

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

Date Received:

03/14/22 09:27

Rep. Temp. (°C):

Program Code:

Type: B

Collector Name:

James Kroehler

Collector ID:

None

MDH Sample Number: 22C0593-01

Location ID: 00024 Sampling Point: D-001 Collect Date: 03/14/22

Collect Time: 07:00

Matrix: Drinking Water

Field Residual Chlorine Result: None

Field Fluoride Result: None

Field pH Result: 7.3

Field PO4 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
Orthophosphate Phosphate	1.92	0.015	mg/L	B2C0676	03/15/22 16:16	03/15/22 16:49	EAD	EPA 365.1	

#### MDH Sample Number: 22C0593-01RE2

Location ID: 00024

Sampling Point: D-001

Collect Date: 03/14/22

Collect Time: 07:00

Matrix: Drinking Water

Field Residual Chlorine Result: Nоле

Field Fluoride Result: None

Field pH Result: 7.3

Field PO4 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	lnit.	Method	Qualifiers
Phosphorus as Phosphate, Total	6,56	0.108	mg/L	B2C0706	03/23/22 08:45	03/23/22 14:52	PMP	EPA 365.1	D2

FINAL REPORT

Report ID: 03242022133016

Generated: 3/24/2022 1:30:07PM

Authorized by:

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Myra Kunas, Environmental Laboratory Manager

Public Health Laboratory, Minnesota Department of Health

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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

MDH Sample Number: 22C0593-02

Location ID: 00025 Sampling Point: D-002 Collect Date: 03/14/22 Collect Time: 07:05 Matrix: Drinking Water Field Residual Chlorine Result: None Field Fluoride Result: None

Field pH Result: 7.2 Field PO4 Result: None

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

**General Chemistry Parameters** 

Reporting Method Qualifiers Init Result Units Batch Prepared Analyzed Analyte <u>Limit</u> 03/15/22 16:50 EAD EPA 365.1 B2C0676 03/15/22 16:16 1.40 0.015 mg/L Orthophosphate Phosphate

MDH Sample Number: 22C0593-02RE2

Location ID: 00025 Sampling Point: D-002 Collect Date: 03/14/22 Collect Time: 07:05 Matrix: Drinking Water Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.2 Field PO4 Result: None

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

**General Chemistry Parameters** 

Reporting Qualifiers Units Prepared Analyzed lnit. Method Result Batch Analyte Limit EPA 365.1 D2, M1 B2C0706 03/23/22 08:45 03/23/22 14:54 Phosphorus as Phosphate, Total 6.49 0.108 mg/L

MDH Sample Number: 22C0593-03

Location ID: 00026 Sampling Point: D-003 Collect Date: 03/14/22
Collect Time: 07:10
Matrix: Drinking Water

Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.3

Field PO4 Result: None

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

**General Chemistry Parameters** 

Reporting Method Qualifiers Units Batch Prepared Analyzed Result Limit EAD EPA 365.1 03/15/22 16:53 B2C0676 , 03/15/22 16:16 3,09 0.015 Orthophosphate Phosphate

FINAL REPORT

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Generated: 3/24/2022 1:30:07PM

Authorized by:

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PWSID: 1720006

Location ID: 00026

Sampling Point: D-003

MDH Sample Number: 22C0593-03RE2

Collect Date: 03/14/22

Collect Time: 07:10 Matrix: Drinking Water Field Residual Chlorine Result: None

Field Fluoride Result: None

Field pH Result: 7.3
Field PO4 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	lnit.	Method	Qualifiers
Phosphorus as Phosphate, Total	12.0	0.108	mg/L	B2C0706	03/23/22 08:45	03/23/22 14:56	PMP	EPA 365.1	D2

FINAL REPORT

Report ID: 03242022133016

Generated: 3/24/2022 1:30:07PM

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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

