Water Quality Report
2010

Three Rivers Filtration Plant
Fort Wayne City Utilities
Fort Wayne, Indiana

Our Mission:

"To provide our customers with an adequate supply of water that meets all state and federal drinking water regulations at a fair price."

Three Rivers Filtration Plant
1100 Griswold Drive
Fort Wayne, Indiana 46805-4100

Kumar Menon, Director of City Utilities
John Clark, Deputy Director for Capital Asset Management
Chet Shastri, Filtration Plant Superintendent

Three Rivers Filtration Plant
Fort Wayne, IN

History:

The Three Rivers Filtration Plant was erected in 1933 with a capacity of 24 million gallons of drinking water per day. This capacity was increased to 48 million gallons per day in 1955, and further increased in 1979 to 72 million gallons per day. Today the facility produces an average of 30 million gallons of drinking water each day. Surface water from the St. Joseph River is pumped from the Saint Joseph reservoir to the Filtration Plant located 2.5 miles south of the reservoir. The storage capacity of the North Anthony reservoir is about 250 million gallons. Additional reservoir storage for the Fort Wayne water supply is located in the Saint Joseph River above Cedarville Dam, and at the Hurshtown reservoir. The Cedarville Dam holds approximately 550 million gallons of raw water while the Hurshtown reservoir holds approximately 1.8 billion gallons of raw water. During periods of severe drought, water from the upstream reservoirs can be released into the river to ensure that the Filtration Plant has an adequate supply of raw water for an extended period of time.

Source of water:

The quality of the raw water from the Saint Joseph River is extremely variable due to rapid changes that occur during runoffs. Runoffs occur when saturated soil can no longer absorb excessive rain or melting snow. Consequently, the rain or melting snow runs off into the river carrying with it dirt, sticks, pesticides and other debris. Water conditions are monitored constantly so that the treatment process produces water that is compliant with drinking water regulations as well as consistent in quality, taste and odor.

Treatment Process:

Our treatment process utilizes lime to soften water, iron sulfate to coagulate suspended solids, disinfectants to control pathogens and other microorganisms, carbon dioxide to adjust pH, and powdered activated carbon for pesticide removal and taste and odor control. In addition, fluoride is added to our finished water in small amounts to help reduce tooth decay. After chemical treatment and clarification, water is filtered to remove fine particles and microorganisms.

Testing:

With the use of on-line analyzers, samples are monitored continuously at every stage of the treatment process. This ensures that the proper amounts of chemicals are added to produce high quality finished water.

In the analytical lab, chemists sample finished water to test for several inorganic parameters. Additional samples are collected and sent to private labs to test for metals, disinfection by-products, volatile organic compounds, synthetic organic compounds and pesticides. Finished and raw water samples are also collected to test for Cryptosporidium

and Giardia. In all, over 120 different contaminants are monitored, logged and reported to various state and federal regulatory agencies. Representative samples of the distribution system are tested daily for disinfectant residual, absence of coliform, and absence of E. Coli. Approximately forty random samples are collected and tested each week for this purpose. Additionally, in 2010, 117 samples were collected from the distribution system and tested for lead and copper.

Extra Initiatives:

A great number of factors, both internal and external, affect the quality of water that is produced at the Three Rivers Filtration Plant. While many of these factors are outside the control of operating personnel, we realize that our ultimate goal must be to strive for continuous improvement of water quality as a whole. Consequently, we are participating in programs to address issues that impact raw water quality. These programs also utilize innovative technology to measure the amount of pathogens and pesticides in both raw and finished water.

In order to address issues affecting the raw water quality, we are participating in the Saint Joseph River Watershed Initiative. The Watershed initiative consists of a group of stakeholders from the six counties in Indiana, Ohio and Michigan that influence the quality of the Saint Joseph River. The initiative has a monitoring program in place that collects samples from various points in the watershed. These samples are analyzed in our lab for pesticides and pathogens.

The Filtration Plant currently utilizes powdered activated carbon to reduce atrazine in finished water. Powdered activated carbon can remove most of the pesticides found in raw water, however, it is unable to remove all of the pesticides, especially when source water pesticide levels are elevated.
The Three Rivers Filtration Plant has voluntarily joined with over 300 United States water utilities of similar size, along with the American Water Works Association and the United States Environmental Protection Agency in a Partnership for Safe Water. This program involves a comprehensive plant- specific look at treatment processes and water quality assessment to optimize water quality. Fort Wayne has completed three of four phases of this partnership and has maintained phase three certification for the past ten years.

Three Rivers Filtration Plant
Fort Wayne, IN

System Highlight:

Annual Production	11.17 Billion Gallons
Population Served (approximate)	250,000
Metered Customers (active)	82,455
Distribution System	1159 miles
Number of Plant Employees	39
Number of Fire Hydrants	9130
Number of Valves	12,191

Legend for Charts

MCL – Maximum Contaminant Level
CFU – Colony Forming Units
NTU – Nephlometric Turbidity Unit
ppm – Parts per Million (Milligrams per Liter)
ppb – Parts per Billion (Micrograms per Liter)
umho/cm – Micromhos per Centimeter

Note: Milligrams and Micrograms per Liter are expressed in terms of specific gravity of water.

Three Rivers Filtration Plant **General Purification Summary** **2010**

	Raw Million Gallons	Raw Million Liters	Filtered Million Gallons	HSD Million Gallons
Plant # 1	4,095.19	15,500.30	3,607.03	
Plant # 2	4,309.55	16,311.66	3,963.63	
Plant # 3	3,497.51	13,238.07	3,602.44	
Million Gallons Total	11,902.25		11,173.10	10,636.56
Million Liters Total		45,050.03	42,290.18	40,259.38

Chemical Application	Total pounds	Pounds per MG	PPM	GPG
Lime to Raw	18,861,260.00	1,585	189.69	11.09
Ferric Sulfate to Raw	2,416,047.78	203	24.30	1.42
Liquid Carbon Dioxide	2,587,580.00	217	26.02	1.52
Carbon to Raw	344,320.00	29	3.46	0.20
Sodium Chlorite	527,598.99	47	5.65	0.33
Fluoride to Filter	379,839.38	34	4.07	0.24
Ammonia to Filter	27,830.33	2	0.30	0.02
Chlorine ro Generox	160,084.42	13	1.61	0.09
Chlorine to Chloramine	38,422.99	3	0.41	0.02
Total Chlorine	198,507.41	17	2.02	0.12

