LESSONS FROM THE LABORATORY

Presented by:
Rebecca Labranche
Laboratory Director
A & L Laboratory
Topics Covered

1. What is a “Sample”
2. Field Measurements & MORs
3. Proper Sampling Procedures
4. Understanding Your Water Test Results
What is a “sample”?

A small quantity of something such as customers, data, people, products, or materials, whose characteristics represent (as accurately as possible) the entire batch, lot, population, or universe.
What is a “water sample”?

A small quantity of water collected in such a manner as to provide an accurate representation of the entire lake, pond, well or reservoir.
Why is sample collection important?

Proper sampling has a great impact on the accuracy of your water test results.

Proper Sample Collection + Accredited Laboratory Analysis = Reliable Test Results
Field versus Lab Error

• Most error (60 to 80%) associated with environmental sampling and analysis is due to **field sampling error** rather than **lab error**

• Lab QA/QC programs provide strict management and performance control

• QA/QC for field sampling activities?—typically far less stringent than lab requirements
Sampler Responsibilities

Perform necessary Field Tests.

Complete proper paperwork and submit to laboratory with required timeframes.

Properly collect samples in compliance with regulations.

Keep all records of activities and collections.
Field Measurements

General Equipment Maintenance & Calibration

• Follow EPA approved analytical methods
• Refer to manufacturers user manual
• New standards / buffers - CHECK EXPIRATIONS!
• QC Checks from second manufacturer
• Calibration frequency of equipment
• Proper cleaning and storage after use
Field Measurements

- Chlorine Residual
- pH
- Conductivity
- Temperature
Field Measurements

Chlorine

• Calibrate on daily or before use basis
• Use a QC standard to ensure accuracy.
• Keep instrument viewing area clean
• Reagents are within expiration dates
• Refer to Owners Operating Manual
Field Measurements

Temperature

- Annual Check by a NIST-traceable thermometer
- Determination of correction factors
- Verify at expected temperature range.
- Determine Acceptable accuracy +/-0.5°C or +/-1.0°C
- Refer to Owners Manual
Field Measurements

pH

- Calibrate on daily or before use basis
- Use buffers that bracket the expected pH
- Use a QC standard to ensure accuracy.
- Use temperature compensating probe
- Refer to Owners Operating Manual
Field Measurements

Conductivity
• Calibrate on daily or before use basis
• Use standards that bracket expected reading
• Use a QC check standard to ensure accuracy
• Make sure you are reading the correct measurement (Conductivity or TDS)
• Refer to Owners Operating Manual
MONTHLY OPERATING REPORTS

• All public water systems that add chemicals to their water must submit a Monthly Operating Report (MOR) to the Drinking Water Program.

• The "Small System Chlorination Report Forms" as the name implies, is only for small systems such as trailer parks, restaurants, motels and campgrounds. MOR-012.

• The rest of the MORs submitted to the DWP are designated MOR-001 through 011.

# Small Water System Chlorination Report Form (MOR12)

**Reports are due by the 10th of the following month.**

*(Please fill in ALL system information and print clearly)*

<table>
<thead>
<tr>
<th>Date</th>
<th>Gallons Pumped*</th>
<th>Chlorination</th>
<th>Public Water System Name</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>2</td>
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<tr>
<td>31</td>
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</tr>
</tbody>
</table>

- *Gallons Pumped column required only if you have a water meter.
- **Fill in Amount Used column only when you add chlorine to your solution tank.
- "系统的 Pumped column required only if you have a water meter.
- **Fill in Amount Used column only when you add chlorine to your solution tank.

### Bacteria Sample(s):

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Please note any problems or comments below:

**Signature of DO (if required)**

**Date**

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For assistance, contact the Drinking Water Program at (207-287-6710; after hours 517-6241)
MONTHLY OPERATING REPORTS

All MORs must be submitted by the 10th of the following month.

