Decontamination

Rev 1 08/19

Objective

This paper shows some of the routes to decontamination. Some are simple and others complex. All have major shortfalls, and some have benefits. It is imperative that all risks and hazards are assessed before any methods are chosen.

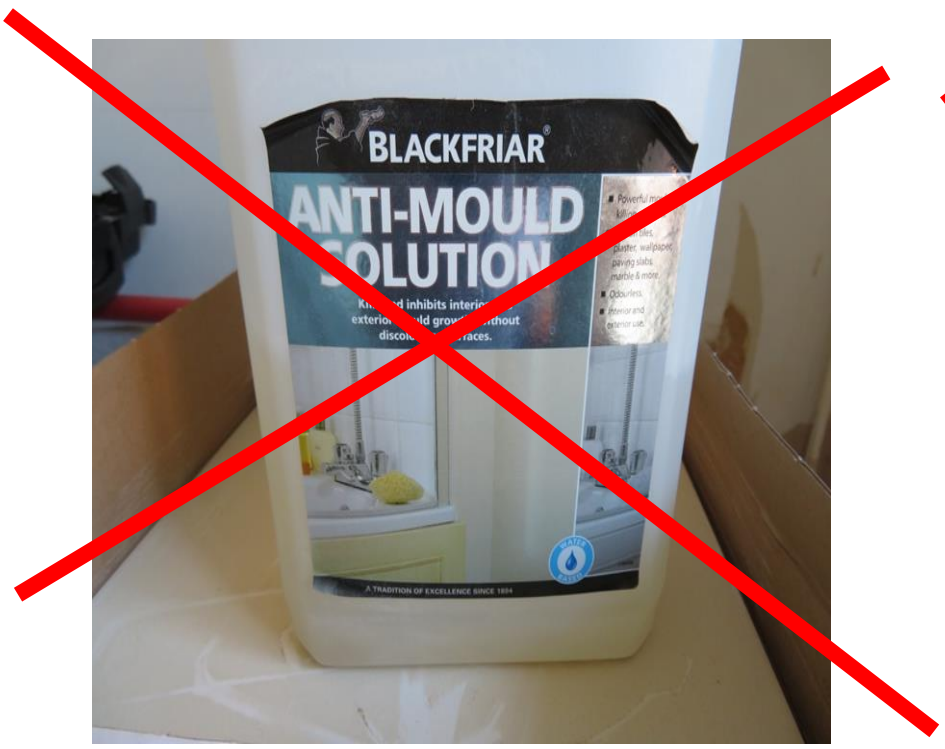
Typically, we will assess client's health issues, their immune response, levels and types of contamination and of course their budget and make recommendations as to the most cost-effective way forward.

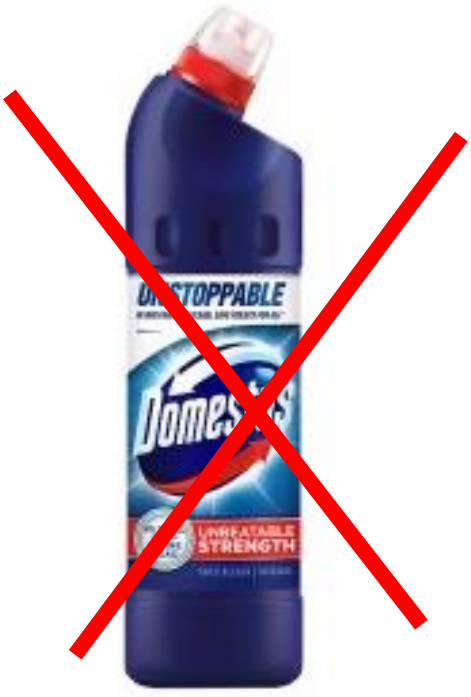
Where budget constraints exist, we invariably recommend DIY protocols and provide information and training packages to assist you.

We are not providing medical guidance but understand some of the health issues and try to provide your best options through training and certification, experience and personal health issues.

From the following examples you can see sometimes, intrusive investigation identifies hidden mould sources and reservoirs which must be removed.

Air pathways, barometric pressure and of course stack effect, caused by warm air moving can cause movement of contamination to occupied spaces.





Of course neither types of chemical products can decontaminate mould or bacteria and both are misunderstood as to capability.

