

# 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: 550-80680-1

TestAmerica SDG: Jack Barnes Elementary School

Client Project/Site: Pb in DW/Queen Creek 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:

4/19/2017 2:47:26 PM

Susan Armijo, Project Manager II

(602)659-7664

[susan.armijo@testamericainc.com](mailto:susan.armijo@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*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.*

# Table of Contents

|                                  |    |
|----------------------------------|----|
| Cover Page . . . . .             | 1  |
| Table of Contents . . . . .      | 2  |
| Definitions/Glossary . . . . .   | 3  |
| Case Narrative . . . . .         | 4  |
| Sample Summary . . . . .         | 5  |
| Detection Summary . . . . .      | 6  |
| Client Sample Results . . . . .  | 7  |
| QC Sample Results . . . . .      | 8  |
| QC Association Summary . . . . . | 9  |
| Lab Chronicle . . . . .          | 10 |
| Certification Summary . . . . .  | 11 |
| Method Summary . . . . .         | 12 |
| Chain of Custody . . . . .       | 13 |
| Receipt Checklists . . . . .     | 15 |



## Definitions/Glossary

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

### 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, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision level concentration  |
| MDA            | Minimum detectable activity   |
| EDL            | Estimated Detection Limit   |
| MDC            | Minimum detectable concentration  |
| 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  |
| 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/Queen Creek Unified District

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

**Job ID: 550-80680-1**

**Laboratory: TestAmerica Phoenix**

### Narrative

#### Job Narrative 550-80680-1

### Comments

No additional comments.

### Receipt

The sample was received on 4/10/2017 2:20 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 22.7° C.

### Receipt Exceptions

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 103-1 (550-80680-1). 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/Queen Creek Unified District

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 550-80680-1   | 103-1            | Water  | 03/31/17 06:10 | 04/10/17 14:20 |

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/Queen Creek Unified District

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

**Client Sample ID: 103-1**

**Lab Sample ID: 550-80680-1**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## Client Sample Results

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

**Client Sample ID: 103-1**

**Date Collected: 03/31/17 06:10**

**Date Received: 04/10/17 14:20**

**Lab Sample ID: 550-80680-1**

**Matrix: Water**

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

| Analyte | Result | Qualifier | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|---|----------------|----------------|---------|
| Lead    | ND     |           | 0.50 | ppb  |   | 04/11/17 19:38 | 04/19/17 11:52 | 1       |

# QC Sample Results

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

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

Lab Sample ID: MB 550-114626/1-A  
Matrix: Water  
Analysis Batch: 115271

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 114626

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|------|---|----------------|----------------|---------|
| Lead    | ND           |                 | 0.50 | ppb  |   | 04/11/17 19:38 | 04/19/17 11:18 | 1       |

Lab Sample ID: LCS 550-114626/3-A  
Matrix: Water  
Analysis Batch: 115271

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 114626

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Lead    | 100            | 90.0          |                  | ppb  |   | 90   | 85 - 115        |

Lab Sample ID: LCSD 550-114626/4-A  
Matrix: Water  
Analysis Batch: 115271

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 114626

| Analyte | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| Lead    | 100            | 90.7           |                   | ppb  |   | 91   | 85 - 115        | 1   | 20           |

Lab Sample ID: 550-80440-A-2-B MS  
Matrix: Water  
Analysis Batch: 115271

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 114626

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Lead    | ND               |                     | 100            | 85.9         |                 | ppb  |   | 86   | 70 - 130        |

Lab Sample ID: 550-80440-A-2-C MSD  
Matrix: Water  
Analysis Batch: 115271

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 114626

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|------|---|------|-----------------|-----|--------------|
| Lead    | ND               |                     | 100            | 88.7          |                  | ppb  |   | 89   | 70 - 130        | 3   | 20           |



