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Liana Lopez
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County Attorney
Chip Fletcher

Public Utilities
PO Box 1110
Tampa, FL 33601-1110
Phone: (813) 272-5977
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www.HillsboroughCounty.org

HillsboroughCounty GOVERNMENT Florida

Public Utilities

October 16, 2014

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

Re: **Southeast County Landfill**
Leachate Treatment Plant Effluent
Quarterly Analytical Data Report
Third Quarter: July - September 2014

Dear Mr. Morris:

In accordance with Part 9.1.2 of the June 2013 Southeast County Landfill (SCLF) Leachate Management Plan (LMP), the Hillsborough County Public Utilities Department (County), is pleased to provide the quarterly laboratory analytical data for the sampling of effluent at the leachate treatment plant, located at the SCLF at 15960 County Road 672 in Lithia, Florida.

The referenced plan requires the monthly sampling of the leachate treatment plant effluent and the daily recording of the plant pH values. Monthly effluent samples are collected by the County and analyzed for Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), and Nitrate. County personnel collected effluent samples from the designated sampling port at the treatment plant on July 2, August 1, and September 2, 2014.

The daily pH values recorded by plant personnel ranged from 7.4 to 8.4 pH units, and the monthly analytical samples ranged from 7.92 – 8.60 pH units. These values are in compliance with the State of Florida Secondary Drinking Water Standard (FAC Ch. 62-550.320) of 6.5–8.5 pH units, except for the one recorded during the September sampling. However, the September 2nd pH value recorded at the plant for that same day was 8.3 pH units.

The representative samples collected were analyzed by our contracted laboratory, Test America, Inc., and the analytical results are provided for your technical review. No significant changes in the concentrations of any of the parameters were noted in the results from this quarterly reporting period.

Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact us at (813) 663-3221 or (813) 663-3222.

Sincerely,

Michael D. Townsel
Senior Hydrologist
Public Utilities Department
Environmental Services

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

10/16/2014

DAVID S. ADAMS
LICENSE
No 1807
STATE OF
FLORIDA
PROFESSIONAL GEOLOGIST

DSA/mdt
Enclosures
G:enviro/self/leachate plant/ltp-effluent-3rdqtr2014.doc

xc: Larry Ruiz, Solid Waste -Public Works Dept.
Jeff Greenwell, P.E., Public Utilities Dept.

PH Calibration Log

Month	JULY 2014					
Date	PH 7	PH 10		INF PH	EFF PH	POND
1	7.0	10.03		7.9	8.4	8.2
2	7.00	10.01		7.7	8.0	8.0
3	7.02	10.04		7.7	7.9	8.2
4						
5						
6						
7	7.00	10.00		7.7	7.8	8.0
8	7.01	10.00		7.7	7.9	8.0
9	7.00	16.62		7.7	7.4	8.0
10	7.00	10.00		7.8	7.5	8.0
11	7.00	10.00		7.9	8.1	7.9
12						
13						
14	7.02	10.04		7.8	8.0	8.1
15	7.00	10.00		7.9	8.1	8.1
16	7.00	10.00		7.8	8.0	8.3
17	7.00	10.00		7.8	8.0	7.9
18	7.02	10.00		7.8	8.0	8.2
19						
20						
21	7.00	10.00		7.6	7.8	8.2
22	7.00	10.00		7.6	7.5	8.0
23	7.02	10.00		7.6	7.7	8.0
24	7.00	10.00		7.5	7.9	8.2
25	7.00	10.00		7.5	7.9	8.1
26						
27						
28	7.03	10.00		7.6	7.8	8.0
29	7.00	10.00		7.6	—	8.0
30	7.00	10.00		7.7	7.8	8.0
31	7.01	10.00		7.6	7.9	8.2

PH Calibration Log

Month	August					
Date	PH 7	PH 10		INF PH	EFF PH	POND
1	7.01	10.07		7.6	8.2	8.1
2						
3						
4	7.00	10.02		7.7	8.0	7.9
5	7.02	10.03		7.5	8.3	7.8
6	7.00	10.02		7.6	8.3	7.8
7	7.01	10.00		7.5	8.2	7.9
8	7.03	10.04		7.5	8.2	8.0
9						
10						
11	7.02	10.01		7.4	8.1	8.2
12	7.00	10.00		7.7	8.1	8.2
13	7.00	9.99		7.8	8.2	
14	7.00	10.00		7.5	8.0	
15	7.00	10.00		7.7	8.0	
16						
17						
18	7.00	10.00		7.8	8.0	8.0
19	7.00	10.00		7.8	8.0	8.2
20	7.00	10.00		7.8	8.2	8.2
21	7.00	10.00		7.8	8.2	8.2
22	7.00	10.00		7.8	8.2	8.1
23						
24						
25	7.00	10.00		7.8	8.3	8.2
26	7.00	10.00		7.7	8.2	8.4
27	7.00	10.00		7.5	8.1	8.0
28	7.00	10.00		7.5	8.0	8.0
29						
30						
31						

