

Annual Drinking Water Quality Report January-December 2024

Irondale Water System



The City of Irondale

Mayor James D. Stewart, Jr.
Water Superintendent

John London
District 1 Council Member

David Spivey
District 2 Council Member

Cindy Cuellar
District 3 Council Member

Robert Box
District 4 Council Member

Aaron Sims
District 5 Council Member

IS MY WATER SAFE?

Last year, your tap water met all U.S. Environmental Protection Agency (EPA) and Alabama Department of Environmental Management (ADEM) drinking water health requirements.

The City of Irondale has a total of 4 wells that serve the city. We have 4 storage tanks with the capacity of 4,105,000 gallons of water. The water system pumps around 32 million gallons of water per month and serves an average of 3,700 customers.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Important Drinking Water Definitions:

Disinfection Byproducts - contaminants formed when chlorine is used as a disinfectant.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or a single penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variances & Exemptions - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Maximum Contaminant Level Goal or 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 or MCL - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal or MRDLG - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level or MRDL - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

Action Level - The concentration of a contaminant that triggers treatment or other requirements a water system must follow.

Unregulated contaminants - are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Level 1 Assessment - a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment - a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

The Irondale Water System routinely monitors for contaminants in your drinking water according to federal and state laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2024. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Irondale Water System utilizes a Bacteriological Monitoring Plan, and a Cross Connection Policy is in place to ensure the best drinking water for our customers. The Irondale Water System has completed a Source Water Assessment Plan which is available for review at our office. A Source Water Assessment Plan provides information about potential sources of contamination and is set up to help protect our multiple water sources.

You're Invited to Attend City Council Meetings!

Every 1st & 3rd Tuesday of Each Month at 6:00 p.m.
Irondale City Hall
101 20th Street South, Irondale, Alabama 35210.

Hope to See You There!

Table of Primary Contaminants								
At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.								
CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Total Coliform Bacteria	< 5%	ND	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Turbidity	TT	0.99	Organic Chemicals			Ethylene dibromide(ppt)	50	ND
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Radiological			Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	5.40
Beta/photon emitters (mrem/yr)	4	ND	Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Alpha emitters (pci/l)	15	ND	Benzene(ppb)	5	ND	Heptachlor epoxide(ppt)	200	ND
Combined radium (pci/l)	5	ND	Benzo(a)pyrene[PHAs](ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Uranium(pci/l)	30	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Inorganic			Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Antimony (ppb)	6	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Arsenic (ppb)	10	ND	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Asbestos (MFL)	7	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Barium (ppm)	2	0.020	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Beryllium (ppb)	4	ND	Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
Bromate(ppb)	10	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Cadmium (ppb)	5	ND	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chloramines(ppm)	4	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chlorine(ppm)	4	1.00 - 2.40	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Chlorine dioxide(ppb)	800	ND	Cis-1,2-Dichloroethylene(ppb)	70	1.40	TOC	TT	9.20
Chlorite(ppm)	1	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	29.50
Chromium (ppb)	100	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Copper (ppm)	AL=1.3	1.09	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Cyanide (ppb)	200	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Fluoride (ppm)	4	ND	Di(2-ethylhexyl)phthlates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Lead (ppb)	AL=15	0.01	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Mercury (ppb)	2	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	1.40
Nitrate (ppm)	10	0.740	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
Nitrite (ppm)	1	ND	Endothall(ppb)	100	ND	Xylenes (ppm)	10	ND
Total Nitrate & Nitrite	10	0.480	Endrin(ppb)	2	ND			

Table of Secondary and Unregulated Contaminants								
Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.								
CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
Secondary								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	6.51	Iron	0.3	ND	Sulfate	70	16.2
Color (PCU)	15	ND	Magnesium	75	2.73	Total Dissolved Solids	500	212
Copper	1	0.013	Odor (T.O.N.)	5	ND	Zinc	5	ND
Special								
Calcium	N/A	66.50	pH (SU)	N/A	7.85	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	71	Sodium	N/A	2.69	Total Alkalinity	N/A	180
Manganese	0.05	ND	Specific Conductance (umhos)	N/A	330.00	Total Hardness (as CaCO3)	N/A	177.00
Unregulated								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isoprylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	0.01	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoform	N/A	ND	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	0.0081	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	0.01	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological Contaminants January - December 2024								
Total Coliform Bacteria	0	< 5%				ND	Present or Absent	Naturally present in the environment
Turbidity	0	TT				0.99	NTU	Soil runoff
Fecal Coliform & E. coli	0	0				ND	Present or Absent	Human and animal fecal waste
Viruses, Giardia	0	TT				0	Present or Absent	Human and animal fecal waste
Legionella	0	TT				0	Present or Absent	Found naturally in water, multiplies in heating systems
Radiological Contaminants January - December 2024								
Beta particle and photon	0	4				ND	mrem/yr	Decay of natural and man-made deposits
Alpha emitters	0	15				ND	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5				ND	pCi/L	Erosion of natural deposits
Uranium	0	30				ND	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2024								
Barium	2	2	NA	-	0.020	0.020	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	1.00	-	2.40	2.40	ppm	Water additive used to control microbes
Copper	1.3	10 Sites AL=1.3	No. of Sites above action level 0			1.09	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	0	10 Sites AL=15	No. of Sites above action level 0			0.01	ppb	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as N)	10	10	ND	-	0.740	0.740	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as N)	1	1	ND	-	ND	ND	ppm	leaching from septic tanks,
Total Nitrate & Nitrite	10	10	0.47	-	0.48	0.740	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Organic Contaminants January - December 2024								
cis-1,2-Dichloroethylene	70	70	1.00	-	1.40	1.40	ppb	Discharge from industrial chemical factories
Haloacetic Acids (HAA5)	0	60	ND	-	5.40	5.40	ppb	By-product of drinking water chlorination
Total Organic Carbon (TOC)	N/A	TT	ND	-	9.20	9.20	TT	Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	11.20	-	29.50	29.50	ppb	By-product of drinking water chlorination
Trichloroethylene (TCE)	0	5	ND	-	1.40	1.40	ppb	Discharge from metal degreasing sites and other factories
Secondary Contaminants January - December 2024								
Chloride	N/A	250	6.42	-	6.51	6.51	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Copper	N/A	1	ND	-	0.0130	0.0130	ppm	Erosion of natural deposits; leaching from pipes
Magnesium	N/A	0.05	2.55	-	2.73	2.73	ppm	Erosion of natural deposits
Sulfate	N/A	250	15.00	-	16.20	16.20	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	96.00	-	212.00	212.00	ppm	Erosion of natural deposits
Special Contaminants January - December 2024								
Calcium	N/A	N/A	64.50	-	66.50	66.50	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	60.00	-	71.00	71.00	ppm	Erosion of natural deposits

