



Air and Stack Emissions AIR 2019-20

Air and Stack Emissions Proficiency Testing Scheme Application Form



Please complete all sections below and return to LGC Standards Proficiency Testing by email, fax or post.

Returning customer Lab ID:

Purchase order no.:

Round	Despatch Date	Reporting Deadline	Samples																																						
			Workplace															Ambient				Indoor		Stack Emissions																	
			1	1A*	1B*	1C*	2X	2F	2I	3	4	5	6	7	8	9	10A*	10B*	15*	16*	18*	11	12	12A*	13*	14	17*	21	22	31	32	33	34	35	36	37	38*	39*	40		
AR031	15 Apr 2019	10 May 2019																																							
AR032	29 Apr 2019	05 Jul 2019																																							
AR033	15 Jul 2019	09 Aug 2019																																							
AR034	07 Oct 2019	01 Nov 2019																																							
AR035	18 Nov 2019	24 Jan 2020																																							
AR036	20 Jan 2020	14 Feb 2020																																							

*Please note that these samples are not currently within the scope of LGC's UKAS accreditation.

Not available

Please indicate the number of samples required in the relevant boxes above





Air & Stack Emissions AIR PT 2019-20

Air and Stack Emissions Proficiency Testing Scheme Application Form



Workplace Air		
Sample	Supplied as	Target Analyte(s)
1 [#] - Metals	4 x spiked membrane filters 25mm Ø	Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc
1A - Metals	4 x spiked cassette capsules 37mm Ø	Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc
1B - Metals NEW	4 x spiked membrane filters 37mm Ø	Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc
1C - Metals NEW	4 x spiked Zefon DIS filter inserts 25mm Ø	Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc
2X - <u>Direct</u> Measurement of Quartz by XRD	4 x dynamically loaded PVC GLA5000 filters 25mm Ø	Respirable grade quartz by XRD (by <u>direct</u> analysis of filters supplied)
2F - <u>Direct</u> Measurement of Quartz by FTIR	4 x dynamically loaded PVC GLA5000 filters 25mm Ø	Respirable grade quartz by FTIR (by <u>direct</u> analysis of filters supplied)
2I - <u>Indirect</u> Measurement of Quartz by XRD or FTIR NEW	4 x dynamically loaded PVC GLA5000 filters 25mm Ø	Respirable grade quartz by either XRD or FTIR (by <u>indirect</u> analysis, i.e. by ashing and redeposition onto analytical filter or by KBr disc)
3 ^{**} - Dust	4 x spiked glass fibre filters 25mm Ø	Dust by gravimetry (mass of solids)
4 ^{**} - Dust	4 x spiked glass fibre filters 37mm Ø	Dust by gravimetry (mass of solids)
5 - VOCs	4 x dynamically loaded charcoal sorbent tubes (workplace air levels)	Benzene; Toluene; Xylene; Ethyl benzene
6 - VOCs	4 x dynamically loaded charcoal sorbent tubes (workplace air levels)	1,1,1-Trichloroethane; n-Hexane; n-Butyl acetate; Tetrachloroethene; Trichloroethylene
7 - VOCs	4 x dynamically loaded Tenax thermal desorption tubes (workplace air levels)	Benzene; Toluene; Xylene; Ethyl benzene
8 - Aldehydes	4 x spiked glass fibre filters 25mm Ø	Formaldehyde; Acetaldehyde
9 - Cr (VI)	4 x spiked NaOH treated Millipore PVDF filters 25mm Ø	Chromium (VI)
10A - Metals ^{***}	1 x bulk welding fume sample	Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Zinc
10B - Lead	1 x bulk lead-containing dust sample	Lead
15 - Lactose	4 x spiked glass fibre filters 25mm Ø	Lactose (surrogate particle tracer)
16 - Diesel fume	4 x dynamically loaded quartz fibre filters 25mm Ø	Elemental carbon
18 - Beryllium	4 x spiked mixed cellulose ester filter 37mm Ø	Beryllium

[#]For sample 1, the manganese measurand is not currently included in LGC's UKAS scope of accreditation.

^{**}Filters are despatched to participants in order for them to weigh and then should be returned to LGC Standards Bury for spiking. LGC Standards Bury then re-send the spiked filters back to the participants for reweighing. Please see page 4 for further details.

^{***}For sample 10A one or more of the listed elements will be included in each round.





