

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Phoenix

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Suite 189

Phoenix, AZ 85040

Tel: (602)437-3340

TestAmerica Job ID: 550-81698-1

TestAmerica SDG: Santa Cruz Valley Union High School
Confirmation Sampling

Client Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

For:

Arizona Dept of Environmental Quality

1110 W. Washington St., MC5415B-1

Phoenix, Arizona 85007

Attn: David A Burchard



Authorized for release by:

5/5/2017 4:54:30 PM

Sarah Murphy, Project Manager I

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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	12
Method Summary	13
Chain of Custody	14
Receipt Checklists	15



Definitions/Glossary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High 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, 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/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
Santa Cruz Valley Union High School Confirmation Sampling

Job ID: 550-81698-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative 550-81698-1

Comments

No additional comments.

Receipt

The samples were received on 4/26/2017 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 23.4° C.

Receipt Exceptions

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 1 Confirmation-First Draw (550-81698-1), 2 Confirmation-Flush (550-81698-2), 3 Confirmation-First Draw Day Two (550-81698-3), 4 Confirmation-First Draw (550-81698-4), 5 Confirmation-Flush (550-81698-5), 6 Confirmation-First Draw Day Two (550-81698-6) and 7 Screening (550-81698-7). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

The following samples were received at the laboratory without a sample collection time documented on the chain of custody: 1 Confirmation-First Draw (550-81698-1), 2 Confirmation-Flush (550-81698-2), 3 Confirmation-First Draw Day Two (550-81698-3), 4 Confirmation-First Draw (550-81698-4), 5 Confirmation-Flush (550-81698-5), 6 Confirmation-First Draw Day Two (550-81698-6) and 7 Screening (550-81698-7).

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/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation
Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-81698-1	1 Confirmation-First Draw	Water	04/19/17 00:00	04/26/17 09:50
550-81698-2	2 Confirmation-Flush	Water	04/19/17 00:00	04/26/17 09:50
550-81698-3	3 Confirmation-First Draw Day Two	Water	04/20/17 00:00	04/26/17 09:50
550-81698-4	4 Confirmation-First Draw	Water	04/19/17 00:00	04/26/17 09:50
550-81698-5	5 Confirmation-Flush	Water	04/19/17 00:00	04/26/17 09:50
550-81698-6	6 Confirmation-First Draw Day Two	Water	04/20/17 00:00	04/26/17 09:50
550-81698-7	7 Screening	Water	04/20/17 00:00	04/26/17 09:50

Detection Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation
Sampling

Client Sample ID: 1 Confirmation-First Draw

Lab Sample ID: 550-81698-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.74		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 2 Confirmation-Flush

Lab Sample ID: 550-81698-2

No Detections.

Client Sample ID: 3 Confirmation-First Draw Day Two

Lab Sample ID: 550-81698-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.98		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 4 Confirmation-First Draw

Lab Sample ID: 550-81698-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.64		0.50	ppb	1		200.8	Total/NA

Client Sample ID: 5 Confirmation-Flush

Lab Sample ID: 550-81698-5

No Detections.

Client Sample ID: 6 Confirmation-First Draw Day Two

Lab Sample ID: 550-81698-6

No Detections.

Client Sample ID: 7 Screening

Lab Sample ID: 550-81698-7

No Detections.

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/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation
Sampling

Client Sample ID: 1 Confirmation-First Draw

Date Collected: 04/19/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-1

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.74		0.50	ppb		04/28/17 11:07	05/03/17 19:25	1

Client Sample ID: 2 Confirmation-Flush

Date Collected: 04/19/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-2

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		04/28/17 11:07	05/03/17 19:23	1

Client Sample ID: 3 Confirmation-First Draw Day Two

Date Collected: 04/20/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-3

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.98		0.50	ppb		04/28/17 11:07	05/03/17 19:18	1

Client Sample ID: 4 Confirmation-First Draw

Date Collected: 04/19/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-4

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.64		0.50	ppb		04/28/17 11:07	05/03/17 19:27	1

Client Sample ID: 5 Confirmation-Flush

Date Collected: 04/19/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-5

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		04/28/17 11:07	05/03/17 19:29	1

Client Sample ID: 6 Confirmation-First Draw Day Two

Date Collected: 04/20/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-6

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		04/28/17 11:07	05/03/17 19:31	1

Client Sample ID: 7 Screening

Date Collected: 04/20/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-7

Matrix: Water

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		04/28/17 11:07	05/03/17 19:33	1

TestAmerica Phoenix

QC Sample Results

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation Sampling

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 550-116071/1-A
Matrix: Water
Analysis Batch: 116518

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116071

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50	ppb		04/28/17 11:07	05/03/17 19:10	1

Lab Sample ID: LCS 550-116071/3-A
Matrix: Water
Analysis Batch: 116518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	93.4		ppb		93	85 - 115

