

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
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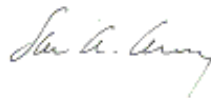
TestAmerica Job ID: 720-86907-2

Client Project/Site: Foothill Expressway Operational Improvem

For:

County of Santa Clara
2310 N. First Street
San Jose, California 95131-1040

Attn: Chris Ellsbury



Authorized for release by:
6/28/2018 4:54:30 PM

Sarah Arney, Project Manager I
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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: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

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: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Job ID: 720-86907-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-86907-2

Comments

No additional comments.

Receipt

The samples were received on 6/11/2018 5:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

Metals

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

General Chemistry

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

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Detection Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Client Sample ID: FEM061118-2

Lab Sample ID: 720-86907-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.30		0.050		mg/L	1		6010B	TCLP
Chromium	1.5		0.10		mg/L	1		6010B	STLC Citrate
Lead	20		0.050		mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Client Sample ID: FEM061118-2

Lab Sample ID: 720-86907-2

Date Collected: 06/11/18 11:15

Matrix: Solid

Date Received: 06/11/18 17:20

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.10		mg/L		06/25/18 12:59	06/26/18 18:36	1
Lead	0.30		0.050		mg/L		06/25/18 12:59	06/26/18 18:36	1

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.5		0.10		mg/L		06/28/18 11:08	06/28/18 13:58	1
Lead	20		0.050		mg/L		06/28/18 11:08	06/28/18 13:58	1



QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-246615/1-A
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246615

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.010		mg/L		06/25/18 12:59	06/26/18 18:03	1
Lead	ND		0.0050		mg/L		06/25/18 12:59	06/26/18 18:03	1

Lab Sample ID: LCS 720-246615/2-A
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium	1.25	1.17		mg/L		94	80 - 120
Lead	1.25	1.21		mg/L		97	80 - 120

Lab Sample ID: MB 720-246846/1-A
Matrix: Solid
Analysis Batch: 246865

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 246846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.010		mg/L		06/28/18 11:08	06/28/18 12:43	1
Lead	ND		0.0050		mg/L		06/28/18 11:08	06/28/18 12:43	1

Lab Sample ID: LCS 720-246846/2-A
Matrix: Solid
Analysis Batch: 246865

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 246846

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chromium	1.00	0.938		mg/L		94	80 - 120
Lead	1.00	0.957		mg/L		96	80 - 120

Lab Sample ID: LB 720-246561/1-B
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 246615

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.10		mg/L		06/25/18 12:59	06/26/18 18:13	1
Lead	ND		0.050		mg/L		06/25/18 12:59	06/26/18 18:13	1

Lab Sample ID: 720-86907-2 MS
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: FEM061118-2
Prep Type: TCLP
Prep Batch: 246615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		12.5	11.7		mg/L		93	75 - 125
Lead	0.30		12.5	11.9		mg/L		93	75 - 125

Lab Sample ID: 720-86907-2 MSD
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: FEM061118-2
Prep Type: TCLP
Prep Batch: 246615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Chromium	ND		12.5	11.8		mg/L		94	75 - 125	0	20

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-86907-2 MSD
Matrix: Solid
Analysis Batch: 246751

Client Sample ID: FEM061118-2
Prep Type: TCLP
Prep Batch: 246615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.30		12.5	11.9		mg/L		93	75 - 125	1	20

Lab Sample ID: LB4 720-246617/1-B
Matrix: Solid
Analysis Batch: 246865

Client Sample ID: Method Blank
Prep Type: STLC Citrate
Prep Batch: 246846

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.10		mg/L		06/28/18 11:08	06/28/18 12:52	1
Lead	ND		0.050		mg/L		06/28/18 11:08	06/28/18 12:52	1

QC Association Summary

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Metals

Leach Batch: 246561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	TCLP	Solid	1311	
LB 720-246561/1-B	Method Blank	TCLP	Solid	1311	
720-86907-2 MS	FEM061118-2	TCLP	Solid	1311	
720-86907-2 MSD	FEM061118-2	TCLP	Solid	1311	

Prep Batch: 246615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	TCLP	Solid	3010A	246561
LB 720-246561/1-B	Method Blank	TCLP	Solid	3010A	246561
MB 720-246615/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 720-246615/2-A	Lab Control Sample	Total/NA	Solid	3010A	
720-86907-2 MS	FEM061118-2	TCLP	Solid	3010A	246561
720-86907-2 MSD	FEM061118-2	TCLP	Solid	3010A	246561

Leach Batch: 246617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	STLC Citrate	Solid	CA WET Citrate	
LB4 720-246617/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 246751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	TCLP	Solid	6010B	246615
LB 720-246561/1-B	Method Blank	TCLP	Solid	6010B	246615
MB 720-246615/1-A	Method Blank	Total/NA	Solid	6010B	246615
LCS 720-246615/2-A	Lab Control Sample	Total/NA	Solid	6010B	246615
720-86907-2 MS	FEM061118-2	TCLP	Solid	6010B	246615
720-86907-2 MSD	FEM061118-2	TCLP	Solid	6010B	246615

Prep Batch: 246846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	STLC Citrate	Solid	3005A	246617
LB4 720-246617/1-B	Method Blank	STLC Citrate	Solid	3005A	246617
MB 720-246846/1-A	Method Blank	Total Recoverable	Solid	3005A	
LCS 720-246846/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	

Analysis Batch: 246865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86907-2	FEM061118-2	STLC Citrate	Solid	6010B	246846
LB4 720-246617/1-B	Method Blank	STLC Citrate	Solid	6010B	246846
MB 720-246846/1-A	Method Blank	Total Recoverable	Solid	6010B	246846
LCS 720-246846/2-A	Lab Control Sample	Total Recoverable	Solid	6010B	246846

Lab Chronicle

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Client Sample ID: FEM061118-2

Lab Sample ID: 720-86907-2

Date Collected: 06/11/18 11:15

Matrix: Solid

Date Received: 06/11/18 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			246617	06/25/18 15:30	GLL	TAL PLS
STLC Citrate	Prep	3005A			246846	06/28/18 11:08	MAA	TAL PLS
STLC Citrate	Analysis	6010B		1	246865	06/28/18 13:58	OBI	TAL PLS
TCLP	Leach	1311			246561	06/24/18 16:30	MAA	TAL PLS
TCLP	Prep	3010A			246615	06/25/18 12:59	MAG	TAL PLS
TCLP	Analysis	6010B		1	246751	06/26/18 18:36	OBI	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Laboratory: TestAmerica Pleasanton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20

Analysis Method	Prep Method	Matrix	Analyte
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Method Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
1311	TCLP Extraction	SW846	TAL PLS
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PLS
3010A	Preparation, Total Metals	SW846	TAL PLS
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	TAL PLS

Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Sample Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-86907-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-86907-2	FEM061118-2	Solid	06/11/18 11:15	06/11/18 17:20

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Login Sample Receipt Checklist

Client: County of Santa Clara

Job Number: 720-86907-2

Login Number: 86907
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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.	False	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

