



Seattle Public Utilities

Quarterly Surface Water Analysis

Samples Collected March 2007

Chester Morse							Parameter	Units	Method	MCL	TPR-4	T-CFE	TPT-3	B-2	
CM-A	CM-B	CPR-1	C1-Raw	C1OZ2	CLT-5	M-1A									
Chem. General															
	105	97.2	101	117	118	115	Dissolved Oxygen Saturation	%	SM-4500 O C		102	155	171	161	
	7.99	19.0	16.0		19.4	18.4	Alkalinity, Total	mg/L	ASTM D1067-92B		5.33		20.1	19.2	
	8.80	18.6	18.3		23.4	23.1	Calcium	mg CaCO3/L	SM-3500 Ca B		7.80		29.5	30.0	
	0.90	1.0U	1.71		3.78	3.78	Chloride	mg/L	SM-4500 Cl C		1.0U		2.94	3.30	
		0.10		0.26			Chlorine Demand, 0.2 hours	mg/L	SM-2350 B	4		0.35			
		0.29		0.59			Chlorine Demand, 2.0 hours	mg/L	SM-2350 B	4		0.61			
	1.02	0.48	0.72	0.80			Chlorine Demand, 24 hours	mg/L	SM-2350 B	4	1.34	0.75			
		0.59		0.88			Chlorine Demand, 48 hours	mg/L	SM-2350 B	4	2.02	0.84			
	9	6	6	5U	5U	6	Color, Apparent	PCU	SM-2120 B		9	5U	5U	5U	
	12.4	11.8	12.6	14.8	14.6	13.7	Oxygen, Dissolved	mg/L	SM-4500 O B		13.4	20.5	22.3	18.9	
	0.1U	0.1U	0.93		0.94	0.92	Fluoride	mg/L	ASTM D1179-93B	4	0.1U		0.94	0.98	
	10.3	23.0	22.6		26.6	27.4	Hardness, Calc	mg CaCO3/L	SM-2340 B		9.50		31.3	31.6	
	8.28	10.7	7.90		7.94	7.86	Silica, Reactive	mg/L	SM-4500 SiO2 D		4.84		5.42	5.42	
	27.9	54.8	55.9		65.5	66.7	Conductivity	umho/cm	ASTM D1125-92A	700	23.6		66.8	67.1	
	25.2	39.9	36.7		43.7	45.2	Solids, Total Dissolved	mg/L	SM-2540 C	500	20.2		46.2	44.0	
	0.57	0.43	0.57		0.53	0.64	Turbidity	NTU	SM-2130 B		0.50		0.14	0.13	
	0.221	0.137	0.120	0.078			Abs254nm	abs/5cm	SPU TEST		0.293	0.061			
	0.011	0.009	0.014	0.011			Abs545nm	abs/5cm	SPU TEST		0.011	0.002			
	0.210	0.128	0.106	0.067			UVA	abs/5cm	SPU TEST		0.282	0.059			
Chem. Metals															
	374	1070	1040		775	1050	Magnesium	ug/L	SM-3111 B		414		432	400	
	187	257	265		193	267	Potassium	ug/L	SM-3111 B		128		140	140	
	1490	2000	1890		1380	1890	Sodium	ug/L	SM-3111 B		1010		1030	1120	
	39.7	37.5	17.5		21.2	19.2	Aluminum	ug/L	EPA 200.8		57.8		33.0	32.6	
	1U	1U	1U		1U	1U	Antimony	ug/L	EPA 200.8		1U		1U	1U	
	1U	1U	1U		1U	1U	Arsenic	ug/L	EPA 200.8		1U		1U	1U	
	1.72	1.64	1.50		1.69	1.64	Barium	ug/L	EPA 200.8		1.56		1.28	1.78	
	0.2U	0.2U	0.2U		0.2U	0.2U	Beryllium	ug/L	EPA 200.8		0.2U		0.2U	0.2U	
	1U	1U	1U		1U	1U	Cadmium	ug/L	EPA 200.8		1U		1U	1U	
	2960	6540	6160		8410	8320	Calcium	ug/L	EPA 200.8		2420		10300	10300	
	1U	1U	1U		1U	1U	Chromium	ug/L	EPA 200.8		1U		1U	1U	
	1U	1U	6.37		33.5	1.08	Copper	ug/L	EPA 200.8	1300	1U		3.54	1U	
	37.2	52.4	58.9		73.0	120	Iron	ug/L	EPA 200.8	300	66.4		44.7	57.9	
	1U	1U	1U		1U	1U	Lead	ug/L	EPA 200.8	15	1U		1U	1U	
	368	1050	954		1060	1000	Magnesium	ug/L	EPA 200.8		431		434	399	
	4.75	2.58	2.56		2.77	3.37	Manganese	ug/L	EPA 200.8	50	5.01		1.96	1.03	
	1.01	1U	1U		1U	1U	Molybdenum	ug/L	EPA 200.8		1U		1U	1U	
	1U	1U	1U		1U	1U	Nickel	ug/L	EPA 200.8	100	1U		1U	1U	
	178	238	236		256	251	Potassium	ug/L	EPA 200.8		125		131	134	

CM-A = Chester Morse Lake, CM-B = Alt Qtr Site @ 200 Bridge; CPR-1 = Landsburg, Cedar River; C1-Raw = Lake Youngs Outlet, Raw; C1OZ2 = CTF 2nd Ozone Contact Train 1; CLT-5 = Lake Youngs Outlet, Treated; M-1A = Cedar Distribution @ Stacy St. S. S. Utah; TPR4 = Tolt Regulating Basin near Intake, Raw; T-CFE = Tolt Filtration Plant, after Filtration, Raw; TPT-3 = Tolt Regulating Basin Outlet, Treated; B-2 = Tolt Distribution @ NW 122nd St. 1st Ave. NW

"U" indicates that the test result for the Analyte is less than the stated minimum value preceding the "U".