Chemical Cost	Total $	Per MG Filtered	% of Total
Lime to Raw	$ 1,211,523.18	$ 108.43	55.77%
Ferric Sulfate to Raw	$ 229,524.54	$ 20.54	10.57%
Liq. Carbon Dioxide	$ 86,929.75	$ 7.78	4.00%
Carbon to Raw	$ 165,273.60	$ 14.79	7.61%
Sodium Chlorite	$ 259,507.44	$ 23.23	11.95%
Fluoride to Filter	$ 131,994.18	$ 11.81	6.08%
Ammonia to Filter	$ 20,872.74	$ 1.87	0.96%
Chlorine	$ 66,571.25	$ 5.96	3.06%
Total Chemical Cost	$ 2,172,196.68	$ 194.41	100.00%

Filter Operation	
Average Runs, Hour	96.86
Numbers of Runs Completed	2,145.00
Number of Filters Washed	2,085.83
Wash Water, Gallons	417,165,000.00
Average Gallons per wash	200,000.00
% Wash Water	3.73%

Recarbonation	Liquid CO(2) Plant # 1	Liquid CO(2) Plant # 2	Liquid CO(2) Plant # 3
	-	-	-
Total Pounds oF CO(2)	908009.7	909484.8	770085.5
Pounds CO(2) Per Fuel Unit	0.1145	0.1145	0.1145
Pounds CO(2) Per MG	222	211	220
Primary Settled, OH-	41	41	36
Secondary Settled, HCO(3)-	27	25	23
Total Recarbonation	67.34	65.65	58.74
CO(2) Per MG Per PPM	3.29	3.21	3.75

Three Rivers Filtration Plant
Fort Wayne

Draft of Operational Cost and Service Report for: 2010
Three Rivers Filtration Plant

Chemical	Used		Unit Cost		Usage	Balance On Hand	
Lime	9,431	TON @	$128.46 /TON	=	$ 1,211,523.18	Lime	$90,857.21
Ferric Sulfate	2,416,048	LBS @	$0.095 /LBS	=	$ 229,524.54	Ferric Sulfate	$22,630.86
Carbon	172	TON @	$960.00 /TON	=	$ 165,273.60	Carbon	$46,251.84
Sodium Chlorite	5,276	CWT @	$49.19 /CWT	=	$ 259,507.44	Sodium Chlorite	$44,297.42
Fluoride	190	TON @	$695.00 /TON	=	$ 131,994.18	Fluoride	$9,968.22
Chlorine	3,099	CWT @	$21.48 /CWT	=	$ 66,571.25	Chlorine	$4,811.52
Ammonia	278	CWT @	$75.00 /CWT	=	$ 20,872.74	Ammonia	$2,884.61
Liq. Carbon Dioxide	1,294	TON @	$67.19 /TON	=	$ 86,929.75	Liq. Carbon Dioxide	$4,031.40
						Total	$225,733.09
			Total Chemical Cost=		$ 2,172,196.68		

Natural Gas Usage

Filtration Plant	230,822	CCF =	$212,860.86
St. Joe Dam	9,393	CCF =	$9,235.42
Northwest Station	2,779	CCF =	$2,367.13
East Side Station	1,927	CCF =	$1,921.15
Southwest Station	4,345	CCF =	$4,310.26
West Side Booster	2,346	CCF =	$2,419.69
Miscellaneous	-	CCF =	$0.00
Total Natural Gas Usage	251,612	Natural Gas Cost	$233,114.51

Electric Power Usage

Filtration Plant	7,104,520	KWH Used =	$371,426.66
St. Joe Dam	2,635,157	KWH Used =	$164,132.11
Hurshtown	44,005	KWH Used =	$3,671.41
Cedarville Dam	163,960	KWH Used =	$12,252.39
West Side	179,816	KWH Used =	$10,814.62
Northwest Station	572,829	KWH Used =	$36,344.73
Southwest Station	144,649	KWH Used =	$9,520.32
Miscellaneous	8,569,574	KWH Used =	$423,508.38
Total Electric Usage	19,414,510	Electric Cost	$1,031,670.62

(All Totals Expressed In Million Gallons)

Water Totals		High Service Discharge			
Raw Water	11,902.25	Average HSD	29.12	Monroe Street	4,728
Filtered water	11,173.10	Max. Day HSD	41.63	Superior Street	1,045
Filter Wash Water	417.165	Min. Day HSD	21.99	St. Mary's Main	2,793
Plant Service Water	249.49	Max. Hour HSD	54.24	St. Joseph main	2,070
		Min. Hour HSD	6.23		
				Total HSD	10,636.56

Chemical Cost. MG Filtered $194.41

Chemical Cost Summary

2010

Year	Chemical Cost	Water Filtered MGD	Cost per Million Gallons
1934	$35,381.81	3,154.55	$11.22
1935	$48,895.19	3,119.92	$15.67
1936	$57,585.15	3,984.47	$14.45
1937	$47,758.65	3,724.68	$12.82
1938	$47,809.07	3,619.82	$13.21
1939	$45,152.49	3,849.42	$11.73
1940	$57,569.98	4,059.02	$14.18
1941	$68,771.06	4,590.91	$14.98
1942	$106,715.84	4,679.19	$22.81
1943	$110,314.17	5,577.50	$19.78
1944	$126,496.16	6,457.60	$19.59
1945	$134,580.84	6,238.63	$21.57
1946	$126,966.58	6,082.70	$20.87
1947	$154,064.30	6,590.82	$23.38
1948	$180,123.24	6,746.65	$26.70
1949	$174,751.21	6,420.99	$27.22
1950	$158,011.01	6,398.35	$24.70
1951	$172,914.84	6,689.94	$25.85
1952	$184,820.20	6,981.70	$26.47
1953	$212,013.20	7,306.36	$29.02
1954	$237,588.42	7,249.82	$32.77
1955	$226,050.52	7,546.06	$29.96
1956	$235,953.22	7,570.78	$31.17
1957	$265,174.39	7,579.69	$34.98
1958	$251,313.38	7,321.75	$34.32
1959	$259,409.91	7,756.36	$33.44
1960	$230,564.26	7,519.68	$30.66
1961	$251,616.87	7,540.33	$33.37
1962	$275,123.25	8,210.13	$33.51
1963	$301,030.38	8,742.56	$34.43
1964	$200,003.41	9,001.75	$22.22
1965	$346,148.03	9,254.28	$37.40
1966	$344,808.34	9,892.96	$34.85
1967	$370,878.28	10,108.39	$36.69
1968	$339,457.32	10,035.63	$33.83
1969	$355,628.89	10,635.23	$33.44
1970	$402,529.59	10,885.04	$36.98
1971	$397,163.97	10,726.17	$37.03
1972	$453,786.88	11,046.13	$41.08
1973	$398,938.48	11,318.51	$35.25
1974	$464,426.09	11,344.83	$40.94
1975	$644,033.93	11,179.75	$57.61
1976	$679,380.47	11,437.47	$59.40
1977	$858,842.50	12,145.15	$70.71
1978	$863,162.38	11,788.24	$73.22
1979	$1,048,484.60	11,468.97	$91.42
1980	$1,131,610.15	11,407.74	$99.20
1981	$1,064,717.44	11,935.65	$89.20
1982	$1,119,039.76	11,567.06	$96.74

