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Core Lab

Cryogenic Distillation System Datasheet

**Routine Core Analysis Laboratory (RCAL)/
Fluid Saturations**



Cryogenic Distillation System



The Cryogenic Distillation System is used to isolate a gas fraction and liquid fraction from a lean, single-phase hydrocarbon system. From the measured masses of two fractions and the compositional analysis of each fraction, the original single-phase fluid composition can be calculated.

The technique is commonly used to determine the composition of the displaced wellstreams from constant volume depletion analyses and the composition of gas condensate samples. However it can be used for light oils (volatile) and rich separator gases.

It has advantages over SpikeFlash method where the flashing of the sample would normally produce a gas mist during separation and/or leaves virtually no stabilization liquid phase for compositional analysis. Additionally, because the Cryogenic Distillation method can produce a measurable amount of liquid phase from a relatively small volume of sample, the sample volume required for the test is typically 1/3 of that required for Spikeflash method.

FEATURES:

The apparatus consists of a heated high-pressure inlet valve, which is connected to the single-phase sample source with heat-traced high-pressure tubing, usually 1/16 OD to minimize dead volume.