

# 2024 CONSUMER CONFIDENCE WATER QUALITY REPORT



SAMPLING FROM 1/1/2023 THROUGH 12/31/2023

We're pleased to bring you our Annual Drinking Water Quality Report. In 1974, the Safe Drinking Water (SDW) Act was signed into law requiring all public water systems to meet national standards for water quality. These standards set limits on certain contaminants and require public water systems to monitor for contaminants. NBU tests for these constituents in your drinking water according to Federal and State laws. The tables in this report show the monitoring results of the 2023 calendar year (1/1/23-12/31/23) sampling schedule unless otherwise noted. This report informs customers about water quality and services provided daily. NBU is constantly working to improve treatment processes and protect our supply. We are committed to quality water that has been and remains safe to drink. This report provides a brief but accurate picture of the quality of water you get every day from your tap. If you have questions, feel free to contact us at (251) 580-1626.

## WATER SOURCES

NBU obtains water through nine public water supply wells. Each produces groundwater from sand units of the regional aquifer known as the Pliocene-Miocene Aquifer System.

The aquifer recharge source is precipitation. Before distribution, the groundwater is treated with aeration, chlorination, fluoridation and corrosion control prior to distribution.

In regulatory compliance with the Alabama Department of Environmental Management (ADEM), NBU implements and maintains a Source Water Assessment Program for each well. The program is a pro-active measure to protect drinking water sources. Documents associated with sourcewater and vulnerability assessments are kept at NBU.

NBU's Board meets on the last Wednesday of each month at NBU. Members include Clint Conner, Hamilton Smith, Trey Dickson, Jamie Jaye & Mayor Bob Wills. Chief Executive Officer is Jason M. Padgett.

### North Baldwin sands are identified and supply:

- Bay Minette Middle Aquifer: Wells 2, 3, 4 & 5
- Bay Minette Lower Aquifer: Wells 5 and 6
- Miocene Undifferentiated Aquifer: Wells 9A and 9B
- Stapleton 275-foot Aquifer: Well 12
- Miocene-Pliocene Aquifer: Well 10

## DEFINITIONS

*This report contains many terms and abbreviations you may not be familiar with. The following is provided to help you better understand these terms.*

**Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**Nephelometric Turbidity Unit (NTU):** A measure of water clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Not Detected (ND):** Laboratory analysis indicates the constituent is not present.

**Treatment Technique (TT):** A required process to reduce level of a drinking water contaminant.

**Parts per million (ppm)/Milligrams per liter (mg/l):** One part per million corresponds to 1 minute in 2 years or a single penny in \$10,000.

**Parts per billion (ppb) / Micrograms per liter:** One part per billion corresponds to 1 minute in 2000 years, or a single penny in \$10,000,000.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

### Your water safe to drink.

Your drinking water meets or exceeds all Federal and State requirements. We've learned through monitoring and testing that some constituents have been detected (Table #4). The EPA has determined that your water IS SAFE at these levels.

### When to take special precautions.

Some people may be more vulnerable to drinking water contaminants than the general population. Immune-compromised people undergoing chemotherapy, organ transplants, HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their physicians. Environmental Protection Agency / Center of Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember the presence of these constituents does not necessarily pose a health risk.

### Protect your water supply.

There are several things you can do to help protect your water system's source of supply. Here are two:

1. Always dispose of chemicals properly as outlined on the original container.
2. Be vigilant of our system's wells, water towers and hydrants. Report all suspicious activity at these facilities to the police.

### Non-Compliance.

NBU monitors drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. Although all of NBU's results were within safe parameters, a non-compliance violation occurred due to a lab-related synthetic organic compounds (SOC) reporting error. From January 2020 until December 2022, the third-party lab NBU contracts with coded an SOC incorrectly. Although all results are safe, a non-compliance violation must still be recorded. Share this information with other people who drink this water, especially those who may not have received this notice (people in apartments, nursing homes, schools, businesses, etc.). You can do this by posting this in a public place or distributing copies by hand or mail. NBU continues to monitor for required contaminants. If you have any questions concerning a non-compliance or monitoring requirements, contact James Dean at 25 Hand Ave. in Bay Minette or 251-580-1626.

