

Air Quality in Scotland



Welcome to the 24th Scottish Air Quality Database (SAQD) stakeholder's newsletter. This newsletter is produced on behalf of the Scottish Government by Ricardo and is designed to provide regular updates and news regarding the SAQD and local air quality matters to all stakeholders. This may include; updates to the network; new information on air quality issues; updates on changes in policy and procedures; new initiatives and events; technical reports; and how to access data using the Air Quality in Scotland website.

If you have any information which you think would be beneficial to include in a future newsletter, please email us at aq-monitoring-scotland@ricardo.com.

NEWS

Scottish Air Quality Maps 2023 Published and Updated

The UK PCM methodology has been applied to provide Scotland-specific air pollutant maps of annual mean background and roadside NO_x, NO₂, PM₁₀ and PM_{2.5} concentrations for the Scottish Government for 2023 at a 1km² resolution. The methodology was tailored to represent air pollutant concentrations in Scotland, using Scotland-specific measurements from Scottish air quality monitoring sites to calibrate and verify the model. You can access this data via the air quality in Scotland website [here](#). You can also use the new interactive map tool to explore the concentration and obtain the relevant data.

A technical report describing the work carried out has been produced on behalf of the Scottish Government as part of the Scottish Air Quality Database project and can be accessed [here](#).

150th Anniversary Forum of the Royal Environmental Health Institute of Scotland (REHIS)

The 150th Anniversary conference occurred on the 25th of September in Edinburgh. The charitable event promotes the advancement of Environmental Health for the benefit of local communities with a series of interesting talks on topics ranging from public health to how social media can be used to influence climate change

strategies to protect public health. In addition to talks an area was set aside for stands, Ricardo's David Hector attended the event hosting a stand celebrating Ricardo's (and predecessor company's) running of the Scottish Air Quality Database for almost 20 years.



Air Pollution in the UK 2024 Report

The "Air Pollution in the UK 2024" report was published on 30 September 2025. The latest in a series of annual reports first published in 2003, this year's report summarises the results of the UK's ambient air quality assessment for 2024, presenting measurements from the various UK air pollution monitoring networks and air quality modelling data. It provides a comprehensive analytical view of the UK's air pollution. The report can be accessed using the following link: [Air pollution in the UK 2024 - GOV.UK](#)

European Environment Agency (EEA) state of the environment report

The European Environment Agency (EEA) has recently published their state of the environment report. Europe's environment 2025 brings together information on the environment, climate change and sustainability, and can be accessed [here](#).

Committee on the Medical Effects of Air Pollutants (COMEAP) Report published during 2024

The report identifies the main activities of COMEAP and the advice that the committee has provided to government during 2024. The advice provided by the committee has taken a number of forms, including statements, reports, advice notes and discussion at meetings of the committee. The report can be accessed [here](#).

Health Harms of Wood Burning – GAP Webinar

Global Action Plan (GAP) will be publishing new research, in partnership with Ricardo and Hertfordshire County Council, quantifying the health harms of wood burning in the UK for the first time. To share the findings from this research GAP will be running a webinar at 12pm on Thursday 6th November. To register for the webinar click on the link below: https://globalactionplan.zoom.us/webinar/register/WN_13o-krPZSAKSjuOg8de3JA

New site installations

The Automatic Urban and Rural Network (AURN) station at Auchencorth Moss, in the Pentlands area just south of Edinburgh, has been part of the UK's Automatic Hydrocarbon Monitoring Network since 2006. The current Perkin Elmer instrument measures C6 - C20 hydrocarbons and is now approaching 20 years old. With the general reduction in "traditional" hydrocarbons such as Benzene and Toluene, and a heightened interest in lighter hydrocarbons such as Ethanol, the system is being replaced by a new Chromatotec instrument that in addition to C6 – C20 hydrocarbon species also measures C1 – C3 species giving a much broader range of measures.

More information about what is monitored at this site can be found on the Air Quality in Scotland website [here](#), and data can be accessed on the DEFRA website [here](#).

Clean Air Day activities in Edinburgh – Written by Edinburgh City Council

There are a number of Air Quality Monitoring Units across the City and these have been identified as potential sites for community engagement through visual art activity. This project was a pilot which could potentially feed into a city-wide approach in future years.

A visual artist (Natasha Russell) was engaged to work with P5 pupils at Preston Street Primary school to develop a design on the theme of air quality and air pollution that would be exhibited on the air quality monitoring unit in the form of vinyl wrap. Over two workshop sessions, the artist fostered creativity and critical thinking around environmental issues. The pupils were given tools to express their ideas through creative exploration. The pupils worked collaboratively to develop their concept and reach the final design.

The final design was unveiled by the artist and pupils to encourage community members to engage with the artwork and share their own thoughts.



