

Alert: Calibration Required

CALIBRATION INFO

AirAdvice's 1-year laboratory calibration has expired, and the monitor used to generate this report is in need of recalibration.

The sensors in the AirAdvice monitor need to be recalibrated yearly to assure their accuracy and performance on every report you run. The longer the sensors go without being recalibrated, the more they tend to drift lower and respond less to their target compounds. This will decrease your ability to sell IAQ products and will limit the effectiveness of your AirAdvice monitor as a sales tool.

AirAdvice calibrates all of its sensors using National Institute of Standards and Technology (NIST) traceable processes and provides a certificate of calibration with all monitors to document the chain of custody of the calibration.

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Monitor #: 14250

The AirAdvice™ monitor 14250 used to generate this report is either past due for calibration or has a sensor that we have detected to be insensitive. This may affect the accuracy and validity of your monitor's sensors and the reports generated from them. Calibration must be done to ensure the accuracy of the reports created by this monitor. Using equipment deemed out of calibration may produce reports that indicate proper levels of a given pollutant when in fact the levels are at concentrations of concern.

Please act now to have your monitor calibrated as soon as possible. Failure to have your monitor recalibrated by 09-23-2009 will result in select sensor pages being removed from the report until your monitor is recalibrated.

Please contact cal@airadvice.com to arrange for your monitor to be recalibrated.

Call (866) 247-4800 for assistance or e-mail cal@airadvice.com.

WHAT YOU NEED TO DO

Immediately!

Call (866) 247-4800 or email cal@airadvice.com to schedule your annual calibration today.

Prepared For:
Blanton David
2386 Commonwealth Ave.
Fayetteville, NC 28301

Conducted By:
Blanton's Heating & A/C
910-822-2866

Test Period:
8/3/09 – 8/6/09

Monitor ID:
#14250

Report ID:
#138287

This report offers recommendations so you can make informed decisions about the health, comfort and safety your building provides. Knowing what's in the air you breathe and what you can do about it has never been more important. If you have additional questions, please visit www.airadvice.com or call 503-295-6610.

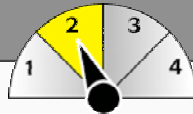
What We Tested

What We Found

Possible Causes

Recommended Action

HEALTH



Action Recommended
for Sensitive Individuals

Particle Allergens, Chemical Pollutants, Carbon Dioxide

- ▶ **Particle Allergens:**
Levels improvable
- ▶ **Chemical Pollutants:**
Levels improvable
- ▶ **Carbon Dioxide:**
Levels are acceptable

- Inadequate filtration
- Build-up of chemical pollutants

- Add VOC reduction device
- Remove VOC sources
- Upgrade filtration

COMFORT



Action
Necessary

Temperature Relative Humidity

- ▶ **Temperature:**
Too cool
- ▶ **Relative Humidity:**
Too moist

- Inadequate temperature setpoint or inadequate thermostat
- Inadequate dehumidification
- Setpoints out of alignment

- Check thermostat for proper setpoint and function
- Change setpoints

SAFETY



No Action
Necessary

Carbon Monoxide

- ▶ **Carbon Monoxide:**
Levels are acceptable

- None

- No action necessary

The Outdoor Environment

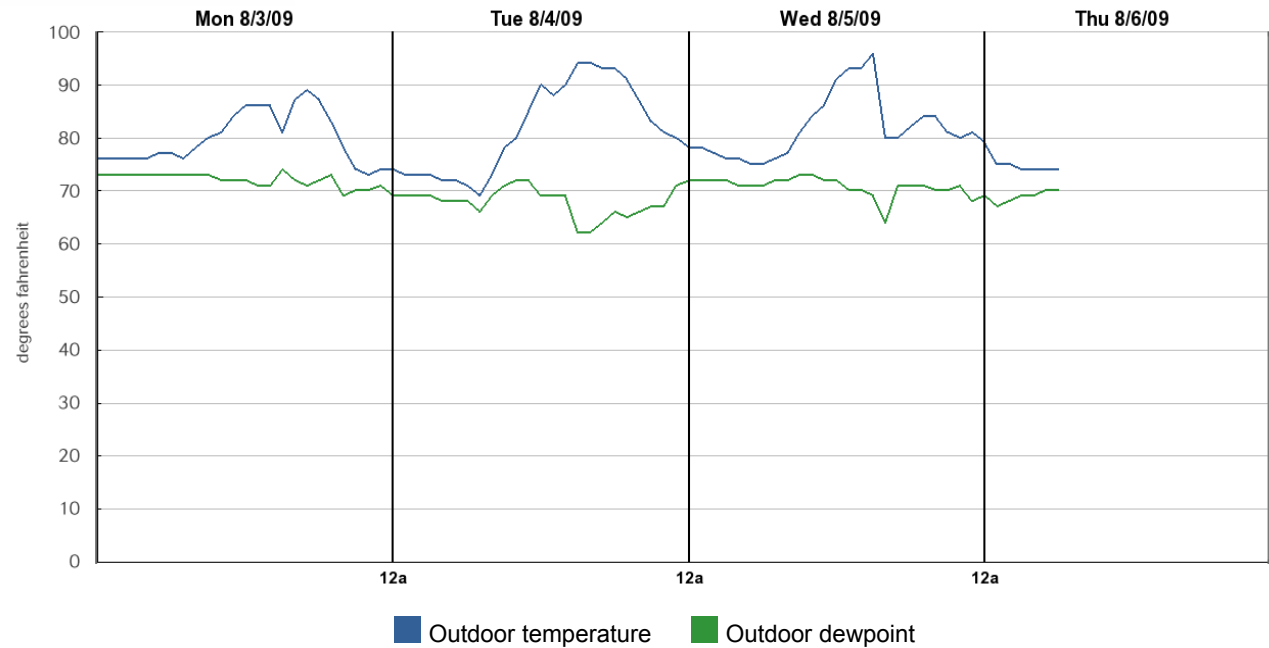
THE ENVIRONMENT

The Outdoor Environment plays a key role in what happens in the indoor environment. For instance, the outdoor air rating provided by the ALA is a C or worse grade, a good particulate filter on your home's fresh air source would help to improve the overall levels of particulates in the home. The outdoor weather illustrates how temperature and dew point can affect the indoor temperature and relative humidity. A dew point in the range of 40 to 60 oF is ideal to maintain the optimum comfort range for relative humidity (RH) inside. A dew point above 60 oF outside would require some amount of dehumidification to maintain the optimum comfort range.

Sources: www.epa.gov and www.ashrae.com

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Outdoor Weather



YOUR OUTDOOR AIR RATING*

Outdoor Air Quality Rating for:
Cumberland County*

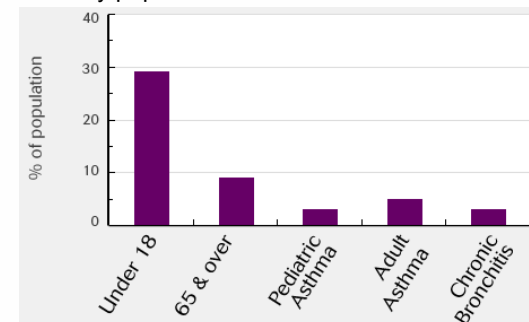


The American Lung Association rates each county for its outdoor air quality on a scale from 'A – F', with 'A' being the best. Outdoor air pollution varies based on city density, local industrial sources, climate, and time of year. When considering air quality, remember that outdoor air quality affects indoor quality.