# CONTAMINANTS & MONITORING

Tap & bottled drinking water sources include rivers, lakes, streams, ponds, reservoirs, springs & wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or human activities. All sources of drinking water are subject to potential contamination by constituents naturally occurring or man-made. Those constituents can be microbes, organic or inorganic chemicals or radioactive materials. The presence of contaminants doesn't necessarily indicate a health risk. For contaminant and potential health effect details, call the Environmental Protection Agency's SDW Hotline-800-426-4791.

## SECTION 3 - TABLE OF PRIMARY CONTAMINANTS

At high levels some primary contaminants are known to pose a health risks to humans. Below is a quick glance of any primary contaminant detections\*. \*Previous sampling cycle if not required this cycle; t=trillion; q=quadrillion; Waived = Statewide waiver; ND=Non-detect

CONTAMINANT	MCL	DETECTED*	CONTAMINANT	MCL	DETECTED
<b>Bacteriological</b>					
Total Coliform Bacteria	< 5%	Absent	Hexachloropentadiene	1	ND
Turbidity	TT	.10 to .55	Lindane	200	ND
<b>Radiological</b>					
Beta/Photon emitters (mrem/yr)	4	Waived	Methoxychlor	40	ND
Gross Alpha (pCi/l)	15	0.594 to 1.98	Oxamyl [Vydate]	200	ND
Radium-228 (pCi/l)	5	-0.00225 to 1.98	PCBs (ppt)	500	ND
<b>Inorganic</b>					
Antimony (ppb)	6	ND	Pentachlorophenol	1	ND
Arsenic (ppb)	50	ND	Picloram	500	ND
Asbestos (MFL)	7	Waived	Simazine	4	ND
Barium (ppm)	2	.012 to .04	Toxaphene	3	ND
Beryllium (ppb)	4	ND	Benzene	5	ND
Cadmium (ppb)	5	ND	Carbon Tetrachloride	5	ND
Chromium (ppb)	100	ND	Chlorobenzene	100	ND
Copper (ppm)	1.3	.0011 to .0048	1,2-Dibromo3chloropropane (ppt)	200	ND
Cyanide (ppb)	200	ND	o-Dichlorobenzene	600	ND
Fluoride (ppm)	4	.21 to .51	p-Dichlorobenzene	75	ND
Lead (ppb)	15	ND	1,2-Dichloroethane	5	ND
Mercury (ppb)	2	ND	1,1-Dichloroethylene	7	ND
Nitrate as N (ppm)	10	0.1 to 0.95	cis-1,2-Dichloroethylene	70	ND
Nitrite (ppm)	1	ND	trans-1,2-Dichloroethylene	100	ND
Selenium	50	ND	Methylene chloride	5	ND
Thallium	2	ND	1,2-Dichloropropane	5	ND
<b>Organic Chemicals (ppb unless noted)</b>					
2,4-D	70	ND	Ethylbenzene	700	ND
2,4,5-TP (Silvex)	50	ND	Ethylene dibromide (EDB) (ppt)	50	ND
Alachlor (Lasso)	2	ND	Styrene	100	ND
Atrazine	3	ND	Tetrachloroethylene	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	1,2,4-Trichlorobenzene	70	ND
Carbofuran	40	ND	1,1,1-Trichloroethane	200	ND
Chlordane	2	ND	1,1,2-Trichloroethane	5	ND
Dalapon	200	ND	Trichloroethylene	5	ND
Di-(2-ethylhexyl)adipate	400	ND	TTHM	80	ND
Di-(2-ethylhexyl)phthalates	6	ND	Toluene	1	ND
Dinoseb	7	ND	Vinyl Chloride	2	ND
Diquat	20	ND	Xylenes (ppm)	10	ND
Dioxin[2,3,7,8-TCDD] (ppq)	30	Waived			
Endothall	100	ND			
Endrin	2	ND			
Glyphosate	700	ND			
Heptachlor (ppt)	400	ND			
Heptachlor epoxide (ppt)	200	ND			
Hexachlorobenzene (HCB)	1	ND			

