

Instructions for Handling Test Materials and Recording Results

Changes to Document from Previous Issue

- Sample 22 removed
- Additional compounds added to Sample 25

General Instructions

Sample Storage

- On receipt of the test materials, record the date and store as appropriate

Storage temperature	Sample(s)
Refrigerated (2 to 8°C)	1a, 1b, 1c, 2, 5, 6, 7a, 7b, 8, 10, 11, 12, 13, 14a, 14b, 16, 17, 20, 21, 24, 27, 28, 29
Room temperature (20±5°C) in a dry, insect free storage area.	3a, 3b, 3c, 18, 23, 25, 26, 30 (Soil)
Frozen (<-20°C)	15, 19, 23, 25, 26, 30 (Spiking solution)

- If a preservative is routinely added to the type of sample provided as part of your laboratory procedures, a suitable aliquot should be preserved as soon as possible in the normal way.
- **Any dilutions that result from addition of preservatives should be corrected for before submission of results.**

Sample Preparation

- All samples should be equilibrated at room temperature 20(±5)°C before any dilutions or analyses are performed. Samples should be prepared in accordance with the specific instructions for the group.
- The dilutions specified should be conducted in such a way as to ensure that any errors introduced by this dilution are much smaller than the overall analytical error involved in your method. As a general rule it is suggested that the error from dilution should be less than 1%.
- Example dilutions are given for illustration to help clarify the meaning of the instructions. These procedures should be followed exactly to ensure comparability of results.
Any dilutions detailed as part of these procedures should not be used in the calculation of results. These dilutions simply provide a final sample for analysis within the expected concentration ranges.

Sample Analysis

- Samples should be analysed by the normal methods used for those analytes by your laboratory.
- CONTEST samples should be treated like any other samples and all normal quality control procedures should be adopted.
- Results should only be corrected for recovery and blank, if appropriate, **and** if this is the normal practice in the laboratory. **If the sample is diluted as part of the analytical process (this is apart from the dilutions in the sample preparation instructions), such dilutions should be corrected for.**

Soil Matrix

The classification for the soil matrix (soil type), for each round, will be provided in the main report for Samples 3a, 3b, 3c and 18.

General Safety

Some of the CONTEST samples contain acids or alkalis and are corrosive. Others will contain low levels of carcinogens and toxic or flammable chemicals.

Instructions for Handling Test Materials and Recording Results

Group A – Metals

Sample 1a

Materials Supplied

- Approximately 8mL standard solution (in 0.2M nitric acid)

Analyte	Bottle	Instruction
Barium	Sample 1a Group A Metals	Dilute an aliquot of the sample supplied by a factor of 10 (e.g. 1mL made up to 10mL) using deionised water or acid to achieve your normal final acid strength then analyse by your chosen instrumental technique.
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Manganese		
Molybdenum		
Nickel		
Thallium		
Tin		
Vanadium		
Zinc		

Do not correct the results for these dilutions.

Sample 1b

Materials Supplied

- Approximately 8mL standard solution (in 0.2M nitric acid)

Analyte	Bottle	Instruction
Antimony	Sample 1b Group A Hydrides	Dilute the sample supplied by a factor of 10 (e.g. 1mL made up to 10mL) using deionised water or acid to achieve your normal final acid strength then analyse by your chosen instrumental technique.
Arsenic		
Selenium		

Do not correct the results for these dilutions.

Instructions for Handling Test Materials and Recording Results

Sample 1c

Materials Supplied

- Approximately 8mL standard solution (in 2% HCl acid)

Analyte	Bottle	Instruction
Mercury	Sample 1c Group A Mercury	Dilute the sample supplied by a factor of 10 (e.g. 1mL made up to 10mL) using deionised water or acid to achieve your normal final acid strength then analyse by your chosen instrumental technique.

Do not correct the results for these dilutions.

N.B: Mercury may be present in both organic and inorganic forms.

