



North Carolina State Laboratory of Public Health
Environmental Sciences
Inorganic Chemistry
Certificate of Analysis

4312 District Drive
 MSC 1918
 Raleigh, NC 27699-1918

http://slph.ncpublichealth.com
 Phone: 919-733-7308
 Fax: 919-715-8611

FINAL REPORT

Report to: Grace McLeod

Name of System:

IREDELL CO ENVIRONMENTAL HEALTH DEPT - STATESVILLE
 349 N. CENTER STREET
 STATESVILLE, NC 28677

Patrick Burke
 320 Bridgewater Lane
 Mooresville, NC 28117

EIN: 566000309EH

Delivery: NC Courier

StarLiMS ID: **ES230726-0010**

Date Collected: 07/25/2023

Time Collected: 10:07

By: Grace McLeod

Date Received: 07/26/2023

Time Received: 07:48

Sample Type: Raw

Sampling Point:

Well Permit No. OSWP-2023-31614

Sample Source: New Well

Receipt Temp. : 4.0 °C

GPS Number:

Profile: New Well I

Analyte	Test Result	Allowable Limit	Unit	Qualifier(s)
Arsenic	<0.001	0.010	mg/L	
Barium	<0.1	2.0	mg/L	
Cadmium	<0.0005	0.005	mg/L	
Calcium	11		mg/L	
Chloride	6.2	250	mg/L	
Chromium	<0.02	0.10	mg/L	
Copper	<0.01	1.3	mg/L	
Fluoride	<0.1	4.00	mg/L	
Iron	<0.06	0.300	mg/L	
Lead	<0.003	0.015	mg/L	
Magnesium	3		mg/L	
Manganese	0.103	0.05	mg/L	
Mercury	<0.0004	0.002	mg/L	
Nickel	<0.01	0.1	mg/L	
Nitrate	1.43	10.0	mg/L	
Nitrite	<0.1	1.00	mg/L	
pH	6.4		N/A	
Selenium	<0.005	0.05	mg/L	
Silver	<0.01	0.10	mg/L	
Sodium	7.3		mg/L	
Sulfate	<5	250	mg/L	
Total Alkalinity	45		mg/L	
Total Hardness	39		mg/L	
Zinc	<0.05	5.0	mg/L	

Report Date: 08/08/2023

Reported By:

Marc Komlos

North Carolina Division of Public Health
Occupational and Environmental Epidemiology Branch, Epidemiology Section
BIOLOGICAL ANALYSIS REPORT

Private well water information and recommendations

County: Tredell Name: Patrick Burke Sample ID Number: ES230726-00602
Location: 320 Bridgewater Lane Reviewer: Grace McLeod

Initial Sample Confirmation Sample

BIOLOGICAL ANALYSIS RESULTS AND RECOMMENDATIONS FOR USES OF YOUR PRIVATE WELL WATER (These recommendations are based on biological analysis only.)

No coliform bacteria were found in your well water. Your water can be used for all purposes including drinking, cooking, washing dishes, bathing and showering.

Total coliform bacteria were detected in your water sample. Total Coliform are a group of related bacteria that are (with few exceptions) not harmful to humans. A variety of bacteria, parasites, and viruses, known as pathogens, can potentially cause health problems if humans ingest them. EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system

It is recommended that your well water be re-tested to verify that the result is accurate.

Fecal coliform bacteria were detected in the sample. **Do not use the water for drinking, cooking, washing dishes, bathing or showering.**

If the re-test shows contamination by bacteria contact your local health department for assistance. There may be a problem with the construction of the well, the groundwater source, or operation of the well. The well needs to be inspected by the local health department or a local well contractor to determine the problem with the well and to give guidance on how to correct the problem.

Your well water was tested for biological contaminants (total coliform and fecal coliform bacteria). The results were evaluated using the federal drinking water standards.

Drinking water may contain substances that can occur naturally in water or can be introduced into water from man-made sources. Total coliform bacteria are found in soil and fecal coliform bacteria are found in animal and human waste. Total coliform or fecal coliform bacteria in well water indicate that the well may have structural problems or that the well was not properly disinfected.

If you have been drinking the well water and are pregnant, nursing, have a child in the household under 5 years of age, or immunocompromised (such as an individual with AIDS, cancer, hepatitis, dialysis or surgical procedures) inform your physician of these results at your next visit.

If the contamination continues, you should investigate the possibility of drilling a new well or installing a point-of-entry disinfection unit which can use chlorine, ultraviolet light, or ozone.

For further information please contact your county health department or the Occupational and Environmental Epidemiology Branch at 919-707-5900.



