



Minnesota  
Department  
of Health

PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

**To:** Community Water Supply Owner/Operator

**From:** Community Water Supply Unit  
Section of Drinking Water Protection

**Subject:** Sample Analysis Results for your Public Water Supply

Enclosed are the results of analyses performed on water sample(s) collected from your public water supply. These results show that your system is in compliance with maximum contaminant levels set by the state and federal Safe Drinking Water Rules for the contaminants analyzed. These results must be kept in your files for a minimum of ten (10) years.

Analyses are attached for the contaminant groups checked below:

- Ammonia
- Coliform Bacteria
- Inorganics
- Nitrate
- Nitrite
- Radiochemical(s)
- Radon (proposed rule-MCL 4000)
- Synthetic Organics
- Trihalomethanes/Haloacetic Acids
- Volatile Organics
- Other

If you have any questions concerning these results, please contact your Department of Health district engineer.

**Bemidji**

Todd Johnson 218/308-2110

**Duluth**

Mike Luhrsen 218/302-6178

**Fergus Falls**

Steve Pederson 218/332-5146

**Mankato**

Mark Sweers 507/344-2736

Amy Lynch 507/344-2713

**Marshall**

John Blomme 507/476-4238

**Rochester**

Paul Halvorson 507/206-2724

**St. Cloud**

Jon Groethe 320/223-7339

Kim Larsen 320/223-7330

Dave Schultz 320/223-7328

**St. Paul**

Bassam Banat 651/201-3973

Lucas Martin 651/201-4144

Isaac Bradlich 651/201-3971

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Final Report

CSSW B Q 2  
1620036 St Paul  
Toc 74.0

Minnesota Department of Health  
Public Health Laboratory  
Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1620001  
System Name: Arden Hills  
City: Arden Hills

Program Code: HC

Type: B

Date Received: 01/09/17 10:09  
Rep. Temp. (°C): 10.1

Collector Name: Thomas Mikacevich  
Collector ID: None

MDH Sample Number: 17A0067-01

Location ID: 00061 ✓  
Sampling Point: 4797 Hwy 10 - Scherer Brothers

Collect Date: 01/09/17  
Collect Time: 08:40  
Matrix: Drinking Water

Field Residual Chlorine Result: None  
Field Fluoride Result: None  
Field pH Result: None  
Field PO4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

Haloacetic Acids, ICR

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	
Dichloroacetic Acid [2C]	18	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	
Monobromoacetic Acid [2C]	<	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	
Monochloroacetic Acid	<	2.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	
Trichloroacetic Acid [2C]	12	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	
Surrogate: Bromopropionic Acid [2C]	89	70-130	%	B7A0069	01/12/17 09:11	01/23/17 21:07	APM	EPA 552.2	

THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Bromodichloromethane	7.1	0.5	ug/L	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Bromoform	<	0.5	ug/L	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Chlorodibromomethane	<	0.5	ug/L	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Chloroform	41	0.5	ug/L	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4	100	70-130	%	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Surrogate: 1,2-Dichloroethane-d4	100	70-130	%	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Surrogate: 4-Bromofluorobenzene	102	70-130	%	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Surrogate: Dibromofluoromethane	99	70-130	%	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	
Surrogate: Toluene-d8	100	70-130	%	B7A0191	01/19/17 13:52	01/19/17 13:52	EAS	EPA 524.2	

FINAL REPORT

Report ID: 02082017100207

Generated: 2/8/2017 10:02:06AM

Authorized by:

Paul Moyer, Environmental Laboratory Manager  
Public Health Laboratory, Minnesota Department of Health

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# Final Report

Minnesota Department of Health  
Public Health Laboratory  
Environmental Laboratory Section  
601 Robert St. N., P.O. Box 64899  
St. Paul, MN 55164-0899  
651-201-5300

PWSID: 1620001

## MDH Sample Number: 17A0067-02

Location ID: 00062 ✓  
Sampling Point: 1425 Paul Kirkwood Dr (Shop)

Collect Date: 01/09/17  
Collect Time: 08:20  
Matrix: Drinking Water

Field Residual Chlorine Result: None  
Field Fluoride Result: None  
Field pH Result: None  
Field PO4 Result: None

Results were produced by the Minnesota Department of Health, except where noted.