r.e	sults were pr	Oddo	GG Dy IVIII			4,,,,,,,,,		,				
Batch B2C0676 - Orthoph	osphate Pre	ρ										·
Blank (B2C0676-BLK1)	•		•			Prepare	d: 03/15/	22 16:16 Analyz	ed: 03/15	/22 16:47		
Analyte		Resuit	Reporting	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Orthophosphate Phosphate	·	<	<u>Limit</u> 0.015	mg/L	Level	Result				Limit	EAD	
.CS (B2C0676-BS1)						Prepare	d: 03/15/2	2 16:16 Analyze	ed: 03/15	/22 16:48		•
nalyte .		Result	Reporting	Units	Spike	Source	%REC	%REC Limits	RPD	RPD	lnit.	Qualifiers
Orthophosphate Phosphate		1.56	<u>Limit</u> 0.015	mg/L	Level 1.5	Result	104	90-110		Limit	EAD	
			-							-		
•								•		•		
upilcate (B2C0676-DUP1)			Source: 22	C0593-01		Prepared	d: 03/15/2	2 16:16 Analyze	ed: 03/15/	22 16:50		
	z	Result	Reporting	linita	Spike	Source	%REC	%REC Limits		RPD	ínit,	Qualifiers
Analyte Orthophosphate Phosphate	·	2.00	<u>Limit</u> 0.015	Units mg/L	Level	Result 1.92	MINEO	WINTO FILINS	RPD 4	<u>Limit</u> 10	EAD	
attiophosphate i tiosphate	•	2.00	0.010						7	10	LAU	
latriv Snike (R2C0676-MS1)			Source: 226	~0503 <u>~</u> 02		D	.l. 00 <i>1</i> 4 210	0.46.46		00.46.54		
			Source: 229	C0593-02	Spike	•		2 16:16 Analyze		22 16:51 RPD		
nalyte	F	Result	Reporting Limit	Units	Spike Levei	Source Result	%REC	%REC Limits	ed: 03/15/ RPD		init.	Qualifiers
nalyte	F	Result 2.92	Reporting			Source		•		RPD	Init.	Qualifiers
nalyte	F	Result	Reporting Limit	Units	. Levei	Source Result	%REC	%REC Limits		RPD		Qualifiers
nalyte Orthophosphate Phosphate	F	Result	Reporting Limit 0.015	Units mg/L	. Levei	Source Result	%REC	%REC Limits		RPD		Qualifiers
nalyte Orthophosphate Phosphate	F	2.92	Reporting Limit 0.015 Source: 220	Units mg/L	. <u>Levei</u> 1.5	Source Result 1.40	%REC 101	%REC Limits	RPD	RPD Limit 22 16:52		Qualifiers
Analyte Orthophosphate Phosphate Matrix Spike Dup (B2C0676-MSD1)		2.92	Reporting Limit 0.015	Units mg/L	. Levei	Source Result 1.40	%REC 101	%REC Limits 90-110	RPD	RPD Limit		Qualifiers
nalyte Orthophosphate Phosphate Natrix Spike Dup (B2C0676-MSD1)		2.92	Reporting Limit 0.015 Source: 220 Reporting	Units mg/L	1.5	Source Result 1.40  Prepared Source	%REC 101 d: 03/15/2	%REC Limits 90-110 2 16:16 Analyza	RPD d: <b>03/15</b> /	RPD Limit 22 16:52 RPD	EAD	
Matrix Spike (B2C0676-MS1) Analyte Orthophosphate Phosphate Matrix Spike Dup (B2C0676-MSD1) Analyte Orthophosphate Phosphate		2.92	Reporting Limit 0.015 Source: 220 Reporting Limit	Units mg/L	1.5 Spike	Source Result 1.40  Prepared Source Result	%REC 101 d: 03/15/2 %REC	%REC Limits 90-110 2 16:16 Analyze %REC Limits	RPD nd: 03/15/ RPD	RPD Limit 22 16:52 RPD Limit	EAD	
nalyte Orthophosphate Phosphate Natrix Spike Dup (B2C0676-MSD1)		2.92	Reporting Limit 0.015 Source: 220 Reporting Limit	Units mg/L	1.5 Spike	Source Result 1.40  Prepared Source Result	%REC 101 d: 03/15/2 %REC	%REC Limits 90-110 2 16:16 Analyze %REC Limits	RPD nd: 03/15/ RPD	RPD Limit 22 16:52 RPD Limit	EAD	
nalyte Orthophosphate Phosphate Natrix Spike Dup (B2C0676-MSD1)	F	Result 2.92	Reporting Limit 0.015 Source: 220 Reporting Limit	Units mg/L	1.5 Spike	Source Result 1.40  Prepared Source Result	%REC 101 d: 03/15/2 %REC	%REC Limits 90-110 2 16:16 Analyze %REC Limits	RPD nd: 03/15/ RPD	RPD Limit 22 16:52 RPD Limit	EAD	
nalyte Orthophosphate Phosphate  Matrix Spike Dup (B2C0676-MSD1)  Inalyte Orthophosphate Phosphate  Batch B2C0706 - Phospho	F	Result 2.92	Reporting Limit 0.015 Source: 220 Reporting Limit	Units mg/L	1.5 Spike	Source Result 1.40 Prepared Source Result 1.40	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD d: 03/15// RPD 0.3	RPD Limit 22 16:52 RPD Limit 10	EAD	
nalyte Orthophosphate Phosphate  Intrix Spike Dup (B2C0676-MSD1)  Inalyte Intrihophosphate Phosphate  Batch B2C0706 - Phospholank (B2C0706-BLK1)	r orus, Total Pre	2.92 Result 2.92	Reporting Limit 0.015  Source: 220 Reporting Limit 0.015	Units mg/L C0593-02 Units mg/L	1.5 Spike Level 1.5	Source Result 1.40  Prepared Source Result 1.40  Prepared	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD  d: 03/15// RPD  0.3  d: 03/21/2	RPD Limit 22 16:52 RPD Limit 10	Init.	Qualifiers
nalyte Orthophosphate Phosphate  Intrix Spike Dup (B2C0676-MSD1) Inalyte Intriper Phosphate  Batch B2C0706 - Phospholank (B2C0706-BLK1)	r orus, Total Pre	Result 2.92	Reporting Limit 0.015  Source: 220 Reporting Limit 0.015	Units mg/L C0593-02 Units mg/L	1.5 Spike Level 1.5	Source Result 1.40 Prepared Source Result 1.40	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD d: 03/15// RPD 0.3	RPD Limit 22 16:52 RPD Limit 10	Init.	
nalyte inthophosphate Phosphate  latrix Spike Dup (B2C0676-MSD1) nalyte rthophosphate Phosphate  Batch B2C0706 - Phospho lank (B2C0706-BLK1)	r orus, Total Pre	2.92 Result 2.92	Reporting Limit 0.015  Source: 220 Reporting Limit 0.015	Units mg/L C0593-02 Units mg/L	Spike Level 1.5 Spike Spike	Prepared Source Result 1.40  Prepared Source Result 1.40  Prepared Source	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD  d: 03/15// RPD  0.3  d: 03/21/2	RPD Limit 22 16:52 RPD Limit 10	Init.	Qualifiers
nalyte Orthophosphate Phosphate Natrix Spike Dup (B2C0676-MSD1) nalyte Orthophosphate Phosphate	r orus, Total Pre	Result 2.92	Reporting Limit 0.015  Source: 220 Reporting Limit 0.015	Units mg/L C0593-02 Units mg/L	Spike Level 1.5 Spike Spike	Prepared Source Result 1.40  Prepared Source Result 1.40  Prepared Source	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD  d: 03/15// RPD  0.3  d: 03/21/2	RPD Limit 22 16:52 RPD Limit 10	Init.	Qualifiers
nalyte Orthophosphate Phosphate  Intrix Spike Dup (B2C0676-MSD1) Inalyte Intriper Phosphate  Batch B2C0706 - Phospholank (B2C0706-BLK1)	r orus, Total Pre	Result 2.92	Reporting Limit 0.015  Source: 220 Reporting Limit 0.015	Units mg/L C0593-02 Units mg/L	Spike Level 1.5 Spike Spike	Prepared Source Result 1.40  Prepared Source Result 1.40  Prepared Source	%REC 101 d: 03/15/2 %REC 102	%REC Limits 90-110 2 16:16 Analyze %REC Limits 90-110	RPD  d: 03/15// RPD  0.3  d: 03/21/2	RPD Limit 22 16:52 RPD Limit 10	Init.	Qualifiers

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Myra Kunas, Environmental Laboratory Manager

Public Health Laboratory, Minnesota Department of Health



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

	,					-	11010 11			
otal Prep		<del></del>								
				Prepare	d: 03/23/	22 08:45 Analyz	ed: 03/23	3/22 13:49		
Result	Reporting Limit	Units	,		%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
<		mg/L						-11.77	PMP	
			•							
				Prepare	d: 03/21/	22 08:45 Analyz	ed: 03/21	/22 15:14		
Result	Reporting	Units	Spike	Source	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
0.612	0.009	mg/L	0.6		102	90-110		LIIIIC	PMP	
		•		•						
				Prepare	d: 03/23/2	2 08:45 Analyz	ed: 03/23	/22 13:50		
Result	Reporting	Units	Spike	Source	%REC	%REC Limits	RPD	RPD	lnit.	Qualifiers
0.612	0.009	mg/L	0.6	result	102	90-110	,,,,	Limit .	PMP	
	Source: 22	C0473-08		Prepare	d: 03/21/2	2 08:45 Analyz	ed: 03/21/	/22 15:16		
Result	Reporting	l (nite	Spike	Source				RPD	Init	Qualifiers
			Level		741120	, ar teo emino				D2
	Source: 22	C0579-01F	R <b>E</b> 1	Prepare	d: 03/23/2	2 08:45 Analyza	ed: 03/23/	22 13:52		
Paetilt		Unita	Spike	Source		- ,		RPD	lnit	Qualifiers
			Level		/orkEO	/orces carries				D2
		J					-			22
	Source: 22	C0593-01F	RE2	Propare	I- U313313	2 08:45 Ånskæ	4: 03/22/	22 14-53		
المارية المارية	Reporting		Spike	Source		_		RPD	ln#	Ouglises-
	Limit		Level	Result			KPD	Limit		Qualifiers D2
10.2	J. 100	mg. L	0.00	0.00	102	30-110			PWP	. 112
i .										
	Source: 224	<b>∵∩</b> 503_02¤	F2	D	i. an <i>i</i> ne <i>i</i> e	. 00.45 *	al. noise:	0044-55		
, , ,		J0000-02N		Source		_		22 14:55 RPD		
Result	Limit	Units	Level	Result	%REC	%REC Limits	RPD	Limit	.Init	Qualifiers
		Report II	0: 03242	0221330	16	· · · · · · · · · · · · · · · · · · ·	Gener	rated: 3/2	4/2022 1:	30:07PM
						*				
	Result 0.612  Result 1.29  Result 2.25  Result 1.29	Result   Reporting   Limit   0.009	Result   Reporting   Limit   Units	Result   Reporting   Limit   Units   Level	Result   Reporting   Limit   Units   Level   Result   Reporting   Limit   Units   Level   Result   Result   Co.009   mg/L   Co.612   Co.009   Co.009   Co.009   mg/L   Co.612   Co.009   Co.009	Result   Reporting   Limit   Units   Spike   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Result   Limit   Units   Level   Result   Resu	Reporting   Result   Reporting   Result   Reporting   Limit   Units   Level   Result   Reporting   Limit   Units   Level   Result   Reporting   Limit   Units   Level   Result   Reporting   Result   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Limit   Units   Level   Result   Result   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Reporting   Limit   Units   Level   Result   Result   Result   Reporting   Limit   Units   Level   Result   Result   Result   Result   Limit   Units   Level   Result   Result   Result   Result   Result   Level   Result   Re	Result   Reporting   Content   Result   Reporting   Content   Co	Result   Reporting   Course   Result   Reporting   Result   Reporting   Result   Reporting   Result   Reporting   Course   Result   Reporting   Result   Reporting   Course   Result   Reporting   Course   Result   Result   Reporting   Course   Result   Reporting   Course   Result   Result   Result   Reporting   Course   Result   Resu	Prepared: 03/23/22 08:45   Analyzed: 03/23/22 13:49   Analyzed: 03/23/22 14:53   Analyzed: 03/23/22

