

**MIAMI-DADE WATER & SEWER DEPARTMENT**  
**ALEXANDER ORR JR. WATER TREATMENT PLANT LABORATORY – CERT. #E56720**  
6800 Southwest 87<sup>th</sup> Avenue, Miami, Florida 33173  
Raymond D. Diaz, Laboratory Section Chief – Tel. (305) 275-3170  
**2005 TYPICAL AVERAGE ANALYSIS**  
**ALEXANDER ORR JR. WATER TREATMENT PLANT**

PARAMETERS	EXPRESSED IN	MCL <sup>a</sup>	RAW WATER	FINISHED WATER
<b>METALS</b>				
Aluminum (as Al)	mg/L b2	0.2	0.0	0.0
Antimony (as Sb)	mg/L b	0.006	0.001	0.001
Arsenic (as As)	mg/L c	0.01	0.00	0.00
Barium (as Ba)	mg/L b	2	0	0
Beryllium (as Be)	mg/L b	0.004	0.000	0.000
Cadmium (as Cd)	mg/L b	0.005	0.000	0.000
Calcium (as Ca)	mg/L d		84	21
Chromium (as Cr)	mg/L b	0.1	0.0	0.0
Copper (as Cu)	mg/L c	1.0	0.0	0.0
Iron (as Fe)	mg/L b2	0.3	0.7	0.0
Lead (as Pb)	mg/L b	0.015	0.000	0.000
Magnesium (as Mg)	mg/L d		3.4	3.4
Manganese (as Mn)	mg/L b2	0.05	0.00	0.00
Mercury (as Hg)	mg/L b	0.002	0.000	0.000
Nickel (as Ni)	mg/L b	0.1	0.0	0.0
Potassium (as K)	mg/L d		2.8	3.3
Selenium (as Se)	mg/L b	0.05	0.00	0.00
Silver (as Ag)	mg/L b2	0.1	0.0	0.0
Sodium (as Na)	mg/L b	160	21	22
Thallium (as Tl)	mg/L b	0.002	0.000	0.000
Zinc (as Zn)	mg/L b2	5	0	0
<b>ANIONS</b>				
Bromide (as Br <sup>-</sup> )	mg/L d		0.12	0.00
Chlorides (as Cl <sup>-</sup> )	mg/L b2	250	34	39
Cyanides (as CN <sup>-</sup> )	mg/L c	0.01	0.00	0.00
Fluoride (as F <sup>-</sup> )	mg/L c	1.1	0.2	0.2
Nitrates (N)	mg/L b	10	0	0
Nitrites (as N)	mg/L b	1	0.00	0.00
Sulfates (as SO <sub>4</sub> <sup>2-</sup> )	mg/L b2	250	11	12
<b>PHYSICAL &amp; CHEMICAL PROPERTIES</b>				
Alkalinity (as CaCO <sub>3</sub> )				
Phenolphthalein	mg/L d		0	5
Total	mg/L d		213	50
Ammonia (as NH <sub>3</sub> )	mg/L d		0.05	0.44
Carbon Dioxide (as free CO <sub>2</sub> )	mg/L d		21	0
Chlorine Residual at Plant (as Cl <sub>2</sub> )	mg/L c	f	0.0/0.0	0.0/2.6