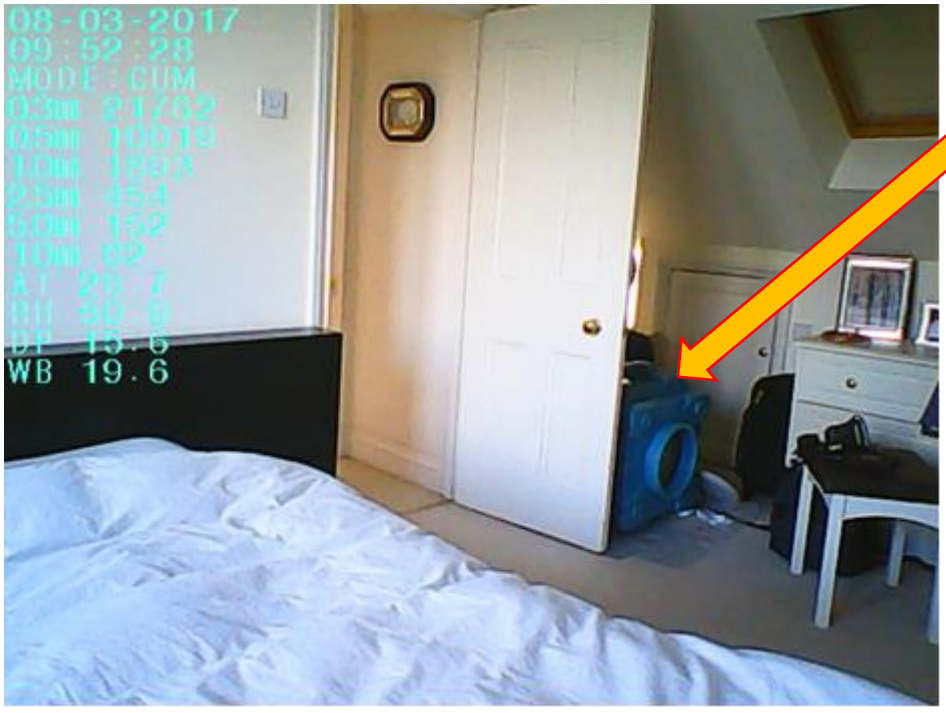
Killing is not decontamination and almost all bio contaminates leave toxic residue which is easily inhaled.

Both increase the health hazards from inhalation of spores and hyphae by an estimated 40 times

There is no product in existance that can destroy mould and all rely on pre and post cleaning.

To put this into perspective:

- Occasionally products can kill some bacteria and some mould spores but never all. Almost all sanitation products are neutralised by dirt and organic materials.
- The residue may be dead but still contain or are covered in the chemical toxins which are now so small can be inhaled to travel directly into the blood stream.
- These residual chemical toxins are allergens or mycotoxins
- This is why decontamination (Cleaning) is essential

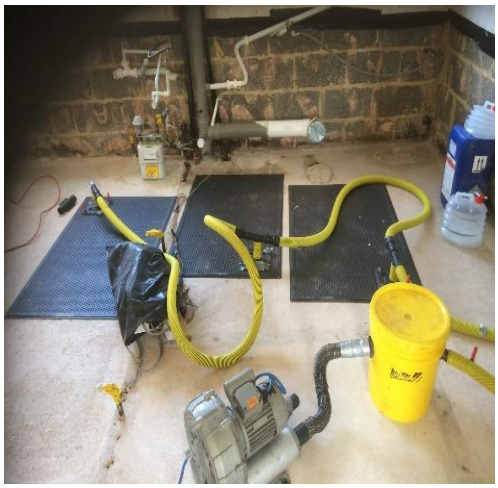


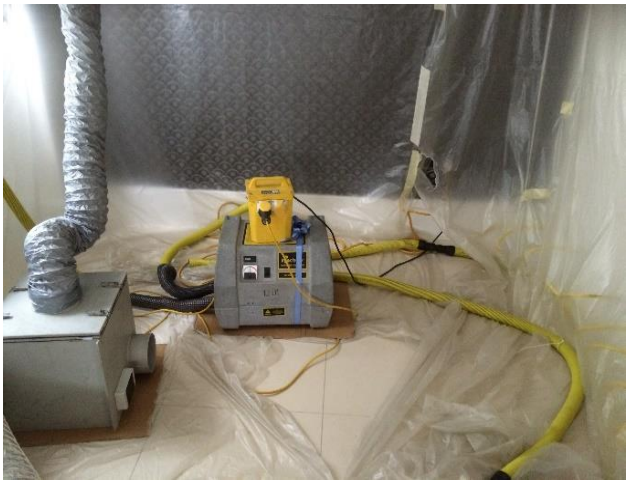
This blue HEPA filter cannot possibly clean the air although always promoted science shows its obvious flaws as hi lighted by HSE

This bedroom is next door to bathroom which is main area of “Toxic mould” The family believed the insurance companies preffered contractor that the HEPA fan running 24/7 will keep them safe

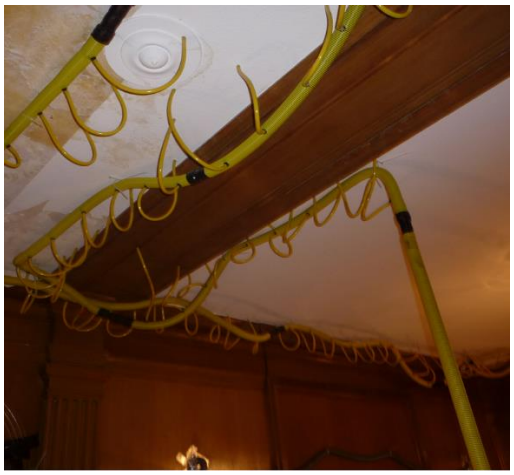
It didn’t and more importantly it couldn’t. This is NOT decontamination it is stupidity .