* As determined by the American Lung Association®, ALA State of the Air Report 2008 (www.lungusa.org).

At Risk Groups

The following chart shows percentage of sensitive people at risk in your area (by risk group) based on total county population.



Energy Use & Its Impact

TEST RESULTS

What We Found:

Significant energy savings possible.

Action Necessary

How are energy savings possible?

Monthly energy savings are possible by improving the efficiency of your HVAC system, using a programmable thermostat with a greater than 8° of setback for both the day and nighttime along with weatherizing your home through such means as improved insulation, energy star windows and other simple techniques. Reducing your energy consumption also has a positive effect on the environment by reducing your Carbon Footprint by reducing the amount of Carbon Dioxide emitted into the atmosphere.

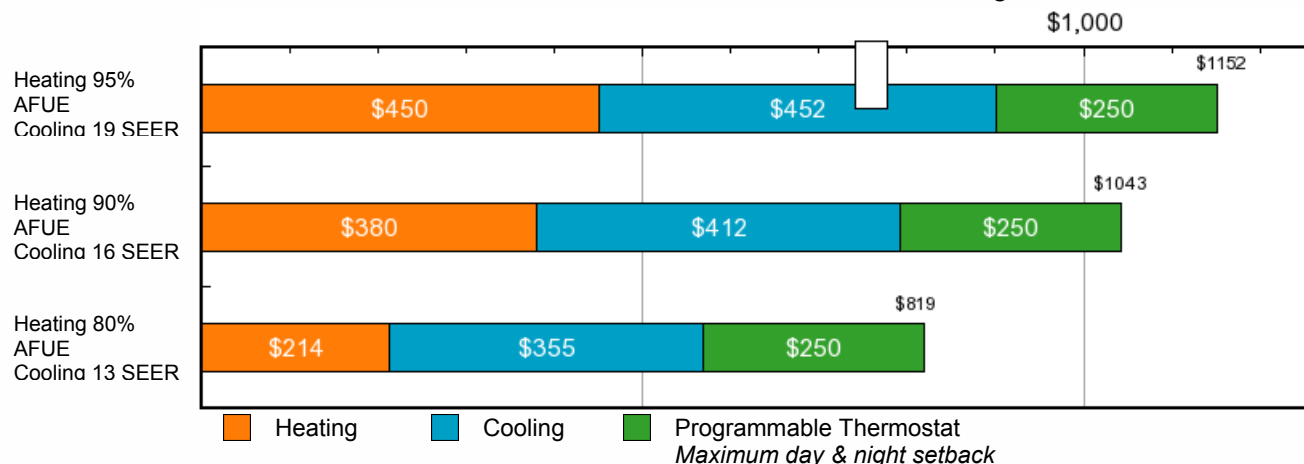
Sources: www.energy.gov,
www.energystar.gov &
www.usgbc.org.

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EQUIPMENT UPGRADE

Upgrading to a higher efficiency heating and cooling system will lower your energy bill:

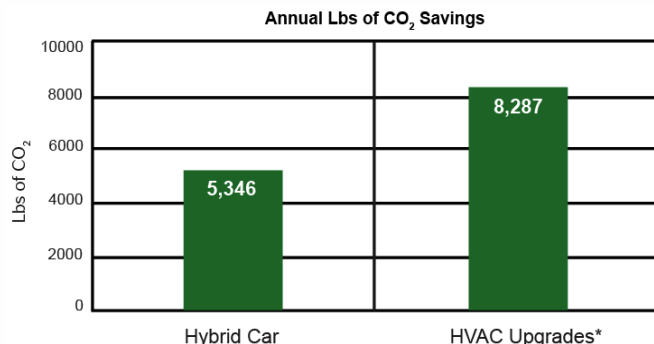
Estimated Total Annual Savings



We used a typical Heating system with AFUE rating of 70% and a typical SEER rating of 6 for our calculations. If you upgrade all your systems to the most efficient, your approximate annual energy savings should be between \$900 and \$1400

CARBON FOOTPRINT:

Reducing Greenhouse Gas Emissions



Typical HVAC upgrades offer a greater impact on CO₂ emissions

*Includes high efficiency heating and cooling system, and programmable thermostat. Go to <http://www.epa.gov/> to learn more about limiting your carbon footprint.

RECOMMENDED ACTION

There are many steps you can take to improve the energy efficiency of your home. For example, you can:

- Raise heating setpoint
- Increase your thermostat setback

Health: Particle Allergens

TEST RESULTS

What We Found: Particle allergen levels were between 11-25 ug/m³ or spiking > 10ug/m³ for an hour or more.

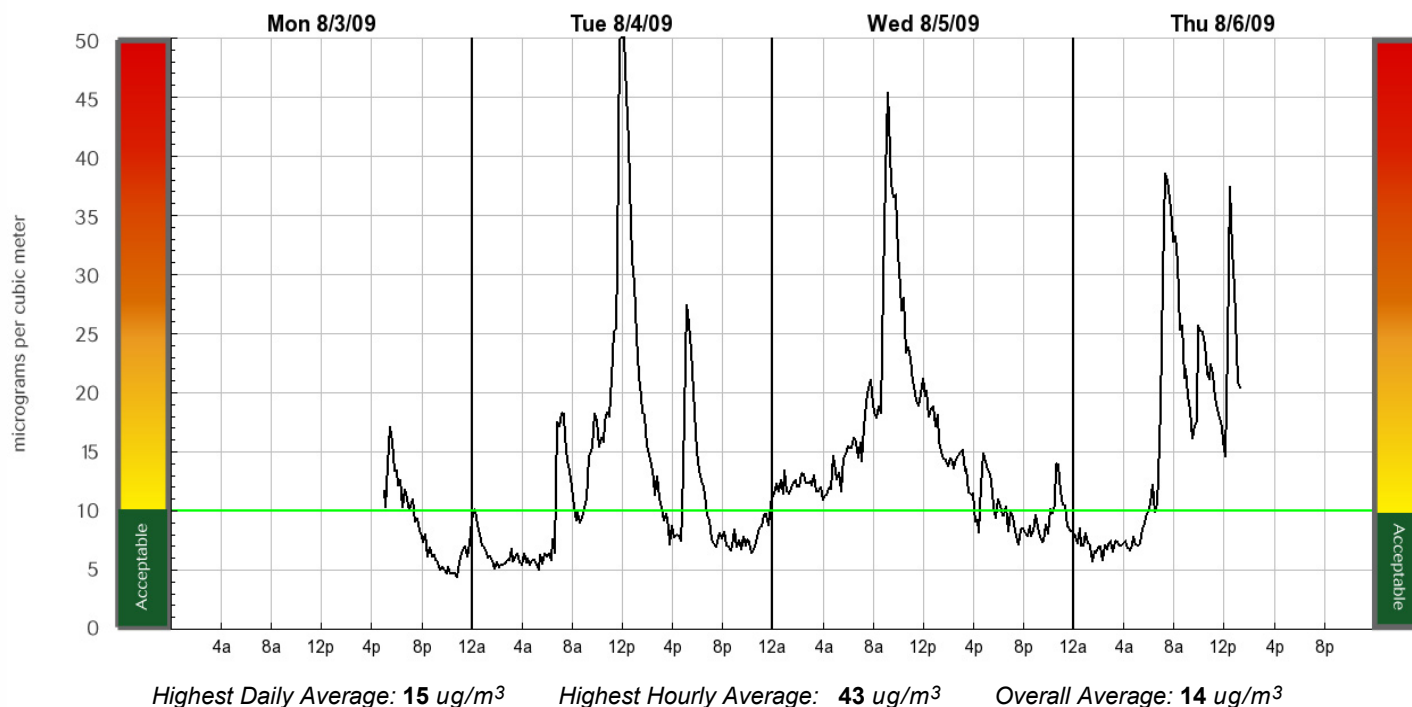
Action Recommended
for Sensitive Individuals

Why is action recommended?

