



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Lake Huron Plant
08/13/2014

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	0.60	0.09	0.3/95% (1)		
Total Solids		mg/L	152	167		500	10
Total Dissolved Solids		mg/L	78	63		500	10
Aluminum	Al	mg/L	< 0.050	0.063		0.05-0.2	0.005
Iron	Fe	mg/L	0.295	< 0.050		0.3	0.005
Copper	Cu	mg/L	0.012	< 0.005	1.3		0.002
Magnesium	Mg	mg/L	8.12	8.00			0.5
Calcium	Ca	mg/L	24.9	23.8			0.1
Sodium	Na	mg/L	4.78	5.06		20 (2)	0.1
Potassium	K	mg/L	0.87	1.07			0.1
Manganese	Mn	mg/L	< 0.002	< 0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	0.9	0.9			0.4
Sulfate	SO ₄ ²⁻	mg/L	16.1	19.6			
Chloride	Cl ⁻	mg/L	7.0	8.5		250	5
Phosphorus	P	mg/L	< 0.05	0.34			0.05
Free Carbon Dioxide	CO ₂	mg/L	4.1	9.2			
Total Hardness (3), (4), (5)		mg/L	108	102			
Total Alkalinity (3)		mg/L	100	80			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	100	80			
Non-Carbonate Hardness (3)		mg/L	8	22			
Chemical Oxygen Demand		mg/L	3.2	4.4			2
Dissolved Oxygen		mg/L	7.2	7.8			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.66	0.67	10	10	0.1
Fluoride	F ⁻	mg/L	0.10	0.62	4		0.5
pH			7.69	7.24	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	228	231			
Temperature		°C	22.1	22.0			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 5.92 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument
IV: Invalid Sample	detection limit.

Analyst: Brian Brown Sr. Analytical Chemist Initial **B. B.** Date: 11/24/2014
Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Southwest Plant
08/13/2014

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	1.90	0.12	0.3/95% (1)		
Total Solids		mg/L	142	158		500	10
Total Dissolved Solids		mg/L	104	82		500	10
Aluminum	Al	mg/L	0.118	0.081		0.05-0.2	0.005
Iron	Fe	mg/L	0.137	< 0.050		0.3	0.005
Copper	Cu	mg/L	0.076	0.006	1.3		0.002
Magnesium	Mg	mg/L	8.20	8.27			0.5
Calcium	Ca	mg/L	24.1	23.6			0.1
Sodium	Na	mg/L	5.59	5.22		20 (2)	0.1
Potassium	K	mg/L	1.08	0.86			0.1
Manganese	Mn	mg/L	0.004	< 0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	0.6	0.7			0.4
Sulfate	SO ₄ ²⁻	mg/L	17.9	33.9			
Chloride	Cl ⁻	mg/L	IV	12.0		250	5
Phosphorus	P	mg/L	< 0.05	0.33			0.05
Free Carbon Dioxide	CO ₂	mg/L	1.4	10.6			
Total Hardness (3), (4), (5)		mg/L	100	118			
Total Alkalinity (3)		mg/L	88	82			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	88	82			
Non-Carbonate Hardness (3)		mg/L	12	36			
Chemical Oxygen Demand		mg/L	2.8	2.4			2
Dissolved Oxygen		mg/L	6.8	6.6			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.77	0.47	10	10	0.1
Fluoride	F ⁻	mg/L	0.13	0.67	4		0.5
pH			8.09	7.19	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	225	233			
Temperature		°C	24.6	24.4			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 6.84 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument
IV: Invalid Sample	detection limit.

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 Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Water Works Park Plant
08/13/2014

