

# DNA Analysis of Building

## DNA Mould Test



**Address** SíBS- Mosfellsbær.

Case nr. -

Requester Verksýn ehf - BRR, Birgir Rafn Reynisson

Lab nr. 2023004960

Test ID 8595, 8598, 8596, 8608, 8609, 8618, 8614, 8613, 8612, 8606, 8607, 8616, 8617, 8610 og 8611

Sample date 29.10.2023    Receipt date 02.11.2023    Analysis date 06.11.2023



## 8595 SÍBS- Mosfellsbær.

### Matshluti A - 2.sal (3.hæð) Møderum 855, vandret overflade, 104791

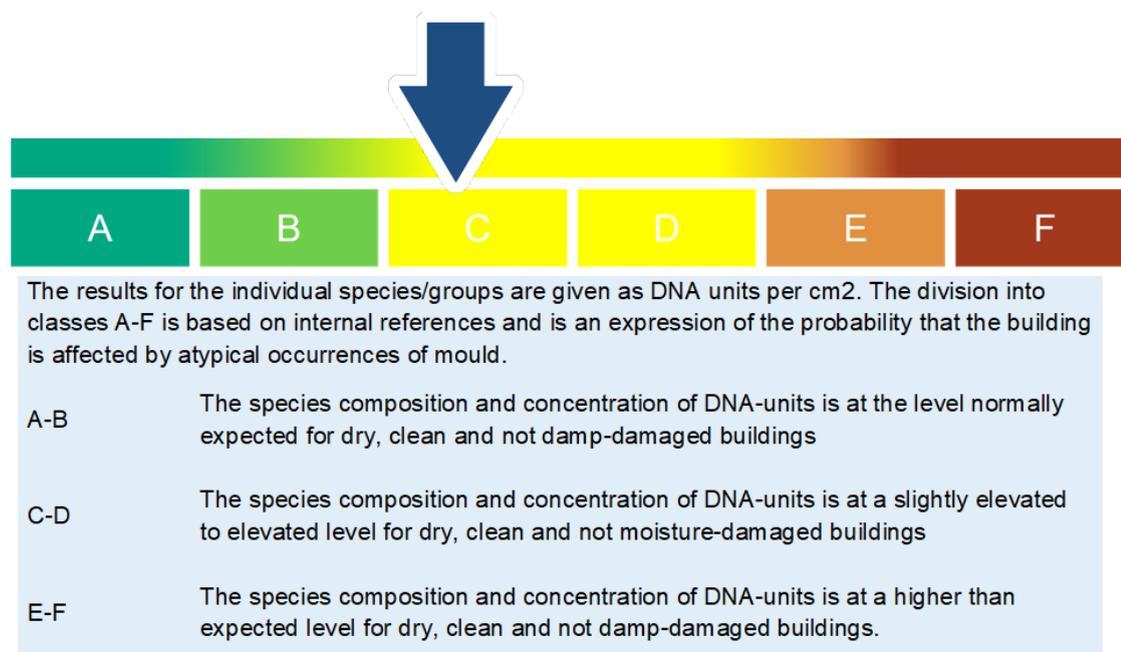
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti A - 2.sal (3.hæð) Møderum 855, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the composition of mould species there is no sign of a severe or long-lasting moisture damage. The slightly increased level of total mould is primarily attributed to accumulation in dust by outdoor species. However, there is an increased level of *Penicillium* and *Aspergillus*, which may originate from a small moisture damage with low moisture levels, as e.g. condensation on a thermal bridge.

We recommend to dry off horizontal surfaces and to vacuum with a HEPA filter.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	7858	100,00%
<i>Wallemia sebi</i>	6	0,07%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	139	1,76%
<i>Cladosporium sphaerospermum</i>	86	1,09%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>1001</b>	<b>12,73%</b>
<i>Aspergillus fumigatus</i>	1	0,01%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	8	0,10%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	80	1,02%
<i>Alternaria alternata</i>	8	0,10%
<i>Ulocladium chartarum</i>	14	0,18%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

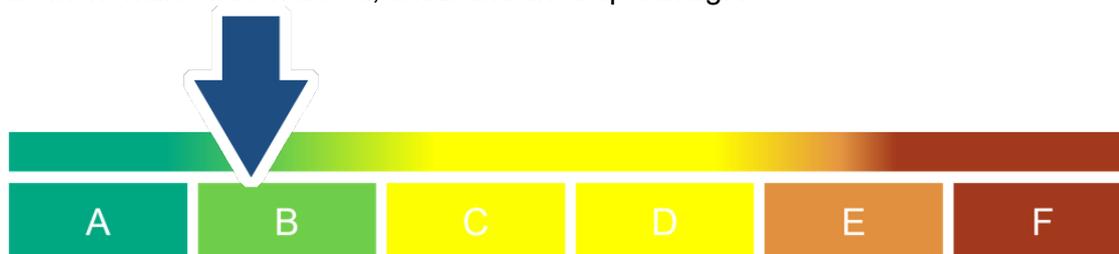
## 8598 SÍBS- Mosfellsbær.

### Matshluti A- stuen (1. hæð) Mødelokale 852, vandret overflade, 104798

DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

On the basis of the analysis results for the test made from Matshluti A- stuen (1. hæð) Mødelokale 852, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the mould species there are relatively few moisture damage indicators and a relatively big quantity of so-called outdoor mould, accumulating in dust. No occurrence of mould indicates that the indoor environment is not affected by severe water damages. The few moisture damage indicators present in the test may be originating from small areas of condensation on walls, e.g. cold basement walls or from an old, small and dried up damage.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	9933	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	134	1,35%
<i>Cladosporium sphaerospermum</i>	94	0,94%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<i>Aspergillus og Penicillium arter</i>	518	5,22%
<i>Aspergillus fumigatus</i>	1	0,01%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	15	0,15%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	28	0,28%
<i>Alternaria alternata</i>	0	0,00%
<i>Ulocladium chartarum</i>	0	0,00%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

## 8596 SÍBS- Mosfellsbær.

Matshluti A-1. sal (2.hæð) Gang 621, vandret overflade, 104347

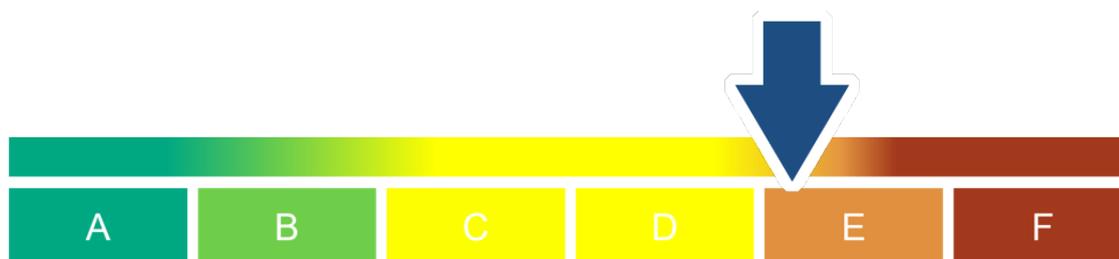
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti A-1. sal (2.hæð) Gang 621, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Chaetomium globosum*, which is often present in connection with severe or long-lasting moisture.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material. Notoriously, there may be nuisances from residing in buildings with this microbiologic profile.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	6689	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	120	1,80%
<i>Cladosporium sphaerospermum</i>	69	1,03%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>1895</b>	<b>28,33%</b>
<i>Aspergillus fumigatus</i>	1	0,02%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	21	0,32%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	183	2,74%
<i>Alternaria alternata</i>	24	0,35%
<i>Ulocladium chartarum</i>	2	0,03%
<i>Stachybotrys chartarum</i>	0	0,00%
<b><i>Chaetomium globosum</i></b>	<b>26</b>	<b>0,38%</b>
<i>Streptomyces</i>	0	0,00%

