Please complete all sections below and return to LGC Proficiency Testing: **pt.china@lgcgroup.com**

请填写以下所有部分并发送Email至LGC能力验证：**pt.china@lgcgroup.com**

|  |  |
| --- | --- |
|  | **Samples****样品** |
| **Workplace****(工作场所)** | **Ambient****(环境)** | **Indoor****(室内)** | **Stack Emissions****(烟囱排放)** |
| **Round****(轮次)** | **Despatch****Date****(发样日期)** | **Reporting****Deadline****(汇报****截止日期)** | PT-AR-**01** | PT-AR-**1A**\* | PT-AR-**1B**\* | PT-AR-**1C**\* | PT-AR-**2X** | PT-AR-**2F** | PT-AR-**2I** | PT-AR-**03** | PT-AR-**04** | PT-AR-**05** | PT-AR-**06** | PT-AR-**07** | PT-AR-**08** | PT-AR-**09** | PT-AR-**10A**\* | PT-AR-**10B**\* | PT-AR-**16**\* | PT-AR-**18**\* | PT-AR-**19**\* | PT-AR-**11** | PT-AR-**12** | PT-AR-**12A**\* | PT-AR-**13**\* | PT-AR-**14** | PT-AR-**17**\* | PT-AR-**21** | PT-AR-**22** | PT-AR-**31** | PT-AR-**32** | PT-AR-**33** | PT-AR-**34** | PT-AR-**35** | PT-AR-**36** | PT-AR-**37** | PT-AR-**38**\* | PT-AR-**39**\* | PT-AR-**40** |
| AR041 | 2020/11/16 | 2021/1/25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR042 | 2021/1/18 | 2021/2/15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR043 | 2021/5/4 | 2021/6/1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR044 | 2021/6/21 | 2021/9/13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR045 | 2021/7/19 | 2021/8/16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR046 | 2021/9/20 | 2021/10/18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AR047 | 2021/11/15 | 2022/2/14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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

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|  | 灰色方格为不发样日期，不能填写编辑； |
| **1** | 请在上述可编辑方格内注明所需样品数量或打“**√**” |