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	1.00	0.12	0.3/95% (1)		
Total Solids		mg/L	139	153		500	10
Total Dissolved Solids		mg/L	102	101		500	10
Aluminum	Al	mg/L	0.051	0.076		0.05-0.2	0.005
Iron	Fe	mg/L	0.124	0.133		0.3	0.005
Copper	Cu	mg/L	0.005	< 0.005	1.3		0.002
Magnesium	Mg	mg/L	7.76	7.95			0.5
Calcium	Ca	mg/L	23.7	24.2			0.1
Sodium	Na	mg/L	4.46	4.69		20 (2)	0.1
Potassium	K	mg/L	0.85	0.86			0.1
Manganese	Mn	mg/L	0.002	< 0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	AE	0.5			0.4
Sulfate	SO ₄ ²⁻	mg/L	16.0	31.2			
Chloride	Cl ⁻	mg/L	7.0	8.5		250	5
Phosphorus	P	mg/L	< 0.05	0.28			0.05
Free Carbon Dioxide	CO ₂	mg/L	3.5	8.4			
Total Hardness (3), (4), (5)		mg/L	106	106			
Total Alkalinity (3)		mg/L	98	82			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	98	82			
Non-Carbonate Hardness (3)		mg/L	8	24			
Chemical Oxygen Demand		mg/L	4.0	5.6			2
Dissolved Oxygen		mg/L	7.2	8.9			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.41	0.51	10	10	0.1
Fluoride	F ⁻	mg/L	0.11	0.66	4		0.5
pH			7.74	7.29	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	236	232			
Temperature		°C	24.7	24.4			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 6.15 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument
IV: Invalid Sample	detection limit.

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 Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Northeast Plant
08/13/2014

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	1.00	0.10	0.3/95% (1)		
Total Solids		mg/L	139	151		500	10
Total Dissolved Solids		mg/L	102	122		500	10
Aluminum	Al	mg/L	0.051	0.120		0.05-0.2	0.005
Iron	Fe	mg/L	0.124	0.255		0.3	0.005
Copper	Cu	mg/L	0.005	< 0.005	1.3		0.002
Magnesium	Mg	mg/L	7.76	8.04			0.5
Calcium	Ca	mg/L	23.7	23.9			0.1
Sodium	Na	mg/L	4.46	5.00		20 (2)	0.1
Potassium	K	mg/L	0.85	1.01			0.1
Manganese	Mn	mg/L	0.002	< 0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	AE	0.8			0.4
Sulfate	SO ₄ ²⁻	mg/L	16.0	23.7			
Chloride	Cl ⁻	mg/L	7.0	9.5		250	5
Phosphorus	P	mg/L	< 0.05	0.31			0.05
Free Carbon Dioxide	CO ₂	mg/L	3.5	8.8			
Total Hardness (3), (4), (5)		mg/L	106	102			
Total Alkalinity (3)		mg/L	98	78			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	98	78			
Non-Carbonate Hardness (3)		mg/L	8	24			
Chemical Oxygen Demand		mg/L	4.0	3.6			2
Dissolved Oxygen		mg/L	7.2	7.6			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.41	0.41	10	10	0.1
Fluoride	F ⁻	mg/L	0.11	0.58	4		0.5
pH			7.74	7.25	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	236	229			
Temperature		°C	24.7	24.0			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 5.92 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument
IV: Invalid Sample	detection limit.

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 Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Springwells Plant
08/13/2014

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	1.00	0.08	0.3/95% (1)		
Total Solids		mg/L	139	158		500	10
Total Dissolved Solids		mg/L	102	120		500	10
Aluminum	Al	mg/L	0.051	0.087		0.05-0.2	0.005
Iron	Fe	mg/L	0.124	0.326		0.3	0.005
Copper	Cu	mg/L	0.005	< 0.005	1.3		0.002
Magnesium	Mg	mg/L	7.76	8.20			0.5
Calcium	Ca	mg/L	23.7	23.4			0.1
Sodium	Na	mg/L	4.46	4.58		20 (2)	0.1
Potassium	K	mg/L	0.85	0.87			0.1
Manganese	Mn	mg/L	0.002	0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	AE	0.9			0.4
Sulfate	SO ₄ ²⁻	mg/L	16.0	22.1			
Chloride	Cl ⁻	mg/L	7.0	9.0		250	5
Phosphorus	P	mg/L	< 0.05	0.43			0.05
Free Carbon Dioxide	CO ₂	mg/L	3.5	11.3			
Total Hardness (3), (4), (5)		mg/L	106	102			
Total Alkalinity (3)		mg/L	98	80			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	98	80			
Non-Carbonate Hardness (3)		mg/L	8	22			
Chemical Oxygen Demand		mg/L	4.0	3.6			2
Dissolved Oxygen		mg/L	7.2	8.1			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.41	0.44	10	10	0.1
Fluoride	F ⁻	mg/L	0.11	0.59	4		0.5
pH			7.74	7.15	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	236	228			
Temperature		°C	24.7	24.1			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 5.92 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument
IV: Invalid Sample	detection limit.