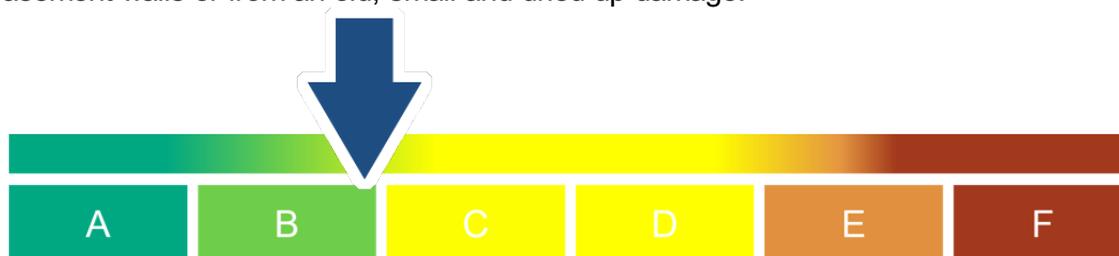
The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8608 SÍBS- Mosfellsbær.**  
**Matshluti F - Stuen (1.hæð) Gang 861, vandret overflade, 104758**

DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

On the basis of the analysis results for the test made from Matshluti F - Stuen (1.hæð) Gang 861, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the mould species there are relatively few moisture damage indicators and a relatively big quantity of so-called outdoor mould, accumulating in dust. No occurrence of mould indicates that the indoor environment is not affected by severe water damages. The few moisture damage indicators present in the test may be originating from small areas of condensation on walls, e.g. cold basement walls or from an old, small and dried up damage.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	7916	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	183	2,31%
<i>Cladosporium sphaerospermum</i>	0	0,00%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<i>Aspergillus og Penicillium arter</i>	392	4,96%
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Tricoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	0	0,00%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	26	0,33%
<i>Alternaria alternata</i>	0	0,00%
<i>Ulocladium chartarum</i>	4	0,05%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	1	0,01%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

## 8609 SÍBS- Mosfellsbær.

Matshluti F, Stuen (1.hæð)- Ábent kontor 860 af vandret overflade, 104779

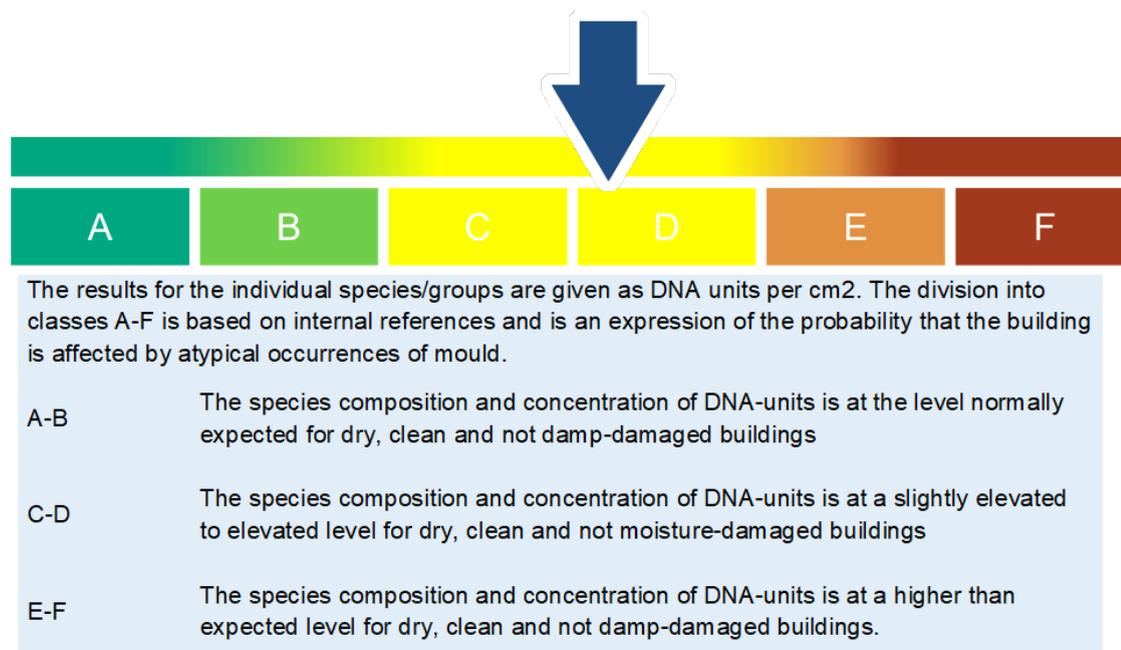
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti F, Stuen (1.hæð)- Ábent kontor 860 af vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is above normal level. There is an increased level of *Chaetomium globosum* and *Trichoderma viride* which is often present in connection with severe or long-lasting moisture.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material. Notoriously, there may be nuisances from residing in buildings with this microbiologic profile.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	22726	100,00%
<i>Wallemia sebi</i>	13	0,06%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	757	3,33%
<i>Cladosporium sphaerospermum</i>	391	1,72%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>2472</b>	<b>10,88%</b>
<i>Aspergillus fumigatus</i>	4	0,02%
<i>Penicillium chrysogenum</i>	0	0,00%
<b><i>Tricoderma viride</i></b>	<b>25</b>	<b>0,11%</b>
<i>Aspergillus glaucus</i>	12	0,05%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	248	1,09%
<i>Alternaria alternata</i>	18	0,08%
<i>Ulocladium chartarum</i>	3	0,01%
<i>Stachybotrys chartarum</i>	0	0,00%
<b><i>Chaetomium globosum</i></b>	<b>1</b>	<b>0,01%</b>
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8618 SÍBS- Mosfellsbær.  
Matshluti Fridriksberg - Stuen (1.hæð), Stue, vandret overflade, 104330**

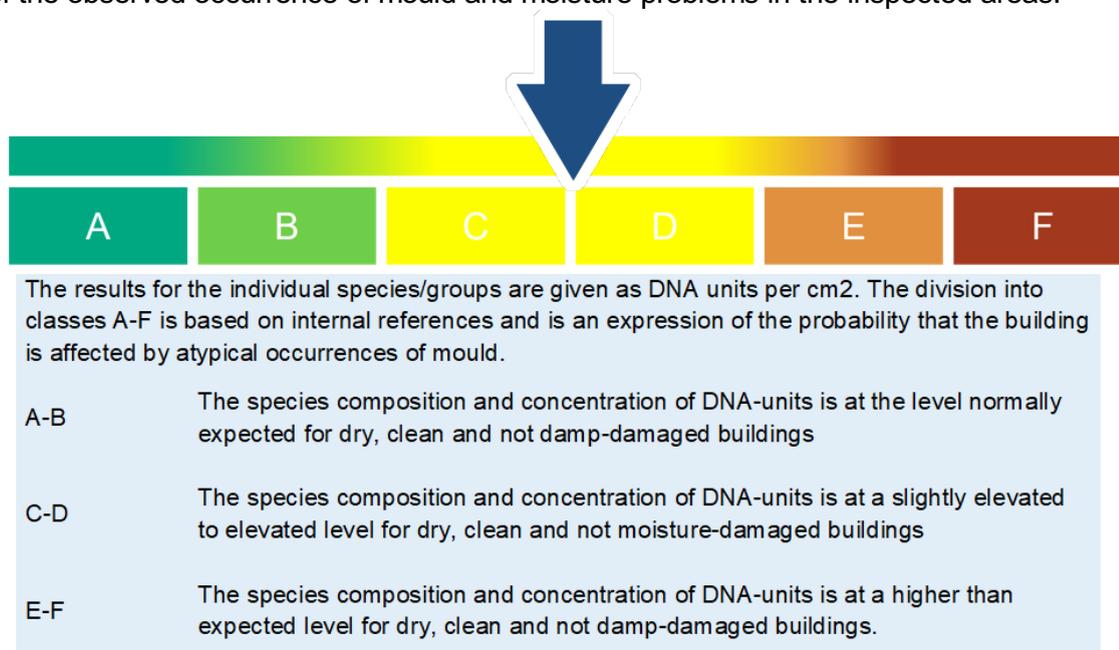
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti Fridriksberg - Stuen (1.hæð), Stue, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Tricoderma viride* in the test.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	14752	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	335	2,27%
<i>Cladosporium sphaerospermum</i>	767	5,20%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>3045</b>	<b>20,64%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<b><i>Tricoderma viride</i></b>	<b>49</b>	<b>0,33%</b>
<i>Aspergillus glaucus</i>	13	0,09%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	686	4,65%
<i>Alternaria alternata</i>	46	0,31%
<i>Ulocladium chartarum</i>	0	0,00%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