Chester Morse															
CM-A	CM-B	CPR-1	C1-Raw	C1OZ2	CLT-5	M-1A	Parameter	Units	Method	MCL	TPR-4	T-CFE	TPT-3	B-2	
1U	1U	1U	1U		1U	1U	Selenium	ug/L	EPA 200.8	50	1U		1U	1U	
1U	1U	1U	1U		1U	1U	Silver	ug/L	EPA 200.8	100	1U		1U	1U	
1390	1900	1710	1710		1840	1780	Sodium	ug/L	EPA 200.8		991		992	1070	
0.2U	0.2U	0.2U	0.2U		0.2U	0.2U	Thallium	ug/L	EPA 200.8	0.2	0.2U		0.2U	0.2U	
1U	1U	1U	1U		1U	1U	Uranium	ug/L	EPA 200.8		1U		1U	1U	
1U	1U	1U	1U		1U	1U	Vanadium	ug/L	EPA 200.8		1U		1U	1U	
4.46	1U	1U	1U		1U	1U	Zinc	ug/L	EPA 200.8	5000	1U		1U	1U	
Chem. Nutrient															
95.0	185	85.0	85.0			105	Nitrogen, Nitrite + Nitrate	ug/L	EPA 353.2		165			150	
1U	3.50	1.00	1.00			1.80	Phosphorus, Dissolved Reactive	ug/L	SM-4500 P F		1U			1.20	
4.10	5.20	6.00	6.00				Phosphorus	ug/L	SM-4500 P C		3.50				
Chem. Organics															
1U	1U	1U	1U				Bromochloroacetic Acid	ug/L	EPA 552.2		1U		1U		
1U	1U	1U	1U				Bromodichloroacetic Acid	ug/L	EPA 552.2		1U		1U		
2.5U	2.5U	2.5U	2.5U				Chlorodibromoacetic Acid	ug/L	EPA 552.2		2.5U		2.5U		
0.5U	0.5U	0.5U	0.5U				Dibromoacetic Acid	ug/L	EPA 552.2		0.5U		0.5U		
28.1	18.4	14.1	14.1				Dichloroacetic Acid	ug/L	EPA 552.2		36.6		15.0		
1U	1U	1U	1U				Monobromoacetic Acid	ug/L	EPA 552.2		1U		1U		
1.71	1.5U	1.91	1.54				Monochloroacetic Acid	ug/L	EPA 552.2		2.15		1.5U		
61.8	38.6	28.8	24.8				THAA5	ug/L	EPA 552.2	60	77.5		23.5		
61.8	38.6	28.8	24.8				THAA9	ug/L	EPA 552.2		77.5		23.5		
5U	5U	5U	5U				Tribromoacetic Acid	ug/L	EPA 552.2		5U		5U		
32.1	20.2	12.7	8.59				Trichloroacetic Acid	ug/L	EPA 552.2		38.8		8.54		
1.14	0.680	0.820	0.910				Carbon, Total Organic	mg/L	SM-5310 C		1.41		1.08		
1.52	1.69	1.54	1.29				Bromodichloromethane	ug/L	EPA 524.2		1.99		1.86		
0.5U	0.5U	0.5U	0.5U				Bromoform	ug/L	EPA 524.2		0.5U		0.5U		
66.7	41.3	31.9	25.0				Chloroform	ug/L	EPA 524.2		87.5		29.1		
0.5U	0.5U	0.5U	0.5U				Dibromochloromethane	ug/L	EPA 524.2		0.5U		0.5U		
68.2	42.9	33.5	26.3				Total THMs	ug/L	EPA 524.2	80	89.5		31.0		
Contract Lab															
	10U	10U	10U				Nitrogen, Ammonia	ug/L	SM-4500 NH3H		17.0				
		0.005U	0.005U				Bromide	mg/L	EPA 300.1		0.005U				
1.19	1.21				1.10		Sulfate	mg/L	SM-4500 SO4E				1.19		
Field															
					1.46	0.96	Chlorine, Free	mg/L	SM-4500 Cl G				1.33	0.45	
	7.33	7.28	7.16	7.82	7.94		pH	pH Unit	SM-4500 H B		6.94	10.22	8.10	8.25	
	7.0	6.0	5.4	6.2	7.6		Temperature, Water	Deg C	SM-2550		3.8	3.7	4.3	8.3	

Samples Collected: 03/06/2007 and 03/06/2007

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