Particle allergens are generally a cause for concern when daily average levels are above 10 ug/m³.

Particle allergens are known to trigger asthma and allergy symptoms. At levels above 35 ug/m³, they can harm normally healthy adults by causing emphysema and diminished lung capacity. Children, the elderly, and pregnant women are more susceptible.

Source: American Lung Association; Environmental Protection Agency (EPA); Indoor air Quality Association (IAQA).



ABOUT PARTICLE ALLERGENS

Particle allergens are always present in your home's air. They can build up to unhealthy levels due to activities in the home, the presence of excessive sources, and heating & cooling system issues.

Sources: Pets, dirt on shoes, burning candles, smoking, open windows (outside pollen, spores, etc.), dust mites, many common household activities, including cooking and cleaning.

Possible heating & cooling issues: Leaky, dirty, or poorly designed ductwork, inadequate filtration, no filtration at all.

RECOMMENDED ACTION

There are many steps you can take to control sources of particle allergens. You can:

- Add an air filtration system
- Ensure duct work sealed properly
- Ensure ducts are clean

Health: Chemical Pollutants

TEST RESULTS

What We Found: Chemical pollutant levels were between 501-3000 ug/m³ for a day or more.

Action Recommended
for Sensitive Individuals

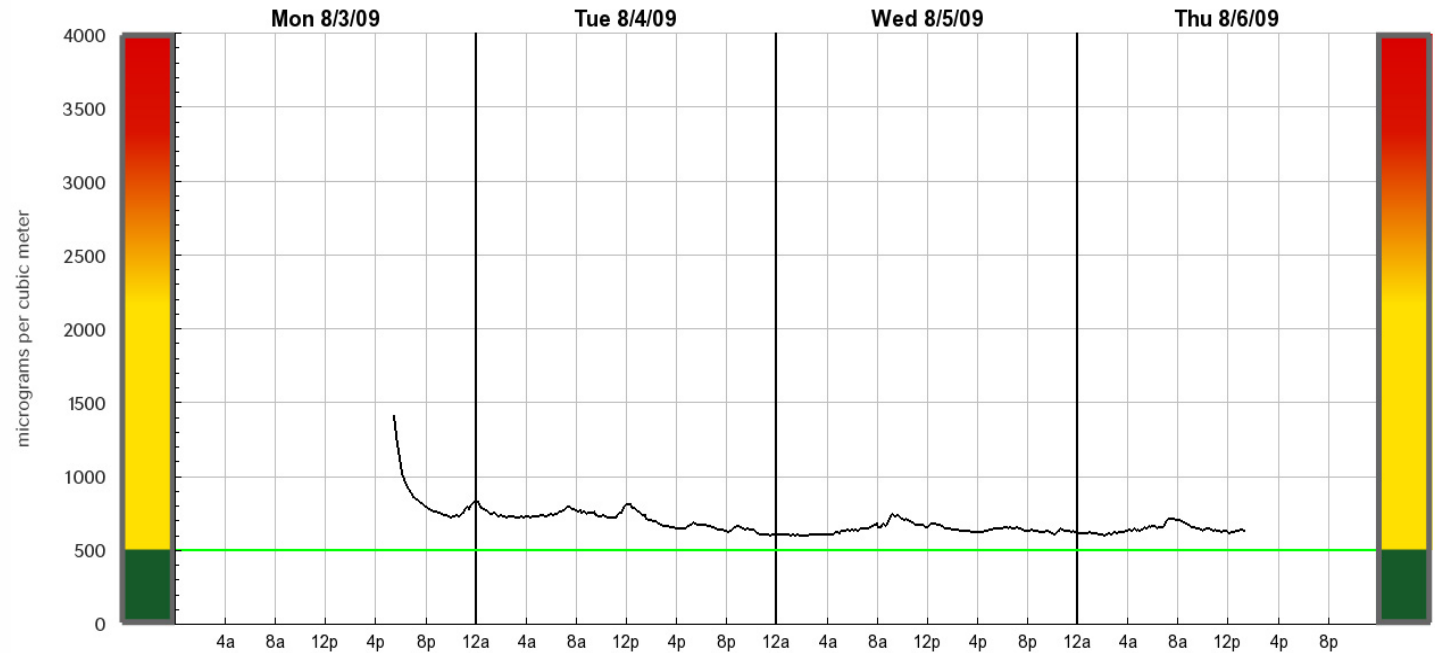
Why is action recommended?

Chemical pollutants are generally a cause for concern when daily average levels are above 500 ug/m³.

Chemical pollutants are known to trigger asthma and allergy symptoms. At moderate levels, eyes and nasal passages can be irritated. Some people can experience nausea and headaches. At very high levels, they can even affect normally healthy adults by overworking the liver and kidneys. Children, the elderly, and pregnant women are more susceptible.

Source: European Union (EU); Leadership in Energy & Environmental Design (LEED); Environmental Protection Agency at Research Triangle Park (EPA-RTP).

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Highest Daily Average: **706 ug/m³** Highest Hourly Average: **1253 ug/m³** Overall Average: **672 ug/m³**

ABOUT CHEMICAL POLLUTANTS

Levels can build up in your home's air due to usage of chemical products and heating/cooling system issues.

Sources: Off-gassing from building materials, carpeting, furniture and other synthetic materials, fuel fumes, scented products and air fresheners, personal care products, many household products such as paint, glue, and plastics.

Possible heating & cooling issues: Lack of fresh air introduced into home (either inadequate mechanical ventilation or none present), no chemical pollutant removal equipment.

RECOMMENDED ACTION

There are many steps you can take to control sources of chemical pollutants. You can:

- Add ventilation and/or VOC reduction system


Home
advice
Healthy air starts here.™

Health: Carbon Dioxide

TEST RESULTS

What We Found: Carbon Dioxide levels were below 750 ppm.