## 8614 SÍBS- Mosfellsbær.

Matshluti C -1. sal (2.hæð), gang 856 vandret overflade, 104783

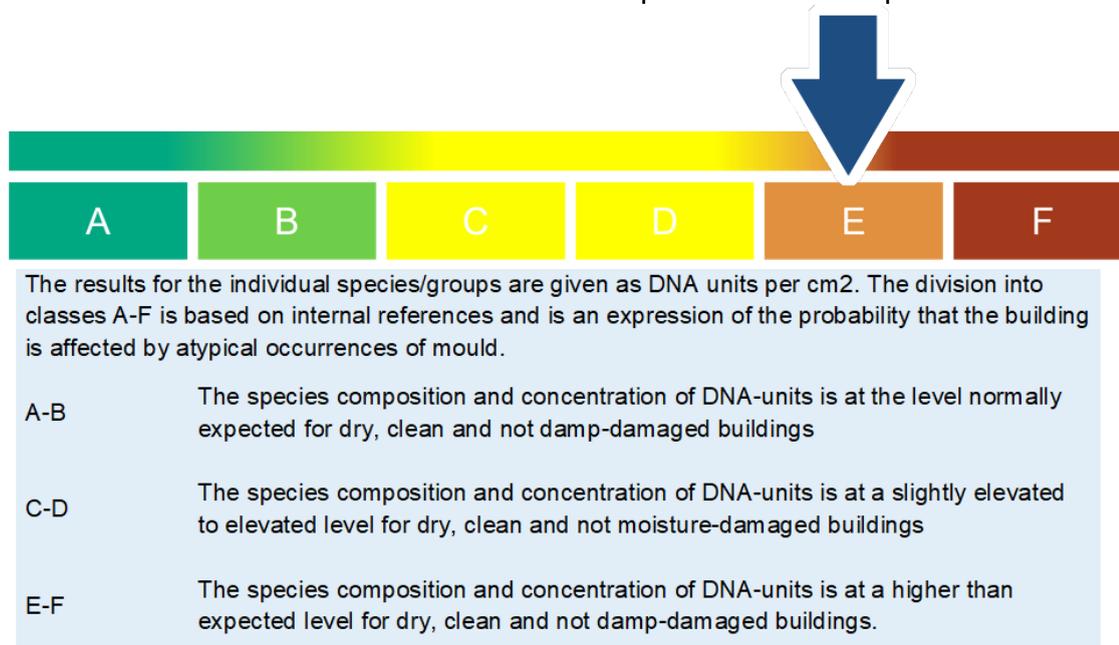
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti C -1. sal (2.hæð), gang 856 vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. The levels of *Aspergillus niger* is far above normal.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	16586	100,00%
<i>Wallemia sebi</i>	62	0,38%
<i>Cladosporium cladosporioides</i>	271	1,63%
<i>Cladosporium herbarum</i>	1034	6,23%
<i>Cladosporium sphaerospermum</i>	381	2,30%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	3	0,02%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>3478</b>	<b>20,97%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Tricoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	24	0,14%
<b><i>Aspergillus niger</i></b>	<b>996</b>	<b>6,00%</b>
<i>Aspergillus versicolor</i>	505	3,04%
<i>Alternaria alternata</i>	8	0,05%
<i>Ulocladium chartarum</i>	10	0,06%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

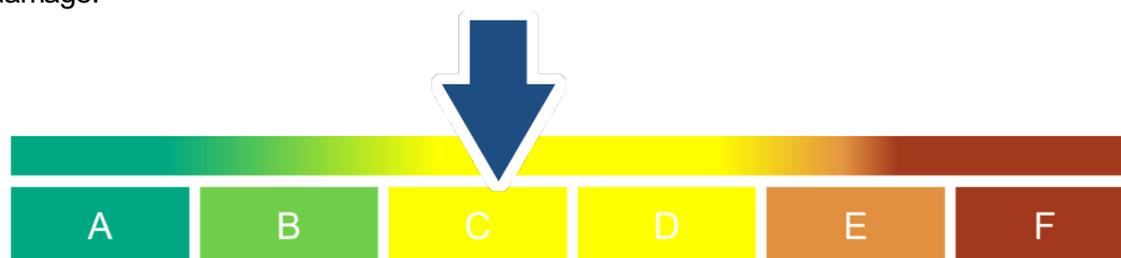
The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8613 SÍBS- Mosfellsbær.  
104319, Matshluti C- Stuen (1.hæð), Personalerum 828, vandret overflade**

DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

On the basis of the analysis results for the test made from 104319, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the mould species there are relatively few moisture damage indicators and a relatively big quantity of so-called outdoor mould, accumulating in dust. No occurrence of mould indicates that the indoor environment is not affected by severe water damages. The few moisture damage indicators present in the test may be originating from small areas of condensation on walls, e.g. cold basement walls or from an old, small and dried up damage.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	24996	100,00%
<i>Wallemia sebi</i>	9	0,04%
<i>Cladosporium cladosporioides</i>	242	0,97%
<i>Cladosporium herbarum</i>	234	0,94%
<i>Cladosporium sphaerospermum</i>	66	0,27%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	2	0,01%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>3244</b>	<b>12,98%</b>
<i>Aspergillus fumigatus</i>	8	0,03%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Tricoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	14	0,05%
<i>Aspergillus niger</i>	16	0,07%
<i>Aspergillus versicolor</i>	349	1,39%
<i>Alternaria alternata</i>	26	0,11%
<i>Ulocladium chartarum</i>	34	0,13%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	170	0,68%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8612 SÍBS- Mosfellsbær.  
Matshluti C- Stuen (1.hæð), gang 858, vandret overflade, 104328**

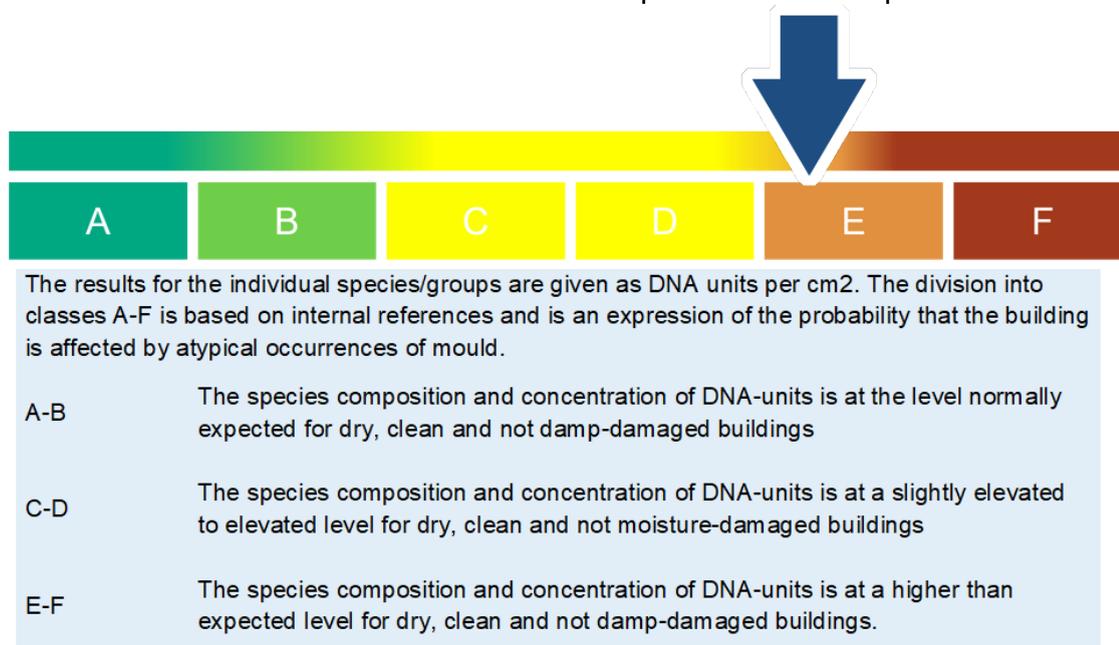
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti C- Stuen (1.hæð), gang 858, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Aspergillus versicolor* in the test.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	3123	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	153	4,89%
<i>Cladosporium sphaerospermum</i>	152	4,87%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	1	0,03%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>1179</b>	<b>37,77%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	16	0,51%
<i>Aspergillus niger</i>	3	0,08%
<b><i>Aspergillus versicolor</i></b>	<b>258</b>	<b>8,26%</b>
<i>Alternaria alternata</i>	18	0,58%
<i>Ulocladium chartarum</i>	0	0,00%
<b><i>Stachybotrys chartarum</i></b>	<b>1</b>	<b>0,04%</b>
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

