

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER LABORATORY**

USEPA Region V Drinking Water Cert. No. MI00003  
P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562



**Sample Number  
LH74724**

**Official Laboratory Report**

Report To: LUKE KEYZER  
117 E ORLEANS ST  
OTSEGO MI 49078

System Name/Owner: CITY OF OTSEGO  
Collection Address: BROOKSIDE PARK, OTSEGO  
Collected By: LUKE KEYZER  
Township/Well#/Section: /3/  
County: Allegan  
Sample Point: PLANT TAP AFTER CHEM ADDITION  
Water System: Public System Well

WSSN/Pool ID: 5060  
Source: TYPE I  
Site Code: TP003  
Collector: Public Water Supply Operator  
Date Collected: 04/09/2018 10:45  
Date Received: 04/10/2018 10:47  
Purpose: Routine Monitoring

TESTING INFORMATION			REGULATORY INFORMATION			
Analyte Name	Result (mg/L)	Date Tested	RL (mg/L)	MCL/AL (mg/L)	Method	CAS #
Antimony	Not detected	04/11/2018	0.0006	0.006	EPA 200.8	7440-36-0
Arsenic	Not detected	04/11/2018	0.002	0.010	EPA 200.8	7440-38-2
Barium	0.08	04/11/2018	0.01	2	EPA 200.8	7440-39-3
Beryllium	Not detected	04/11/2018	0.0004	0.004	EPA 200.8	7440-41-7
Cadmium	Not detected	04/11/2018	0.0003	0.005	EPA 200.8	7440-43-9
Chloride	54	04/10/2018	4		SM 4500-Cl E	7647-14-5
Chromium	Not detected	04/11/2018	0.01	0.1	EPA 200.8	7440-47-3
Cyanide-Available	Not Detected	04/16/2018	0.02	0.2	ASTM D6888-04	57-12-5
Fluoride	0.47	04/10/2018	0.1	4.0	SM 4500 FC	16984-48-8
Hardness as CaCO3	252	04/10/2018	20		SM 2340 C	HARD-00-C
Iron (automated)	0.2	04/10/2018	0.1		SM 3500 FeB	7439-89-6
Lead	Not detected	04/11/2018	0.001	0.015	EPA 200.8	7439-92-1
Mercury	Not detected	04/11/2018	0.0001	0.002	EPA 200.8	7439-97-6
Nickel	Not detected	04/11/2018	0.01	0.1	EPA 200.8	7440-02-0
Nitrate as N	0.6	04/10/2018	0.4	10	10-107-04-2-A	14797-55-8
Nitrite as N	Not detected	04/10/2018	0.05	1	10-107-04-2-A	14797-65-0
Selenium	Not detected	04/11/2018	0.001	0.05	EPA 200.8	7782-49-2
Sodium (automated)	29	04/10/2018	5		SM 3500 NaB	7440-23-5
Sulfate	18	04/10/2018	10		SM 4500 SO4E	14808-79-8
Thallium	Not detected	04/11/2018	0.0002	0.002	EPA 200.8	7440-28-0
<b>Carbamates by HPLC</b>						
3 Hydroxycarbofuran	Not Detected	04/12/2018	0.001		EPA 531.2	16655-82-6

CAS# : Chemical Abstract Service Registry Number  
MCL : Maximum Contaminant Level  
AL : Action Level  
RL : Reporting Limit

mg/L : milligrams / Liter (ppm)  
ppm : parts per million  
MPN : Most Probable Number  
CFU : Colony Forming Unit

