

VOCs by EPA TO-17 Thermal Desorption

“Air Analysis Simplified.”

Leeder Consulting specialise in non-routine laboratory analysis. Independence and commitment to your project’s **“data quality objectives”** enables us to suggest innovative and cost effective solutions. If it is high-tech, challenging, difficult or out of the ordinary - call us now.

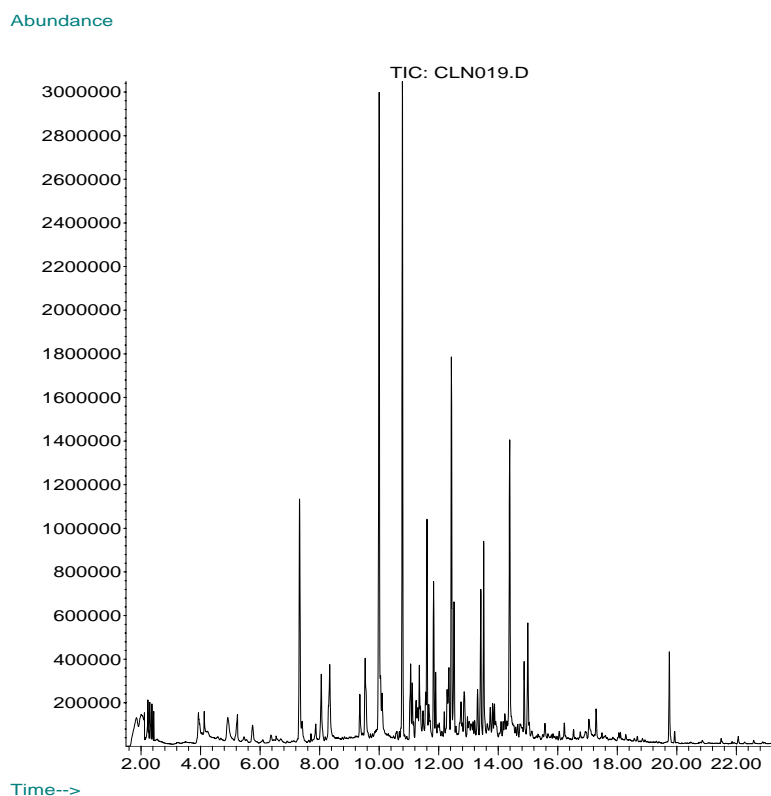
US EPA TO-17 is the New International Standard for the

“Determination of VOCs in Ambient Air using Active Sampling Onto Sorbent Tubes.”

Validated for the widest range of VOCs, down to below one nanogram per sample (<0.1 ppbv in air).

Sampling is by Solid Sorbent “Air Toxics” Tube, recognised as having many advantages over canister and other sampling methods. The VOCs are transferred directly from the sampling tube to the GC-MS (Gas Chromatograph Mass Spectrometer), eliminating interference and loss of sensitivity.

This allows for targeting of specific compounds plus identification of other compounds all in one test.



EPA TO-17 is suitable for a wide range of application including:

**Environmental / Ambient / Indoor
Occupational / Industrial Hygiene
Source / Emissions / Stack
Soil Gas / Flux Emissions**

Pictured left: The Chromatographic profile shows the Volatile Organic Compounds identified in rural - residential ambient air.

The peaks include benzene, toluene and other VOCs plus a range of volatile essential oils such as limones and pinenes from the nearby vegetation. Concentrations are in the range of 0.1-1 ppb.

This method has been used to measure benzene in the Arctic Circle down to 15 parts per trillion which equates to about 60 picograms being detected on the thermal desorption sampling tube.

Sampling Procedures & Media form an integral part of obtaining reliable results. We work with our clients to ensure the proposed sampling techniques will satisfy their “DQOs”, (data quality objectives). Each sampling tube is individually analysed and “certified clean” prior to being supplied for sampling. Gas samples can also be collected in Tedlar Gas Bags and transferred to sorbent tubes for analysis.

Analytical Technology includes a high tech, state of the art, Automated Thermal Desorber coupled with a High Resolution Capillary Gas Chromatography - Mass Spectrometry. This equipment offers superior sensitivity & specificity, allowing for a wide range of compounds to be analysed in the one test.

Leeder Consulting offer a range of specialised high-tech, non-routine and on-site services. Access to leading edge technology and expertise in Australia and overseas guarantees results when and where you require. To discuss your requirements or for more information call us now.



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