PH Calibration Log

Month	SEPT 2014					
Date	PH 7	PH 10		INF PH	EFF PH	POND
1						
2	7.00	10.00		7.6	8.3	8.2
3	7.00	10.00		7.8	8.4	8.3
4	7.00	10.00		7.6	8.4	8.4
5	7.00	10.00		7.7	8.3	8.3
6						
7						
8	7.00	10.00		7.7	8.1	8.3
9	7.00	10.00		7.8	8.3	8.3
10	7.00	10.00		7.8	8.3	8.3
11	7.00	10.00		7.8	8.3	8.3
12	7.00	10.00		7.8	8.3	8.3
13						
14						
15	7.00	10.00		7.8	8.3	8.3
16	7.00	10.00		7.7	8.2	8.3
17	7.00	10.00		7.7	8.2	8.3
18	7.00	10.00		7.7	8.1	8.3
19	7.00	10.00		7.7	8.1	8.4
20						
21						
22	7.00	10.00		7.6	7.9	8.4
23	7.00	10.00		7.6	8.1	8.4
24	7.00	10.00		7.6	8.1	8.4
25	7.00	10.00		7.5	8.1	8.3
26	7.00	10.00		7.5	8.1	8.3
27						
28						
29	7.00	10.00		7.5	8.1	8.3
30	7.00	10.00		7.5	8.1	8.3
31						

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: 660-61478-1
Client Project/Site: SELF Leachate Effluent

For:
Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
7/15/2014 1:16:15 PM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: 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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-61478-1	Leachate Effluent	Water	07/02/14 13:35	07/02/14 15:40
660-61478-2	Field Blank	Water	07/02/14 13:30	07/02/14 15:40

Job ID: 660-61478-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-61478-1

Comments
No additional comments.

Receipt
The samples were received on 7/2/2014 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 2.9º C.

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

Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Qualifiers

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Client Sample ID: Leachate Effluent — Lab Sample ID: 660-61478-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	88		0.50	0.10	mg/L	1		353.2	Total/NA
Total Dissolved Solids	6900		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	24		5.0	5.0	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	27		12	12	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	270		50	25	mg/L	5		SM 5220D	Total/NA
Field pH	7.92				SU	1		Field Sampling	Total/NA
Field Temperature	34.40				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	3.22				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10694				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 660-61478-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-61478-1

Date Collected: 07/02/14 13:35

Matrix: Water

Date Received: 07/02/14 15:40

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	88		0.50	0.10	mg/L			07/15/14 10:14	1
Total Dissolved Solids	6900		50	50	mg/L			07/09/14 11:48	1
Total Suspended Solids	24		5.0	5.0	mg/L			07/09/14 08:48	1
Biochemical Oxygen Demand	27		12	12	mg/L			07/03/14 07:52	1
Chemical Oxygen Demand	270		50	25	mg/L			07/14/14 12:30	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.92				SU			07/02/14 13:35	1
Field Temperature	34.40				Degrees C			07/02/14 13:35	1
Oxygen, Dissolved	3.22				mg/L			07/02/14 13:35	1
Specific Conductance	10694				uS/cm			07/02/14 13:35	1

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Client Sample ID: Field Blank

Lab Sample ID: 660-61478-2

Date Collected: 07/02/14 13:30

Matrix: Water

Date Received: 07/02/14 15:40

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			07/15/14 10:14	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			07/09/14 11:48	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			07/09/14 08:48	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/03/14 07:52	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			07/14/14 12:30	1

QC Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Method: 353.2 - Nitrate

Lab Sample ID: LCS 660-149549/15 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149549

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.500	0.488	I	mg/L		98	90 - 110		

Lab Sample ID: 660-61482-J-5 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149549

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	0.10	U	0.500	0.474	I	mg/L		95	90 - 110		

Lab Sample ID: 660-61482-J-5 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149549

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.10	U	0.500	0.477	I	mg/L		95	90 - 110	1	30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-149661/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149661

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			07/09/14 11:48	1

Lab Sample ID: LCS 660-149661/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149661

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			10000	9900		mg/L		99	80 - 120		

