



City of Tempe
6600 S Price Rd
Tempe, AZ 85283
TEL: 4803502855 FAX: 4803502677
Website: www.tempe.gov

July 03, 2017

Justin Bern
City of Tempe Lead & Copper
P.O. Box 5002
Tempe, AZ 85280
TEL: (480) 350-2860
FAX (480) 350-2677

RE: ADEQ School Lead Initiative

Order No.: 1706187

Dear Justin Bern:

City of Tempe received 10 sample(s) on 06/22/2017 for the analyses presented in the following report.

Justin Bern
Quality Officer
6600 S Price Rd
Tempe, AZ 85283

Lab license #AZ0055



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Case Narrative

WO#: 1706187
Date: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Project: ADEQ School Lead Initiative

This report in its entirety consists of the documents listed below. All documents contain the City of Tempe Work Order Number assigned to this report.

1. Paginated Report including: Case Narrative, Analytical Results and Applicable Quality Control Summary Reports.
2. A Cover Letter that immediately precedes the Paginated Report.
3. Copies of the Chain of Custody Documents supplied with this sample set.

Any comments or problems with the analytical events associated with this report are noted below.



City of Tempe
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Analytical Report

(base report)

WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-001A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-58

Tag Number:
Collection Date: 06/20/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS				E200.8	E200.8	Analyst: MK
Lead	27	5.0		µg/L	5	06/26/2017 4:07:30 PM

NOTES:

D1 = Sample required dilution due to matrix.

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(base report)

WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-002A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-58

Tag Number:
Collection Date: 06/20/2017 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	14	1.0		µg/L	1	06/26/2017 3:19:09 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
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Analytical Report

(base report)

WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-003A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-58

Tag Number:
Collection Date: 06/21/2017 7:44:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	16	1.0		µg/L	1	06/26/2017 3:22:59 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
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Analytical Report

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WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper

Tag Number:

Matrix: DRINKING WATER

Collection Date: 06/21/2017 7:22:00 AM

Lab ID: 1706187-004A

Project: ADEQ School Lead Initiative

Client Sample ID Tempe Academy 62-06-51

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	21	1.0		µg/L	1	06/26/2017 3:35:15 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-005A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-52

Tag Number:
Collection Date: 06/21/2017 7:34:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	7.5	1.0		µg/L	1	06/26/2017 3:46:45 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
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	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-006A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-53

Tag Number:
Collection Date: 06/21/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	6.8	1.0		µg/L	1	06/26/2017 3:50:48 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
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Analytical Report

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WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-007A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-54

Tag Number:
Collection Date: 06/21/2017 7:37:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	10	1.0		µg/L	1	06/26/2017 3:54:39 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(base report)

WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-008A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-55

Tag Number:
Collection Date: 06/21/2017 7:28:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	37	1.0		µg/L	1	06/27/2017 8:28:18 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(base report)

WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-009A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-56

Tag Number:
Collection Date: 06/21/2017 7:41:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	7.4	1.0		µg/L	1	06/27/2017 8:41:01 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 1706187

Date Reported: 07/03/2017

CLIENT: City of Tempe Lead & Copper
Matrix: DRINKING WATER
Lab ID: 1706187-010A
Project: ADEQ School Lead Initiative
Client Sample ID Tempe Academy 62-06-57

Tag Number:
Collection Date: 06/21/2017 7:31:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS BY ICP/MS					E200.8	E200.8 Analyst: MK
Lead	14	1.0		µg/L	1	06/27/2017 8:53:35 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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QC SUMMARY REPORT

WO#: 1706187
03-Jul-17

Client: City of Tempe Lead & Copper
Project: ADEQ School Lead Initiative

BatchID: 1010

Sample ID	MB-1010	SampType:	MBLK	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12645		
Client ID:	PBW	Batch ID:	1010	TestNo:	E200.8	E200.8		Analysis Date:	06/26/2017	SeqNo:	147489		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		ND		1.0									

