform for testing while drilling, at a centralised shore base or as stand-alone laboratories in remote locations. The equipment and instrumentation used in our mobile laboratories offer comparable capabilities to those of fixed laboratories.

In addition, the PVT Chemists that operate the labs are 3rd-party certified and must pass a rigorous internal training programme to become a FluidPro PALTM Operator. Finally, the mobile labs are monitored by a highly experienced SGS QA/QC team with remote access via satellite phone and internet.

FOR MORE INFORMATION ON FLUIDPRO
PAL™ CONTACT SGSUPSTREAM@SGS.COM,
CALL +1 (832) 813 0145 OR VISIT
WWW.SGS.COM/OGC

FLUIDPRO PAL™ CAPABILITIES

Reservoir Fluid (PVT) Studies – up to 20,000 psia (1380 bar) and 350°F (177°C)

- Constant Composition Expansions
- Differential Liberations
- Constant Volume Depletions
- Reservoir Fluid Viscosities
- Separator Tests and Optimisations
- Oil Base Mud (OBM) ContaminationHP/HT Sample Restoration/Transfer
- Sub-Ambient, Pressurised Testing
- Flow Assurance Testing

Compositional Analyses

- GOR and GWR Measurements
- Live Sample Composition and Density
- Inert and Acid Gas Content (CO₂, H₂S, etc.)
- Shrinkage Tests
- Extended Gas Compositions by GC
- Oil Compositions to C36+ by GC

Water Geochemistry

- BS&W by Heated Centrifuge
- Karl Fisher Water Content
- Molecular Weight by Precision Cryette
- Multi-Temperature Viscosities/Densities
- Brine Properties (pH, Conductivity, TDS)
- Geochemical Brine Chemistry by Titration
- Chandler Dewscope Gas Dewpoints
- Stain Tube Measurements (Drager)
- Radon and Mercury Measurements

Field Services and Staff

- Separator and Allocation Sampling
- · Offshore Safety Certified
- HazMat and H₂S Certified
- SGS Certified (Mini-GOR™, Mini-PVT™ and sampling)

Advantages

- High quality data equivalent to fixed labs but measured onsite
- FluidPro PAL™ Chemists are trained and certified for sampling
- Short turnaround times (no backlogs or shipping delays)
- Full live sample analyses with less than 100 ml of sample
- Operates at wellsite or at field base (multi-well)

Cabin Specifications

- 20 ft long x 8 ft wide x 9 ft high
- 360 (45 amp max)/480VAC switchable power supply
- DNV Certified for Zone 1 Hazardous Environments
- External temperatures from -20°F to 120°F
- Approximate gross weight: 12 tons
- · Lift certified and skid-mounted