Sample 2

Materials Supplied

- Approximately 60ml extract of soil (prepared following ISO 11466 for the extraction of metals, acid strength 21% HCl and 7% HNO₃)

Analyte	Bottle	Instruction
Antimony	Sample 2 Group A Soil Extract	Analyse the sample by your chosen instrumental technique.
Arsenic		
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Manganese		
Mercury		
Molybdenum		
Nickel		
Selenium		
Thallium		
Tin		
Vanadium		
Zinc		

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Sample 3a

Materials Supplied

- Approximately 30g prepared soil, ground to pass through a 200µm sieve

Analyte	Bottle	Instruction
Antimony	Sample 3a Group A Soil	Analyse the sample by your chosen instrumental technique.
Arsenic		
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Manganese		
Mercury		
Molybdenum		
Nickel		
Selenium		
Thallium		
Tin		
Vanadium		
Zinc		
Chromium (VI)		

Sample 13

Materials Supplied

- Approximately 60mL standard solution (containing potassium dichromate and another chromium salt)

Analyte	Bottle	Instruction
Chromium (VI)	Sample 13 Group A Cr (VI)	Analyse the sample by your chosen instrumental technique.

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Group B – Inorganics

Sample 3b

Materials Supplied

- Approximately 150g prepared soil, ground to pass through a 200µm sieve

Analyte	Bottle	Instruction
Ammonia	Sample 3b Group B Soil	Report each analyte result in mg/kg of the prepared soil sample
Complex cyanide		
Free cyanide		
Total cyanide		
Dry matter		
Loss on ignition*		
pH		
Thiocyanate		
Total sulfate		
Easily liberated sulfide		
Water soluble boron*		
Water soluble chloride*		
Water soluble fluoride*		
Water soluble sulfate*		

N.B: *Participants should use the temperature or water:soil ratio they use in their routine analysis.

Sample 6

Materials Supplied

- Approximately 60mL standard solution (preserved in 0.1M sodium hydroxide)

Analyte	Bottle	Instruction
Total cyanide	Sample 6 Group B Total Cyanide	Analyse the sample by your chosen instrumental technique.

Sample 8

Materials Supplied

- Approximately 60mL standard solution

Analyte	Bottle	Instruction
Total sulfate	Sample 8 Group B Total Sulfate	Analyse the sample by your chosen instrumental technique.

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Sample 10

Materials Supplied

- Approximately 60mL standard solution

Analyte	Bottle	Instruction
Water soluble boron	Sample 10 Group B Boron	Analyse the sample by your chosen instrumental technique.

Sample 12

Materials Supplied

- Approximately 60mL standard solution (preserved with zinc acetate)

Analyte	Bottle	Instruction
Easily liberated sulfide	Sample 12 Group B Easily liberated sulfide	Shake the sample well and take a 5mL sub-sample. Analyse the aliquot by your chosen instrumental technique.

N.B: Results should be reported as mg/L as the concentration of the solution.

Sample 16

Materials Supplied

- Approximately 60mL standard solution

Analyte	Bottle	Instruction
Thiocyanate	Sample 16 Group B Thiocyanate	Analyse the sample by your chosen instrumental technique.

N.B: Results should be reported as SCN.

Sample 17

Materials Supplied

- Approximately 60mL standard solution

Analyte	Bottle	Instruction
Total fluoride	Sample 17 Group B Total fluoride	Analyse the sample by your chosen instrumental technique.

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Group C – Organics

N.B: The weight of the sample plus the vial on preparation is given on all the vials. Please reweigh before analysis and if the weight difference is greater than 40mg please contact contest@lgcgroup.com

Sample 3c

Materials Supplied

- Approximately 70g prepared soil, ground to pass through a 200µm sieve
- 1ml phenol spike solution

Analyte	Bottle	Instruction
Acenaphthene	Sample 3c Group C Soil	Report each analyte result in mg/kg of the prepared soil sample.
Acenaphthylene		
Anthracene		
Benz(a)anthracene		
Benzo(b)fluoranthene		
Benzo(k)fluoranthene		
Benzo(b/k)fluoranthene (sum of the 2 isomers)		
Benzo(ghi)perylene		
Benz(a)pyrene		
Chrysene		
Dibenz(ah)anthracene		
Fluoranthene		
Fluorene		
Indeno(123-cd)pyrene		
Naphthalene		
Phenanthrene		
Pyrene		
Total PAH		
PCB (28,52,101,118,138,153,180)		
Elemental sulphur		
Total organic carbon		
TPH (C ₁₀ -C ₄₀ inclusive)		
TPH aliphatic >C ₁₀ -C ₁₂		
TPH aliphatic >C ₁₂ -C ₁₆		
TPH aliphatic >C ₁₆ -C ₂₁		
TPH aliphatic >C ₂₁ -C ₃₅		
TPH aliphatic >C ₃₅ -C ₄₀		
TPH aromatic >EC ₁₀ -EC ₁₂		
TPH aromatic >EC ₁₂ -EC ₁₆		
TPH aromatic >EC ₁₆ -EC ₂₁		
TPH aromatic >EC ₂₁ -EC ₃₅		
TPH aromatic >EC ₃₅ -EC ₄₀		
Phenols	Sample 3c Group C Soil Group C Phenols in Soil	Accurately transfer 0.5mL of the phenol solution to 10g of the soil supplied. Perform an extraction of the entire sub-sample and analyse by your chosen instrumental technique. Report each analyte result in mg/kg of the prepared soil sample. Do not correct the results for these dilutions.
Cresols		
Xylenols		
Distillable phenolic substances		