Laboratory Contact: Scott Hayward

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER LABORATORY**

USEPA Region V Drinking Water Cert. No. MI00003

P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

**Sample Number  
LH74724**



TESTING INFORMATION			REGULATORY INFORMATION			
Analyte Name	Result (mg/L)	Date Tested	RL (mg/L)	MCL/AL (mg/L)	Method	CAS #
<b>Carbamates by HPLC</b>						
Aldicarb	Not Detected	04/12/2018	0.0005		EPA 531.2	116-06-3
Aldicarb sulfone	Not Detected	04/12/2018	0.0005		EPA 531.2	1646-88-4
Aldicarb sulfoxide	Not Detected	04/12/2018	0.0005		EPA 531.2	1646-87-3
Carbaryl	Not Detected	04/12/2018	0.001		EPA 531.2	63-25-2
Carbofuran	Not Detected	04/12/2018	0.0005	0.04	EPA 531.2	1563-66-2
Methiocarb	Not Detected	04/12/2018	0.001		EPA 531.2	2032-65-7
Methomyl	Not Detected	04/12/2018	0.001		EPA 531.2	16752-77-5
Oxamyl	Not Detected	04/12/2018	0.001	0.2	EPA 531.2	23135-22-0
Propoxur	Not Detected	04/12/2018	0.001		EPA 531.2	114-26-1
<b>Chlorinated Acid Herbicides</b>						
2,4,5-T	Not Detected	04/13/2018	0.002		EPA 515.4	93-76-5
2,4,5-TP (silvex)	Not Detected	04/13/2018	0.0002	0.05	EPA 515.4	93-72-1
2,4-D	Not Detected	04/13/2018	0.001	0.07	EPA 515.4	94-75-7
Acifluorfen	Not Detected	04/13/2018	0.004		EPA 515.4	50594-66-6
Bentazon	Not Detected	04/13/2018	0.002		EPA 515.4	25057-89-0
Dicamba	Not Detected	04/13/2018	0.002		EPA 515.4	1918-00-9
Dinoseb	Not Detected	04/13/2018	0.0002	0.007	EPA 515.4	88-85-7
Pentachlorophenol	Not Detected	04/13/2018	0.00004	0.001	EPA 515.4	87-86-5
Picloram	Not Detected	04/13/2018	0.001	0.5	EPA 515.4	1918-02-1
Total DCPA degradates, mono- and di-acid	Not Detected	04/13/2018	0.001		EPA 515.4	1861-32-1
<b>Pesticides Analysis by GC/MS</b>						
4,4'-DDD	Not Detected	04/16/2018	0.001		EPA 525.2	72-54-8
4,4'-DDE	Not Detected	04/16/2018	0.001		EPA 525.2	72-55-9
4,4'-DDT	Not Detected	04/16/2018	0.0005		EPA 525.2	50-29-3
Acetochlor	Not Detected	04/16/2018	0.001		EPA 525.2	34256-82-1
Alachlor	Not Detected	04/16/2018	0.0002	0.002	EPA 525.2	15972-60-8
Aldrin	Not Detected	04/16/2018	0.0004		EPA 525.2	309-00-2
alpha-Chlordane	Not Detected	04/16/2018	0.0002	0.002	EPA 525.2	5103-71-9
Atrazine	Not Detected	04/16/2018	0.0002	0.003	EPA 525.2	1912-24-9
Dieldrin	Not Detected	04/16/2018	0.0005		EPA 525.2	60-57-1
Endrin	Not Detected	04/16/2018	0.0001	0.002	EPA 525.2	72-20-8
Endrin aldehyde	Not Detected	04/16/2018	0.001		EPA 525.2	7421-93-4
gamma-Chlordane	Not Detected	04/16/2018	0.0002	0.002	EPA 525.2	5103-74-2
Heptachlor	Not Detected	04/16/2018	0.0002	0.0004	EPA 525.2	76-44-8
Heptachlor epoxide	Not Detected	04/16/2018	0.0001	0.0002	EPA 525.2	1024-57-3
Hexachlorobenzene	Not Detected	04/16/2018	0.0001	0.001	EPA 525.2	118-74-1
Hexachlorocyclohexane (alpha-BHC)	Not Detected	04/16/2018	0.001		EPA 525.2	319-84-6

CAS# : Chemical Abstract Service Registry Number  
MCL : Maximum Contaminant Level  
AL : Action Level  
RL : Reporting Limit

mg/L : milligrams / Liter (ppm)  
ppm : parts per million  
MPN : Most Probable Number  
CFU : Colony Forming Unit

Laboratory Contact: Scott Hayward

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER LABORATORY**

USEPA Region V Drinking Water Cert. No. MI00003  
P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

