Data Tables For Treatment Plant Effluents

Marston Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
General (mg/L)				
Alkalinity, Total as $CaCO_3$		51 - 69	59	13
Chlorine, Total		1.02 –1.76	1.51	196
Hardness as $CaCO_3$		100 -120	106	13
Monochloramine as Cl_2		1.06 – 1.47	1.29	43
pH (SU)		7.5 –7.9	7.7	43
Specific Conductance (uS/cm)		240 - 370	319	194
Temperature (°C)		2 - 23	12	196
Total Dissolved Solids		189 - 210	196	9
Turbidity (NTU)	TT	<0.05 – 0.07	0.04	42
Metals (mg/L)				
Aluminum, Total		<0.09 – 0.12	0.08	9
Barium, Total	2	0.04 – 0.05	0.04	3
Calcium		29 - 36	33	10
Copper, Total	TT	<0.05 – 0.06	<0.05	3
Iron, Total		<0.01 – 0.01	<0.01	3
Magnesium		7.2 – 9.2	7.9	10
Manganese, Total		<0.005 – 0.013	0.008	3
Molybdenum, Total		0.020 – 0.037	0.030	3
Potassium		1.9 – 2.3	2.1	10
Sodium		18 - 23	20	10
Strontium		0.19 – 1.19	0.19	1
Ions (mg/L)				
Chloride		21.0 – 28.3	23.0	10
Fluoride	4.0	0.62 – 1.10	0.88	22
Nitrate-Nitrogen	10	<0.06 – 0.16	0.09	8
Silicon Dioxide		5.6 – 5.6	5.6	1
Sulfate		53.0 – 67.9	60.7	10

Marston Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
Radiological				
Beta, Total (pCi/L)	50(4mRem/yr)	2 -4	3	2
Uranium, Available (mg/L)		0.0004 – 0.0014	0.0009	6
Microbiological				
m-Heterotrophic Plate Count (CFU/ml)		0.06 - 170	8.4	40
Disinfection By-Products (µg/L)				
1,1,1-Trichloropropanone		0.8 – 0.9	0.8	2
1,1-Dichloropropanone		0.6 – 0.6	0.6	2
Bromochloroacetic acid		1.0 – 2.2	1.7	5
Bromochloroacetonitrile		0.5 – 0.5	0.5	2
Bromodichloroacetic acid		1.9 – 3.0	2.3	3
Bromodichloromethane		3.2 – 6.3	4.7	7
Bromoform		<0.05 – 1.1	<0.05	7
Chloral hydrate		0.8 – 0.8	0.8	2
Chlorodibromoacetic acid		<2 - 2	<2	3
Chloroform		4.4 – 8.2	6.4	7
Cyanogen Chloride		1.7 – 1.7	1.7	1
Dibromochloromethane		1.0 – 2.6	2.0	7
Dichloroacetic acid		2.0 – 5.0	3.6	5
Dichloroacetonitrile		1.0 – 1.0	1.0	2
Haloacetic Acids (5)		6 - 13	8	5
Total Trihalomethanes	100	8 - 17	13	7
Trichloroacetic acid		3.0 – 6.9	4.1	5
Non-Specific Organic Compounds (mg/L)				
Total Organic Carbon		1.0 - 1.7	1.4	9
Total Organic Halogen		84 - 118	99	3
UV absorbance @ 254 nm (AU)		0.021 – 0.026	0.023	8

Foothills Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
General (mg/L)				
Alkalinity, Total as $CaCO_3$		51 - 70	58	7
Chloramine, Total		1.05 - 1.72	1.43	175
Hardness as $CaCO_3$		92 - 112	103	12
Monochloramine as Cl_2		1.16 - 1.47	1.25	14
pH (SU)		7.6 - 7.9	7.8	14
Specific Conductance (uS/cm)		220 - 360	301	174
Temperature (°C)		4 - 20	12	175
Total Dissolved Solids		181 - 200	188	7
Turbidity (NTU)	TT	0.04 - 0.05	0.04	14
Metals (mg/L)				
Aluminum, Total		0.03 - 0.05	0.04	6
Barium, Total	2	0.04 - 0.05	0.05	4
Calcium		26 - 35.2	30.8	9
Copper, Total	TT	0.01 - 0.02	0.02	3
Iron, Total		<0.01 - 0.02	0.01	4
Magnesium, Total		5.9 - 8.9	7.3	9
Manganese, Total		<0.005 - 0.019	0.008	9
Molybdenum, Total		<0.005 - 0.055	0.028	9
Potassium		1.7 - 2.4	2.0	9
Sodium		14.4 - 24.0	18.0	9
Strontium		0.19 - 0.19	0.19	1
Ions (mg/L)				
Chloride		14.6 – 28.0	21.0	9
Fluoride	4.0	0.46 – 1.20	0.85	16
Nitrate-Nitrogen	10	<0.06 – 0.21	0.13	6
Silicon Dioxide		5.6 – 5.6	5.6	1
Sulfate		47.0 – 71.1	57.1	9