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Sample 5

Materials Supplied

- Approximately 2mL standard solution in hexane (for GC analysis)

Analyte	Bottle	Instruction
Acenaphthene	Sample 5 Group C PAH	Analyse the sample by your chosen instrumental technique.
Acenaphthylene		
Anthracene		
Benz(a)anthracene		
Benzo(b)fluoranthene		
Benzo(k)fluoranthene		
Benzo(b/k)fluoranthene (sum of isomers)		
Benzo(ghi)perylene		
Benzo(a)pyrene		
Chrysene		
Dibenz(ah)anthracene		
Fluoranthene		
Fluorene		
Indeno(123-cd)pyrene		
Naphthalene		
Phenanthrene		
Pyrene		

Sample 7a

Materials Supplied

- Approximately 60mL standard solution in sodium hydroxide (for analysis by distillation and sub sequent colorimetric analysis)

Analyte	Bottle	Instruction
Monohydric phenols (by distillation)	Sample 7a Group C Phenols	Analyse the sample by your chosen instrumental technique.

Sample 7b

Materials Supplied

- 2 x approximately 2mL standard solutions in methanol/water (for instrumental analysis)

Analyte	Bottle	Instruction
Total phenols (sum of phenol, cresols and xylenols)	Sample 7b Group C Phenols	Analyse the sample by your chosen instrumental technique.
Total cresols		
Total xylenols		
Phenol		

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Sample 11

Materials Supplied

- Approximately 2mL standard solution in isooctane

Analyte	Bottle	Instruction
PCB 28	Sample 11 Group C PCB's	Analyse the sample by your chosen instrumental technique.
PCB 52		
PCB 101		
PCB 118		
PCB 138		
PCB 153		
PCB 180		

Sample 14a

Materials Supplied

- Approximately 2mL standard solution in hexane

N.B: This solution must be stored at 4(±2)°C

Analyte	Bottle	Instruction
Total petroleum hydrocarbons (C ₁₀ -C ₄₀ inclusive)	Sample 14a Group C TPH	Analyse the sample by your chosen instrumental technique.

Sample 14b

Materials Supplied

- Approximately 2mL standard solution in methanol

N.B: This solution must be stored at 4(±2)°C

Analyte	Bottle	Instruction
TPH Aliphatic ≤C ₆	Sample 14b Group C TPH	Dilute the sample supplied by a factor of 100 (e.g. 0.1mL made up to 10mL) using deionised water then analyse the resulting solution plus a blank by your chosen instrumental technique.
TPH Aliphatic >C ₆ -C ₈		
TPH Aliphatic >C ₈ -C ₁₀		
TPH Aromatic C ₆		
TPH Aromatic >C ₆ -C ₈		
TPH Aromatic >C ₈ -C ₁₀		
TPH Aliphatic ≤C ₆		

Do not correct the results for these dilutions.

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Sample 15

Materials Supplied

- Approximately 2mL standard solution in methanol

N.B: This solution must be stored at -20°C or below

Analyte	Bottle	Instruction
Benzene	Sample 15 Group C BTEX	Dilute the sample supplied by a factor of 10,000 (e.g. 0.1mL made up to 1L) using deionised water then analyse the resulting solution plus a blank by your chosen instrumental technique.
Toluene		
Ethylbenzene		
o-Xylene		
m- and p-xylene		

Do not correct the results for these dilutions.