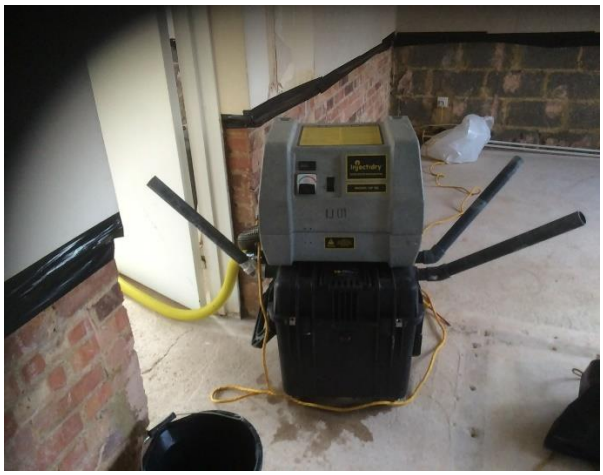
Look at the particle counts



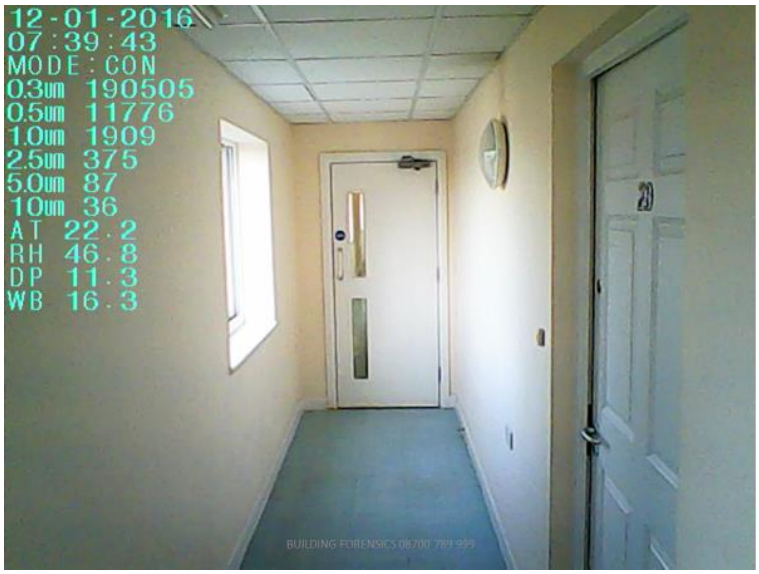


Using vacuum systems to dry and decontaminate





Vapour phase oxidising agent intoduced into air and cavities



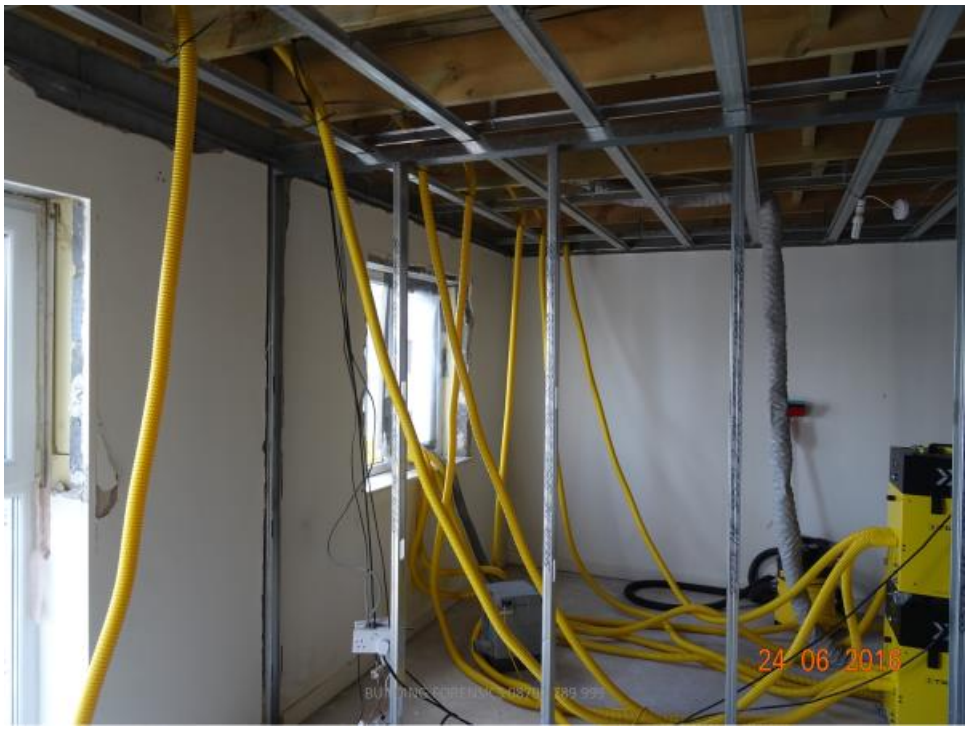
In this two bedroom flat all walls, ceilings and some flooring had to be removed to eliminate extremely toxic mould growth

Unusually the whole family were affected.