Lab Sample ID: LCSD 550-116071/4-A
Matrix: Water
Analysis Batch: 116518

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 116071

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	100	91.9		ppb		92	85 - 115	2	20

Lab Sample ID: 550-81698-3 MS
Matrix: Water
Analysis Batch: 116518

Client Sample ID: 3 Confirmation-First Draw Day Two
Prep Type: Total/NA
Prep Batch: 116071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.98		100	89.6		ppb		89	70 - 130

Lab Sample ID: 550-81698-3 MSD
Matrix: Water
Analysis Batch: 116518

Client Sample ID: 3 Confirmation-First Draw Day Two
Prep Type: Total/NA
Prep Batch: 116071

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	0.98		100	88.6		ppb		88	70 - 130	1	20

QC Association Summary

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation
Sampling

Metals

Prep Batch: 116071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-81698-1	1 Confirmation-First Draw	Total/NA	Water	200.8	
550-81698-2	2 Confirmation-Flush	Total/NA	Water	200.8	
550-81698-3	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	
550-81698-4	4 Confirmation-First Draw	Total/NA	Water	200.8	
550-81698-5	5 Confirmation-Flush	Total/NA	Water	200.8	
550-81698-6	6 Confirmation-First Draw Day Two	Total/NA	Water	200.8	
550-81698-7	7 Screening	Total/NA	Water	200.8	
MB 550-116071/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-116071/3-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-116071/4-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-81698-3 MS	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	
550-81698-3 MSD	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	

Analysis Batch: 116518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-81698-1	1 Confirmation-First Draw	Total/NA	Water	200.8	116071
550-81698-2	2 Confirmation-Flush	Total/NA	Water	200.8	116071
550-81698-3	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	116071
550-81698-4	4 Confirmation-First Draw	Total/NA	Water	200.8	116071
550-81698-5	5 Confirmation-Flush	Total/NA	Water	200.8	116071
550-81698-6	6 Confirmation-First Draw Day Two	Total/NA	Water	200.8	116071
550-81698-7	7 Screening	Total/NA	Water	200.8	116071
MB 550-116071/1-A	Method Blank	Total/NA	Water	200.8	116071
LCS 550-116071/3-A	Lab Control Sample	Total/NA	Water	200.8	116071
LCSD 550-116071/4-A	Lab Control Sample Dup	Total/NA	Water	200.8	116071
550-81698-3 MS	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	116071
550-81698-3 MSD	3 Confirmation-First Draw Day Two	Total/NA	Water	200.8	116071

Lab Chronicle

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation Sampling

Client Sample ID: 1 Confirmation-First Draw

Lab Sample ID: 550-81698-1

Date Collected: 04/19/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:25	TEK	TAL PHX

Client Sample ID: 2 Confirmation-Flush

Lab Sample ID: 550-81698-2

Date Collected: 04/19/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:23	TEK	TAL PHX

Client Sample ID: 3 Confirmation-First Draw Day Two

Lab Sample ID: 550-81698-3

Date Collected: 04/20/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:18	TEK	TAL PHX

Client Sample ID: 4 Confirmation-First Draw

Lab Sample ID: 550-81698-4

Date Collected: 04/19/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:27	TEK	TAL PHX

Client Sample ID: 5 Confirmation-Flush

Lab Sample ID: 550-81698-5

Date Collected: 04/19/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:29	TEK	TAL PHX

Client Sample ID: 6 Confirmation-First Draw Day Two

Lab Sample ID: 550-81698-6

Date Collected: 04/20/17 00:00

Matrix: Water

Date Received: 04/26/17 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:31	TEK	TAL PHX

TestAmerica Phoenix

Lab Chronicle

Client: Arizona Dept of Environmental Quality
Project/Site: Pb in DW/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High School Confirmation
Sampling

Client Sample ID: 7 Screening

Date Collected: 04/20/17 00:00

Date Received: 04/26/17 09:50

Lab Sample ID: 550-81698-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			116071	04/28/17 11:07	TEK	TAL PHX
Total/NA	Analysis	200.8		1	116518	05/03/17 19:33	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/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High 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
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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/Santa Cruz Valley Union Dist.

TestAmerica Job ID: 550-81698-1
SDG: Santa Cruz Valley Union High 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

Lead In Schools Confirmation Sampling Log

School District: Santa Cruz Valley Union High School District

School Name: Santa Cruz Valley Union High School

Building Name/Number/Year Built: Old Cafeteria Building

Sample Collector Name and Phone Number:

[illegible]

550-81698 Chain of Custody



ES

These samples were collected for screening purposes only and are not to be used for compliance determinations

Page 14 of 15

Login Sample Receipt Checklist

Client: Arizona Dept of Environmental Quality

Job Number: 550-81698-1

SDG Number: Santa Cruz Valley Union High School Confirmation Sampling

Login Number: 81698

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gravlin, Andrea

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?	False	
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.