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| **Workplace Air****工作场所空气** |
| **Sample****样品** | **Supplied as****基质** | **Target Analyte(s)****分析物** |
| PT-AR-**01**# - Metals金属 | 4 x spiked membrane filters 25mm Ø 4个25mm Ø 加标膜过滤器 | Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc镉；铬；钴；铜；铁；锰；镍；铅；锌 |
| PT-AR-**1A\*** - Metals金属 | 4 x spiked cassette capsules 37mm Ø 4个37mm Ø 加标胶囊盒式过滤器 | Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc镉；铬；钴；铜；铁；锰；镍；铅；锌 |
| PT-AR-**1B\*** - Metals金属 | 4 x spiked membrane filters 37mm Ø 4个37mm Ø 加标膜过滤器 | Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc镉；铬；钴；铜；铁；锰；镍；铅；锌 |
| PT-AR-**1C\*** - Metals金属 | 4 x spiked Zefon DIS filter inserts 25mm Ø 4个25mm Ø 加标Zefon DIS过滤器插件 | Cadmium; Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Lead; Zinc镉；铬；钴；铜；铁；锰；镍；铅；锌 |
| PT-AR-**2X -** Direct Measurement of Quartz by XRDXRD法直接测定石英 | 4 x dynamically loaded PVC GLA5000 filters 25mm Ø 4个25mm Ø的动态加载PVC GLA5000过滤器 | Respirable grade quartz by XRD (by direct analysis of filters supplied)XRD分析可吸入石英(通过直接分析提供的过滤器) |
| PT-AR-**2F -** Direct Measurement of Quartz by FTIR红外光谱法直接测定石英 | 4 x dynamically loaded PVC GLA5000 filters 25mm Ø 4个25mm Ø的动态加载PVC GLA5000过滤器 | Respirable grade quartz by FTIR (by direct analysis of filters supplied)红外光谱法分析可吸入石英(通过直接分析提供的过滤器) |
| PT-AR-**2I -** Indirect Measurement of Quartz by XRD or FTIRXRD法或红外光谱法直接测定石英 | 4 x dynamically loaded PVC GLA5000 filters 25mm Ø 4个25mm Ø的动态加载PVC GLA5000过滤器 | Respirable grade quartz by either XRD or FTIR (by indirect analysis, i.e. by ashing and redeposition onto analytical filter or by KBr disc)XDR或红外光谱法分析可吸入石英(通过直接分析，比如灰化后重新沉积于分析过滤器或圆盘状溴化钾) |
| PT-AR-**03**\*\* - Dust灰尘 | 4 x spiked glass fibre filters 25mm Ø4个25mm Ø的加标玻璃纤维过滤器 | Dust by gravimetry (mass of solids)重量法测定粉尘(固体质量) |
| PT-AR-**04**\*\* - Dust灰尘 | 4 x spiked glass fibre filters 37mm Ø4个37mm Ø的加标玻璃纤维过滤器 | Dust by gravimetry (mass of solids)重量法测定粉尘(固体质量) |
| PT-AR-**05** – VOCs挥发性有机污染物 | 4 x dynamically loaded charcoal sorbent tubes(workplace air levels)4个动态加载木炭吸收管(工作场所空气水平) | Benzene; Toluene; Xylene; Ethyl benzene苯；甲苯；二甲苯；乙苯 |
| PT-AR-**06** –VOCs挥发性有机污染物 | 4 x dynamically loaded charcoal sorbent tubes(workplace air levels)4个动态加载木炭吸收管(工作场所空气水平) | 1,1,1-Trichloroethane; n-Hexane; n-Butyl acetate; Tetrachloroethene; Trichloroethylene1，1，1-三氯乙烷；正己烷；醋酸正丁酯；四氯乙烯；三氯乙烯 |
| PT-AR-**07** – VOCs挥发性有机污染物 | 4 x spiked Tenax thermal desorption tubes (workplace air levels)4个加标Tenax热解吸管(工作场所空气水平) | Benzene; Toluene; Xylene; Ethyl benzene苯；甲苯；二甲苯；乙苯 |
| PT-AR-**08 –**Aldehydes醛类 | 4 x spiked glass fibre filters 25mm Ø4个25mm Ø的加标玻璃纤维过滤器 | Formaldehyde; Acetaldehyde甲醛；乙醛 |
| PT-AR-**09 -** Cr (VI)六价铬 | 4 x spiked NaOH treated Millipore PVDF filters 25mm Ø4 个25mm Ø的加标NaOH微孔处理的PVDF过滤器 | Chromium (VI)六价铬 |
| PT-AR-**10A\* -** Metals\*\*\*金属\*\*\* | 1 x bulk welding fume sample1个块状焊接烟尘样品 | Chromium; Cobalt; Copper; Iron; Manganese; Nickel; Zinc 铬；钴；铜；铁；锰；镍；锌 |
| PT-AR-**10B\* -** Lead铅 | 1 x bulk lead-containing dust sample 1个块状含铅粉尘样品 | Lead铅 |
| PT-AR-**16\* -** Diesel fume柴油机烟气 | 4 x dynamically loaded quartz fibre filters 25mm Ø4个25mm Ø动态加载石英纤维过滤器 | Elemental carbon碳元素 |
| PT-AR**-18\* -** Beryllium铍 | 4 x spiked mixed cellulose ester filter 37mm Ø4个37mm Ø加标混合纤维素酯过滤器 | Beryllium铍 |
| PT-AR-**19\* -** Cr (VI)六价铬 | 1 x bulk chromate-containing welding fume or paint dust sample1个含有焊接烟尘或油漆粉尘的块状铬酸盐样品 | Chromium (VI)六价铬 |

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

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

**\*\***表示：过滤器被寄送给参与者以便进行称重，然后应该返回到Bury的LGC标准品部门进行加标。Bury的LGC标准品部门将这些加标的过滤器重新寄送给参与者重新称重。详情请见第5页。

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

**\*\*\***对于10A样本，每一轮将包含一个或多个所列元素。

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| **Ambient Air****环境空气** |
| **Sample****样品** | **Supplied as****基质** | **Target Analyte(s)****分析物** |
| PT-AR-**11 -** NO2二氧化氮 | 4 x dynamically loaded Palmes type diffusion tubes4 x动态加载Palmes 型扩散管 | Nitrogen dioxide (as nitrite)二氧化氮(以亚硝酸盐计) |
| PT-AR-**12** – VOCs挥发性有机污染物 | 4 x dynamically loaded Tenax thermal desorption tubes (ambient air levels)4个动态加载Tenax热解吸管(环境空气水平) | Benzene; Toluene; Xylene; Ethyl benzene苯；甲苯；二甲苯；乙苯 |
| PT-AR-**12A\***- VOCs挥发性有机污染物 | 4 x dynamically loaded Carbopack thermal desorption tubes (ambient air levels)4个动态加载Carbopack热解吸管(环境空气水平) | Benzene; Toluene; Xylene; Ethyl benzene苯；甲苯；二甲苯；乙苯 |
| PT-AR-**13\*** - Metals金属 | 4 x spiked quartz fibre filters 47mm Ø4个47mm Ø加标石英纤维过滤器 | Antimony; Arsenic, Cadmium; Nickel; Lead锑；砷；镉；镍；铅 |
| PT-AR-**14** - Anions on filters过滤器上的负离子 | 4 x spiked quartz fibre filters 47mm Ø4个47mm Ø加标石英纤维过滤器 | Chloride; Nitrate, Sulfate氯化物；硝酸盐；硫酸盐 |
| PT-AR-**17\***- Dust\*\*灰尘\*\* | 4 x spiked quartz fibre filters 47mm Ø4个47mm Ø加标石英纤维过滤器 | Dust by gravimetry (mass of solids)重量法测定粉尘(固体质量) |