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Color	PCU b2	15	7	3
Conductivity	umhos/cm d		552	261
Hardness (as CaCO <sub>3</sub> )				
Total	mg/L d		228	64 =
Non-carbonate	mg/L d		15	14
Oxygen, dissolved (as O <sub>2</sub> )	mg/L d		3.7	1.99
pH	pH c	≥6.5	7.3	9.2
Ortho Phosphate (as PO <sub>4</sub> <sup>3-</sup> )	mg/L d		0.01	0.23
Total Phosphate (as PO <sub>4</sub> <sup>3-</sup> )	mg/L d		0.02	0.47
Silica (as SiO <sub>2</sub> )	mg/L d		6.0	6.4
Surfactants (MBAS)	mg/L b2	0.5	0.0	0.0
Temperature	°C d		23.1	23.2
Threshold Odor Number	TON b, g	3	NOD	NOD
Total Dissolved Solids	mg/L b2	500	302	138
Total Organic Carbon	mg/L d		3.3	3.3
Turbidity	NTU b	1.0	0.52	0.17
<b>MICROBIOLOGY</b>				
Cryptosporidium/Giardia	#/100L d, h		ND	--
Total Coliform	Present-Absent - P, b A	e	--	A
<b>ORGANICS</b>				
Endrin	mg/L b	0.002	0.000	0.000
Lindane	mg/L b	0.0002	0.0000	0.0000
Methoxychlor	mg/L b	0.04	0.00	0.00
Toxaphene	mg/L b	0.003	0.000	0.000
2, 4, -D	mg/L b	0.07	0.00	0.00
2, 4, 5 – TP (Silvex)	mg/L b	0.05	0.00	0.00
Phenols	mg/L c	0.001	0.000	0.000
Total Trihalomethanes	mg/L b	0.080	0.000	0.026
<b>VOLATILE ORGANICS</b>				
Vinyl Chloride	mg/L b	0.001	0.000	0.000
Benzene	mg/L b	0.001	0.000	0.000
Carbon Tetrachloride	mg/L b	0.003	0.000	0.000
1, 2- Dichloroethane	mg/L b	0.003	0.000	0.000
Trichloroethylene	mg/L b	0.003	0.000	0.000
para-Dichlorobenzene	mg/L b	0.075	0.000	0.000
1, 1- Dichloroethylene	mg/L b	0.007	0.000	0.000
1, 1, 1-Trichloroethane	mg/L b	0.2	0.000	0.000
cis-1, 2 – Dichloroethylene	mg/L b	0.07	0.000	0.000
1, 2- Dichloropropane	mg/L b	0.005	0.000	0.000

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Ethylbenzene	mg/L b	0.7	0.0	0.0
Monochlorobenzene	mg/L b	0.1	0.0	0.0
o- Dichlorobenzene	mg/L b	0.6	0.0	0.0
Styrene	mg/L b	0.1	0.0	0.0
Tetrachloroethylene	mg/L b	0.003	0.000	0.000
Toluene	mg/L b	1	0	0
Trans-1, 2-Dichloroethylene	mg/L b	0.1	0.0	0.0
Xylenes (total)	mg/L b	10	0	0
Dichloromethane	mg/L b	0.005	0.000	0.000
1, 2, 4 – Trichlorobenzene	mg/L b	0.07	0.00	0.00
1, 1, 2 – Trichloroethane	mg/L b	0.005	0.000	0.000
Ethylene Dibromide	mg/L b	0.00002	0.0000	--
<b>RADIONUCLIDES</b>				
Gross Alpha	pCi/L b	15	2	1
Radon	pCi/L d	--	163	138
Radium 226 plus 228	pCi/L b	5	--	0.3

**NOTES**

- a) MCL - Maximum Contaminant Level. Values are for the Agency with the most stringent levels.
- b) MCL – Set by Florida Administrative Code, Chapter 62-550 –  
Primary Drinking Water Standards
- b2) MCL – Set by Florida Administrative Code, Chapter 62-550  
Secondary Drinking Water Standards
- c) MCL – Set by Dade County Code 24-12 for Drinking Water.
- d) No Limits Set
- e) No more than 5.0 percent of the samples collected during a month show the presence of total coliform bacteria.
- f) For free chlorine residual: minimum is 0.2 mg/L, maximum is 4.0 mg/L. For total chlorine residual: minimum is 0.6 mg/L, maximum is 4.0 mg/L. Results expressed as free/total.
- g) N.O.D. - No Odor Detected.
- h) ND - Not Detected.
- ❖ < - Less than.
- ❖ ≥ - Greater than or equal to.
- ❖ = 3.7 grains/Gal