

APR 22 2013

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Office of the County Administrator
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April 18, 2013

Mr. John Morris, P.G.
Florida Department of Environmental Protection
13051 Telecom Parkway
Temple Terrace, FL 33637

**Re: Southeast County Landfill
Leachate Treatment Plant
Annual Sludge Testing Analytical Data**

Dear Mr. Morris:

In accordance with Specific Condition, Part E, No. 9(c) of the Operation Permit No. 35435-014-SO/01, the Hillsborough County Public Utilities Department (County) is pleased to provide the analytical data for the annual sampling of the sludge at the Southeast County Leachate Treatment Facility. The referenced permit requires the County to sample and analyze the waste sludge for Toxicity Characteristic Leaching Procedure (TCLP) as listed in 40 CFR Part 261.24, Table 1. In addition to the analysis from the referenced table, copper, molybdenum, nickel, zinc, pH, percent solids, total nitrogen, total potassium, and total phosphorous were collected and analyzed. The samples collected were analyzed by our contracted laboratory, Test America, Inc. and the full laboratory data report is provided .

On March 6, 2013, the County collected the annual sludge sample from the rolloff container that is located inside the leachate treatment facility. The laboratory analytical results indicated all parameters were within the applicable TCLP standards as listed in the above-referenced Table 1.

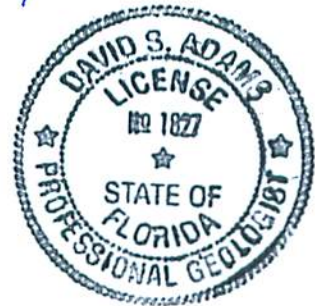
Mr. John Morris, P.G.
April 18, 2013
Page 2

Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact me at (813) 663-3221.

Sincerely,

David S. Adams 4/18/2013

David S. Adams, P.G.
Environmental Manager
Public Utilities Department
Environmental Services



DSA/mdt
Enclosures
enviro/projects/self/leachate plant/ltp-sludgesampling2013.doc
xc: Larry Ruiz, Public Utilities
Ron Cope, EPC

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Tampa

6712 Benjamin Road

Suite 100

Tampa, FL 33634

Tel: (813)885-7427

TestAmerica Job ID: 660-53061-1

Client Project/Site: Leachate Sludge Annual February

For:

Hillsborough County Public Utilities Dep

Solid Waste Management Group

Brandon Support Operations Complex

332 North Falkenburg Rd, 2nd Floor

Tampa, Florida 33619

Attn: David Adams



Authorized for release by:

3/21/2013 4:59:56 PM

Nancy Robertson

Project Manager II

nancy.robertson@testamericainc.com

LINKS

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results through

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Have a Question?

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The
Expert**

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

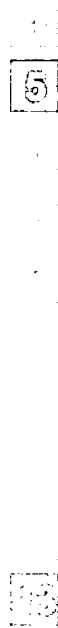
This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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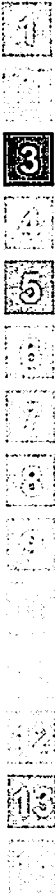


Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-53061-1	Leachate Sludge Annual	Solid	03/06/13 12:45	03/06/13 15:24



Case Narrative

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Job ID: 660-53061-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-53061-1

Comments

No additional comments.

Receipt

The sample was received on 3/6/2013 3:24 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method 8260C: The laboratory control Sample Duplicate(LCSD) for Vinyl chloride associated with batch 268868 recovered above the upper control limit. The samples associated with this LCSD were non-detect for the affected analyte; therefore, the data have been reported and flagged with J3.

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 268868 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria

No other analytical or quality issues were noted.

GC/MS Semi VOA

No analytical or quality issues were noted.

GC Semi VOA

Method 8151A: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 135599 was outside control limits. The sample is flagged with J3.

Method 8151A: The surrogate recovery for the following matrix spike (660-53061-1 MS) recovered low. The matrix spike duplicate and native sample has their surrogate recovery meet QC criteria. Re-extraction was not performed.

No other analytical or quality issues were noted.

Metals

Method 6010B: The method blank for batch 135204 contained an estimated result for barium. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. The sample is flagged with V.

Method 7471A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 135201 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Definitions/Glossary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J1	Estimated value; value may not be accurate. Surrogate recovery outside of criteria.

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
V	Indicates the analyte was detected in both the sample and the associated method blank.

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)
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)

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-53061-1

Analyte	Result	Qualifier	PQL	MDL	Unit	DII	Fac	D	Method	Prep Type
Arsenic	11		1.9	0.86	mg/Kg	1		□	6010B	Total/NA
Cadmium	0.60	I	1.9	0.33	mg/Kg	1		□	6010B	Total/NA
Copper	67		7.5	1.9	mg/Kg	1		□	6010B	Total/NA
Potassium	0.21		0.037	0.0060	Percent	1		□	6010B	Total/NA
Molybdenum	3.7		3.7	0.60	mg/Kg	1		□	6010B	Total/NA
Nickel	12	I	15	1.6	mg/Kg	1		□	6010B	Total/NA
Lead	2.5		1.9	0.56	mg/Kg	1		□	6010B	Total/NA
Zinc	160		7.5	1.9	mg/Kg	1		□	6010B	Total/NA
Barium	170	I V	500	30	ug/L	1			6010B	TCLP
Mercury	0.055	I	0.10	0.040	mg/Kg	1		□	7471A	Total/NA
Phosphorus, Total	0.82		0.074	0.041	% by dwt	10		□	365.4	Total/NA
pH	7.41		1.00	1.00	SU	1			9045C	Total/NA
Nitrogen, Total	2.6		0.017	0.017	% by dwt	1		□	Total Nitrogen	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-53061-1