SAQD QAQC ACTIVITIES

Ricardo have carried out the Summer 2025 audits of the SAQD monitoring sites. Auditors will have contacted you after the audit to provide a summary of results and advice on what to do next.

If an audit summary has not been provided after the visit has been completed, or you are unclear on any of the recommended actions, please contact either the auditor who undertook the visit or aq-monitoring-scotland@ricardo.com. Can you please then pass these on audit information to your ESU's in advance of the service so that any issues can be investigated.

Ratified data for the first half of 2025 is now available on the Air Quality in Scotland website for all SAQD automatic monitoring sites.

QUESTION AND ANSWERS SECTION

This section will provide answers to frequently asked questions that relate to different aspects of LAQM ranging from Local Site Operator (LSO) duties to advanced data analysis queries. If you have a question you would like to be answered in this section, please contact aq-monitoring-scotland@ricardo.com.

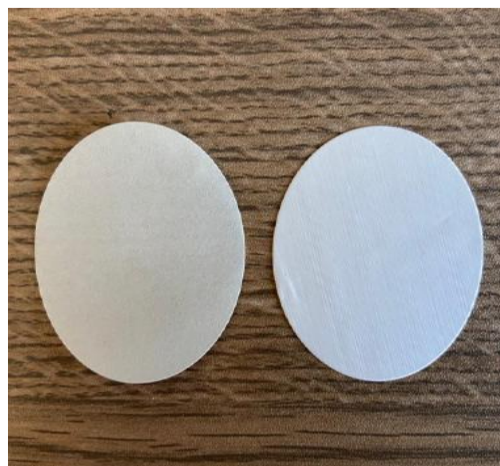
Q: How do I tell what is a filter and what is backing paper?

A: The particulate filters used in NO_x, O₃, SO₂ and CO analysers are usually supplied in packs with backing paper between the filters. Occasionally at audits, QAQC have seen cases where the LSO has put the backing paper into the analyser, instead of the actual filter, or both. This is a problem, because it can cause issues with the analyser sample flow, and it prevents air being passed through the microporous filters and allowing internal sampling of analyser air rather than sampling free air from outside of the cabin. Any data that is acquired during the time that backing paper is used will usually need to be rejected.

There are different types and brands of filters, which will have slightly different backing paper or no backing paper at all, and the filters themselves may also look different.

Below are some comparison pictures of backing papers next to genuine filters to show the differences between the two.

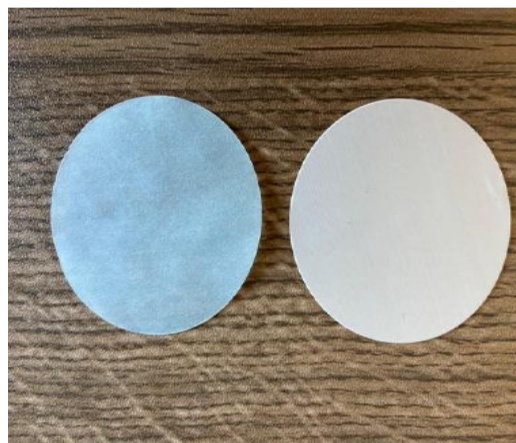
ACOEM supplied filters – type 1: white backing paper. The filter is on the right and the backing paper is on the left.



Some differences between the two are listed below, to help make sure you are using the filter and not the backing paper:

- The filter paper is more fibrous than the backing paper, and has lines running across it.
- The texture between the two is also very different – the backing paper is rough/coarse with a similar texture to tracing paper.
- The backing paper is not malleable and can be folded. The filter paper should be softer and feel more fragile, and when picked up with tweezers will bend under its own weight, whereas the backing paper will remain firm and hold its shape.

ACOEM supplied filter – type 2: Blue backing paper. The white filter paper is on the right and the blue backing paper on the left.



The genuine filter paper is again located on the right and some differences between the two are listed below:

- The filter paper is more fibrous than the backing paper, and has lines running across it.
- The texture between the two is also very different – the backing paper is rough/coarse with a similar texture to tracing paper.
- The backing paper is not malleable and can be folded. The filter paper should be softer and feel more fragile, and when picked up with tweezers will bend under its own weight, whereas the backing paper will remain firm and hold its shape.
- This variety has backing paper that is coloured blue.

ET (now Cura Terrae) supplied filter on the right and backing paper on the left.



Again, the genuine filter is located on the right and some differences between the two are listed below:

- The ET (now Cura Terrae) supplied filters are much coarser than the ACOEM supplied filters, and as shown in the photos they have a much more fibrous appearance and texture than the backing paper.
- The surface of the filter paper will appear raised and textured whereas the backing paper will be flat, again with a similar texture to tracing paper.

STAY CONNECTED

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