

CITY OF LANCASTER
BUREAU OF WATER
CHEMISTRY & MICROBIOLOGY LABORATORIES



2024 DRINKING WATER ANALYSIS REPORT

TABLE OF CONTENTS

ANALYSIS	PAGE
INORGANIC	1
CHLORINE, TURBIDITY, MICROBIOLOGICAL TRICHALOMETHANES, HALOACETIC ACIDS	2
SECONDARY CONTAMINANTS, OTHER TESTS	3
VOLATILE ORGANIC CHEMICALS	4
SYNTHETIC ORGANIC CHEMICALS	5
ABBREVIATIONS	6

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - PRIMARY CONTAMINANT LIST

INORGANIC

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>PA DEP MCL</u>	
ANTIMONY	ND	mg/L	ND	mg/L	0.006	mg/L
ARSENIC	ND	mg/L	ND	mg/L	0.01	mg/L
BARIUM	0.055	mg/L	0.024	mg/L	2	mg/L
BROMIDE	ND	mg/L	ND	mg/L	NS	mg/L
BERYLLIUM	ND	mg/L	ND	mg/L	0.004	mg/L
CADMIUM	ND	mg/L	ND	mg/L	0.005	mg/L
CHROMIUM	ND	mg/L	ND	mg/L	0.1	mg/L
COPPER**	0.283	mg/L	0.283	mg/L	1.3	mg/L
CYANIDE, Free	ND	mg/L	ND	mg/L	0.2	mg/L
FLUORIDE	0.82	mg/L	0.74	mg/L	2.0	mg/L
LEAD **	0.0099	mg/L	0.0099	mg/L	0.015	mg/L
MERCURY	ND	mg/L	ND	mg/L	0.002	mg/L
NICKEL	ND	mg/L	0.001	mg/L	0.1	mg/L
NITRATE	6.72	mg/L	1.19	mg/L	10	mg/L
SELENIUM	ND	mg/L	ND	mg/L	0.05	mg/L
THALLIUM	ND	mg/L	ND	mg/L	0.002	mg/L

** Lead Levels from High Risk Homes in the Distribution System: 90th Percentile = 0.006 mg/L. Tested in 2019. Lead and copper analysis is required every 3 years. Data provided is from 2022.

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - PRIMARY CONTAMINANT LIST

CHLORINE

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>	<u>OYSTER POINT RESERVOIR</u>	<u>DEP MCL</u>
CHLORINE, Free Residual	1.11	1.11	4.0 mg/L

TURBIDITY

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>	<u>SUSQUEHANNA PLANT</u>	<u>PA DEP MCL</u>
TURBIDITY, Combined Effluent	0.01 NTU	0.01 NTU	0.15 NTU

MICROBIOLOGICAL

	<u>RESULT</u>	<u>DEP TT</u>
TOTAL COLIFORM*	0.00%	<5% POSITIVES/MONTH

	<u>RESULT</u>	<u>PA DEP MCL</u>
ESCHERICHIA COLI*	0	0 POSITIVES/MONTH

TRIHALOMETHANES

	<u>RESULT</u>	<u>PA DEP MCL</u>
TRIHALOMETHANES, TOTAL *	82.6 µg/L	80 µg/L
(Highest 12 Month Locational Running Annual Average)		

HALOACETIC ACIDS

	<u>RESULT</u>	<u>PA DEP MCL</u>
HALOACETIC ACIDS, TOTAL *	56 µg/L	60 µg/L
(Highest 12 Month Locational Running Annual Average)		

* Results are from samples taken in the distribution system

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - SECONDARY CONTAMINANT LIST

SECONDARY

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>PA DEP SMCL</u>
ALUMINUM, Total	0.07	mg/L	0.05	mg/L	mg/L
CHLORIDE	36	mg/L	19.8	mg/L	mg/L
COLOR	0.8	CU	0.9	CU	CU
IRON, Total	0.01	mg/L	0.02	mg/L	mg/L
MANGANESE, Total	0.023	mg/L	0.018	mg/L	mg/L
pH	7.5	SU	7.4	SU	SU
SULFATE	46	mg/L	44	mg/L	mg/L