• Using the Excel version, fill in all appropriate fields.

• Print a hard copy, sign it, and keep with your files.

• Name the file: ABC Water District PWSID#99999 July MOR.xls

• Email the file to DWPMOR@maine.gov. The subject line of your e-mail should read: ABC Water District PWSID#99999 July MOR.
Do you have any questions about field measurements or Monthly Operating Reports?
Sample Collection Procedures

Are you making these mistakes?
Best Practices for Sampling

• Before Sampling
  ➢ Make sure area is free of debris such as trash or dishes
  ➢ Wash hands thoroughly
  ➢ Remove aerator (except Lead & Copper)
  ➢ Put on snug-fitting nitrile gloves
Best Practices for Sampling

- While sampling, don’t
  - Smoke or eat
  - Wear perfume or cologne
  - Handle fuels, solvents or other chemicals
  - Touch potentially contaminated surfaces

Regularly change sampling gloves, especially before filling sample containers
## Sampling Locations

<table>
<thead>
<tr>
<th>Distribution Samples</th>
<th>Entry Point Samples</th>
<th>Raw Water Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform</td>
<td>Nitrate/Nitrite</td>
<td>New Well Approval</td>
</tr>
<tr>
<td>Fluoride</td>
<td>VOC</td>
<td>Source Bacteria</td>
</tr>
<tr>
<td>Lead &amp; Copper</td>
<td>Cyanide</td>
<td></td>
</tr>
<tr>
<td>Disinfection By-Products</td>
<td>Inorganic Screen</td>
<td></td>
</tr>
<tr>
<td>Asbestos</td>
<td>Radon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gross Alpha / Radium</td>
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<tr>
<td></td>
<td>Uranium</td>
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<tr>
<td></td>
<td>Arsenic</td>
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<tr>
<td></td>
<td>Antimony</td>
<td></td>
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<tr>
<td></td>
<td>SOCs</td>
<td></td>
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</tbody>
</table>
Inorganic Chemicals (IOC)

**What**
Elements or compounds found in water supplies and may be natural in the geology or caused by activities of man through mining, industry or agriculture.

**Why**
It is common to have trace amounts of many inorganic contaminants in water supplies; these are found in our bedrock.

**How**
Damaging effects to the liver, kidney, nervous system, circulatory system, blood, gastrointestinal system, bones, or skin depending upon the inorganic contaminant and level of exposure.
Inorganic Chemicals (IOC)

- Remove any screen, hoses and aerators from end of faucet or sampling tap.
- Run COLD water for 5 to 10 minutes to make sure water has not been sitting for a long time in pipes or tanks and is fresh from the well.
- Turn water down so it does not splash.
- Uncap bottle and fill all bottles to shoulder with water. Screw the cap on tightly.

If possible, deliver sample to the lab the same day.

The maximum holding time is 48 hours if it includes nitrate/nitrite. Ship or deliver samples on ice. If not mailed directly after sample collection, store samples at 4°C.
Lead & Copper

**What**
Lead can enter drinking water when pipes that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures.

**Why**
Homes built before 1986 are more likely to have lead pipes, fixtures and solder.

**How**
In children, low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells.
Water in the State of Maine is lead-free when it leaves the wells, lakes or reservoirs that provide public water for our residents.

Lead can get into water through, lead water mains, a lead service line or household plumbing.
 ✓ Allow fixture to remain unused for a minimum of 6 hours.
   - No Pre-stagnation flushing: Do Not intentionally flush the water line before the start of the 6 hour period.
   - **Do not** remove any aerators prior to collecting the sample
   - Try to collect the sample within 6-10 hours after the fixture has been turned off.

 ✓ Collect a 1st draw sample
   - Place the bottle under faucet before turning it on
   - Open the cold water tap fully
   - Fill the 1 Liter bottle to the base of the neck

 ✓ 1st draw means 1st draw for EVERY sample.