Date Collected: 03/06/13 12:45

Matrix: Solid

Date Received: 03/06/13 15:24

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Chlorobenzene	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Tetrachloroethene	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Carbon tetrachloride	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Chloroform	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Benzene	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
Vinyl chloride	0.020	J3 U	0.020	0.020	mg/L	-		03/11/13 16:53	20
1,1-Dichloroethene	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20
2-Butanone	0.20	U	0.20	0.20	mg/L	-		03/11/13 16:53	20
Trichloroethene	0.020	U	0.020	0.020	mg/L	-		03/11/13 16:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		70 - 130		03/11/13 16:53	20
Dibromofluoromethane	99		70 - 130		03/11/13 16:53	20
Toluene-d8 (Surr)	106		70 - 130		03/11/13 16:53	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Hexachlorobenzene	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Hexachlorobutadiene	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Hexachloroethane	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
m & p - Cresol	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Nitrobenzene	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
o-Cresol	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Pentachlorophenol	250	U	250	250	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
Pyridine	250	U	250	250	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
2,4,5-Trichlorophenol	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
2,4,6-Trichlorophenol	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1
1,4-Dichlorobenzene	50	U	50	50	ug/L	-	03/11/13 15:27	03/15/13 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		38 - 130	03/11/13 15:27	03/15/13 13:20	1
2-Fluorophenol	69		25 - 130	03/11/13 15:27	03/15/13 13:20	1
Nitrobenzene-d5	84		39 - 130	03/11/13 15:27	03/15/13 13:20	1
Phenol-d5	75		25 - 130	03/11/13 15:27	03/15/13 13:20	1
Terphenyl-d14	48		10 - 143	03/11/13 15:27	03/15/13 13:20	1
2,4,6-Tribromophenol	87		31 - 141	03/11/13 15:27	03/15/13 13:20	1

Method: 8081A - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	3.4	U	25	3.4	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
Endrin	0.61	U	5.0	0.61	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
gamma-BHC (Lindane)	0.21	U	2.5	0.21	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
Heptachlor	0.36	U	2.5	0.36	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
Heptachlor epoxide	0.22	U	2.5	0.22	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
Methoxychlor	0.44	U	25	0.44	ug/L	-	03/14/13 10:00	03/14/13 16:29	1
Toxaphene	19	U	250	19	ug/L	-	03/14/13 10:00	03/14/13 16:29	1

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-53061-1

Date Collected: 03/06/13 12:45

Matrix: Solid

Date Received: 03/06/13 15:24

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		30 - 150	03/14/13 10:00	03/14/13 16:29	1
Tetrachloro-m-xylene	71		30 - 150	03/14/13 10:00	03/14/13 16:29	1

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.5	J3 U	25	7.5	ug/L		03/14/13 10:02	03/19/13 10:50	1
Silvex (2,4,5-TP)	1.6	J3 U	25	1.6	ug/L		03/14/13 10:02	03/19/13 10:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	69		33 - 130				03/14/13 10:02	03/19/13 10:50	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		1.9	0.86	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Cadmium	0.60	I	1.9	0.33	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Copper	67		7.5	1.9	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Potassium	0.21		0.037	0.0060	Percent	☐	03/07/13 09:58	03/07/13 13:42	1
Molybdenum	3.7		3.7	0.60	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Nickel	12	I	15	1.6	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Lead	2.5		1.9	0.56	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Selenium	1.4	U	3.7	1.4	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1
Zinc	160		7.5	1.9	mg/Kg	☐	03/07/13 09:58	03/07/13 13:42	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	50	U	500	50	ug/L		03/08/13 12:17	03/11/13 20:41	1
Arsenic	120	U	1000	120	ug/L		03/08/13 12:17	03/11/13 20:41	1
Barium	170	I V	500	30	ug/L		03/08/13 12:17	03/11/13 20:41	1
Cadmium	18	U	500	18	ug/L		03/08/13 12:17	03/11/13 20:41	1
Chromium	50	U	1000	50	ug/L		03/08/13 12:17	03/11/13 20:41	1
Lead	40	U	1000	40	ug/L		03/08/13 12:17	03/11/13 20:41	1
Selenium	150	U	500	150	ug/L		03/08/13 12:17	03/11/13 20:41	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.36	U	0.50	0.36	ug/L		03/11/13 10:46	03/11/13 13:53	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.055	I	0.10	0.040	mg/Kg	☐	03/08/13 11:48	03/08/13 13:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	0.82		0.074	0.041	% by dwt	☐	03/11/13 10:30	03/12/13 15:22	10
pH	7.41		1.00	1.00	SU			03/07/13 09:20	1
Nitrogen, Total	2.6		0.017	0.017	% by dwt	☐		03/13/13 09:28	1

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-268868/5

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Chlorobenzene	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Tetrachloroethane	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Carbon tetrachloride	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Chloroform	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Benzene	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
Vinyl chloride	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
1,1-Dichloroethene	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1
2-Butanone	0.010	U	0.010	0.010	mg/L			03/11/13 11:29	1
Trichloroethene	0.0010	U	0.0010	0.0010	mg/L			03/11/13 11:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		70 - 130		03/11/13 11:29	1
Dibromofluoromethane	113		70 - 130		03/11/13 11:29	1
Toluene-d8 (Surr)	103		70 - 130		03/11/13 11:29	1

Lab Sample ID: LCS 680-268868/3

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.0500	0.0530		mg/L		106	75 - 120
Chlorobenzene	0.0500	0.0506		mg/L		101	79 - 120
Tetrachloroethane	0.0500	0.0536		mg/L		107	77 - 128
Carbon tetrachloride	0.0500	0.0531		mg/L		106	70 - 131
Chloroform	0.0500	0.0566		mg/L		113	76 - 128
Benzene	0.0500	0.0555		mg/L		111	74 - 123
Vinyl chloride	0.0500	0.0501		mg/L		100	58 - 141
1,1-Dichloroethene	0.0500	0.0522		mg/L		104	73 - 134
2-Butanone	0.100	0.111		mg/L		111	55 - 142
Trichloroethene	0.0500	0.0542		mg/L		108	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	108		70 - 130
Dibromofluoromethane	111		70 - 130
Toluene-d8 (Surr)	112		70 - 130

Lab Sample ID: LCSD 680-268868/4

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0541		mg/L		108	75 - 120	2	30
Chlorobenzene	0.0500	0.0528		mg/L		106	79 - 120	4	30
Tetrachloroethane	0.0500	0.0561		mg/L		112	77 - 128	5	30
Carbon tetrachloride	0.0500	0.0531		mg/L		106	70 - 131	0	30
Chloroform	0.0500	0.0581		mg/L		116	76 - 128	3	30

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-268868/4

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.0559		mg/L		112	74 - 123	1	30
Vinyl chloride	0.0500	0.0711	J3	mg/L		142	58 - 141	35	30
1,1-Dichloroethene	0.0500	0.0626		mg/L		125	73 - 134	18	30
2-Butanone	0.100	0.114		mg/L		114	55 - 142	2	30
Trichloroethene	0.0500	0.0565		mg/L		113	80 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	112		70 - 130
Dibromofluoromethane	116		70 - 130
Toluene-d8 (Surr)	115		70 - 130