Lab Sample ID: 640-48453-C-6 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	330			316		mg/L				5	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-149645/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149645

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			07/09/14 08:48	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 660-149645/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	98.4		mg/L		98	80 - 120

Lab Sample ID: 660-61478-1 DU — **Client Sample ID: Leachate Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149645

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	24		25.2		mg/L		5	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-149519/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149519

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/03/14 07:52	1

Lab Sample ID: USB 660-149519/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149519

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/03/14 07:52	1

Lab Sample ID: LCS 660-149519/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	207		mg/L		105	85 - 115

Lab Sample ID: 660-61478-1 DU — **Client Sample ID: Leachate Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 149519

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	27		28.5		mg/L		5	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-338936/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338936

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			07/14/14 12:30	1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 680-338936/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338936

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	49.2		mg/L		98	90 - 110		

Lab Sample ID: 680-102990-C-6 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338936

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	24		50.0	75.8		mg/L		103	90 - 110		

Lab Sample ID: 680-102990-C-6 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 338936

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	24		50.0	73.5		mg/L		99	90 - 110	3	30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

General Chemistry

Analysis Batch: 149519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61478-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-61478-1 DU	Leachate Effluent	Total/NA	Water	SM 5210B	
660-61478-2	Field Blank	Total/NA	Water	SM 5210B	
LCS 660-149519/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-149519/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-149519/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 149549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61482-J-5 MS	Matrix Spike	Total/NA	Water	353.2	
660-61482-J-5 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-149549/15	Lab Control Sample	Total/NA	Water	353.2	
MB 660-149549/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 149645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61478-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-61478-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-61478-2	Field Blank	Total/NA	Water	SM 2540D	
LCS 660-149645/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-149645/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 149661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-48453-C-6 DU	Duplicate	Total/NA	Water	SM 2540C	
660-61478-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-61478-2	Field Blank	Total/NA	Water	SM 2540C	
LCS 660-149661/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-149661/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 149826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61478-1	Leachate Effluent	Total/NA	Water	353.2	
660-61478-2	Field Blank	Total/NA	Water	353.2	

Analysis Batch: 338936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61478-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-61478-2	Field Blank	Total/NA	Water	SM 5220D	
680-102990-C-6 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-102990-C-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-338936/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-338936/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 149574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-61478-1	Leachate Effluent	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-61478-1

Date Collected: 07/02/14 13:35

Matrix: Water

Date Received: 07/02/14 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	149826	07/15/14 10:14	RWF	TAL TAM
Total/NA	Analysis	SM 2540C		1	149661	07/09/14 11:48	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	149645	07/09/14 08:48	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	149519	07/03/14 07:52	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		5	338936	07/14/14 12:30	JJW	TAL SAV
Total/NA	Analysis	Field Sampling		1	149574	07/02/14 13:35	FS	TAL TAM

Client Sample ID: Field Blank

Lab Sample ID: 660-61478-2

Date Collected: 07/02/14 13:30

Matrix: Water

Date Received: 07/02/14 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	149826	07/15/14 10:14	RWF	TAL TAM
Total/NA	Analysis	SM 2540C		1	149661	07/09/14 11:48	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	149645	07/09/14 08:48	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	149519	07/03/14 07:52	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		1	338936	07/14/14 12:30	JJW	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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-15

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-30-14 *
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14 *
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14 *
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14 *
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-14 *
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-14 *
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-14 *

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-61478-1

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	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14 *

* Certification renewal pending - certification considered valid.

Serial Number

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

TestAmerica Tampa
6712 Benjamin Rd, Suite 100
Tampa, FL 33634
www.testamericainc.com
Phone: (813) 885 7427
Fax: (813) 885 7049

Alternate Laboratory Name/Location:
Phone:
Fax:

PROJECT REFERENCE: SELF Leachate Effluent	PROJECT NO.	PROJECT LOCATION: Lithia, FL
TESTAMERICA (LAB) PROJECT MANAGER: Nancy Robertson	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Michael Townsel	CLIENT PHONE: (813) 663-3222	CLIENT FAX: (813) 274-6801
CLIENT NAME: Hills. County Public Utilities	CLIENT EMAIL: townselm@hillsboroughcounty.org	
CLIENT ADDRESS: 332 North Falkenburg Road Tampa, Florida 33619		
COMPANY CONTRACTING THIS WORK	SAMPLER'S SIGNATURE	