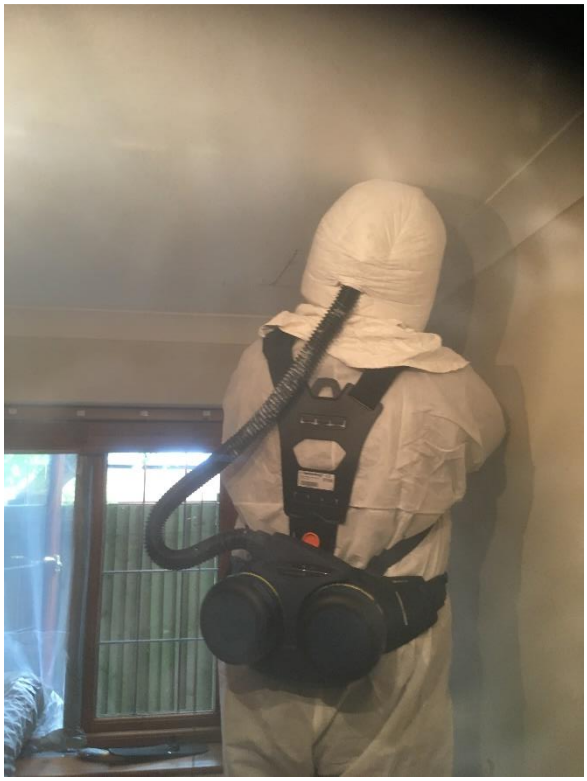
The cost was covered by insurers following a poorly remediated water escape by their own nominated contractors

The two photos show the levels of contamination pre and post decontamination when compared to outside (common parts)

[redacted]



Sometimes demolition is necessary, and, in this case, negative pressure extraction is used in roof cavities

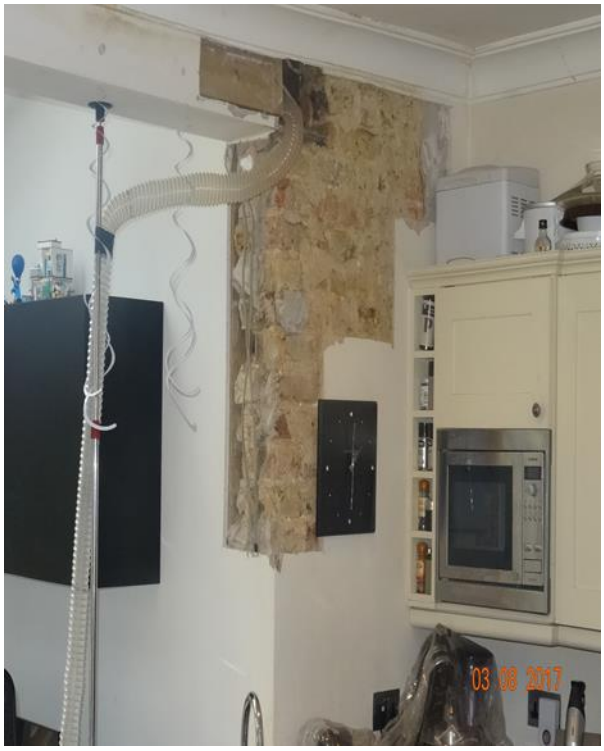


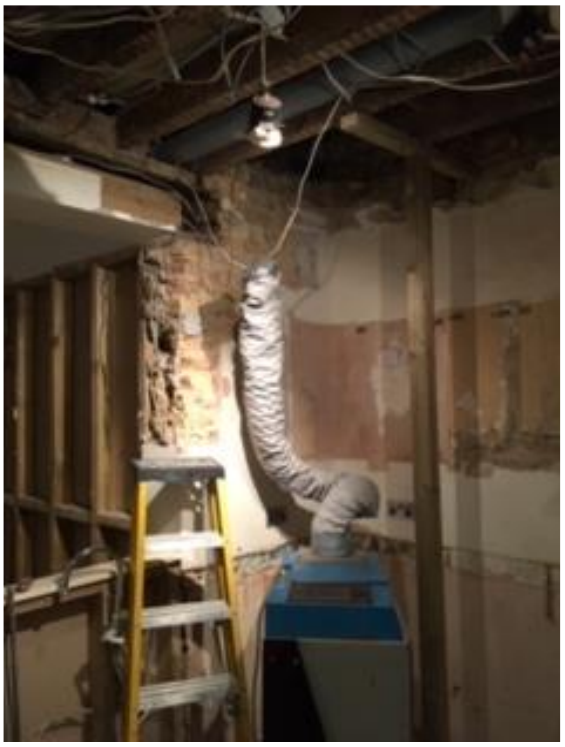
This is not mould killing but air scrub, a process of conglomeration and flocculation which causes the airborne particles to fall onto horizontal surfaces for easy collection and removal (Cleaning)

Decontamination of books and files using compressed air outside and simply blowing the minute particles away for dissipation into outside air.