Year	Chemical Cost	Water Filtered MGD	Cost per Million Gallons
1983	$1,074,667.63	11,861.72	$90.60
1984	$1,051,105.78	11,181.24	$94.01
1985	$1,065,180.54	11,943.77	$89.18
1986	$1,039,292.63	11,479.10	$90.54
1987	$1,037,592.72	11,878.01	$87.35
1988	$1,152,506.09	12,351.24	$93.31
1989	$1,035,326.47	11,802.45	$87.72
1990	$1,019,260.62	11,330.28	$89.96
1991	$1,068,617.31	11,973.09	$89.25
1992	$1,330,435.40	11,283.26	$117.91
1993	$1,452,473.40	11,749.16	$123.62
1994	$1,408,240.15	12,254.47	$114.92
1995	$1,535,596.59	12,396.14	$123.88
1996	$1,886,445.94	12,236.84	$154.16
1997	$1,721,512.61	11,766.61	$148.74
1998	$1,638,423.17	12,359.77	$132.56
1999	$1,431,155.89	12,844.67	$111.42
2000	$1,306,744.47	12,138.85	$107.65
2001	$1,360,731.16	11,903.66	$114.31
2002	$1,324,804.59	12,090.42	$109.57
2003	$1,289,380.67	11,267.43	$114.43
2004	$1,389,033.95	11,030.51	$125.93
2005	$1,501,237.01	10,750.89	$139.64
2006	$1,746,343.12	10,162.64	$171.84
2007	$1,920,070.03	10,982.46	$174.83
2008	$2,211,876.91	10,954.22	$201.92
2009	$2,505,253.61	10,815.11	$231.64
2010	$2,172,196.68	11,173.10	$194.41

Worksheet for Theoretical Lime, Soda Ash, and Sludge
2010

1. Raw Water Data

Free CO_2=	5.18	mg/L	(Calculated, Std. Methods, 21ST Ed.)	
Temperature	56.06	° F=	13.4	°C
Total Solids=	328.48	mg/L		
pH =	7.94	SU		
Alkalinity=	224.93	mg/L as $CaCO_3$		
Raw Bicarb=	223.08	mg/L as $CaCO_3$		

2. Conversion of mg/L TO me/L

Raw Water	67.33	mg/L Ca=	3.3664	me/L Ca
	38.52	mg/L Mg=	3.2098	me/L Mg
	124.92	mg/L CO_3=	4.1637	me/L CO_3
HSD(Finished Water)	24.57	mg/L Ca=	1.2285	me/L Ca
	14.20	mg/L Mg=	1.1831	me/L Mg
	0.00	mg/L CO_3=	0.0000	me/L CO_3

3. Hypothetical Combinations

Raw Water	3.3664	me/L Ca=	168.49	mg/L CO_3
	4.1637	me/L CO_3		
	(3.3664)	me/L Ca		
	0.7973	me/L Mg=	33.61	mg/L $MgCO_3$
	3.2098	me/L Mg		
	0.7973	me/L Mg		
	2.4125	me/L Mg=	145.21	mg/L $MgSO_4$
HSD(Finished Water)	1.2285	me/L Ca=	61.48	mg/L $MgCO_3$
	0.0000	me/L CO_3		
	(1.2285)	me/L Ca		
	0.0000	me/L Mg=	0.00	mg/L $MgCO_3$
	1.1831	me/L Mg		
	0.0000	me/L Mg		
	1.1831	me/L Mg=	71.21	mg/L $MgSO_4$

4. Noncarbonate Mg Reduction

Raw Water $MgSO_4$=	145.21	mg/L	
HSD $MgSO_4$=	(71.21)	mg/L	
Reduction=	74.00	mg/L	14.95 mg/L Mg

5. Excess Lime Reduction

	Primary Settled Hydroxide	Secondary Settled Bicarbonate
Plant #1	42.01	26.42
Plant #2	43.19	24.16
Plant #3	27.40	20.42
Average	37.5	23.7
Total Excess Lime Reduction=	13.9 mg/L $CaCO_3$	

6. Noncarbonate Hardness Reduction

Raw Water Noncarbonate Hardness=	75.86	mg/L $CaCO_3$
HSD Noncarbonate Hardness=	90.58	mg/L $CaCO_3$
Total Noncarb Hardness Reduction=	(14.7)	mg/L $CaCO_3$

7. Suspended Matter

Raw Water Turbidity	32.61	NTU=	1.90	gpg
Carbon Application	3.49	mg/L=	0.20	gpg
Total Suspended Matter=	36.09	mg/L=	2.11	gpg

Theoretical Lime, Soda Ash, and Sludge
2010

I. Theoretical Lime

For Raw Water Free CO2=	5.18	mg/L	0.39	gpg CaO
For Raw Water Hypothetical CaCO3	180.87	mg/L	5.91	gpg CaO
For Raw Water Hypothetical MgCO3	37.28	mg/L	2.90	gpg CaO
For Noncarb Mg Reduction=	3.04	mg/L	0.41	gpg CaO
For Ferric Sulfate Application=	1.43	gpg	0.43	gpg CaO
For Primary Settled Hydroxide (OH-)	36.42	mg/L as $CaCO_3$	1.19	gpg CaO
		Total=	11.22	gpg CaO

