

# MCERTS Monitoring Certification Scheme

The Environment Agency's Monitoring Certification Scheme, (MCERTS) delivers high quality environmental measurements.

## Background

The scheme ranges from the product certification of instruments and the competency certification of personnel to the accreditation of laboratories conducting chemical testing on soils.

The Environment Agency launched its MCERTS in soils scheme in September 2004, and from March 2012 version 4 of the MCERTS standard has been in operation. The MCERTS performance standard for the chemical testing of soil is an application of ISO 17025:2005 for the chemical testing of soil. It specifically enhances:

- The selection and validation of test methods
- Sampling pre-treatment and preparation
- Participation in proficiency testing schemes
- The reporting of results and information

Chemical test data on soils is used by the Environment Agency to support its regulatory activities under a number of regimes, such as Part IIA of the Environmental Protection Act (EPA) 1990, Pollution, Prevention and Control (England and Wales Regulations) 2000, and Waste Management Licensing Regulations 1994.

The Environment Agency stated that from September 2004, staged compliance of data accredited to ISO 17025 for MCERTS commenced, with respect to the above regulations.

## Benefits

The benefits of MCERTS for the chemical testing of soil are that the scheme:

- Provides formal accreditation of laboratories in accordance with ISO 17025 and the Environment Agency's MCERTS standard for the chemical testing of soil
- Provides greater assurance to all stakeholders (including industrial process operators, laboratories, regulators and the public) of the reliability of data from tests
- Establishes a level playing field in this competitive market, based on the Agency's requirements
- Indicates that the chemical testing of soil is a critical component in producing defensible data for regulatory purposes.

## Procurers of analytical services

There are certain responsibilities, which must be undertaken by clients in their choice of a testing laboratory. The MCERTS standard states that the "procurer of analytical services must ensure that the requirements are satisfied and that the appropriate information is provided to the Agency, if requested."

## MCERTS Accredited Sampling

ALS are one of a few laboratories with a Field Services department that hold accreditation for the taking of analytical samples. As part of the Operator Self Monitoring (OSM) we had to have MCERTS accreditation and have held this since January 2010. The accreditation was extended to our Urban Waste Water (UWW) sampling in October 2013 to improve the quality of our sampling for our Commercial and Utility clients.

Additionally, the auto-sampling equipment used for the UWW contract is also accredited to MCERTS standards. Our sampling technicians are audited in line with MCERTS requirements as standard.

## Laboratory Requirements

Laboratories are expected to validate and accredit their methods to the targets specified in Annex A of the MCERTS performance standard.

ALS Environmental have fully validated test methods to meet the requirements of the MCERTS performance standard. In practice this has meant validating the methods using at least three Certified Reference Materials (CRMs) that are representative of the sample types/matrices being tested. If suitable CRMs are not available, spiked soils may be used instead.

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## Procurers of Analytical Services Must:

- Ensure test reports submitted to the Environment Agency for regulatory purposes from 1st March 2005 have full compliance with the MCERTS performance standards for soil
- Check that the laboratory carrying out the analysis has MCERTS accreditation for the required parameters
- Ensure that the analytical methods employed by the laboratory are appropriate and fit for purpose in terms of the parameter, critical level of interest<sup>1</sup> and matrix
- Provide details of sampling, procedures, preservation techniques and transportation. This ensures that in collaboration with the laboratory, complete audit trails of samples are made by making all relevant information available, including
  - » Location of the sample, including depth where necessary<sup>2</sup>
  - » Unique sample code or reference
  - » Date and time of sample taken<sup>2</sup>
  - » Name of laboratory, including sub-contracting laboratory where necessary
  - » Date the sample analysis is completed
  - » Parameters analysed, including whether the sample is preserved or stabilised on site
  - » Whether analysis is carried out on a dried or “as submitted” basis
  - » Result of analysis must be on a dry weight basis
  - » Other relevant comments, for example visual characteristics of the sample

## How we can help

ALS Environmental offer a comprehensive scope of MCERTS accredited parameters and can offer advice for esoteric parameters where MCERTS accreditation may currently be unavailable. We offer a comprehensive range of expert services including scheduling, sampling and analysis. To request further information about MCERTS or any of our services please contact us.

## Notes

1. The critical level of interest is the value around which a decision is often required, for example it may be a “soil guideline value”, a regulatory limit, or some other concentration of importance, and the decision to be made is whether a concentration of a determinand is above or below the value. In addition, it may be the range of concentrations of a parameter expected or usually determined or observed in a series of samples.
2. If the client is responsible for the sampling, they must provide this information.