No Action Necessary

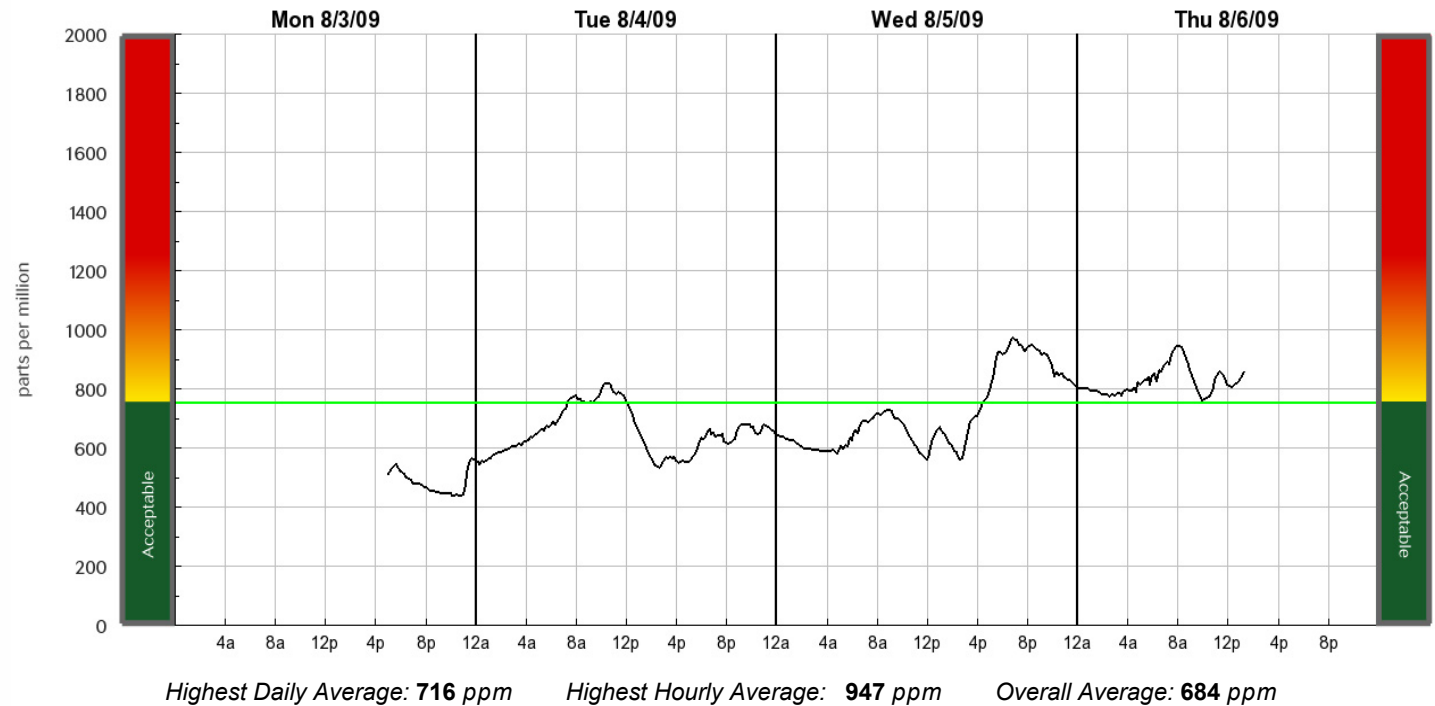
Why is no action necessary?

Carbon dioxide levels are generally not a cause for concern when daily average levels are below 750 ppm.

Carbon dioxide can quickly build up inside homes when people are present, causing air to feel 'stale.' If you have ever noticed persistent smells and/or wanted to crack a window in a room to get fresh air, you have experienced stale air.

Source: American Society of Heating, Refrigeration and Air Conditioning Engineers; Indoor Air Quality Association.

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ABOUT CARBON DIOXIDE

Elevated carbon dioxide levels can occur in the home due to source causes, home heating & cooling system issues, or both.

Sources: 'Tight' (well weatherized and energy-efficient) home construction without adequate ventilation, common human & household activity (breathing, and burning candles, gas, wood, or other combustion).

Possible heating & cooling issues: Lack of supplied fresh air (no ventilation), malfunctioning ventilation, ventilation shut off by occupant, HVAC equipment needs repair or service.

RECOMMENDED ACTION

None -- no action necessary. For more information on indoor air quality, see:

- www.airadvice.com


Healthy air starts here.™

Comfort: Temperature

TEST RESULTS

What We Found: The temperature level was below 72 for the entire test.

**Action
Necessary**

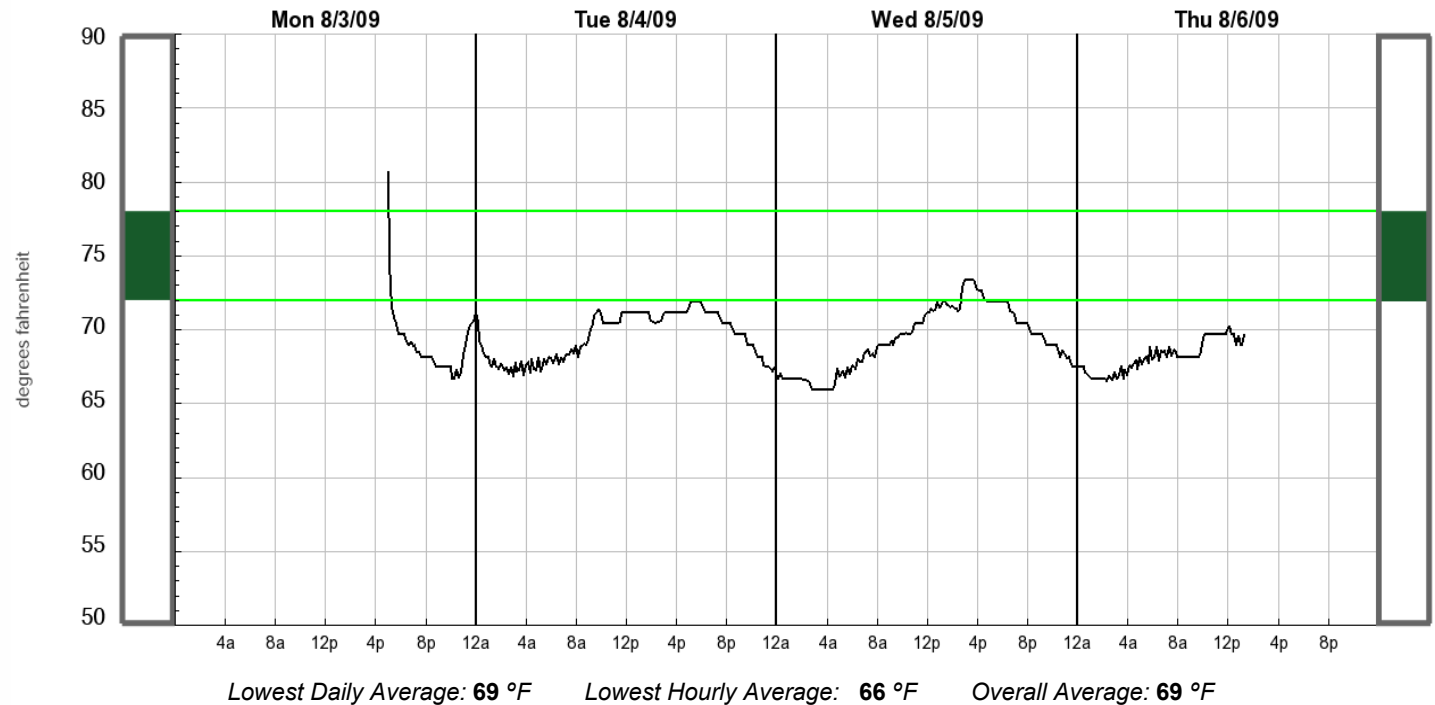
Why is action necessary?

Comfortable temperatures fall within the range of 72F and 78F. In addition temperatures are most comfortable when steady, with fluctuations less than 1-1/2 degree.

Ideally, temperature should be constant between all areas of the home. People experience a chilling or 'goose bump' sensation when temperatures are uneven and when air blows quickly across the surface of the skin.

Source: American Society of Heating, Refrigeration and Air Conditioning Engineers.

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ABOUT TEMPERATURE

Fluctuating and/or low and high temperatures can occur due to structural causes and/or home heating & cooling system issues.