Total Theoretical Lime(95.55% Purity)= **12.15 gpg versus 11.02 gpg CaO Applied**

II. Theoretical Soda Ash

For Noncarb Hardness Reduction	(14.87)	mg/L=	(0.92)	gpg
For Ferric Sulfate Application	1.43	gpg=	0.81	gpg
		Total=	0.00	gpg

Total Soda Ash= **0.00 gpg versus 0.00 gpg Soda Ash Applied**

III. Theoretical Sludge

A. From Precipitated Products of Chemical Reactions

1. Raw Water Free CO2	0.39	gpg=	0.69	gpg $CaCO_3$	
2. Raw Water Hypothetical CaCO3	5.91	gpg=	21.11	gpg $CaCO_3$	
3. Raw Water Hypothetical MgCO3	2.90	gpg=	5.17	gpg $CaCO_3$	
4. Ferric Sulfate Application	0.43	gpg=	0.76	gpg $CaCO_3$	
5. Soda Ash for Noncarbonate Reduction	(0.92)	gpg=	0.00	gpg $CaCO_3$	
6. Excess Lime Recarbonation	13.1	mg/L=	0.76	gpg $CaCO_3$	88.22% $CaCO_3$
7. Raw Water Hypothetical MgCO3	2.90	gpg=	1.04	gpg MgO	
8. Noncarb Mg Reduction	0.41	gpg=	0.29	gpg MgO	4.13% MgO
9. Ferric Sulfate Application	1.43	gpg=	0.41	gpg Fe_2O_3	1.26% Fe_2O_3

Total Precipitated Products= 30.23 gpg

B. From Suspended Matter

1. Raw Water Turbidity	32.608	NTU =	1.90	gpg	5.90% Turbidity
2. Added Carbon Application	3.10	mg/L=	0.16	gpg	0.50% Carbon
Total Suspended Matter=			2.06	gpg	

IV. Summary

Total Precipitated Products, gpg =	**30.23**
Total Suspended Matter, gpg=	**2.06**
Total Theoretical Sludge, gpg=	**32.30**
Pounds of Sludge per MG of Raw Water	**4,611.1**
Tons of Sludge per MG of Raw Water	**2.31**
Raw Water Treated in MG	**11,902.26**
Tons of Sludge per Day	**75.18**
Total Tons of Sludge Generated in 2010	**27,441**

Three Rivers Filtration Plant
Fort Wayne, IN

Sludge Data

Year of Record	Raw Water Pumpage MG	Tons per MG	Total Sludge Tons	Sludge Composition				
				CaCO(3) %	MgO %	Fe(2)O(3) %	Turbidity %	Carbon %
1953	7,431.55	2.65	19,694	85.39	4.48	0.35	9.02	0.76
1954	7,344.32	2.63	19,316	81.36	3.51	0.46	13.72	0.95
1955	7,594.29	2.51	19,062	85.33	3.57	0.34	9.73	1.03
1956	7,660.74	2.54	19,458	80.01	3.67	0.39	14.72	1.21
1957	7,728.25	2.53	19,552	82.14	3.75	0.42	12.81	0.88
1958	7,499.12	2.61	19,573	82.57	3.65	0.52	12.14	1.12
1959	7,982.38	2.36	18,838	81.31	3.69	0.55	12.66	1.79
1960	7,757.98	2.52	19,550	82.20	3.88	0.40	12.39	1.13
1961	7,763.23	2.49	19,330	84.01	4.07	0.37	10.29	1.26
1962	8,543.64	2.39	20,419	85.96	4.55	0.45	7.12	1.92
1963	8,911.06	2.62	23,347	86.37	5.08	0.30	6.50	1.75
1964	9,167.09	2.78	25,485	84.69	4.74	0.23	9.28	1.06
1965	9,419.50	2.82	26,563	79.20	3.93	0.33	15.22	1.32
1966	10,052.50	2.72	27,343	76.65	4.20	0.16	17.23	1.76
1967	10,259.84	2.51	25,752	83.49	4.24	0.28	10.85	1.14
1968	10,205.78	2.57	26,229	80.52	3.72	0.31	14.12	1.33
1969	10,898.68	2.44	26,592	82.23	1.14	2.25	13.15	1.23
1970	11,329.55	2.46	27,870	82.04	4.37	0.23	12.05	1.31
1971	11,249.67	2.32	26,099	82.24	4.22	0.25	11.87	1.42
1972	11,332.68	2.73	30,938	76.73	3.10	0.26	18.57	1.34
1973	11,732.16	2.54	29,800	76.46	3.69	0.25	18.50	1.10
1974	11,833.83	2.43	28,756	75.87	3.88	0.21	19.13	0.91
1975	11,548.48	2.62	30,257	70.30	3.89	0.23	24.73	0.85
1976	11,872.06	2.24	26,593	82.60	5.34	0.14	11.12	0.80
1977	12,574.05	2.61	32,818	80.16	5.00	0.22	13.83	0.79
1978	12,097.31	2.57	31,090	85.57	4.70	0.31	8.67	0.75
1979	11,422.65	2.63	30,022	82.51	4.71	0.49	11.26	1.03
1980	10,845.22	2.75	29,824	75.10	3.82	0.42	19.49	1.17
1981	11,550.48	2.82	32,572	77.11	4.23	0.48	17.42	0.76
1982	11,748.08	2.63	30,897	73.20	3.77	0.52	21.50	1.01
1983	12,004.75	2.50	30,012	80.22	4.52	0.32	14.14	0.80
1984	11,526.26	2.43	28,009	80.33	4.54	0.41	13.75	0.97
1985	12,073.02	2.48	29,941	78.17	4.04	0.49	16.41	0.89
1986	11,432.38	2.60	29,724	76.58	3.44	0.50	18.52	0.96
1987	11,763.80	2.64	31,056	84.07	4.47	0.22	10.40	0.84
1988	12,657.76	2.76	34,952	81.95	3.65	0.39	12.84	1.17
1989	11,802.45	2.62	30,922	77.13	4.99	0.35	16.88	0.65
1990	11,281.23	2.37	26,681	83.17	3.64	0.33	11.74	1.12
1991	11,883.10	2.40	28,462	86.89	4.21	0.39	7.70	0.81
1992	11,218.54	1.92	21,520	83.49	3.35	1.10	10.91	1.14
1993	11,666.67	2.16	25,206	87.62	2.64	1.23	7.22	1.29
1994	12,244.40	2.49	30,478	89.19	4.72	1.05	3.69	1.34
1995	12,300.68	2.36	28,995	88.28	4.42	1.18	4.89	1.23
1996	12,744.18	2.35	29,866	83.05	4.75	2.12	8.03	2.04
1997	12,349.40	2.34	28,931	81.48	3.37	2.67	10.73	1.75
1998	13,078.29	3.49	45,605	80.90	5.18	2.68	10.47	0.77
1999	13,684.57	2.26	30,902	84.87	5.54	1.98	7.12	0.50
2000	13,377.92	2.37	31,687	87.49	4.67	1.65	5.71	0.48
2001	12,725.04	2.24	28,534	85.07	4.11	2.21	8.12	0.49
2002	12,909.75	2.41	28,647	86.51	4.46	1.49	7.07	0.47
2003	12,040.46	2.27	27,355	85.21	3.87	2.61	7.81	0.50
2004	11,898.44	2.19	26,001	84.49	5.15	2.31	7.53	0.52
2005	12,142.29	2.16	26,215	87.29	5.13	2.17	4.89	0.53
2006	11,429.44	2.05	23,473	84.47	4.32	2.11	8.54	0.56
2007	12,254.23	2.22	27,217	85.42	4.49	1.66	7.90	0.51
2008	11,841.94	2.12	25,132	84.07	4.69	1.91	8.80	0.54
2009	11,693.07	2.13	24, 908	84.06	4.24	1.78	9.39	0.54
2010	11,902.26	2.31	27,441	88.22	4.13	1.26	5.90	0.50