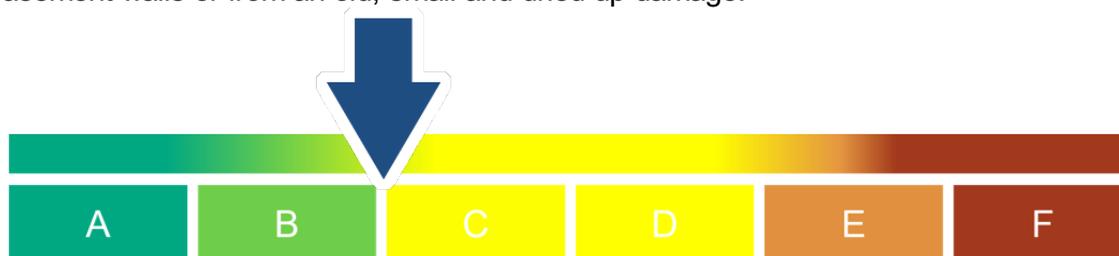
## 8606 SÍBS- Mosfellsbær.

Matshluti D- Stuen (1.hæð), Mødelokale 684 vandret overflade, 104780

DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

On the basis of the analysis results for the test made from Matshluti D- Stuen (1.hæð), Mødelokale 684 vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the mould species there are relatively few moisture damage indicators and a relatively big quantity of so-called outdoor mould, accumulating in dust. No occurrence of mould indicates that the indoor environment is not affected by severe water damages. The few moisture damage indicators present in the test may be originating from small areas of condensation on walls, e.g. cold basement walls or from an old, small and dried up damage.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	52758	100,00%
<i>Wallemia sebi</i>	24	0,04%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	719	1,36%
<i>Cladosporium sphaerospermum</i>	0	0,00%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<i>Aspergillus og Penicillium arter</i>	3922	7,43%
<i>Aspergillus fumigatus</i>	27	0,05%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	179	0,34%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	353	0,67%
<i>Alternaria alternata</i>	18	0,03%
<i>Ulocladium chartarum</i>	4	0,01%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	4	0,01%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

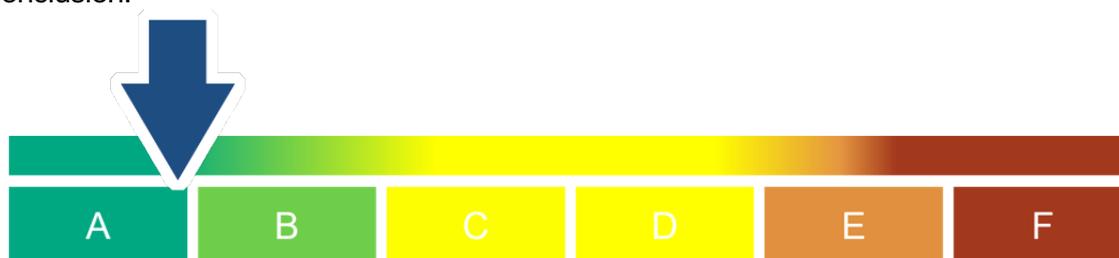
**8607 SÍBS- Mosfellsbær.  
Matshluti D- 1.sal (2.hæð), åbent kontor vandret overflade, 104321**

DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made in Matshluti D- 1.sal (2.hæð), åbent kontor vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is at a normal, expected level for dry, clean and undamaged buildings. No occurrence of mould indicates that the indoor environment should not be affected by concealed water damages.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	8151	100,00%
<i>Wallemia sebi</i>	9	0,11%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	114	1,40%
<i>Cladosporium sphaerospermum</i>	47	0,57%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<i>Aspergillus og Penicillium arter</i>	366	4,49%
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	0	0,00%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	38	0,46%
<i>Alternaria alternata</i>	11	0,13%
<i>Ulocladium chartarum</i>	2	0,02%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

## 8616 SÍBS- Mosfellsbær.

Matshluti G- Stuen (1.hæð), åbent kontor 862, vandret overflade, 104795

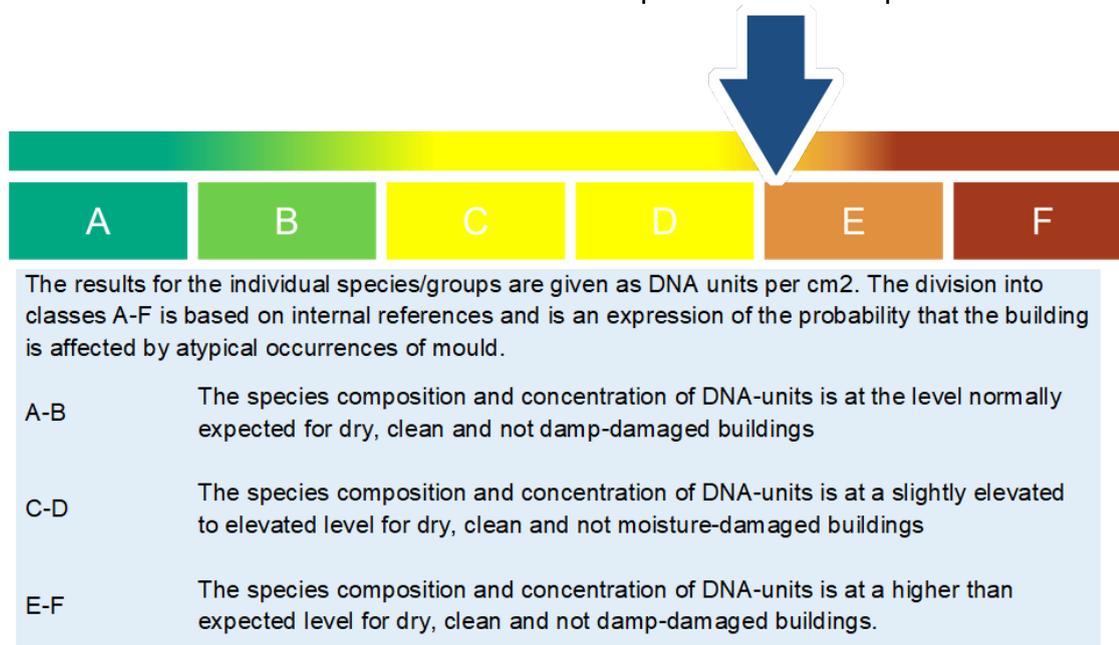
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti G- Stuen (1.hæð), åbent kontor 862, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Aspergillus niger* in the test.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	13217	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	118	0,89%
<i>Cladosporium herbarum</i>	106	0,80%
<i>Cladosporium sphaerospermum</i>	27	0,21%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>2951</b>	<b>22,32%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	265	2,01%
<b><i>Aspergillus niger</i></b>	<b>117</b>	<b>0,89%</b>
<i>Aspergillus versicolor</i>	605	4,58%
<i>Alternaria alternata</i>	50	0,38%
<i>Ulocladium chartarum</i>	0	0,00%
<b><i>Stachybotrys chartarum</i></b>	<b>3</b>	<b>0,02%</b>
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8617 SÍBS- Mosfellsbær.  
Matshluti G- Stuen (1.hæð), Efribraut 1, vandret overflade, 104318**

