

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Phoenix

4625 East Cotton Ctr Blvd

Suite 189

Phoenix, AZ 85040

Tel: (602)437-3340

TestAmerica Job ID: 550-80307-1

TestAmerica SDG: Larry C Kennedy School Confirmation
Sampling

Client Project/Site: Pb in DW / Creighton Elementary District

For:

Arizona Dept of Environmental Quality

1110 W. Washington St., MC5415B-1

Phoenix, Arizona 85007

Attn: David A Burchard



Authorized for release by:

4/7/2017 1:45:03 PM

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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 / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| □ | 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 / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Job ID: 550-80307-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative 550-80307-1

Comments

No additional comments.

Receipt

The samples were received on 4/4/2017 2:08 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 23.2° C.

Receipt Exceptions

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: Screening 1 (550-80307-1), C-First Draw 2 (550-80307-2), C-Flush 3 (550-80307-3) and C-First Draw Day Two 4 (550-80307-4). 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 / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------------|----------------|----------------|----------------|
| 550-80307-1 | Screening 1 | Drinking Water | 03/29/17 06:55 | 04/04/17 14:08 |
| 550-80307-2 | C-First Draw 2 | Drinking Water | 03/29/17 06:50 | 04/04/17 14:08 |
| 550-80307-3 | C-Flush 3 | Drinking Water | 03/29/17 06:52 | 04/04/17 14:08 |
| 550-80307-4 | C-First Draw Day Two 4 | Drinking Water | 03/30/17 06:15 | 04/04/17 14:08 |

Detection Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Client Sample ID: Screening 1

Lab Sample ID: 550-80307-1

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|---------|---|--------|-----------|
| Lead | 21 | | 0.50 | ppb | 1 | | 200.8 | Total/NA |

Client Sample ID: C-First Draw 2

Lab Sample ID: 550-80307-2

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|---------|---|--------|-----------|
| Lead | 2.0 | | 0.50 | ppb | 1 | | 200.8 | Total/NA |

Client Sample ID: C-Flush 3

Lab Sample ID: 550-80307-3

No Detections.

Client Sample ID: C-First Draw Day Two 4

Lab Sample ID: 550-80307-4

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|---------|---|--------|-----------|
| Lead | 1.2 | | 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 / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Client Sample ID: Screening 1

Lab Sample ID: 550-80307-1

Date Collected: 03/29/17 06:55

Matrix: Drinking Water

Date Received: 04/04/17 14:08

Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|---|----------------|----------------|---------|
| Lead | 21 | | 0.50 | ppb | | 04/06/17 09:40 | 04/06/17 13:32 | 1 |

Client Sample ID: C-First Draw 2

Lab Sample ID: 550-80307-2

Date Collected: 03/29/17 06:50

Matrix: Drinking Water

Date Received: 04/04/17 14:08

Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|---|----------------|----------------|---------|
| Lead | 2.0 | | 0.50 | ppb | | 04/06/17 09:40 | 04/06/17 13:34 | 1 |

Client Sample ID: C-Flush 3

Lab Sample ID: 550-80307-3

Date Collected: 03/29/17 06:52

Matrix: Drinking Water

Date Received: 04/04/17 14:08

Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.50 | ppb | | 04/06/17 09:40 | 04/06/17 13:36 | 1 |

Client Sample ID: C-First Draw Day Two 4

Lab Sample ID: 550-80307-4

Date Collected: 03/30/17 06:15

Matrix: Drinking Water

Date Received: 04/04/17 14:08

Method: 200.8 - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|------|------|---|----------------|----------------|---------|
| Lead | 1.2 | | 0.50 | ppb | | 04/06/17 09:40 | 04/06/17 13:26 | 1 |

QC Sample Results

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 550-114206/1-A
Matrix: Water
Analysis Batch: 114260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114206

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------------|-----------------|------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.50 | ppb | | 04/06/17 09:39 | 04/06/17 13:19 | 1 |

Lab Sample ID: LCS 550-114206/3-A
Matrix: Water
Analysis Batch: 114260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114206

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Lead | 100 | 91.1 | | ppb | | 91 | 85 - 115 |

Lab Sample ID: LCSD 550-114206/4-A
Matrix: Water
Analysis Batch: 114260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114206

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD Limit |
|---------|----------------|----------------|-------------------|------|---|------|-----------------|--------------|
| Lead | 100 | 91.7 | | ppb | | 92 | 85 - 115 | 1 20 |

Lab Sample ID: 550-80307-4 MS
Matrix: Drinking Water
Analysis Batch: 114260

Client Sample ID: C-First Draw Day Two 4
Prep Type: Total/NA
Prep Batch: 114206

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Lead | 1.2 | | 100 | 90.1 | | ppb | | 89 | 70 - 130 |

