# Mud doping and contamination studies during drilling

## Onsite mud contamination assessment

Expro Petrotech offers the following methods for estimation of contamination in WFS samples.

## Water based drilling mud:

Addition of the low radioactive tracer Tritium or the chemical tracer Sodiumthiocyanate to the water based mud during drilling.

The tracer is used to determine the contamination of mudfiltrate in wireline water samples to be able to determine the correct formation water composition.

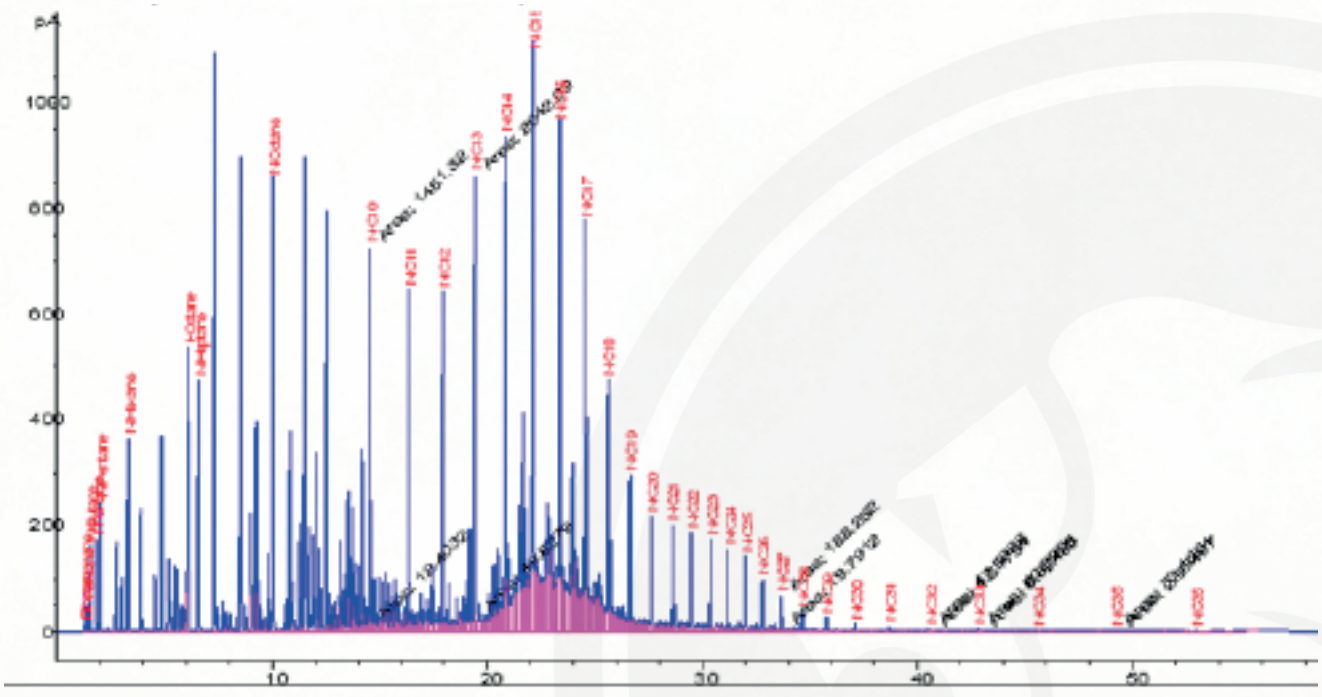
Both tracers can be analysed on-site using small portable instruments.

## Oil based drilling mud:

Oil sample contamination (OBM) by GC fingerprinting analyses to $C_{36}$+ by GC/FID.

The contamination of the wireline fluid sample is calculated on the (assumed) exponential decay of molarity with increasing carbon number. The regression coefficient is used to find the contamination level. This technique is known as “skimming” or the Herriot Watt” method.

## GC C36 plot WFS sample with 30% mud contamination



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