**Sample Number  
LH74724**



TESTING INFORMATION			REGULATORY INFORMATION			
Analyte Name	Result (mg/L)	Date Tested	RL (mg/L)	MCL/AL (mg/L)	Method	CAS #
<b>Pesticides Analysis by GC/MS</b>						
Hexachlorocyclohexane (beta-BHC)	Not Detected	04/16/2018	0.001		EPA 525.2	319-85-7
Hexachlorocyclohexane (delta-BHC)	Not Detected	04/16/2018	0.001		EPA 525.2	319-86-8
Hexachlorocyclopentadiene	Not Detected	04/16/2018	0.0005	0.05	EPA 525.2	77-47-4
Lindane (gamma-BHC)	Not Detected	04/16/2018	0.0001	0.0002	EPA 525.2	58-89-9
Methoxychlor	Not Detected	04/16/2018	0.0001	0.04	EPA 525.2	72-43-5
Metolachlor	Not Detected	04/16/2018	0.001		EPA 525.2	51218-45-2
Metribuzin	Not Detected	04/16/2018	0.001		EPA 525.2	21087-64-9
Molinate	Not Detected	04/16/2018	0.0005		EPA 525.2	2212-67-1
PCB (aroclor 1016)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	12674-11-2
PCB (aroclor 1221)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	11104-28-2
PCB (aroclor 1232)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	11141-16-5
PCB (aroclor 1242)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	53469-21-9
PCB (aroclor 1248)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	12672-29-6
PCB (aroclor 1254)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	11097-69-1
PCB (aroclor 1260)	Not Detected	04/16/2018	0.0001	0.0005	EPA 525.2	11096-82-5
Polybrominated biphenyls	Not Detected	04/16/2018	0.0001		EPA 525.2	59536-65-1
Simazine	Not Detected	04/16/2018	0.0002	0.004	EPA 525.2	122-34-9
Toxaphene	Not Detected	04/16/2018	0.001	0.003	EPA 525.2	8001-35-2
<b>Volatile Organic Compounds</b>						
1,1 Dichloroethane	Not Detected	04/11/2018	0.0005		EPA 524.2	75-34-3
1,1 Dichloroethylene	Not Detected	04/11/2018	0.0005	0.007	EPA 524.2	75-35-4
1,1 Dichloropropene	Not Detected	04/11/2018	0.0005		EPA 524.2	563-58-6
1,1,1 Trichloroethane	Not Detected	04/11/2018	0.0005	0.2	EPA 524.2	71-55-6
1,1,1,2 Tetrachloroethane	Not Detected	04/11/2018	0.0005		EPA 524.2	630-20-6
1,1,2 Trichloroethane	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	79-00-5
1,1,2,2 Tetrachloroethane	Not Detected	04/11/2018	0.0005		EPA 524.2	79-34-5
1,2 Dichlorobenzene	Not Detected	04/11/2018	0.0005	0.6	EPA 524.2	95-50-1
1,2 Dichloroethane	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	107-06-2
1,2 Dichloropropane	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	78-87-5
1,2,3 Trichlorobenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	87-61-6
1,2,3 Trichloropropane	Not Detected	04/11/2018	0.0005		EPA 524.2	96-18-4
1,2,4 Trichlorobenzene	Not Detected	04/11/2018	0.0005	0.07	EPA 524.2	120-82-1
1,2,4 Trimethylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	95-63-6
1,3 Dichlorobenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	541-73-1
1,3 Dichloropropane	Not Detected	04/11/2018	0.0005		EPA 524.2	142-28-9
1,3,5 Trimethylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	108-67-8
1,4 Dichlorobenzene	Not Detected	04/11/2018	0.0005	0.075	EPA 524.2	106-46-7
2,2 Dichloropropane	Not Detected	04/11/2018	0.0005		EPA 524.2	594-20-7

CAS# : Chemical Abstract Service Registry Number  
MCL : Maximum Contaminant Level  
AL : Action Level  
RL : Reporting Limit

mg/L : milligrams / Liter (ppm)  
ppm : parts per million  
MPN : Most Probable Number  
CFU : Colony Forming Unit

Laboratory Contact: Scott Hayward

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER LABORATORY**

USEPA Region V Drinking Water Cert. No. MI00003  
P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