OTHER TESTS

	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>PA DEP Range</u>
ALKALINITY	151	mg/L	63	mg/L	NS mg/L
HARDNESS, milligrams/liter	223	mg/L	99	mg/L	NS mg/L
HARDNESS, grains/gallon	16	GPG	7	GPG	NS GPG
ORGANIC CARBON, Total	2.2	mg/L	2.0	mg/L	NS mg/L
PHOSPHATE, Ortho	0.22	mg/L	0.21	mg/L	0.13-0.33 mg/L
SPECIFIC CONDUCTANCE	604	µS/cm	314	µS/cm	NS µS/cm

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - VOLATILE ORGANIC CHEMICAL LIST

VOLATILE ORGANIC CHEMICALS

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>PA DEP MCL</u>	
BENZENE	ND	mg/L	ND	mg/L	0.005	mg/L
CARBON TETRACHLORIDE	ND	mg/L	ND	mg/L	0.005	mg/L
CHLOROBENZENE	ND	mg/L	ND	mg/L	0.1	mg/L
1,2-DICHLOROBENZENE	ND	mg/L	ND	mg/L	0.6	mg/L
1,4 - DICHLOROBENZENE	ND	mg/L	ND	mg/L	0.075	mg/L
1,2-DICHLOROETHANE	ND	mg/L	ND	mg/L	0.005	mg/L
1,1-DICHLOROETHENE	ND	mg/L	ND	mg/L	0.007	mg/L
cis-1,2,-DICHLOROETHYLENE	ND	mg/L	ND	mg/L	0.07	mg/L
trans-1,2,-DICHLOROETHENE	ND	mg/L	ND	mg/L	0.1	mg/L
1,2-DICHLOROPROPANE	ND	mg/L	ND	mg/L	0.005	mg/L
ETHYLBENZENE	ND	mg/L	ND	mg/L	0.7	mg/L
METHYLENE CHLORIDE	ND	mg/L	ND	mg/L	0.005	mg/L
STYRENE	ND	mg/L	ND	mg/L	0.1	mg/L
TETRACHLOROETHENE	ND	mg/L	ND	mg/L	0.005	mg/L
TOLUENE	ND	mg/L	ND	mg/L	1	mg/L
1,2,4-TRICHLOROBENZENE	ND	mg/L	ND	mg/L	0.07	mg/L
1,1,1-TRICHLOROETHANE	ND	mg/L	ND	mg/L	0.2	mg/L
1,1,2-TRICHLOROETHANE	ND	mg/L	ND	mg/L	0.005	mg/L
TRICHLOROETHENE	ND	mg/L	ND	mg/L	0.005	mg/L
VINYL CHLORIDE	ND	mg/L	ND	mg/L	0.002	mg/L
XYLENES (total)	ND	mg/L	ND	mg/L	10	mg/L

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - SYNTHETIC ORGANIC CHEMICAL LIST

SYNTHETIC ORGANIC CHEMICALS

Atrazine was only required analysis in 2024. All other SOC data is from 2023. The City of Lancaster is required to analyze SOC's every 3 years.