Myra Kunas, Environmental Laboratory Manager

Public Health Laboratory, Minnesota Department of Health



Minnescta 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** 

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

Batch B2C0706 - Phosphorus, To	tal Prep										╛
Matrix Spike (B2C0706-MS6)	Source: 220	0593-02R	RE2	Prepared:	03/23/2	2 08:45 Analyze	d: 03/23/	22 14:55			
Analyte	Reporting Result Limit	Units	Spike Level	Source Result %	6REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers	
Phosphorus as Phosphate, Total	11.4 0.108	mg/L	3.60	6.49	137	90-110			PMP	D2, M1	_

Data Qualifiers and Definitions

D2

Sample required dilution due to high concentration of target analyte(s). Reporting limit has been raised.

Μī

Matrix spike and/or matrix spike duplicate recovery was high; the associated laboratory control sample and/or laboratory control sample duplicate recovery was acceptable.

Work Order Comments

Samples were received in proper condition.

FINAL REPORT

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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

Date Received:

06/22/22 09:17

Rep. Temp. (°C):

Program Code:

Type: B

Collector Name:

James Kroehler

Collector ID:

None

MDH Sample Number: 22F1281-01

Location ID: 00024

Sampling Point: D-001

Collect Date: 06/22/22

Collect Time: 07:00

Matrix: Drinking Water

Field Residual Chlorine Result: None

Field Fluoride Result: None

Field pH Result: 7.6

Field PO4 Result: None

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

**General Chemistry Parameters** 

Analyte Orthophosphate Phosphate

Reporting Result Limit 0.015

mg/L

Batch B2F1252

Prepared Analyzed 06/22/22 12:36

laif

Method Qualifiers

EPA 365.1

The following results were produced by Minnesota Valley Testing Laboratories, Inc.

General Chemistry Parameters

Analyte Phosphorus as Phosphate, Total

Reporting Limit 3.75 0.3

Result

Units mg/L

Batch [none]

Prepared 06/25/22 00:00

Analyzed 06/28/22 00:00

06/22/22 15:38

Method EPA 365.1 Qualifiers

MDH Sample Number: 22F1281-02

Location ID: 00025 Sampling Point: D-002 Collect Date: 06/22/22

Collect Time: 07:10 Matrix: Drinking Water

mg/L

Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.3

Field PO4 Result: None

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

**General Chemistry Parameters** 

Analyte Orthophosphate Phosphate

Reporting Limit-1.12 0.015

B2F1252

Prepared 06/22/22 12:36

Analyzed 06/22/22 15:40 Init.

Method Qualifiers

The following results were produced by Minnesota Valley Testing Laboratories, Inc.

**General Chemistry Parameters** 

Analyte Phosphorus as Phosphate, Total Result 3.78

Reporting Limit 0.3

Units Batch mg/L [none]

Prepared 06/25/22 00:00

Analyzed 06/28/22 00:00

Method EPA 365.1 Qualifiers

FINAL REPORT

Report ID: 07122022101011

Generated: 7/12/2022 10:10:01AM

EPA 365.1

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PWSID: 1720006

MDH Sample Number: 22F1281-03

Location ID: 00026 Sampling Point: D-003 Collect Date: 06/22/22 Collect Time: 07:20 Matrix: Drinking Water Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.4 Field PO4 Result: None

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

**General Chemistry Parameters** 

Reporting Qualifiers Units Batch Prepared Analyzed Method Result Analyte Limit 06/22/22 15:41 EPA 365.1 0.015 B2F1252 06/22/22 12:36 1,10 Orthophosphate Phosphate

The following results were produced by Minnesota Valley Testing Laboratories, Inc.

**General Chemistry Parameters** 

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Phosphorus as Phosphate, Total	3.45	0.3	mg/L	[none]	06/25/22 00:00	06/28/22 00:00		EPA 365.1	•

FINAL REPORT

Report ID: 07122022101011

Generated: 7/12/2022 10:10:01AM

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Myra Kunas, Environmental Laboratory Manager Public Health Laboratory, Minnesota Department of Health

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PWSID: 1720006

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

<u> </u>				Prenare	d• 0 <i>61221</i> 3	22 12:36 Analyza	d: 06/22	22 15:36		
Result	Reporting Limit	Units	•	Source	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
<	0.015	mg/L							KAC	
,										
,										
				Prepare	d: 06/22/2	22.12:36 Analyze	ed: 06/22	22 15:37		
Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
1.54	0.015	mg/L	1.5		103	90-110			KAC	
	Source: 22	F1281-01	٠	Prepare	d: 06/22/2	22 12:36 Analyze	d: 06/22	22 15:39		
Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
1.11	0.015	mg/L		1.12			0.5	10	KAC	
				•						•
	Source: 22	F1281-02		Prepare	d: 06/22/2	22 12:36 Analyze	d: 06/22	22 15:40		
Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
2.68	0.015	mg/L	1.5	1.12	104	90-110			KAC	
					•	•				
	Result 1.54  Result 1.11	Result   Limit	Result         Limit         Units           <	Result         Limit         Units         Level            0.015         mg/L           Result         Limit         Units         Level           1.54         0.015         mg/L         1.5           Source: 22F1281-01           Result         Reporting         Units         Level           1.11         0.015         mg/L           Source: 22F1281-02           Result         Reporting         Spike           Limit         Units         Spike           Level         Limit         Units         Level	Result         Reporting Limit         Units         Spike Level         Source Result            0.015         mg/L         Prepare           Result         Reporting Limit         Units         Spike Level         Result           1.54         0.015         mg/L         1.5         Prepare           Result         Reporting Limit         Units         Spike Level         Source Result           1.11         0.015         mg/L         1.12         1.12           Source: 22F1281-02         Prepare           Result         Reporting Limit         Units         Spike Source         Source           Level         Result         Limit         Units         Level         Result	Result   Colored   Color	Result   Reporting   Limit   Units   Level   Spike   Result   Rec   Result   Rec   Rec	Result   Reporting   Limit   Units   Level   Spike   Result   Reporting   Result   Limit   Units   Level   Result   Reporting   Spike   Source   Result   Reporting   Spike   Source   Result   Reporting   Spike   Source   Result   Reporting   Limit   Units   Level   Result   Reporting   Result   Reporting   Spike   Source   Result   Reporting   Limit   Units   Level   Result   Reporting   Result   Reporting   Spike   Source   Result   Reporting   Spike   Result   Reporting   Result   Reporting   Limit   Units   Spike   Source   Result   Reporting   Result   Reporting   Limit   Units   Level   Result   Reporting   Reporting   Result   Reporting   Repor	Result   Limit   Units   Level   Result   %REC   %REC Limits   RPD   Limit	Result   Reporting   Limit   Units   Level   Spike   Result   WREC   WREC Limits   RPD   Limit   Init.

