



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
Report Date: 3 February 2020

Test Report No: 70653641  
Issue No: 1

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Contract: NLBLOCK

North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 19/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: St Ambrose High  
Sample Point: Tech Room 3  
Date/Time on: 19/11/2019 at 10:44  
Date/Time off: 19/11/2019 at 11:22  
Tenax I.D. MI016010

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	7.158	litres
Total VOC ng	1753	ng
Total VOC mg/m <sup>3</sup>	0.245	mg/m <sup>3</sup>
methanol	0.0039	mg/m <sup>3</sup>
Ethanol	0.0010	mg/m <sup>3</sup>
Acetic acid	0.0019	mg/m <sup>3</sup>
Butan-1-ol	0.0015	mg/m <sup>3</sup>
Toluene	0.0027	
ethyl benzene	0.0014	mg/m <sup>3</sup>
m- & p- xylene	0.0070	
o-xylene	0.0020	mg/m <sup>3</sup>
alpha pinene	0.1147	mg/m <sup>3</sup>
beta pinene	0.0080	mg/m <sup>3</sup>

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
3-Carene	0.0450	mg/m <sup>3</sup>
Limonene	0.0070	
Nonanal	0.0010	
Decamethyl cyclopentasiloxane	0.0007	mg/m <sup>3</sup>
Benzene	0.0006	

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.245 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is just above the lower end of this range but would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0006 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.

9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.

10. Acetic acid can be from adhesives, food and cleaning products.

11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.

12. Terpene compounds, alpha and beta pinene, limonene and 3-carene detected were present due to the use of wood materials in the room.

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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
Report Date: 3 February 2020

Test Report No: 70653642  
Issue No: 1

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 19/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: St Ambrose High  
Sample Point: Music Room 3  
Date/Time on: 19/11/2019 at 10:40  
Date/Time off: 19/11/2019 at 11:18  
Tenax I.D. MI016154

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	7.516	litres
Total VOC ng	419	ng
Total VOC mg/m <sup>3</sup>	0.056	mg/m <sup>3</sup>
methanol	0.0116	mg/m <sup>3</sup>
Ethanol	0.0018	mg/m <sup>3</sup>
Benzene	0.0007	
Butan-1-ol	0.0006	mg/m <sup>3</sup>
Toluene	0.0052	
ethyl benzene	0.0023	mg/m <sup>3</sup>
m- & p- xylene	0.0107	
o-xylene	0.0035	mg/m <sup>3</sup>
Limonene	0.0004	
Nonanal	0.0018	

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Decamethyl cyclopentasiloxane	0.0024	mg/m <sup>3</sup>
2-ethyl hexanol	0.0004	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.056 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0007 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.

9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.

10. Acetic acid can be from adhesives, food and cleaning products.

11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.

12. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.



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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

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Test Report No: 70653656  
Issue No: 1

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 18/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: Art G036  
Date/Time on: 18/11/2019 at 11:58  
Date/Time off: 18/11/2019 at 12:28  
Tenax I.D. MI018510

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	6.075	litres
Total VOC ng	781	ng
Total VOC mg/m <sup>3</sup>	0.129	mg/m <sup>3</sup>
methanol	0.0154	mg/m <sup>3</sup>
Ethanol	0.0044	mg/m <sup>3</sup>
Benzene	0.0009	
Acetic acid	0.0057	mg/m <sup>3</sup>
Butan-1-ol	0.0188	mg/m <sup>3</sup>
Toluene	0.0048	
ethyl benzene	0.0004	mg/m <sup>3</sup>
m- & p- xylene	0.0020	
o-xylene	0.0006	mg/m <sup>3</sup>
Limonene	0.0004	

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0007	
Decamethyl cyclopentasiloxane	0.0025	mg/m <sup>3</sup>
2-ethyl hexanol	0.0013	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0095	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.129 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0009 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.

9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.

10. Acetic acid can be from adhesives, food and cleaning products.

11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.

12. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers. 1,2-cyclopropanehexane could also be used in cleaning products.





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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 18/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: Science G051  
Date/Time on: 18/11/2019 at 11:56  
Date/Time off: 18/11/2019 at 12:26  
Tenax I.D. MI016572

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	5.510	litres
Total VOC ng	316	ng
Total VOC mg/m <sup>3</sup>	0.057	mg/m <sup>3</sup>
methanol	0.0078	mg/m <sup>3</sup>
Ethanol	0.0019	mg/m <sup>3</sup>
Benzene	0.0008	
Acetic acid	0.0023	mg/m <sup>3</sup>
Butan-1-ol	0.0040	mg/m <sup>3</sup>
Toluene	0.0030	
ethyl benzene	0.0004	mg/m <sup>3</sup>
m- & p- xylene	0.0013	
o-xylene	0.0006	mg/m <sup>3</sup>
Nonanal	0.0010	

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Decamethyl cyclopentasiloxane	0.0013	mg/m <sup>3</sup>
2-ethyl hexanol	0.0034	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0031	mg/m <sup>3</sup>

### Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.057 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0008 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.