### Haloacetic Acids, ICR

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	
<b>Dichloroacetic Acid [2C]</b>	<b>18</b>	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	
Monobromoacetic Acid [2C]	<	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	
Monochloroacetic Acid	<	2.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	
<b>Trichloroacetic Acid [2C]</b>	<b>11</b>	1.0	ug/L	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	
Surrogate: Bromopropionic Acid [2C]	84	70-130	%	B7A0069	01/12/17 09:11	01/23/17 21:38	APM	EPA 552.2	

### THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
<b>Bromodichloromethane</b>	<b>7.1</b>	0.5	ug/L	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Bromoform	<	0.5	ug/L	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Chlorodibromomethane	<	0.5	ug/L	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
<b>Chloroform</b>	<b>38</b>	0.5	ug/L	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Surrogate: 1,2-Dichlorobenzene-d4	100	70-130	%	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Surrogate: 1,2-Dichloroethane-d4	101	70-130	%	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Surrogate: 4-Bromofluorobenzene	101	70-130	%	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Surrogate: Dibromofluoromethane	99	70-130	%	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	
Surrogate: Toluene-d8	100	70-130	%	B7A0191	01/19/17 14:15	01/19/17 14:15	EAS	EPA 524.2	

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 651-201-5300

PWSID: 1620001

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**Batch B7A0069 - HAA Extraction**

Blank (B7A0069-BLK1)

Prepared: 01/12/17 09:11 Analyzed: 01/23/17 17:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	<	1.0	ug/L							APM	
Dichloroacetic Acid [2C]	<	1.0	ug/L							APM	
Monobromoacetic Acid [2C]	<	1.0	ug/L							APM	
Monochloroacetic Acid	<	2.0	ug/L							APM	
Trichloroacetic Acid [2C]	<	1.0	ug/L							APM	
Surrogate: Bromopropionic Acid [2C]	78	70-130	%	6.01						APM	

LCS (B7A0069-BS1)

Prepared: 01/12/17 09:11 Analyzed: 01/23/17 17:04

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	9.5	1.0	ug/L	10.01		95	70-130			APM	
Dichloroacetic Acid [2C]	10	1.0	ug/L	10.02		101	70-130			APM	
Monobromoacetic Acid [2C]	9.0	1.0	ug/L	10.03		90	70-130			APM	
Monochloroacetic Acid	20	2.0	ug/L	20.02		101	70-130			APM	
Trichloroacetic Acid [2C]	10	1.0	ug/L	10.05		101	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	80	70-130	%	6.01						APM	

LCS (B7A0069-BS2)

Prepared: 01/12/17 09:11 Analyzed: 01/23/17 23:39

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	20	1.0	ug/L	20.02		98	70-130			APM	
Dichloroacetic Acid [2C]	20	1.0	ug/L	20.04		100	70-130			APM	
Monobromoacetic Acid [2C]	19	1.0	ug/L	20.06		97	70-130			APM	
Monochloroacetic Acid	39	2.0	ug/L	40.04		97	70-130			APM	
Trichloroacetic Acid [2C]	20	1.0	ug/L	20.1		101	70-130			APM	
Surrogate: Bromopropionic Acid [2C]	83	70-130	%	6.01						APM	

LCS (B7A0069-BS3)

Prepared: 01/12/17 09:11 Analyzed: 01/24/17 04:12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid [2C]	9.9	1.0	ug/L	10.01		99	70-130			APM	
Dichloroacetic Acid [2C]	10	1.0	ug/L	10.02		104	70-130			APM	
Monobromoacetic Acid [2C]	9.8	1.0	ug/L	10.03		97	70-130			APM	
Monochloroacetic Acid	20	2.0	ug/L	20.02		102	70-130			APM	

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651-201-5300

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Batch B7A0069 - HAA Extraction

LCS (B7A0069-BS3)

Prepared: 01/12/17 09:11 Analyzed: 01/24/17 04:12

Table with columns: Analyte, Result, Reporting Limit, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Init., Qualifiers. Rows include Trichloroacetic Acid [2C] and Surrogate: Bromopropionic Acid [2C].

