FEHNCY

Housing and Air Quality Report

Child Name:
Guardian Name: **Community:**

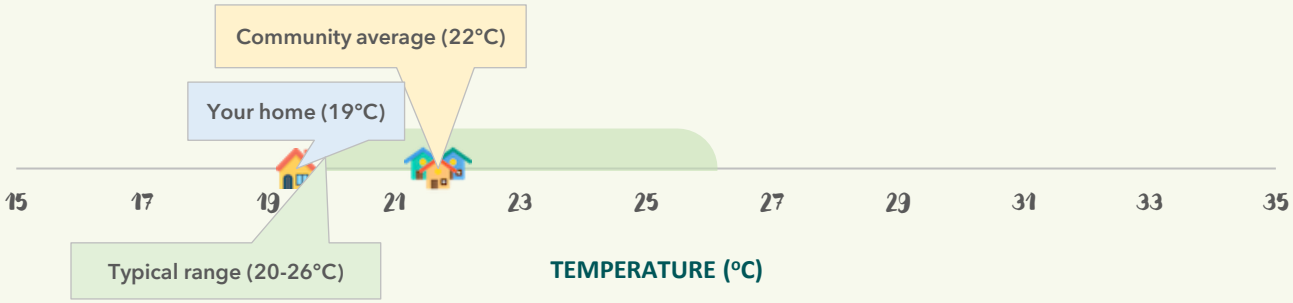
Indoor Air Quality Egg Monitor

The Air Quality Egg measured temperature, carbon dioxide, humidity, and tiny particles in the air over a 5-day period.

Date of deployment:

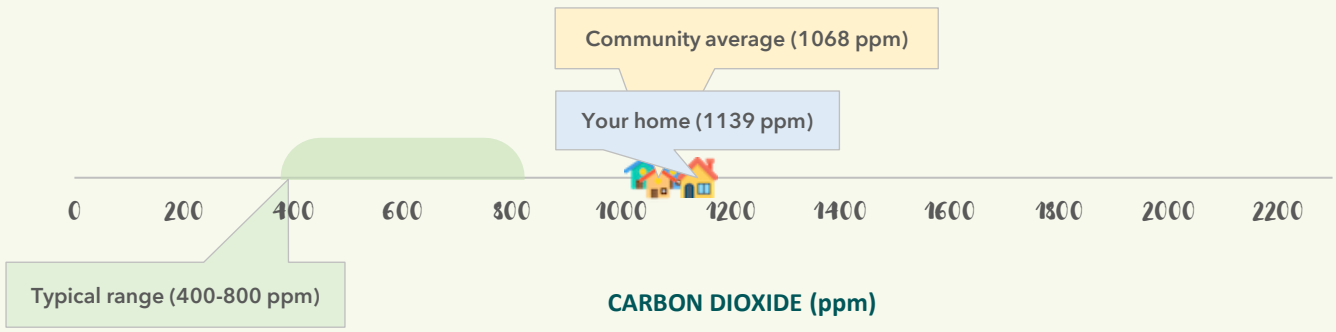
Average Temperature

In Canada, the typical temperature inside homes during the winter ranges from 20˚C to 26˚C.



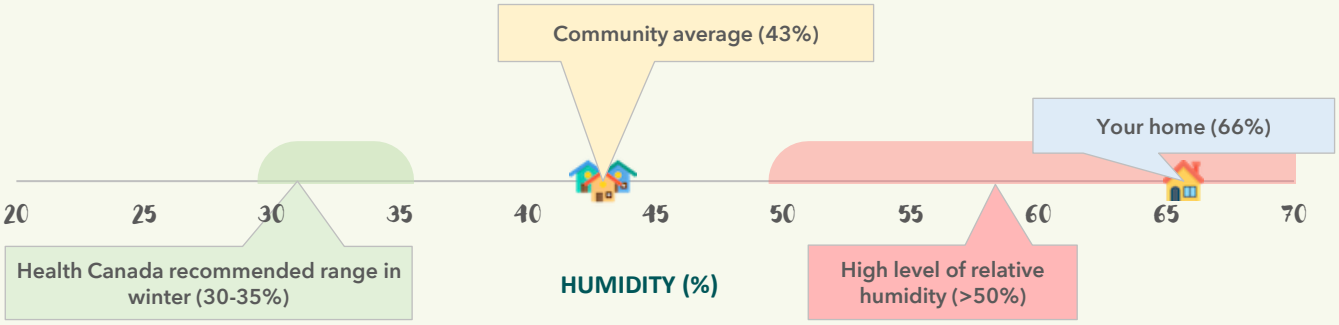
Carbon Dioxide

We assessed how good the ventilation (movement of fresh air into your house, and removal of stale air) was in your home by measuring the levels of carbon dioxide (CO_2). A higher level of CO_2 usually means less adequate ventilation. Houses that are poorly ventilated may trap more air pollutants indoors, such as viruses, and may be at higher risk for moisture and mould problems.