**The maximum holding time is 14 Days.**
Lead & Copper

Must be at least 1 Liter
Please remember to indicate the date and time the water was last used and the date and time the sample was collected.

You must also complete both sides of the 141-A Form, sign it and return it with the samples.

Source: State of Maine DWP
Volatile Organic Chemicals (VOCs) are carbon-containing compounds that evaporate easily from water into air at normal air temperatures.

VOCs are contained in a wide variety of commercial, industrial, and residential products including fuel oils, gasoline, solvents, cleaners, and degreasers, paints, inks, dyes, refrigerants, and pesticides.

VOCs at high levels may be harmful to the central nervous system, the kidneys, or the liver. VOCs may also cause irritation when they contact the skin, or may irritate mucous membranes if inhaled. Some VOCs are known or suspected carcinogens (or cancer-causers).
Organic Chemicals (VOCs)

- **Do Not** disinfect the sample tap with chlorine before taking this sample.
- Remove any screen, hoses and aerators from end of faucet.
- Run COLD water for 5 to 10 minutes to make sure water has not been sitting for a long time in pipes or tanks and is fresh from the well.
- Turn water down to a flow rate slow enough so you can collect the samples without splashing.
- Remove sample bottle cap. Do not allow inside of cap, inside of bottle, or bottle threads to be touched by any object.
- Check for air bubbles by inverting the vial and gently tapping the cap. Samples with bubbles cannot be analyzed. If bubbles are present, gently add more water and recap sample again. Check again for bubbles.

If possible, deliver sample to the lab the same day. The maximum holding time is 14 days. Ship or deliver samples on ice. If not mailed directly after sample collection, store samples at 4°C.
Trip Blanks

- Trip blanks should be prepared with laboratory reagent grade water and analyzed by the same laboratory that is analyzing the volatile samples.

- The trip blank should remain in the same cooler in which the water samples are stored and shipped.

- These sample vials travel with the actual sample vials to and from the field in the cooler, to the well head, etc., so the blanks are exposed to the same conditions as the actual samples.

- The purpose of the trip blank is to determine if any volatile samples have become contaminated with extraneous substances during storage and transport.
Organic Chemicals (SOCs)

**What**

Synthetic Organic Contaminants (SOCs) are used as pesticides, defoliants, fuel additives and as ingredients for other organic compounds.

**Why**

SOCs are all man made and do not naturally occur in the environment. Some of the more well known SOCs are Atrazine, 2,4-D, Dioxin and Polychlorinated Biphenyls (PCBs).

**How**

SOCs are generally toxic and can have substantial health impacts from both acute (short-term) and chronic (long-term) exposure. Many are known carcinogens (cancer causing).
Do Not disinfect the sample tap with chlorine before taking this sample.

Remove any screen, hoses and aerators from end of faucet.

Run COLD water for 5 to 10 minutes or until the temperature stabilizes to make sure water has not been sitting for a long time in pipes or tanks.

Turn water down to a flow rate slow enough so you can collect the samples without splashing.

Fill all 40 ml vials with no headspace or air bubbles and shake gently.

Fill both 1-liter bottles to the threads of the screw cap, recap the bottle and SHAKE WELL; all of the sodium sulfite in the container must be dissolved.

Next carefully open the glass screw capped vial of 50% HCL. Add ½ of the vial to each 1-liter amber bottle. Recap the bottles and shake again.

If a Trip Blank has been provided please do not open the vial. Keep the vial with you while you sample and return to the laboratory.

If possible, deliver sample to the lab the same day. The maximum holding time is 14 days. Ship or deliver samples on ice. If not mailed directly after sample collection, store samples at 4ºC.
Disinfection By-products

**What**
Disinfection by-products (DBPs) are formed when natural organic matter reacts with chlorine or other disinfectants.

**Why**
Although hundreds of DBPs have been reported to occur in drinking water, only 11 are currently regulated because of public health concerns: four trihalomethanes (THMs), five haloacetic acids (HAAs), bromate, and chlorite.