Sample 19

Materials Supplied

- Approximately 2mL standard solution in methanol

N.B: This solution must be stored at -20°C or below

Analyte	Bottle	Instruction
1,2,4-trichlorobenzene	Sample 19 Group C Chlorinated Hydrocarbons	Dilute the sample supplied by a factor of 10,000 (e.g. 0.1mL made up to 1L) using deionised water then analyse the resulting solution plus a blank by your chosen instrumental technique.
1,2,3-trichlorobenzene		
2-Chlorotoluene		
1,2-Dichloroethane		
1,2-Dichloroethene		
Dichloromethane		
Hexachloro-1,3-butadiene		
1,1,1,2-Tetrachloroethane		
1,1,1-Trichloroethane		
Tetrachloromethane		
Trichloroethene		
Trichloromethane		

Do not correct the results for these dilutions

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Sample 20

Materials Supplied

- 1 x approximately 10mL amber vial containing a solution of 6 organic compounds at a level of approximately 0.5mg/L in dichloromethane
- 1 x approximately 10mL amber vials containing dichloromethane blank

Preparation

Analyse the sample as received, or dilute if necessary, to bring into the working range of your instrument. Identify the six unknowns present in the test sample and select the appropriate compound from the drop down list on the result entry page of the reporting system.

A blank is supplied to eliminate adventitious contaminants. The unknowns should be present in the solution only and not present (or present at trace levels) in the blank.

Possible chemicals found in this sample can be found on the following page:

Instructions for Handling Test Materials and Recording Results

Sample 20

Possible chemicals

Chemical	CAS Number
1,2,4,5-Tetrachlorobenzene	95-94-3
1,2,4-Trichlorobenzene	120-82-1
1,3-Dinitrobenzene	99-65-0
2,3,4,6-Tetrachlorophenol	58-90-2
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
2,4-Dichlorophenol	120-83-2
2,4-Dinitrotoluene	131-14-2
2,6-Dinitrotoluene	606-20-2
2-Acetylaminofluorene	53-96-3
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
2-Methylnaphthalene	91-57-6
2-Nitroaniline	88-74-4
3-Methylcholanthrene	56-49-5
4-Bromophenyl phenyl ether	101-55-3
4-Chloro-3-methylphenol	59-50-7
4-Chlorophenyl phenyl ether	7005-72-3
4-Nitrophenol	100-02-7
5-Nitro-o-toluidine	99-55-8
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Acetophenone	98-86-2
Anthracene	120-12-7
Benz(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Benzo(k)fluoranthene	207-08-9
Benzyl alcohol	100-51-6
Bis(2-chloroethoxy)methane	111-91-1
Bis(2-chloroethyl)ether	111-44-4
Bis(2-chloroisopropyl)ether	108-60-1
Bis(2-ethylhexyl)phthalate	117-81-7
Butyl benzyl phthalate	85-68-7
Carbazole	86-74-8

Chemical	CAS Number
Chrysene	218-01-9
Dibenz(a,h)anthracene	53-70-3
Dibenzofuran	132-64-9
Diethyl phthalate	84-66-2
Dimethyl phthalate	131-11-3
Dimethylaminoazobenzene	60-11-7
Di-n-butyl phthalate	84-74-2
Ethyl methanesulfonate	62-50-0
Fluoranthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachloroethane	67-72-1
Hexachloropropene	1888-71-7
Indeno(1,2,3-cd)pyrene	193-39-5
Isophorone	78-59-1
Isosafrole	120-58-1
m-Cresol	108-39-4
Naphthalene	91-20-3
Nitrobenzene	98-95-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodi-n-butylamine	924-16-3
N-Nitrosodi-n-propylamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitrosomorpholine	59-89-2
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
o-Cresol	95-48-7
p-Cresol	106-44-5
Pentachlorobenzene	608-93-5
Pentachloronitrobenzene	82-68-8
Phenacetin	62-44-2
Phenanthrene	85-01-8
Phenol	108-95-2
Pyrene	129-00-0
Safrole	94-59-7