Work Or	der Co	mments
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Samples were received in proper condition.

FINAL REPORT

Report ID: 07122022101011

Generated: 7/12/2022 10:10:01AM

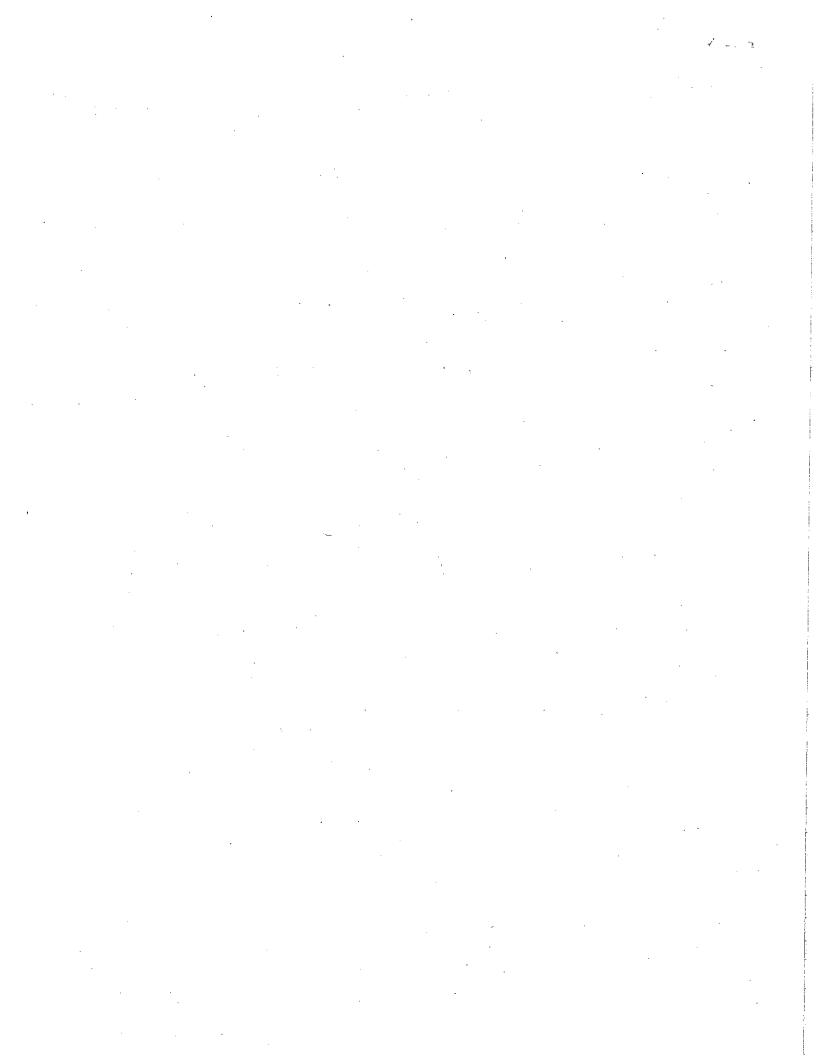
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Myra bakeena

Myra Kunas, Environmental Laboratory Manager Public Health Laboratory, Minnesota Department of Health

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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

Date Received: Rep. Temp. (°C): 07/27/22 09:20

2.2

Program Code:

Туре: В

Collector Name;

James Kroehler

Collector ID:

None

#### MDH Sample Number: 22G1857-01

Location ID: 00034

Sampling Point: Allansons Park - Restroom

Collect Date: 07/27/22 Collect Time: 07:00

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	· <	. 1.0	ug/L	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	
Dichloroacetic Acid	3.6	1.0	ug/L	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	i
Monobromoacetic Acid	<	1.0	ug/L	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	
Monochloroacetic Acid	<	2.0	ug/L	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	
Trichloroacetic Acid	<	1.0	ug/L	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	
Surrogate: 2-Bromobutanoic Acid	103	70-130	%	B2G1380	07/29/22 08:55	08/01/22 10:53	MAG	EPA 552.3	

#### THMs by GCMS

Analyte	Result	Reporting Limit	Units.	Batch	Prepared	Analyzed	lnit.	Method	Qualifiers
Bromodichloromethane	0.6	0.5	ug/L	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS	EPA 524.3	
Bromoform	<	0.5	ug/L	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS	EPA 524.3	
Chlorodibromomethane	<	0.5	ug/L	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS'	EPA 524.3	
Chloroform	2.6	0.5	ug/L	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS	EPA 524.3	
Surrogate: 1,2-Dichlorobenzene-d4	105	70-130	%	B2G1382	07/29/22 15:25	07/29/22 15;25	CLS	EPA 524.3	
Surrogate: 4-Bromofluorobenzene	98	70-130	%	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS	EPA 524.3	
Surrogate: Methyl tertiary butyl ether-d3	108	70-130	%	B2G1382	07/29/22 15:25	07/29/22 15:25	CLS	EPA 524.3	

