

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: 1270023
System Name: Medina
City: Medina

Program Code: HC

Type: B

Date Received: 09/27/23 14:02
Rep. Temp. (°C): 1.5

Collector Name: Greg Leuer
Collector ID: None

MDH Sample Number: 2311492-01

Location ID: 00042
Sampling Point: 1165 Settlers Road

Collect Date: 09/27/23
Collect Time: 08:30
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.

THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Bromodichloromethane	0.8	0.5	ug/L	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Bromoform	<	0.5	ug/L	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Chlorodibromomethane	<	0.5	ug/L	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Chloroform	2.3	0.5	ug/L	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Surrogate: 1,2-Dichlorobenzene-d ₄	107	70-130	%	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Surrogate: 4-Bromofluorobenzene	98	70-130	%	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	
Surrogate: Methyl tertiary butyl ether-d ₃	110	70-130	%	B3J0946	10/05/23 17:20	10/05/23 17:20	CLS	EPA 524.3	

MDH Sample Number: 2311492-01RE1

Location ID: 00042
Sampling Point: 1165 Settlers Road

Collect Date: 09/27/23
Collect Time: 08:30
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	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	
Dichloroacetic Acid	3.5	1.0	ug/L	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	
Monobromoacetic Acid	<	1.0	ug/L	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	
Monochloroacetic Acid	<	2.0	ug/L	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	
Trichloroacetic Acid	<	1.0	ug/L	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	
Surrogate: 2-Bromobutanoic Acid	82	70-130	%	B3J0970	10/06/23 07:53	10/10/23 22:05	MAG	EPA 552.3	

FINAL REPORT

Report ID: 10172023152834

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

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Batch B3J0970 - HAA Extraction

Blank (B3J0970-BLK1)

Prepared: 10/06/23 10:30 Analyzed: 10/10/23 12:09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	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	90	70-130	%	10						MAG	

LCS (B3J0970-BS1)

Prepared: 10/06/23 10:30 Analyzed: 10/10/23 19:26

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	8.7	1.0	ug/L	10		87	70-130			MAG	
Dichloroacetic Acid	9.0	1.0	ug/L	10		90	70-130			MAG	
Monobromoacetic Acid	9.2	1.0	ug/L	10		92	70-130			MAG	
Monochloroacetic Acid	19	2.0	ug/L	20		95	70-130			MAG	
Trichloroacetic Acid	8.8	1.0	ug/L	10		88	70-130			MAG	
Surrogate: 2-Bromobutanoic Acid	89	70-130	%	10						MAG	

LCS (B3J0970-BS2)

Prepared: 10/06/23 10:30 Analyzed: 10/11/23 02:04

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	21	1.0	ug/L	20		103	70-130			MAG	
Dichloroacetic Acid	20	1.0	ug/L	20		102	70-130			MAG	
Monobromoacetic Acid	21	1.0	ug/L	20		103	70-130			MAG	
Monochloroacetic Acid	42	2.0	ug/L	40		104	70-130			MAG	
Trichloroacetic Acid	20	1.0	ug/L	20		101	70-130			MAG	
Surrogate: 2-Bromobutanoic Acid	94	70-130	%	10						MAG	

Matrix Spike (B3J0970-MS1)

Source: 23I1511-01RE1

Prepared: 10/06/23 10:30 Analyzed: 10/10/23 13:29

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	20	1.0	ug/L	20	1.4	95	70-130			MAG	
Dichloroacetic Acid	27	1.0	ug/L	20	9.7	86	70-130			MAG	
Monobromoacetic Acid	18	1.0	ug/L	20	<	90	70-130			MAG	
Monochloroacetic Acid	34	2.0	ug/L	40	<	85	70-130			MAG	

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Batch B3J0970 - HAA Extraction

Matrix Spike (B3J0970-MS1)

Source: 23I1511-01RE1

Prepared: 10/06/23 10:30 Analyzed: 10/10/23 13:29

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	2.8	94	70-130			MAG	
Surrogate: 2-Bromobutanoic Acid	77	70-130	%	10						MAG	

