DEPARTMENT OF HEALTH

Protecting, Maintaining and Improving the Health of All Minnesotans

To: Community Water System Owner/Operator

From: Community Water Supply Unit
Section of Drinking Water Protection

Subject: Sample Analysis Results for your Public Water System

Enclosed are the results of analyses performed on water sample(s) collected from your public water system. 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
Eric Weller 218/308-2107

Duluth
Mike Luhrsen 218/302-6178

Fergus Falls
Lucas Hoffman 218/332-5146

Mankato
Amy Lynch 507/344-2713

Marshall
John Blomme 507/476-4238

Rochester
Kate Novy 507/206-2724

St. Cloud
Hunter Blommer 320/223-7339
Jennifer Soltys 320/223-7340

St. Paul
Lucas Martin 651/201-4144
Jessie Kolar 651/201-4562
Brian Noma 651/201-3971

DEPARTMENT OF HEALTH

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: 1720006
System Name: Henderson
City: Henderson

Program Code: HC

Type: B

Date Received: 11/10/22 10:13
Rep. Temp. (°C): 5.9

Collector Name: Amy L. Lynch
Collector ID: 8032

MDH Sample Number: 22K0540-01

Location ID: E03
Sampling Point: Well #2 Entry Point
Field Number: AL22497

Collect Date: 11/09/22
Collect Time: 12:15
Matrix: Drinking Water

Field Residual Chlorine Result: None
Field Fluoride Result: None
Field pH Result: None
Field PO_4 Result: None

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

General Chemistry Parameters

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Cyanide, Free	<	0.05	mg/L	B2K0652	11/10/22 11:38	11/10/22 12:12	NMM	SM 4500-CN F 22nd ED.	
Sulfate	**129**	0.50	mg/L	B2K0746	11/17/22 10:37	11/17/22 18:18	NMT	EPA 300.1	

Metal Parameters

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Arsenic	**1.66**	1.00	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Barium	**56.4**	20.0	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Beryllium	<	0.40	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Cadmium	<	0.50	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Chromium	<	10.0	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Mercury	<	0.020	ug/L	B2L0377	12/05/22 09:08	12/06/22 17:36	RCC	EPA 245.1	
Sodium	**67.3**	0.50	mg/L	B2K0702	12/27/22 09:00	12/27/22 14:33	DVH	EPA 200.7	
Nickel	<	10.0	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Antimony	<	0.60	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	Z-01
Selenium	<	5.00	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	
Thallium	<	1.00	ug/L	B2L0413	12/07/22 11:32	12/07/22 16:20	RCC	EPA 200.8	

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1720006

Final Report

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

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Batch B2K0652 - General Chemistry Prep

Blank (B2K0652-BLK1) — Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:18

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	<	0.05	mg/L							NMM	

LCS (B2K0652-BS1) — Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:24

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	0.20	0.05	mg/L	0.2		100	90-110			NMM	

Duplicate (B2K0652-DUP1) — Source: 22K0370-01 Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	<	0.05	mg/L		<				10	NMM	

Matrix Spike (B2K0652-MS1) — Source: 22K0397-01 Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:45

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	0.21	0.05	mg/L	0.2	<	100	90-110			NMM	

Matrix Spike Dup (B2K0652-MSD1) — Source: 22K0397-01 Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:50

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	0.20	0.05	mg/L	0.2	<	95	90-110	4	10	NMM	

Reference (B2K0652-SRM1) — Prepared: 11/10/22 08:55 Analyzed: 11/10/22 10:13

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Cyanide, Free	0.12	0.05	mg/L	0.12		95	85-115			NMM	

Batch B2K0746 - General Chemistry Prep

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Authorized by:

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Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1720006

Final Report

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

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Batch B2K0746 - General Chemistry Prep

Blank (B2K0746-BLK1) — Prepared: 11/17/22 10:37 Analyzed: 11/17/22 12:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	<	0.50	mg/L							NMT	

LCS (B2K0746-BS1) — Prepared: 11/17/22 10:37 Analyzed: 11/17/22 12:19

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	104		mg/L	100.02		104	85-115			NMT	

Duplicate (B2K0746-DUP1) — Source: 22K0397-01 Prepared: 11/17/22 10:37 Analyzed: 11/17/22 12:57

