



## GRANITE STATE ANALYTICAL, LLC

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### Contaminant Fact Sheet

**Passes-** The Result of this parameter is within the limits set by the Safe Drinking Water Act from the EPA. This applies to both Primary and Secondary water standards



**Fails EPA Primary-** Primary standards are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water that effect human health. Failing acute contaminants such as e. coli and nitrates could make you sick immediately. Failing chronic contaminants such as arsenic and uranium can cause sickness over many years of exposure.



**Fails EPA Secondary-** Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (tooth discoloration) or aesthetic effects (such as taste, staining, or odor). It does not mean it is at a level dangerous to your health. Failing a secondary drinking water standard would simply indicate a notation to the well owner so that they are aware of the elevated levels.



**Attention-** Applies to present coliform bacteria samples. As of April 1st of 2016, the EPA no longer categorizes coliform bacteria as a Primary contaminant and does not have a limit on it. Therefore, we can neither indicate a pass or fail. Coliform bacteria in and of themselves are not harmful, but do indicate a potential pathway for other contaminants to enter the system. It should trigger an investigation as to how the bacteria is getting into the water (usually the well cap) and a sanitation with bleach.



**pH** – Recommended range is 6.5 to 8.5. A pH of 7.0 is considered neutral. Below 7.0 the water is considered acidic and above 7.0 the water is considered basic. At a pH of less than 6.5, corrosive effects may transpire and the leaching of toxic metals such as copper and lead may occur. A pH greater than 8.5 may cause mineral incrustations and bitter tasting water.

**HARDNESS** – The NH Dept. of Environmental Services recommends treatment at 150 mg/L. Hardness is the result of segregation of minerals such as calcium, magnesium and silica. Excessive hardness can cause scale formation in heating systems and combined with soap may leave insoluble particles.

(Soft 0-75 mg/L) (Somewhat Hard Water 76-150 mg/L) (Hard Water 151-300 mg/L) (Very Hard Water 300+ mg/L)

**CHLORIDE** – Recommended range is less than 250 mg/L. Chloride can cause corrosion above 250 mg/l and above 400 mg/L chloride causes an objectionable salty taste.

**NITRATE-N** – The maximum contaminant level is 10 mg/L. Major sources of nitrate are fertilizer runoff, soil, organic matter, leaching from landfills, and municipal and industrial wastewaters. Excessive concentrations can indicate septic tank pollution. Under certain conditions nitrates can be chemically reduced in the body to form Nitrite-N.

**NITRITE-N** – The maximum contaminant level is 1.0 mg/L. Water with high nitrite levels should not be used for infants under 6 months of age due to the potential risk of methemoglobinemia (blue baby syndrome). Water with high nitrite concentrations usually are heavily polluted and bacteriological unacceptable.

**SODIUM** – The recommended maximum level is 250 mg/L. For people on low sodium diets the recommended maximum level is 20 mg/L.

**IRON** – The recommended level is less than 0.3 mg/L. Iron can cause discoloration in laundered goods and can cause a bitter or astringent taste in the water.

**MANGANESE** – The recommended level is less than 0.05 mg/L. Manganese can cause discoloration in laundered goods and impair taste in drinking water and beverages. At high concentrations it may cause brown spots in laundry items and leave unaesthetic black precipitates

**COLIFORM** – The recommended level is 0 per 100 ml or absence / 100 ml sample. Coliform bacteria are used as indicator organisms to ascertain quality of potable water. The presence of coliform bacteria indicates that disease-causing bacteria may be present.

**COPPER** – The recommended maximum level is 1.3 mg/L. Copper can cause adverse taste effects or stain porcelain. Extremely high concentrations of copper may cause gastrointestinal tract irritation.

**ARSENIC** – The recommended maximum level is less than 0.010 mg/L. Arsenic in water occurs naturally as well as from industrial activities. Excessive ingestion of arsenic may cause severe poisoning.

**LEAD** – The recommended maximum level is less than 0.015 mg/L. Lead can occur due to corrosion of lead containing household plumbing and by industrial pollution. Major toxic effects include anemia, neurological dysfunction/damage and renal impairment.

**FLUORIDE** – The recommended maximum primary level is 4.0 mg/L. Possibility of skeletal fluorosis may occur when the fluoride level exceeds the recommended limits. Fluoride will fail secondary standards at 2.0 mg/L, at this level it can cause teeth staining. A fluoride concentration of approximately 1.0 mg/L in drinking water effectively reduces dental cavities without harmful effects on health. Fluoride may occur naturally in water.

**URANIUM**- The maximum contaminant level is 30 µg/L. Uranium is a naturally occurring radioactive element which is found in almost all forms of soil, rocks and water sources. Uranium is a tasteless, colorless, and odorless contaminant. Drinking water with high uranium amounts exceeding 30 µg/L can lead to increased cancer risk, liver damage, or both. If you have high uranium result we recommend that you test your water for radon and arsenic.

**RADON**- Radon is a radioactive gas that exists naturally in NH bedrock. This gas can enter your home through your foundation and your well water. Radon in the air has a limit of 4.0 pCi/L. Radon dissolved in water has a New Hampshire limit of 10,000 pCi/L. Exposure to radon when dissolved in water can come from drinking the water and more directly when showering which releases the gas. Since gases are volatile and susceptible to environmental factors, it is recommended to test for radon several times throughout the year and average that number for a better indication of your radon exposure.