**How**
Studies have reported associations between exposure to regulated DBPs and cancers (e.g., bladder, colon, rectal), both in humans and Animals.
Disinfection Byproducts

- Do Not disinfect the sample tap with chlorine before taking this sample.
- Remove any screen, hoses and aerators from end of faucet.
- Run COLD water for 5 to 10 minutes to make sure water has not been sitting for a long time in pipes or tanks and is fresh from the well.
- Turn water down to a flow rate slow enough so you can collect the samples without splashing.
- Remove sample bottle cap. Do not allow inside of cap, inside of bottle, or bottle threads to be touched by any object. Do not rinse out the bottles.
- Fill each bottle completely until water is actually above the rim. Screw cap on securely.
- Check for air bubbles by inverting the vial and gently tapping the cap. Samples with bubbles cannot be analyzed. If bubbles are present, gently add more water and recap sample again.

If possible, deliver sample to the lab the same day. The maximum holding time is 14 days. Ship or deliver samples on ice. If not mailed directly after sample collection, store samples at 4°C.
Radionuclides are radioactive isotopes that can occur naturally or result from manmade sources. Natural radiation comes from cosmic rays, naturally-occurring radioactive elements in the earth’s crust, and radioactive decay products.

Typical radionuclides found in drinking water sources are isotopes of radium, uranium, and radon that are naturally occurring on our bedrock.

Radiation exposure can occur by ingesting, inhaling, injecting, or absorbing radioactive materials. Radon can cause lung cancer, radium has been known to cause bone, stomach, lung, and other cancers. Uranium is believed to cause bone cancer, and can be toxic to kidneys too.
Radionuclides

- Remove any screen, hoses and aerators from end of faucet.
- Run COLD water for 5 to 10 minutes to make sure water has not been sitting for a long time in pipes or tanks and is fresh from the well.
- Remove container cap. Do not allow inside of cap, inside of bottle, or bottle threads to be touched by any object.
- Fill all 1 liter bottles supplied to the neck. It should be almost completely full with just enough headspace to shake.
- If supplied fill the uranium bottle (120 ml) almost completely full with just enough headspace to shake.
- If supplied fill the radon bottle (40 ml) Fill the bottle completely until water is actually above the rim. Screw cap on securely. Check for air bubbles by inverting the vial and gently tapping the cap. Samples with bubbles cannot be analyzed. If bubbles are present, gently add more water and recap sample again.

If possible, deliver sample to the lab the same day. Ship or deliver samples on ice. If not mailed directly after sample collection, store samples at 4ºC. The maximum holding time is 4 days.
Microorganisms

**What**
Various types of bacteria/viruses are categorized as pathogens, disease-causing organisms that can be found in pretreated and/or inadequately treated water.

**Why**
Coliforms are bacteria naturally present in the environment and used as indicators that other possibly harmful bacteria may be present.

**How**
E. coli and fecal coliform are bacteria whose presence can indicate water contaminated by human or animal wastes, causing short-term health effects, including: Cramps, nausea, diarrhea, headaches and more.
Microorganisms

- The sample bottle(s) may contain a small pill or powder. **DO NOT RINSE THIS OUT!** This substance inactivates any chlorine in the water sample.

- Keep the sample bottle closed until it is to be filled. Be careful not to touch the inside of the bottle or cap. Do not lay the cap down or put in your pocket. If you think you may have contaminated the sample or bottle, do not submit the sample. Get a new kit from the lab.

- Remove any screens, hoses, or aerators from the tap. If the tap appears to need any cleaning, rinse (dip the end of the faucet) with a small amount of bleach prior to running the water. Open the tap and allow the COLD water to run to waste for 5 to 10 minutes. Reduce the water flow to the rate that you will collect the sample (about a pencil width flow) and run the water an additional minute.