Three Rivers Filtration Plant,
Fort Wayne, IN
Rain Fall Data
2010

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
January	2.78	1.25	0.74	2.46	1.30	2.43	4.96	3.01	3.74	2.23	1.07	0.63	2.22
February	2.51	1.57	2.73	1.80	1.39	0.54	2.47	1.64	0.96	4.73	3.70	1.06	2.09
March	1.14	2.01	0.48	2.56	2.43	2.79	1.46	1.98	3.39	3.82	5.70	2.60	2.53
April	6.37	2.09	3.59	3.70	2.35	1.15	2.15	4.26	3.47	1.98	5.94	3.60	3.39
May	3.94	4.63	2.56	6.29	6.94	6.71	1.70	5.04	1.10	4.95	2.01	7.02	4.41
June	1.07	8.55	4.26	3.13	3.66	5.30	2.13	3.36	3.04	5.55	3.75	4.92	4.06
July	1.07	2.18	6.70	2.40	9.80	5.51	5.19	5.41	1.82	3.15	4.22	2.74	4.18
August	3.10	3.68	4.56	2.79	4.08	5.19	1.95	3.11	9.69	2.06	4.24	3.55	4.00
September	1.03	4.61	4.04	2.54	5.44	1.75	3.97	2.03	2.47	1.83	1.41	1.36	2.71
October	2.32	1.78	7.40	1.58	2.01	1.73	0.51	4.35	1.91	2.32	5.17	0.58	2.64
November	1.00	2.12	2.30	2.27	2.42	3.39	3.29	2.39	4.21	2.03	1.14	4.01	2.55
December	1.95	2.54	2.40	1.61	2.62	2.67	2.16	4.73	4.45	4.34	2.77	1.08	2.78
total	28.28	37.01	41.76	33.13	44.44	39.16	31.94	41.31	40.25	38.99	41.12	33.15	37.55

rain10

Three Rivers Filtration Plant
Fort Wayne, IN

Analysis for Year 2010

Physical and Chemical Characteristics	Raw Water Maximum	Raw Water Minimum	Raw Water Average	Finished Water Maximum	Finished Water Minimum	Finished Water Average	EPA Limit	Standard Type
Temperature, F	82.0	32.0	55.4				———	———
Turbidity, NTU	296.00	3.00	32.18	0.11	0.03	0.04	0.30	Primary
Color, Cobalt Scale Unit	1,200.00	10.00	77.54	10.00	0.00	1.43	15.0	Secondary
pH	8.30	7.60	7.85	9.70	8.30	8.78	6.5-8.5	Secondary
Specific Conductance, Micromhos	565.00	325.00	446.81	311.20	204.00	253.88	———	———
Total Dissolved Solids, mg/L	400.80	267.40	328.48	265.80	160.00	208.08	500.0	Secondary
Total Alkalinity, mg/L as CaCO3	360.00	99.00	223.01	63.00	23.00	36.77	———	———
Noncarbonate Hardness,	120.00	21.00	74.04	121.00	51.00	88.75	———	———
Total Hardness,	391.00	151.00	296.51	165.00	88.00	125.52	———	———
Langlier's Index	———	———	———	0.47	-0.24	0.09	Non-Corrossive	Secondary
					———	———	———	———
					———	———	———	———
Chloride, (Cl)	81.32	9.84	37.18	59.62	24.36	35.07	250.0	Secondary
Cyanide, (CN)	———	———	———	<0.020	<0.020	<0.020	0.2	Primary
Fluoride, Fl	0.63	0.10	0.40	1.05	0.92	0.98	4.00	Primary
Nitrate, NO3	3.99	0.15	1.45	2.78	0.12	1.23	10.00	Primary
Nitrite, NO2	2.91	0.00	0.25	0.02	0.00	0.00	1.00	Primary
Phosphate, PO4	———	———	———	———	———	———	———	———
Sulfate, SO4	74.35	14.00	44.76	81.94	40.00	53.69	250.0	Secondary
Surfactants, MBAS	0.08	0.01	0.05	0.09	0.02	0.04	0.5	Secondary
Asbestos				———	Not Detected		7 MFL	Primary
Metals								
Aluminum	2.100	0.000	0.490	0.076	0.000	0.011	0.05-0.2	Secondary
Antimony	0.000	0.000	0.000	0.000	0.000	0.000	0.006	Primary
Arsenic	0.003	0.000	0.000	0.000	0.000	0.000	0.010	Primary
Barium	0.117	0.044	0.072	0.000	0.000	0.000	2.00	Primary
Beryllium	0.000	0.000	0.000	0.0000	0.0000	0.0000	0.004	Primary
Cadmium	0.000	0.000	0.000	0.0000	0.0000	0.0000	0.005	Primary
Calcium	99.700	42.000	77.325	27.900	15.600	22.192	———	———
Chromium	0.000	0.000	0.000	0.000	0.000	0.000	0.10	Primary
Copper	0.117	0.000	0.010	0.025	0.000	0.002	Action Level 1.3*	Primary
Iron	2.800	0.215	0.746	0.052	0.000	0.017	0.3	Secondary
Lead	0.016	0.000	0.001	0.000	0.000	0.000	Action Level 0.015*	Primary
Magnesium	22.900	8.900	17.758	14.900	1.400	9.152	———	———
Manganese	0.101	0.011	0.058	0.011	0.000	0.001	0.050	Secondary
Mercury	0.000	0.000	0.000	0.000	0.000	0.000	0.002	Primary
Molybdenum	0.000	0.000	0.000	0.000	0.000	0.000	———	———
Nickel	0.000	0.000	0.000	0.000	0.000	0.000	———	———
Potassium	5.890	3.710	4.918	5.360	3.690	4.391	———	———
Selenium	0.000	0.000	0.000	0.000	0.000	0.000	0.05	Primary
Silicon	4.700	1.670	3.005	2.930	1.290	1.996	———	———
Silver	0.000	0.000	0.000	0.025	0.000	0.002	0.100	Secondary
Sodium	89.400	10.000	28.650	66.000	3.600	24.283	———	———
Thallium	0.000	0.000	0.000	0.000	0.000	0.000	0.002	Primary
Tin	0.000	0.000	0.000	0.000	0.000	0.000		
Zinc	0.108	0.000	0.023	0.091	0.000	0.016	5	Secondary
Radioactivity (Radium 228) pCi/L	LAST TESTING PERIOD 2008			NA	NA	1.7	5	Primary