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

**\*\***表示：过滤器被寄送给参与者以便进行称重，然后应该返回到Bury的LGC标准品部门进行加标。Bury的LGC标准品部门将这些加标的过滤器重新寄送给参与者重新称重。详情请见第5页。

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| **Indoor/Chamber Air****室内空气** |
| **Sample****样品** | **Supplied as****基质** | **Target Analyte(s)****分析物** |
| PT-AR-**21** - VOCs (Material Emission Testing)挥发性有机污染物(物质排放测试) | 4 x dynamically loaded Tenax thermal desorption tubes at chamber air levels4 个动态加载Tenax热解吸管在室内空气水平 | Benzene; n-Hexane; Toluene; Butyl acetate; MIBK; Cyclohexanone; p-Xylene; Diacetyl#; Phenol; 124-TMB; Limonene; 4-PCH; Dodecane苯；正己烷；甲苯；乙酸丁酯；甲基异丁基酮；环己酮；对二甲苯；二乙酰#；苯酚；124-四甲基联苯胺；柠檬烯；4-苯基环己烯；十二烷 |
| PT-AR-**22**\*\*\* **-** VOCs (Qualitative determination)挥发性有机物(定性) | 2 x dynamically loaded Tenax thermal desorption tubes at chamber air levels2个动态加载Tenax热解吸管在室内空气水平 | Qualitative determination of VOCs including alcohol, aliphatic, aromatic, ester, halocarbon and terpene compounds酒精；脂肪族；芳香族；酯类；卤烃和萜烯类化合物等挥发性有机化合物的定性测定 |

#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.

\*\*\*有关复合清单，请参阅AIR PT方案说明中的附录B。

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| **Stack Emissions****烟囱排放** |
| **Sample****样品** | **Supplied as****基质** | **Target Analyte(s)****分析物** |
| PT-AR-**31 -** Mercury汞 | 1 x potassium permanganate & sulfuric acid impinger solution containing mercury1 个含汞溶液的高锰酸钾&硫酸冲击器 | Volume; Mercury体积；汞 |
| PT-AR-**32 -** Mercury汞 | 1 x potassium dichromate & nitric acid impinger solution containing mercury1个含汞溶液的重铬酸钾&硝酸冲击器 | Volume; Mercury体积；汞 |
| PT-AR-**33 -** Metals金属 | 1 x nitric acid impinger solution containing up to 6 trace metals1个含有6种微量金属溶液的硝酸冲击器 | **AR042 –** Volume; As; Cr; Cu; Pb; Se#; Tl(体积；砷；铬；铜；铅；硒；铊)**AR043** – Volume; Sb; Cd; Co; Mn; Se#; V(体积；锑；镉；钴；锰；硒；钒)**AR045** – Volume; Sb; Cd; Co; Mn; Ni; V(体积；锑；镉；钴；锰；镍；钒)**AR046** – Volume; As; Cr; Cu; Pb; Se#; Tl(体积；砷；铬；铜；铅；硒；铊) |
| PT-AR-**34 -** Sulfur dioxide二氧化硫 | 1 x hydrogen peroxide impinger solution containing SO2 1个含二氧化硫溶液的过氧化氢冲击器 | Volume; Sulfur dioxide体积；二氧化硫 |

#For sample 33, Selenium is not currently included in LGC’s UKAS scope of accreditation.