Instructions for Handling Test Materials and Recording Results

Group D – Leachate

Sample 18

Materials Supplied

- Approximately 200g prepared soil, ground to pass through a 200µm sieve

Analyte	Bottle	Instruction
Antimony	Sample 18 Group D Soil	Using a 'dry' sample (as received), extract the sample using a 10:1 leachate: soil ratio. Analyse the sample by your chosen instrumental technique.
Arsenic		
Barium		
Cadmium		
Calcium		
Chromium		
Copper		
Iron		
Lead		
Magnesium		
Mercury		
Molybdenum		
Nickel		
Potassium		
Selenium		
Sodium		
Tin		
Zinc		
Sulfate (as SO ₄)		
Chloride (as Cl)		
Fluoride (as F)		
Nitrate (as NO ₃)		
Boron		
Chromium (VI)		
Phosphate (as P)		
Ammonia (as N)		
Free cyanide (as CN)		
Total cyanide (as CN)		
Thiocyanate (as SCN)		
pH		
Conductivity (20°C)		
COD (as O ₂)		
TOC/ DOC*		
Phenol Index		

N.B: Results should be reported as mg/L

Due to the very low levels of some analytes found in the leachate, many are not at a sufficient concentration for z scores to be calculated. The soil for leaching has therefore been spiked with a number of different parameters to raise the concentration of these to measureable levels.

***N.B:** Total organic carbon and dissolved organic carbon are regarded as the same determinand in the leachate sample due to the filtration carried out as part of the analytical procedure.

Instructions for Handling Test Materials and Recording Results

Group E Soils for Waste Acceptance Criteria (in accordance with EN 12457-2:2002 (10:1 single stage leaching test))

Sample 21

Materials Supplied

- Approximately 200g WAC material

Preparation

- Determine the moisture content (at 105°C) of the material provided PRIOR to determining the concentration of any other analyte.
- Calculate the Dry Matter Content Ratio using the following calculation:

$$DR = 100 \times M_D / M_W$$

Where

DR is the dry matter content ratio

M_D is the mass of the dried test portion (kg)

M_W is the mass of undried test portion (kg).

- Report this value in PORTAL.
- Calculate the required test portion using the following calculations. The amount of sample should be equivalent to 0.09kg of dry mass.

$$\text{Required weight (kg)} = 100 \times 0.09 / DR$$

- Calculate the Moisture Content Ratio using the following calculation:

$$\text{Moisture Content (MC)} = 100 \times (M_W - M_D) / M_D$$

- Calculate the required amount of leachant using the following calculations. This should establish a 10:1 liquid to solid ratio.

$$L = (10 - MC/100) \times 0.09$$

Where

L is the volume of leachant used (in l)

MC is the moisture content ratio (in %) (Calculated above)

Analyte	Bottle	Instruction
Antimony	Sample 21 Group E WAC Soil	<p>Please note the test material is a natural WAC sample, the test material may need to be dried and ground to pass through a 4mm sieve PRIOR to carrying out the analysis further.</p> <ul style="list-style-type: none"> Leach the sample according to EN 12457-2. Analyse the sample by your chosen instrumental technique.
Arsenic		
Barium		
Cadmium		
Chromium		
Copper		
Lead		
Mercury		
Molybdenum		
Nickel		
Selenium		
Zinc		
Sulfate (as SO ₄)		
Chloride (as Cl)		
Fluoride (as F)		
Phenol Index		
DOC		
Total dissolved solids		

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Sample 21 (continued)

N.B: Results obtained by the leaching test will be expressed in mg/L, however the results obtained from the eluate should be expressed as the amount of constituent leached relative to the total mass of the sample, in mg/kg of dry matter.

Participants must use the following calculation to convert their results:

$$A = C \times ((L/0.09) + (MC/100))$$

Where

A is the concentration of the analyte in mg/kg dry matter (this must be reported as the result);

C is the concentration of the analyte in the eluate (in mg/l);

L is the volume of leachant used (in l);

MC is the moisture content ratio.

Sample 24

Materials Supplied

- Approximately 1L leachate solution

Analyte	Bottle	Instruction
Antimony	Sample 24 Group E WAC Leachate	Analyse the sample by your chosen instrumental technique.
Arsenic		
Barium		
Cadmium		
Chromium		
Copper		
Lead		
Mercury		
Molybdenum		
Nickel		
Selenium		
Zinc		
Sulfate (as SO ₄)		
Chloride (as Cl)		
Fluoride (as F)		
Phenol Index		
DOC		
Total dissolved solids		

N.B: Results should be reported in mg/L

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Standard solutions in soil

Sample 23

Materials Supplied

- Approximately 1mL standard solution in methanol
- Approximately 30g soil material