Lab Sample ID: LB 680-268715/5-A LB

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Chlorobenzene	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Tetrachloroethene	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Carbon tetrachloride	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Chloroform	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Benzene	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
Vinyl chloride	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
1,1-Dichloroethene	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20
2-Butanone	0.20	U	0.20	0.20	mg/L			03/11/13 14:43	20
Trichloroethene	0.020	U	0.020	0.020	mg/L			03/11/13 14:43	20

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		70 - 130		03/11/13 14:43	20
Dibromofluoromethane	104		70 - 130		03/11/13 14:43	20
Toluene-d8 (Surr)	107		70 - 130		03/11/13 14:43	20

Lab Sample ID: 680-87875-A-3-A MS

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.020	U	1.00	1.14		mg/L		114	75 - 120
Chlorobenzene	0.020	U	1.00	1.05		mg/L		105	79 - 120
Tetrachloroethene	0.020	U	1.00	1.08		mg/L		108	77 - 128
Carbon tetrachloride	0.020	U	1.00	1.05		mg/L		105	70 - 131
Chloroform	0.020	U	1.00	1.08		mg/L		108	76 - 128
Benzene	0.020	U	1.00	1.16		mg/L		116	74 - 123
Vinyl chloride	0.020	J3 U	1.00	1.14		mg/L		114	58 - 141
1,1-Dichloroethene	0.020	J3 U	1.00	1.15		mg/L		115	73 - 134
2-Butanone	0.20	U	2.00	2.21		mg/L		111	55 - 142
Trichloroethene	0.020	U	1.00	1.10		mg/L		110	80 - 120

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-87875-A-3-A MS

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Matrix Spike

Prep Type: TCLP

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	114		70 - 130
Dibromofluoromethane	110		70 - 130
Toluene-d8 (Surr)	118		70 - 130

Lab Sample ID: 680-87875-A-3-A MSD

Matrix: Solid

Analysis Batch: 268868

Client Sample ID: Matrix Spike Duplicate

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	0.020	U	1.00	1.08		mg/L		108	75 - 120	5	30
Chlorobenzene	0.020	U	1.00	1.05		mg/L		105	79 - 120	0	30
Tetrachloroethane	0.020	U	1.00	1.11		mg/L		111	77 - 128	3	30
Carbon tetrachloride	0.020	U	1.00	1.07		mg/L		107	70 - 131	2	30
Chloroform	0.020	U	1.00	1.17		mg/L		117	76 - 128	8	30
Benzene	0.020	U	1.00	1.14		mg/L		114	74 - 123	2	30
Vinyl chloride	0.020	J3 U	1.00	1.27		mg/L		127	58 - 141	11	30
1,1-Dichloroethene	0.020	J3 U	1.00	1.44	J3	mg/L		144	73 - 134	22	30
2-Butanone	0.20	U	2.00	2.21		mg/L		111	55 - 142	0	30
Trichloroethene	0.020	U	1.00	1.10		mg/L		110	80 - 120	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	113		70 - 130
Dibromofluoromethane	117		70 - 130
Toluene-d8 (Surr)	116		70 - 130

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-268875/7-A

Matrix: Solid

Analysis Batch: 269592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 268875

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
Hexachlorobenzene	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
Hexachlorobutadiene	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
Hexachloroethane	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
m & p - Cresol	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
Nitrobenzene	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
o-Cresol	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
Pentachlorophenol	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 09:36	1
Pyridine	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 09:36	1
2,4,5-Trichlorophenol	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
2,4,6-Trichlorophenol	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1
1,4-Dichlorobenzene	10	U	10	10	ug/L		03/11/13 15:27	03/15/13 09:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		38 - 130	03/11/13 15:27	03/15/13 09:36	1

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-268875/7-A

Matrix: Solid

Analysis Batch: 269592

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 268875

Surrogate	MB MB %Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	63		25 - 130	03/11/13 15:27	03/15/13 09:36	1
Nitrobenzene-d5	71		39 - 130	03/11/13 15:27	03/15/13 09:36	1
Phenol-d5	67		25 - 130	03/11/13 15:27	03/15/13 09:36	1
Terphenyl-d14	68		10 - 143	03/11/13 15:27	03/15/13 09:36	1
2,4,6-Tribromophenol	69		31 - 141	03/11/13 15:27	03/15/13 09:36	1

Lab Sample ID: LCS 680-268875/8-A

Matrix: Solid

Analysis Batch: 269592

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 268875

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	100	78.8	ug/L		79	63 - 130
Hexachlorobenzene	100	70.3	ug/L		70	52 - 130
Hexachlorobutadiene	100	67.1	ug/L		67	36 - 130
Hexachloroethane	100	58.1	ug/L		58	39 - 130
m & p - Cresol	100	72.6	ug/L		73	35 - 130
Nitrobenzene	100	70.0	ug/L		70	56 - 130
o-Cresol	100	71.3	ug/L		71	55 - 130
Pentachlorophenol	100	74.9	ug/L		75	42 - 138
Pyridine	100	50 U	ug/L		47	10 - 130
2,4,5-Trichlorophenol	100	77.5	ug/L		78	61 - 130
2,4,6-Trichlorophenol	100	73.2	ug/L		73	57 - 130
1,4-Dichlorobenzene	100	60.5	ug/L		61	43 - 130

Surrogate	LCS LCS %Recovery	Qualifier	Limits
2-Fluorobiphenyl	81		38 - 130
2-Fluorophenol	72		25 - 130
Nitrobenzene-d5	84		39 - 130
Phenol-d5	70		25 - 130
Terphenyl-d14	86		10 - 143
2,4,6-Tribromophenol	92		31 - 141

Lab Sample ID: LB 680-268693/4-B LB

Matrix: Solid

Analysis Batch: 269592

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 268875

Analyte	LB LB Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Hexachlorobenzene	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Hexachlorobutadiene	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Hexachloroethane	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
m & p - Cresol	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Nitrobenzene	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
o-Cresol	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Pentachlorophenol	250	U	250	250	ug/L		03/11/13 15:27	03/15/13 10:04	1
Pyridine	250	U	250	250	ug/L		03/11/13 15:27	03/15/13 10:04	1
2,4,5-Trichlorophenol	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
2,4,6-Trichlorophenol	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 680-268693/4-B LB
Matrix: Solid
Analysis Batch: 269592