PAGE OF

STANDARD REPORT DELIVERY ✓
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE)
DATE DUE:
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	COD H2SO4	BOD Ice	TDS Ice	TSS Ice	Nitrate Ice						REMARKS
7-2-14	13.35	Leachate Effluent	G	X				X	X	X	X	X						
↓	13.30	Field Blank	G	X				X	X	X	X	X						

REQUIRED ANALYSES — MATRIX TYPE — NUMBER OF CONTAINERS SUBMITTED

660-61478 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	7-2-14							
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
	7/2/14	15:40						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES / NO	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
						35/2.9 cCV-07

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF LEACHATE EFFLUENT		SITE LOCATION:	
WELL NO: LEACHATE EFFLUENT	SAMPLE ID: LEACHATE EFFLUENT		DATE: 7-2-14

PURGING DATA

WELL DIAMETER (Inches): N/A	TUBING DIAMETER (Inches): N/A	WELL SCREEN INTERVAL DEPTH: — feet to — feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: N/A

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
13.35	—	—	—	—	7.92	34.40	10694	3.22	—	Brown TAN	light

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 13.35	SAMPLING ENDED AT: 13.45
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: ~~PUMP Y N Dedicated~~ ~~TUBING Y N Dedicated~~ ~~DUPLICATE: Y~~ (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF LEACHATE EFFLUENT	SITE LOCATION:	
WELL NO: FIELD BLANK	SAMPLE ID: FIELD BLANK	DATE: 7-2-14

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: / feet to / feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: N/A

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/l or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)

FIELD BLANK

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 13.30	SAMPLING ENDED AT: 13.35
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: ~~PUMP Y N Dedicated~~ ~~TUBING Y N Dedicated~~		DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-69706.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 660-61478-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 7/15/2014			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: SELF Tank Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D/ COD	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate Effluent (660-61478-1)	7/2/14	13:35 Eastern		Water			X	1	
Field Blank (660-61478-2)	7/2/14	13:30 Eastern		Water			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/2/14 2020				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 07/03/14 0921	Company TAS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 660-61478

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-69763.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 660-61478-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 7/15/2014			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: SELF Leachate Effluent	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	353.2_Fres	5220D/ COD	Total Number of containers	Special Instructions/Note:
Leachate Effluent (660-61478-1)	7/2/14	13:35 Eastern		Water			X	X		

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by:	Date/Time: 7/7/14	Company: Morse	Received by:	Date/Time: 7/8/14 8:15	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 62 58 56 60

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-61478-1

Login Number: 61478

List Source: TestAmerica Tampa

List Number: 1

Creator: Williams, Jennifer

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.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-61478-1

Login Number: 61478
List Number: 2
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 07/03/14 06:05 PM

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.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 660-62025-1
Client Project/Site: SELF Tank Trucks, EFF

For:
Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
8/13/2014 11:02:20 AM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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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 Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-62025-1	Leachate Effluent	Water	08/01/14 11:40	08/01/14 14:00
660-62025-2	Field Blank	Water	08/01/14 11:20	08/01/14 14:00

Job ID: 660-62025-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-62025-1

Comments
No additional comments.

Receipt
The samples were received on 8/1/2014 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 1.8º C.

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

Qualifiers

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
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)

Detection Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Client Sample ID: Leachate Effluent — Lab Sample ID: 660-62025-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	130		50	10	mg/L	100		353.2	Total/NA
Total Dissolved Solids	6200		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	15		5.0	5.0	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	18		12	12	mg/L	1		SM 5210B	Total/NA
Field pH	8.29				SU	1		Field Sampling	Total/NA
Field Temperature	34.41				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	3.17				mg/L	1		Field Sampling	Total/NA
Specific Conductance	13927				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 660-62025-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-62025-1

Date Collected: 08/01/14 11:40
Matrix: Water
Date Received: 08/01/14 14:00

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**130**		50	10	mg/L			08/01/14 15:01	100
Total Dissolved Solids	**6200**		50	50	mg/L			08/06/14 12:36	1
Total Suspended Solids	**15**		5.0	5.0	mg/L			08/06/14 08:29	1
Biochemical Oxygen Demand	**18**		12	12	mg/L			08/02/14 11:32	1
Chemical Oxygen Demand	50	U	100	50	mg/L			08/08/14 03:00	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**8.29**				SU			08/01/14 11:40	1
Field Temperature	**34.41**				Degrees C			08/01/14 11:40	1
Oxygen, Dissolved	**3.17**				mg/L			08/01/14 11:40	1
Specific Conductance	**13927**				uS/cm			08/01/14 11:40	1

