

MEXICALI WASTEWATER DATA

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Table A-1 Station No. 1-I Zaragoza Treatment Plant Influent Field Parameters						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
pH	1-I	6.70	7.60	7.19	7.15	7.51
Temperature, °C	1-I	26.00	35.00	31.28	32.00	34.60
Conductivity, umhos/cm	1-I	1675.00	2050.00	1865.48	1850.00	1950.00

Table A-2 Station No. 1-I Zaragoza Treatment Plant Influent Conventional Pollutants						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		mg/L				
Alkalinity	1-I	144.00	352.00	271.11	276.00	307.20
Settleable Solids, ml/L/h	1-I	0.60	5.00	1.79	1.50	3.70
Total Dissolved Solids	1-I	422.00	1,100.00	934.04	932.00	1,050.00
Total Solids	1-I	1,020.00	1680.00	1,222.96	1,200.00	1,450.00
Total Suspended Solids	1-I	76.00	1,080.00	235.93	135.00	511.60
Cyanide, ug/L	1-I	10.00	16.00	10.44	10.00	11.40
Fluoride	1-I	0.22	0.72	0.57	0.58	0.64
Sulfate	1-I	140.00	319.00	268.00	274.00	307.40
Ammonia-N	1-I	5.00	22.50	18.76	20.00	21.44
Nitrate	1-I	0.05	0.50	0.17	0.05	0.50
Nitrite	1-I	0.10	1.00	0.40	0.10	1.00
Ortho Phosphate-P	1-I	0.52	5.57	4.15	4.33	5.45
TKN	1-I	16.80	97.10	27.55	25.50	29.44
Total Nitrogen	1-I	16.80	97.10	27.55	25.50	29.44
Total Phosphorus	1-I	4.41	9.98	6.80	6.78	8.20
BOD ₅ , total	1-I	53.00	162.00	111.65	110.00	151.00
COD Total	1-I	183.00	728.00	361.48	357.00	434.80
MBAS Total	1-I	5.90	22.60	13.86	15.50	18.04
Oil & Grease	1-I	14.00	413.00	41.37	26.00	39.20
BOD ₅ Soluble	1-I	11.00	100.00	62.96	65.00	89.00
COD Soluble	1-I	60.00	195.00	120.44	122.00	171.20

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Table A-3 Station No. 1-I Zaragoza Treatment Plant Influent Heavy Metals						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		ug/L				
Aluminum	1-I	1,030.00	17,500.00	3,503.70	2,350.00	7,658.00
Arsenic	1-I	17.00	28.30	18.97	17.00	24.78
Cadmium	1-I	2.00	2.90	2.05	2.00	2.04
Chromium	1-I	4.10	437.00	45.41	19.80	89.98
Copper	1-I	17.10	173.00	54.10	44.30	86.62
Iron	1-I	544.00	19,400.00	3,477.30	1,920.00	9,714.00
Lead	1-I	31.00	109.00	42.79	31.00	64.44
Manganese	1-I	37.20	407.00	94.13	60.80	215.20
Mercury	1-I	0.10	1.50	0.52	0.48	1.01
Nickel	1-I	8.00	738.00	62.92	23.50	118.46
Selenium	1-I	45.00	45.00	45.00	45.00	45.00
Silver	1-I	2.00	13.60	4.87	4.30	6.28
Sodium	1-I	58,000.00	215,000.00	175,000.00	179,000.00	203,400.00
Zinc	1-I	68.00	638.00	208.70	162.00	434.00

Table A-4 Station No. 1-I Zaragoza Treatment Plant Influent Bacteriological						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		MPN/100 ML				
Coliform	1-I	2,000,000	50,000,000	16,350,000	13,000,000	23,700,000
Fecal	1-I	2,000,000	23,000,000	9,157,895	8,000,000	18,000,000

Table A-5 Station No. 1-E Zaragoza Treatment Plant Effluent Field Parameters						
Analyte	StationID	Min	Max	Mean	Median	90th Percentile
pH	1-E	7.00	7.20	7.10	7.10	7.18
Temperature, °C	1-E	25.00	32.00	28.67	29.00	31.40
Conductivity, umhos/cm	1-E	1,800.00	2,000.00	1,900.00	1,900.00	1,980.00