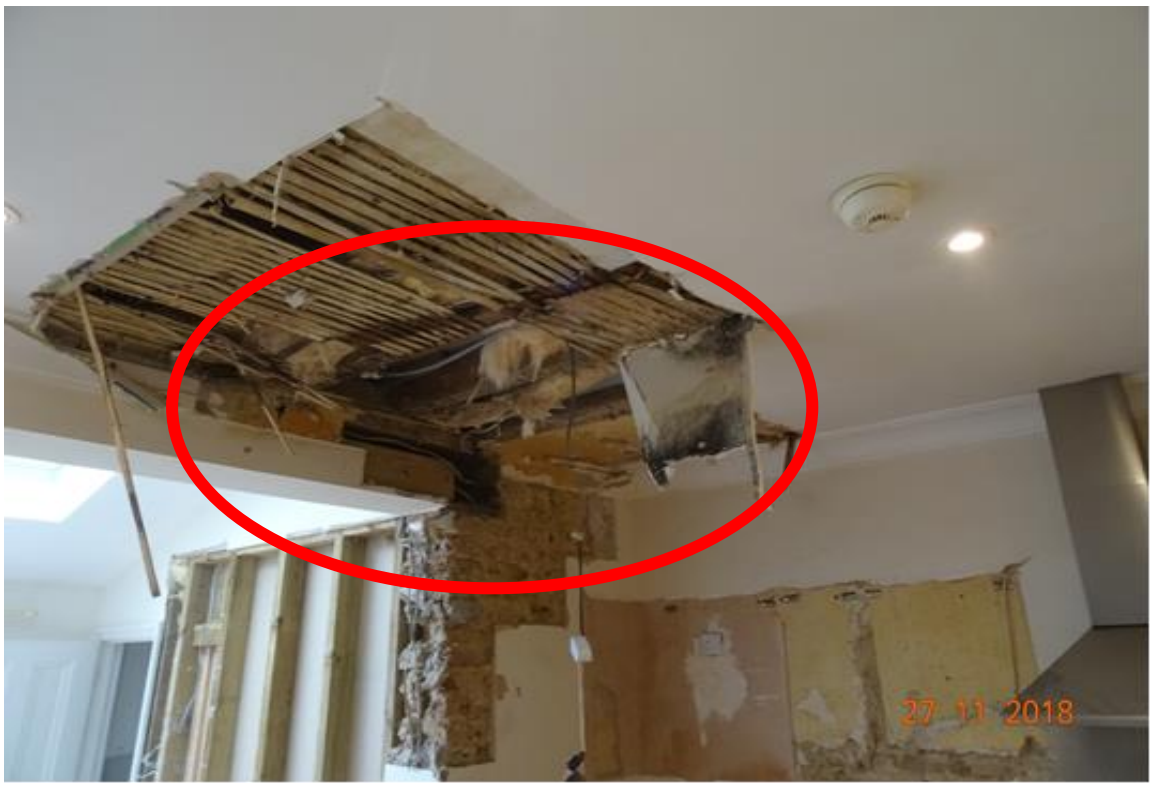
Ozone generators at 800ppm using nitrogen free air to sanitise air and some surfaces

Gas phase oxidising agent used over 5 -10 days

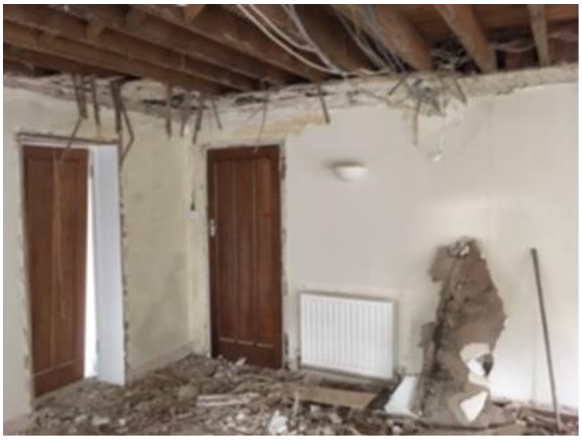


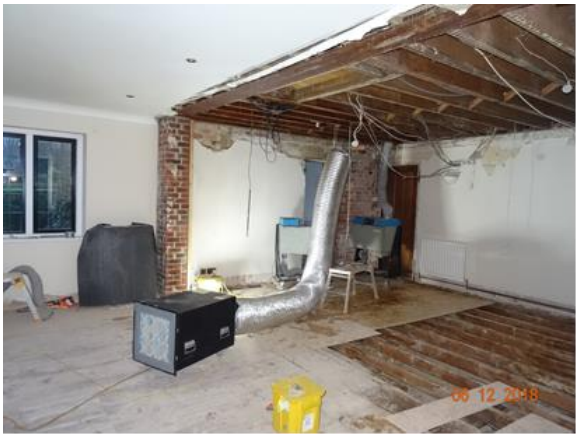


Unfortunately the kitchen had to be removed with walls and plaster to rectify cavity mould , paid for by insurers.Note even when insurance policied exclude “Toxic Mould” claims are usually accepted if presented correctly