Sample ID	LCS-1010	SampType:	LCS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12645			
Client ID:	LCSW	Batch ID:	1010	TestNo:	E200.8	E200.8		Analysis Date:	06/26/2017	SeqNo:	147492			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		100		1.0	100.0	0		104	85	115				

Sample ID	1706185-003AMS	SampType:	MS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12645		
Client ID:	ZZZZZZ	Batch ID:	1010	TestNo:	E200.8	E200.8		Analysis Date:	06/26/2017	SeqNo:	147494		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		110		1.0	100.0	3.864	110	70	130				

Sample ID	1706185-003AMSD	SampType: MSD	TestCode: 200.8	Units: µg/L	Prep Date: 06/26/2017	RunNo: 12645					
Client ID: ZZZZZZ	Batch ID: 1010	TestNo: E200.8	E200.8	Analysis Date: 06/26/2017	SeqNo: 147495						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	110	1.0	100.0	3.864	110	70	130	114.1	0.263	20	

Qualifiers:

H Holding times for preparation or analysis exceeded
RL Reporting Detection Limit

M Manual Integration used to determine area response
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit



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QC SUMMARY REPORT

WO#: 1706187
03-Jul-17

Client: City of Tempe Lead & Copper
Project: ADEQ School Lead Initiative

BatchID: 1010

Sample ID	1706187-003AMS	SampType:	MS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12645		
Client ID:	Tempe Academy 62-	Batch ID:	1010	TestNo:	E200.8	E200.8		Analysis Date:	06/26/2017	SeqNo:	147504		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		92		1.0	100.0	15.72	76.2	70	130				

Sample ID	1706187-003AMSD	SampType:	MSD	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12645		
Client ID:	Tempe Academy 62-	Batch ID:	1010	TestNo:	E200.8	E200.8		Analysis Date:	06/26/2017	SeqNo:	147505		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		92		1.0	100.0	15.72	76.5	70	130	91.90	0.315	20	

Qualifiers: H Holding times for preparation or analysis exceeded
RL Reporting Detection Limit

M Manual Integration used to determine area response
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit



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QC SUMMARY REPORT

WO#: 1706187

03-Jul-17

Client: City of Tempe Lead & Copper

Project: ADEQ School Lead Initiative

BatchID: 1011

Sample ID	MB-1011	SampType:	MBLK	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651		
Client ID:	PBW	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147551		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	1.0												
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Sample ID	LCS-1011	SampType:	LCS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651			
Client ID:	LCSW	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147554			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	100	1.0	100.0	0	101	85	115							
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Sample ID	1706187-008AMS	SampType:	MS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651			
Client ID:	Tempe Academy 62-	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147556			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	140	1.0	100.0	36.69	106	70	130							
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Sample ID	1706187-008AMSD	SampType:	MSD	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651		
Client ID:	Tempe Academy 62-	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147557		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	140	1.0	100.0	36.69	107	70	130	142.8	0.489	20				
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Qualifiers:

H Holding times for preparation or analysis exceeded
RL Reporting Detection Limit

M Manual Integration used to determine area response
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit



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QC SUMMARY REPORT

WO#: 1706187

03-Jul-17

Client: City of Tempe Lead & Copper

Project: ADEQ School Lead Initiative

BatchID: 1011

Sample ID	1706189-003A MS	SampType:	MS	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651		
Client ID:	ZZZZZZ	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147568		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		110		1.0	100.0	2.097	107	70	130				

Sample ID	1706189-003A MSD	SampType:	MSD	TestCode:	200.8	Units:	µg/L	Prep Date:	06/26/2017	RunNo:	12651		
Client ID:	ZZZZZZ	Batch ID:	1011	TestNo:	E200.8	E200.8		Analysis Date:	06/27/2017	SeqNo:	147569		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		110		1.0	100.0	2.097	107	70	130	108.8	0.275	20	

Qualifiers:

H Holding times for preparation or analysis exceeded
RL Reporting Detection Limit

M Manual Integration used to determine area response
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit