

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Phoenix

4625 East Cotton Ctr Blvd

Suite 189

Phoenix, AZ 85040

Tel: (602)437-3340

TestAmerica Job ID: 550-84243-1

TestAmerica SDG: Hawthorne Elementary School Confirmation Sampling

Client Project/Site: Pb in DW/ Mesa Unified District

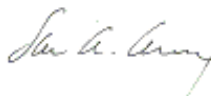
For:

Arizona Dept of Environmental Quality

1110 W. Washington St., MC5415B-1

Phoenix, Arizona 85007

Attn: David A Burchard



Authorized for release by:

7/3/2017 4:14:13 PM

Sarah Arney, Project Manager I

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Job ID: 550-84243-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative 550-84243-1

Comments

No additional comments.

Receipt

The samples were received on 6/9/2017 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 29.2° C.

Receipt Exceptions

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 1 Confirmation - First Draw (550-84243-1), 2 Confirmation - Flush (550-84243-2), 3 Confirmation - First Draw Day Two (550-84243-3) and 4 Screening (550-84243-4). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-84243-1	1 Confirmation - First Draw	Drinking Water	06/06/17 11:07	06/09/17 15:55
550-84243-2	2 Confirmation - Flush	Drinking Water	06/06/17 11:08	06/09/17 15:55
550-84243-3	3 Confirmation - First Draw Day Two	Drinking Water	06/07/17 10:27	06/09/17 15:55
550-84243-4	4 Screening	Drinking Water	06/07/17 10:29	06/09/17 15:55

Detection Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Client Sample ID: 1 Confirmation - First Draw

Lab Sample ID: 550-84243-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	19		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 2 Confirmation - Flush

Lab Sample ID: 550-84243-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.2		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 3 Confirmation - First Draw Day Two

Lab Sample ID: 550-84243-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	13		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 4 Screening

Lab Sample ID: 550-84243-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.3		0.50	ppb	1		200.8	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

Client Sample Results

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Client Sample ID: 1 Confirmation - First Draw

Date Collected: 06/06/17 11:07

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-1

Matrix: Drinking Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19		0.50	ppb		06/19/17 07:16	06/30/17 13:34	1

Client Sample ID: 2 Confirmation - Flush

Date Collected: 06/06/17 11:08

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-2

Matrix: Drinking Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.2		0.50	ppb		06/19/17 07:16	06/30/17 13:36	1

Client Sample ID: 3 Confirmation - First Draw Day Two

Date Collected: 06/07/17 10:27

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-3

Matrix: Drinking Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13		0.50	ppb		06/19/17 07:35	06/30/17 19:12	1

Client Sample ID: 4 Screening

Date Collected: 06/07/17 10:29

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-4

Matrix: Drinking Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.3		0.50	ppb		06/19/17 07:35	06/30/17 19:17	1

QC Sample Results

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 550-120286/1-A

Matrix: Water

Analysis Batch: 121406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 120286

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		06/19/17 07:16	06/30/17 12:43	1

Lab Sample ID: LCS 550-120286/4-A

Matrix: Water

Analysis Batch: 121406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120286

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	95.5		ppb		96	85 - 115

Lab Sample ID: LCSD 550-120286/5-A

Matrix: Water

Analysis Batch: 121406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 120286

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	100	98.5		ppb		99	85 - 115	3	20

Lab Sample ID: 550-84240-A-1-B MS

Matrix: Water

Analysis Batch: 121406

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 120286

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	33		100	124		ppb		91	70 - 130

Lab Sample ID: 550-84240-A-1-C MSD

Matrix: Water

Analysis Batch: 121406

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 120286

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	33		100	127		ppb		94	70 - 130	2	20

Lab Sample ID: MB 550-120287/1-A

Matrix: Water

Analysis Batch: 121504

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 120287

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		06/19/17 07:35	06/30/17 19:03	1

Lab Sample ID: LCS 550-120287/4-A

Matrix: Water

Analysis Batch: 121504

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 120287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	96.5		ppb		96	85 - 115

Lab Sample ID: LCSD 550-120287/5-A

Matrix: Water

Analysis Batch: 121504

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 120287

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	100	96.6		ppb		97	85 - 115	0	20

TestAmerica Phoenix

QC Sample Results

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Lab Sample ID: 550-84243-3 MS

Matrix: Drinking Water

Analysis Batch: 121504

Client Sample ID: 3 Confirmation - First Draw Day Two

Prep Type: Total/NA

Prep Batch: 120287

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	13		100	103		ppb		90	70 - 130