Air & Stack Emissions AIR PT 2019-20

Air and Stack Emissions Proficiency Testing Scheme Application Form



Ambient Air		
Sample	Supplied as	Target Analyte(s)
11 - NO ₂	4 x dynamically loaded Palmes type diffusion tubes	Nitrogen dioxide (as nitrite)
12 - VOCs	4 x dynamically loaded Tenax thermal desorption tubes (ambient air levels)	Benzene; Toluene; Xylene; Ethyl benzene
12A - VOCs	4 x dynamically loaded Carbo-pack thermal desorption tubes (ambient air levels)	Benzene; Toluene; Xylene; Ethyl benzene
13 - Metals	4 x spiked quartz fibre filters 47mm Ø	Cadmium; Nickel; Lead; Arsenic
14 - Anions on filters	4 x spiked quartz fibre filters 47mm Ø	Chloride; Nitrate, Sulfate
17 - Dust**	4 x spiked quartz fibre filters 47mm Ø	Dust by gravimetry (mass of solids)

**Filters are despatched to participants in order for them to weigh and then should be returned to LGC Standards Bury for spiking. LGC Standards Bury then re-send the spiked filters back to the participants for reweighing. Please see page 4 for further details.

Indoor/Chamber Air		
Sample	Supplied as	Target Analyte(s)
21 - VOCs (Material Emission Testing)	4 x dynamically loaded Tenax thermal desorption tubes at chamber air levels	Benzene; n-Hexane; Toluene; Butyl acetate; MIBK; Cyclohexanone; p-Xylene; Diacetyl [#] ; Phenol; 124-TMB; Limonene; 4-PCH; Dodecane
22*** - VOCs (Qualitative determination)	2 x dynamically loaded Tenax thermal desorption tubes at chamber air levels	Qualitative determination of VOCs including alcohol, aliphatic, aromatic, ester, halocarbon and terpene compounds

[#]For sample 21, the diacetyl measurand is not currently included in LGC's UKAS scope of accreditation.

***See Appendix B in the AIR PT Scheme Description for compound listing.

Stack Emissions		
Sample	Supplied as	Target Analyte(s)
31 - Mercury	1 x potassium permanganate & sulfuric acid impinger solution containing mercury	Volume; Mercury
32 - Mercury	1 or 2 x Potassium dichromate & nitric acid impinger solution containing mercury	Volume; Mercury
33 - Metals	1 x nitric acid impinger solution containing up to 6 trace metals	AR031 – Volume; As; Cr; Cu; Pb; Ni; Ti AR033 – Volume; Sb; Cd; Co; Mn; Ni; V AR034 – Volume; As; Cd; Cr; Pb; Ni; V AR036 – Volume; Sb; Cd; Co; Cu; Mn; Ti
34 - Sulfur dioxide	1 x hydrogen peroxide impinger solution containing SO ₂	Volume; Sulfur dioxide





Air & Stack Emissions AIR PT 2019-20

Air and Stack Emissions Proficiency Testing Scheme Application Form



Stack Emissions continued		
Sample	Supplied as	Target Analyte(s)
35 - Hydrogen fluoride	1 x sodium hydroxide impinger solution containing HF	Volume; Hydrogen fluoride
36 - Hydrogen chloride	1 x aqueous impinger solution containing hydrogen chloride	Volume; Hydrogen chloride
37 - Ammonia	1 x sulfuric acid impinger solution containing ammonia	Volume; Ammonia
38 - Metals	1 x quartz filter spiked with up to 6 trace elements and fly ash 47mm Ø	AR031 – As; Cr; Cu; Pb; Ni; Tl AR033 – Sb; Cd; Co; Mn; Ni; V AR034 – As; Cd; Cr; Pb; Ni; V AR036 – Sb; Cd; Co; Cu; Mn; Tl
39 - Dust analysis (solution)	1 x rinsing solution containing dissolved and suspended solids	Total solids
40 - Dust analysis (filter)**	4 x spiked quartz filters 47mm Ø	Dust analysis (mass of solids)

**Please see overleaf for further details.

Dust Filter Samples (3, 4, 17 and 40) Distribution Schedule

For the dust filter samples (3, 4, 17 and 40), four filters are despatched to participants in order for them to weigh. Participants then ship the filters back to LGC Standards Bury for spiking. LGC Standards Bury re-send the spiked filters back to the participants for reweighing who then report the results (initial value; reweighing value; calculated difference) to LGC Standards Bury via PORTAL for assessment. Dust filter sample specific dates:

Round	Despatch Date (week commencing)	Filters required back at LGC by	Filters re-despatch date (week commencing)	Reporting Deadline
AR032	29 Apr 2019	24 May 2019	17 Jun 2019	05 Jul 2019
AR035	18 Nov 2019	06 Dec 2019	06 Jan 2020	24 Jan 2020

For details on the full technical specification of the scheme please refer to the AIR Scheme Description.