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>DEP MCL</u>	
ALACHLOR	ND	mg/L	ND	mg/L	0.002	mg/L
ALDICARB	ND	mg/L	ND	mg/L	0.003	mg/L
ALDICARB SULFOXIDE	ND	mg/L	ND	mg/L	0.004	mg/L
ALDICARB SULFONE	ND	mg/L	ND	mg/L	0.002	mg/L
ATRAZINE	0.00055	mg/L	ND	mg/L	0.003	mg/L
BENZO(a)PYRENE	ND	mg/L	ND	mg/L	0.0002	mg/L
CARBARYL	ND	mg/L	ND	mg/L	NS	mg/L
CARBOFURAN	ND	mg/L	ND	mg/L	0.04	mg/L
CHLORDANE	ND	mg/L	ND	mg/L	0.002	mg/L
DALAPON	ND	mg/L	ND	mg/L	0.2	mg/L
DIBROMOCHLOROPROPANE	ND	mg/L	ND	mg/L	0.0002	mg/L
BIS(2-ETHYLHEXYL)ADIPHATE	ND	mg/L	ND	mg/L	0.4	mg/L
BIS(2-ETHYLHEXYL)PHTHALATE	ND	mg/L	ND	mg/L	0.006	mg/L
DICAMBA	ND	mg/L	ND	mg/L	0.2	mg/L
DINOSEB	ND	mg/L	ND	mg/L	0.007	mg/L
DIQUAT	ND	mg/L	ND	mg/L	0.02	mg/L
ENDOTHALL	ND	mg/L	ND	mg/L	0.1	mg/L
ENDRIN	ND	mg/L	ND	mg/L	0.0002	mg/L
ETHYLENE DIBROMIDE (EDB)	ND	mg/L	ND	mg/L	0.00005	mg/L
GLYCOPHOSPHATE	ND	mg/L	ND	mg/L	0.7	mg/L
HEPTACHLOR	ND	mg/L	ND	mg/L	0.0004	mg/L
HEPTACHLOR EPOXIDE	ND	mg/L	ND	mg/L	0.0002	mg/L
HEXACHLOROCYCLOPENTADIENE	ND	mg/L	ND	mg/L	0.05	mg/L
3-HYDROXYCARBOFURAN	ND	mg/L	ND	mg/L	NS	mg/L
LINDANE	ND	mg/L	ND	mg/L	0.0002	mg/L
METHOMYL	ND	mg/L	ND	mg/L	NS	mg/L
METHOXYCHLOR	ND	mg/L	ND	mg/L	0.04	mg/L
METOLACHLOR	ND	mg/L	ND	mg/L	0.2	mg/L
METRIBUXIN	ND	mg/L	ND	mg/L	0.2	mg/L
OXAMYL (Vydate)	ND	mg/L	ND	mg/L	0.2	mg/L
PENTACHLOROPHENOL	ND	mg/L	ND	mg/L	0.001	mg/L
PICLORAM	ND	mg/L	ND	mg/L	0.5	mg/L
PROPACHLOR	ND	mg/L	ND	mg/L	NS	mg/L
SIMAZINE	ND	mg/L	ND	mg/L	0.004	mg/L
2,4-D	ND	mg/L	ND	mg/L	0.07	mg/L
2,4,5-TP (SILVEX)	ND	mg/L	ND	mg/L	0.05	mg/L
2,3,7,8-TCDD (DIOXIN)	ND	mg/L	ND	mg/L	0.00000003	mg/L

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION - SYNTHETIC ORGANIC CHEMICAL LIST

Per- and Polyfluorinated Substances

<u>ANALYSIS</u>	<u>CONESTOGA PLANT</u>		<u>SUSQUEHANNA PLANT</u>		<u>DEP MCL</u>	
PFOS	3.41	ng/L	<1.61	ng/L	18	ng/L
PFOA	16.6	ng/L	<1.69	ng/L	14	ng/L

CITY OF LANCASTER

DRINKING WATER ANALYSIS REPORT

ABBREVIATIONS

°C - DEGREES CENTIGRADE

cm - CENTIMETER

CU - COLOR UNIT

HPC - HETEROTROPHIC PLATE COUNT

mg/L - MILLIGRAMS/LITER

mL - MILLILITER

pCi/L - PICOCURIES/LITER

ND - NOT DETECTED

NS - NO STANDARD

NT - NO TEST

NTU - NEPHELOMETRIC TURBIDITY UNIT

TT - TREATMENT TECHNIQUE REQUIREMENT

WL - WORKING LEVEL

< - LESS THAN

MF/L - MILLION FIBERS PER LITER, LESS THAN 10 MICROMETERS LONG (ASBESTOS)

µS/cm - MICRO SEIMENS PER CENTIMETER

PA DEP - PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MCL - MAXIMUM CONTAMINANT LEVEL

SMCL - SECONDARY MAXIMUM CONTAMINANT LEVEL, Not Legally Enforceable