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	28.4	0.50	mg/L		28.3			0.3	10	NMT	

Duplicate (B2K0746-DUP2) — Source: 22K0417-01 Prepared: 11/17/22 10:37 Analyzed: 11/17/22 13:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	<	0.50	mg/L		<				10	NMT	

Matrix Spike (B2K0746-MS2) — Source: 22K0417-03 Prepared: 11/17/22 10:37 Analyzed: 11/17/22 14:50

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	106		mg/L	100.02		105	75-125			NMT	

Matrix Spike (B2K0746-MS3) — Source: 22K0417-02 Prepared: 11/17/22 03:21 Analyzed: 11/18/22 04:42

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sulfate	111		mg/L	100.02		110	75-125			NMT	

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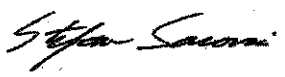

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

PWSID: 1720006

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651-201-5300

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Batch B2K0702 - Metals Prep

Blank (B2K0702-BLK1) — Prepared: 12/27/22 09:00 Analyzed: 12/27/22 13:14

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	<	0.50	mg/L							DVH	

LCS (B2K0702-BS1) — Prepared: 12/27/22 09:00 Analyzed: 12/27/22 13:16

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	10.0		mg/L	10		100	85-115			DVH	

Duplicate (B2K0702-DUP1) — Source: 22K0244-01 Prepared: 12/27/22 09:00 Analyzed: 12/27/22 13:22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	6.19	0.50	mg/L		6.20			0.2	20	DVH	

Duplicate (B2K0702-DUP2) — Source: 22K0276-02 Prepared: 12/27/22 09:00 Analyzed: 12/27/22 14:03

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	3.08	0.50	mg/L		3.12			1	20	DVH	

Matrix Spike (B2K0702-MS1) — Source: 22K0244-01 Prepared: 12/27/22 09:00 Analyzed: 12/27/22 13:25

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	16.2		mg/L	10		100	85-115			DVH	

Matrix Spike (B2K0702-MS2) — Source: 22K0276-02 Prepared: 12/27/22 09:00 Analyzed: 12/27/22 14:06

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Sodium	13.1		mg/L	10		100	85-115			DVH	

Batch B2L0377 - EPA 245.1

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

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Batch B2L0377 - EPA 245.1

Blank (B2L0377-BLK1) — Prepared: 12/05/22 09:08 Analyzed: 12/06/22 16:57

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	<	0.020	ug/L							RCC	

LCS (B2L0377-BS1) — Prepared: 12/05/22 09:08 Analyzed: 12/06/22 16:59

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	0.538	0.020	ug/L	0.5		108	85-115			RCC	

Matrix Spike (B2L0377-MS1) — Source: 22K0430-01 Prepared: 12/05/22 09:08 Analyzed: 12/06/22 17:04

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	0.481	0.020	ug/L	0.5	<	96	70-130			RCC	

Matrix Spike (B2L0377-MS2) — Source: 22K0960-02 Prepared: 12/05/22 09:08 Analyzed: 12/06/22 18:00

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	0.457	0.020	ug/L	0.5	<	91	70-130			RCC	

Matrix Spike Dup (B2L0377-MSD1) — Source: 22K0430-01 Prepared: 12/05/22 09:08 Analyzed: 12/06/22 17:07

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	0.479	0.020	ug/L	0.5	<	96	70-130	0.4	30	RCC	

Matrix Spike Dup (B2L0377-MSD2) — Source: 22K0960-02 Prepared: 12/05/22 09:08 Analyzed: 12/06/22 18:03

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Mercury	0.443	0.020	ug/L	0.5	<	89	70-130	3	30	RCC	

Batch B2L0413 - EPA 200 Series Prep

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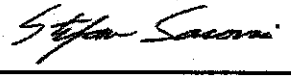

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

DEPARTMENT OF HEALTH

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: 1720006

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Batch B2L0413 - EPA 200 Series Prep

Blank (B2L0413-BLK1) **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 15:03**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	<	0.60	ug/L							RCC	Z-01
Arsenic	<	1.00	ug/L							RCC	
Barium	<	20.0	ug/L							RCC	
Beryllium	<	0.40	ug/L							RCC	
Cadmium	<	0.50	ug/L							RCC	
Chromium	<	10.0	ug/L							RCC	
Nickel	<	10.0	ug/L							RCC	
Selenium	<	5.00	ug/L							RCC	
Thallium	<	1.00	ug/L							RCC	