**Sample Number  
LH74724**



TESTING INFORMATION			REGULATORY INFORMATION			
Analyte Name	Result (mg/L)	Date Tested	RL (mg/L)	MCL/AL (mg/L)	Method	CAS #
<b>Volatile Organic Compounds</b>						
Benzene	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	71-43-2
Bromobenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	108-86-1
Bromochloromethane	Not Detected	04/11/2018	0.0005		EPA 524.2	74-97-5
Bromodichloromethane	Not Detected	04/11/2018	0.0005	0.080	EPA 524.2	75-27-4
Bromoform	Not Detected	04/11/2018	0.0005	0.080	EPA 524.2	75-25-2
Bromomethane	Not Detected	04/11/2018	0.001		EPA 524.2	74-83-9
Carbon tetrachloride	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	56-23-5
Chlorobenzene	Not Detected	04/11/2018	0.0005	0.1	EPA 524.2	108-90-7
Chlorodibromomethane	Not Detected	04/11/2018	0.0005	0.080	EPA 524.2	124-48-1
Chloroethane	Not Detected	04/11/2018	0.0005		EPA 524.2	75-00-3
Chloroform	Not Detected	04/11/2018	0.0005	0.080	EPA 524.2	67-66-3
Chloromethane	Not Detected	04/11/2018	0.0005		EPA 524.2	74-87-3
cis-1,2 Dichloroethylene	Not Detected	04/11/2018	0.0005	0.07	EPA 524.2	156-59-2
cis-1,3 Dichloropropene	Not Detected	04/11/2018	0.0005		EPA 524.2	10061-01-5
Dibromomethane	Not Detected	04/11/2018	0.0005		EPA 524.2	74-95-3
Dichlorodifluoromethane	Not Detected	04/11/2018	0.001		EPA 524.2	75-71-8
Dichloromethane	Not Detected	04/11/2018	0.0006	0.005	EPA 524.2	75-09-2
Ethylbenzene	Not Detected	04/11/2018	0.0005	0.7	EPA 524.2	100-41-4
Fluorotrichloromethane	Not Detected	04/11/2018	0.001		EPA 524.2	75-69-4
Hexachlorobutadiene	Not Detected	04/11/2018	0.0005		EPA 524.2	87-68-3
Isopropylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	98-82-8
m & p-Xylene	Not Detected	04/11/2018	0.0005	10	EPA 524.2	XYLMP-00-C
Methyl ethyl ketone	Not Detected	04/11/2018	0.005		EPA 524.2	78-93-3
Methyl isobutyl ketone	Not Detected	04/11/2018	0.005		EPA 524.2	108-10-1
Methyl-tert-butyl ether (MTBE)	Not Detected	04/11/2018	0.001		EPA 524.2	1634-04-4
Naphthalene	Not Detected	04/11/2018	0.0005		EPA 524.2	91-20-3
n-Butylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	104-51-8
n-Propylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	103-65-1
o-Chlorotoluene	Not Detected	04/11/2018	0.0005		EPA 524.2	95-49-8
o-Xylene	Not Detected	04/11/2018	0.0005	10	EPA 524.2	95-47-6
p-Chlorotoluene	Not Detected	04/11/2018	0.0005		EPA 524.2	106-43-4
p-Isopropyltoluene	Not Detected	04/11/2018	0.0005		EPA 524.2	99-87-6
sec-Butylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	135-98-8
Styrene	Not Detected	04/11/2018	0.0005	0.1	EPA 524.2	100-42-5
tert-Butylbenzene	Not Detected	04/11/2018	0.0005		EPA 524.2	98-06-6
Tetrachloroethylene	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	127-18-4
Tetrahydrofuran	Not Detected	04/11/2018	0.005		EPA 524.2	109-99-9
Toluene	Not Detected	04/11/2018	0.0005	1	EPA 524.2	108-88-3
Total Trihalomethanes	Not Detected	04/11/2018	NA	0.080	EPA 524.2	TTHM-00-C

CAS# : Chemical Abstract Service Registry Number  
MCL : Maximum Contaminant Level  
AL : Action Level  
RL : Reporting Limit

mg/L : milligrams / Liter (ppm)  
ppm : parts per million  
MPN : Most Probable Number  
CFU : Colony Forming Unit

Laboratory Contact: Scott Hayward

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER LABORATORY**

USEPA Region V Drinking Water Cert. No. MI00003  
P.O. Box 30270  
Lansing, MI 48909  
TEL: (517) 335-8184  
FAX: (517) 335-8562

**Sample Number  
LH74724**



TESTING INFORMATION			REGULATORY INFORMATION			
Analyte Name	Result (mg/L)	Date Tested	RL (mg/L)	MCL/AL (mg/L)	Method	CAS #
<b>Volatile Organic Compounds</b>						
Total Xylenes	Not Detected	04/11/2018	NA	10	EPA 524.2	1330-20-7
trans-1,2 Dichloroethylene	Not Detected	04/11/2018	0.0005	0.1	EPA 524.2	156-60-5
trans-1,3 Dichloropropene	Not Detected	04/11/2018	0.0005		EPA 524.2	10061-02-6
Trichloroethylene	Not Detected	04/11/2018	0.0005	0.005	EPA 524.2	79-01-6
Vinyl chloride	Not Detected	04/11/2018	0.0005	0.002	EPA 524.2	75-01-4

The analyses performed by the MDEQ Drinking Water Laboratory were conducted using methods approved by the U.S. Environmental Protection Agency in accordance with the Safe Drinking Water Act, 40 CFR parts 141-143, and other regulatory agencies as appropriate.

**Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below:**

**Allegan County Health Dept  
3255 122nd Street, Suite 200  
Allegan, MI 49010  
269 673-5411**

CAS# : Chemical Abstract Service Registry Number	mg/L : milligrams / Liter (ppm)	Laboratory Contact: Scott Hayward
MCL : Maximum Contaminant Level	ppm : parts per million	
AL : Action Level	MPN : Most Probable Number	
RL : Reporting Limit	CFU : Colony Forming Unit	