9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.

10. Acetic acid can be from adhesives, food and cleaning products.

11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products. 1,2-cyclopropanehexane could also be used in cleaning products.

12. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.

13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
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Test Report No: 70653658  
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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 18/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: HE G024, Sink 1 next to fire exit  
Date/Time on: 18/11/2019 at 11:54  
Date/Time off: 18/11/2019 at 12:23  
Tenax I.D. MI016151

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	5.326	litres
Total VOC ng	321	ng
Total VOC mg/m <sup>3</sup>	0.060	mg/m <sup>3</sup>
methanol	0.0143	mg/m <sup>3</sup>
Ethanol	0.0039	mg/m <sup>3</sup>
Benzene	0.0006	
Acetic acid	0.0123	mg/m <sup>3</sup>
Butan-1-ol	0.0005	mg/m <sup>3</sup>
Toluene	0.0022	
ethyl benzene	0.0003	mg/m <sup>3</sup>
m- & p- xylene	0.0011	
o-xylene	0.0006	mg/m <sup>3</sup>
Nonanal	0.0038	

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Client Ref No: AIR TESTS  
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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Decamethyl cyclopentasiloxane	0.0003	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0010	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.060 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.
2. The following comments are related to the total volatile organic contamination (TVOC).  
The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air.  
Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.  
  
The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.
3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.
4. Benzene level of 0.0006 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.
5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.
6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.
7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.
8. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.
9. Acetic acid can be from adhesives, food and cleaning products.
10. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products. 1,2-cyclopropanehexane could also be used in cleaning products.
11. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.
12. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.



# Test Report

Client Ref No: AIR TESTS  
Report Date: 3 February 2020

Test Report No: 70653658  
Issue No: 1

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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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Approved Signatory:

  
  
Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
Report Date: 3 February 2020

Test Report No: 70653654  
Issue No: 1

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 18/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: English G-099  
Date/Time on: 18/11/2019 at 11:48  
Date/Time off: 18/11/2019 at 12:17  
Tenax I.D. MI016007

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	5.462	litres
Total VOC ng	367	ng
Total VOC mg/m <sup>3</sup>	0.067	mg/m <sup>3</sup>
methanol	0.0160	mg/m <sup>3</sup>
Ethanol	0.0018	mg/m <sup>3</sup>
Benzene	0.0011	
Acetic acid	0.0020	mg/m <sup>3</sup>
Butan-1-ol	0.0012	mg/m <sup>3</sup>
Toluene	0.0082	
ethyl benzene	0.0004	mg/m <sup>3</sup>
m- & p- xylene	0.0025	
o-xylene	0.0007	mg/m <sup>3</sup>
Limonene	0.0010	

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0010	
Decamethyl cyclopentasiloxane	0.0049	mg/m <sup>3</sup>
2-ethyl hexanol	0.0007	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.067 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.
2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.  
  
The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.
3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.
4. Benzene level of 0.0011 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.
5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.
6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.
7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.
8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.
9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.
10. Acetic acid can be from adhesives, food and cleaning products.
11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.
12. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.
13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.



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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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Approved Signatory:



Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 18/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: Maths  
Date/Time on: 18/11/2019 at 11:51  
Date/Time off: 18/11/2019 at 12:21  
Tenax I.D. MI016169

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	5.651	litres
Total VOC ng	671	ng
Total VOC mg/m <sup>3</sup>	0.119	mg/m <sup>3</sup>
methanol	0.0300	mg/m <sup>3</sup>
Ethanol	0.0051	mg/m <sup>3</sup>
Benzene	0.0013	
Acetic acid	0.0041	mg/m <sup>3</sup>
Butan-1-ol	0.0022	mg/m <sup>3</sup>
Toluene	0.013	
ethyl benzene	0.0006	mg/m <sup>3</sup>
m- & p- xylene	0.0026	
o-xylene	0.0009	mg/m <sup>3</sup>
Limonene	0.0020	

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# Test Report

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0003	
Decamethyl cyclopentasiloxane	0.0038	mg/m <sup>3</sup>
2-ethyl hexanol	0.0035	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.119 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.
2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.  
  