North Carolina State Laboratory of Public Health
Environmental Sciences
Microbiology
Certificate of Analysis

4312 District Drive
 MSC 1918
 Raleigh, NC 27699-1918

http://slph.ncpublichealth.com
 Phone: 919-733-7308
 Fax: 919-715-8611

FINAL REPORT

Report to: Grace McLeod

Name of System:

IREDELL CO ENVIRONMENTAL HEALTH DEPT - STATESVILLE
 349 N. CENTER STREET
 Statesville, NC 28677

Patrick Burke
 320 Bridgewater Ln
 Mooresville, NC 28117

EIN: 566000309EH

Delivery: NC Courier

Iredell County

StarLiMS ID: **ES230726-0062**

Date Collected: 07/25/2023

Time Collected: 10:07

By: Grace McLeod

Date Received: 07/26/2023

Time Received: 08:27

By: Julie Schiavone

Sample Source: New Well

Sampling Point:

Sample Type: Raw

GPS No.

Treatment:

Well Permit No. OSWP-2023-31614

Comment:

Colilert Profile

Method: SM 9223B

Analyte	Test Result	Unit	Conclusion	Date Tested
Total Coliform	Absent			07/26/2023
E. coli	Absent			07/26/2023

Report Date: 07/27/2023

Reported By: **KPLEMMONS**

Explanations of Coliform Analysis:

If coliform bacteria are **Absent**, the water is considered safe for drinking purpose. If coliform bacteria are **Present**, the water is considered unsafe for drinking purpose. Presence of *E. coli* (bacteria) generally indicates that the water has been contaminated with fecal material. It must be remembered that a water analysis refers only to the sample received and should not be regarded as a complete report on the water supply.



NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES
Division of Public Health

Private Well Information and Use Recommendations

For Inorganic Chemical Contaminants

County: Fredell

Sample Name: Patrick Burke

Sample ID #: ES 230726-0010

Reviewer: Grace McLeod

TEST RESULTS AND USE RECOMMENDATIONS

1. Your well water meets federal drinking water standards *for inorganic chemicals*. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering based on the *inorganic chemical results only*. You may have other water sampling results that are not taken into account in this report.

2. The following substance(s) exceeded federal drinking water standards or the North Carolina 2L calculated health levels. The North Carolina Division of Public Health recommends that your well water not be used for drinking and cooking unless you install a water treatment system to remove the checked substance(s). However, it may be used for washing, cleaning, bathing, and showering based on the *inorganic chemical results only*.

- | | | | | | | |
|----------------------------------|------------------------------------|----------------------------------|-----------------------------------|--|-----------------------------------|---------------------------------|
| <input type="checkbox"/> Arsenic | <input type="checkbox"/> Barium | <input type="checkbox"/> Cadmium | <input type="checkbox"/> Chromium | <input type="checkbox"/> Copper | <input type="checkbox"/> Fluoride | <input type="checkbox"/> Iron |
| <input type="checkbox"/> Lead | <input type="checkbox"/> Manganese | <input type="checkbox"/> Mercury | <input type="checkbox"/> Nickel | <input type="checkbox"/> Nitrate/Nitrite | <input type="checkbox"/> Selenium | <input type="checkbox"/> Silver |
| <input type="checkbox"/> Zinc | | | | | | |

3. While your lead levels do not exceed federal or state standards, the North Carolina Division of Public Health has concerns with any detection of lead. Should you have any questions please contact the NC Private Well and Health Program at (919) 707 - 5900.

4. Re-sample for lead and /or copper. Take a first draw and 30-second flush sample inside the house (preferably the kitchen sink) and a first draw and 4 minutes flush sample at the wellhead to determine the source of the lead and/ or copper.

5. The following substance(s) exceeded aesthetic drinking water standards. Your water can be used for drinking, cooking, washing, cleaning, bathing, and showering based on the *inorganic chemical results only*, but aesthetic problems such as bad taste, odor, staining of porcelain, etc. may occur. You may want to install a household water treatment system to address aesthetic problems.

- | | | | | |
|-----------------------------------|---------------------------------|-----------------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> Chloride | <input type="checkbox"/> Copper | <input type="checkbox"/> Fluoride | <input type="checkbox"/> Iron | <input type="checkbox"/> Manganese |
| <input type="checkbox"/> pH | <input type="checkbox"/> Silver | <input type="checkbox"/> Sulfate | <input type="checkbox"/> Zinc | |

6. a. Sodium levels exceed the U.S. Environmental Protection Agency's (USEPA) Health Advisory level for sodium of 20 mg/l. The North Carolina Division of Public Health recommends that only individuals on no or low sodium-restricted diets not use this water for drinking or cooking. It may be used for washing, cleaning, bathing, and showering based on the *inorganic chemical results only*.

b. Your sodium level exceeds 30 mg/L and may pose aesthetic issues such as bad taste, odor, staining of porcelain, etc.

7. Re-sampling is recommended in _____ months, to reinvestigate _____.