N.B: This solution must be stored at -20°C or below

Analyte	Bottle	Instruction
TPH, Aliphatic ≤ C ₆	Sample 23 TPH Soil Sample 23 TPH Solution	<p>Accurately transfer 0.5mL of the standard solution to 10g of the soil supplied. Perform an extraction of the entire sub sample and analyse by your chosen instrumental technique.</p> <p>Do not correct the results for these dilutions</p> <p>Report each analyte result in mg/kg of the prepared soil sample.</p>
TPH, Aliphatic > C ₆ -C ₈		
TPH, Aliphatic > C ₈ -C ₁₀		
TPH, Aromatic C ₆		
TPH, Aromatic > C ₆ -C ₈		
TPH, Aromatic > C ₈ -C ₁₀		

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Sample 25

Materials Supplied

- Approximately 1mL standard solution in methanol
- Approximately 30g soil material

N.B: This solution must be stored at -20°C or below

Analyte	CAS Number	Bottle	Instruction
Acetonitrile	75-05-8	Sample 25 VOC's Soil Sample 25 VOC's Solution	<p>Accurately transfer 0.5mL of the standard solution to 10g of the soil supplied. Perform an extraction of the entire sub sample and analyse by your chosen instrumental technique.</p> <p>Do not correct results for these dilutions.</p> <p>Report each analyte result in mg/kg of the prepared soil sample.</p>
Benzene	71-43-2		
Bromobenzene	108-86-1		
Bromochloromethane	74-97-5		
Bromodichloromethane	75-27-4		
Bromoform	75-25-2		
Bromomethane	74-83-9		
n-Butylbenzene	104-51-8		
sec-Butylbenzene	135-98-8		
tert-Butylbenzene	98-06-6		
Carbon disulfide	75-15-0		
Tetrachloromethane (Carbon tetrachloride)	56-23-5		
Chlorobenzene	108-90-7		
Chloroethane	75-00-3		
Trichloromethane (Chloroform)	67-66-3		
Chloromethane	74-87-3		
2-Chlorotoluene	95-49-8		
4-Chlorotoluene	106-43-4		
cis-1,2-Dichloroethylene	156-59-2		
Dibromochloromethane	124-48-1		
1,2-Dibromo-3-chloropropane	96-12-8		
1,2-Dibromoethane	106-93-4		
Dibromomethane	74-95-3		
1,2-Dichlorobenzene	95-50-1		
1,3-Dichlorobenzene	541-73-1		
1,4-Dichlorobenzene	106-46-7		
Dichlorodifluoromethane	75-71-8		
1,1-Dichloroethane	75-34-3		
1,2-Dichloroethane	107-06-2		
1,1-Dichloroethylene	75-35-4		

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Sample 25 – continued

Analyte	CAS Number	Bottle	Instruction
1,2-Dichloroethene (trans-1,2-Dichloroethylene)	156-60-5	<p>Sample 25 VOC's Soil Sample 25 VOC's Solution</p>	<p>Accurately transfer 0.5mL of the standard solution to 10g of the soil supplied. Perform an extraction of the entire sub sample and analyse by your chosen instrumental technique.</p> <p>Do not correct results for these dilutions.</p> <p>Report each analyte result in mg/kg of the prepared soil sample.</p>
1,2-Dichloropropane	78-87-5		
1,3-Dichloropropane	142-28-9		
2,2-Dichloropropane	594-20-7		
1,1-Dichloropropylene	563-58-6		
cis-1,3-Dichloropropylene	10061-01-5		
trans-1,3-Dichloropropylene	10061-02-6		
Ethylbenzene	100-41-4		
Hexachloro-1,3-butadiene (Hexachlorobutadiene)	87-68-3		
Hexachloroethane	67-72-1		
Isopropylbenzene	98-82-8		
4-Isopropyltoluene	99-87-6		
Dichloromethane (Methylene chloride)	75-09-2		
Methyl t-butyl ether	1634-04-4		
m-Xylene	108-38-3		
m&p-Xylene	-		
Naphthalene	91-20-3		
Nitrobenzene	98-95-3		
n-Propylbenzene	103-65-1		
o-Xylene	95-47-6		
p-Xylene	106-42-3		
Styrene	100-42-5		
1,1,1,2-Tetrachloroethane	630-20-6		
1,1,2,2-Tetrachloroethane	79-34-5		
Tetrachloroethylene	127-18-4		
Toluene	108-88-3		
Total Xylenes	1330-20-7		
1,2,3-Trichlorobenzene	87-61-6		
1,2,4-Trichlorobenzene	120-82-1		
1,1,1-Trichloroethane	71-55-6		
1,1,2-Trichloroethane	79-00-5		
Trichloroethene (Trichloroethylene)	79-01-6		
Trichlorofluoromethane	75-69-4		
1,2,3-Trichloropropane	96-18-4		