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 268875

Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	50	U	50	50	ug/L		03/11/13 15:27	03/15/13 10:04	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		38 - 130				03/11/13 15:27	03/15/13 10:04	1
2-Fluorophenol	62		25 - 130				03/11/13 15:27	03/15/13 10:04	1
Nitrobenzene-d5	78		39 - 130				03/11/13 15:27	03/15/13 10:04	1
Phenol-d5	56		25 - 130				03/11/13 15:27	03/15/13 10:04	1
Terphenyl-d14	84		10 - 143				03/11/13 15:27	03/15/13 10:04	1
2,4,6-Tribromophenol	85		31 - 141				03/11/13 15:27	03/15/13 10:04	1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 660-135384/1-A
Matrix: Solid
Analysis Batch: 135441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135384

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	3.4	U	25	3.4	ug/L		03/14/13 10:00	03/14/13 16:02	1
Endrin	0.61	U	5.0	0.61	ug/L		03/14/13 10:00	03/14/13 16:02	1
gamma-BHC (Lindane)	0.21	U	2.5	0.21	ug/L		03/14/13 10:00	03/14/13 16:02	1
Heptachlor	0.36	U	2.5	0.36	ug/L		03/14/13 10:00	03/14/13 16:02	1
Heptachlor epoxide	0.22	U	2.5	0.22	ug/L		03/14/13 10:00	03/14/13 16:02	1
Methoxychlor	0.44	U	25	0.44	ug/L		03/14/13 10:00	03/14/13 16:02	1
Toxaphene	19	U	250	19	ug/L		03/14/13 10:00	03/14/13 16:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	122		30 - 150				03/14/13 10:00	03/14/13 16:02	1
Tetrachloro-m-xylene	73		30 - 150				03/14/13 10:00	03/14/13 16:02	1

Lab Sample ID: LCS 660-135384/2-A
Matrix: Solid
Analysis Batch: 135441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 135384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	5.00	4.12	I	ug/L		82	49 - 130
gamma-BHC (Lindane)	5.00	3.49		ug/L		70	53 - 130
Heptachlor	5.00	3.37		ug/L		67	36 - 130
Heptachlor epoxide	5.00	3.67		ug/L		73	41 - 130
Methoxychlor	5.00	4.67	I	ug/L		93	45 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl	104		30 - 150				
Tetrachloro-m-xylene	64		30 - 150				

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LB 660-135193/1-B LB

Matrix: Solid

Analysis Batch: 135441

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 135384

LB LB		PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result Qualifier							
Chlordane (technical)	3.4 U	25	3.4	ug/L		03/14/13 10:00	03/14/13 17:09	1
Endrin	0.61 U	5.0	0.61	ug/L		03/14/13 10:00	03/14/13 17:09	1
gamma-BHC (Lindane)	0.21 U	2.5	0.21	ug/L		03/14/13 10:00	03/14/13 17:09	1
Heptachlor	0.36 U	2.5	0.36	ug/L		03/14/13 10:00	03/14/13 17:09	1
Heptachlor epoxide	0.22 U	2.5	0.22	ug/L		03/14/13 10:00	03/14/13 17:09	1
Methoxychlor	0.44 U	25	0.44	ug/L		03/14/13 10:00	03/14/13 17:09	1
Toxaphene	19 U	250	19	ug/L		03/14/13 10:00	03/14/13 17:09	1
LB LB		Limits	Prepared	Analyzed	Dil Fac			
Surrogate	%Recovery Qualifier							
DCB Decachlorobiphenyl	107	30 - 150	03/14/13 10:00	03/14/13 17:09	1			
Tetrachloro-m-xylene	74	30 - 150	03/14/13 10:00	03/14/13 17:09	1			

Lab Sample ID: 660-53061-1 MS

Matrix: Solid

Analysis Batch: 135441

Client Sample ID: Leachate Sludge Annual

Prep Type: TCLP

Prep Batch: 135384

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Endrin	0.61	U	5.00	4.70	I	ug/L		94	49 - 130		
gamma-BHC (Lindane)	0.21	U	5.00	4.01		ug/L		80	53 - 130		
Heptachlor	0.36	U	5.00	3.93		ug/L		79	36 - 130		
Heptachlor epoxide	0.22	U	5.00	4.26		ug/L		85	41 - 130		
Methoxychlor	0.44	U	5.00	5.01	I	ug/L		100	45 - 130		

Lab Sample ID: 660-53061-1 MSD

Matrix: Solid

Analysis Batch: 135441

Client Sample ID: Leachate Sludge Annual

Prep Type: TCLP

Prep Batch: 135384

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Endrin	0.61	U	5.00	3.88	I	ug/L		78	49 - 130	19	30
gamma-BHC (Lindane)	0.21	U	5.00	3.36		ug/L		67	53 - 130	18	30
Heptachlor	0.36	U	5.00	3.31		ug/L		66	36 - 130	17	30
Heptachlor epoxide	0.22	U	5.00	3.56		ug/L		71	41 - 130	18	30
Methoxychlor	0.44	U	5.00	4.29	I	ug/L		86	45 - 130	16	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl	93		30 - 150								
Tetrachloro-m-xylene	65		30 - 150								

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 660-135385/1-A

Matrix: Solid

Analysis Batch: 135599

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 135385

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.5	U	25	7.5	ug/L		03/14/13 10:02	03/19/13 10:18	1
Silvex (2,4,5-TP)	1.6	U	25	1.6	ug/L		03/14/13 10:02	03/19/13 10:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	70		33 - 130	03/14/13 10:02	03/19/13 10:18	1

Lab Sample ID: LCS 660-135385/2-A

Matrix: Solid

Analysis Batch: 135599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	40.0	35.4		ug/L		88	10 - 141
Silvex (2,4,5-TP)	40.0	37.9		ug/L		95	10 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	77		33 - 130

Lab Sample ID: LB 660-135193/1-C LB

Matrix: Solid

Analysis Batch: 135599

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 135385

Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.5	U	25	7.5	ug/L		03/14/13 10:02	03/19/13 11:37	1
Silvex (2,4,5-TP)	1.6	U	25	1.6	ug/L		03/14/13 10:02	03/19/13 11:37	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	69		33 - 130	03/14/13 10:02	03/19/13 11:37	1

Lab Sample ID: 660-53061-1 MS

Matrix: Solid

Analysis Batch: 135599

Client Sample ID: Leachate Sludge Annual

Prep Type: TCLP

Prep Batch: 135385

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	7.5	J3 U	40.0	15.9	I	ug/L		40	10 - 141
Silvex (2,4,5-TP)	1.6	J3 U	40.0	18.6	I	ug/L		46	10 - 138

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4-Dichlorophenylacetic acid	31	J1	33 - 130

Lab Sample ID: 660-53061-1 MSD

Matrix: Solid

Analysis Batch: 135599

Client Sample ID: Leachate Sludge Annual

Prep Type: TCLP

Prep Batch: 135385

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	7.5	J3 U	40.0	44.3	J3	ug/L		111	10 - 141	94	78
Silvex (2,4,5-TP)	1.6	J3 U	40.0	47.8	J3	ug/L		119	10 - 138	88	66

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 660-53061-1 MSD
Matrix: Solid
Analysis Batch: 135599

Client Sample ID: Leachate Sludge Annual
Prep Type: TCLP
Prep Batch: 135385

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	91		33 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-135143/1-A
Matrix: Solid
Analysis Batch: 135156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 135143

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.23	U	0.50	0.23	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Copper	0.50	U	2.0	0.50	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Cadmium	0.087	U	0.50	0.087	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Potassium	0.0016	U	0.010	0.0016	Percent		03/07/13 09:58	03/07/13 13:01	1
Molybdenum	0.16	U	1.0	0.16	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Nickel	0.43	U	4.0	0.43	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Lead	0.15	U	0.50	0.15	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Selenium	0.37	U	1.0	0.37	mg/Kg		03/07/13 09:58	03/07/13 13:01	1
Zinc	0.50	U	2.0	0.50	mg/Kg		03/07/13 09:58	03/07/13 13:01	1

Lab Sample ID: LCS 660-135143/2-A
Matrix: Solid
Analysis Batch: 135156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 135143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	48.6		mg/Kg		97	75 - 125
Copper	50.0	49.9		mg/Kg		100	75 - 125
Cadmium	50.0	49.6		mg/Kg		99	75 - 125
Potassium	0.125	0.124		Percent		99	75 - 125
Molybdenum	50.0	51.1		mg/Kg		102	75 - 125
Nickel	50.0	51.2		mg/Kg		102	75 - 125
Lead	50.0	51.8		mg/Kg		104	75 - 125
Selenium	50.0	48.3		mg/Kg		97	75 - 125
Zinc	50.0	51.5		mg/Kg		103	75 - 125

Lab Sample ID: 640-42523-B-1-B MS
Matrix: Solid
Analysis Batch: 135156

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 135143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.26	U	56.8	47.8		mg/Kg	☐	84	75 - 125
Copper	0.57	U	56.8	51.1		mg/Kg	☐	90	75 - 125
Cadmium	0.099	U	56.8	48.4		mg/Kg	☐	85	75 - 125
Potassium	0.0023	I	0.142	0.128		Percent	☐	88	75 - 125
Molybdenum	0.18	U	56.8	48.9		mg/Kg	☐	86	75 - 125
Nickel	0.64	I	56.8	51.1		mg/Kg	☐	89	75 - 125
Lead	1.6		56.8	52.6		mg/Kg	☐	90	75 - 125
Selenium	0.42	U	56.8	47.6		mg/Kg	☐	84	75 - 125
Zinc	2.5		56.8	52.4		mg/Kg	☐	88	75 - 125

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

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

Lab Sample ID: 640-42523-B-1-C MSD

Matrix: Solid

Analysis Batch: 135156

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 135143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.26	U	57.4	52.5		mg/Kg	☒	92	75 - 125	9	20
Copper	0.57	U	57.4	56.2		mg/Kg	☒	98	75 - 125	9	20
Cadmium	0.099	U	57.4	53.1		mg/Kg	☒	93	75 - 125	9	20
Potassium	0.0023	I	0.143	0.140		Percent	☒	96	75 - 125	9	20
Molybdenum	0.18	U	57.4	53.6		mg/Kg	☒	93	75 - 125	9	20
Nickel	0.64	I	57.4	55.9		mg/Kg	☒	96	75 - 125	9	20
Lead	1.6		57.4	57.7		mg/Kg	☒	98	75 - 125	9	20
Selenium	0.42	U	57.4	52.4		mg/Kg	☒	91	75 - 125	10	20
Zinc	2.5		57.4	57.0		mg/Kg	☒	95	75 - 125	8	20

Lab Sample ID: LCS 660-135204/2-A

Matrix: Solid

Analysis Batch: 135251

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	5000	5030		ug/L		101	75 - 125
Arsenic	5000	5120		ug/L		102	75 - 125
Barium	5000	5250		ug/L		105	75 - 125
Cadmium	5000	5050		ug/L		101	75 - 125
Chromium	5000	5140		ug/L		103	75 - 125
Lead	5000	4950		ug/L		99	75 - 125
Selenium	5000	5170		ug/L		103	75 - 125

Lab Sample ID: LB 660-135191/1-B LB

Matrix: Solid

Analysis Batch: 135251

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 135204

Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Silver	50	U	500	50	ug/L		03/08/13 12:17	03/11/13 20:30	1
Arsenic	120	U	1000	120	ug/L		03/08/13 12:17	03/11/13 20:30	1
Barium	153	I	500	30	ug/L		03/08/13 12:17	03/11/13 20:30	1
Cadmium	18	U	500	18	ug/L		03/08/13 12:17	03/11/13 20:30	1
Chromium	50	U	1000	50	ug/L		03/08/13 12:17	03/11/13 20:30	1
Lead	40	U	1000	40	ug/L		03/08/13 12:17	03/11/13 20:30	1
Selenium	150	U	500	150	ug/L		03/08/13 12:17	03/11/13 20:30	1

Lab Sample ID: 660-53061-1 MS

Matrix: Solid

Analysis Batch: 135251

Client Sample ID: Leachate Sludge Annual

Prep Type: TCLP

Prep Batch: 135204

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	50	U	5000	5110		ug/L		102	75 - 125
Arsenic	120	U	5000	5200		ug/L		104	75 - 125
Barium	170	I V	5000	5310		ug/L		103	75 - 125
Cadmium	18	U	5000	5140		ug/L		103	75 - 125
Chromium	50	U	5000	5150		ug/L		103	75 - 125
Lead	40	U	5000	4960		ug/L		99	75 - 125
Selenium	150	U	5000	5240		ug/L		105	75 - 125