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PWSID: 1720006

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Blank (B2G1380-BLK1)					Prepare	d: 07/29/:	22 08:55 Analyz	ed: 08/01	/22 08:13		
Analyte	Result	Reporting Limit	Units	Spike Level	-	%REC	%REC Limits	RPD	RPD Limit	lnit,	Qualifiers
Dibromoacetic Acid	<	1.0	ug/L							MAG	
Dichloroacetic Acid	<	1.0	ug/L							MAG	
Monobromoacetic Acid	<	1.0	ug/L							MAG	
Monochloroacetic Acid	<	2.0	ug/L	•						MAG	
Trichloroacetic Acid	<	1.0	ug/L							MAG	•
Surrogate: 2-Bromobutanoic Acid	106	70-130	. %	10						MAG	
										,	
LCS (B2G1380-BS1)					Prepare	d: 07/29/2	22 08:55 Analyze	ed: 08/01	22 15:32		
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	11	1.0	ug/L	10	.,	109	70-130	·		MAG	
Dichloroacetic Acid	11	1,0	ug/L	10		115	70-130			MAG	
Monobromoacetic Acid	11	1.0	ug/L	10		112	70-130			MAG	
Monochloroacetic Acid	23	2.0	ug/L	20		116	70-130			MAG	
Frichloroacetic Acid	11	1.0	ug/L	10		107	70-130			MAG	
Surrogate: 2-Bromobutanoic Acid	108	70-130	%	10						MAG	•
					,						
_CS (B2G1380-BS2)		•			Prepare	i: 07/29/2	2 08:55 Analyze	d: 08/01/	22 22:10		
	Result	Reporting Limit	Units	Spike Level	Preparer Source Result	1: 07/29/2 %REC	22 08:55 Analyze	d: 08/01/ RPD	22 22:10 RPD Limit	Init.	Qualifiers
Analyte	Result		Units ug/L		Source		•		RPD	Init.	Qualifiers
Analyte Dibromoacetic Acid	Result	Limit		Level	Source	%REC	%REC Limits		RPD		Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid	Result 22	Limit 1.0	ug/L	Level 20	Source	%REC 110	%REC Limits 70-130		RPD	MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid	Result 22 22	Limit 1.0 1.0	ug/L ug/L	<u>Level</u> 20 20	Source	%REC 110 111	%REC Limits 70-130 70-130		RPD	MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid	22 22 22	Limit 1.0 1.0 1.0	ug/L ug/L ug/L	20 20 20 20	Source	%REC 110 111 110	%REC Limits 70-130 70-130 70-130		RPD	MAG MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid	22 22 22 22 45	Limit 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L	20 20 20 20 20 40	Source	%REC 110 111 110 112	%REC Limits  70-130  70-130  70-130  70-130		RPD	MAG MAG MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid Trichloroacetic Acid	22 22 22 22 45 22	Limit 1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L	20 20 20 20 40 20	Source	%REC 110 111 110 112	%REC Limits  70-130  70-130  70-130  70-130		RPD	MAG MAG MAG MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid Trichloroacetic Acid	22 22 22 45 22 107	Limit  1.0  1.0  1.0  2.0  1.0  70-130	ug/L ug/L ug/L ug/L ug/L	20 20 20 40 20 10	Source Result	%REC 110 111 110 112 109	%REC Limits  70-130  70-130  70-130  70-130	RPD	RPD Limit	MAG MAG MAG MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid Frichloroacetic Acid Surrogate: 2-Bromobutanoic Acid	22 22 22 45 22 107	Limit 1.0 1.0 1.0 2.0 1.0 70-130	ug/L ug/L ug/L ug/L ug/L % G1917-01	20 20 20 40 20 10	Source Result	%REC 110 111 110 112 109	%REC Limits  70-130 70-130 70-130 70-130 70-130	RPD	RPD Limit	MAG MAG MAG MAG MAG	Qualifiers
Analyte Dibromoacetic Acid Dichloroacetic Acid Monochromoacetic Acid Monochloroacetic Acid Trichloroacetic Acid Surrogate: 2-Bromobutanoic Acid	22 22 22 45 22 107	Limit  1.0  1.0  1.0  2.0  1.0  70-130  Source: 220 Reporting	ug/L ug/L ug/L ug/L % G1917-01 Units ug/L	20 20 40 20 10 Spike Level 20	Prepared Source Result 2.6	%REC 110 111 110 112 109 i: 07/29/2 %REC 107	%REC Limits  70-130  70-130  70-130  70-130  70-130  2 08:55 Analyze  %REC Limits  70-130	RPD	RPD Limit 22 '09:33 RPD	MAG MAG MAG MAG MAG MAG MAG MAG	
Analyte Dibromoacetic Acid Dichloroacetic Acid Monochloroacetic Acid Monochloroacetic Acid Frichloroacetic Acid Surrogate: 2-Bromobutanoic Acid Matrix Spike (B2G1380-MS1) Analyte Dibromoacetic Acid	22 22 22 45 22 107	Limit  1.0  1.0  1.0  2.0  1.0  70-130  Source: 220 Reporting Limit	ug/L ug/L ug/L ug/L % G1917-01 Units ug/L ug/L	20 20 40 20 10 Spike Level 20 20 20	Source Result  Prepared Source Result	%REC 110 111 110 112 109  i: 07/29/2 %REC 107 105	%REC Limits  70-130 70-130 70-130 70-130 70-130  2 08:55 Analyze  %REC Limits  70-130 70-130	RPD	RPD Limit 22 '09:33 RPD	MAG MAG MAG MAG MAG MAG	
Analyte Dibromoacetic Acid Dichloroacetic Acid Monochloroacetic Acid Monochloroacetic Acid Frichloroacetic Acid Surrogate: 2-Bromobutanoic Acid	22 22 22 45 22 107 Result	Limit 1.0 1.0 1.0 2.0 1.0 70-130  Source: 220 Reporting Limit 1.0	ug/L ug/L ug/L ug/L % G1917-01 Units ug/L ug/L	20 20 40 20 10 Spike Level 20	Prepared Source Result 2.6	%REC 110 111 110 112 109  i: 07/29/2 %REC 107 105 105	%REC Limits  70-130 70-130 70-130 70-130 70-130  2 08:55 Analyze  %REC Limits  70-130 70-130 70-130	RPD	RPD Limit 22 '09:33 RPD	MAG MAG MAG MAG MAG MAG MAG MAG	
Analyte Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid Frichloroacetic Acid Surrogate: 2-Bromobutanoic Acid Matrix Spike (B2G1380-MS1) Analyte Dibromoacetic Acid	22 22 22 45 22 107 Result	Limit  1.0  1.0  1.0  2.0  1.0  70-130  Source: 220 Reporting Limit  1.0  1.0	ug/L ug/L ug/L ug/L % G1917-01 Units ug/L ug/L	20 20 40 20 10 Spike Level 20 20 20	Prepared Source Result 2.6 4.1	%REC 110 111 110 112 109  i: 07/29/2 %REC 107 105	%REC Limits  70-130 70-130 70-130 70-130 70-130  2 08:55 Analyze  %REC Limits  70-130 70-130	RPD	RPD Limit 22 '09:33 RPD	MAG MAG MAG MAG MAG MAG MAG MAG MAG	

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

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PWSID: 1720006

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Batch B2G1380 - HAA Extraction	n									···········	
Matrix Spike (B2G1380-MS1)		Source: 22	G1917 <b>-</b> 01		Prepare	d: 07/29/	22 08;55 Analyz	ed: 08/01	/22 09:33		
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Trichloroacetic Acid	22	1.0	ug/L	20	1.8	102	70-130			MAG	
Surrogate: 2-Bromobutanoic Acid	101	70-130 ,	%	10					-	MAG	
Matrix Spike Dup (B2G1380-MSD1)		Source; 22	G1917-01		Prepare	d: 07/29/2	22 08:55 Analyz	ed: 08/01/	/22 10:13		
, Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	24	1.0	ug/L	20	2.6	106	70-130	0.3	30	MAG	
Dichloroacetic Acid	25	1.0	ug/L	20	4.1	105	70-130	0.1	30	MAG	
Aonobromoacetic Acid	21	1.0	ug/L	20	<	105	70-130	0.6	30	MAG	
Ionochloroacetic Acid	37	2.0	ug/L	40	<	93	70-130	. 3	30	MAG	
richloroacetic Acid	23	1.0	ug/L	20	1.8	107	70-130	5	30	MAG	
Surrogate: 2-Bromobutangic Acid	99	70-130	%	10						MAG	