All Constituents Expressed As mg/L (ppm) Unless Otherwise Noted

Lead-Copper In Distribution Samples	90 % Level	EPA Limit	Standard Type
Lead	0.023 mg/L	Action Level 0.015 mg/L*	Primary
Copper	0.089 mg/L	Action Level 1.3 mg/L*	Primary

*** = Treatment Technology Action Level. 90% of the distribution system samples must have Lead and Copper Concentration at or below the action level.**

Three Rivers Filtration Plant
Fort Wayne, IN

Microbiological Summary
2010

Heterotrophic Plate Count, CFU/mL

		Raw	Plant 1	Plant 2	Plant 3	Finished Water
Primary Settled		------	105	161	42	
Secondary Settled		------	11	7	6	
Filtered		------	1	1	1	
	Avg	10348	------	------	------	2
	Max	46400	------	------	------	22
	Min	1675	------	------	------	0

Coliform and Fecal Coliform, Most Probable Number Indices

		Raw	Plant 1 Primary	Plant 1 Secondary	Plant 2 Primary	Plant 2 Secondary	Plant 3 Primary	Plant 3 Secondary
Coliform Index		3,445.8	24.3	2.4	25.7	0.6	83.6	0.3
Fecal Coliform Index		279.1	2.4	0.0	3.4	0.0	2.8	0.0
	Raw	**Coli**	**Fecal**					
	Max	6,880.0	912.5					
	Min	917.5	11.1					

Post Coliaerogenes

	#1 Filter	#2 Filter	#3 Filter	Finished Water	City Tap
Number of test Days	99	99	99	365	249
Number of Samples	99	99	99	1,460	2,000
Confirmed Coliform Samples	0	0	0	0	1
Coliform, % Positive	0.00	0.00	0.00	0.00	0.05

Main and Service Samples 194

Other Microbial Contaminants

	Raw Water AVE.	No. of tests	Finished Water AVE.	No. of tests
Cryptosporidium, oocyst/100 L	0.072	12	0.000	12
Giardia, cyst/ 100L	0.042	12	0.000	12

Three Rivers Filtration Plant
Fort Wayne, IN

Annual 2010

LIME SOFTENING SUMMARY	T. ALK	SPECIAL SUMMARY HYDROXIDE	BICARBONATE (as CaCO3)
RAW	224.9	-	224.9
PLANT #1			
PRIMARY SETTLED		40.5	0.0
CARBONATED		0.0	28.8
SECONDARY SETTLED		0.0	26.6
PLANT #2			
PRIMARY SETTLED		40.0	0.0
CARBONATED		0.0	26.8
SECONDARY SETTLED		0.0	24.7
PLANT #3			
PRIMARY SETTLED		38.2	0.0
CARBONATED		0.0	25.2
SECONDARY SETTLED		0.0	26.2
H.S.D.	37.2		

	NON-CARBONATE SUMMARY	COLOR SUMMARY
RAW	74.9	78.5
H.S.D.	89.7	1.4

	RAW	FILTER #1	FILTER #2	FILTER #3	H.S.D.	CITY TAP
# OF TEST DAYS	365	365	365	365	365	249
TURBIDITY	32.6	0.06	0.05	0.05	0.04	-
pH	7.9	-	-	-	8.9	-
T. HARD. mg/L	299.8	-	-	-	126.9	-
T. HARD. gpg	17.5	-	-	-	7.4	-
FLUORIDE	0.4				1.0	1.0

DISSOLVED SOLIDS (IN mg/L)	RAW			H.S.D.		
	Maximum	Minimum	Average	Maximum	Minimum	Average
TOTAL SOLIDS	400.8	267.4	328.5	265.8	160.0	208.1
FIXED SOLIDS	313.2	190.0	248.4	206.4	115.4	155.5
VOLATILE SOLIDS	93.4	63.8	80.1	60.2	44.6	52.6
SPECIFIC CONDUCTANCE	565.0	325.0	446.8	311.2	204.0	253.9

2010 Purification Chemicals Summary

Lime Suppliers: Huron Lime

Slaking Analysis

	%CaO	Rise In 3 Minutes °C	Maximum Temperature °C	Minimum Temperature °C	Minutes to Max. Temp.
Maximum	99.8%	76.00	85.00	30.00	11.00
Minimum	90.0%	34.00	56.00	19.00	3.00
Average	95.3%	56.37	73.73	22.51	4.37