Structural causes: Poor insulation, inadequate weatherization (for example, poorly sealed windows and doors create drafts).

Possible heating & cooling issues: Thermostat poorly located (in an area where air supply falsely influences readings), uneven heating or cooling from room to room due to imbalanced ductwork or inadequate or poorly sized equipment.

RECOMMENDED ACTION

There are many steps you can take to control the temperature levels of your home. You can:

- Check thermostat & upgrade if needed


Healthy air starts here.™

Comfort: Relative Humidity

TEST RESULTS

What We Found: The overall average for relative humidity levels were above 55 for the test.

**Action
Necessary**

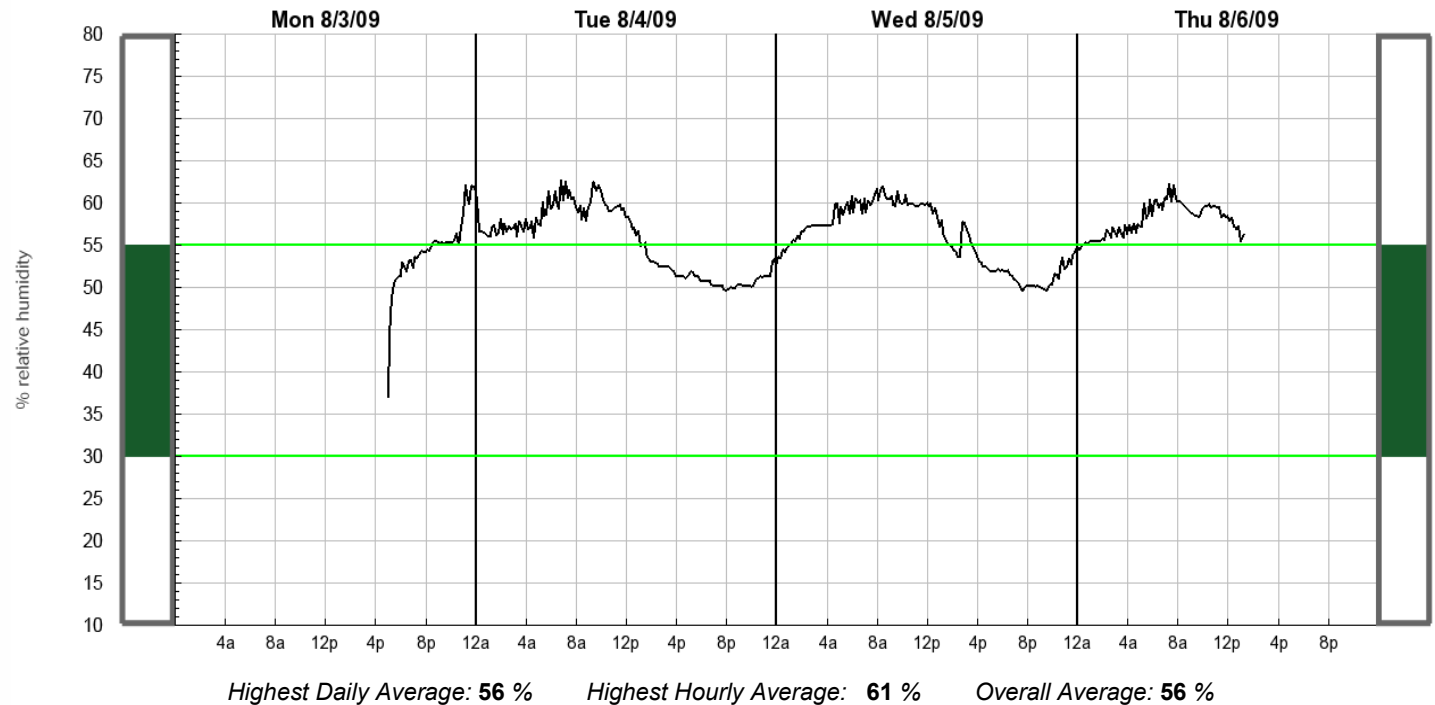
Why is action necessary?

Comfortable relative humidity levels fall within the range of 30% to 55%. Ideally according to the ALA the relative humidity should be 50%, with levels in the 40-50% range offering the most comfort possible.

The amount of moisture in the air influences both health and comfort. When air is too dry in the winter, people typically feel colder. Also, respiratory passages can become irritated and prone to infection.

Source: American Society of Heating, Refrigeration and Air Conditioning Engineers; Health Canada; Washington Department of Health.

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ABOUT RELATIVE HUMIDITY

Structural causes: Standing water in basement or other areas, leaky pipes/faucets, inadequate ventilation in winter (causes moisture build-up inside), and home is under "negative pressure" (pulls dry or moist air in from outside).

Possible heating & cooling system issues: No or inadequate humidification, no or inadequate ventilation, improperly sized cooling system (prevents dehumidification), HVAC equipment needs repair (condensate drain or coil malfunctioning).

RECOMMENDED ACTION

There are many steps you can take to control the humidity of your home. You can:

- Install a dehumidification system
- Use bathroom fan during showers
- Use stove fan during cooking


Healthy air starts here.™

Safety: Carbon Monoxide

TEST RESULTS

What We Found:

Carbon Monoxide levels were below 5 ppm.

**No Action
Necessary**

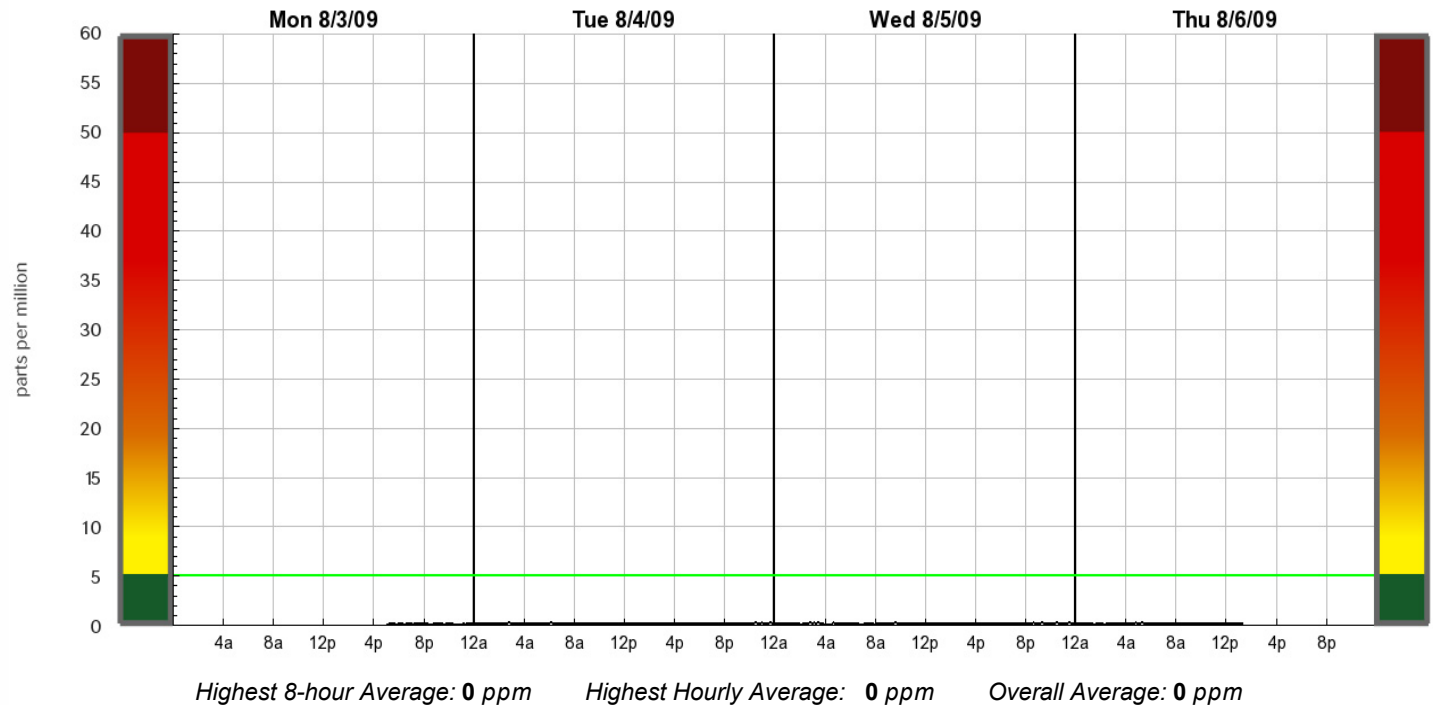
Why is no action necessary?