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 Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



**Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at Each Plant**

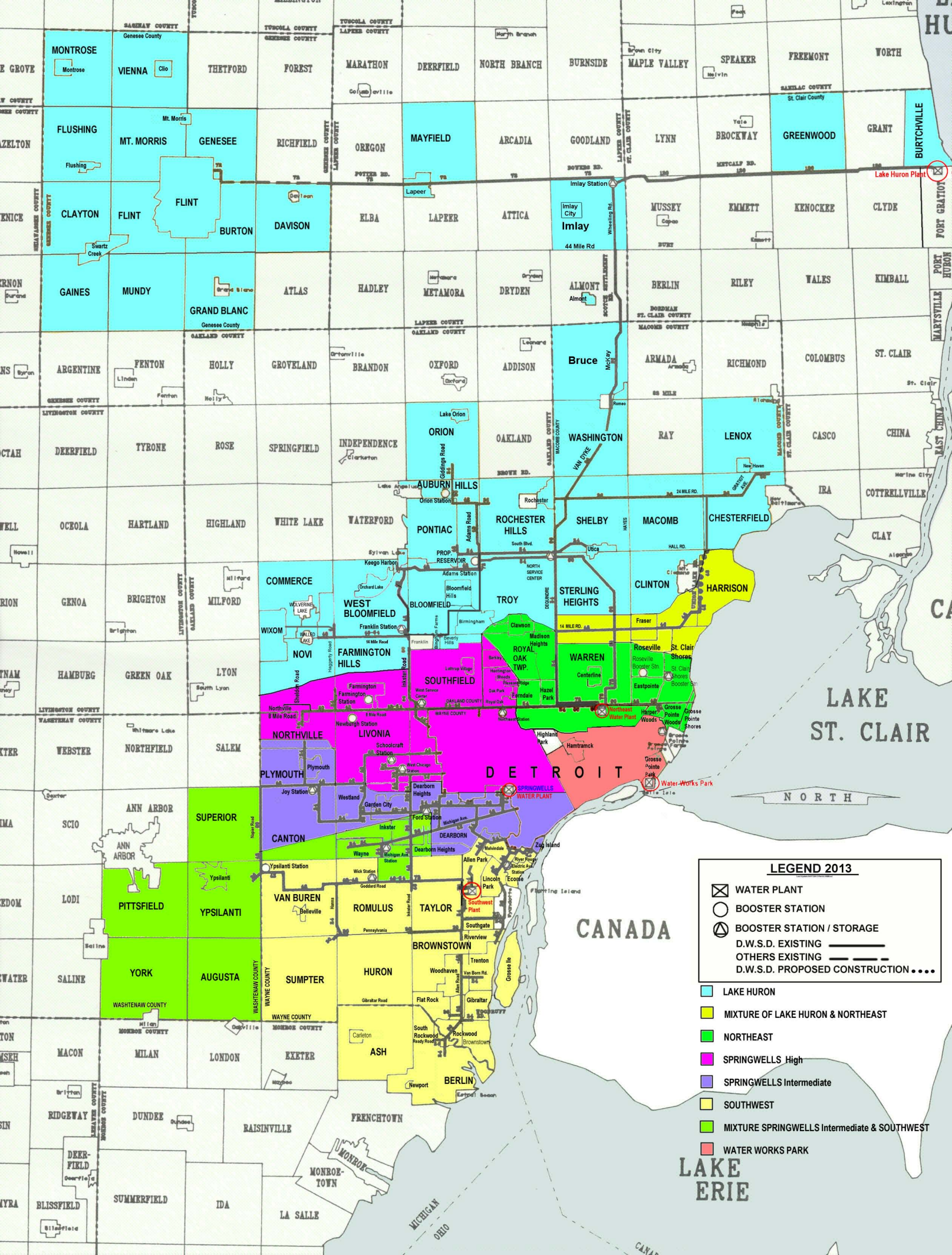
Date: 08/13/2014 08/13/2014 08/13/2014 08/13/2014 08/13/2014 08/13/2014 08/13/2014 08/13/2014

