



## Improved Efficiency of Water Sampling for Semi-Volatile Organics.

For many years, ALS has performed standard level TPH, PAH, Phenols, OC/OP Pesticides, PCBs and SVOC analyses in water using 1,000mL or 500mL samples and in some cases even two bottles. Following an extensive R&D project, ALS Sydney is pleased to offer the above tests from a single 100mL bottle. Benefits include improved sampling efficiency, OH&S, Environmental and sustainability considerations, reduced greenhouse gas emissions as well as positively impacting sample quality. While initially only available in Sydney, these new sampling containers will be rolled out to other ALS sites in the coming weeks.

### Standard Services and LORs

This recently completed and validated R&D project has been designed to ensure that standard level services such as TPH, PAH etc **maintain identical LORs** to those currently provided.

Methods offering enhanced LORs, plus trace, ultra-trace and super ultra trace LORs will **still require a larger 500mL bottle or bottles as per current practice**.

The new bottles can also be used for standard level **Herbicides and Explosives** but separate **100mL containers must be provided for each of these tests**.

### Key benefits to industry

One of the key benefits of this change is related to sampling ground waters – in particular those wells with low recharge. With many industry professionals commenting over the years on the time taken to sample these sites, this presents an opportunity to improve sampling efficiency and reduce consultant costs. In addition, the reduced sample requirement further benefits quality as this facilitates the use of low flow pumps, which are thought beneficial in reducing sediment loads, which in turn can have significant impacts on data quality for PAHs and SVOCs (refer to the ALS Enviromail 28 for further details).



*Right solutions....  
....Right partner*

## OH&S benefits

Another of the key benefits of this change is safety related. In discussions with industry, it has been identified that the manual handling related to physical movement of eskies is a key risk and some organisations have pointed to strains as an increasing percentage of overall safety incidents. This final change in a long term strategy to improve safety for ALS clients and staff will now see the total volume & weight of bottles for the common TPH, PAH, Phenols/ BTEX or VOC and metals suites change as follows:

	<u>Key change</u>	<u>Total Volume (mls)</u>
➤ Pre August 2007	1,000mLs plus 2 x 40mLs plus 125mLs	1,205
➤ August 2007	TPH/PAH from 1,000 to 500mLs	705
➤ October 2008	Metals from 125 to 60mLs	640
➤ November 2009	PAH/Phenols/SVOC to 100mLs	<b>240</b>

In addition, Standard level **Herbicides** and **Explosives** now only require 100mLs.

The reduction in volume equates to 80% from early 2007 levels. For the full suite of TPH, PAH, Phenols, OC, OP, PCB, SVOC, BTEX, VOC and metals however the reduction is even greater. For a typical example site of 12 ground waters for TPH, BTEX, PAH, Phenols and metals this will cut esky weights by approximately 13kgs with the risk of OH&S incidents expected to decrease as a direct consequence.

## Environmental Impact

Other key outcomes that will occur as a result of this overall change include reduced carbon emissions from ALS operations. These reductions emanate from:

- ✓ substantially reduced solvent usage and impact on the environment;
- ✓ a reduction in the glass usage by 70%;
- ✓ reduced freight;
- ✓ reduced waste to landfill.

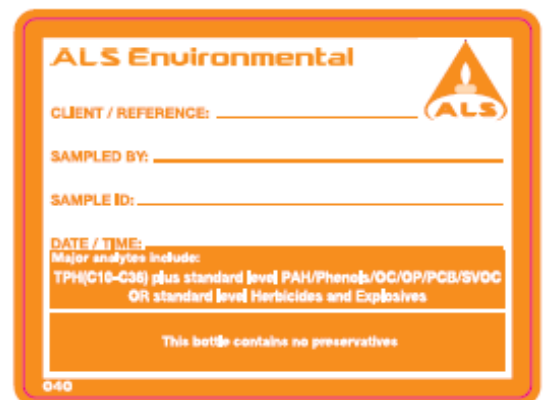
## Other considerations

One aspect that must be considered is that secondary laboratories may not offer equivalent LORs using ALS bottles and as such QC bottles should be sourced separately.

## General Sampling Requirements

A single 100mL amber bottle is required for standard level TPH, PAH, Phenols, OC/OP Pesticides, PCBs and SVOC's. Two additional bottles are required where matrix spikes and duplicate analyses are requested. For all other low and ultra trace level options current practises still apply. This bottle can also be used for standard level Herbicides and explosives.

*For further information please contact your local ALS team.*



For further information on specialist Services please visit the ALS website: [www.alsglobal.com](http://www.alsglobal.com)

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