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| **Stack Emissions continued****烟囱排放(接上)** |
| **Sample****样品** | **Supplied as****基质** | **Target Analyte(s)****分析物**  |
| PT-AR-**35 -** Hydrogen fluoride氟化氢 | 1 x sodium hydroxide impinger solution containing HF 1个含氟化氢溶液的氢氧化钠冲击器 | Volume; Hydrogen fluoride体积；氟化氢 |
| PT-AR-**36 -** Hydrogen chloride氯化氢 | 1 x aqueous impinger solution containing hydrogen chloride1个含氯化氢溶液的水溶液冲击器 | Volume; Hydrogen chloride体积；氯化氢 |
| PT-AR-**37 –** Ammonia氨 | 1 x sulfuric acid impinger solution containing ammonia1个含氨溶液的硫酸冲击器 | Volume; Ammonia体积；氨 |
| PT-AR-**38\* -** Metals金属 | 1 x quartz filter spiked with up to 6 trace elements and fly ash47mm Ø1个47mm Ø加标石英过滤器，添加多达6种微量元素和飞灰 | **AR042** – As; Cr; Cu; Pb; Se; Tl(砷；铬；铜；铅；硒；铊)**AR043** – As; Cr; Cu; Pb; Ni; Tl(砷；铬；铜；铅；镍；铊)**AR045** – Sb; Cd; Co; Mn; Se; V(锑；镉；钴；锰；硒；钒)**AR046** – Sb; Cd; Co; Mn; Ni; V(锑；镉；钴；锰；镍；钒) |
| PT-AR-**39\* -** Dust analysis (solution)粉尘分析(解决方案) | 1 x rinsing solution containing dissolved and suspended solids1个含有溶解固体和悬浮固体的冲洗液 | Total solids总固体含量 |
| PT-AR-**40 -** Dust analysis (filter)\*\*粉尘分析(过滤器)\*\* | 4 x spiked quartz filters 47mm Ø4个47mm Ø加标石英过滤器 | Dust analysis (mass of solids)粉尘分析(固体质量) |

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

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

**粉尘过滤器样品(3、4、17、40)分配计划**

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:

对于粉尘过滤器样品(3、4、17、40)，四个过滤器被寄送给参与者以供进行称重。然后，参与者将过滤器寄送回Bury的LGC标准品部门进行加标。Bury的LGC标准品部门将加标的过滤器重新寄送给参与者，让参与者重新称重，然后报告结果(初始值，重新称重值，计算差值)到LGC标准品的PORTAL系统中进行评估。粉尘过滤器样品具体发放日期：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Round****轮次** | **Despatch Date (week commencing)****发样日期(周始)** | **Filters required back at LGC by****过滤器需要返还LGC的时间** | **Filters re-despatch date (week commencing)****过滤器重新发样日期(周始)** | **Reporting Deadline****汇报截止日期** |
| AR044 | 2021/6/21 | 2021/7/19 | 2021/8/16 | 2021/9/13 |
|  AR047 | 2021/11/15 | 2021/12/13 | 2022/1/17 | 2022/2/14 |

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

**有关该方案完整的技术规格细节，请参阅AIR方案说明。**

Please fill in your address details below:

请在下面填写您的详细地址：

|  |  |
| --- | --- |
| **发送检测样品至：（中英文）** | **寄送发票至：** |
| 联系人姓名： | 联系人姓名： |
| 公司： | 公司： |
| 英文名称： | 地址： |
| 地址： | 电话：  |
| 英文地址： |  |
| 电话：  |  |
| 邮箱：  |  |

|  |  |
| --- | --- |
| **发送报告通知到:** | **开票信息：** |
| 联系人姓名：邮箱#：#当报告可以从在线报告系统PORTAL下载时，将向该地址发送电子邮件通知，请务必提供准确 | 开票类型（请选择）：增值税普通发票（）；增值税专用发票（）开票抬头：增值税税号：增值税专用发票必填如果需要开具‘增值税专用发票’，请务必填写以下信息开票地址：开票银行：开票帐号：开票电话： |

**关于LGC AXIO PT 质控样：**LGC AXIO提供先前轮次的能力验证剩余样品作为质控样，您可以选择这些样品进行纠偏调查，作为盲样来进行内部人员培训，考核或进行其他内部质量控制活动。实验员的结果可以直接通过PORTAL系统来进行Z值评价，并进行图表导出。

**关于LGC AXIO PT 重复样：**重复样是指当前轮次能力验证样品的复制样，LGC AXIO的能力验证至多可以让13个人来参与并提交结果。如果您需要多人次参加，希望在进行能力验证时获得更多的样品量时，以购买重复样是你最佳的选择。待能力验证结束后，这些剩余的重复样就成为了质控样，您可以参考能力验证主报告中提供的参数，使用这些样品当做质控样来进行内部质量控制活动。

**如申请表内计划没有满足您的需求,请留下您的需求信息:**

|  |
| --- |
| **能力验证计划需求** |
| **基质** | **分析物** | **数量** | **其他要求** |
|  |  |  |  |
| **质控样品需求** |
| **基质** | **分析物** | **数量** | **其他要求** |
|  |  |  |  |

**如您对LGC AXIO 有任何疑问，请联系LGC AXIO 中国团队**

**邮箱：PT.China@LGCGroup.com**

**客服联系方式：400 921 6156**

**客服邮箱：CNCS@LGCGroup.com**

**网址：www.lgcstandards.com**

**也可以联系授权经销商：安特百科（北京）技术发展有限公司**

**联系方式：400-6699-117转2288**