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Table A-6 Station No. 1-E Zaragoza Treatment Plant Effluent Conventional Pollutants						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
Alkalinity	1-E	296.00	348.00	325.00	328.00	342.00
Settleable Solids, ml/L/h	1-E	0.10	0.30	0.15	0.10	0.24
Total Dissolved Solids	1-E	946.00	1,000.00	966.50	960.00	989.80
Total Solids	1-E	1,070.00	1,140.00	1,117.50	1,130.00	1,137.00
Total Suspended Solids	1-E	70.00	84.00	77.00	77.00	82.80
Cyanide, ug/L	1-E	10.00	10.00	10.00	10.00	10.00
Fluoride	1-E	0.55	0.58	0.57	0.58	0.58
Sulfate	1-E	226.00	231.00	228.25	228.00	230.70
Ammonia-N	1-E	8.80	10.80	9.88	9.95	10.74
Nitrate	1-E	0.55	0.50	0.16	0.05	0.37
Nitrite	1-E	0.10	1.00	0.78	1.00	1.00
Ortho Phosphate-P	1-E	2.69	3.60	2.99	2.83	3.40
TKN	1-E	16.90	23.80	19.88	19.40	22.99
Total Nitrogen	1-E	16.90	23.80	19.88	19.40	22.99
Total Phosphorus	1-E	5.02	10.60	7.52	7.22	10.10
BOD ₅ , total	1-E	21.00	54.00	32.00	26.50	45.90
COD Total	1-E	162.00	221.00	192.25	193.00	218.30
MBAS Total	1-E	0.33	4.00	1.95	1.74	3.54
Oil & Grease	1-E	10.00	10.00	10.00	10.00	10.00
BOD ₅ Soluble	1-E	10.00	54.00	21.25	10.50	41.10
COD Soluble	1-E	53.00	100.00	65.25	54.00	86.50

Table A-7 Station No. 1-E Zaragoza Treatment Plant Effluent Heavy Metals						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		ug/L				
Aluminum	1-E	89.50	341.00	213.88	212.50	323.30
Arsenic	1-E	17.00	22.20	18.30	17.00	20.64
Cadmium	1-E	2.00	2.00	2.00	2.00	2.00
Chromium	1-E	2.00	2.00	2.00	2.00	2.00
Copper	1-E	3.80	4.30	4.05	4.05	4.24
Iron	1-E	127.00	354.00	237.50	234.50	348.30
Lead	1-E	31.00	31.00	31.00	31.00	31.00
Manganese	1-E	27.10	41.20	35.23	36.30	41.20
Mercury	1-E	0.10	0.26	0.16	0.15	0.24
Nickle	1-E	8.00	8.00	8.00	8.00	8.00
Selenium	1-E	45.00	45.00	45.00	45.00	45.00
Silver	1-E	2.00	2.00	2.00	2.00	2.00
Sodium	1-E	191000.00	198000.00	195000.00	195500.00	198000.00
Zinc	1-E	35.70	47.40	40.00	38.45	45.18

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Table A-8 Station No. 1-E Zaragoza Treatment Plant Effluent Bacteriological						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		MPN/100 ML				
Coliform	1-E	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Fecal	1-E	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000

Table A-9 Station No. 2-1 Gonzalez Ortega Treatment Plant Influent Field Parameters						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
pH	2-1	6.60	7.90	7.26	7.25	7.67
Temperature, °C	2-1	20.40	33.40	25.10	25.10	29.27
Conductivity, umhos/cm	2-1	1500.00	2000.00	1743.18	1750.00	1900.00

Table A-10 Station No. 2-1 Gonzalez Ortega Treatment Plant Influent Coventional Pollutants						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		mg/L				
Alkalinity	02-1	144.00	384.00	252.16	244.00	292.00
Settleable Solids, ml/L/h	02-1	0.20	15.00	2.26	1.00	6.20
Total Dissolved Solids	02-1	814.00	1030.00	888.20	875.00	936.00
Total Solids	02-1	996.00	3210.00	1339.44	1090.00	2094.00
Total Suspended Solids	02-1	56.00	2220.00	351.64	160.00	982.40
Cyanide, ug/L	02-1	10.00	10.00	10.00	10.00	10.00
Fluoride	02-1	0.34	0.45	0.39	0.38	0.44
Sulfate	02-1	243.00	385.00	294.76	286.00	321.60
Ammonia-N	02-1	7.66	21.10	15.98	16.50	19.44
Nitrate	02-1	0.05	0.50	0.18	0.05	0.50
Nitrite	02-1	0.10	1.00	0.39	0.10	1.00
Ortho Phosphate-P	02-1	2.58	6.31	4.60	4.50	5.86
TKN	02-1	13.40	121.00	28.72	23.20	28.24
Total Nitrogen	02-1	13.40	121.00	28.72	23.20	28.24
Total Phosphorus	02-1	5.46	11.60	7.09	6.72	9.10
BOD ₅ , total	02-1	44.00	682.00	129.21	101.50	156.60
COD Total	02-1	230.00	745.00	340.36	312.00	455.40
MBAS Total	02-1	7.90	25.50	14.18	13.10	19.36
Oil & Grease	02-1	10.00	17.00	28.96	17.00	38.40
BOD ₅ Soluble	02-1	27.00	97.00	59.83	59.00	85.00
COD Soluble	02-1	58.00	893.00	144.48	93.00	184.20