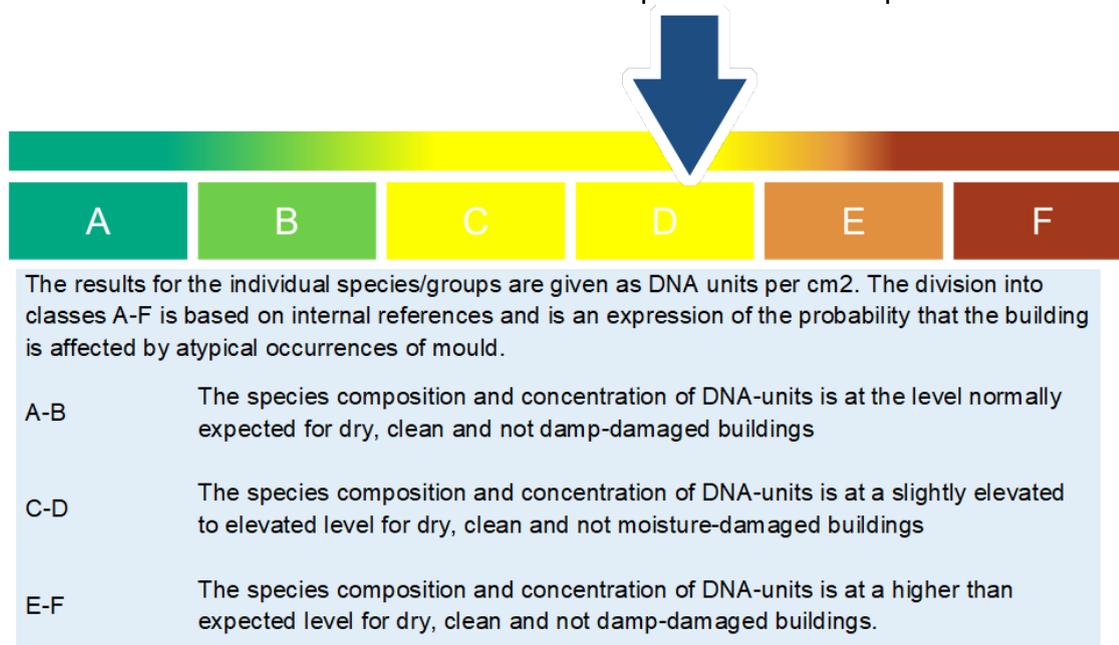
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti G- Stuen (1.hæð), Efribraut 1, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Aspergillus niger* in the test.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	17079	100,00%
<i>Wallemia sebi</i>	0	0,00%
<i>Cladosporium cladosporioides</i>	348	2,04%
<i>Cladosporium herbarum</i>	1192	6,98%
<i>Cladosporium sphaerospermum</i>	250	1,46%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>2071</b>	<b>12,12%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Tricoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	145	0,85%
<b><i>Aspergillus niger</i></b>	<b>224</b>	<b>1,31%</b>
<i>Aspergillus versicolor</i>	0	0,00%
<i>Alternaria alternata</i>	13	0,08%
<i>Ulocladium chartarum</i>	0	0,00%
<i>Stachybotrys chartarum</i>	0	0,00%
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

## 8610 SÍBS- Mosfellsbær.

### Matshluti B- Stuen (1.hæð), reception 639, vandret overflade, 104311

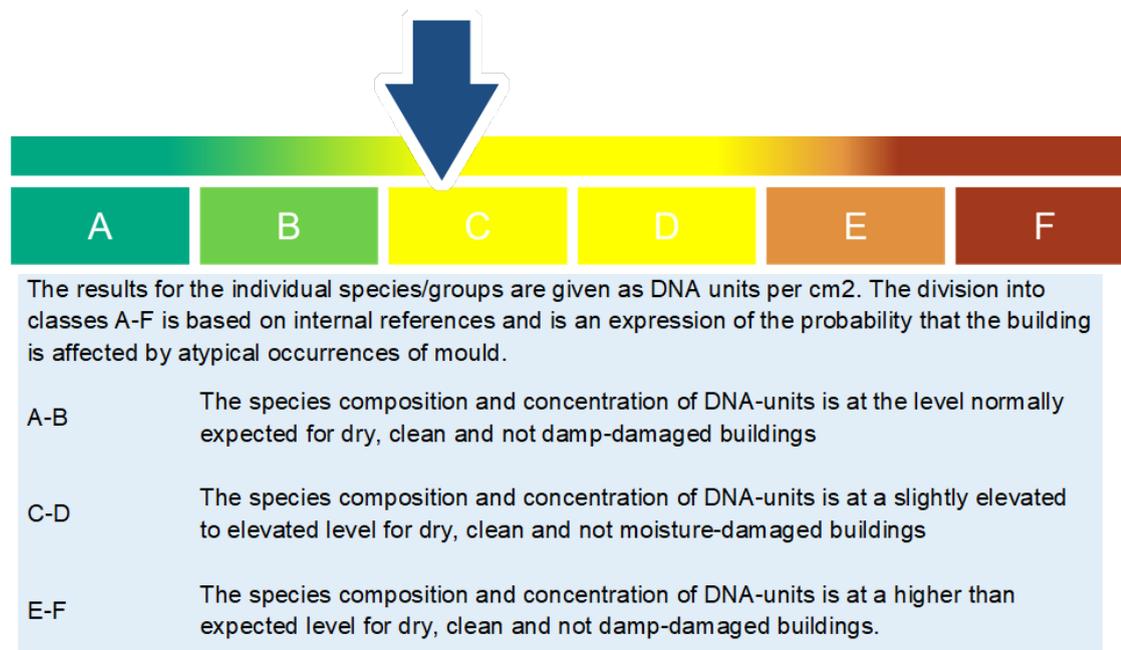
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Matshluti B- Stuen (1.hæð), reception 639, vandret overflade, SÍBS- Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. When looking at the composition of mould species there is no sign of a severe or long-lasting moisture damage. The slightly increased level of total mould is primarily attributed to accumulation in dust by outdoor species. However, there is an increased level of *Penicillium* and *Aspergillus*, which may originate from a small moisture damage with low moisture levels, as e.g. condensation on a thermal bridge.

We recommend to dry off horizontal surfaces and to vacuum with a HEPA filter.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion.



## RESULT

### The amount of organisms per. cm<sup>2</sup>

<i>Total antal skimmelsvamp</i>	26699	100,00%
<i>Wallemia sebi</i>	10	0,04%
<i>Cladosporium cladosporioides</i>	0	0,00%
<i>Cladosporium herbarum</i>	428	1,60%
<i>Cladosporium sphaerospermum</i>	132	0,49%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	0	0,00%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>3752</b>	<b>14,05%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	0	0,00%
<i>Aspergillus niger</i>	0	0,00%
<i>Aspergillus versicolor</i>	62	0,23%
<i>Alternaria alternata</i>	12	0,05%
<i>Ulocladium chartarum</i>	0	0,00%
<b><i>Stachybotrys chartarum</i></b>	<b>2</b>	<b>0,01%</b>
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	0	0,00%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

**8611 SÍBS- Mosfellsbær.**  
**Opholdsstue, vandret flade, 104309**

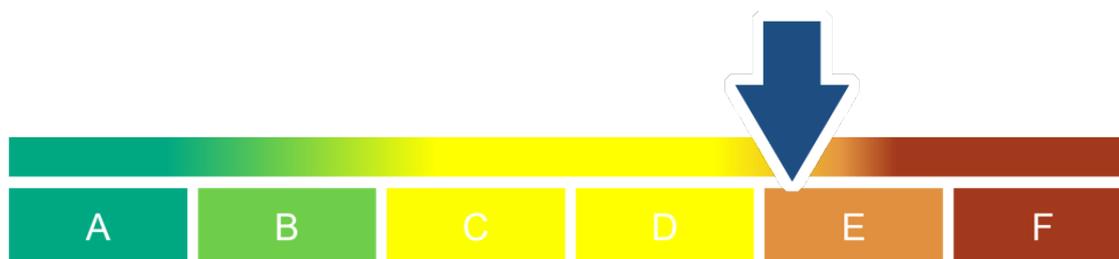
DNA tests may reveal whether there are microorganisms (mould) in dust originating from moisture damaged building materials or concealed water damages. Microbiologic material from concealed constructions may over time be released to the residential zone, where it will sediment with the dust. The result of the DNA analysis is an indication of the extent of which the room is affected by microbiologic material.

## CONCLUSION

Based on the analysis results for the test made from Opholdsstue, vandret flade, SÍBS-Mosfellsbær. , our evaluation is that the rate of mould in the building is somehow above the normal, expected level for dry, clean and undamaged buildings. The presence of *Aspergillus* and *Penicillium* often observed in buildings with moisture and water damages is far above normal level. There is an increased level of *Ulocladium chartarum* and *Stachybotrys chartarum*, which is often present in connection with severe or long-lasting moisture.

