Primary Contaminants – These can cause adverse health effects at elevated levels.

Lead
While lead is rarely detected in Portland's water system, some customers may be exposed to lead in drinking water through their home plumbing. At particular risk are customers whose homes were built before 1985 with copper pipe and lead solder. The major source of lead in the tap water of Portland homes is the corrosive action of water on household plumbing components that contain lead, such as faucets and lead-based solder.

Results after the water has been standing for several hours are the highest likely levels of lead in the water. They are not likely to represent the levels of lead in water during normal usage. If your water test shows that the level of lead in your household water is above the EPA standard, it is advisable - especially if there are young children in the home - to reduce the lead level in your tap water as much as possible. Exposure to lead can affect long-term health and development.

There are several easy ways to reduce your exposure to lead in drinking water:

- Avoid using water that has been standing in the pipes for several hours to cook, drink or make baby formula. Running the cold water tap until the water feels noticeably colder (about 30 seconds - 2 minutes) brings in fresh water from the distribution mains outside your home. This can reduce lead in water levels up to 90%. .
- Consider using a filter: Check whether it removes lead. Not all filters do.
- If you choose a filter device, be sure to maintain it in accordance with the manufacturer's instructions once it is in use. Other water quality problems can develop from lack of maintenance.
- Consider buying low-lead fixtures. As of January 2014 all pipes, fittings and fixtures are required to contain less than 0.25% lead. When buying new fixtures, consumers should seek out those with the lowest lead content.
- For information on filter certification and lead-free components, contact NSF International at 877-867-3435 or visit www.nsf.org

The Water Bureau treats the water to reduce corrosion in plumbing by adjusting the pH of the water. Comparison of monitoring results before and after pH adjustment show over 50 percent reduction of lead with pH adjustment.

If you would like additional information on how to reduce your exposure from all sources of lead, contact the LeadLine at 503-988-4000 or www.leadline.org.

More information on lead and further steps that individuals can take to reduce their exposure are outlined in the enclosed brochure "A Guide to Lead in Drinking Household Plumbing and You Drinking Water".

Copper
Copper is an essential nutrient for humans. As with many vitamins and minerals, it can be harmful in large doses. The drinking water standard is set at less than one-half of the maximum daily-recommended dose for an adult (3.0 mg/l). Copper comes from copper plumbing in the home. It can give a metallic taste to the water and cause blue-green stains on sinks and fixtures. To reduce copper in your drinking water, flush your pipes until the water feels noticeably colder (about 30 seconds - 2 minutes) before use.

Secondary Contaminants – These are not harmful to health but can affect taste, odor, or color at elevated levels.

Iron
Iron is an essential nutrient and does not have adverse health effects. It can affect the taste (metallic), color (rusty), and possibly odor (metallic or musty) of your water. While these aesthetic qualities are unappealing, iron is not harmful. It is the most common water quality complaint in Portland due to the age

and type of plumbing in most homes. Iron in your drinking water typically comes from older galvanized iron household plumbing, or rusty pipes. As with lead and other metal contaminants that leach from plumbing, flushing will bring in fresh water and significantly reduce the amount of metals in your water.

Manganese
Manganese is found in source waters and does not have adverse health effects. In large quantities, above the EPA standard, it can affect the color (black or brown) and taste (metallic) of your water. It is rare for manganese to exceed the EPA standards in Portland. To reduce the amount of manganese in your water, flush the pipes before use.

Zinc
Zinc is found in natural deposits and does not have adverse health effects in quantities typically found in drinking water. In large quantities, above the EPA standard, it can affect the color (white) and taste (metallic) of your water. The most common source of zinc is from galvanized iron pipes and household fixtures. It is rare for zinc levels to exceed the EPA standards in Portland. To reduce the amount of zinc in your water, flush the pipes before use.

If you have any questions concerning your water analysis, please do not hesitate to call the Water Line at 503-823-7525.

Sincerely,

Portland Water Bureau
Water Line
503-823-7525
Enclosure