Carbon monoxide levels are a cause for concern when average levels are above 5 ppm (8-hour average). When levels (8-hour average) are above 20 ppm, immediate action should be considered.

Carbon monoxide is a colorless, odorless, poisonous gas produced by combustion. When people are exposed to relatively low levels (for an 8 hour period or more), it can cause headaches and nausea. At relatively high levels it can cause memory problems and ultimately death.

Source: US Environmental Protection Agency; World Health Organization (WHO); Indoor Air Quality Association (IAQA).

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ABOUT CARBON MONOXIDE

Elevated carbon monoxide levels in the home are a cause for concern. They can occur due to source causes, home heating & cooling system issues, or both.

Sources: Fireplaces, cooking, combustion appliances (water heater, gas dryer, stove), vehicles running in attached garage.

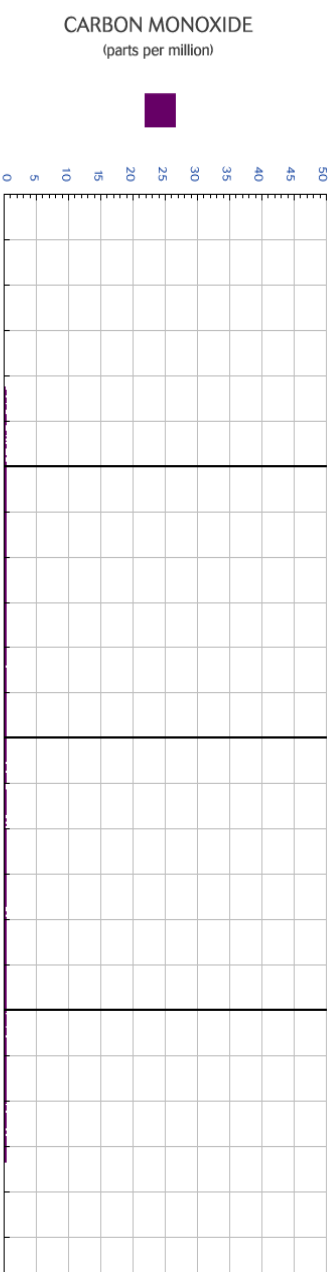
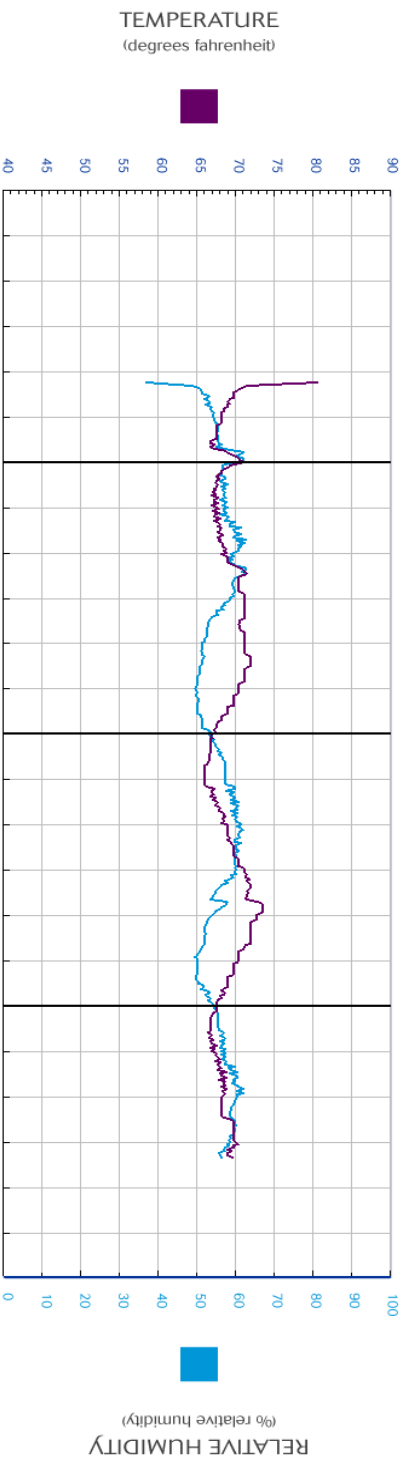
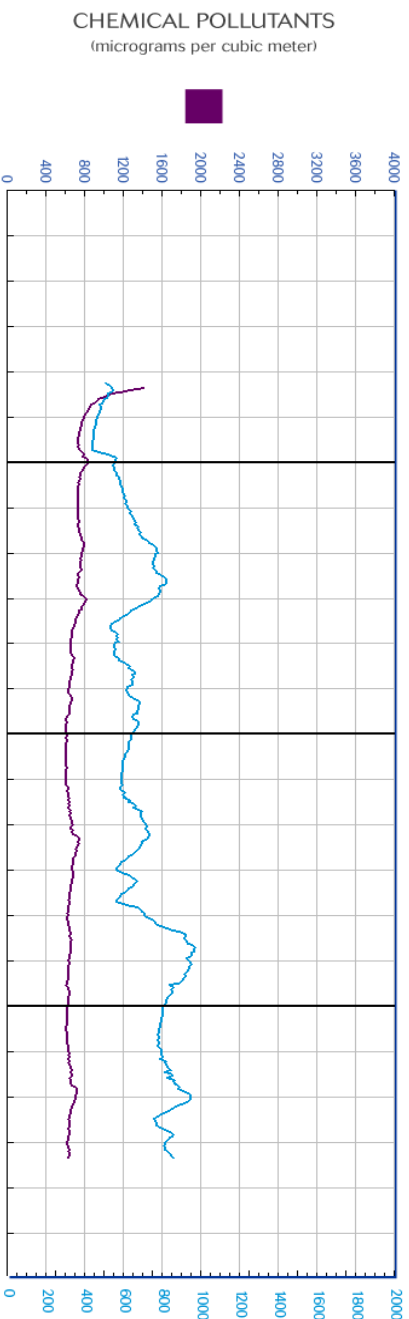
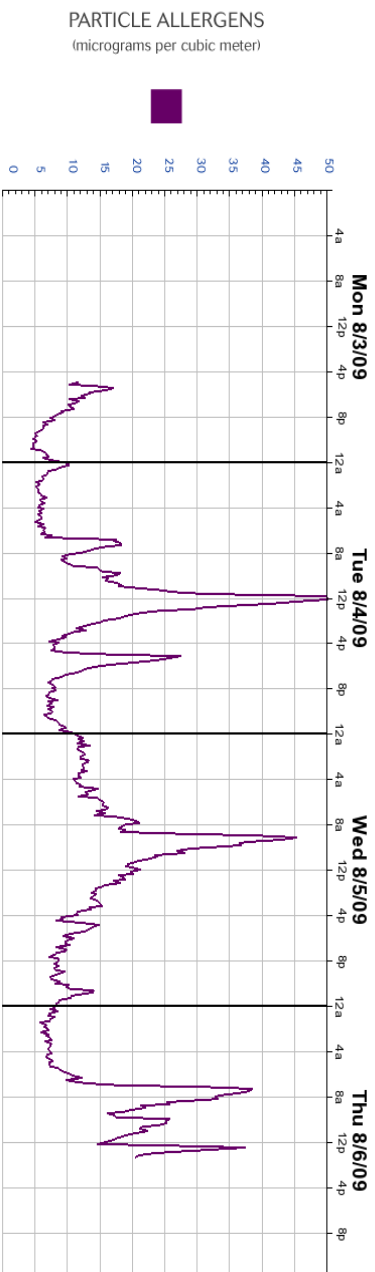
Possible heating & cooling system issues: Cracked heat exchanger on furnace, leaking chimney or vent, inadequate exhausting of a combustion appliance (water heater, gas dryer, stove).