As a whole our evaluation is that the zone is affected by atypical levels of microbiologic material. Notoriously, there may be nuisances from residing in buildings with this microbiologic profile.

However, we would like to point out that the evaluation is merely based on the analysis results. As the results only form part of our evaluation basis, these results should always be compared to observations and moisture measurements on site, before drawing a final conclusion. We therefore recommend further testing in order to identify extent and cause of the observed occurrence of mould and moisture problems in the inspected areas.



The results for the individual species/groups are given as DNA units per cm<sup>2</sup>. The division into classes A-F is based on internal references and is an expression of the probability that the building is affected by atypical occurrences of mould.

A-B	The species composition and concentration of DNA-units is at the level normally expected for dry, clean and not damp-damaged buildings
C-D	The species composition and concentration of DNA-units is at a slightly elevated to elevated level for dry, clean and not moisture-damaged buildings
E-F	The species composition and concentration of DNA-units is at a higher than expected level for dry, clean and not damp-damaged buildings.

## RESULT

### The amount of organisms per. cm<sup>2</sup>

Total antal skimmelsvamp	13913	100,00%
<i>Wallemia sebi</i>	30	0,21%
<i>Cladosporium cladosporioides</i>	254	1,83%
<i>Cladosporium herbarum</i>	148	1,06%
<i>Cladosporium sphaerospermum</i>	204	1,46%
<i>Mucor/Rhizopus grp.</i>	0	0,00%
<i>Rhizopus stolonifer</i>	0	0,00%
<i>Acremonium strictum</i>	10	0,07%
<b><i>Aspergillus og Penicillium arter</i></b>	<b>1768</b>	<b>12,71%</b>
<i>Aspergillus fumigatus</i>	0	0,00%
<i>Penicillium chrysogenum</i>	0	0,00%
<i>Trichoderma viride</i>	0	0,00%
<i>Aspergillus glaucus</i>	88	0,63%
<i>Aspergillus niger</i>	5	0,03%
<i>Aspergillus versicolor</i>	526	3,78%
<i>Alternaria alternata</i>	67	0,48%
<b><i>Ulocladium chartarum</i></b>	<b>436</b>	<b>3,13%</b>
<b><i>Stachybotrys chartarum</i></b>	<b>2</b>	<b>0,01%</b>
<i>Chaetomium globosum</i>	0	0,00%
<i>Streptomyces</i>	32	0,23%

The evaluation is based on the assumption that the test has been made correctly according to OBH's guide lines.

Contact the undersigned regarding questions to the report

Med venlig hilsen

*Daniel Petersen*

Daniel Petersen  
Mikrobiolog  
OBH Rådgivende Ingeniører  
Environment and Health

## ANALYSIS METHOD

The analysis was developed by EPA, USA's Environmental Protection Agency (pat 6 387 652). The organisms are washed out of the test, and the DNA is extracted. Accordingly, the DNA is amplified in a sequential PCR process, until the light from an attached fluorescence molecule can be seen in the detector. The number of sequences are calculated and compared to a synthetic standard DNA, after which the number of original DNA sequences are calculated. As the DNA is unique for any organism the species and quantity of specific organisms can be determined. By this precise method you will rapidly be informed how much mould, respective indicator organisms which the test contains per square unit.

## ANALYSIS EXPLANATION

The above evaluation applies for the test made, and not for the building as such. The analysis response should always be included as part of a total evaluation of the conditions on site together with other observations and measurements. The responsibility for correct testing always lies with the tester. Evaluations and good advice given here or in connection with interpretation of these results apply for the normal cases and are based on the assumption that the test is representative and made according to OBH's guide lines.

## TAKING A DUST TEST

The purpose of the test is to evaluate whether in the indoor air there are microorganisms to indicate moisture damaged building parts. Mould releases particles, spores, cells, and other fungus components containing DNA, to the air. These microparticles float in the air and are sedimented with dust in the living area. Collecting dust is thus an expression of whether the air of the room has been effected by particles from mould over an extended period of time.

## INDICATION OF QUANTITY

The DNA analysis distinguishes between 20 groups/species.

The test result states the number of DNA sequences for respective species and groups per cm<sup>2</sup>.

Any colour markup states the level of each species or group, deviating according to the levels of dry, clean and undamaged buildings.

Yellow	Above normal
Orange	Far above normal
Red	Very far above normal

## HEALTH

Mould in our indoor environment may affect our health, most commonly with respiratory irritation. Further symptoms are irritation of eyes, nose and upper respiratory tract, headache, fatigue, coughing, and rashing. These symptoms will be more severe for persons with hay fever and asthma. Asthmatic symptoms may occur in connection with a long-term stay in an indoor environment with massive mould problems. The DNA result does not reveal anything about the health risk of residing in the building.

## THE HEALTH DAMAGING EFFECT

In order to evaluate the health risk of residing in a building, a construction technical and healthcare evaluation must be made. According to the Danish National Board of Health the health risk is among others characterized by the unhealthy circumstances as well as the moisture and mould conditioned health problems of the residents/users.

## READ MORE

[www.obh-gruppen.dk](http://www.obh-gruppen.dk)

[www.sst.dk](http://www.sst.dk)

[www.astma-allergi.dk](http://www.astma-allergi.dk)

[www.indeklimaportalen.dk](http://www.indeklimaportalen.dk)

## Results of mold

Address	SiBS - Mosfellsbær		
Case no.	-		
Customer	Verksýn ehf		
Information	Birgir		
Lab no.	2023004960		
Sample date	29.10.2023	Date of receipt	02.11.2023
KS	TEC	Date of analysis	08.11.2023

The following samples were received for analysis of the presence of mold: 17 culture plates, and 5 material samples.

### SAMPLE RESULTS

#### Matshulti A – kælder

Sample ID	Room	Surface	Identification	cfu	Growth
MA-S-1	Lager 615	Fodliste - Linoleum	<i>Penicillium spp.</i> 18 <i>Fusarium sp.</i> 14 <i>Mucor overgrown*</i>	>32	Growth very high
KA-Kjallari 1	Lager 631	Vandret overflade	<i>Stachybotrys sp.2</i> <i>Aspergillus ustus</i> 3 <i>Aspergillus versicolor</i> 1 <i>Penicillium spp.</i> 35	41	-
KA-Ryksýni 2	Pedelrum 619	Vandret overflade	<i>Penicillium sp.</i> 6 <i>Cladosporium sp.</i> 6 <i>Rhodotorula</i> 31 Gær 1	12	-
MA-S-2	Personalerum 618	Linoleum	<i>Penicillium spp.</i> 16 <i>Fusarium spp.</i> 11	27	Growth low
KA-Ryksýni 3	Gang 616	Vandret overflade	<i>Penicillium spp.</i> 2 <i>Alternaria sp.</i> 1	3	-
MA-S-3	Trappeopgang	Maling af væg	<i>Sterilt mycel</i> 1	1	None

### CONCLUSION

Sample Kjallari 1 shows moderate occurrence of germinating molds for the represented area. The species composition is atypical compared to normal house dust.

Sample Ryksýni 2 and Ryksýni 3 show low and moderate occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust.

The material samples S-1 and S-2 show moderate occurrence of germinating mold. Associated tape lifts on the material sample does show growth.

The material sample S-3 shows low occurrence of germinating mold. Associated tape lifts on the material sample does not show growth.

## Matshluti A – Stuen (1.hæð)

Sample ID	Room	Surface	Identification	cfu	Growth
MA-S-5	Rengøring 636	Linoleum	<i>Aspergillus ustus</i> >100 <i>Fusarium sp.</i> 20 <i>Rhodotorula</i> 10	>120	Growth very high
MA-S-4	Mødelokale 626	Linoleum	<i>Aspergillus versicolor</i> 2 <i>Tritirachium sp.</i> 75 <i>Geotrichum sp.</i> 5	82	Growth Moderate
KA-Ryksýni 4	Venterum 634	Vandret overflade	<i>Aspergillus ochraceus</i> 1 <i>Aspergillus ustus</i> 2 <i>Cladosporium sp.</i> 3 <i>Epicoccum sp.</i> 1 Sterilt mycel 1	8	-
KA-Ryks matsal	Kantine	Vandret overflade	<i>Penicillium spp.</i> 5 <i>Cladosporium sp.</i> 26 Sterilt mycel 2 Gær 1	33	-

## CONCLUSION

Sample Ryksýni 4 shows low occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust.