PFAS* Monitoring Results	Well #2 TP Oct 23	Well #5 TP Oct 23
Perfluorohexanesulfonic acid	0.0046	0.0089
Perfluorooctanesulfonic acid	0.0094	0.01
Perfluorobutanesulfonic acid	NA	0.0021
Perfluorooctanoic acid	NA	0.0021
<b>Total PFASs</b>	<b>0.0140</b>	<b>0.0231</b>

\*Group of chemicals used to make fluoropolymer coatings in variety of products to resist heat, oil, stains, grease & water. \*\*PPB

## LEAD NOTICE:

Every report shall contain the following lead-specific info: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. NBU is responsible for providing high quality drinking water, but can't control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you're concerned about lead in your water, you may wish to have your water tested. Info on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## RESULTS OF RADON MONITORING:

Radon is a radioactive gas you can't see, taste or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may increase risk of stomach cancer. If concerned about residential radon, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For more info, call your state radon program or EPA's Radon Hotline (800-SOS-RADON).

## DIOXIN AND ASBESTOS:

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus monitoring for these contaminants is not required.

## UCMR-5:

NBU continues to monitor the for non-regulated UCMR-5 contaminants as required by EPA.

## SECTION 4A - TABLE OF DETECTED CONTAMINANTS

UR = unregulated; Dist = distribution; PDWS = Primary Drinking Water Standard; SDWS = Secondary Drinking Water Standard; TT = treatment technique

PARAMETER	MCL	RESULTS	AVERAGE	UNITS	SOURCE	DATES	LIKELY SOURCE OF CONTAMINATION	LISTING
Aluminum	0.2	.013 to .041	0.020	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Barium	7	.012 to .04	0.020	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	PDWS
Calcium		.39 to 9.4	7.0	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	UR
Chloride	250	6.0 to 7.4	6.2	ppm	TP at #2, 3, 5, 6 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Copper	1.3	.0011 to .0048	0.0	ppm	TP at #2, 6 & 9	Mar, Jun, Nov & Dec 2022	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	PDWS
Corrosivity (Langlier Index)		-2.6 to -.02	-1.47	-	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Fluoride	4	.21 to .51	0.43	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Water additive to promote strong teeth; Erosion of natural deposits; Discharge from fertilizers/aluminum factories	PDWS
Gross Alpha	15	-0.317 to 2.15	0.59	pCi/l	Wells #9 & #10	1st - 4th Qtrs of 2023	Naturally occurring	PDWS
Magnesium		.068 to 1.2	0.81	ppm	TP at #2, 3, 5, 6 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	UCMR-4
Manganese	50	0.014 to .017	0.02	ppm	TP at #3 and 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Nitrate as N	10	0.13 to 0.95	0.44	ppm	TP at #2, 3, 5, 6, 9 & 12	1st & 4th Qtrs of 2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	PDWS
pH (standard units)		7.6 to 9.2	8.3	su	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Radium 228	5	0.575 to 0.702	0.64	pCi/l	Wells #9 & #10	1st & 4th Qtrs of 2023	Naturally occurring	PDWS
Sodium		2.6 to 5.2	3.50	ppm	TP at #2, 3, 5 & 6	Mar, Jun, Nov & Dec 2022	Naturally occurring	UR
Specific Conductance		45.6 to 232	116.33	umhos/cm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Jul & Nov 2022	Naturally occurring	SDWS
Sulfate	500	2.6	2.6	ppm	TP at #12	Mar & Jun 2022	Naturally occurring	SDWS
Total Alkalinity		16.2 to 22.1	19.04	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Total Dissolved Solids	500	34 to 44	40.80	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	SDWS
Total Hardness		12.9 to 28.4	20.12	ppm	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Naturally occurring	UR
Turbidity	5	.10 to .55	0.23	NTU	TP at #2, 3, 5, 6, 9 & 12	Mar, Jun, Nov & Dec 2022	Soil erosion	PDWS