Principal Constituents, In mg/L

	Raw			H.S.D.		
	Maximum	Minimum	Average	Maximum	Minimum	Average
Sulfate, SO_4	74.35	14.00	44.76	81.94	40.00	53.69
Chloride, Cl	81.32	9.84	37.18	59.62	24.36	35.07
Fluoride, F	0.63	0.10	0.40	1.05	0.92	0.98
Nitrate, NO_2 as N	3.99	0.15	1.45	2.78	0.12	1.23
Nitrite, NO_3 as N	2.91	0.00	0.25	0.02	0.00	0.00

Special Analysis

	Raw			H.S.D.		
	Maximum	Minimum	Average	Maximum	Minimum	Average
Langlier's Index	N/A	N/A	N/A	0.47	(0.24)	0.09
MBAS, mg/L	0.08	0.01	0.05	0.09	0.02	0.04

Chlorine Residual

	Filter # 1	Filter # 2	Filter # 3	H.S.D	City Tap
Number of Test days	365	365	365	365	365
Number of Tests	365	365	365	365	1,225
Average Residual, mg/L	1.55	1.72	1.74	1.45	0.96

Temperature

	Maximum	Minimum	Average	Total
Water Temperature, °F	78.03	33.55	56.06	
Weather Bureau Mean, °F	77.00	23.00	51.96	
Degree Days	1,295.00	0.00	485.25	
Rain Fall	7.02	0.58	2.76	33.15

Disinfection Byproducts and Precurssors

Sample Code	Sample Date Chemical	Method	MCL ug/L	01/13/10 ug/L	04/13/10 ug/L	07/14/10 ug/L	10/20/10 ug/L	2010 Average ug/L
	Trihalomethanes (THM)							
MGT002	1100 Griswold	524.2		7.0	46.2	66.6	18.8	34.7
MGT003	5801 Bluffton Rd	524.2		6.0	31.3	56.5	12.0	26.5
MGT004	6727 N. Clinton	524.2		5.5	25.0	45.6	15.1	22.8
MGT001	7916 W. Jefferson	524.2		5.6	18.7	56.2	15.1	23.9
	Total Trihalomethanes		80	6.0	30.3	56.2	15.3	27.0
	HAA							
MGT002	1100 Griswold	552.2		7.7	36.4	39.3	12.0	23.9
MGT003	5801 Bluffton Rd	552.2		7.8	37.2	41.4	13.0	24.9
MGT004	6727 N. Clinton	552.2		9.9	36.5	33.3	14.0	23.4
MGT001	7916 W. Jefferson	552.2		7.7	35.5	32.2	15.0	22.6
	Total HAA=		60	8.3	36.4	36.6	13.5	23.7
	CHLORITES			ANNUAL AVERAGE (ug/L)				
MGT002	1100 Griswold	300			814			
MGT003	5801 Bluffton Rd	300			725			
MGT001	7916 W. Jefferson	300			764			
	Total Chlorites		1000		768			

Three Rivers Filtration Plant
Fort Wayne, IN

Samples Analyzed By
Laboratory: Underwriters Laboratories
Lab Cert #: C-71-01

Insecticides and Pesticides

Compound ID#	Sample Date Chemical	Method	MCL ug/L	First Quarter 08-Feb-10 ug/L	Second Quarter 12-May-10 ug/L	Third Quarter 04-Aug-10 ug/L	Fourth Quarter 10-Nov-10 ug/L	2010 Average ug/L
	Regulated Contaminants							
2051	Alachlor	525.2	2	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2050	Atrazine	525.2	3	<0.1	0.50	0.2	< 0.1	0.18
2306	Benzo(A)pyrene	525.2	0.2	<0.02	<0.02	< 0.02	< 0.02	< 0.02
2046	Carbofuran	531.1	40	<0.9	<0.9	< 0.9	< 0.9	< 0.9
2069	Chlordane, (alpha+gamma)	505	2	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2105	2,4-D	515.3	70	<0.1	0.20	< 0.1	< 0.1	< 0.1
2031	Dalapon	515.3	200	<1.0	<1.0	< 1.0	< 1.0	< 1.0
2931	1,2-Dibromo-3-chloropropane-DBCP	504	0.2	<0.01	<0.01	< 0.01	< 0.01	< 0.01
2041	Dinoseb	515.3	7	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2063	2,3,7,8-TCDD(Dioxine)	1613b	3e=05	<5.0e-06	<5.0e-06	<5.0e-06	<5.0e-06	<5.0e-06
2032	Diquat	549.2	20	<0.4	<0.4	< 0.4	< 0.4	< 0.4
2035	Dil(2-ethylhexyl)adipate	525.2	400	<0.6	<0.6	< 0.6	< 0.6	< 0.6
2039	Dil(2-ethylhexyl)phthalate	525.2	6	<0.6	<0.6	< 0.6	< 0.6	< 0.6
2033	Endothall	548	100	<9.0	<9.0	< 9.0	< 9.0	< 9.0
2005	Endrin	525.2	2	<0.01	<0.01	< 0.01	< 0.01	< 0.01
2946	Ethylene Dibromide (EDB)	504	0.05	<0.01	<0.01	< 0.01	< 0.01	< 0.01
2034	Glyphosate	547	700	<6.0	<6.0	< 6.0	< 6.0	< 6.0
2065	Heptachlor	525.2	0.4	<0.04	<0.04	< 0.04	< 0.04	< 0.04
2067	Heptachlorepoxide	525.2	0.2	<0.02	<0.02	< 0.02	< 0.02	< 0.02
2274	Hexachlorobenzene	525.2	1	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2042	Hexachlorocyclopentadiene	525.2	50	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2010	Lindane	525.2	0.2	<0.02	<0.02	< 0.02	< 0.02	< 0.02
2015	Methoxychlor	525.2	40	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2036	Oxamyl (Vydate)	531.1	200	<1.0	<1.0	< 1.0	< 1.0	< 1.0
2326	Pentachlorophenol	515.3	1	<0.04	<0.04	< 0.04	< 0.04	< 0.04
2040	Picloram(Tordon)	515.3	500	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2383	Polychlorinated Biphenyls-PCB	505.0	0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5
2037	Simazine	525.2	4	<0.07	<0.07	< 0.07	< 0.07	< 0.07
2110	2,4,5-TP (Silvex)	515.3	50	<0.1	<0.1	< 0.1	< 0.1	< 0.1
2020	Toxaphene	505	3	<1.0	<1.0	< 1.0	< 1.0	< 1.0
	Unregulated Contaminants							
2047	Aldicarb	531.1	N/A	<0.5	<0.5	<0.5	<0.5	<0.5
2044	Aldicarb Sulfone	531.1	N/A	<0.7	<0.7	<0.7	<0.7	<0.7
2043	Aldicarb Sulfoxide	531.1	N/A	<0.5	<0.5	<0.5	<0.5	<0.5
2356	Aldrin	525.2	N/A	<0.1	<0.1	<0.1	<0.1	<0.1
2076	Butachlor	525.2	N/A	<0.1	<0.1	<0.1	<0.1	<0.1
2021	Carbaryl	531.1	N/A	<0.5	<0.5	<0.5	<0.5	<0.5
2440	Dicamba	515.3	N/A	<0.1	<0.1	<0.1	<0.1	<0.1
2070	Dieldrin	525.2	N/A	<0.1	<0.1	<0.1	<0.1	<0.1
2066	3-Hydroxycarbofuran	531.1	N/A	<0.5	<0.5	<0.5	<0.5	<0.5
2022	Methomyl	531.1	N/A	<0.5	<0.5	<0.5	<0.5	<0.5
2045	Metolachlor(Dual)	525.2	N/A	<0.1	0.10	0.10	< 0.1	0.05
2595	Metribuzin (Sencor)	525.2	N/A	<0.1	<0.1	<0.1	<0.1	<0.1
2077	Propachlor	525.2	N/A	<0.1	<0.1	<0.1	<0.1	<0.1

