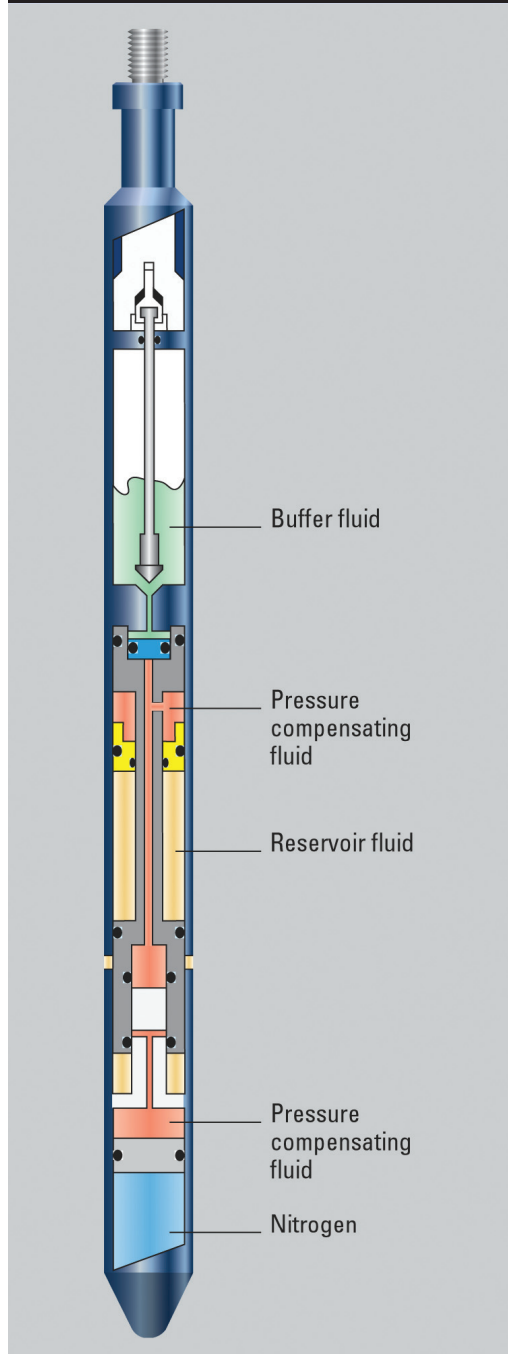


Slimline Single-Phase Reservoir Sampler

Slimline single-phase reservoir fluid sampler.



The slimline single-phase reservoir fluid sampler (SLS) is an advanced system for subsurface sampling applications. The SLS is designed to maintain the sample in a single-phase condition and above reservoir pressure as the tool is retrieved from the well.

Single-phase technology provides truly representative samples and is essential for measurements requiring samples in unaltered conditions, such as pressurized pH measurements in formation water or asphaltene deposition analysis in oil.

The SLS is run in the sample carrier (SCAR) with the drillstem test string during well testing. The SCAR-SLS combination enables high-quality pressure-volume-temperature (PVT) samples to be obtained where running wireline is not cost-effective, practical, or safe. By eliminating the need for wireline intervention, the SCAR provides potential rig-time savings of 8 to 24 h during an offshore bottomhole sampling project.

The SLS technology is based on our existing single-phase reservoir sampler (SRS), which has been operated more than 3,500 times. The reliability of the SRS has established it as the benchmark tool for all subsurface sampling operations.

The SLS allows controlled, uncontaminated reservoir sampling without sample flashing. The unaltered sample is retrieved at the surface in single-phase state, requiring no recombination before transfer. Because samples need not be recombined, the sample transfer takes minutes instead of hours.

The SLS mercury-free, pressure-compensating bottomhole sampling tool can be operated in configurations of up to ten tools in the SCAR. Applying annulus pressure (the ruptured-disk method) or the IFSM sampler module featuring IRIS* Intelligent Remote Implementation System technology allows complete flexibility in sampler activation method.

Applications

- All subsurface sampling operations requiring unaltered, uncontaminated single-phase samples
- Flow assurance studies
- Aquifer pH studies

Benefits

- Accurate fluid characterization with no phase change of sample
- Fast sample transfer

Features

- Single-phase pressure compensation
- Positive displacement operation
- Mercury-free operation
- Annular-pressure or IFSM sampler module activation capability

Schlumberger provides innovative, cost-effective solutions for reservoir fluid sampling and analysis. The Schlumberger line of products and services includes

- surface sampling
- downhole sampling
- wellsite fluid analysis services
- fluid laboratory services
- fluid modeling software
- PVT and enhanced oil recovery equipment.

Specifications

Length	3.7 m [12.1 ft]
Weight	14 kg [30.9 lbm]
Maximum OD	30.5 mm [1.2 in]
Sample capacity	300 cm ³ [18.3 in ³]
Test pressure	155,000 kPa [22,500 psi]
Working pressure	103,000 kPa [15,000 psi]
Working temperature	179 degC [354 degF] (at 103,000 kPa [15,000 psi])
Service	H ₂ S (in compliance with NACE [†] MR-0175)
Design code	API [‡] 6 A
Certifying authority	Bureau Veritas

[†] NACE International, formerly the National Association of Corrosion Engineers

[‡] American Petroleum Institute