Instructions for Handling Test Materials and Recording Results

Sample 26

Materials Supplied

- Approximately 1mL standard solution in methanol
- Approximately 30g soil material

N.B: This solution must be stored at -20°C or below

Analyte	Bottle	Instruction
Endrin	Sample 26 OC's Soil Sample 26 OC's Solution	<p>Accurately transfer 0.5mL of the standard solution to 10g of the soil supplied. Perform an extraction of the entire sub sample and analyse by your chosen instrumental technique.</p> <p>Do not correct results for these dilutions.</p> <p>Report each analyte result in mg/kg of the prepared soil sample.</p>
Dieldrin		
Aldrin		
p,p'-DDT		
o,p'-DDT		
p,p'-DDE		
p,p'-DDD		
Alpha Hexachlorocyclohexane		
Beta Hexachlorocyclohexane		
Delta Hexachlorocyclohexane		
Lindane (Gamma HCH)		
Trifluralin		
Alpha Endosulphan		
Beta Endosulphan		
Hexachlorobenzene		
Heptachlor		
Heptachlor epoxide		
Pentachlorobenzene		

Instructions for Handling Test Materials and Recording Results

Sample 30

Materials Supplied

- Approximately 1mL standard solution in methanol
- Approximately 30g soil material

N.B: This solution must be stored at -20°C or below

Analyte	Bottle	Instruction
Azinphos-methyl	Sample 30 OP's Soil Sample 30 OP's Solution	<p>Accurately transfer 0.5mL of the standard solution to 10g of the soil supplied. Perform an extraction of the entire sub sample and analyse by your chosen instrumental technique.</p> <p>Do not correct results for these dilutions.</p> <p>Report each analyte result in mg/kg of the prepared soil sample.</p>
Azinphos-ethyl		
Dichlorvos		
Fenitrothion		
Malathion		
Mevinphos		
Chlorfenvinphos		
Diazinon		
Fenthion		
Parathion-ethyl		
Parathion-methyl		
Chlorpyrifos		
Cypermethrin		

LOI FINES

Sample 27

Materials Supplied

- Approximately 1kg soil

Analyte	Bottle	Instruction
LOI at 440°C	Sample 27 LOI FINES	<ul style="list-style-type: none"> • Air dry the sample, cone and quarter to produce a sub-sample. • Sieve the sub-sample and then grind to <2mm. • A minimum of 20g is then required to carry out the LOI test. <p>(In accordance to the HMRC LOI testing regime)</p>

Instructions for Handling Test Materials and Recording Results

SOIL TEXTURE (ST)

Sample 28

Materials Supplied

- Approximately 500g soil

Analyte	Bottle	Instruction
Soil Texture	Sample 28 Soil Texture	Determine the soil texture by using the Feel or Ribbon Method

***The structure of this sample is to be confirmed and details will be circulated to participants closer to round.*

INCINERATOR BOTTOM ASH (IBA)

Sample 29

Materials Supplied

- Approximately 500g IBA material

Analyte	Bottle	Instruction
Arsenic	Sample 29 IBA	Analyse sample via a single shot IBA <ul style="list-style-type: none"> • Sieve to 5mm. • Record the fraction that remains on the sieve and list out the material that has been retained. i.e. glass/metal • Recombine and take a dry matter at 105°C. • Dry the entire sample at 30°C. • Grind the sample in the shatter box. • Submit for testing. • Dry matter correct the results
Barium		
Cadmium		
Copper		
Iron		
Lead		
Magnesium		
Manganese		
Nickel		
Potassium		
Sodium		
Total Chromium		
Zinc		
pH		
Alkali reserve		

***The structure of this sample is to be confirmed and details will be circulated to participants closer to round.*