The material samples S-5 and S-4 show high and very high occurrence of germinating mold. Associated tape lifts on the material sample does show growth.

Sample Ryks matsal shows moderate occurrence of germinating mold. Whether the relatively high number of *Cladosporium* is due to an accumulation of mold from outside or whether it is an indication of a growing area requires further investigation.

### Matshulti D -1.sal (2.hæð)

Sample ID	Room	Surface	Identification	cfu	Growth
KA-Ryksyni 2	Åbent kontor	Vandret overflade	<i>Cladosporium sp.</i> 8 <i>Rhizopus sp. overgroet*</i> Sterilt mycel 1 Gær 2	>9	-
KA-Ryksyni 3	Ingen oplysninger	-	<i>Aspergillus sydowii</i> 1 <i>Penicillium spp.</i> 7 <i>Cladosporium sp.</i> 1 Sterilt mycel 1	10	-

### CONCLUSION

Sample Ryksyni 2 and Ryksyn 3 show low and moderate occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust.

### Matshulti D -Stuen (1.hæð)

Sample ID	Room	Surface	Identification	cfu	Growth
KA-Ryksyni 1	Kontor 685	Vandret overflade	<i>Penicillium sp.</i> 2 <i>Cladosporium sp.</i> 1 Sterilt mycel 2	5	-
KA-Ryksyni 2	Mødelokale 684	Vandret overflade	<i>Penicillium spp.</i> 8 <i>Cladosporium sp.</i> 11 <i>Alternaria sp.</i> 1 Sterilt mycel 2 Gær 2	22	-

### CONCLUSION

Sample Ryksyni 1 and Ryksyni 2 show low and moderate occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust.

### Matshulti F -Stuen (1.hæð)

Sample ID	Room	Surface	Identification	cfu	Growth
KA-Ryksýni 1	Gang 694	Vandret overflade	<i>Penicillium sp.</i> 19 <i>Acremonium sp.</i> 1 Sterilt mycel 2 Gær 2	22	-
KA-Ryksýni 2	Åbent kontor 693	Vandret overflade	<i>Aspergillus niger</i> 1 <i>Aspergillus ustus</i> 1 <i>Aspergillus sp.</i> 1 <i>Penicillium spp.</i> 2 <i>Cladosporium sp.</i> 1 Sterilt mycel 2 Gær 4	8	-

### CONCLUSION

Sample Ryksýni 1 and Ryksýni 2 show low and moderate occurrence of germinating molds for the represented area. The species composition is atypical compared to normal house dust.

### Matshulti B -Stuen (1.hæð)

Sample ID	Room	Surface	Identification	cfu	Growth
KA-Ryksýni 2	Venterum 638	Vandret overflade	Ingen skimmel	0	-

### CONCLUSION

Sample Ryksýni 2 shows no occurrence of germinating molds for the represented area.

**Matshulti C -1.sal (2.hæð)**

Sample ID	Room	Surface	Identification	cfu	Growth
KA-Ryksýni 1	Kontor 690	Vandret overflade	<i>Penicillium spp.</i> 6 <i>Cladosporium sp.</i> 16 <i>Mucor sp.</i> 1 <i>Chrysonillia sp. overgrown*</i>	>23	-
KA-Ryksýni 2	Mødelokale 857	Vandret overflade	<i>Stachybotrys sp.</i> 1 <i>Aspergillus versicolor</i> 8 <i>Penicillium spp.</i> 3 <i>Cladosporium sp.</i> 6	18	-

**CONCLUSION**

Sample Ryksýni 1 shows moderate occurrence of germinating mold. Whether the relatively high number of *Cladosporium* is due to an accumulation of mold from outside or whether it is an indication of a growing area requires further investigation.

Sample Ryksýni 2 shows moderate occurrence of germinating molds for the represented area. The species composition is atypical compared to normal house dust.

**Matshulti G -Stuen (1.hæð)**

Sample ID	Room	Surface	Identification	cfu	Growth
KA-R-1	TV-rum	Vandret overflade	<i>Penicillium sp.</i> 1 <i>Paecilomyces sp.</i> 1 <i>Cladosporium sp.</i> 4 Sterilt mycel 4 <i>Rhodotorula</i> >100	10	-
KA-R-2	Af hillu i sal 696	Vandret overflade	<i>Aspergillus ustus</i> 1 <i>Penicillium spp.</i> 4 <i>Alternaria sp.</i> 1 <i>Cladosporium spp.</i> 33 <i>Rhizopus sp. overgrown*</i>	>39	Vælg fra liste

**CONCLUSION**

Sample R-1 shows moderate occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust. There is a very high occurrence of *Rhodotorula* yeast.

Sample R-2 shows moderate occurrence of germinating mold. Whether the relatively high number of *Cladosporium* is due to an accumulation of mold from outside or whether it is an indication of a growing area requires further investigation.

**Matshulti Fridriksberg -Stuen (1.hæð)**

Sample ID	Room	Surface	Identification	cfu	Growth
KA-M-F	Stue	Vandret overflade	<i>Acremonium</i> sp. 1 <i>Cladosporium</i> sp. 2 <i>Mucor</i> sp. overgoret* Sterilt mycel 2	>5	-

**CONCLUSION**

Sample M-F shows low occurrence of germinating molds for the represented area. The species composition is typical compared to normal house dust.

The results of the culture plate as cfu. per culture plate (total number) are categorized as followed (SBI instruction 274, table 18):

< 10	Low occurrence of germinating mold
10-49	Moderate occurrence of germinating mold
50-100	High occurrence of germinating mold
> 100	Very high occurrence of germinating mold

cfu (colony forming units) yeast is not included

\* Overgrown - Some molds such as *Mucor* sp., *Rhizopus* sp. and *Chrysonillia* sp. do not form colonies in the classical sense, but have a strong growth that means they quickly outgrow the other molds. It will therefore not always be possible to specify a precise number of cfu

The results of the tape samples are categorized as followed (SBI instruction 274, table 18):

None	No indication of growth
Growth (low)	Presence of a few mold spores or mycelium fragments
Growth (moderate)	Presence of some mold spores or mycelium fragments. Often small or broken
Growth (high)	Presence of mycelium or intact mold
Growth (very high)	Thorough presence of mycelium and intact mold

However, the evaluation is merely based on the analysis results and these results should always be compared to observations and moisture measurements on site, before drawing a conclusion. Further testing to identify extent and cause of the observed occurrence of mold, is therefore recommended.

Questions regarding the analysis result can be directed to the undersigned.

Kind regards



Lena F. Hanspach  
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## Description of the analysis methods

### Culture plates

Following sampling the samples are kept in a controlled environment in our laboratory for approximately one week at room temperature. The resulting mold colonies are subsequently identified and counted. The results are reported by genus (i.e. *Penicillium*, and *Sp.* or *Spp.* indicates if there are one or more species respectively). When possible, the mold is determined to species level (i.e. *Aspergillus niger*, *niger* being the species name).

### Material samples

Material samples are analyzed directly by microscopy. The presence of hyphae, mycelium and spores indicate the presence of mold growth.

OBH is solely responsible for the laboratory analysis of the reported samples. OBH is not responsible for the sampling process including whether it is representative of the examined area, type of material or sample amount.

Reference is also made to the general terms and conditions, which can be viewed on OBHs website. OBH notes that the present analytical results must be read and interpreted in its entirety, and that the analytical results are third party irrelevant.

## Description of species/genera found.

*Acremonium strictum* is a naturally occurring mold species that is found in soil and on dead plant material, which is why it can also occur in small quantities in ordinary house dust. Growth of *Acremonium strictum* is often seen on wood or paper and, according to experience, often appears in attics or on wallpaper. *Acremonium strictum* is rarely pathogenic in healthy non-allergic people.