Matrix Spike Dup (B3J0970-MSD1)

Source: 23I1511-01RE1

Prepared: 10/06/23 10:30 Analyzed: 10/10/23 14:08

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Dibromoacetic Acid	19	1.0	ug/L	20	1.4	90	70-130	6	30	MAG	
Dichloroacetic Acid	26	1.0	ug/L	20	9.7	81	70-130	4	30	MAG	
Monobromoacetic Acid	18	1.0	ug/L	20	<	88	70-130	3	30	MAG	
Monochloroacetic Acid	33	2.0	ug/L	40	<	82	70-130	3	30	MAG	
Trichloroacetic Acid	20	1.0	ug/L	20	2.8	87	70-130	7	30	MAG	
Surrogate: 2-Bromobutanoic Acid	73	70-130	%	10						MAG	

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Batch B3J0946 - EPA 524 Prep

Blank (B3J0946-BLK1)

Prepared: 10/05/23 12:22 Analyzed: 10/05/23 12:22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
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	106	70-130	%	10						CLS	
Surrogate: 4-Bromofluorobenzene	99	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	110	70-130	%	10						CLS	

LCS (B3J0946-BS1)

Prepared: 10/05/23 18:42 Analyzed: 10/05/23 18:42

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	3.6	0.5	ug/L	4		90	70-130			CLS	
Bromoform	4.0	0.5	ug/L	4		100	70-130			CLS	
Chlorodibromomethane	3.9	0.5	ug/L	4		98	70-130			CLS	
Chloroform	3.9	0.5	ug/L	4		98	70-130			CLS	
Surrogate: 1,2-Dichlorobenzene-d4	100	70-130	%	10						CLS	
Surrogate: 4-Bromofluorobenzene	94	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	107	70-130	%	10						CLS	

Duplicate (B3J0946-DUP1)

Source: 2311529-01

Prepared: 10/05/23 18:15 Analyzed: 10/05/23 18:15

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	1.2	0.5	ug/L		1.2			3	30	CLS	
Bromoform	0.6	0.5	ug/L		0.6			4	30	CLS	
Chlorodibromomethane	1.4	0.5	ug/L		1.2			11	30	CLS	
Chloroform	0.9	0.5	ug/L		0.9			6	30	CLS	
Surrogate: 1,2-Dichlorobenzene-d4	111	70-130	%	10						CLS	
Surrogate: 4-Bromofluorobenzene	97	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	110	70-130	%	10						CLS	

Matrix Spike (B3J0946-MS1)

Source: 2311515-01

Prepared: 10/05/23 12:49 Analyzed: 10/05/23 12:49

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	7.0	0.5	ug/L	6	1.4	93	70-130			CLS	
Bromoform	6.1	0.5	ug/L	6	<	101	70-130			CLS	

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Batch B3J0946 - EPA 524 Prep

Matrix Spike (B3J0946-MS1)		Source: 2311515-01			Prepared: 10/05/23 12:49 Analyzed: 10/05/23 12:49						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Chlorodibromomethane	6.4	0.5	ug/L	6	<	102	70-130			CLS	
Chloroform	13	0.5	ug/L	6	7.7	95	70-130			CLS	
Surrogate: 1,2-Dichlorobenzene-d4	99	70-130	%	10						CLS	
Surrogate: 4-Bromofluorobenzene	95	70-130	%	10						CLS	
Surrogate: Methyl tertiary butyl ether-d3	109	70-130	%	10						CLS	

Work Order Comments

Samples were received in proper condition.

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PWSID: 1270023
System Name: Medina
City: Medina

Program Code: HC

Type: B

Date Received: 09/05/23 13:27
Rep. Temp. (°C): 2.3

Collector Name: Greg Leuer
Collector ID: None

MDH Sample Number: 23I0130-01

Location ID: 00042
Sampling Point: 1165 Settlers Road

Collect Date: 09/05/23
Collect Time: 09:48
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.