Matrix Spike (B7A0069-MS1)

Source: 17A0064-01

Prepared: 01/12/17 09:11 Analyzed: 01/23/17 18:36

Table with columns: Analyte, Result, Reporting Limit, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Init., Qualifiers. Rows include Dibromoacetic Acid [2C], Dichloroacetic Acid [2C], Monobromoacetic Acid [2C], Monochloroacetic Acid, Trichloroacetic Acid [2C], and Surrogate: Bromopropionic Acid [2C].

Matrix Spike Dup (B7A0069-MSD1)

Source: 17A0064-01

Prepared: 01/12/17 09:11 Analyzed: 01/23/17 19:06

Table with columns: Analyte, Result, Reporting Limit, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Init., Qualifiers. Rows include Dibromoacetic Acid [2C], Dichloroacetic Acid [2C], Monobromoacetic Acid [2C], Monochloroacetic Acid, Trichloroacetic Acid [2C], and Surrogate: Bromopropionic Acid [2C].

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Handwritten signature of Paul Moyer

Paul Moyer, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health



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 Environmental Laboratory Section  
 601 Robert St. N., P.O. Box 64899  
 St. Paul, MN 55164-0899  
 651-201-5300

PWSID: 1620001

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Batch B7A0191 - EPA 524.2 Prep

**Blank (B7A0191-BLK1)**

Prepared: 01/19/17 12:00 Analyzed: 01/19/17 12:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	<	0.5	ug/L							EAS	
Bromoform	<	0.5	ug/L							EAS	
Chlorodibromomethane	<	0.5	ug/L							EAS	
Chloroform	<	0.5	ug/L							EAS	
Surrogate: 1,2-Dichlorobenzene-d4	101	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	101	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	102	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	98	70-130	%	25						EAS	
Surrogate: Toluene-d8	99	70-130	%	25						EAS	

**LCS (B7A0191-BS1)**

Prepared: 01/19/17 11:15 Analyzed: 01/19/17 11:15

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	9.9	0.5	ug/L	10		99	70-130			EAS	
Bromoform	11	0.5	ug/L	10		110	70-130			EAS	
Chlorodibromomethane	10	0.5	ug/L	10		102	70-130			EAS	
Chloroform	9.8	0.5	ug/L	10		98	70-130			EAS	
Surrogate: 1,2-Dichlorobenzene-d4	100	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	100	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	102	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	99	70-130	%	25						EAS	
Surrogate: Toluene-d8	99	70-130	%	25						EAS	

**LCS Dup (B7A0191-BSD1)**

Prepared: 01/19/17 19:52 Analyzed: 01/19/17 19:52

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	10	0.5	ug/L	10		103	70-130	4	30	EAS	
Bromoform	10	0.5	ug/L	10		100	70-130	10	30	EAS	
Chlorodibromomethane	9.6	0.5	ug/L	10		96	70-130	6	30	EAS	
Chloroform	9.8	0.5	ug/L	10		98	70-130	0.5	30	EAS	
Surrogate: 1,2-Dichlorobenzene-d4	99	70-130	%	25						EAS	
Surrogate: 1,2-Dichloroethane-d4	93	70-130	%	25						EAS	
Surrogate: 4-Bromofluorobenzene	101	70-130	%	25						EAS	
Surrogate: Dibromofluoromethane	95	70-130	%	25						EAS	
Surrogate: Toluene-d8	100	70-130	%	25						EAS	

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651-201-5300

PWSID: 1620001

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Batch B7A0191 - EPA 524.2 Prep

## Work Order Comments

Samples were received in proper condition.

Authorized by:

Paul Moyer, Environmental Laboratory Manager  
Public Health Laboratory, Minnesota Department of Health

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