Lab Sample ID: 550-84243-3 MSD

Matrix: Drinking Water

Analysis Batch: 121504

Client Sample ID: 3 Confirmation - First Draw Day Two

Prep Type: Total/NA

Prep Batch: 120287

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	13		100	102		ppb		89	70 - 130	1	20

QC Association Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Metals

Prep Batch: 120286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84243-1	1 Confirmation - First Draw	Total/NA	Drinking Water	200.8	
550-84243-2	2 Confirmation - Flush	Total/NA	Drinking Water	200.8	
MB 550-120286/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-120286/4-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-120286/5-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-84240-A-1-B MS	Matrix Spike	Total/NA	Water	200.8	
550-84240-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 120287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84243-3	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	
550-84243-4	4 Screening	Total/NA	Drinking Water	200.8	
MB 550-120287/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-120287/4-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-120287/5-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-84243-3 MS	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	
550-84243-3 MSD	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	

Analysis Batch: 121406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84243-1	1 Confirmation - First Draw	Total/NA	Drinking Water	200.8	120286
550-84243-2	2 Confirmation - Flush	Total/NA	Drinking Water	200.8	120286
MB 550-120286/1-A	Method Blank	Total/NA	Water	200.8	120286
LCS 550-120286/4-A	Lab Control Sample	Total/NA	Water	200.8	120286
LCSD 550-120286/5-A	Lab Control Sample Dup	Total/NA	Water	200.8	120286
550-84240-A-1-B MS	Matrix Spike	Total/NA	Water	200.8	120286
550-84240-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	120286

Analysis Batch: 121504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84243-3	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	120287
550-84243-4	4 Screening	Total/NA	Drinking Water	200.8	120287
MB 550-120287/1-A	Method Blank	Total/NA	Water	200.8	120287
LCS 550-120287/4-A	Lab Control Sample	Total/NA	Water	200.8	120287
LCSD 550-120287/5-A	Lab Control Sample Dup	Total/NA	Water	200.8	120287
550-84243-3 MS	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	120287
550-84243-3 MSD	3 Confirmation - First Draw Day Two	Total/NA	Drinking Water	200.8	120287

Lab Chronicle

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Client Sample ID: 1 Confirmation - First Draw

Date Collected: 06/06/17 11:07

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-1

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			120286	06/19/17 07:16	SGO	TAL PHX
Total/NA	Analysis	200.8		1	121406	06/30/17 13:34	TEK	TAL PHX

Client Sample ID: 2 Confirmation - Flush

Date Collected: 06/06/17 11:08

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-2

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			120286	06/19/17 07:16	SGO	TAL PHX
Total/NA	Analysis	200.8		1	121406	06/30/17 13:36	TEK	TAL PHX

Client Sample ID: 3 Confirmation - First Draw Day Two

Date Collected: 06/07/17 10:27

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-3

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			120287	06/19/17 07:35	SGO	TAL PHX
Total/NA	Analysis	200.8		1	121504	06/30/17 19:12	TEK	TAL PHX

Client Sample ID: 4 Screening

Date Collected: 06/07/17 10:29

Date Received: 06/09/17 15:55

Lab Sample ID: 550-84243-4

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			120287	06/19/17 07:35	SGO	TAL PHX
Total/NA	Analysis	200.8		1	121504	06/30/17 19:17	TEK	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arizona	State Program	9	AZ0728	06-09-18

Analysis Method	Prep Method	Matrix	Analyte
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Method Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/ Mesa Unified District

TestAmerica Job ID: 550-84243-1
SDG: Hawthorne Elementary School Confirmation Sampling

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL PHX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

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550-84243 Chain of Custody

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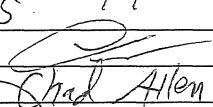
7/3/2017

For relinquishing samples upon delivery to labs only

DATE RELINQUISHED:	
RELINQUISHING AGENT SIGNATURE:	
SIGNATORY NAME PRINTED:	

For Lab Use Only

ANALYZE THIS DRINKING WATER SAMPLE FOR LEAD

DATE LAB RECEIVED:	6/9/17
TIME LAB RECEIVED:	15:55
LAB SIGNATURE:	
LAB SIGNATORY NAME PRINTED:	Chad Allen
NOTES:	29.2 ^u no Fe

Login Sample Receipt Checklist

Client: Arizona Dept of Environmental Quality

Job Number: 550-84243-1

SDG Number: Hawthorne Elementary School Confirmation Sampling

Login Number: 84243

List Source: TestAmerica Phoenix

List Number: 1

Creator: Vilaboy, Monica

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.