## QC Association Summary

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

### Metals

#### Prep Batch: 114626

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 550-80680-1         | 103-1                  | Total/NA  | Water  | 200.8  |            |
| MB 550-114626/1-A   | Method Blank           | Total/NA  | Water  | 200.8  |            |
| LCS 550-114626/3-A  | Lab Control Sample     | Total/NA  | Water  | 200.8  |            |
| LCSD 550-114626/4-A | Lab Control Sample Dup | Total/NA  | Water  | 200.8  |            |
| 550-80440-A-2-B MS  | Matrix Spike           | Total/NA  | Water  | 200.8  |            |
| 550-80440-A-2-C MSD | Matrix Spike Duplicate | Total/NA  | Water  | 200.8  |            |

#### Analysis Batch: 115271

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 550-80680-1         | 103-1                  | Total/NA  | Water  | 200.8  | 114626     |
| MB 550-114626/1-A   | Method Blank           | Total/NA  | Water  | 200.8  | 114626     |
| LCS 550-114626/3-A  | Lab Control Sample     | Total/NA  | Water  | 200.8  | 114626     |
| LCSD 550-114626/4-A | Lab Control Sample Dup | Total/NA  | Water  | 200.8  | 114626     |
| 550-80440-A-2-B MS  | Matrix Spike           | Total/NA  | Water  | 200.8  | 114626     |
| 550-80440-A-2-C MSD | Matrix Spike Duplicate | Total/NA  | Water  | 200.8  | 114626     |

Lab Chronicle

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

Client Sample ID: 103-1  
Date Collected: 03/31/17 06:10  
Date Received: 04/10/17 14:20

Lab Sample ID: 550-80680-1  
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Prep       | 200.8        |     |                 | 114626       | 04/11/17 19:38       | SLS     | TAL PHX |
| Total/NA  | Analysis   | 200.8        |     | 1               | 115271       | 04/19/17 11:52       | 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/Queen Creek Unified District

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

### 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 |
|-----------------|-------------|--------|---------|
|-----------------|-------------|--------|---------|

## Method Summary

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

TestAmerica Job ID: 550-80680-1  
SDG: Jack Barnes Elementary School

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

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

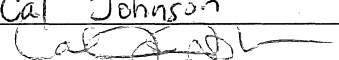
TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

## Collection Log

80680 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  | Queen Creek Unified District  |
| School Name  | Jack Barnes Elementary  |
| Building (name/number)   | Jack Barnes Elem / 1001   |
| Type of Fixture (tap, drinking fountain etc.)  | drinking fountain   |
| Location of Fixture (example, room number)   | multipurpose area   |
| Sample Identification Number ( <b><u>Write this number on the sample container and on this sheet</u></b> ) | 103-1   |
| Date of Collection   | 3-31-17   |
| Time of Collection   | 6:10 am   |
| Printed Name of Sample Collector   | Cal Johnson   |
| Signature Sample Collector   |  |

Notes Sample collector:

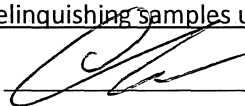
|   |  |
|---|--|
| For Lab use only                            |  |
| Analyze this drinking water sample for lead |  |
| Date and Time Lab received                  |  |
| Signature                                   |  |
| Notes:                                      |  |

550-80680 Chain of Custody



For relinquishing samples upon delivery to labs only

Relinquished date and signature

 14:20 4/10/17 22.7 no ice

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

| District                     | School                 | Building No | Building Desc | Building Use | Year Built                 | Number of Bottles Per Building |
|------------------------------|------------------------|-------------|---------------|--------------|----------------------------|--------------------------------|
| Queen Creek Unified District | Jack Barnes Elementary | 1001        | Elementary    | Elementary   | 2003                       | 1                              |
| Address:                     |                        |             |               |              | Number of Bottles Per Kit: | 1                              |

## Login Sample Receipt Checklist

Client: Arizona Dept of Environmental Quality

Job Number: 550-80680-1

SDG Number: Jack Barnes Elementary School

**Login Number: 80680**

**List Number: 1**

**Creator: Gravlin, Andrea**

**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. |