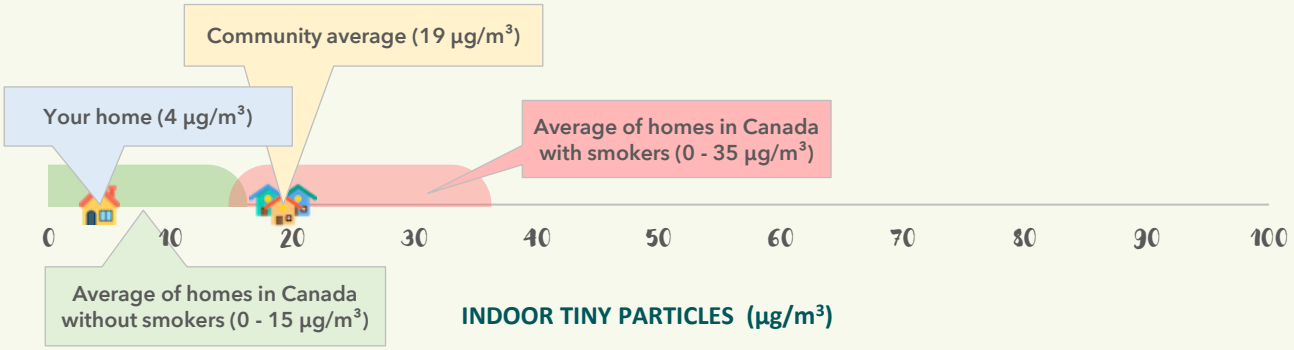
Relative Humidity

Indoor relative humidity is how dry or moist the air is inside your house. Very dry air can be uncomfortable and may dry the air passages in the nose and throat. Very high humidity may help mould and dust mites grow. Health Canada recommends maintaining relative humidity levels between 30-35% in the winter and considers levels above 50% as being high.



Tiny Particles in the Air

We measured very tiny dust particles in the air in your house. These are called Particulate Matter $_{2.5}$ ($PM_{2.5}$). High amounts of dust in the air are usually caused by burning wood in the fireplace or wood stove, and/or by cigarette smoking inside. High levels of $PM_{2.5}$ can increase the chances of lung problems such as lung infections or asthma in children, or asthma or chronic bronchitis in adults. Recommendations are to keep $PM_{2.5}$ levels as low as possible.



Radon Monitor

The radon detector measured the invisible gas radon, which comes from the soil beneath your home, over a 90- to 180-day period.