Client Sample ID: Field Blank

Lab Sample ID: 660-62025-2

Date Collected: 08/01/14 11:20
Matrix: Water
Date Received: 08/01/14 14:00

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			08/01/14 15:02	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			08/06/14 12:36	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			08/06/14 08:29	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			08/02/14 11:32	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			08/08/14 03:00	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-150386/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			08/01/14 14:23	1

Lab Sample ID: MB 660-150386/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			08/01/14 14:25	1

Lab Sample ID: LCS 660-150386/14 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.987		mg/L		99	90 - 110
Nitrite as N	0.500	0.547		mg/L		109	90 - 110

Lab Sample ID: LCS 660-150386/15 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.987		mg/L		99	90 - 110
Nitrite as N	0.500	0.547		mg/L		109	90 - 110

Lab Sample ID: 660-62006-I-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	1.00	1.02		mg/L		102	90 - 110
Nitrite as N	0.10	U	0.500	0.567		mg/L		113	90 - 110

Lab Sample ID: 660-62006-I-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	1.00	1.00		mg/L		100	90 - 110	2	30
Nitrite as N	0.10	U	0.500	0.562		mg/L		112	90 - 110	1	30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-150485/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150485

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			08/06/14 12:36	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 660-150485/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150485

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			10000	9970		mg/L		100	80 - 120		

Lab Sample ID: 660-62006-I-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150485

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	450			445		mg/L				0	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-150462/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150462

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			08/06/14 08:29	1

Lab Sample ID: LCS 660-150462/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150462

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			100	94.8		mg/L		95	80 - 120		

Lab Sample ID: 660-62025-1 DU — **Client Sample ID: Leachate Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150462

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	15			16.4		mg/L				8	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-150395/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150395

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			08/02/14 11:32	1

Lab Sample ID: USB 660-150395/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150395

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			08/02/14 11:32	1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 660-150395/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150395

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	199		mg/L		100	85 - 115		

Lab Sample ID: 660-62034-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 150395

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	480			484		mg/L				0.8	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-343278/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 343278

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			08/08/14 03:00	1

Lab Sample ID: LCS 680-343278/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 343278

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	52.2		mg/L		104	90 - 110		

Lab Sample ID: 660-62077-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 343278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	38		50.0	88.3		mg/L		101	90 - 110		

Lab Sample ID: 660-62077-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 343278

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	38		50.0	85.2		mg/L		95	90 - 110	4	30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

General Chemistry

Analysis Batch: 150386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62006-I-3 MS	Matrix Spike	Total/NA	Water	353.2	
660-62006-I-3 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-62025-1	Leachate Effluent	Total/NA	Water	353.2	
660-62025-2	Field Blank	Total/NA	Water	353.2	
LCS 660-150386/14	Lab Control Sample	Total/NA	Water	353.2	
LCS 660-150386/15	Lab Control Sample	Total/NA	Water	353.2	
MB 660-150386/12	Method Blank	Total/NA	Water	353.2	
MB 660-150386/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 150395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62025-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-62025-2	Field Blank	Total/NA	Water	SM 5210B	
660-62034-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-150395/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-150395/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-150395/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 150462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62025-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-62025-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-62025-2	Field Blank	Total/NA	Water	SM 2540D	
LCS 660-150462/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-150462/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 150485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62006-I-2 DU	Duplicate	Total/NA	Water	SM 2540C	
660-62025-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-62025-2	Field Blank	Total/NA	Water	SM 2540C	
LCS 660-150485/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-150485/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 343278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62025-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-62025-2	Field Blank	Total/NA	Water	SM 5220D	
660-62077-A-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
660-62077-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-343278/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-343278/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 150412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62025-1	Leachate Effluent	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-62025-1

Date Collected: 08/01/14 11:40

Matrix: Water

Date Received: 08/01/14 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		100	150386	08/01/14 15:01	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	150485	08/06/14 12:36	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	150462	08/06/14 08:29	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	150395	08/02/14 11:32	ELE	TAL TAM
Total/NA	Analysis	SM 5220D		10	343278	08/08/14 03:00	JJW	TAL SAV
Total/NA	Analysis	Field Sampling		1	150412	08/01/14 11:40	FS	TAL TAM

Client Sample ID: Field Blank

Lab Sample ID: 660-62025-2

Date Collected: 08/01/14 11:20

Matrix: Water

Date Received: 08/01/14 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	150386	08/01/14 15:02	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	150485	08/06/14 12:36	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	150462	08/06/14 08:29	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	150395	08/02/14 11:32	ELE	TAL TAM
Total/NA	Analysis	SM 5220D		1	343278	08/08/14 03:00	JJW	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 Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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 Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-15

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14 *
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-14 *
Mississippi	State Program	4	N/A	06-30-14 *
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-14 *
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Tank Trucks, EFF

TestAmerica Job ID: 660-62025-1

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	08-31-14 *
Wyoming	State Program	8	8TMS-L	06-30-14 *

* Certification renewal pending - certification considered valid.