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

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

Lab Sample ID: 660-53061-1 MSD				Client Sample ID: Leachate Sludge Annual							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 135251				Prep Batch: 135204							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	50	U	5000	5100		ug/L		102	75 - 125	0	20
Arsenic	120	U	5000	5180		ug/L		104	75 - 125	0	20
Barium	170	IV	5000	5280		ug/L		102	75 - 125	1	20
Cadmium	18	U	5000	5130		ug/L		103	75 - 125	0	20
Chromium	50	U	5000	5130		ug/L		103	75 - 125	0	20
Lead	40	U	5000	4970		ug/L		99	75 - 125	0	20
Selenium	150	U	5000	5230		ug/L		105	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 660-135250/2-A				Client Sample ID: Lab Control Sample							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 135270				Prep Batch: 135250							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	1.11		ug/L		111	80 - 120		

Lab Sample ID: LCSD 660-135250/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 135270				Prep Batch: 135250							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			1.00	1.06		ug/L		106	80 - 120	5	20

Lab Sample ID: LB 660-135191/1-C LB				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 135270				Prep Batch: 135250							
Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.36	U	0.50	0.36	ug/L		03/11/13 10:46	03/11/13 13:51	1		

Lab Sample ID: LB 660-135235/1-B LB				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 135270				Prep Batch: 135250							
Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.36	U	0.50	0.36	ug/L		03/11/13 10:46	03/11/13 13:39	1		

Lab Sample ID: 640-42597-A-1-C MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 135270				Prep Batch: 135250							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.36	U	1.00	1.11		ug/L		111	80 - 120		

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 640-42597-A-1-D MSD						Client Sample ID: Matrix Spike Duplicate					
Matrix: Solid						Prep Type: TCLP					
Analysis Batch: 135270						Prep Batch: 135250					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.36	U	1.00	1.05		ug/L		105	80 - 120	6	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 660-135201/10-A						Client Sample ID: Method Blank					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 135212						Prep Batch: 135201					
Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.012	U	0.030	0.012	mg/Kg		03/08/13 11:48	03/08/13 12:54		1	

Lab Sample ID: LCS 660-135201/11-A						Client Sample ID: Lab Control Sample					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 135212						Prep Batch: 135201					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits				
Mercury	0.167	0.164		mg/Kg		98	80 - 120				

Lab Sample ID: 660-52937-A-3-B MS ^5						Client Sample ID: Matrix Spike					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 135212						Prep Batch: 135201					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	1.6	J3	0.178	1.92	J3	mg/Kg		185	80 - 120		

Lab Sample ID: 660-52937-A-3-C MSD ^5						Client Sample ID: Matrix Spike Duplicate					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 135212						Prep Batch: 135201					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	1.6	J3	0.173	1.92	J3	mg/Kg		195	80 - 120	0	20

Method: 365.4 - Phosphorus, Total

Lab Sample ID: MB 680-268971/3-A						Client Sample ID: Method Blank					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 269122						Prep Batch: 268971					
Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Phosphorus, Total	0.0011	U	0.0020	0.0011	% by dwt		03/11/13 10:30	03/12/13 14:41		1	

Lab Sample ID: LCS 680-268971/1-A						Client Sample ID: Lab Control Sample					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 269122						Prep Batch: 268971					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits				
Phosphorus, Total	0.0400	0.0427		% by dwt		107	60 - 140				

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method: 365.4 - Phosphorus, Total (Continued)

Lab Sample ID: LCSD 680-268971/2-A
Matrix: Solid
Analysis Batch: 269122

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 268971

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.0400	0.0424		% by dwt		106	60 - 140	1	40

Lab Sample ID: 640-42596-B-7-B MS
Matrix: Solid
Analysis Batch: 269122

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 268971

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.046		0.0470	0.0951		% by dwt	α	104	60 - 140		

Lab Sample ID: 640-42596-B-7-C MSD
Matrix: Solid
Analysis Batch: 269122

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 268971

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.046		0.0462	0.0998		% by dwt	α	116	60 - 140	5	40

Lab Sample ID: 640-42596-B-8-B DU
Matrix: Solid
Analysis Batch: 269122

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 268971

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.042		0.0452		% by dwt	α			7	40

Method: 9045C - pH

Lab Sample ID: MB 660-135162/1-A
Matrix: Solid
Analysis Batch: 135163

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	DII Fac
pH	7.340		1.00	1.00	SU			03/07/13 09:20	1

Lab Sample ID: LCS 660-135162/2-A
Matrix: Solid
Analysis Batch: 135163

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	6.00	6.010		SU		100	98 - 102		

Lab Sample ID: 660-53024-A-1-D DU
Matrix: Solid
Analysis Batch: 135163

Client Sample ID: Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	6.29		6.240		SU				0.8	20

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

GC/MS VOA

Leach Batch: 268715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	1311	
LB 680-268715/5-A LB	Method Blank	TCLP	Solid	1311	

Leach Batch: 268799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-87875-A-3-A MS	Matrix Spike	TCLP	Solid	1311	
680-87875-A-3-A MSD	Matrix Spike Duplicate	TCLP	Solid	1311	

Analysis Batch: 268868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	8260B	268715
680-87875-A-3-A MS	Matrix Spike	TCLP	Solid	8260B	268799
680-87875-A-3-A MSD	Matrix Spike Duplicate	TCLP	Solid	8260B	268799
LB 680-268715/5-A LB	Method Blank	TCLP	Solid	8260B	268715
LCS 680-268868/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-268868/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-268868/5	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Leach Batch: 268693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	1311	
LB 680-268693/4-B LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 268875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	3520C	268693
LB 680-268693/4-B LB	Method Blank	TCLP	Solid	3520C	268693
LCS 680-268875/8-A	Lab Control Sample	Total/NA	Solid	3520C	
MB 680-268875/7-A	Method Blank	Total/NA	Solid	3520C	

Analysis Batch: 269592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	8270C	268875
LB 680-268693/4-B LB	Method Blank	TCLP	Solid	8270C	268875
LCS 680-268875/8-A	Lab Control Sample	Total/NA	Solid	8270C	268875
MB 680-268875/7-A	Method Blank	Total/NA	Solid	8270C	268875