RECOMMENDED ACTION

None -- no action necessary. For more information on indoor air quality, see:

- www.airadvice.com

Combined Test Results



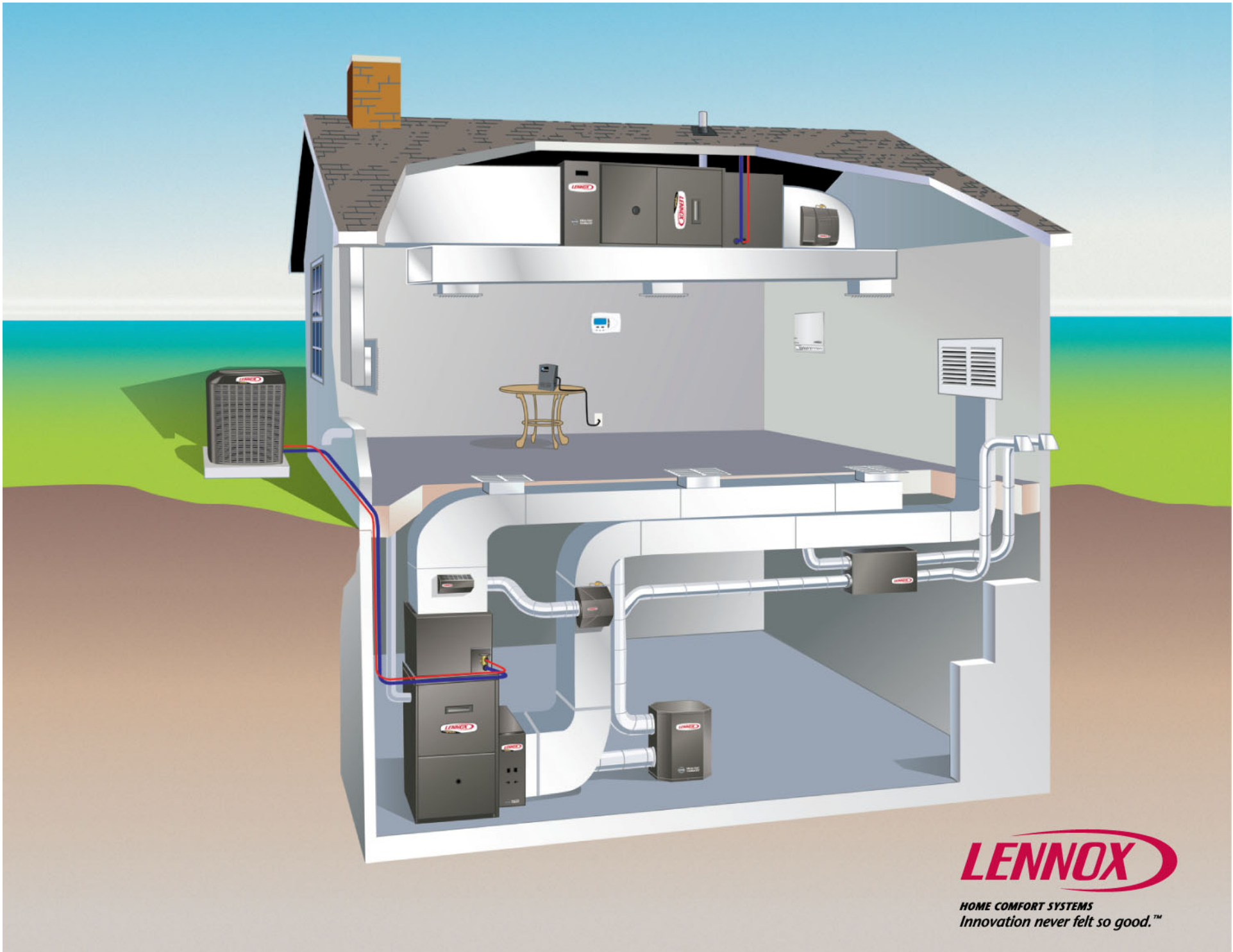
Assessment Parameters



Listed below are the parameters that were used to run your Indoor Air Quality report. These parameters were used to formulate specific recommendations based upon your unique air quality test results.

GENERAL INFORMATION	
Room Monitor Placed In:	Not specified
Sq . Ft. of Living Space:	Not specified
Year Building Built:	Not specified
No. Bedrooms:	Not specified
Attached Garage:	Not specified
Sensitive Population:	Not specified
SYSTEM INFORMATION	
Occupied Temperature Setting:	70
Type of Thermostat:	Not specified
Fresh Air Intake:	Not specified
Type of Heating System:	Not specified
Heating Fuel Type:	Not specified
Heating System Age:	Not specified
Heating System Size (BTUs/KW):	Not specified
AFUE:	Not specified
Type of Cooling System:	Not specified
Cooling System Age:	Not specified
Cooling System Size (BTUs/KW)::	Not specified
SEER:	Not specified
Duct Work Sealed (if Forced Air):	Not specified
Duct Work Clean (if Forced Air):	Not specified
Carbon Monoxide (CO) Detector:	Not specified
ENERGY COSTS	
Therm of Gas:	\$1.20
Gallon of #2 Fuel Oil:	\$2.50
Kilowatt Hour:	\$0.12
Gallon of Propane:	\$1.70
Heating Hours per Year:	1500
Cooling Hours per Year:	1500

FILTRATION	
Type of Air Filtration:	Not specified
PCO/VOC Reduction:	Not specified
In-room HEPA Filter(s):	Not specified
VENTILATION	
ERV/HRV:	Not specified
Fan to Outside in All Bathrooms:	Not specified
Stove Exhaust Fan to Outdoors:	Not specified
PURIFICATION	
In-Room Purifier(s):	Not specified
HUMIDIFICATION	
Central Humidifier:	Not specified
Central Dehumidifier:	Not specified
In-room Humidifier(s):	Not specified
In-room Dehumidifier(s):	Not specified
POSSIBLE POLLUTANTS	
Anyone Smoke in Home/Garage:	Not specified
Candles/Incense:	Not specified
Wood Burning Appliance(s):	Not specified
Gas Appliance(s):	Not specified
Air Freshener(s):	Not specified
Recent Remodeling/New Furniture:	Not specified
Pets in Home:	Not specified