Serial Number

8/13/2014

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Tampa
6712 Benjamin Rd, Suite 100
Tampa, FL 33634

www.testamericainc.com
Phone: (813) 885 7427
Fax: (813) 885 7049

Alternate Laboratory Name/Location:
Phone:
Fax:

PROJECT REFERENCE: SELF Leachate Effluent	PROJECT NO.	PROJECT LOCATION: Lithia, FL
TESTAMERICA (LAB) PROJECT MANAGER: Nancy Robertson	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Michael Townsel	CLIENT PHONE: (813) 663-3222	CLIENT FAX: (813) 274-6801
CLIENT NAME: Hills. County Public Utilities	CLIENT EMAIL: townselm@hillsboroughcounty.org	
CLIENT ADDRESS: 332 North Falkenburg Road Tampa, Florida 33619		
COMPANY CONTRACTING THIS WORK	SAMPLER'S SIGNATURE: [signature]	

PAGE | OF

STANDARD REPORT DELIVERY ☑
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE:
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ..)	COD (H2SO4)	BOD (Ice)	TDS (Ice)	TSS (Ice)	Nitrate (Ice)						REMARKS
8-1-14	11:40	Leachate Effluent	G	X				X	X	X	X	X						
↓	11:20	Field Blank	G	X				X	X	X	X	X						

NUMBER OF CONTAINERS SUBMITTED

660-62025 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	8-1-14	1400						
RECEIVED BY: (SIGNATURE) [signature]	DATE 8-1-14	TIME 1400	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS: 1.6/1.8 CU-07

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF Leachate Effluent		SITE LOCATION:	
WELL NO: Leachate Effluent	SAMPLE ID: Leachate Effluent		DATE: 8-1-14

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: — feet to — feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: Valve

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:40	N/A	N/A	N/A	N/A	8.29	34.41	13927	3.17	N/A	Brown tint	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): Zack Patterson	SAMPLING INITIATED AT: 11:40	SAMPLING ENDED AT: 11:55
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N Dedicated	TUBING Y N Dedicated	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF Leachate Eff		SITE LOCATION:	
WELL NO: Field Blank	SAMPLE ID: Field Blank		DATE: 8-1-14

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: — feet to — feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: NA

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/l) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
FIELD BLANK											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): Zack Patterson	SAMPLING INITIATED AT: 11:20	SAMPLING ENDED AT: 11:35
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: ~~PUMP Y N Dedicated~~ ~~TUBING Y N Dedicated~~		DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-70646.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 660-62025-1

Address: 5102 LaRoche Avenue, ,	Due Date Requested: 8/13/2014
City: Savannah	TAT Requested (days):
State, Zip: GA, 31404	
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:
Email:	WO #:
Project Name: SELF Tank Trucks, EFF	Project #: 66003914
Site: Leachate, Tank Trucks	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D/ COD	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate Effluent (660-62025-1)	8/1/14	11:40 Eastern		Water			X	1	
Field Blank (660-62025-2)	8/1/14	11:20 Eastern		Water			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
RPRICE	8-1-14 1509		West	8.2.14 8:00	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.2 2.0

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-62025-1

Login Number: 62025

List Source: TestAmerica Tampa

List Number: 1

Creator: Redding, Charles S

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.	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-62025-1

Login Number: 62025
List Number: 2
Creator: West, Lauren H

List Source: TestAmerica Savannah
List Creation: 08/02/14 06:13 AM

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.	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.	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 660-62578-1
Client Project/Site: SELF Leachate Effluent

For:
Hillsborough Co Public Utilities Dept
Environmental Services Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
9/12/2014 11:20:27 AM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask 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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-62578-1	Leachate Effluent	Water	09/02/14 12:47	09/02/14 14:57
660-62578-2	Field Blank	Water	09/02/14 12:40	09/02/14 14:57

Job ID: 660-62578-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-62578-1

Comments
No additional comments.

Receipt
The samples were received on 9/2/2014 2:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 2.2º C.