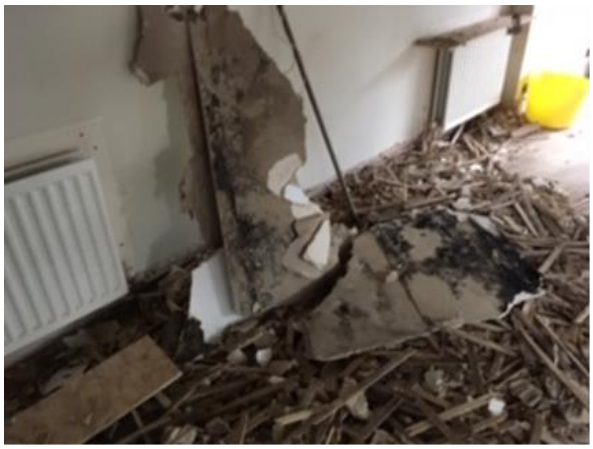


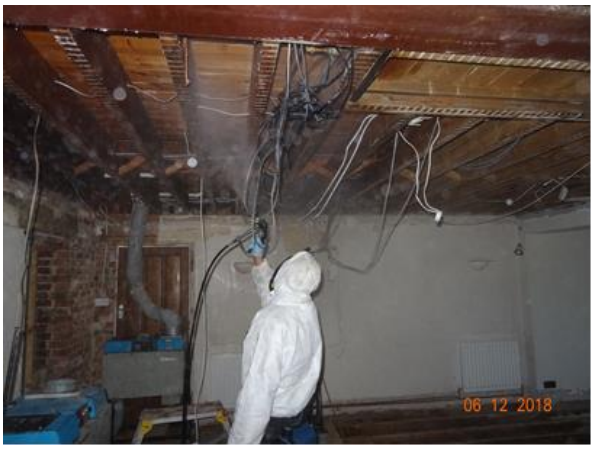
The ceiling too had to be removed see circled mould growth caused by overhead leak (under bedroom)





This ceiling was double sheeted plasterbaord, affected by a leak from a bathroom . The leak caused toxic mould to form underneath the bedroom and had serious helath consequences for the occupants.

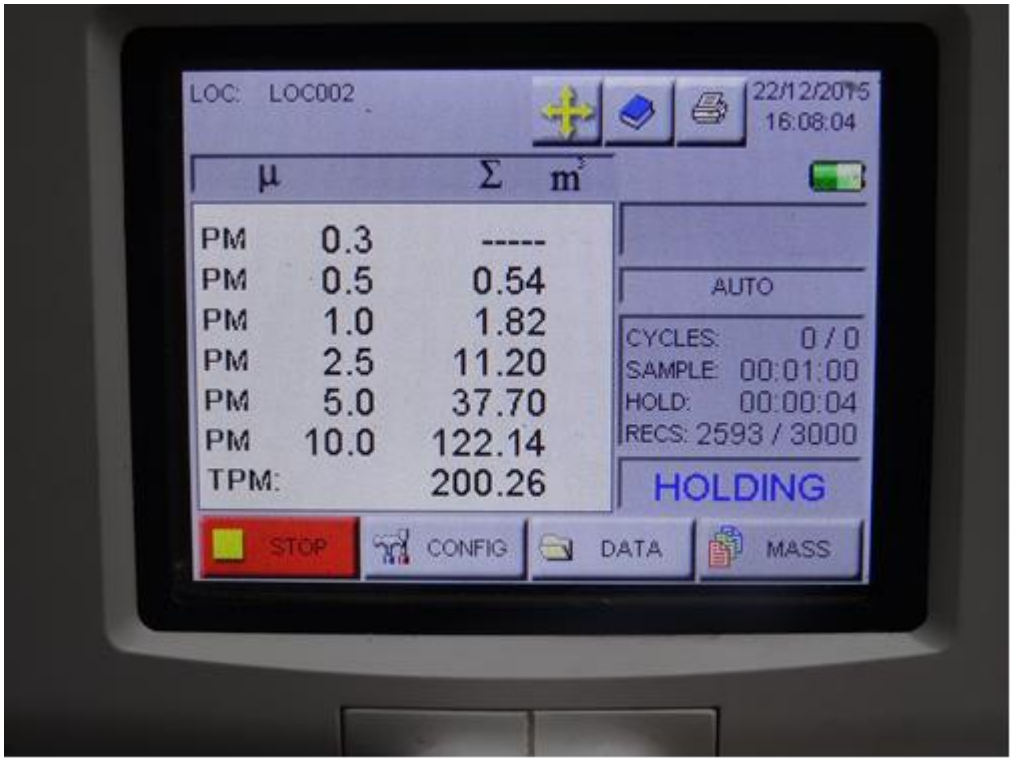




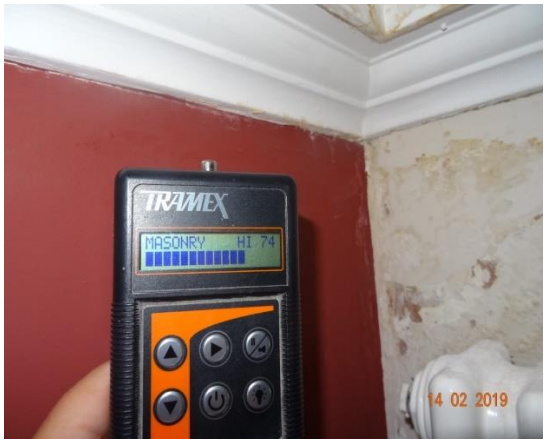
Note the black mould formed on top of plasterboard although the room side was clean. Operator spraying highlight oxidiser. If this ceiling wasn't removed it would have been a continuous source of exposure

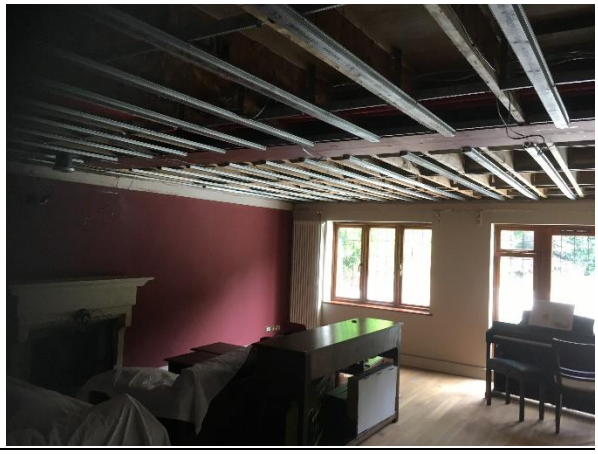
Typically, this hidden water damage and mould growth will be mostly hidden and require intrusive investigation to assess the scope of works.