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Table A-11 Station No. 2-I Gonzalez Ortega Treatment Plant Influent Heavy Metals						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		ug/L				
Aluminum	2-I	567.00	35900.00	5447.40	1880.00	17448.00
Arsenic	2-I	17.00	32.10	19.73	17.00	26.52
Cadmium	2-I	2.00	2.50	2.02	2.00	2.00
Chromium	2-I	2.00	37.60	6.24	2.40	15.96
Copper	2-I	19.20	182.00	47.18	36.20	79.86
Iron	2-I	723.00	39800.00	5727.40	1950.00	17064.00
Lead	2-I	31.00	93.60	35.68	31.00	43.02
Manganese	2-I	34.30	699.00	142.28	66.20	437.60
Mercury	2-I	0.10	1.50	0.32	0.20	0.63
Nickle	2-I	8.00	51.30	14.52	8.00	32.26
Selenium	2-I	45.00	45.00	45.00	45.00	45.00
Silver	2-I	2.00	3.20	2.07	2.00	2.00
Sodium	2-I	131000.00	197000.00	157200.00	154000.00	169200.00
Zinc	2-I	68.40	641.00	160.20	122.00	245.40

Table A-12 Station No. 2-1 Gonzalez Ortega Treatment Plant Influent Bacteriological						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		MPN/100 ML				
Coliform	2-I	2,000,000	50,000,000	17,550,000	20,000,000	30,000,000
Fecal	2-I	2,000,000	30,000,000	12,500,000	10,500,000	23,000,000

Table A-13 Station No. 2-E Gonzales Ortega Treatment Plant Effluent Field Parameters						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
pH	2-E	7.00	7.70	7.30	7.20	7.60
Temperature, °C	2-E	19.00	23.50	21.83	23.00	23.40
Conductivity, umhos/cm	2-E	1800.00	1900.00	1866.67	1900.00	1900.00

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Table A-14 Station No. 2-E Gonzales Ortega Treatment Plant Effluent Conventional Pollutants						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		mg/L				
Alkalinity	2-E	268.00	356.00	309.00	306.00	347.60
Settleable Solids, ml/L/h	2-E	0.10	0.40	0.20	0.15	0.34
Total Dissolved Solids	2-E	904.00	971.00	930.00	922.50	960.80
Total Solids	2-E	1010.00	1070.00	1037.50	1035.00	1061.00
Total Suspended Solids	2-E	44.00	114.00	80.75	82.50	108.00
Cyanide, ug/L	2-E	10.00	10.00	10.00	10.00	10.00
Fluoride	2-E	0.42	0.48	0.45	0.45	0.48
Sulfate	2-E	192.00	248.00	222.00	224.00	242.60
Ammonia-N	2-E	11.10	15.10	12.65	12.20	14.41
Nitrate	2-E	0.05	0.50	0.16	0.05	0.37
Nitrite	2-E	0.10	1.00	0.78	1.00	1.00
Ortho Phosphate-P	2-E	3.54	5.96	4.44	4.12	5.55
TKN	2-E	12.10	20.70	15.75	15.10	19.02
Total Nitrogen	2-E	12.10	20.70	15.75	15.10	19.02
Total Phosphorus	2-E	5.07	6.20	5.51	5.38	5.96
BOD ₅ , total	2-E	71.00	153.00	97.00	82.00	132.00
COD, Total	2-E	214.00	304.00	253.00	248.00	292.90
MBAS	2-E	9.80	12.80	11.03	10.75	12.26
Oil & Grease	2-E	10.00	10.00	10.00	10.00	10.00
BOD ₅ Soluble	2-E	38.00	112.00	67.00	59.00	98.50
COD Soluble	2-E	95.00	178.00	117.25	98.00	154.60