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

Qualifiers

General Chemistry

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Client Sample ID: Leachate Effluent — Lab Sample ID: 660-62578-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	93		50	10	mg/L	100		353.2	Total/NA
Total Dissolved Solids	6400		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	120		10	10	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	65		24	24	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	420		100	50	mg/L	10		SM 5220D	Total/NA
Field pH	8.60				SU	1		Field Sampling	Total/NA
Field Temperature	34.18				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.55				mg/L	1		Field Sampling	Total/NA
Specific Conductance	14211				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 660-62578-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-62578-1

Date Collected: 09/02/14 12:47
Matrix: Water
Date Received: 09/02/14 14:57

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	93		50	10	mg/L			09/03/14 17:11	100
Total Dissolved Solids	6400		250	250	mg/L			09/04/14 11:01	1
Total Suspended Solids	120		10	10	mg/L			09/04/14 06:22	1
Biochemical Oxygen Demand	65		24	24	mg/L			09/03/14 09:08	1
Chemical Oxygen Demand	420		100	50	mg/L			09/10/14 10:54	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.60				SU			09/02/14 12:47	1
Field Temperature	34.18				Degrees C			09/02/14 12:47	1
Oxygen, Dissolved	2.55				mg/L			09/02/14 12:47	1
Specific Conductance	14211				uS/cm			09/02/14 12:47	1

Client Sample ID: Field Blank

Lab Sample ID: 660-62578-2

Date Collected: 09/02/14 12:40
Matrix: Water
Date Received: 09/02/14 14:57

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			09/03/14 17:13	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			09/04/14 11:01	1
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			09/04/14 06:22	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			09/03/14 09:08	1
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			09/10/14 10:54	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-151269/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			09/03/14 16:56	1

Lab Sample ID: MB 660-151269/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.50	0.10	mg/L			09/03/14 16:57	1

Lab Sample ID: LCS 660-151269/14 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.996		mg/L		100	90 - 110
Nitrite as N	0.500	0.485	I	mg/L		97	90 - 110

Lab Sample ID: LCS 660-151269/15 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	1.00		mg/L		100	90 - 110
Nitrite as N	0.500	0.489	I	mg/L		98	90 - 110

Lab Sample ID: 660-62574-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U	1.00	1.04		mg/L		104	90 - 110
Nitrite as N	0.10	U	0.500	0.537		mg/L		107	90 - 110

Lab Sample ID: 660-62574-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151269

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U	1.00	1.04		mg/L		104	90 - 110	0	30
Nitrite as N	0.10	U	0.500	0.534		mg/L		107	90 - 110	1	30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-151295/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151295

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			09/04/14 11:01	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 660-151295/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151295

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			10000	9960		mg/L		100	80 - 120		

Lab Sample ID: 640-49012-J-3 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151295

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	94			94.0		mg/L				0	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-151272/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151272

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	5.0	U	5.0	5.0	mg/L			09/04/14 06:22	1

Lab Sample ID: LCS 660-151272/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151272

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			100	97.2		mg/L		97	80 - 120		

Lab Sample ID: 660-62578-1 DU — **Client Sample ID: Leachate Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151272

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	120			114		mg/L				3	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-151242/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151242

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			09/03/14 09:08	1

Lab Sample ID: USB 660-151242/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151242

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			09/03/14 09:08	1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 660-151242/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151242

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	182		mg/L		92	85 - 115		

Lab Sample ID: 660-62584-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 151242

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Biochemical Oxygen Demand	760			765		mg/L				0.3	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-348229/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 348229

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.0	U	10	5.0	mg/L			09/10/14 10:54	1

Lab Sample ID: LCS 680-348229/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 348229

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			50.0	46.2		mg/L		92	90 - 110		

Lab Sample ID: 680-104688-H-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 348229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	5.0	J3 U	50.0	62.3	J3	mg/L		125	90 - 110		

Lab Sample ID: 680-104688-H-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 348229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	5.0	J3 U	50.0	62.6	J3	mg/L		125	90 - 110	1	30

QC Association Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

General Chemistry

Analysis Batch: 151242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62578-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-62578-2	Field Blank	Total/NA	Water	SM 5210B	
660-62584-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-151242/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-151242/2	Method Blank	Total/NA	Water	SM 5210B	
USB 660-151242/1	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 151269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62574-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-62574-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-62578-1	Leachate Effluent	Total/NA	Water	353.2	
660-62578-2	Field Blank	Total/NA	Water	353.2	
LCS 660-151269/14	Lab Control Sample	Total/NA	Water	353.2	
LCS 660-151269/15	Lab Control Sample	Total/NA	Water	353.2	
MB 660-151269/12	Method Blank	Total/NA	Water	353.2	
MB 660-151269/13	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 151272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62578-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-62578-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-62578-2	Field Blank	Total/NA	Water	SM 2540D	
LCS 660-151272/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-151272/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 151295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-49012-J-3 DU	Duplicate	Total/NA	Water	SM 2540C	
660-62578-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-62578-2	Field Blank	Total/NA	Water	SM 2540C	
LCS 660-151295/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-151295/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 348229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62578-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-62578-2	Field Blank	Total/NA	Water	SM 5220D	
680-104688-H-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-104688-H-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-348229/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-348229/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 151391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62578-1	Leachate Effluent	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-62578-1