In this case the leak occurred from the adjacent bathroom

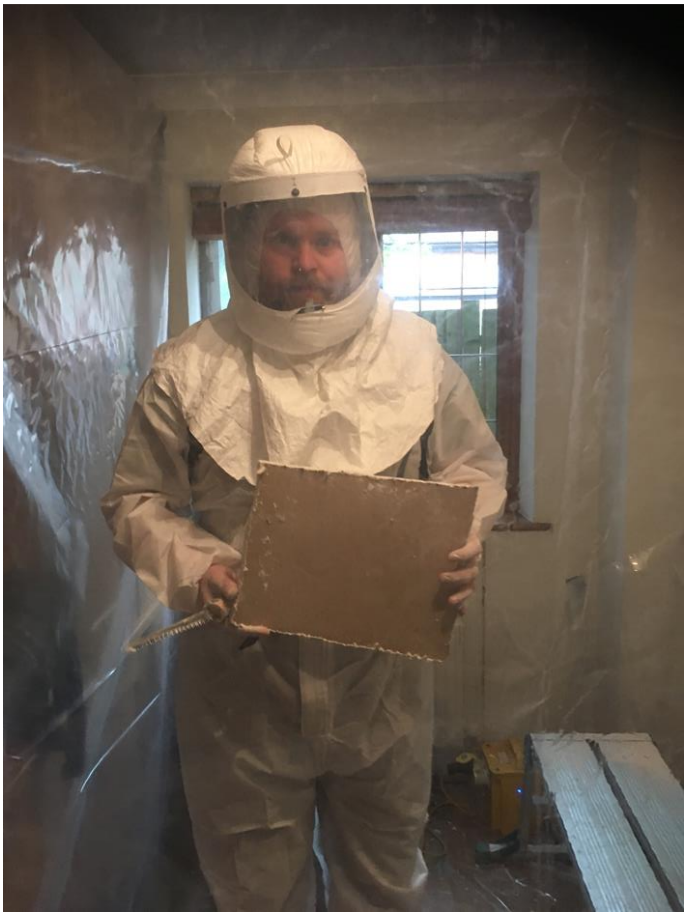


Measuring the effectiveness of air scrubbing. This meter measures 6 sizes of particles ranging from .3 to 10 micron. To put this into perspective a human hair 75 micron

