Elgin Water Department

2021 Water Quality Report

(January 1, 2021 thru December 31, 2021 Data)

Microbiological Contaminants		
Analyte	Detection	No. of samples
Total Coliform	none detected	135
E. coli	none detected	135

Optimal Corrosion Control Treatment Technique Parameters						
Analyte	Average	Maximum	Minimum	OCCT Level[11]	units	No. of samples
pH	8.87	9.32	8.36	>8.5	units	4,371
Alkalinity, Total	79	124	56	>30	mg/Liter[3]	1,094

Hardness						
Analyte	Average	Maximum	Minimum	MCL[1]	units	No. of samples
Hardness, Total	133.0	162	71		mg/Liter	1,095
Hardness, Total	7.8	9.5	4.2		gpg[9]	calculated
Hardness, Calcium	87.0	118	62		mg/Liter	1,095
Hardness, Magnesium	45.6	80	2		mg/Liter	calculated
Hardness, Non-carbonate	53.7	82	3		mg/Liter	calculated

Particulates						
Analyte	Average	Maximum	Minimum	MCL	units	No. of samples
Turbidity	0.07	0.19	0.03	<0.3	NTU[4]	1,095
Suspended Solids	0.198	1	<1		mg/Liter	50
Total Dissolved Solids	374	468	310		mg/Liter	50

Physical Parameters						
Analyte	Average	Maximum	Minimum	SMCL[12]	units[5]	No. of samples
Temperature	61.9	83.5	42.4		^{0}F	calculated
Temperature	16.6	28.6	5.8		^{0}C	249
Color	1	1	1	15	units	249
Conductivity	721	913	546		µOhms/cm[2]	249
Odor	1.79	9.00	<1	3	units	210

Disinfectants						
Analyte	Average	Maximum	Minimum	MCL	units	No. of samples
Chlorine, Total	3.09	4.15	2.20		mg/Liter	4,369

Inorganic Contaminants						
Analyte	Average	Maximum	Minimum	MCL	units	No. of samples
Chloride	161.58	218.53	115.16	250[SMCL]	mg/Liter	49
Nitrate as N	2.1	3.1	1.3	10	mg/Liter	61
Sulfate	56.1	60.9	51.3	250[SMCL]	mg/Liter	2
Fluoride	0.70	0.85	0.57	4	mg/Liter	359
Dissolved Oxygen	11.14	15.24	7.91		mg/Liter	49
Cyanide, Total	ND[7]	ND	ND	0.2	mg/Liter	1

Organic Carbon						
Analyte	Average	Maximum	Minimum	MCL	units	No. of samples
Total Organic Carbon	1.90	2.44	1.6	TT[10]	mg/Liter	11

Metal Contaminants			
Analyte	Result	MCL	units
Iron	ND	0.3[SMCL]	mg/Liter
Sodium	96.2		mg/Liter
Antimony	ND	0.006	mg/Liter
Arsenic	0.0009	0.0100	mg/Liter
Barium	0.034	2	mg/Liter
Beryllium	ND	0.004	mg/Liter
Cadmium	ND	0.005	mg/Liter
Chromium	ND	0.1	mg/Liter
Manganese	ND	0.05[SMCL]	mg/Liter
Mercury	ND	0.002	mg/Liter
Nickel	ND	0.1	mg/Liter
Selenium	0.00549	0.05	mg/Liter
Thallium	ND	0.002	mg/Liter
Zinc	ND	5[SMCL]	mg/Liter

Synthetic Organic Contaminants			
Analyte	Result	MCL	units
Ethylene Dibromide (EDB)	ND	0.05	µg/L[8]
1,2-Dibromo-3-Chloropropane (DBCP)	ND	0.2	µg/L
Dalapon	ND	200	µg/L
2,4-D	ND	10	µg/L
Pentachlorophenol	ND	1	µg/L
2,4,5-TP (Silvex)	ND	50	µg/L
Dinoseb	ND	7	µg/L
Picloram	ND	500	µg/L
Hexachlorocyclopentadiene	ND	50	µg/L
Aldicarb	ND	2	µg/L
Aldicarb Sulfone	ND	2	µg/L
Aldicarb Sulfoxide	ND	4	µg/L
Hexachlorobenzene	ND	1	µg/L
Simazine	ND	4	µg/L
Atrazine	ND	3	µg/L
Gamma-BHC (lindane)	ND	0.2	µg/L
Lasso (Alachlor)	ND	2	µg/L
Heptachlor	ND	0.4	µg/L
Aldrin	ND	1	µg/L
Heptachlor epoxide	ND	0.2	µg/L
Dieldrin	ND	1	µg/L
Endrin	ND	2	µg/L
DI(2-ethylhexyl)adipate	ND	400	µg/L
Methoxychlor	ND	40	µg/L
DI(2-ethylhexyl)phthalate	ND	6	µg/L
Benzo(a)pyrene	ND	0.2	µg/L
Toxaphene	ND	3	µg/L
Chlordane	ND	2	µg/L
4,4'-DDT	ND[7]	0.05	µg/L
Total Polychlorinated Biphenyls (PCB)	ND	0.50	µg/L
Oxamyl	ND	200	µg/L
Carbofuran	ND	40	µg/L
Endothall	ND	100	µg/L
Diquat	ND	200	µg/L