Parameter	Formula	Units	Lake Huron		Southwest		Belle Isle	Water Works Park	Northeast	Springwells	MCL	Sec.Std	MDL
			Raw	Tap	Raw	Tap	Raw	Tap	Tap	Tap			
Turbidity		NTU	0.60	0.09	1.90	0.12	1.00	0.12	0.10	0.08	0.3 / 95% (1)		
Total Solids		mg/L	152	167	142	158	139	153	151	158		500	10
Total Dissolved Solids		mg/L	78	63	104	82	102	101	122	120		500	10
Aluminum	Al	mg/L	< 0.050	0.063	0.118	0.081	0.051	0.076	0.120	0.087		0.05 - 0.2	0.005
Iron	Fe	mg/L	0.295	< 0.050	0.137	< 0.050	0.124	0.133	0.255	0.326		0.3	0.005
Copper	Cu	mg/L	0.012	< 0.005	0.076	0.006	0.005	< 0.005	< 0.005	< 0.005	1.3		0.002
Magnesium	Mg	mg/L	8.12	8.00	8.20	8.27	7.76	7.95	8.04	8.20			0.5
Calcium	Ca	mg/L	24.9	23.8	24.1	23.6	23.7	24.2	23.9	23.4			0.1
Sodium	Na	mg/L	4.78	5.06	5.59	5.22	4.46	4.69	5.00	4.58		20 (2)	0.1
Potassium	K	mg/L	0.87	1.07	1.08	0.86	0.85	0.86	1.01	0.87			0.1
Manganese	Mn	mg/L	< 0.002	< 0.002	0.004	< 0.002	0.002	< 0.002	< 0.002	0.002		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.015		0.002
Zinc	Zn	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		5	0.1
Silica	SiO ₂	mg/L	0.9	0.9	0.6	0.7	AE	0.5	0.8	0.9			0.4
Sulfate	SO ₄ ²⁻	mg/L	16.1	19.6	17.9	33.9	16.0	31.2	23.7	22.1			
Chloride	Cl ⁻	mg/L	7.0	8.5	IV	12.0	7.0	8.5	9.5	9.0		250	5
Phosphorus	P	mg/L	< 0.05	0.34	< 0.05	0.33	< 0.05	0.28	0.31	0.43			0.05
Free Carbon Dioxide	CO ₂	mg/L	4.1	9.2	1.4	10.6	3.5	8.4	8.8	11.3			
Total Hardness (3), (4), (5)		mg/L	108	102	100	118	106	106	102	102			
Total Alkalinity (3)		mg/L	100	80	88	82	98	82	78	80			
Carbonate Alkalinity (3)		mg/L	0	0	0	0	0	0	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	100	80	88	82	98	82	78	80			
Non-Carbonate Hardness (3)		mg/L	8	22	12	36	8	24	24	22			
Chemical Oxygen Demand		mg/L	3.2	4.4	2.8	2.4	4.0	5.6	3.6	3.6			2
Dissolved Oxygen		mg/L	7.2	7.8	6.8	6.6	7.2	8.9	7.6	8.1			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.66	0.67	0.77	0.47	0.41	0.51	0.41	0.44	10	10	0.1
Fluoride	F ⁻	mg/L	0.10	0.62	0.13	0.67	0.11	0.66	0.58	0.59	4		0.5
pH			7.69	7.24	8.09	7.19	7.74	7.29	7.25	7.15	6.5 - 8.5	6.5 - 8.5	
Specific Conductance @ 25 °C.		micromhos	228	231	225	233	236	232	229	228			
Temperature		°C	22.1	22.0	24.6	24.4	24.7	24.4	24.0	24.1			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
µg/L: Microgram Per Liter	µg/L is equivalent to part per billion (ppb)
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon multiply value by 0.058 (Grains/Gallon)/(mg/L)
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument detection limit.
IV: Invalid Sample	

Analyst: Brian Brown Sr. Analytical Chemist Initial **B. B.** Date: 11/24/2014
 Reviewed By: Patrick Williford Principal Chemist Initial **P. W.** Date: 11/26/2014

Detroit Water & Sewerage Department



LEGEND 2013

- ☒ WATER PLANT
- BOOSTER STATION
- ⊕ BOOSTER STATION / STORAGE
- D.W.S.D. EXISTING
- - - OTHERS EXISTING
- ⋯ D.W.S.D. PROPOSED CONSTRUCTION