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



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

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

Batch B2G1382 - EPA 524 Prep											. *
Blank (B2G1382-BLK1)		Danadiaa		Cailea	-	d: 07/29/	22 13:10 Analyz	ed: 07/29			
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers <sup>*</sup>
Bromodichloromethane	<	0.5	ug/L							CLS	
Bromoform	<	0.5	ug/L							CLS	
Chlorodibromomethane	<	0.5	ug/L		-					CLS	
Chloroform	<	0.5	ug/L							CLS	
Surrogate: 1,2-Dichlorobenzene-d4	105	70-130	%	10						CLS	
Surrogate: 4-Bromofluorobenzene .	96	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	106	70-130	%	10						CLS	
				-							
CS (B2G1382-BS1)					Prepare	d: 07/29/2	22 18:32 Analyze	ed: 07/29/	22 18:32		
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	4.5	0.5	ug/L	4		112	70-130			CLS	
Bromoform	3.9	0.5	ug/L	4		97	70-130			CLS	
Chlorodibromomethane	3.8	0.5	ug/L	4		95	70-130			CLS	
Chloroform	4.7	0.5	ug/L	4		117	70-130			CLS	
Surrogate: 1,2-Dichlorobenzene-d4	101	70-130	%	10			•			CLS	
Surrogate: 4-Bromofluorobenzene	96	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	110	70-130	%	10						CLS	
Ouplicate (B2G1382-DUP1)		Source: 220	G1904-01		-	1: 07/29/2	2 18:05 Analyze	ed: 07/29/			
ınalyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
romodichloromethane	3.6	~ -									
		0.5	ug/L		3.8			6	30	CLS	
romoform	<	0.5	ug/L ug/L		3:8 <			6	30 30	CLS CLS	
			_					6 10			
hlorodibromomethane	<	0.5	ug/L		<				30	CLS	
chlorodibromomethane chloroform	< 0.6	0.5 0.5	ug/L ug/L	10	< 0.6			10	30 30	CLS CLS	
Chlorodibromomethane Chloroform Surrogate: 1,2-Dichlorobenzene-d4	< 0.6 11	0.5 0.5 0.5	ug/L ug/L ug/L	10 10	< 0.6			10	30 30	CLS CLS CLS	
Chlorodibromomethane Chloroform Surrogate: 1,2-Dichlorobenzene-d4 Surrogate: 4-Bromofluorobenzene	0.6 11 107	0.5 0.5 0.5 70-130	ug/L ug/L ug/L %		< 0.6			10	30 30	CLS CLS CLS	
chlorodibromomethane Chloroform Surrogate: 1,2-Dichlorobenzene-d4 Surrogate: 4-Bromofluorobenzene	0.6 11 107 99	0.5 0.5 0.5 70-130 70-130	ug/L ug/L ug/L %	10	< 0.6			10	30 30	CLS CLS CLS CLS	
Bromoform Chlorodibromomethane Chloroform Surrogate: 1,2-Dichlorobenzene-d4 Surrogate: 4-Bromofluorobenzene Surrogate: Methyl tertiary butyl ether-d3	0.6 11 107 99	0.5 0.5 0.5 70-130 70-130	ug/L ug/L ug/L %	10	< 0.6			10	30 30	CLS CLS CLS CLS	
Chlorodibromomethane Chloroform Gurrogate: 1,2-Dichlorobenzene-d4 Gurrogate: 4-Bromofluorobenzene Gurrogate: Methyl tertiary butyl ether-d3	0.6 11 107 99 109	0.5 0.5 0.5 70-130 70-130 70-130	ug/L ug/L ug/L % %	10 10	0.6 11	i: 07/29/2	2 12:17 Analyze	10 1	30 30 30 22 12:17	CLS CLS CLS CLS	
chlorodibromomethane chloroform currogate: 1,2-Dichlorobenzene-d4 currogate: 4-Bromofluorobenzene currogate: Methyl tertiary butyl ether-d3 currogate: Methyl tertiary butyl ether-d3	0.6 11 107 99 109	0.5 0.5 0.5 70-130 70-130 70-130	ug/L ug/L ug/L % %	10 10	< 0.6 11	t: 07/29/2 %REC	2 12:17 Analyze %REC Limits	10 1	30 30 30	CLS CLS CLS CLS	Qualifiers
Chlorodibromomethane Chloroform Currogate: 1,2-Dichlorobenzene-d4 Currogate: 4-Bromofluorobenzene Currogate: Methyl tertiary butyl ether-d3 Clatrix Spike (B2G1382-MS1)	<ul><li>0.6</li><li>11</li><li>107</li><li>99</li><li>109</li></ul>	0.5 0.5 0.5 70-130 70-130 70-130 Source: 220	ug/L ug/L ug/L % % %	10 10 Spike	<ul><li>0.6</li><li>11</li><li>Prepared</li><li>Source</li></ul>		_	10 1 	30 30 30 30 <b>22 12:17</b> RPD	CLS CLS CLS CLS CLS CLS	Qualifiers
Chlorodibromomethane Chloroform Surrogate: 1,2-Dichlorobenzene-d4 Surrogate: 4-Bromofluorobenzene	<ul><li>0.6</li><li>11</li><li>107</li><li>99</li><li>109</li></ul>	0.5 0.5 0.5 70-130 70-130 70-130 Source: 220 Reporting Limit	ug/L ug/L ug/L % % % %	10 10 Spike Level	<ul> <li>0.6</li> <li>11</li> <li>Prepared</li> <li>Source</li> <li>Result</li> </ul>	%REC	%REC Limits	10 1 	30 30 30 30 <b>22 12:17</b> RPD	CLS CLS CLS CLS CLS CLS CLS	Qualifiers

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PWSID: 1720006

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Matrix Spike (B2G1382-MS1)		Source: 22	G1803-01		Prepare	d: 07/29/2	22 12:17 Analyz	ed: 07/29	/22 12-17		
Analyte	Result	Reporting Limit	Units	Spike Level		%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Chlorodibromomethane	6.3	0.5	ug/L	6	<	100	70-130		LIIIII.	CLO	
Chloroform	43	0.5	ug/L	6	39	55	70-130			CLS	
Surrogate: 1,2-Dichlorobenzene-d4	104	70-130	%	10			10-130			CLS	M2
Surrogate: 4-Bromofluorobenzene	100	70-130	%	10						ÇLS	
Surrogate: Methyl tertiary butyl ether-d3	107	70-130	%							CLS	
5 January 223, Sillo, 20	101	70-130	70	10						CLS	

# Data Qualifiers and Definitions

M2

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample and/or laboratory control sample duplicate recovery was acceptable.

# Work Order Comments

Collector name is James Kroehfer per D. Vaaler -CCS 7/27/22

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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

Type: B

PWSID:

1720006

System Name:

Henderson

City:

Henderson

Date Received:

09/29/22 09:36

Rep. Temp. (°C): 8.5

Collector Name:

Program Code:

James Kroehler

Collector ID:

MDH Sample Number: 2212215-01

Location ID: 00024

Sampling Point: D-001

Collect Date: 09/29/22

Collect Time: 06:30 Matrix: Drinking Water Field Residual Chlorine Result: None

Field Fluoride Result: None

Field pH Result: 7.4 Field PO4 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
Orthophosphate Phosphate	1.16	0.015	mg/L	B211156	09/29/22 13:02	09/29/22 14:49	INB	EPA 365.1	
Phosphorus as Phosphate, Total	3.54	0.027	mg/L	B2J0752	10/10/22 16:32	10/11/22 13:07	EAD	EPA 365.1	D2

### MDH Sample Number: 2212215-02

Location ID: 00025 Sampling Point: D-002 Collect Date: 09/29/22

Collect Time: 06:35 Matrix: Drinking Water Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.2

Field PO4 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	Qualiflers
Orthophosphate Phosphate	1.20	0.015	mg/L	B2l1156	09/29/22 13:02	09/29/22 14:50	INB	EPA 365.1	
Phosphorus as Phosphate, Total	3.60	0.027	mg/L	B2J0752	10/10/22 16:32	10/11/22 13:08	EAD	EPA 365.1	D2