GC Semi VOA

Leach Batch: 135193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	1311	
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	1311	
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	1311	
LB 660-135193/1-B LB	Method Blank	TCLP	Solid	1311	
LB 660-135193/1-C LB	Method Blank	TCLP	Solid	1311	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

GC Semi VOA (Continued)

Prep Batch: 135384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	3510C	135193
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	3510C	135193
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	3510C	135193
LB 660-135193/1-B LB	Method Blank	TCLP	Solid	3510C	135193
LCS 660-135384/2-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 660-135384/1-A	Method Blank	Total/NA	Solid	3510C	

Prep Batch: 135385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	8151A	135193
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	8151A	135193
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	8151A	135193
LB 660-135193/1-C LB	Method Blank	TCLP	Solid	8151A	135193
LCS 660-135385/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 660-135385/1-A	Method Blank	Total/NA	Solid	8151A	

Analysis Batch: 135441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	8081A	135384
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	8081A	135384
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	8081A	135384
LB 660-135193/1-B LB	Method Blank	TCLP	Solid	8081A	135384
LCS 660-135384/2-A	Lab Control Sample	Total/NA	Solid	8081A	135384
MB 660-135384/1-A	Method Blank	Total/NA	Solid	8081A	135384

Analysis Batch: 135599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	8151A	135385
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	8151A	135385
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	8151A	135385
LB 660-135193/1-C LB	Method Blank	TCLP	Solid	8151A	135385
LCS 660-135385/2-A	Lab Control Sample	Total/NA	Solid	8151A	135385
MB 660-135385/1-A	Method Blank	Total/NA	Solid	8151A	135385

Metals

Prep Batch: 135143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42523-B-1-B MS	Matrix Spike	Total/NA	Solid	3050B	
640-42523-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	3050B	
LCS 660-135143/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 660-135143/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 135156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42523-B-1-B MS	Matrix Spike	Total/NA	Solid	6010B	135143
640-42523-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	135143
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	6010B	135143
LCS 660-135143/2-A	Lab Control Sample	Total/NA	Solid	6010B	135143

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Metals (Continued)

Analysis Batch: 135156 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-135143/1-A	Method Blank	Total/NA	Solid	6010B	135143

Leach Batch: 135191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	1311	
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	1311	
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	1311	
LB 660-135191/1-B LB	Method Blank	TCLP	Solid	1311	
LB 660-135191/1-C LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 135201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52937-A-3-B MS ^5	Matrix Spike	Total/NA	Solid	7471A	
660-52937-A-3-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	7471A	
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	7471A	
LCS 660-135201/11-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 660-135201/10-A	Method Blank	Total/NA	Solid	7471A	

Prep Batch: 135204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	3010A	135191
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	3010A	135191
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	3010A	135191
LB 660-135191/1-B LB	Method Blank	TCLP	Solid	3010A	135191
LCS 660-135204/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 135212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-52937-A-3-B MS ^5	Matrix Spike	Total/NA	Solid	7471A	135201
660-52937-A-3-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	7471A	135201
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	7471A	135201
LCS 660-135201/11-A	Lab Control Sample	Total/NA	Solid	7471A	135201
MB 660-135201/10-A	Method Blank	Total/NA	Solid	7471A	135201

Leach Batch: 135235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42597-A-1-C MS	Matrix Spike	TCLP	Solid	1311	
640-42597-A-1-D MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
LB 660-135235/1-B LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 135250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42597-A-1-C MS	Matrix Spike	TCLP	Solid	7470A	135235
640-42597-A-1-D MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	135235
660-53061-1	Leachate Sludge Annual	TCLP	Solid	7470A	135191
LB 660-135191/1-C LB	Method Blank	TCLP	Solid	7470A	135191
LB 660-135235/1-B LB	Method Blank	TCLP	Solid	7470A	135235
LCS 660-135250/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 660-135250/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Metals (Continued)

Analysis Batch: 135251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	TCLP	Solid	6010B	135204
660-53061-1 MS	Leachate Sludge Annual	TCLP	Solid	6010B	135204
660-53061-1 MSD	Leachate Sludge Annual	TCLP	Solid	6010B	135204
LB 660-135191/1-B LB	Method Blank	TCLP	Solid	6010B	135204
LCS 660-135204/2-A	Lab Control Sample	Total/NA	Solid	6010B	135204

Analysis Batch: 135270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42597-A-1-C MS	Matrix Spike	TCLP	Solid	7470A	135250
640-42597-A-1-D MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	135250
660-53061-1	Leachate Sludge Annual	TCLP	Solid	7470A	135250
LB 660-135191/1-C LB	Method Blank	TCLP	Solid	7470A	135250
LB 660-135235/1-B LB	Method Blank	TCLP	Solid	7470A	135250
LCS 660-135250/2-A	Lab Control Sample	Total/NA	Solid	7470A	135250
LCSD 660-135250/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	135250

General Chemistry

Leach Batch: 135162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53024-A-1-D DU	Duplicate	Soluble	Solid	DI Leach	
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	DI Leach	
LCS 660-135162/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
MB 660-135162/1-A	Method Blank	Soluble	Solid	DI Leach	

Analysis Batch: 135163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53024-A-1-D DU	Duplicate	Soluble	Solid	9045C	135162
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	9045C	135162
LCS 660-135162/2-A	Lab Control Sample	Soluble	Solid	9045C	135162
MB 660-135162/1-A	Method Blank	Soluble	Solid	9045C	135162

Analysis Batch: 135167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	2540G	
LCS 660-135167/1	Lab Control Sample	Total/NA	Solid	2540G	
LCSD 660-135167/18	Lab Control Sample Dup	Total/NA	Solid	2540G	

Prep Batch: 268971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42596-B-7-B MS	Matrix Spike	Total/NA	Solid	Digestion	
640-42596-B-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	Digestion	
640-42596-B-8-B DU	Duplicate	Total/NA	Solid	Digestion	
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	Digestion	
LCS 660-268971/1-A	Lab Control Sample	Total/NA	Solid	Digestion	
LCSD 660-268971/2-A	Lab Control Sample Dup	Total/NA	Solid	Digestion	
MB 660-268971/3-A	Method Blank	Total/NA	Solid	Digestion	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

General Chemistry (Continued)