The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.
3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.
4. Benzene level of 0.0013 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.
5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.
6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.
7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.
8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.
9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.
10. Acetic acid can be from adhesives, food and cleaning products.
11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.
12. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.
13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.



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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

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Report Date: 3 February 2020

Test Report No: 70653670  
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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 19/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Townhead Community Centre  
Sample Point: Reception general area  
Date/Time on: 19/11/2019 at 11:49  
Date/Time off: 19/11/2019 at 12:26  
Tenax I.D. A89409

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	7.405	litres
Total VOC ng	502	ng
Total VOC mg/m <sup>3</sup>	0.068	mg/m <sup>3</sup>
methanol	0.0061	mg/m <sup>3</sup>
Ethanol	0.0015	mg/m <sup>3</sup>
Benzene	0.0007	
Acetic acid	0.0040	mg/m <sup>3</sup>
Butan-1-ol	0.0013	mg/m <sup>3</sup>
Toluene	0.0027	
ethyl benzene	0.0019	mg/m <sup>3</sup>
m- & p- xylene	0.0087	
o-xylene	0.0026	mg/m <sup>3</sup>
Limonene	0.0004	

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# Test Report

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0024	
Decamethyl cyclopentasiloxane	0.0011	mg/m <sup>3</sup>
2-ethyl hexanol	0.0034	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0076	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.068 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is below the lower range stated above and would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0009 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Ethyl hexanol is a compound associated with plasticisers, coatings, adhesives and flooring.

9. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.

10. Acetic acid can be from adhesives, food and cleaning products.

11. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products.

12. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers. 1,2-cyclopropanehexane could also be used in cleaning products.



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**Test Details Continued :**

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

Approved Signatory:

Chemist





# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
Report Date: 3 February 2020

Test Report No: 70653659  
Issue No: 1

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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 19/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: Snack Bar  
Date/Time on: 19/11/2019 at 10:53  
Date/Time off: 19/11/2019 at 11:29  
Tenax I.D. MI016654

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	6.781	litres
Total VOC ng	1549	ng
Total VOC mg/m <sup>3</sup>	0.228	mg/m <sup>3</sup>
methanol	0.0038	mg/m <sup>3</sup>
Ethanol	0.0046	mg/m <sup>3</sup>
Benzene	0.0036	
Acetic acid	0.0048	mg/m <sup>3</sup>
Butan-1-ol	0.0030	mg/m <sup>3</sup>
Toluene	0.0030	
ethyl benzene	0.0010	mg/m <sup>3</sup>
m- & p- xylene	0.0050	
o-xylene	0.0017	mg/m <sup>3</sup>
Limonene	0.0318	

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# Test Report

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0008	
Decamethyl cyclopentasiloxane	0.0188	mg/m <sup>3</sup>
2-ethyl hexanol	0.0018	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0045	mg/m <sup>3</sup>
Acetone	0.0150	mg/m <sup>3</sup>
n-hexane	0.0042	mg/m <sup>3</sup>
2-methyl hexane	0.0237	mg/m <sup>3</sup>
Cyclohexane	0.0169	mg/m <sup>3</sup>
2,3-dimethyl pentane	0.0030	mg/m <sup>3</sup>
3-methyl hexane	0.0255	mg/m <sup>3</sup>
n-heptane	0.0231	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.228 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.

2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.

The TVOC level detected is just above the lower range stated above, however this is a snack bar there were odours from cooking present and this would not be expected to cause a complaint.

3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.

4. Benzene level of 0.0036 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.

5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.

6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.

7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.

8. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants,



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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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hairsprays, polishes and many other cleaning materials.

9. Acetic acid can be from adhesives, food and cleaning products.

10. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products. 1,2-cyclopropanehexane could also be used in cleaning products.

11. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.

12. The compounds n-hexane, 2-methyl hexane, cyclohexane, 2,3-dimethyl pentane, 3-methyl hexane and n-heptane could be associated with the cooking odours that were detected during the sampling.

13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

Approved Signatory:

Chemist



# Glasgow Scientific Services

64 Everard Drive, Springburn, Glasgow, G21 1XG

## Test Report

Client Ref No: AIR TESTS  
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North Lanarkshire Council  
Business Regulation Service  
Fleming House  
Tryst Road  
Cumbernauld  
G67 1DZ

Technical Enquiries : Mass Spec  
Phone 0141 276 0628  
[REDACTED]@Glasgow.Gov.uk  
Fax 0141 276 0669

### Sample Details :

Client's Description: Volatile Organic Compounds  
Date received: 19/11/2019  
Sampled by: [REDACTED]  
Sample Type: Tenax - Volatile Organic Compounds  
Site: Buchanan High  
Sample Point: Staff Room  
Date/Time on: 19/11/2019 at 11:00  
Date/Time off: 19/11/2019 at 11:30  
Tenax I.D. MI016652

Test Note: Tenax adsorption tubes are used to absorb volatile and semi volatile organic compounds in the atmosphere and do not distinguish between the background odours in a room (e.g. cleaning and personal hygiene products) and the complaint odours.