THMs by GCMS

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Init.	Method	Qualifiers
Bromodichloromethane	1.3	0.5	ug/L	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Bromoform	<	0.5	ug/L	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Chlorodibromomethane	<	0.5	ug/L	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Chloroform	2.8	0.5	ug/L	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Surrogate: 1,2-Dichlorobenzene-d ₄	112	70-130	%	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Surrogate: 4-Bromofluorobenzene	96	70-130	%	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	
Surrogate: Methyl tertiary butyl ether-d ₃	107	70-130	%	B3I0965	09/07/23 19:23	09/07/23 19:23	AEZ	EPA 524.3	

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

PWSID: 1270023

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Batch B3I0965 - EPA 524 Prep

Blank (B3I0965-BLK1)

Prepared: 09/07/23 17:09 Analyzed: 09/07/23 17:09

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	<	0.5	ug/L							AEZ	
Bromoform	<	0.5	ug/L							AEZ	
Chlorodibromomethane	<	0.5	ug/L							AEZ	
Chloroform	<	0.5	ug/L							AEZ	
Surrogate: 1,2-Dichlorobenzene-d4	110	70-130	%	10						AEZ	
Surrogate: 4-Bromofluorobenzene	95	70-130	%	10						AEZ	
Surrogate: Methyl tertiary butyl ether-d3	107	70-130	%	10						AEZ	

LCS (B3I0965-BS1)

Prepared: 09/07/23 23:26 Analyzed: 09/07/23 23:26

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	4.8	0.5	ug/L	4		119	70-130			AEZ	
Bromoform	4.4	0.5	ug/L	4		110	70-130			AEZ	
Chlorodibromomethane	4.2	0.5	ug/L	4		105	70-130			AEZ	
Chloroform	4.7	0.5	ug/L	4		118	70-130			AEZ	
Surrogate: 1,2-Dichlorobenzene-d4	99	70-130	%	10						AEZ	
Surrogate: 4-Bromofluorobenzene	92	70-130	%	10						AEZ	
Surrogate: Methyl tertiary butyl ether-d3	104	70-130	%	10						AEZ	

Duplicate (B3I0965-DUP1)

Source: 23I0217-01

Prepared: 09/07/23 22:59 Analyzed: 09/07/23 22:59

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	3.1	0.5	ug/L		3.2			3	30	AEZ	
Bromoform	0.4	0.5	ug/L		0.5			7	30	AEZ	
Chlorodibromomethane	1.8	0.5	ug/L		1.8			2	30	AEZ	
Chloroform	7.3	0.5	ug/L		7.3			0.3	30	AEZ	
Surrogate: 1,2-Dichlorobenzene-d4	109	70-130	%	10						AEZ	
Surrogate: 4-Bromofluorobenzene	97	70-130	%	10						AEZ	
Surrogate: Methyl tertiary butyl ether-d3	106	70-130	%	10						AEZ	

Matrix Spike (B3I0965-MS1)

Source: 23I0062-01

Prepared: 09/07/23 17:36 Analyzed: 09/07/23 17:36

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromodichloromethane	9.1	0.5	ug/L	6	1.9	120	70-130			AEZ	

FINAL REPORT

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

PWSID: 1270023

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Batch B3I0965 - EPA 524 Prep

Matrix Spike (B3I0965-MS1)		Source: 23I0062-01			Prepared: 09/07/23 17:36 Analyzed: 09/07/23 17:36						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Init.	Qualifiers
Bromoform	6.5	0.5	ug/L	6	<	109	70-130			AEZ	
Chlorodibromomethane	6.7	0.5	ug/L	6	<	111	70-130			AEZ	
Chloroform	30	0.5	ug/L	6	24	98	70-130			AEZ	
Surrogate: 1,2-Dichlorobenzene-d4	99	70-130	%	10						AEZ	
Surrogate: 4-Bromofluorobenzene	93	70-130	%	10						AEZ	
Surrogate: Methyl tertiary butyl ether-d3	104	70-130	%	10						AEZ	

Work Order Comments

SP -01 cancelled for HAA due to lab error, client notified. CAD 10/17/23

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