- Uncap the bottle and fill it without overfilling or splashing water in the bottle. Fill the bottle almost to the top. There needs to be at least **100mLs** in the bottle. Leave a small air space so the sample can be shaken at the lab. Recap the bottle.

If possible, deliver sample to the lab the same day. If not mailed directly after sample collection, store samples at 4ºC. The maximum holding time is 30 hours.
A Chain of Custody covers the transfer or handover of samples from field staff to the laboratory.
Do you have any questions about sampling?
Drinking Water Requirements

**Example Only**
# Drinking Water Requirements

**Tel. (207) 287-2070**

**Drinking Water Program**

**Fax (207) 287-4172**

**April 06, 2017**

**SMITH, JOHN**

**MAINE WATER SYSTEM**

123 MAIN STREET

SOMEWHERE, ME 04000

**PWSID#:** ME0000000

**Annual Operating Period:** 1/1 - 12/31

**System Type:** Community

**Inspector:** Denise Douin, 592-2165

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**IMPORTANT! KEEP WITH YOUR RECORDS!**

**2017 Drinking Water Testing Requirements**

All the listed tests must be completed in 2017.

<table>
<thead>
<tr>
<th>Sample Point</th>
<th>Sampling Location</th>
<th>Test Description</th>
<th>Lab</th>
<th>Number</th>
<th>When to Collect</th>
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</thead>
</table>

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**Drinking Water Requirements**

### 2017 Drinking Water Testing Requirements

All the listed tests must be completed in 2017.

<table>
<thead>
<tr>
<th>Sample Point</th>
<th>Sampling Location</th>
<th>Test Description</th>
<th>Lab</th>
<th>Number</th>
<th>When to Collect</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-1</td>
<td>DISTRIBUTION SYSTEM</td>
<td>COLIFORM(TCR)</td>
<td>A &amp; L</td>
<td>2</td>
<td>Monthly</td>
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<tr>
<td>TP-1</td>
<td>EP (TP 1- MAIN STREET FACILITY)</td>
<td>NITRATE</td>
<td>A &amp; L</td>
<td>1</td>
<td>2017</td>
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<td>TP-4</td>
<td>EP (TP 4- NORTH ROAD FACILITY)</td>
<td>NITRATE</td>
<td>A &amp; L</td>
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<td>2017</td>
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<tr>
<td>DS-1</td>
<td>DISTRIBUTION SYSTEM</td>
<td>LEAD AND COPPER</td>
<td>A &amp; L</td>
<td>10</td>
<td>6/1 - 9/30</td>
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<tr>
<td>TP-1</td>
<td>EP (TP 1- MAIN STREET FACILITY)</td>
<td>VOLATILE ORGANICS</td>
<td>A &amp; L</td>
<td>1</td>
<td>2017</td>
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<tr>
<td>TP-4</td>
<td>EP (TP 4- NORTH ROAD FACILITY)</td>
<td>VOLATILE ORGANICS</td>
<td>A &amp; L</td>
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<td>A &amp; L</td>
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<td>EP (TP 4- NORTH ROAD FACILITY)</td>
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<td>A &amp; L</td>
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<tr>
<td>DS-1</td>
<td>DISTRIBUTION SYSTEM</td>
<td>FLUORIDE</td>
<td>A &amp; L</td>
<td>1</td>
<td>Monthly</td>
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<tr>
<td>DS-1</td>
<td>DISTRIBUTION SYSTEM</td>
<td>DISINFECTION BY-PRODUCTS</td>
<td>A &amp; L</td>
<td>1</td>
<td>6/1 - 9/30</td>
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<tr>
<td>TP-1</td>
<td>EP (TP 1- MAINE STREET FACILITY)</td>
<td>CYANIDE</td>
<td>A &amp; L</td>
<td>1</td>
<td>2017</td>
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<tr>
<td>TP-4</td>
<td>EP (TP 4- NORTH ROAD FACILITY)</td>
<td>CYANIDE</td>
<td>A &amp; L</td>
<td>1</td>
<td>2017</td>
</tr>
</tbody>
</table>

