

TES Bretby is the UK's premier environmental testing laboratory producing high quality analytical data for more than 20 years. As a Mowlem plc business, we provide a comprehensive range of environmental analytical services to consulting, industrial and government clients situated within the UK, Europe and across many countries world-wide.

Our main business aim is to provide you with meaningful data, not just facile numbers.

Recent developments at Bretby....

Pesticides are chemical and biological substances that are used to kill or control pests, such as rodents, insects, fungi and plants, that harm our food, health or environment. Being toxic and persistent, the importance of reliable environmental data grows daily.



During the past 6 months, TES has developed a new in-house method that can identify and quantify over 70 common pesticides in just one suite. It includes a broad spectrum of target compounds covering organochlorines, organophosphorus and organonitrogen compounds.

The method relies on solvent extraction by soxhlet (soils) or liquid:liquid (waters) to remove the target compounds from the matrix, followed by GCMS detection. The result is improved selectivity combined with high sensitivity and now enables us to offer detection limits in the low parts per trillion (ppt) for waters and low parts per billion (ppb) for soils. Most importantly, analysis is controlled under our own strict internal QA/QC regimes, giving you a measure of data quality from sample to sample. As you would expect, analysis batches feature full procedural blanks, blank spikes, internal standards, surrogates and real matrix reference materials, giving you the highest levels of data defensibility.

Organochlorine pesticides ("OC's")

a-lindane, b-lindane, d-lindane, g-lindane, 2,6-dichloro-benzonitrile, aldrin, 1,2,3,4-tetrachlorobenzene, 1,2,3-trichlorobenzene, 1,3,5-trichlorobenzene, hexachlorobenzene, pentachlorobenzene, chorthalonil, cis-chlordane, cis-permethrin, dieldrin, endosulfan(I), endosulfan sulphate, endosulfan(II), endrin (and its breakdown product endrin ketone), enthion, heptachlor, heptachlorepoxyde, isodrin, methoxychlor, o,p'-ddd, o,p'-dde, o,p'-ddt, p,p'-ddd, p,p'-dde, p,p'-ddt, pendamethalin, trans-chlordane, trans-permethrin, triallate, trifluralin.

Organophosphorus pesticides ("OP's")

azimphos-ethyl, azimphos-methyl, carbofenthion, clorfevinphos, diazinon, dichlorvos, dimethoate, ethylchlorpyrifos, ethylpirimiphos, etrimphos, fenitrothion, fenthion, malathion, methocrifos, methyl chlorpyrifos, methylparathion, mevinphos, parathion ethyl, phosalone, phosphamidon, pirimiphos-methyl, propetamphos, propyzamide, tecnazene, triademefon, triazophos.

Organonitrogen pesticides ("Triazines")

ametryn, atrazine, prometryn, propazine, simazine, terbutryn, terbutylazine, trietazine.

We participate in the Aquacheck proficiency testing scheme for pesticides in "dirty" as well as "clean" waters with outstanding results.

Sampling Requirements

The following will provide plenty of sample to analyse for all of the above suites and ensure that integrity is maintained from field to lab:

- Soils - one 250 ml amber jar packed tightly with sample.
- Waters - only one 1 litre amber bottle is required, but ensure that it is filled to the top.

Note: In all cases containers should be completely filled to eliminate air, labelled using TES Bretby's unique bottle ID and chain of custody system, and placed in a cool box with ice packs for the return journey.

Need more information?

Please e-mail sales@tes-bretby.co.uk



Meeting Point

Stuart Watson

Team Leader,
GCMS Laboratory.



After graduating from the University of Surrey with a BSc in biochemistry and a short spell working for a supplier of Liquid Chromatographs, Stuart joined the Environment Agency Laboratory Service as Pesticide Analyst where he worked on analysis of environmental samples. Five years ago he joined TES Bretby with responsibility for our GCMS laboratory working to USEPA protocols. Recently he has utilised his expertise and experience to develop our new range of Pesticide methods. By mid-year, Stuart is aiming to achieve UKAS accreditation for pesticides analysis covering a wide range of challenging sample matrices.

Looking to the future, Stuart believes that he can improve the sensitivity of our analytical methods to meet increasing market demands driven by risk assessment.

CONTACT US

For further information about any of the issues raised in this bulletin or to discuss your analytical requirements please contact:

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