

Nonreactive Reservoir Sampler

Provides chemically representative reservoir fluid samples

The Oilphase-DBR* Nonreactive Reservoir Sampler (NRS) is a Single-Phase Reservoir Sampler (SRS) that is modified to allow chemically representative samples to be obtained during bottomhole sampling operations. Any SRS in the bottomhole sampling tool string can be converted into an NRS by replacement of all of the components that contact the sample during recovery and transfer.

All sample wetted components in the NRS are constructed from, or coated with, inert materials evaluated during an exhaustive

testing project of more than 3,000 h. The NRS greatly reduces the loss of H_2S , mercaptans, and other trace elements caused by reaction with the sample chamber. Monophasic sampling avoids partitioning of trace components between phases. This allows controlled flashing of the sample to obtain accurate measurements of H_2S in the gas, oil, and water phases. The NRS has all the features and benefits of the field-proven SRS design.

Applications

- All PVT and formation water studies requiring a chemically representative phase maintained sample
- H_2S studies
- Mercaptan studies

Benefits

- Provides chemically representative reservoir fluid samples
- Maintains partial pressures of any contaminants present
- Obtains true downhole information on contaminant concentrations without time consuming extended flow periods

Features

- Nonreactive sample chamber
- Sample phase maintained
- Low absorption of trace contaminants

Comparison of H_2S losses.