Three Rivers Filtration Plant
Fort Wayne, IN

Samples Analyzed By
Laboratory: Underwriters Laboratories
Lab Cert #: C-71-01

Volatile Organic Compounds (VOC)

Compound ID#	Sample Date Chemical Sample location; 1100 Griswold	Method	MCL ug/L	First Quarter 13-Jan-10 ug/L	Second Quarter 13-Apr-10 ug/L	Third Quarter 14-Jul-10 ug/L	Fourth Quarter 20-Oct-10 ug/L	2010 Average ug/L
	Regulated Contaminants							
2990	Benzene	524.2	5	<0.5	<0.5	<0.5	< 0.5	< 0.5
2982	Carbon tetrachloride	524.2	5	<0.5	<0.5	<0.5	<0.5	<0.5
2989	Chlorobenzene	524.2	100	<0.5	<0.5	<0.5	<0.5	<0.5
2968	1,2-Dichlorobenzene	524.2	600	<0.5	<0.5	<0.5	<0.5	<0.5
2969	1,4-Dichlorobenzene	524	75	<0.5	<0.5	<0.5	<0.5	<0.5
2980	1,2-Dichloroethane	524.2	5	<0.5	<0.5	<0.5	<0.5	<0.5
2977	1,1-Dichloroethylene	524.2	7	<0.5	<0.5	<0.5	<0.5	<0.5
2380	1,2-Dichloroethylene,cis	524	70	<0.5	<0.5	<0.5	<0.5	<0.5
2979	1,2-Dichloroethylene,trans	524.2	100	<0.5	<0.5	<0.5	<0.5	<0.5
2964	Dichloromethane	524	5	<0.5	<0.5	<0.5	<0.5	<0.5
2983	1,2-Dichloropropane	524.2	5	<0.5	<0.5	<0.5	<0.5	<0.5
2992	Ethylbenzene	524.2	700	<0.5	<0.5	<0.5	<0.5	<0.5
2996	Styrene	524.2	100	<0.5	<0.5	<0.5	<0.5	<0.5
2987	Tetrachloroethylene	524	5	<0.5	<0.5	<0.5	<0.5	<0.5
2991	Toluene	524.2	1000	<0.5	<0.5	<0.5	<0.5	<0.5
2378	1,2,4-Trichlorobenzene	524	70	<0.5	<0.5	<0.5	<0.5	<0.5
2981	1,1,1-Trichloroethane	524	200	<0.5	<0.5	<0.5	<0.5	<0.5
2985	1,1,2-Trichloroethane	524.2	5	<0.5	<0.5	<0.5	<0.5	<0.5
2984	Trichloroethylene	524.2	5	<0.5	<0.5	<0.5	<0.5	<0.5
2976	Vinylchloride	524.2	2	<0.2	0.30	<0.2	<0.2	0.08
2955	Total Xylenes	524.2	10000	<0.5	<0.5	<0.5	<0.5	< 0.5
2995	1,3-Xylenes	524.2				<0.5	<0.5	<0.5
2997	1,2-Xylenes	524.2				<0.5	<0.5	<0.5
2962	1,4-Xylenes	524.2				<0.5	<0.5	<0.5
	Total regulated Contaminants			<0.5	0.30	< 0.5	< 0.5	0.08
	Unregulated Trihalomethanes							
2408	Dibromomethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2943	Bromodichloromethane	524		0.60	2.20	8.20	1.70	3.18
2942	Bromoform	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2944	Chlorodibromomethane	524.2		<0.5	<0.5	1.8	< 0.5	0.45
2941	Chloroform	524.2		6.20	45.00	54.00	19.00	31.05
	Total Trihalomethanes		80	6.80	47.20	64.00	20.70	34.68
	Unregulated Contaminants							
2993	Bromobenzene	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2214	Bromomethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2216	Chloroethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2210	Chloromethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2965	1,2-Chlorotoluene(o-)	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2966	1,4-Chlorotoluene(p-)	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2967	1,3-Dichlorobenzene	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2978	1,1-Dichloroethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2412	1,3-Dichloropropane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2416	2,2-Dichloropropane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2410	1,1-Dichloropropene	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2413	1,3-Dichloropropene (cis and trans)	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2986	1,1,1,2-Tetrachloroethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2988	1,1,2,2-Tetrachloroethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2414	1,2,3-Trichloropropane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2408	Dibromomethane	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
2251	Methyl-t-butyl ether (MTBE)	524.2		<0.5	<0.5	< 0.5	< 0.5	< 0.5
	Total Unregulated Contaminants			<0.5	<0.5	< 0.5	< 0.5	< 0.5