Lab Sample ID: 550-80307-4 MSD
Matrix: Drinking Water
Analysis Batch: 114260

Client Sample ID: C-First Draw Day Two 4
Prep Type: Total/NA
Prep Batch: 114206

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|------|---|------|-----------------|--------------|
| Lead | 1.2 | | 100 | 90.6 | | ppb | | 89 | 70 - 130 | 1 20 |

QC Association Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Metals

Prep Batch: 114206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|----------------|--------|------------|
| 550-80307-1 | Screening 1 | Total/NA | Drinking Water | 200.8 | |
| 550-80307-2 | C-First Draw 2 | Total/NA | Drinking Water | 200.8 | |
| 550-80307-3 | C-Flush 3 | Total/NA | Drinking Water | 200.8 | |
| 550-80307-4 | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | |
| MB 550-114206/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-114206/3-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-114206/4-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-80307-4 MS | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | |
| 550-80307-4 MSD | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | |

Analysis Batch: 114260

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|----------------|--------|------------|
| 550-80307-1 | Screening 1 | Total/NA | Drinking Water | 200.8 | 114206 |
| 550-80307-2 | C-First Draw 2 | Total/NA | Drinking Water | 200.8 | 114206 |
| 550-80307-3 | C-Flush 3 | Total/NA | Drinking Water | 200.8 | 114206 |
| 550-80307-4 | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | 114206 |
| MB 550-114206/1-A | Method Blank | Total/NA | Water | 200.8 | 114206 |
| LCS 550-114206/3-A | Lab Control Sample | Total/NA | Water | 200.8 | 114206 |
| LCSD 550-114206/4-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | 114206 |
| 550-80307-4 MS | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | 114206 |
| 550-80307-4 MSD | C-First Draw Day Two 4 | Total/NA | Drinking Water | 200.8 | 114206 |

Lab Chronicle

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy School Confirmation Sampling

Client Sample ID: Screening 1

Date Collected: 03/29/17 06:55

Date Received: 04/04/17 14:08

Lab Sample ID: 550-80307-1

Matrix: Drinking Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.8 | | | 114206 | 04/06/17 09:40 | TEK | TAL PHX |
| Total/NA | Analysis | 200.8 | | 1 | 114260 | 04/06/17 13:32 | TEK | TAL PHX |

Client Sample ID: C-First Draw 2

Date Collected: 03/29/17 06:50

Date Received: 04/04/17 14:08

Lab Sample ID: 550-80307-2

Matrix: Drinking Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.8 | | | 114206 | 04/06/17 09:40 | TEK | TAL PHX |
| Total/NA | Analysis | 200.8 | | 1 | 114260 | 04/06/17 13:34 | TEK | TAL PHX |

Client Sample ID: C-Flush 3

Date Collected: 03/29/17 06:52

Date Received: 04/04/17 14:08

Lab Sample ID: 550-80307-3

Matrix: Drinking Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.8 | | | 114206 | 04/06/17 09:40 | TEK | TAL PHX |
| Total/NA | Analysis | 200.8 | | 1 | 114260 | 04/06/17 13:36 | TEK | TAL PHX |

Client Sample ID: C-First Draw Day Two 4

Date Collected: 03/30/17 06:15

Date Received: 04/04/17 14:08

Lab Sample ID: 550-80307-4

Matrix: Drinking Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.8 | | | 114206 | 04/06/17 09:40 | TEK | TAL PHX |
| Total/NA | Analysis | 200.8 | | 1 | 114260 | 04/06/17 13:26 | 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 / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy 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 | 06-09-17 |
| Analysis Method | Prep Method | Matrix | Analyte | |

Method Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW / Creighton Elementary District

TestAmerica Job ID: 550-80307-1
SDG: Larry C Kennedy 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

80307

Lead In Schools Confirmation Sampling Log

School District: Creighton Elementary District

School Name: Larry C Kennedy School

Building Name/Number/Year Built: V Classrooms

Sample Collector Name and Phone Number:

RUSH!!

| Sample ID # (must appear on bottle) | Fixture Type/Make and model # | Fixture location | Collection Time | Collection Date |
|--|----------------------------------|---------------------|--------------------|--------------------|
| Screening 1 | mdf fountain | 600 wing R fountain | 6:55 | 3-29-17 |
| C - First Draw 2 | mdf fountain | 600 wing L fountain | 6:50 | 3-29-17 |
| C- Flush 3 | mdf fountain | 600 wing L fountain | 6:52 | 3-29-17 |
| C - First Draw Day Two 4 | mdf fountain | 600 wing L fountain | 6:15 | 3-30-17 |
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550-80307 Chain of Custody

23.2
no
Ice

M Bunk

4/4/17

Al 4/4/17 1408

Login Sample Receipt Checklist

Client: Arizona Dept of Environmental Quality

Job Number: 550-80307-1

SDG Number: Larry C Kennedy School Confirmation Sampling

Login Number: 80307

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. |