Send Test Materials to:	Send Invoices to:
Contact name:	Contact name:
Department:	Department:
Company:	Company:
Address:	Address:
Town/City:	Town/City:
Post/Zip Code:	Post/Zip Code:
Country:	Country:
Tel:	Tel:
Fax:	Fax:
E-mail:	E-mail:
	VAT no:

Send Report Notifications to:
Contact name:
E-mail [#] :

[#]An email will be sent to this address to notify when the report is available to download from PORTAL, the online reporting system





Air & Stack Emissions AIR PT 2019-20



Air and Stack Emissions Proficiency Testing Scheme Application Form

Please note:

- This scheme is managed and operated by LGC Standards Proficiency Testing and is supported through technical advice from HSL. LGC is the accredited PT provider of this scheme.
- Thermal desorption tubes used in samples 7, 12, 12A, 21 and 22 are the Perkin Elmer type (6.4mm OD, 5mm ID and 90mm long); however, it may be possible to also accommodate Gerstel 6mm OD, 4mm ID and 178mm long. Please contact LGC Standards Proficiency Testing for further details.
- Thermal desorption tubes must be returned at the participant's cost to LGC Standards proficiency testing within 2 months after receipt (including additional or repeat samples). Failure to do so will result in an additional charge per sample set being made to replace the tubes.
- When returning thermal desorption tubes, please label the parcels with the supplied label "Returned Sample tubes for laboratory proficiency testing – no commercial value" and declare a "nominal value of £1 / \$1 / €1". Failure to do so could result in any incurred excise / importation fee being passed onto the participant.
- Please contact LGC Standards for prices.
- VAT is payable (at the prevailing rate) by all participants based in the UK and by those in the rest of the European Union if a VAT Registration Number is not provided.
- All courier charges set by LGC Standards Proficiency Testing do not include local import charges, taxes (etc.), which will be covered by the participant.
- Participants outside the UK will pay an additional fee to cover courier charges. Please contact LGC Standards Proficiency Testing for current charges.
- Do not send remittance with this form, you will be invoiced subsequently for the full year's participation.
- No refunds will be given for failure to take part in any round of the PT scheme or for cancellation of rounds that have already been invoiced.
- LGC Standards Proficiency Testing reserves the right to not send samples or the report for previous samples to any participant that has not paid their subscriptions within the terms stated on the invoice.
- LGC Standards Proficiency Testing cannot guarantee the number of participants that will return results for any particular round.
- The prices stated are for reporting results and receiving reports electronically via PORTAL (internet reporting). If alternative data entry or reporting methods are required, further charges apply. Please contact LGC Standards Proficiency Testing for the current charges.
- Enrolment in AIR PT for samples 7, 8 and 12 only for those laboratories joining via AIHA Industrial Hygiene Proficiency Analytical Testing (IHPAT) program requires agreement on behalf of these participants that the results report shall be released to AIHA Laboratory Accreditation Programs (AIHA-LAP) for accreditation purposes.
- Enrolment in AIR PT by UK laboratories for sample 11 (does not apply to other samples) requires agreement on behalf of these participants that summary performance shall be released to the UK Department, Food and Rural Affairs (DEFRA) and subsequently published on the DEFRA Local Air Quality Management (AQM) website. Please note that this summary information published on the website lists those UK laboratories participating in the AIR PT for sample 11, and provides a percentage of satisfactory performance scores achieved in recent rounds. Participant lab numbers or actual performance scores remain strictly confidential and are not disclosed to DEFRA.
- By signing this application form, you are agreeing to comply by LGC Standards' Standard Terms and Conditions for the Supply of Laboratory Quality Products and Services and the AIR PT scheme specific requirements noted above.

Existing customers

If you would like to change your marketing preferences, please visit our [preference centre](#) or contact ptcustomerservices@lgcgroup.com

New customers

LGC would like to contact you by email, phone or post about its products, services and related areas or research. LGC does not sell contact details to external parties. You may unsubscribe at any time.

Yes, I am happy to be contacted about LGC's products, services and research

No, I do not require marketing information about LGC's products and services at this time

Signature

Date