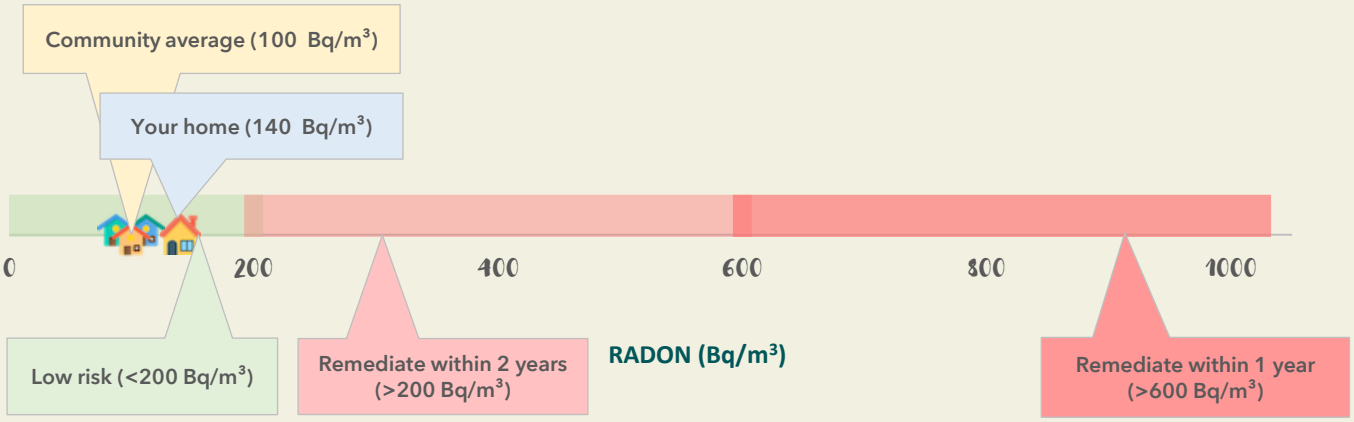
Date of deployment: **Number of days:**

Radon is a radioactive gas that is produced from the breakdown of uranium in soil and rock. It is invisible, odourless and tasteless. Exposure to high levels of radon can increase the risk of lung cancer, especially in smokers.
If the radon level in your house is above the guideline level of 200 Bq/m^3, we will be informing the Housing Department of this issue for eventual radon mitigation. Health Canada recommends that action be taken to reduce the level of radon in a home:

- Within 2 years if the level is above **200 Bq/m^3**
- Within 1 year if the level is above **600 Bq/m^3**

While the health risk from radon exposure below the Canadian Guideline is small, there is no safe level of radon. You can find methods for lowering radon levels by calling this toll-free number: 1-800-668-2642.

If increased radon levels are found in your house, the Housing Department will work with you to successfully decrease the concentration to a safe level.



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Smoke and Carbon Monoxide Detectors

During the Housing Questionnaire, you answered some questions about the presence of smoke and carbon monoxide detectors in your home.

Having working smoke and carbon monoxide detectors are important to prevent deaths from fire or carbon monoxide poisoning. If your home does not have these detectors, it is recommended that you purchase and install them as soon as possible. If your home does have these detectors, make sure they are working properly on a regular basis.

Smoke Detector

In your home, there is a working smoke detector:

Yes

Carbon Monoxide Detector

In your home, there is a working CO detector:

No

Volatile Organic Compound Monitor

This monitor measured the level of invisible gases called "volatile organic compounds", over a 5-day period.

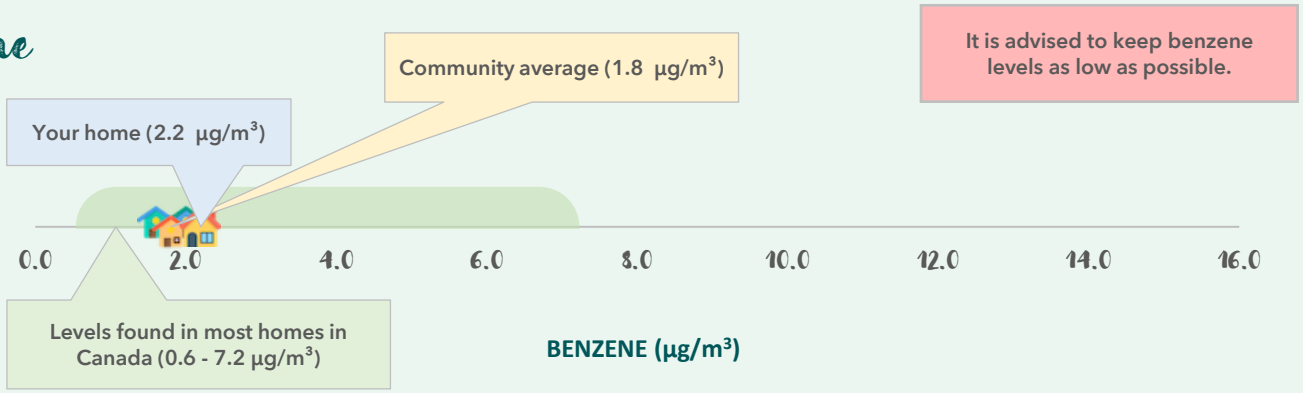
Date of deployment:

Volatile Organic Compounds (VOCs) are invisible chemicals that can be released into the air from products such as paints, varnishes, gasoline, mothballs and cleaning products. Household activities such as cooking and smoking can also release VOCs into the air. Exposure to some of these compounds is linked to health problems such as eye and throat irritation.