**Legend:**

EXAMPLE ONLY
Drinking Water Requirements

Legend:
TP = Treatment plant. Collect the sample after treatment and at the entry point into the distribution system.
Raw Water = Collect water sample before any treatment and before any water storage tanks.
EP = Entry point. Collect the sample at the entry point into the distribution system.
MN = Manifold - Usually the location where one or more sources of water are combined together.
IN = Raw water Intake for a surface water system.
DS = Water System Distribution.

-Please sample as early in the collection period as possible. Results must be submitted to the Drinking Water Program (DWP) by a certified lab no later than the 10th day of the following month.
-If you are on quarterly DBPs per the Stage 2 DBP Rule, collect within your designated month (every 90 days). Note the Test Description above. If it indicates "Disinfection By-Products, you must collect a dual sample (both TTHM and HAAs) from that location. If the description indicates "Trihalomethanes" or "Haloacetic Acids", collect only the test listed from that location. Contact your Inspector if you have questions.
-If you are a Community system, your 2016 Consumer Confidence Report is to be distributed to your customers and a copy sent to the DWP by July 1, 2017. Certification must be sent to the DWP by October 1, 2017.
There are no laboratories in Maine that are certified to analyze for these parameters: Diquat, Endothall, Asbestos, and Radium 226 or 228. See the back side of this report for additional information.

*** THE LABORATORY YOU CHOOSE MUST BE CERTIFIED BY THE STATE OF MAINE TO PERFORM THE REQUIRED WATER TESTS. ***
Understanding Your Test Results

To help understand your water test results:

- key abbreviations
- unit of measurement
- specialized terms
## Water Test Reports

### Drinking Water Compliance Report

**Date Printed:** 12/01/2017  
**Sample ID:** 1711-0009-001  
**Sampled By:** Water Operator  
**Sampled From:** Routine Sample  
**System Name:** Main Water System  
**System Type:** Subsource  
**Sample Location:** 307.55-1.52  
**Bar Code:** 6156002301

### Water Quality Analysis

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Results</th>
<th>Test Units</th>
<th>PPM Limit</th>
<th>Method</th>
<th>Analyst</th>
<th>Date &amp; Time Analyzed</th>
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<td>NTU</td>
<td>0.5</td>
<td>NTU</td>
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</tr>
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<td>Bromate*</td>
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<td>Cadmium*</td>
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<td>SN 40</td>
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<tr>
<td>Lead*</td>
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<td>0.001</td>
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<td>Manganese*</td>
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<td>Nickel*</td>
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<td>EPA 100.8</td>
<td>SN 40</td>
</tr>
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<td>EPA 100.8</td>
<td>SN 40</td>
</tr>
<tr>
<td>Silver*</td>
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<td>SN 40</td>
</tr>
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<td>Thallium*</td>
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<td>SN 40</td>
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<td>0.5</td>
<td>mg/L</td>
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<td>J-R 444</td>
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<tr>
<td>Zinc</td>
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<tr>
<td>Uranium</td>
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<td>Chloride*</td>
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<td>Fluoride*</td>
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<td>Chlorine</td>
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<td>mg/L</td>
<td>&lt;5</td>
<td>mg/L</td>
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<tr>
<td>pH</td>
<td>6.5</td>
<td>9.5</td>
<td>8.5</td>
<td>9.5</td>
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</tbody>
</table>