TVOC - Total Volatile Organic Contamination, is the Total of VOC detected in the sample tube

### Test Details :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Sample collected by	Karen Macvicar	
Sample volume	5.510	litres
Total VOC ng	4987	ng
Total VOC mg/m <sup>3</sup>	0.905	mg/m <sup>3</sup>
methanol	0.0097	mg/m <sup>3</sup>
Ethanol	0.1136	mg/m <sup>3</sup>
Benzene	0.0006	
Acetic acid	0.0043	mg/m <sup>3</sup>
Butan-1-ol	0.0148	mg/m <sup>3</sup>
Toluene	0.0032	
ethyl benzene	0.0010	mg/m <sup>3</sup>
m- & p- xylene	0.0045	
o-xylene	0.0014	mg/m <sup>3</sup>
Limonene	0.3984	

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# Test Report

Client Ref No: AIR TESTS  
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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
Nonanal	0.0005	
Decamethyl cyclopentasiloxane	0.1035	mg/m <sup>3</sup>
2-ethyl hexanol	0.0033	mg/m <sup>3</sup>
1,2-cyclopropylhexane	0.0052	mg/m <sup>3</sup>
2-methyl hexane	0.0146	mg/m <sup>3</sup>
Cyclohexane	0.0121	mg/m <sup>3</sup>
2,3-dimethyl pentane	0.0018	mg/m <sup>3</sup>
3-methyl hexane	0.0151	mg/m <sup>3</sup>
n-heptane	0.0085	mg/m <sup>3</sup>

## Opinions/Comments:

Compounds reported, in the most part, form the top compounds detected.

1. The total volatile organic contamination (TVOC) was 0.905 mg/m<sup>3</sup>. This TVOC was within the range we expect for indoor air.
2. The following comments are related to the total volatile organic contamination (TVOC). The statement below is from Molhave: "Volatile Organic Compounds, Indoor Air Quality and Health" states the health effects may be experienced at the following concentrations of VOCs in indoor air. Odour complaints, irritation and discomfort can occur between 0.2 - 3.0 mg/m<sup>3</sup>.  
  
The TVOC level detected is above the lower range stated above, however there were a number of teachers in the room during sampling and odours from cooking and this level would not be expected to cause a complaint.
3. Compounds detected are not unusual for a school environment where there has been recent refurbishment and painting.
4. Benzene level of 0.0006 mg/m<sup>3</sup> was considerably lower than The Expert Panel Air Quality Standards (EPAQS) in Table D4 of document IPPC H1 Horizontal Guidance Note, which states that the annual mean for benzene is 0.005 mg/m<sup>3</sup>. Benzene, for example is a combustion product of coal, wood fuels and car exhausts.
5. Toluene is a common solvent, found in paints, paint thinners, silicone sealants, rubber, adhesives (glues), lacquers and disinfectants.
6. Ethanol can be from a number of sources, such as perfumes, air fresheners and cleaning products.
7. Methanol is the solvent used to prepare the internal standard injected on the sample before the sample is taken and not usually mentioned in the results. However, the level of methanol was higher than expected so there could be a local contribution to the sample. Methanol can be in, for example, antibacterial cleaners and glass cleaner.
8. Decamethyl cyclopentasiloxane DMPS, is an oily odourless solvent which is commonly used in paints, deodorants, hairsprays, polishes and many other cleaning materials.
9. Acetic acid can be from adhesives, food and cleaning products.



# Test Report

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Report Date: 3 February 2020

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## Test Details Continued :

<u>Determination</u>	<u>Result</u>	<u>Units</u>
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10. Butano-1-ol, limonene and nonanal are common compounds found in cleaning products. 1,2-cyclopropanehexane could also be used in cleaning products.

11. Xylene compounds can come from rubber and plastics, in solvents, and in paints and lacquers.

12. The compounds n-hexane, 2-methyl hexane, cyclohexane, 2,3-dimethyl pentane, 3-methyl hexane and n-heptane could be associated with the cooking odours that were detected during the sampling.

13. In summary, the compounds detected in the atmosphere and the concentration levels were not uncommon. The recent refurbishments that have occurred could have contributed to a number of the compounds detected.

Approved Signatory:

Chemist