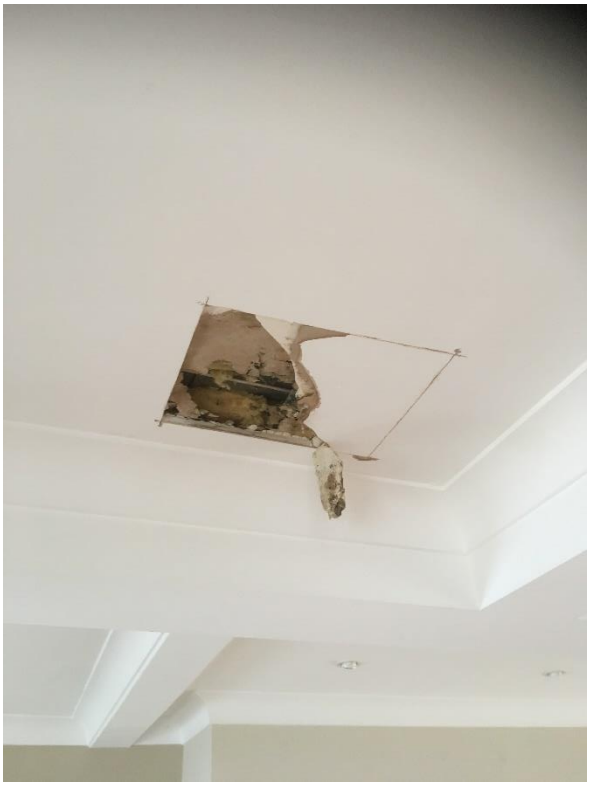


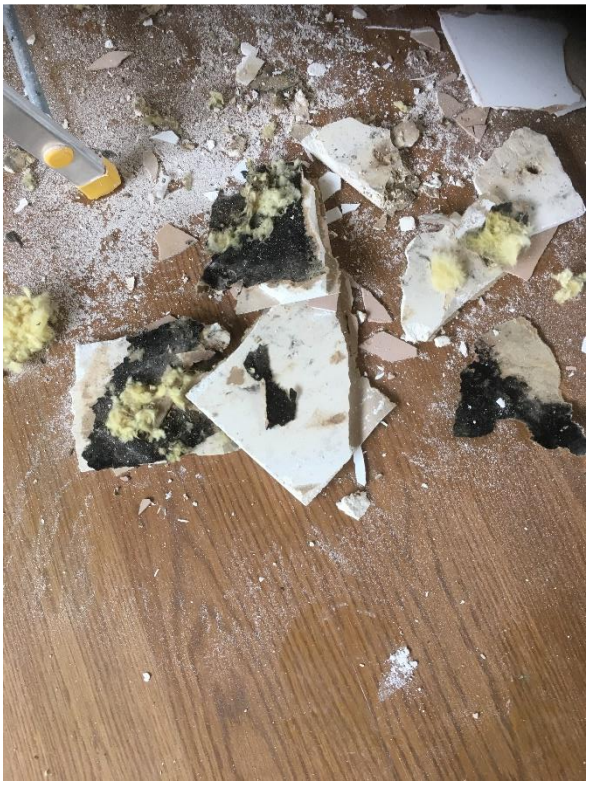


In this photo we show elevated moisture content from overhead leak. The extent of mould growth necessitated the removal of the whole ceiling. The contamination was affecting occupants sitting in lounge and in bedroom above.

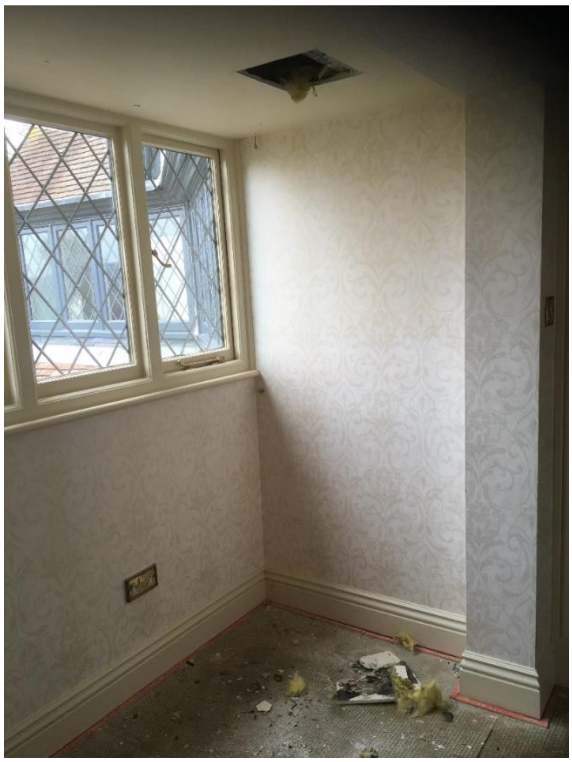


Working within critical barriers with PPE



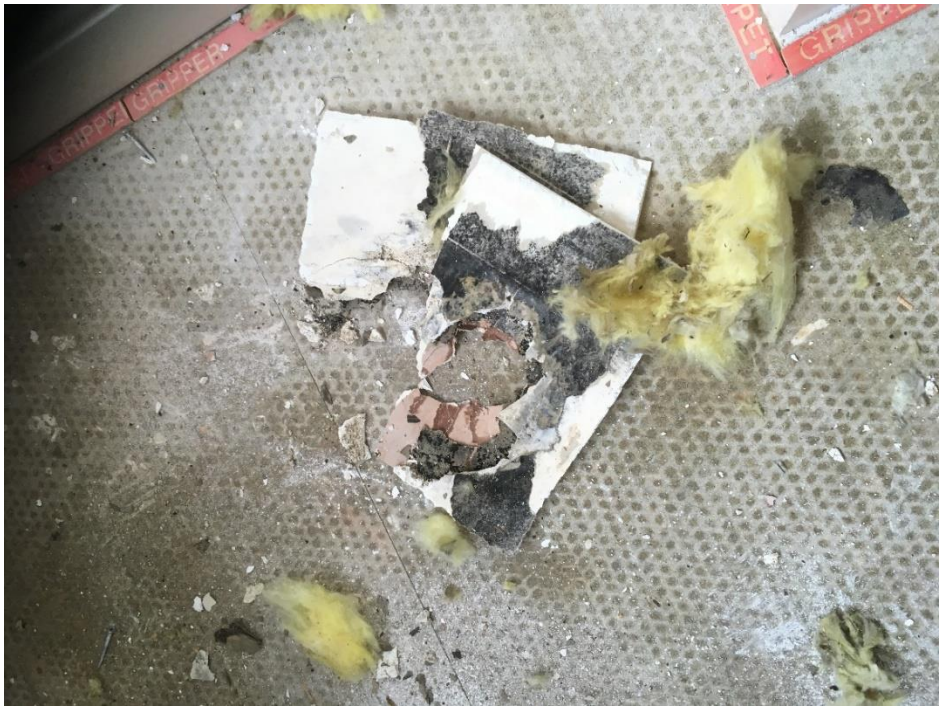


Infra-red scanning and moisture mapping identified a hidden risk area in this new build. Stachybotrys mould growth was confirmed with a major potential health risk. Species of other toxic moulds including Penicillium and Aspergillus were also present.



This newly decorated home was inspected prior to occupation by mould sensitive clients.

The survey identified high risk areas to dormer windows which were intrusively investigated after purchase



Removal of a small ceiling section identified major water ingress and mould issues which was a major issue in the bedroom