FINAL REPORT

Report ID: 10122022154317

Generated: 10/12/2022 3:43:10PM

Authorized by:

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

Page 1 of 4



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

MDH Sample Number: 22l2215-03

Location ID: 00026 Sampling Point: D-003 Collect Date: 09/29/22 Collect Time: 06:40

Matrix: Drinking Water

Field Residual Chlorine Result: None

Field Fluoride Result: None Field pH Result: 7.3 Field PO4 Result: None

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

#### **General Chemistry Parameters**

Analyte	Tt ! -	oorting imit Units	Batch	Prepared	Analyzed ·	lnit.	Method	Qualifiers
Orthophosphate Phosphate	<b>0.771</b> 0.	.015 mg/L	B211156	09/29/22 13:02	09/29/22 14:51	INB	EPA 365.1	
Phosphorus as Phosphate, Total	<b>2.03</b> 0.	.027 mg/L.	B2J0752	10/10/22 16:32	10/11/22 13:09	EAD	EPA 365.1	D2

FINAL REPORT

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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

Batch B2l1156 - Orthophosphate P	rep										
Blank (B2I1156-BLK2)					Dranar	-d- 00/20	22 13:02 An	aburada 00/2	0/22 4 4 4	<del></del>	
Analyte	Result	Reporting Limit	Units	Spike	Source	) (/ DEC	%REC Lim		RPD	Init.	Qualifiers
Orthophosphate Phosphate	<		mg/L	Level	Resul		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10 2	Limit	INB	Q D D D D D D D D D D D D D D D D D D D
				•				*.			
CS (B2i1156-BS2)		•			Prepare	ed: 09/29/	22 13:02 An	alyzed: 09/2	9/22 14:46	3	•*
nalyte	Result	Reporting Limit	Units	Spike Level	Source Result		%REC Lim	its RPD	RPD Limit	lnit.	Qualifiers
orthophosphate Phosphate	1.54	0.015	mg/L	1.5		102	90-110		LITTIC	INB	<del></del>
•							-				
luplicate (B2l1156-DUP1)		Source: 22	12214-01F				22 13:02 Ana	alyzed: 09/29			
analyte '	Result	Reporting Limit	Units	Spike <u>Level</u>	Source Result		%REC Lim	its RPD	RPD Limit	Init.	Qualifiers
orthophosphate Phosphate	<	0.015	mg/L		<				10	· INB	
						,					
atrix Spike (B2I1156-MS1)		Source: 22i Reporting	12215-01	Owit		d: 09/29/2	22 13:02 Ana	llyzed: 09/29			
nalyte	Result	Limit	Units	Spike Level	Source Result	%REC	%REC Limi	its RPD	RPD Limit	Init.	Qualifiers
Irthophosphate Phosphate	2.71	0.015	mg/L	1.5	1.16	103	90-110			INB	•
	•										
					<del></del>		,		<del></del>		· 
Batch B2J0752 - Phosphorus, Total	Prep	-	••••	<del></del>	-1-		····-			•	
lank (B2J0752-BLK1)					Prepare	d: 10/10/2	2 16:32 Ana	lyzed: 10/11	/22 12:51		
nalyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limi	ts RPD	RPD Limit	Init.	Qualifiers
hosphorus as Phosphate, Total	<	0.009	mg/L		7.00 - 0.11					EAD	
		-									
•											
CS (B2J0752-BS1)	_					i: 10/10/2	2 16:32 Ana	lyzed: 10/11			
nalyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limit	s RPD	RPD Limit	init.	Qualifiers
nosphorus as Phosphate, Total	0.636	0.009	mg/L	0.6		106	90-110			EAD	
										,	
•				-						,	
FINAL REPORT			Report II	D: 10122	02215431	17		Gene	rated: 10	/12/2022	3:43:10PM
Authorized by:							The service				
manonzea by.			This was	ort must	not he re	i araduaad	ne resuits in except in ful	uns report a <sub>l</sub>	upiy oniy t	υ τηe sam	ples analyzed.

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

Page 3 of 4



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

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

Duplicate (B2J0752-DUP1)			Source: 22	J0026-02		Prepare	d: 10/10/2	22 16:32 Analyze	ed: 10/11/			•
Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Phosphorus as Phosphate, Total		2.76	0.027	mg/L		2.70			2	20	EAD	D2
	* * * .								•			
					÷							
Matrix Spike (B2J0752-MS1)			Source: 22	J0026-03		•	d: 10/10/2	22 16:32 Analyze	ed: 10/11/			
Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	.%REC	%REC Limits	RPD	RPD Limit	lnit.	Qualifiers
Phosphorus as Phosphate, Total	•	4.50	0.027	mg/L	1.80	2.70	100	90-110			EAD	D2
•												
	•					•						
Matrix Spike (B2J0752-MS2)			Source: 22	J0039-01		Prepare	d: 10/10/2	22 16:32 Analyzo	ed: 10/11/	22 13:20		
Analyte ·		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Phosphorus as Phosphate, Total		2.94	0.027	mg/L	1.80	1.15	99	90-110			EAD	D2
. •						•						
							*					`
Data Qualifiers and Definition	is											
D2 Sample required dilu	tion due to h	igh conce	entration of ta	arget analy	te(s). Re	porting li	mit has be	en raised.				
				•								•
Work Order Comments												

FINAL REPORT

Report ID: 10122022154317

Generated: 10/12/2022 3:43:10PM

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

## Minnesota Department of Health List of Sampling Locations and First Draw For Lead/Copper Tap Water Monitoring

Sampling Period: 6/1/2022 - 9/30/2022



PWSID: 1720006 Population: 886 Amy Lynch PWS Name: Henderson Samples Received: 10 Samples Required: 10

 $90^{th}$  Percentile Lead Level: < 1  $\mu g/L$   $90^{th}$  Percentile Copper Level:  $335~\mu g/L$ 

Detect Long-Term 07/01/2025 3 WQP Phosphate CU PE: 11/03/2009

		T		Plun	nbing Mat	erials	Sample	Results	
Site No.	Location (Site Address)	Tier No. (1-4)	LSL	LP	CP/LS	Other	Lead 15.0 (µg/L)	Copper 1300 (µg/L)	Collected
00007	606 Locust Street 56044	 3		<u> </u>	X	Other	- (μg/L) - < 1	165	7/24/2022
00008	212 South 4th Street 56044	3			х		< 1	58	7/24/2022
00010	900 South 9th Street 56044	3			х		< 1	1010	7/23/2022
00013	404 North 6th Street 56044	3			X		< 1	59	7/24/2022
00022	112 North 8th Street	3			X		< 1	69	7/23/2022
00028	303 South 5th Street	3 .		-	Х		< 1	39	7/23/2022
00036	507 Ridge Road			·			< 1	335	7/23/2022
00037	314 Main Street						< 1	59	7/24/2022
00038	414 North 5th Street				-		< 1	20	7/24/2022
00039	505 Ridge Road						< 1	49	7/24/2022
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# MINNESOTA DEPARTMENT OF HEALTH SECTION OF DRINKING WATER PROTECTION Report of Analytical Results



Date Report Generated: 10/07/2022

625 Robert St. N. St. Paul MN 55155 P.O. Box 64975 St. Paul MN 55164 - 0975

Final Report - Client Copy

The following are the results of your most recent sample analysis required for compliance with the Environmental Protection Agency's (EPA) Safe Drinking Water Rules. The results indicate that sample(s) collected was in compliance with Safe Drinking Water Rules. If you have any questions, call 651/201-4700.