Foothills Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
Radiological				
Beta, Total (pCi/L)	50(4mRem/yr)	<2 - 4	2	2
Uranium, Available (mg/L)		<0.0001 - 0.0012	0.0008	7
Microbiological				
m-Heterotrophic Plate Count (CFU/ml)		<0.01 - 0.90	0.11	36
Disinfection By-Products (µg/L)				
1,1,1-Trichloropropanone		0.9 - 2.1	1.3	4
1,1-Dichloropropanone		0.4 - 0.8	0.6	4
Bromochloroacetic acid		<0.5 - 2.9	1.7	6
Bromochloroacetonitrile		0.3 - 0.6	0.4	4
Bromodichloroacetic acid		<1 - 4	2	4
Bromodichloromethane		5.0 - 9.3	7.4	11
Bromoform		<0.5 - 1.1	<0.5	11
Chloral hydrate		1.1 - 3.3	1.8	4
Chlorodibromoacetic acid		<2 - 2	<2	4
Chloroform		8.2 - 31.8	17.7	11
Cyanogen Chloride		4.7 - 4.7	4.7	1
Dibromochloromethane		0.7 - 2.3	1.5	11
Dichloroacetic acid		4.4 - 15.0	8.0	6
Dichloroacetonitrile		1.0 - 2.2	1.5	4
Haloacetic Acids (5)		11 - 35	19	6
Total Trihalomethanes	100	15 - 41	27	11
Trichloroacetic acid		5.4 - 20.3	10.4	6
Non-Specific Organic Compounds (mg/L)				
Total Organic Carbon		1.5 - 2.9	1.9	4
Total Organic Halogen		83 - 212	140	5
UV absorbance @ 254 nm (AU)		0.024 - 0.024	0.024	1

Moffat Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
General (mg/L)				
Alkalinity, Total as $CaCO_3$		19 - 26	22	14
Chloramine, Total		1.16 - 1.86	1.56	249
Hardness as $CaCO_3$		22 - 48	33	16
Monochloramine as Cl_2		1.21 - 1.72	1.48	47
pH (SU)		7.5 - 8.3	7.8	46
Specific Conductance (uS/cm)		60 - 140	96	246
Temperature (°C)		4 - 20	11	249
Total Dissolved Solids		59 - 84	57	10
Turbidity (NTU)	TT	0.04 - 0.07	0.05	47
Metals (mg/L)				
Aluminum, Total		<0.02 - 0.04	<0.09	12
Barium, Total	2	0.02 - 0.03	0.02	12
Calcium		8.4 - 12.3	9.8	12
Copper, Total	TT	<0.005 - <0.01	<0.005	12
Iron, Total		<0.01 - 0.03	<0.07	12
Magnesium, Total		1.2 - 2.5	1.8	12
Manganese, Total		<0.005 - 0.006	<0.005	12
Molybdenum, Total		<0.005 - <0.005	<0.005	12
Potassium		<0.8 - 0.7	0.7	12
Sodium		5.4 - 8.6	6.8	12
Strontium		0.036 - 0.036	0.036	1
Ions (mg/L)				
Chloride		2.2 - 4.8	3.2	12
Fluoride	4.0	0.22 - 1.10	0.80	25
Nitrate-Nitrogen	10	<0.06 - 0.09	0.05	9
Silicon Dioxide		6.5 - 6.5	6.5	2
Sulfate		14.0 - 24.3	18.0	12

Moffat Treatment Plant Effluent

Analysis	MCL	Range	Avg.	No.
Radiological				
Beta, Total (pCi/L)	50(4mRem/yr)	<2 - 3	2	3
Uranium, Available (mg/L)		<0.0001 - 0.0016	0.0008	8
Microbiological				
m-Heterotrophic Plate Count (CFU/ml)		0.07 - 9	0.89	50
Disinfection By-Products (µg/L)				
1,1,1-Trichloropropanone		0.8 - 1.0	0.9	5
1,1-Dichloropropanone		0.3 - 0.5	0.4	5
Bromochloroacetic acid		<0.5 - 1.2	<0.5	7
Bromochloroacetonitrile		<0.2 - <0.2	<0.2	5
Bromodichloroacetic acid		<1 - 3	<1	5
Bromodichloromethane		0.9 - 2.5	1.6	13
Bromoform		<0.5 - 1.3	<0.5	13
Chloral hydrate		0.4 - 1.2	0.8	5
Chlorodibromoacetic acid		<2 - <2	<2	5
Chloroform		7.1 - 15.0	11.2	13
Cyanogen Chloride		3.3 - 3.3	3.3	1
Dibromochloromethane		<0.2 - 1.3	<0.5	13
Dichloroacetic acid		3.5 - 10.0	5.6	7
Dichloroacetonitrile		0.6 - 1.2	0.9	5
Haloacetic Acids (5)		7 - 18	12	7
Total Trihalomethanes	100	8 - 17	13	13
Trichloroacetic acid		3.0 - 8.1	6.1	7
Non-Specific Organic Compounds (mg/L)				
Total Organic Carbon		1.2 - 1.2	1.2	1
Total Organic Halogen		60 - 120	88	5
UV absorbance @ 254 nm (AU)		-	-	0