

# 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: 550-82022-1

TestAmerica Sample Delivery Group: Thunderbolt

Client Project/Site: Pb in DW / LHUSD

For:

Arizona Dept of Environmental Quality

1110 W. Washington St., MC5415B-1

Phoenix, Arizona 85007

Attn: David A Burchard



Authorized for release by:

5/12/2017 1:15:57 PM

Sarah Murphy, Project Manager I

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### LINKS

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results through

TotalAccess

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*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 / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

### 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 / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

**Job ID: 550-82022-1**

**Laboratory: TestAmerica Phoenix**

### Narrative

#### Job Narrative 550-82022-1

### Comments

No additional comments.

### Receipt

The sample was received on 5/2/2017 11:10 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 24.6° C.

### Receipt Exceptions

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 1001-1 (550-82022-1). 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 / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-82022-1	1001-1	Drinking Water	04/29/17 09:13	05/02/17 11:10

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## Detection Summary

Client: Arizona Dept of Environmental Quality  
Project/Site: Pb in DW / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

**Client Sample ID: 1001-1**

**Lab Sample ID: 550-82022-1**

☐ No Detections.

1

2

3

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14

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 / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

**Client Sample ID: 1001-1**

**Date Collected: 04/29/17 09:13**

**Date Received: 05/02/17 11:10**

**Lab Sample ID: 550-82022-1**

**Matrix: Drinking Water**

**Method: 200.8 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		05/03/17 07:00	05/11/17 14:37	1

# QC Sample Results

Client: Arizona Dept of Environmental Quality  
Project/Site: Pb in DW / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 550-116398/1-A  
Matrix: Water  
Analysis Batch: 117189

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 116398

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		05/03/17 07:00	05/11/17 14:19	1

Lab Sample ID: LCS 550-116398/3-A  
Matrix: Water  
Analysis Batch: 117189

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 116398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	97.8		ppb		98	85 - 115

Lab Sample ID: LCSD 550-116398/4-A  
Matrix: Water  
Analysis Batch: 117189

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 116398

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	100	97.3		ppb		97	85 - 115	0	20

Lab Sample ID: 550-81916-G-1-B MS  
Matrix: Water  
Analysis Batch: 117189

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 116398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	3.4		100	97.3		ppb		94	70 - 130

Lab Sample ID: 550-81916-G-1-C MSD  
Matrix: Water  
Analysis Batch: 117189

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 116398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	3.4		100	98.9		ppb		96	70 - 130	2	20

## QC Association Summary

Client: Arizona Dept of Environmental Quality  
Project/Site: Pb in DW / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

### Metals

#### Prep Batch: 116398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-82022-1	1001-1	Total/NA	Drinking Water	200.8	
MB 550-116398/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-116398/3-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-116398/4-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-81916-G-1-B MS	Matrix Spike	Total/NA	Water	200.8	
550-81916-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

#### Analysis Batch: 117189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-82022-1	1001-1	Total/NA	Drinking Water	200.8	116398
MB 550-116398/1-A	Method Blank	Total/NA	Water	200.8	116398
LCS 550-116398/3-A	Lab Control Sample	Total/NA	Water	200.8	116398
LCSD 550-116398/4-A	Lab Control Sample Dup	Total/NA	Water	200.8	116398
550-81916-G-1-B MS	Matrix Spike	Total/NA	Water	200.8	116398
550-81916-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	116398

# Lab Chronicle

Client: Arizona Dept of Environmental Quality  
Project/Site: Pb in DW / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

**Client Sample ID: 1001-1**

**Date Collected: 04/29/17 09:13**

**Date Received: 05/02/17 11:10**

**Lab Sample ID: 550-82022-1**

**Matrix: Drinking Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116398	05/03/17 07:00	SGO	TAL PHX
Total/NA	Analysis	200.8		1	117189	05/11/17 14:37	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 / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

### 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	06-09-17 *

Analysis Method	Prep Method	Matrix	Analyte
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\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Phoenix

## Method Summary

Client: Arizona Dept of Environmental Quality  
Project/Site: Pb in DW / LHUSD

TestAmerica Job ID: 550-82022-1  
SDG: Thunderbolt

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

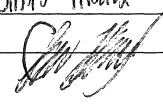
82022

## Collection Log

for experienced sample collectors

Complete copy of this form for each sample collected. Your drinking water sample cannot be tested unless a copy of this form is shipped to the lab with each sample. In addition, the sample cannot be tested unless the Sample Identification Number matches the number on the sample container label.

- ☒ Check this box to confirm that **water had not been used at this tap or other taps in the area for 6 hours** and **no** flushing was done prior to sampling

Name of School District	LYFSD
School Name	THUNDERBOLT
Building (name/number)	1001
Type of Fixture (tap, drinking fountain etc.)	FOUNTAIN
Location of Fixture (example, room number)	OUTSIDE RM 122
Sample Identification Number ( <b>Write the number here and on sample container</b> )	1001-1
Date of Collection	8-4-17
Time of Collection	9:13
Printed Name of Sample Collector	CARIS KRAM
Signature Sample Collector	

550-82022 Chain of Custody

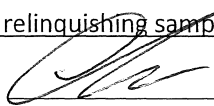


Notes Sample collector:

For Lab use only	
Analyze this drinking water sample for lead	
Date and Time Lab received	
Signature	
Notes:	

For relinquishing samples upon delivery to labs only

Relinquished date and signature

 5/2/17 11:10 24.6° no ice

These samples were collected for lead screening purposes only and cannot be used for compliance.

## Login Sample Receipt Checklist

Client: Arizona Dept of Environmental Quality

Job Number: 550-82022-1

SDG Number: Thunderbolt

**Login Number: 82022**

**List Number: 1**

**Creator: Vilaboy, Monica**

**List Source: TestAmerica Phoenix**

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.