Table A-15 Station No. 2-E Gonzales Ortega Treatment Plant Effluent Heavy Metals						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		ug/L				
Aluminum	2-E	216.00	1150.00	601.50	520.00	1046.50
Arsenic	2-E	17.00	17.00	17.00	17.00	17.00
Cadmium	2-E	2.00	2.00	2.00	2.00	2.00
Chromium	2-E	2.00	4.60	2.85	2.40	4.06
Copper	2-E	5.80	21.80	11.85	9.90	18.95
Iron	2-E	314.00	1300.00	699.50	592.00	1169.50
Lead	2-E	31.00	31.00	31.00	31.00	31.00
Manganese	2-E	52.00	87.30	73.13	76.60	84.24
Mercury	2-E	0.10	0.26	0.17	0.16	0.25
Nickle	2-E	11.80	25.70	18.60	18.45	23.72
Selenium	2-E	45.00	45.00	45.00	45.00	45.00
Silver	2-E	2.00	2.80	2.20	2.00	2.56
Sodium	2-E	157000.00	210000.00	175750.00	168000.00	199200.00
Zinc	2-E	42.40	80.70	62.48	63.40	78.12

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Table A-16 Station No. 2-E Gonzales Ortega Treatment Plant Effluent Bacteriological						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		MPN/100 ML				
Coliform	2-E	2000000.00	13000000.00	6750000.00	6000000.00	11500000.00
Fecal	2-E	4000000.00	8000000.00	6666667.00	8000000.00	8000000.00

Table A-17 Station No. 13 Xochimilco Agricultural Drain Conventional Pollutants						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		mg/l				
Alkalinity	13	172.00	172.00	172.00	172.00	172.00
Settleable Solids ml/l/h	13	0.10	0.60	0.35	0.35	0.55
Total Dissolved Solids	13	1480.00	1710.00	1595.00	1595.00	1687.00
Total Solids	13	1910.00	1920.00	1915.00	1915.00	1919.00
Total Suspended Solids	13	151.00	242.00	196.50	196.50	232.90
Cyanide, ug/L	13	10.00	10.00	10.00	10.00	10.00
Fluoride	13	0.51	0.53	0.52	0.52	0.53
Sulfate	13	323.00	341.00	332.00	332.00	339.20
Ammonia-N	13	0.80	0.90	0.85	0.85	0.89
Nitrate	13	0.29	0.42	0.36	0.36	0.41
Nitrite	13	1.00	1.00	1.00	1.00	1.00
Ortho Phosphate-P	13	0.31	0.34	0.33	0.33	0.34
TKN	13	1.70	1.70	1.70	1.70	1.70
Total Nitrogen	13	2.00	2.10	2.05	2.05	2.09
Total Phosphorus	13	0.29	0.34	0.32	0.32	0.34
BOD ₅ , total	13	10.00	10.00	10.00	10.00	10.00
COD, Total	13	160.00	181.00	170.50	170.50	178.90
MBAS	13	1.00	4.00	2.50	2.50	3.70
Oil & Grease	13	10.00	10.00	10.00	10.00	10.00
BOD ₅ Soluble	13	10.00	10.00	10.00	10.00	10.00
COD Soluble	13	53.00	60.00	56.50	56.50	59.30

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Table A-18 Station No. 13 Xochimilco Agricultural Drain Heavy Metals						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		ug/L				
Aluminum	13	3170.00	5590.00	4380.00	4380.00	5348.00
Arsenic	13	17.00	17.00	17.00	17.00	17.00
Cadmium	13	2.00	2.00	2.00	2.00	2.00
Chromium	13	2.00	3.20	2.60	2.60	3.08
Copper	13	6.00	9.80	7.90	7.90	9.42
Iron	13	2820.00	5030.00	3925.00	3925.00	4809.00
Lead	13	31.00	31.00	31.00	31.00	31.00
Manganese	13	171.00	226.00	198.50	198.50	220.50
Mercury	13	0.10	0.10	0.10	0.10	0.10
Nickel	13	8.00	8.00	8.00	8.00	8.00
Selenium	13	45.00	45.00	45.00	45.00	45.00
Silver	13	2.00	2.00	2.00	2.00	2.00
Sodium	13	333000.00	390000.00	361500.00	361500.00	384300.00
Zinc	13	37.60	42.10	39.85	39.85	41.65

Table A-19 Station No. 13 Xochimilco Agricultural Drain Bactriological						
Analyte	Station ID	Min	Max	Mean	Median	90th Percentile
		MPN/100ML				
Coliform	13	1,600	1,600	1,600	1,600	1,600
Fecal	13	1,600	1,600	1,600	1,600	1,600