Analysis Batch: 269122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42596-B-7-B MS	Matrix Spike	Total/NA	Solid	365.4	268971
640-42596-B-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	365.4	268971
640-42596-B-8-B DU	Duplicate	Total/NA	Solid	365.4	268971
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	365.4	268971
LCS 680-268971/1-A	Lab Control Sample	Total/NA	Solid	365.4	268971
LCSD 680-268971/2-A	Lab Control Sample Dup	Total/NA	Solid	365.4	268971
MB 680-268971/3-A	Method Blank	Total/NA	Solid	365.4	268971

Analysis Batch: 269158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53061-1	Leachate Sludge Annual	Total/NA	Solid	Total Nitrogen	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Client Sample ID: Leachate Sludge Annual

Lab Sample ID: 660-53061-1

Date Collected: 03/06/13 12:45

Matrix: Solid

Date Received: 03/06/13 15:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			268715	03/08/13 13:04	BB	TAL SAV
TCLP	Analysis	8260B		20	268868	03/11/13 16:53	WJC	TAL SAV
TCLP	Leach	1311			268693	03/08/13 15:23	JS	TAL SAV
TCLP	Prep	3520C			268875	03/11/13 15:27	RBS	TAL SAV
TCLP	Analysis	8270C		1	269592	03/15/13 13:20	LEG	TAL SAV
TCLP	Leach	1311			135193	03/08/13 10:13	RG	TAL TAM
TCLP	Prep	3510C			135384	03/14/13 10:00	AG	TAL TAM
TCLP	Analysis	8081A		1	135441	03/14/13 16:29	JB	TAL TAM
TCLP	Prep	8151A			135385	03/14/13 10:02	AG	TAL TAM
TCLP	Analysis	8151A		1	135599	03/19/13 10:50	TP	TAL TAM
Total/NA	Prep	3050B			135143	03/07/13 09:58	GF	TAL TAM
Total/NA	Analysis	6010B		1	135156	03/07/13 13:42	GF	TAL TAM
Total/NA	Prep	7471A			135201	03/08/13 11:48	RG	TAL TAM
Total/NA	Analysis	7471A		1	135212	03/08/13 13:15	RG	TAL TAM
TCLP	Leach	1311			135191	03/08/13 10:10	RG	TAL TAM
TCLP	Prep	3010A			135204	03/08/13 12:17	GF	TAL TAM
TCLP	Analysis	6010B		1	135251	03/11/13 20:41	SR	TAL TAM
TCLP	Prep	7470A			135250	03/11/13 10:46	RG	TAL TAM
TCLP	Analysis	7470A		1	135270	03/11/13 13:53	RG	TAL TAM
Total/NA	Analysis	9045C		1	135163	03/07/13 09:20	AG	TAL TAM
Total/NA	Leach	DI Leach			135162	03/07/13 09:20	AG	TAL TAM
Total/NA	Analysis	2540G		1	135167	03/07/13 12:42	AG	TAL TAM
Total/NA	Prep	Digestion			268971	03/11/13 10:30	AJO	TAL SAV
Total/NA	Analysis	365.4		10	269122	03/12/13 15:22	JR	TAL SAV
Total/NA	Analysis	Total Nitrogen		1	269158	03/13/13 09:28	JR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081A	Organochlorine Pesticides (GC)	SW846	TAL TAM
8151A	Herbicides (GC)	SW846	TAL TAM
6010B	Metals (ICP)	SW846	TAL TAM
7470A	Mercury (CVAA)	SW846	TAL TAM
7471A	Mercury (CVAA)	SW846	TAL TAM
2540G	2540G	SM18	TAL TAM
365.4	Phosphorus, Total	EPA	TAL SAV
9045C	pH	SW846	TAL TAM
Total Nitrogen	Nitrogen, Total	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

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

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13
USDA	Federal		P330-11-00177	04-20-14

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	03-31-13
A2LA	ISO/IEC 17025		399.01	03-31-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	03-31-13
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13

TestAmerica Tampa

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Leachate Sludge Annual February

TestAmerica Job ID: 660-53061-1

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

TestAmerica Tampa

660-53061

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
LEACHATE TRUCKS AND TANKS MONITORING PROGRAM

LEACHATE PLANT

PRECLEANED SAMPLE CONTAINERS:

RELINQUISHED BY: Caul McInty

REP. OF CONTRACT LAB.

DATE | TIME

1/28/13 13:00

ACCEPTED BY:

REP. OF SOLID WASTE DEPT.

1-30-13 12:00

LOCATION: LEACHATE Sludge Annual (February)SAMPLE MATRIX: WATER OTHER MATRIX: SLUDGEPERSONAL ENGAGED IN SAMPLE COLLECTION: ☐ A. Balloon ☒ MT

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
<u>B. M. T.</u>	<u>12:45</u>					N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
1	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
4	250 ml. PLASTIC		250 ml. PLASTIC	
7	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

12 TOTAL No. OF SAMPLES COLLECTED:COLORS & SHEENS: YES N/A NO

COLLECTED

DATE | TIME

2-6-13 1245

ANALYSIS REQUESTED:

Total Nitrogen% by weight Total Phosphorous% by weight Total Potassium% by weight

Cadmium mg/kg dry weight Lead mg/kg dry weight Molybdenum mg/kg dry weight

Selenium mg/kg dry weight pH Arsenic mg/kg dry weight Copper mg/kg dry weight

Mercury mg/kg dry weight Nickel mg/kg dry weight Zinc mg/kg dry weight Solids %

TCLP compounds listed in 40 CFR Part 261.24 Table 1

PRESERVED SAMPLES PH < 2.0 YES SAMPLE STORAGE: COOLER & ICE TO 4.0 c

ABOVE LISTED SAMPLES:

RELINQUISHED BY: A. McInty

REP. OF SOLID WASTE DEPT.

DATE | TIME

2-6-13 3:24

ACCEPTED BY: Caul McInty

REP. OF CONTRACT LAB.

3-6-13 2:24

COMMENT'S:

2.8° 60-07

6712 Benjamin Road Suite 100
Tampa, FL 33634
Phone (813) 885-7427 Fax (813) 885-7049

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING.

3/21/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

3/21/2013

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-53061-1

Login Number: 53061

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
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.	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.	True	
Samples are received within Holding Time.	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-53061-1

Login Number: 53061

List Number: 1

Creator: Conner, Keaton

List Source: TestAmerica Savannah

List Creation: 03/08/13 08:42 AM

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.	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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	