- ☐ LAKE HURON
- ☐ MIXTURE OF LAKE HURON & NORTHEAST
- ☐ NORTHEAST
- ☐ SPRINGWELLS High
- ☐ SPRINGWELLS Intermediate
- ☐ SOUTHWEST
- ☐ MIXTURE SPRINGWELLS Intermediate & SOUTHWEST
- ☐ WATER WORKS PARK

LAKE ERIE

MICHIGAN
OHIO

NORTH

CANADA

LAKE ST. CLAIR

DETROIT

MONTROSE

VIENNA

THETFORD

FOREST

MARATHON

DEERFIELD

NORTH BRANCH

BURNSIDE

MAPLE VALLEY

SPEAKER

FREEMONT

WORTH

BURCHVILLE

FLUSHING

MT. MORRIS

GENESEE

RICHFIELD

OREGON

MAYFIELD

ARCADIA

GOODLAND

LYNN

BROCKWAY

GREENWOOD

GRANT

CLYDE

PORT GRATON

CLAYTON

FLINT

FLINT

BURTON

DAVISON

ELBA

LAPEER

ATTICA

IMLAY

MUSSEY

EMMETT

KENOCKEE

CLYDE

PORT GRATON

GAINES

MUNDY

GRAND BLANC

ATLAS

HADLEY

METAMORA

DRYDEN

ALMONT

BERLIN

RILEY

WALES

KIMBALL

ST. CLAIR

PORT GRATON

ARGENTINE

FENTON

HOLLY

GROVELAND

BRANDON

OXFORD

ADDISON

BRUCE

ARMADA

RICHMOND

COLOMBUS

ST. CLAIR

ST. CLAIR

PORT GRATON

DEERFIELD

TYBONE

ROSE

SPRINGFIELD

INDEPENDENCE

OAKLAND

WASHINGTON

RAY

LENOX

CASCO

CHINA

ST. CLAIR

ST. CLAIR

PORT GRATON

OCOLA

HARTLAND

HIGHLAND

WHITE LAKE

WATERFORD

PONTIAC

ROCHESTER HILLS

SHELBY

MACOMB

CHESTERFIELD

CLAY

CLAY

COTTRELLVILLE

PORT GRATON

GENOA

BRIGHTON

MILFORD

COMMERCE

WEST BLOOMFIELD

BLOOMFIELD

TROY

STERLING HEIGHTS

CLINTON

HARRISON

ST. CLAIR

ST. CLAIR

ST. CLAIR

PORT GRATON

HAMBURG

GREEN OAK

LYON

NOVI

FARMINGTON HILLS

SOUTHFIELD

ROYAL OAK TWP

WARREN

ROSEVILLE

ST. CLAIR

ST. CLAIR

ST. CLAIR

ST. CLAIR

PORT GRATON

WEBSTER

NORTHFIELD

SALEM

NORTHVILLE

LIVONIA

PLYMOUTH

DEARBORN

DEARBORN

DEARBORN

DEARBORN

DEARBORN

DEARBORN

DEARBORN

PORT GRATON

SCIO

ANN ARBOR

ANN ARBOR

SUPERIOR

CANTON

PLYMOUTH

PLYMOUTH

PLYMOUTH

PLYMOUTH

PLYMOUTH

PLYMOUTH

PLYMOUTH

PLYMOUTH

PORT GRATON

LODI

PITTSFIELD

YPSILANTI

YPSILANTI

VAN BUREN

ROMULUS

TAYLOR

TAYLOR

TAYLOR

TAYLOR

TAYLOR

TAYLOR

TAYLOR

PORT GRATON

SALINE

YORK

AUGUSTA

SUMPTER

HURON

HURON

HURON

HURON

HURON

HURON

HURON

HURON

HURON

PORT GRATON

MACON

MILAN

LONDON

EXETER

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ASH

ASH

ASH

ASH

ASH

ASH

ASH

ASH

PORT GRATON

RIDGEWAY

DUNDEE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

RAISINVILLE

PORT GRATON

DEERFIELD

BLISSFIELD

SUMMERFIELD

IDA

LA SALLE

LA SALLE

LA SALLE

LA SALLE

LA SALLE

LA SALLE

LA SALLE

LA SALLE

LA SALLE

PORT GRATON