**Sample Date & Time Collected:** 11/16/2017 10:09AM  
**Sample Date & Time Received:** 11/17/2017 9:20AM  
**Water Sys Type:** FACILITY PUMP HOUSE  
**Recipient Temp:** ON ICE 2°C CELSIUS  
**PAA X #:** 0000000000  
**EPA ID:** RXE0000000  
**State:** OH  
**County:** COLUMBUS  
**City:** COLUMBUS  
**Address:** 401 E MICHIGAN AVE, COLUMBUS, OH 43215  
**Phone:** (614) 469-7000  
**Website:** www.eh2laboratory.com  
**Date & Time Analysed:** 01/15/2017 07:54AM  
**Report No:** 6156002301  
**Sample Code:** 1711-0009-001  
**Sampled By:** Water Operator  
**Sampled From:** Routine Sample  
**System Name:** Main Water System  
**System Type:** Subsource  
**Sample Location:** 307.55-1.52  
**Bar Code:** 6156002301
# Drinking Water Compliance Report

**A & L Laboratory**

*Granite State Analytical Services, LLC*

155 Center Street, Building C, PO Box 1507, Auburn, ME 04210


## DRINKING WATER COMPLIANCE REPORT

<table>
<thead>
<tr>
<th>DATE PRINTED:</th>
<th>12/01/2017</th>
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</thead>
<tbody>
<tr>
<td>SAMPLE ID#:</td>
<td>1711-00000-001</td>
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<tr>
<td>SAMPLED BY:</td>
<td>Water Operator</td>
</tr>
<tr>
<td>SAMPLE CATEGORY:</td>
<td>Routine Sample</td>
</tr>
<tr>
<td>SYSTEM NAME:</td>
<td>Maine Water System</td>
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<tr>
<td>SYSTEM TOWN:</td>
<td>Somewhere</td>
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<td>SAMPLE AGENT #:</td>
<td>207-555-1212</td>
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<tr>
<td>SAMPLE LOCATION:</td>
<td>TP-1 EP (TP 1- MAIN STREET FACILITY) PUMP HOUSE</td>
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<td>BAR CODE:</td>
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</table>

**LAB ID#:** ME00021

**EPA ID #:** ME0000000

<table>
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<th>DATE &amp; TIME COLLECTED:</th>
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<td>DATE &amp; TIME RECEIVED:</td>
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<td>WATER SYS TYPE:</td>
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**Legend**

- Passes
- Fails EPA Primary
- Fails EPA Secondary
- Fails State Guideline
- Attention
# Water Test Reports

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Results</th>
<th>Test Units</th>
<th>Pass/Fail</th>
<th>DQ Flag</th>
<th>RL</th>
<th>Limit</th>
<th>Method</th>
<th>Analyst</th>
<th>Date &amp; Time Analyzed</th>
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<td>11/21/17 11:39AM</td>
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<td>Hardness (calc.)*</td>
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<tr>
<td>Iron*</td>
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<td>ES-NH</td>
<td>11/21/17 11:39AM</td>
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<td>Sodium*</td>
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<td>mg/L</td>
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<td>No Limit</td>
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<td>ES-NH</td>
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<td>Copper*</td>
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<tr>
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<td>SR-NH</td>
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<tr>
<td>Nickel*</td>
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<td>Selenium*</td>
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<td>SR-NH</td>
<td>11/21/17 12:26PM</td>
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</tbody>
</table>
The results presented in this report relate to the samples listed above in the condition in which they were received.
RL: "Reporting limit" means the lowest level of an analyte that can be accurately recovered from the matrix of interest.
The thermal preservation requirement of 4°C for nitrate & nitrite has been waived by the Maine CDC for all samples submitted to the Drinking Water Program.
Data Qualifier (DQ) Flags: H = Hold time non-compliant.

* ME Certified Analysis

Comments will go here!

Rebecca L. Labranche
Laboratory Director
Helpful links

Drinking Water Testing Requirements

Drinking Water Program Contacts

Compliance Samples Received by The Drinking Water Program

Monthly Operating Reports
Working together to make water safe!

Certified Laboratory

EPA & SDWA

Lab

DWP

EPA

PWS

Maine DWP

Public Water System
Do you have any questions?