PFAS Contaminants January - December 2024						
Well 2 Wells 5, 6, 7						
CONTAMINANT	MCLG	MCL	Amount	Amount	Unit	Likely Source of Contamination
11CI-PF3OUdS	N/A	N/A	<0.00061	<0.00061	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
9CI-PF3ONS	N/A	N/A	<0.00061	<0.00061	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
ADONA	N/A	N/A	<0.00047	<0.00047	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
HFPO-DA	N/A	N/A	<0.00059	<0.00059	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
NEIFOSAA	N/A	N/A	<0.00062	<0.00062	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
NMeFOSAA	N/A	N/A	<0.00059	<0.00059	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorobutanesulfonic Acid	N/A	N/A	0.002	0.0029	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorodecanoic Acid	N/A	N/A	<0.00057	<0.00057	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorohexanoic Acid	N/A	N/A	0.0016	0.0031	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorododecanoic Acid	N/A	N/A	<0.0006	<0.0006	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluoroheptanoic Acid	N/A	N/A	0.0011	0.0021	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorohexanesulfonic Acid	N/A	N/A	0.0022	0.0028	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorononanoic Acid	N/A	N/A	<0.00046	<0.00046	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorooctanesulfonic Acid	N/A	N/A	0.0098	0.026	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorooctanoic Acid	N/A	N/A	0.0021	0.0063	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorotetradecanoic Acid	N/A	N/A	<0.00062	<0.00062	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluorotridecanoic Acid	N/A	N/A	<0.00057	<0.00057	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Perfluoroundecanoic Acid	N/A	N/A	<0.0006	<0.0006	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use
Total PFAs	N/A	N/A	0.0188	0.0432	ppb	Runoff/leaching soil, and outdoor air near industrial areas with frequent PFAS manufacture, disposal, or use

Irondale Water System

Administrative Office
1801 Crestwood Blvd.
Irondale, AL 35210

Phone: (205) 951-1410
Hours: 7:00am - 5:00pm
Monday - Thursday

*Thank you,
our customers!*

Please be sure
to download
the City of Irondale
smartphone app to
stay updated
what's happening in
our City! You may also
subscribe to receive
our email newsletter at
CityofIrondaleAL.gov.

Sign-up to receive
important notifications
via text message by
texting IRONDALEINFO
to 91896.



The City of Irondale

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk for infections. People at risk should seek advice about drinking water from their health care providers. EPA/CDC 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).

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. The Irondale Water System is responsible for providing high quality drinking water, but cannot 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 are concerned about lead in your water, you may wish to have your water tested. Information 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>.

Our Lead Service Line Inventory was completed and submitted by October 16, 2024. A copy can be obtained from our office as required by the EPA.

Radon is a naturally occurring gas present in some groundwater. Inhaled radon has been linked to lung cancer and may pose a health risk when inhaled after being released from water into the air. This inhalation can occur during activities such as showering, bathing, washing dishes, or washing clothes. The radon gas release from drinking water is a relatively small part of the total radon found in the air. One primary source of radon gas is the soil, from which the gas can seep through the foundations of homes. It is not clear whether ingested (i.e., taken through the mouth) radon contributes to cancer or other adverse health conditions. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional home information testing, contact your local health department.

A Message from the Manager

At Irondale Water System, we're on a mission to make sure every customer enjoys a dependable supply of drinking water. We take immense pride in being trusted stewards of our community, as you have given us the responsibility of managing the most valuable resource on earth. If you happen to spot any standing water around your meter box or in the street, we would greatly appreciate if you would contact our office at (205) 951-1410. Standing water might indicate a leak or pose a potential health hazard, so your prompt reporting means so much to us. Thank you for your continued support, and we can't wait to keep serving you!

Thank You, Jared Morris

A MESSAGE FROM YOUR MAYOR



We deeply appreciate your trust in us to provide your family with quality water. It is both a responsibility and a privilege to present this annual report on the City's Water System. Our dedicated employees tirelessly strive to deliver the highest quality water at the best possible price, working around the clock to ensure that every tap is a source of reliability. We urge all our customers to join us in protecting our precious water sources, as they are not just essential resources but the very heart of our community, our way of life, and the future of our children.

Mayor James D. Stewart, Jr.