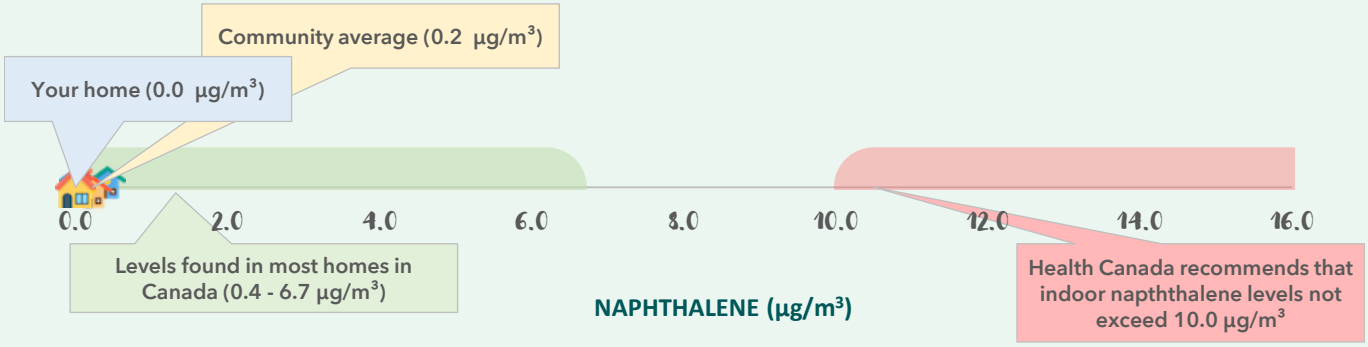
Health Canada is working on developing residential indoor air guidelines for various VOCs. Currently, Health Canada has recommendations for three VOCs that were measured in this study.

Your home was selected to have a VOC monitor. If levels are high for any VOC, see "Tips for improving air quality in your home".

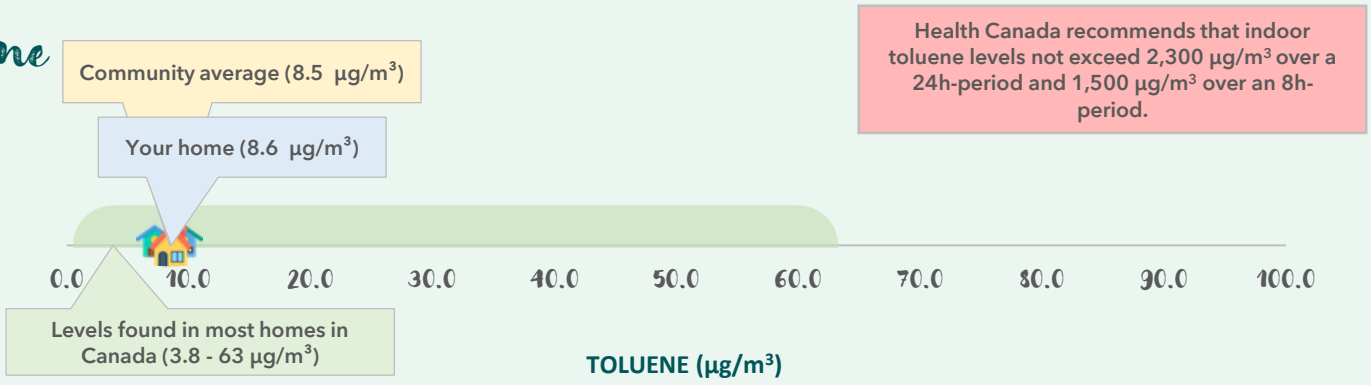
Benzene



Naphthalene



Toluene



Dust Collection

The vacuum collected dust to test levels of **endotoxins** and **beta-glucan** in your home.

Date of sample collection:

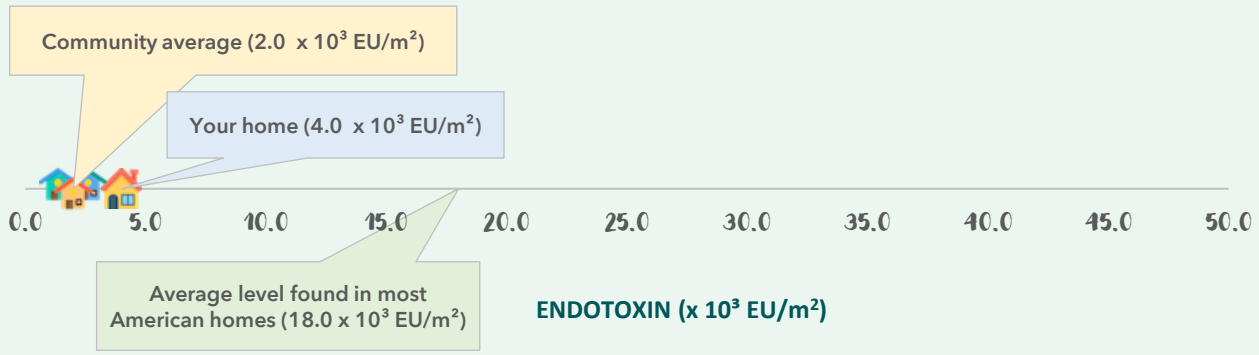
Dust can contain fungi, bacteria, and other contaminants that may affect lung health. Contaminants settled in dust can be helpful to judge overall levels of contaminants in your house.