LCS (B2L0413-BS1) **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 15:06**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	49.1		ug/L	50		98	85-115			RCC	Z-01
Arsenic	48.2		ug/L	50		96	85-115			RCC	
Barium	50.5		ug/L	50		101	85-115			RCC	
Beryllium	49.2		ug/L	50		98	85-115			RCC	
Cadmium	48.6		ug/L	50		97	85-115			RCC	
Chromium	50.2		ug/L	50		100	85-115			RCC	
Nickel	50.9		ug/L	50		102	85-115			RCC	
Selenium	50.4		ug/L	50		101	85-115			RCC	
Thallium	49.0		ug/L	50		98	85-115			RCC	

Duplicate (B2L0413-DUP1) Source: 22K0476-01 **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 15:12**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	<	0.60	ug/L		<				20	RCC	Z-01
Arsenic	1.56	1.00	ug/L		1.56			0.4	20	RCC	
Barium	102	20.0	ug/L		102			0.6	20	RCC	
Beryllium	<	0.40	ug/L		<				20	RCC	
Cadmium	<	0.50	ug/L		<				20	RCC	
Chromium	<	10.0	ug/L		<				20	RCC	
Nickel	0.86	10.0	ug/L		<			4	20	RCC	
Selenium	<	5.00	ug/L		<				20	RCC	
Thallium	<	1.00	ug/L		<				20	RCC	

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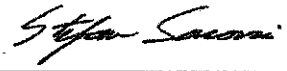

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

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Batch B2L0413 - EPA 200 Series Prep

Duplicate (B2L0413-DUP2) Source: 22K0560-02 **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 16:29**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	<	0.60	ug/L		<				20	RCC	Z-01
Arsenic	<	1.00	ug/L		<				20	RCC	
Barium	43.4	20.0	ug/L		43.8			0.9	20	RCC	
Beryllium	<	0.40	ug/L		<				20	RCC	
Cadmium	<	0.50	ug/L		<				20	RCC	
Chromium	<	10.0	ug/L		<				20	RCC	
Nickel	0.60	10.0	ug/L		<			3	20	RCC	
Selenium	<	5.00	ug/L		<				20	RCC	
Thallium	<	1.00	ug/L		<				20	RCC	

Matrix Spike (B2L0413-MS1) Source: 22K0476-01 **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 15:15**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	51.4		ug/L	50		103	70-130			RCC	Z-01
Arsenic	51.9		ug/L	50		101	70-130			RCC	
Barium	151		ug/L	50		100	70-130			RCC	
Beryllium	49.3		ug/L	50		99	70-130			RCC	
Cadmium	49.3		ug/L	50		99	70-130			RCC	
Chromium	50.4		ug/L	50		101	70-130			RCC	
Nickel	49.0		ug/L	50		96	70-130			RCC	
Selenium	52.2		ug/L	50		104	70-130			RCC	
Thallium	46.7		ug/L	50		93	70-130			RCC	

Matrix Spike (B2L0413-MS2) Source: 22K0560-02 **Prepared: 12/07/22 11:32 Analyzed: 12/07/22 16:32**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Antimony	54.1		ug/L	50		108	70-130			RCC	Z-01
Arsenic	51.9		ug/L	50		104	70-130			RCC	
Barium	94.1		ug/L	50		101	70-130			RCC	
Beryllium	48.9		ug/L	50		98	70-130			RCC	
Cadmium	52.1		ug/L	50		104	70-130			RCC	
Chromium	54.1		ug/L	50		108	70-130			RCC	
Nickel	50.3		ug/L	50		100	70-130			RCC	
Selenium	52.5		ug/L	50		105	70-130			RCC	
Thallium	51.0		ug/L	50		102	70-130			RCC	

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Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health

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Batch B2L0413 - EPA 200 Series Prep

Data Qualifiers and Definitions

Z-01	Target analyte detected in blank at or above the method specific acceptance criteria and below the method reporting limit . Results below method reporting limit or result >10x blank.

Work Order Comments

Samples were received in proper condition.

Authorized by:

Stefan Saravia, Environmental Laboratory Manager
Public Health Laboratory, Minnesota Department of Health