*Alternaria sp.* is common in damp homes, on building materials. Is also known as a pest of fruit, vegetables, tobacco etc. Considered to be one of the most significant sources of allergies in the home. Degassing of toxic or bothersome substances from the mushrooms is poorly studied and is not known. Former mold species *Ulocladium* now belongs to *Alternaria sp.*

*Aspergillus sp.* includes a large mold genus, some of which are designated as moisture damage indicators, and others as naturally occurring in ordinary house dust in limited quantities. *Aspergillus* species generally produce many and small spores, which is why these are often spread easily with air currents in buildings and, if they appear in sufficiently large quantities, can cause respiratory irritation. At the same time, several species can produce mycotoxins, which can be bothersome in large quantities. Many *Aspergillus* species are problematic in relation to asthma and allergies.

*Aspergillus niger* is one of the most commonly occurring *Aspergillus* species in nature, where it is found in soil and as characteristic black colonies on fruit and vegetables. It thrives at relatively low moisture levels, which is why it can appear in homes with minor moisture damage. *Aspergillus niger* thrives at relatively high temperatures, which is why it is also one of the few known invasive and disease-causing molds that can cause the disease aspergillosis and infections in the respiratory tract (toxic pneumonitis - threshold lung) in patients with a weakened immune system. The fungus can cause hypersensitivity reactions.

*Aspergillus ochraceus* often attacks various types of common foods that are stored for too long and incorrectly and is not abnormal in small amounts in house dust. As a pest, it is found in damp buildings, where wallpaper, insulation materials, floorboards etc. typically attacked. The species is known to be pathogenic, and can cause and/or exacerbate allergic reactions, and worsen asthma symptoms in those exposed. It is mycotoxin-producing, and can produce the toxin ochratoxin A in food, which is suspected of being disease-causing.

*Aspergillus ustus* is one of the most frequent soil-borne *Aspergillus* species and is widespread throughout the world. *Aspergillus ustus* is also found in food and in indoor air environments. The species is rarely pathogenic but can cause infection in immunocompromised people.

*Aspergillus versicolor* often attacks various types of common foods that are stored for too long and incorrectly and is not abnormal in small amounts in house dust. As a pest, it is found in damp buildings, where wallpaper, insulation materials, floor constructions etc. typically attacked. The mold is the most common *Aspergillus* species in damp-damaged buildings. *Aspergillus versicolor* is therefore, when it occurs in large quantities indoors, an indicator of a moisture problem in the building.

*Aspergillus versicolor* produces many and small spores that are easily spread in the indoor air, and when growing on building materials, can release harmful substances into the indoor air (mycotoxins). The substance Geosmin in particular can cause strong odor nuisances, often characterized as "earthy" or "basement smell", while other toxins in connection with growth in food for animals or humans can cause health problems if ingested. *Aspergillus versicolor*, when present in large quantities, can also be an allergy problem in hypersensitive people. Like other *Aspergillus* species, it is a mucous membrane irritant, which, if exposed, can result in classic runny nose symptoms such as runny eyes and nose, irritated throat, discomfort in the respiratory tract, etc.

*Chrysonilia spp.* grows on many surfaces; especially on coffee grounds and food ("red bread mold"), but also on building materials such as wallpaper made of paper, wood, plaster, floors and ceilings. However, *Chrysonilia* can also grow on carpets and in mattresses. The species is one of the fastest growing and therefore spreads easily and quickly in buildings. *Chrysonilia* can trigger allergic reactions.

*Cladosporium spp.* is the most found mold in outdoor air, where the levels are characterized by large seasonal variations and peak in the summer, which is why it is often found in relatively large quantities in samples taken in the indoor climate. Growth of *Cladosporium* also occurs in homes, where it often occurs in connection with thermal bridges in window openings and in, for example, attics with varying humidity. The genus thus requires less moisture than most other mold species. Particularly due to the large natural occurrences in both indoor and outdoor air, *Cladosporium* is the most significant mold in relation to hypersensitivity and allergy reactions.

*Epicoccum nigrum* is a species of fungus in the phylum Ascomycota that is found in soil in nature and is most often associated with the decomposition of plant material and food. In buildings, it can grow on materials damaged by moisture, such as wood, plaster, floors, paper and textiles. The spores are a common source of allergies and other discomforts for sensitive people, and in very rare cases can cause serious illnesses in people with weakened immune systems.

*Sterile molds* comprise an undefined group of mold colonies that cannot be determined to species/genus as they do not produce spores. Their role as allergenic or degassing is therefore not known. However, all other things being equal, one must assume that they can be allergenic.

*Fusarium spp.* is usually associated with soil and plants, and most *Fusarium* species are a natural part of the biological breakdown of organic matter. In this connection, some species produce mycotoxins which can pose a health problem for humans and animals if infected plants are consumed. In buildings, it is rare for *Fusarium* to appear in house dust, unless it is a building damaged by moisture. Some *Fusarium* species can be disease-causing (pathogenic), especially in people with a weakened immune system, and can simultaneously trigger allergic reactions in exposed and predisposed persons.

*Geomyces spp.* are not atypically found in ordinary house dust, as the species often grow on dead organic material such as soil, plants and foods, and are therefore often found in air samples. In buildings, it is seen growing on a wide variety of materials such as moistened wood and paper. The genus is rarely disease-causing in healthy non-allergic people but must be assumed to be able to give rise to hypersensitivity reactions upon heavy exposure. The genus is not known to cause disease, but there are examples of skin and nail infections caused by *Geomyces* species.

*Mucor spp.* consists of a group of species that primarily live in soil, plants and are often found in food. They require relatively high moisture levels to thrive and are thus also found in ordinary household dust in relatively limited quantities. The genus is rarely disease-causing in healthy non-allergic people, but experience can give rise to hypersensitivity reactions upon heavy exposure.

*Paecilomyces sp.* occurs frequently in soil and on decaying plant material, especially often with compost. Several species are thermotolerant. *Paecilomyces sp.* can also develop indoors, mostly on water-damaged structural materials, including on insulation, drywall, solid and composite wood, painted surfaces, fabrics and textiles. *Paecilomyces sp.* has also been found on expired cosmetics. Like many other mold species, *Paecilomyces sp.* cause infections in immunocompromised people.

*Penicillium spp.* is a mold genus which consists of many different species, many of which have practical applications in the pharmaceutical and food industries. *Penicillium* species exist to a certain extent in nature, which is why it is not unusual to find smaller amounts in dust samples taken from healthy, non-moisture-damaged buildings, but are very often found in connection with moisture damage. As the genus typically does not require much moisture to thrive, it is therefore often used as a moisture damage indicator when it appears in large quantities in a dust sample. The *Penicillium* genus produces many and small spores, which is why these are easily spread in the indoor climate, and often give rise to indoor climate problems. The genus can also give rise to hypersensitivity and allergy symptoms in exposed persons. Some *Penicillium* species can, especially in connection with active growth, produce mycotoxins and off gas nuisance substances.

*Rhodotorula* - including various yeast species. Commonly occurs in both outdoor and indoor air and is seen on moist building materials such as window frames, silicone joints, painted surfaces, etc., as well as food that is typically attacked. Certain types of yeast are known to be allergenic. Degassing of toxic or bothersome substances is not described.

*Rhizopus spp.* is a group of species that are most often found on fruit, bread and soil, but they can also be found in ordinary house dust. They can cause allergies in sensitive people and, in rare cases, they can cause serious diseases in people with weakened immune systems.

*Stachybotrys chartarum* is cellulose-degrading, which is why it grows in nature on moist plant parts, and why in buildings it usually appears on wet materials such as wallpaper, textiles, plasterboard etc. *Stachybotrys* can trigger allergic reactions in hypersensitive people, and in addition, under ideal growth conditions, the mold can off-gas volatile, toxic or bothersome substances (toxins) into the indoor air. These

toxins, in connection with growth in food for animals or humans, can cause serious health problems if ingested. At the same time, the fungus is under suspicion of being disease-causing, where the suspicion is particularly aimed at lung infection.

As a rule, *Stachybotrys chartarum* is not found in dust samples taken from buildings, unless the building has been exposed to a heavy moisture load. As the species' spores are relatively heavy, they are poorly distributed in the indoor climate. The *Stachybotrys chartarum* spores are also released not particularly efficiently due to the structure of the fungus, whereas drying out a growth area greatly increases the spread of spores. Thus, traces of *Stachybotrys chartarum* are considered a strong indication of moisture damage in the building.