



# Environmental Field Sampling and Monitoring

**For over 25 years, SOCOTEC's field team has provided expertise to clients conducting UKAS accredited on-site testing\*, analysis of surface waters, gases and boreholes, along with collecting samples for our UKAS accredited\* laboratories.**

Members of SOCOTEC's field team hold safety passports, ensuring that safety in the workplace is maintained. The team is also trained for work in a range of confined spaces, using knowledge and skills to work effectively and safely in these environments.

## **On-Site Testing for Gas and Water**

The field team offers UKAS accredited\* gas and water testing, along with MCERTS accredited water sampling. SOCOTEC has a wide scope of testing and analysis capabilities, including:

- Ambient air
- Boreholes / shafts (some up to hundreds of metres deep)
- Atmospheric, static pressures and flows
- On-site analysis of pH, conductivity, turbidity and temperature
- Dissolved oxygen content of water

Our instruments are calibrated daily and are thoroughly checked for damage, service dates and quality before use. On-site testing is UKAS accredited\* and is backed up with a comprehensive report of all readings, site observations and notes for the exercise.

## **Sampling for Gas**

SOCOTEC'S expertise was developed over many years of specialising in the mining industry. Since the closure of collieries, we have diversified and can now offer sampling from many different sources such as gas engines, landfills, boreholes, offices and mines. Using various sampling media, our technicians are trained to use the most appropriate medium for the site and analysis. Samples are then hand delivered to our UKAS accredited\* gas analysis laboratories.

## **Sampling for Water**

SOCOTEC's team of technicians are trained in various methods of water sampling, from pumps at the bottom of boreholes, to fast flowing rivers. Our technicians are trained to use different storage media for each type of analysis and each sample is thoroughly labelled and marked onto a chain of custody with the date, location, reference and time the sample was taken. Once the sampling has been completed, these are taken to our UKAS accredited\* laboratories for analysis.

\* A listing of SOCOTEC's UKAS accredited activities can be found in our schedule of accreditation - Testing Laboratory 1015 – at [socotec.co.uk](http://socotec.co.uk)

# SITE SURVEYS

## Gas Walkovers and Flux Box Survey

Gas walkover surveys follow the principles outlined in the Environment Agency Guidance Document LFTGN07 (V2 2010) - Guidance on Monitoring Landfill Gas Emissions. SOCOTEC provides gas walkovers on any sites which can be accessed by our technicians on foot. Walkovers comprise of a three metre wide sweep above the surface of the site and the survey is undertaken in a 50 metre grid pattern, in order to detect any potential leakage areas. During the walkover, visual checks are performed on areas such as surface fissures, liquid discharges, stressed / discoloured vegetation, along with gas and leachate wells. We offer comprehensive reports and highlight potential issues, as well as a map of the route taken.

SOCOTEC also provides specialised flux box surveys in accordance with the principles outlined in Environment Agency Guidance LFTGN07 (V2 2010) - Guidance on Monitoring Landfill Gas Emissions. Firstly, vegetation is removed to ensure that the results are a true reflection of the gas present, and then the flux box survey can begin. Each point is surveyed for 20 minutes to ensure that there are consistent readings and any interference caused by the initial set up of the flux box have long since diminished. We survey in a grid pattern basis; the size and distances apart are calculated from the total area of the site being surveyed. As part of the flux box survey, SOCOTEC also performs a walkover survey of the site to cover the areas which have not been tested.

## Trace Box Sampling

A trace box is a specialised method to determine the presence of trace gas at your site. Gases are sampled directly onto the correct sample media for analysis back at the environmental laboratories. The trace box is designed to meet the differing flow rates requirements for optimum absorption levels.

SOCOTEC has experience sampling for priority landfill, aldehydes and ketones, offering clients arsenic, mercury and ammonia sampling on request. Samples are usually taken from boreholes though, as sampling is based on client instruction, we can cover ambient air.

## DSEAR Risk Assessment

Dangerous substances are any substances used or present at work that could, if not properly controlled, cause harm to people as a result of a fire, explosion or corrosion of metal. They can be found in nearly all workplaces and include such things as solvents, paints, varnishes, flammable gases (such as liquid petroleum gas), dusts from machining and sanding operations, dusts from foodstuffs, pressurised gases and substances corrosive to metal. SOCOTEC's trained and experienced risk assessors have helped many different companies with a comprehensive DSEAR report and suggested improvements. DSEAR reports are particularly important for insurance purposes and sale of business / sites. SOCOTEC offers explosive reports of any substances found on site to better understand the risk in the case of an emergency.

## Bespoke Gas Monitoring Systems

Our specialists design, build and install bespoke gas monitoring systems for a range of applications, including real-time workplace monitoring and landfill gas monitoring. Gas monitoring services include:

- Remote access to gas monitoring data
- Built-in warning systems such as warning lights and sirens
- Maintenance service
- Calibration checks
- Repair work

## Ventilation and Pressure Surveys

SOCOTEC's environmental engineers have a combined experience of over 60 years in ventilation and pressure surveys for various aggregate mines, rail depots, laboratories and warehouses. We are able to accurately plot the flow within the area in question and advise on the best way to proceed in making improvements or increasing efficiency.

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To discuss your requirements, please call us on 0845 603 2112 or email [salesuk@socotec.com](mailto:salesuk@socotec.com)