Date Collected: 09/02/14 12:47

Matrix: Water

Date Received: 09/02/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		100	151269	09/03/14 17:11	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	151295	09/04/14 11:01	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	151272	09/04/14 06:22	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	151242	09/03/14 09:08	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		10	348229	09/10/14 10:54	JRJ	TAL SAV
Total/NA	Analysis	Field Sampling		1	151391	09/02/14 12:47	FS	TAL TAM

Client Sample ID: Field Blank

Lab Sample ID: 660-62578-2

Date Collected: 09/02/14 12:40

Matrix: Water

Date Received: 09/02/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	151269	09/03/14 17:13	ELE	TAL TAM
Total/NA	Analysis	SM 2540C		1	151295	09/04/14 11:01	TKO	TAL TAM
Total/NA	Analysis	SM 2540D		1	151272	09/04/14 06:22	TKO	TAL TAM
Total/NA	Analysis	SM 5210B		1	151242	09/03/14 09:08	AJG	TAL TAM
Total/NA	Analysis	SM 5220D		1	348229	09/10/14 10:54	JRJ	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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAWW	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL SAV
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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 Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-15

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14 *
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-14 *
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Hillsborough Co Public Utilities Dept
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-62578-1

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	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

Serial Number

TestAmerica

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Tampa
6712 Benjamin Rd, Suite 100
Tampa, FL 33634
www.testamericainc.com
Phone: (813) 885 7427
Fax: (813) 885 7049

Alternate Laboratory Name/Location:
Phone:
Fax:

PROJECT REFERENCE: SELF Leachate Effluent	PROJECT NO.	PROJECT LOCATION: Lithia, FL
TESTAMERICA (LAB) PROJECT MANAGER: Nancy Robertson	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Michael Townsel	CLIENT PHONE: (813) 663-3222	CLIENT FAX: (813) 274-6801
CLIENT NAME: Hills. County Public Utilities	CLIENT EMAIL: townselm@hillsboroughcounty.org	
CLIENT ADDRESS: 332 North Falkenburg Road Tampa, Florida 33619		
COMPANY CONTRACTING THIS WORK	SAMPLER'S SIGNATURE:	

PAGE OF

STANDARD REPORT DELIVERY ✓
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE)
DATE DUE:
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	COD (H2SO4)	BOD (Ice)	TDS (Ice)	TSS (Ice)	Nitrate (Ice)						REMARKS
9-2-14	12:47	Leachate Effluent	G	X				X	X	X	X	X						
↓	12:40	Field Blank	G	X				X	X	X	X	X						

660-62578 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	9-2-14	1435						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES / NO	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
	09/02/14	1435			660-62578	18/22 °C 24 °C CU-09

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF Leachate Effluent		SITE LOCATION:	
WELL NO: leachate Effluent	SAMPLE ID: leachate Effluent		DATE: 9-2-14

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH. feet to feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: valve

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:47	—	—	—	—	8.60	34.14	14211	2.55	—	Brown	light

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026, **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010, **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump, **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 12:47	SAMPLING ENDED AT: 12:53
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: ~~PUMP Y N Dedicated~~	~~TUBING Y N Dedicated~~	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump, **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

660-62578

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF Leachate Effluent	SITE LOCATION:
WELL NO: Field Blank	SAMPLE ID: Field Blank	DATE: 9.2.14

PURGING DATA

WELL DIAMETER (inches): N/A	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): N/A	PURGE PUMP TYPE OR BAILER: ~~[illegible]~~ N/A

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PURGING INITIATED AT: N/A	PURGING ENDED AT. N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12.40											

FIELD BLANK

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006, **1/2"** = 0.010; **5/8"** = 0 016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 12:40	SAMPLING ENDED AT: 12:46
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: ~~PUMP Y N Dedicated~~ ~~TUBING Y N Dedicated~~		DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

660-62578

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-62578-1

Login Number: 62578

List Source: TestAmerica Tampa

List Number: 1

Creator: Monterroso, Giovanni A

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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?	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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	