System Name : Henderson **PWSID** : 1720006 : Minnesota Valley Testing Laboratories, Inc.--New Ulm Laboratory **Date Collected** : 09/28/2022 Lab Sample # : 22-P4742 Date Received : 09/28/2022 Field # Date Analyzed : 09/28/2022 Sample Type : B Collector Name : JAMES KROEHLER Collector ID

Collector ID .

Sampling Point : 600 MAIN ST HENDERSON MN

Sampling Point ID: D01

Comments

#### BACTERIA RESULT: NO COLIFORM BACTERIA WERE DETECTED. ####



# MINNESOTA DEPARTMENT OF HEALTH SECTION OF DRINKING WATER PROTECTION Report of Analytical Results



625 Robert St. N. St. Paul MN 55155 P.O. Box 64975 St. Paul MN 55164 - 0975

Final Report - Client Copy

The following are the results of your quarterly fluoride sample analysis required for compliance with Minnesota Rules, Chapter 4720, part 4720.0030. If you have any questions, call David Rindal at 651/201-4660.

System Name:	Henderson	PWSID:	1720006
Date Collected:	09/29/2022	Lab Sample #:	22 2216-01
Date Received:	09/29/2022	Field #:	
Date Analyzed:	10/10/2022		
Collector Name:	James Kroehler		
Sampling Point:	600 Main St Henderson MN 56044	Reporting Limit:	0.2
Lab Result: Field Result:	0.95	Units:	mg/L
PO4 Residual: (Field)	1.4		
Lab Comments:			

#### Recommended Actions

Your current fluoride treatment is satisfactory.

#### Comments

Test the fluoride level with your equipment at the same time you take the sample to send to this department. Enter your reading in the space provided on the laboratory request form sent with your sample.

WATER SUPERINTENDENT HENDERSON CITY HALL 600 MAIN STREET, P.O. BOX 433 HENDERSON MN 56044

Date Report Generated: 10/20/2022



Protecting, Maintaining and 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 (PWS)

Your PWS is required by the Lead and Copper Rule of the Safe Drinking Water Act to monitor for Water Quality Parameters. Enclosed are the results of analyses performed on water samples collected from your PWS. These results must be kept in your files for a minimum of ten (10) years.

If you have any questions concerning these results, please contact Michael Bourland at 651-201-5928, or your Department of Health district engineer.

Bemidji		Marshall	
Todd Johnson	218/308-2110	John Blomme	507/476-4238
Eric Weller	218/308-2107		
		Rochester	
Duluth	•	Kate Novy	507/206-2724
Mike Luhrsen	218/302-6178		
		St. Cloud	
Fergus Falls		Hunter Blomme	er 320/223-7339
Lucas Hoffman	218/332-5146	Kim Larsen	320/223-7330
		Jennifer Soltys	320/223-7340
Mankato			-
Amy Lynch	507/344-2713	St. Paul	
•		Lucas Martin	651/201-4144
		Brian Noma	651/201-3971
		Jessie Kolar	651/201-4562



04/15/2022 PWSID 1720006

**PWS NAME: Henderson** 

**Subject: Water Quality Parameters** 

The system is responsible for providing consistent orthophosphate residuals within the distribution system to maintain its corrosion control program. Currently, Henderson uses a blended phosphate treatment for corrosion control and sequestration. Community Public Water Supply has recommended the system has maintained a minimum orthophosphate residual of 1.0 mg/L for optimal corrosion control treatment.

The most recent WQP results show an average orthophosphate level of 2.14 mg/L, and an average total phosphate level of 8.35 mg/L, and an average pH level of 7.3. Henderson needs to adjust its phosphate feed to reduce the phosphate residuals as one of the samples measured total phosphate at 12 mg/L. Under the 10 State Standards, systems can't add more than 10 mg/L of phosphate for water treatment and Henderson needs to comply in order to mitigate lead and copper levels throughout the distribution.

Henderson may have over adjusted its chemical feed since the previous round, but as long as the system can meet the minimum 1.0 mg/L orthophosphate residual, that should provide optimal corrosion control for the distribution.

Please contact your Compliance Engineer, Michael Bourland at 651-201-5928 with questions on corrosion control treatment and pre-notify him of any treatment modifications or changes by emailing him at <a href="mailto:michael.bourland@state.mn.us">michael.bourland@state.mn.us</a>



PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

August 18, 2022

Henderson City Council c/o Mr. Lon Berberich, Clerk Henderson City Hall 600 Main Street, P.O. Box 433 Henderson, Minnesota 56044

Dear Council Members:

SUBJECT: Lead/Copper Tap Water Monitoring Report, PWSID 1720006

This letter is to report the results of your recent lead/copper monitoring that is required by the Safe Drinking Water Act. The results revealed the following 90th percentile levels:

90th percentile lead level = <1  $\mu$ g/l (rounded as < 0.001 mg/l). The action level for lead is 15.0  $\mu$ g/l.

90th percentile copper level = 335  $\mu$ g/l (rounded as 0.335  $\mu$ g/l). The action level for copper is 1300  $\mu$ g/l.

Based on these results, your public water system has not exceeded the action level for lead and has not exceeded the action level for copper.

By federal rule, 40 CFR 141.85, you are required to provide the lead/copper results to persons served at the sites that were tested. In addition, you must provide them with an explanation of the health effects of lead/copper, list steps consumers can take to reduce exposure to lead/copper in drinking water, and water utility contact information. The notification must also provide the maximum contaminant level goals, the action levels for lead/copper, and the definitions for these two terms.

Notification must be made within 30 days by U.S. Mail, hand/direct delivery, or posting. Please refer to the enclosed Lead/Copper Results Delivery Certification form for delivery method requirements. If the residence is a rental property, both the occupant(s) of the residence and rental property owner must be notified. To assist you in meeting the notification requirements, we have enclosed the results notification letters which must be delivered to the homeowners along with a copy of the fact sheet on lead/copper in drinking water.

The lead/copper sampling site addresses are private data. This information was classified as "nonpublic" by the Minnesota Department of Administration in October 2004, upon the request of Minnesota Department of Health (MDH) and Minnesota community water supply systems. When notifying the persons served at the sites that were tested, provide them with the results for that address only.

An equal opportunity employer



Henderson City Council Page 2 August 18, 2022 PWSID 1720006

Within 10 days after notifying the residents of their results, you must complete the enclosed Lead/Copper Results Delivery Certification form and return it to us. If you chose not to use the results notification letters MDH sent to you and created your own results notification letters, you must submit a copy of one of the letters along with this certification form. The letter you create must contain the same language as the enclosed results notification letters as this is EPA required language. A return envelope is enclosed for your convenience.

Please note that all enclosures are sent to the addressee of this letter. Persons receiving a copy (cc) of the letter do not receive any enclosures. It is the responsibility of the addressee to follow through with the requirements.

A sampling kit will be sent to you prior to your next scheduled sampling date. The enclosed report should be placed in your records and a copy maintained on or near the water supply premises and available for public inspection for not less than ten (10) years.

If you have any questions, please contact me at 651-201-3974, or Michael Bourland at 651-201-5928.

Sincerely,

Stephanie Voeller

Community Public Water Supply Unit

Environmental Health Division P.O. Box 64975

St. Paul, Minnesota 55164-0975

PAW Enclosures

cc: Water Superintendent

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