Endotoxin is a chemical made by many bacteria. Endotoxin can increase respiratory symptoms, including wheezing in babies and worsening asthma in older people. High levels of endotoxin can be found in firewood stored indoors, and sawdust around wood piles.

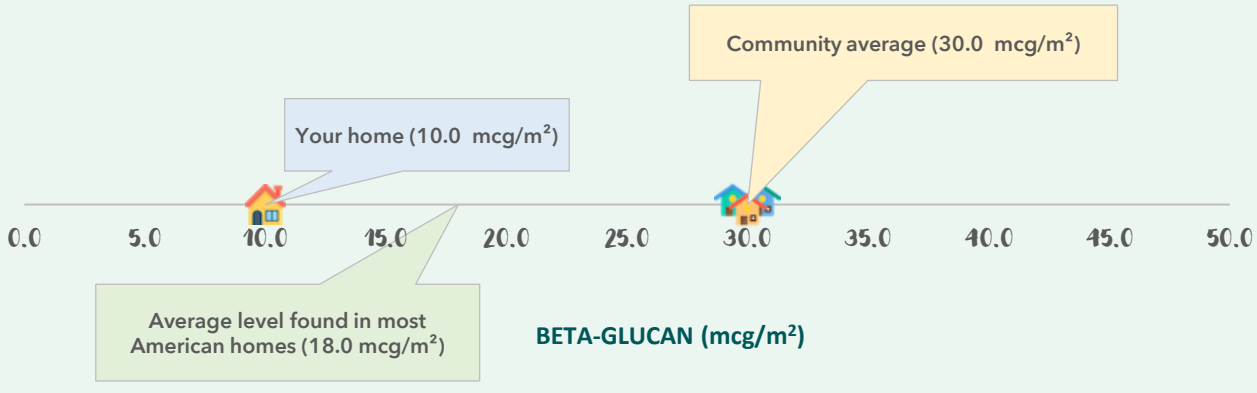
Beta-glucan is a chemical made by mold. Exposure to high levels of mold cause wheezing in babies, can worsen asthma, and increase the risk of respiratory infections.

Health Canada does not have recommended guidelines on indoor concentrations of specific components of settled dust.

Endotoxin



Beta-Glucan



Tips to Improve the General Air Quality in Your Home

Open the windows
when practical to allow fresh air into the home

Run the bathroom fan
for about 20 minutes after showers. Run the kitchen fan while cooking

Wipe away the condensation
from your windowsills to prevent moisture buildup

Ensure your Heat Recovery Ventilator is working properly
if you have one, and make sure the filters are cleaned twice a year

Burn only dry or seasoned wood
wood that has been dried at least 6 months outside; burn hardwood; keep the fire hot; never burn garbage, plywood, or particleboard

Check your chimney
to make sure there are no leaks

Ask people to smoke cigarettes only completely outdoors
(not in an enclosed porch)

Effectively seal cracks
in floors and walls, with the help of the Housing Department

Remove or reduce VOC sources
from your home. Choose low VOC options for paint and furniture

Avoid storing unused chemicals indoors
such as fuels, paints, and solvents

For more information, see **www.afn.ca/honoring-air**

Outdoor Air Quality

An Egg Monitor was placed outside in your community in four locations to determine outdoor air quality. The AQ Egg measured temperature, carbon dioxide, humidity, and tiny particles in the air at each location for about 5 days.

Having clean outdoor air is essential to maintaining good health in children. High levels of outdoor air pollution can increase the risk of heart disease, strokes, lung cancer, and respiratory illnesses.

The map below shows the different locations where the outdoor air quality monitors were deployed in your community.

Tiny Particles in the Air

We measured levels of tiny particles called $PM_{2.5}$ and PM_{10} outside in your community. These particles come from burning of oil, gasoline, diesel fuel and wood. Dust from fires, waste burning, construction sites, landfills also contribute to PM_{10} levels. Exposure to high levels of these tiny particles can increase the risk of heart and lung problems. All outdoor levels were within the World Health Organization's (WHO) recommended guidelines for PM in outdoor air.