Volatile Organic Contaminants			
Analyte	Result	MCL	units
Benzene	ND	5.00	µg/L[8]
Carbon tetrachloride	ND	5.00	µg/L
Chlorobenzene	ND	100	µg/L
1,4-Dichlorobenzene	ND	75.0	µg/L
1,2-Dichlorobenzene	ND	600	µg/L
1,2-Dichloroethane	ND	5.00	µg/L
1,1-Dichloroethene	ND	7.00	µg/L
cis-1,2-Dichloroethene	ND	70.0	µg/L
trans-1,2-Dichloroethene	ND	100	µg/L
1,2-Dichloropropane	ND	5.00	µg/L
Ethylbenzene	ND	700	µg/L
Methylene chloride	ND	5.00	µg/L
Styrene	ND	100	µg/L
Tetrachloroethene	ND	5.00	µg/L
Toluene	ND	1,000	µg/L
1,2,4-Trichlorobenzene	ND	70.0	µg/L
Trichloroethene	ND	5.00	µg/L
1,1,1-Trichloroethane	ND	200	µg/L
1,1,2-Trichloroethane	ND	5.00	µg/L
Vinyl chloride	ND	2.00	µg/L
Total Xylenes	ND	10,000	µg/L
Methyl tert-butyl ether	ND	0.500	µg/L

Per- and Polyfluoroalkyl Substances (PFAS)				
Analyte	Average	MRL[14]	units	No. of samples
Perfluorooctanoic Acid (PFOA)	<2.0	2.0	ng/L[15]	3
Perfluorooctanesulfonic Acid (PFOS)	<2.0	2.0	ng/L	3
Perfluorobutanesulfoic Acid (PFBS)	2.83	2.0	ng/L	3
Perfluoroheptanoic Acid (PFHpA)	<2.0	2.0	ng/L	3
Perfluorohexanesulfonic Acid (PFHxS)	<2.0	2.0	ng/L	3
Perfluorononanoic Acid (PFNA)	<2.0	2.0	ng/L	3
Perfluorodecanoic Acid (PFDA)	<2.0	2.0	ng/L	3
Perfluorohexanoic Acid (PFHxA)	5.7	2.0	ng/L	3
Perfluorododecanoic Acid (PFDoA)	<2.0	2.0	ng/L	3
Perfluorotridecanoic Acid (PFTrDA)	<2.0	2.0	ng/L	3
Perfluoroundecanoic Acid (PFUnA)	<2.0	2.0	ng/L	3
N-ethyl Perfluorooctanesulfonamidoacetic Acid	<2.0	2.0	ng/L	3
N-methyl Perfluorooctanesulfonamidoacetic Acid	<2.0	2.0	ng/L	3
HFPO-DA/GenX	<2.0	2.0	ng/L	3
ADONA	<2.0	2.0	ng/L	3
9Cl-PF3ONS/F-53B Major	<2.0	2.0	ng/L	3
11Cl-PF3OUdS/F-53B Minor	<2.0	2.0	ng/L	3
Perfluorotetradecanoic Acid (PFTeDA)	<2.0	2.0	ng/L	3

NOTES

[*]Except where noted

[**]Average from three samples

[1]MCL=Maximum Contaminant Level

[2]cfu= colony forming unit

[3]mg/Liter= milligrams per liter = parts per million (ppm)

[4]NTU=Nephleometric Turbidity Unit

[5]µOhms/cm^2= micro ohms / square centimeter

[6]cfu / 100 mls = colony forming units per 100 milliliters

[7]ND = Not Detected

[8]µg/L = micrograms per liter = parts per billion (ppb)

[9]gpg = Grains per Gallon

[10]TT = Treatment Technique

[11]OCCT Level = Optimal Corrosion Control Level Specified in Special Exemption Permit

[12]SMCL = Secondary Maximum Contaminant Level

[13]pCi/L = Picocuries Per Liter

[14]MRL= Minimum Reporting Level

[15]ng/L = nanograms per liter = parts per trillion (ppt)