LENNOX

HOME COMFORT SYSTEMS
Innovation never felt so good.™

Lennox: Improving Your Comfort

BEST

CBX32MV Variable Speed, Multi-position Blower Coil

Quiet, environmentally responsible blower coil for virtually any installation

- Variable speed motor - Designed for quiet, high-efficiency comfort
- Automatic comfort control - Helps control humidity during hot summer months
- Advanced engineering - Includes the most innovative and reliable features available

XP 19 Heat Pump

The most quiet and efficient heat pump you can buy

- SilentComfort technology - Delivers the ultimate in quiet, consistent cooling
- Efficiency ratings of up to 18.60 SEER and 9.35 HSPF - Nearly twice as efficient as a standard heat pump
- Two-Stage Compressor - Runs at low speed 80% of the time, which means less expensive to operate and more consistent comfort
- Lennox® System Operations Monitor • First onboard cooling system diagnostics in the industry • Continuously monitors system performance

Humiditrol Whole-Home Dehumidifier System

Indoor air quality you can feel!

- Total home comfort for optimal indoor air quality and moisture control
- Helps reduce humid conditions in the home, reducing the opportunity for mold and mildew problems
- Designed to easily integrate with all Lennox® R410A cooling products to provide optimal comfort, indoor air quality and energy efficiency

SignatureStat Home Comfort Control

Precision humidity and temperature control

- Easy Integration - Works with advanced heating and cooling systems to cool, heat and control
- Excellent Energy Efficiency - Can significantly reduce your heating and cooling costs

BETTER

CBX32MV Variable Speed, Multi-position Blower Coil

Quiet, environmentally responsible blower coil for virtually any installation

- Variable speed motor - Designed for quiet, high-efficiency comfort
- Automatic comfort control - Helps control humidity during hot summer months
- Advanced engineering - Includes the most innovative and reliable features available

XP 15 Heat Pump

- SilentComfort technology - Delivers the ultimate in quiet, consistent cooling
- Efficiency ratings of up to 16 SEER • Nearly twice as efficient as a standard air conditioner
- Energy Star® Qualified - Meets or exceeds EPA guidelines for energy efficiency, which means energysavings
- Reliable Performance

Humiditrol Whole-Home Dehumidifier System

Indoor air quality you can feel!

- Total home comfort for optimal indoor air quality and moisture control
- Helps reduce humid conditions in the home, reducing the opportunity for mold and mildew problems
- Designed to easily integrate with all Lennox® R410A cooling products to provide optimal comfort, indoor air quality and energy efficiency

SignatureStat Home Comfort Control

Precision humidity and temperature control

- Easy Integration - Works with advanced heating and cooling systems to cool, heat and control
- Excellent Energy Efficiency - Can significantly reduce your heating and cooling costs

GOOD

CBX32MV Variable Speed, Multi-position Blower Coil

Quiet, environmentally responsible blower coil for virtually any installation

- Variable speed motor - Designed for quiet, high-efficiency comfort
- Automatic comfort control - Helps control humidity during hot summer months
- Advanced engineering - Includes the most innovative and reliable features available

XP 13 Heat Pump

- SilentComfort technology - Delivers the ultimate in quiet, consistent cooling
- Efficiency ratings of up to 15 SEER • Nearly twice as efficient as a standard air conditioner
- Energy Star® Qualified - Meets or exceeds EPA guidelines for energy efficiency, which means energysavings
- Reliable Performance

SignatureStat Home Comfort Control

Precision humidity and temperature control

- Easy Integration - Works with advanced heating and cooling systems to cool, heat and control
- Excellent Energy Efficiency - Can significantly reduce your heating and cooling costs

Ask how a Lennox® variable speed blower and SignatureStat™ Home Comfort Control can maximize the performance of your Indoor Air Quality solutions.

The Lennox logo features the word "LENNOX" in a bold, red, sans-serif font. The letters are contained within a red, horizontal oval shape that has a slight 3D effect, with the top and bottom edges appearing to curve away from the text.

HOME COMFORT SYSTEMS
Innovation never felt so good.™

Lennox: Improving Your Indoor Air Quality

BEST

Energy Recovery Ventilator

Effective ventilation for warmer climates

- Exchanges stale, contaminated filled indoor air with fresher outdoor air (per EPA statement)
- Most energy efficient method of ventilation available

PureAir Air Purification System

Cleans the air in your home better than any other single system you can buy

- Only single indoor air quality system to attack all three classes of indoor air contaminants-particles, bioaerosols and odors/chemical vapors
- Removes and destroys approximately 50% of household odors and chemical vapors in a 24-hour period
- Removes particles/bioaerosols ranging in size down to 1 micron
- Requires continues fan operation for optimal performance

optionally,

HEPA Filtration System (optional)

Best possible filtration performance

- Near-perfect filtration - 99.97% efficient in removing particles and bioaerosols down to 0.3 micron
- Optional carbon canister helps trap and remove odors
- Powerful, yet quiet performance - Completely and quietly filters the air inside your home, several times a day

UVC-2000 Germicidal Light

Highest UV light intensity available

- Powerful ultraviolet energy for effective air purification
- Highest intensity on the market today with 2000 microwatts

BETTER

Energy Recovery Ventilator

Effective ventilation for warmer climates

- Exchanges stale, contaminated filled indoor air with fresher outdoor air (per EPA statement)
- Most energy efficient method of ventilation available

HC16 Healthy Climate 16 Media Air Cleaner

Highest efficiency in-line cartridge media filter

- MERV 16
- Provides whole-home filtration for optimal home comfort and air quality, with no additional power source
- The filter removes a minimum of 95% of circulated dust and other particles from 0.3 micron and up
- No ozone emissions, a known lung irritant

or

PureAir Air Purification System

Cleans the air in your home better than any other single system you can buy

- Only single indoor air quality system to attack all three classes of indoor air contaminants-particles, bioaerosols and odors/chemical vapors
- Removes and destroys approximately 50% of household odors and chemical vapors in a 24-hour period
- Removes particles/bioaerosols ranging in size down to 1 micron
- Requires continues fan operation for optimal performance

UVC-1000 Germicidal Light

Improves air quality and protects equipment by sterilizing surfaces

- 1050 microwatts

GOOD

Lennox Ventilation Control System

Improved ventilation for most climates

- Positive ventilation for improved IAQ and comfort
- Automatic monitoring of outdoor and indoor humidity

HC10 Healthy Climate 10 Media Air Cleaner

Effective box media filter

- MERV 10
- Provides whole-home filtration for optimal home comfort and air quality, with no additional energy costs
- Up to 85% efficient in removing particulate contaminants such as dust, dirt, and mold spores down to 10 microns
- No ozone emissions, a known lung irritant

UVC-500 Germicidal Light

Improves air quality and protects equipment by sterilizing surfaces

- 776 microwatts



Ask how a Lennox® variable speed blower and SignatureStat™ Home Comfort Control can maximize the performance of your Indoor Air Quality solutions.

LENNOX

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