IRELAND UTILITIES INC.

2020 ANNUAL WATER QUALITY REPORT

Ireland Utilities, Inc. is proud to provide high quality drinking water to our customers. This annual water quality report shows the source of our water, lists the results of their tests, and contains important information about water and health issues. Ireland Utilities, Inc. will notify you immediately if there is any reason for concern about our water. We are proud to show you that the water that we provide to you has surpassed EPA water quality standards.

Ireland Utilities, Inc. conducts monthly water board meetings the first Monday of the month a 7:00pm in the Utility Office located at 4957 West State Road 56 in Ireland, In. Please feel free to attend and participate in these meetings.

IS THE WATER SAFE TO DRINK?

OVERVIEW

Ireland Utilities, Inc. purchases all its water from Patoka Lake Regional Water & Sewer District and Jasper Municipal Water Utility. Our supplies have always met the testing and reporting requirements with the National Primary Drinking Water Regulations (NPDWR) and Indiana Department of Environmental Management (IDEM).

WATER SOURCE

In 2020 the sole source of the water distributed by Ireland Water Utilities, Inc. was surface water from Patoka Lake Regional Water & Sewer District and Jasper Municipal Water Utility. For more information about your drinking water, please call us at 812-482-2015. You as an end user and consumer of water can help to protect the sources of drinking water by increasing and promoting efforts to recycle materials and properly dispose of chemicals, used oils and petroleum products, batteries, and other household refuse.

ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. More information about contaminant and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791. 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 can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with 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 health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial 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. We 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.

2020 Monitoring Results for Ireland Utilities Inc.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2018	1.3	1.3	0.123	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2018	0	15	1.8	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2020	2	2 - 2	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2020	29.3	19.5 - 31.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2020	39	21 - 46	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

UNREGULATED CONTAMINANTS

EPA is preparing regulations that will specify a Maximum Contaminant Level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated surface water distributed by Patoka Lake Regional Water and Petersburg Water Sewer District.

EXPLANATION OF THE WATER QUALITY DATA TABLE

This report is based upon test results provided to us from Patoka Regional Water and Petersburg Water Sewer District and from tests that were conducted upon samples taken by Pike Gibson Water, Inc. service lines. Terms used in the Water Quality Table and in other parts of this report are defined here.

NPDWR* – *National Primary Drinking Water Regulations

IDEM* – *Indiana Department of Environmental Management

CDC* - *Center for Disease Control

EPA* - *Environmental Protection Agency

MCL – Maximum Contaminant Level: 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.

MCLG – Maximum Contaminant Level Goal: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDL – Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water as established by EPA.

MRDLG – Maximum Residual Disinfectant Level Goal: 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.

AL – Action Level: The concentration of a contaminant which, if exceeded, trigger treatment or other requirement that a water system must follow.

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

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

MRAA* - *Maximum running annual average

KEY TO TABLE

BDL = Below Detectable Level **MFL** = Monofilaments per liter **NTU** = Nephelometric Turbidity Units
Ppm = parts per million, or milligrams per liter (mg/l) **Ppb** = parts per billion, or micrograms per liter (µg/l)
pCi /L = picocuries per liter (a measure of radioactivity) **VOC** = Volatile Organic Contaminants
NA = Not applicable

2020 Monitoring Results for Patoka Lake Regional Water & Sewer District

CONSTITUENTS	Date Tested	Unit	MCL	MCLG	MRAA	Range	Violation	Major Sources
DISINFECTION PROCESS BYPRODUCTS								
HAA5's (Total Haloacetic Acids)	2020	Ppb	60	NA	26.4	17.4 TO 35.4	No	Disinfection process byproduct
TTHM'S (Total Trihalomethanes)	2020	Ppb	80	NA	33.4	23.3 TO 50	No	Disinfection process byproduct
INORGANIC CONSTITUENTS								
Fluoride	2020	Ppm	2.0	1.0	0.8.		No	Water additive to promote strong teeth & erosion of natural deposits
Copper	2020	µg/L	1300 AL		170	90th percentile value	No	Corrosion of household plumbing
Lead	2020	µg/L	15 Al		3.7	90th percentile value	No	Corrosion of household plumbing
(For Lead & Copper the number of samples above AL is 0.)								
Sodium	2020	PPM	None	None	2.4	NA	No	Erosion of natural deposits
Atrazine	2020	Ppb	3.0	BDL	0.2	N/A		
Barium	2020	PPM	2	BDL	0.026	N/A	No	Erosion of natural deposits
EPA is preparing a regulation, which will specify a Maximum Contaminant level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated finished water distributed by Patoka Lake Regional Water & Sewer District.								
Gross Alpha	2020	pCi/L	15	0	1.7	N/A	No	Runoff from herbicide used on row crops
Radium 226	2016	pCi/L		0	0.14	N/A	No	Erosion of natural deposits
Radium 228	2020	pCi/L		0	0.17	N/A	No	Erosion of natural deposits
Combined Radium	2016	pCi/L	5	0	.97	N/A	No	Erosion of natural deposits
Turbidity	Daily	NTU	TT=0.3	NA	.21	Highest reading	No	
Turbidity does not present any risk to your health. Turbidity is a measure of suspended matter in water, and is a good indicator that the filtration system is functioning.								
TOTAL ORGANIC CARBON								
Average percent of removal		%	25%	100	35%	23.5% TO 47%	No	Erosion of natural deposits
UNREGULATED CONTAMINANTS								
CONSTITUENTS	**Date Tested**	**Unit**	**MRDL**	**MRDLG**	**MRAA**	**Range**	**Violation**	**Major Sources**
Chloramine	Daily	Ppm	4.0	4.0	3.57	4.0 to 2.6	No	Added for disinfectant

2020 Monitoring Results for Jasper Municipal Water Utility

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Alpha Emitters (pCi/L)	2017	15	0	< 3.0	NA	No	Erosion of natural deposits
Atrazine (ppb)	2020	3	3	0.1	0.0 – 0.1	No	Runoff from herbicide used on row crops
Barium (ppm)	2020	2	2	0.02	0.02 – 0.02	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters (pCi/L)	2017	50	0	3.7	NA	No	Decay of natural and man-made deposits
Chlorine (ppm)	2020	[4]	[4]	1.1	0.37 – 2.30	No	Water additive used to control microbes
Combined Radium (pCi/L)	2017	5	0	< 1.0	NA	No	Erosion of natural deposits
Fluoride (ppm)	2020	4	4	.73	0.51 – 1.10	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] - Stage 2 (ppb)	2020	60	NA	21	6.9 – 21.9	No	By-product of drinking water disinfection
Total Trihalomethanes [TTHM] - Stage 2 (ppb)	2020	80	NA	56	13.3 - 88	No	By-product of drinking water disinfection
Nitrate (ppm)	2020	10	10	1.0	0.81 – 0.81	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	2020	NA	NA	3.01	3.01 – 3.01	No	Road salt, septic tanks, sewage, & natural deposits
Total Organic Carbon (removal ratio)	2020	TT	NA	2.05	1.64 – 2.29	No	Naturally present in the environment
Turbidity [1] (NTU)	2020	TT	NA	.22	0.04 – 0.22	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2020	TT	NA	100	NA	No	Soil runoff
Uranium (ug/L)	2017	30	0	< 1.0	NA	No	Erosion of natural deposits
PCBs	2020	500	0	0.0	0 .0 – 0.0	No	Runoff from Landfills; Discharge of waste chemicals.

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th%tile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2020	1.3	1.3	0.073	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2020	15	0	< 1.0	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits