Hillsborough County
Florida

Office of the County Administrator
Michael S. Merrill

October 2, 2013

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 Analytical Data
Third Quarter (July-September 2013)

Dear Mr. Morris:

In accordance with Specific Condition E.9.b(2) of the Southeast County Landfill (SCLF) Operation Permit No. 35435-014-SO/01 (Modified to 020-SO/MM), 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, 15960 County Road 672 in Lithia, Florida.

The referenced permit 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.

The daily pH values recorded by plant personnel ranged from 7.5 - 8.2 pH units, and the monthly analytical samples ranged from 7.73 - 8.32 pH units. These values are in compliance with the State of Florida Secondary Drinking Water Standard (FAC Ch. 62-550.320) for pH. County personnel collected the effluent samples from the designated sampling port at the treatment plant on July 2, August 2, and September 6, 2013.

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 parameters were noted during 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,

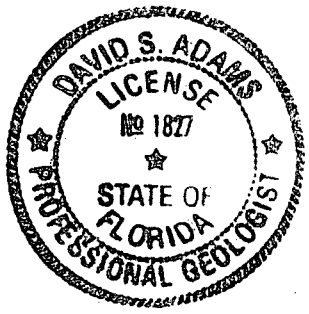
10/2/2013

Michael D. Townsel
Senior Hydrologist
Public Utilities Department
Environmental Services

Sincerely,

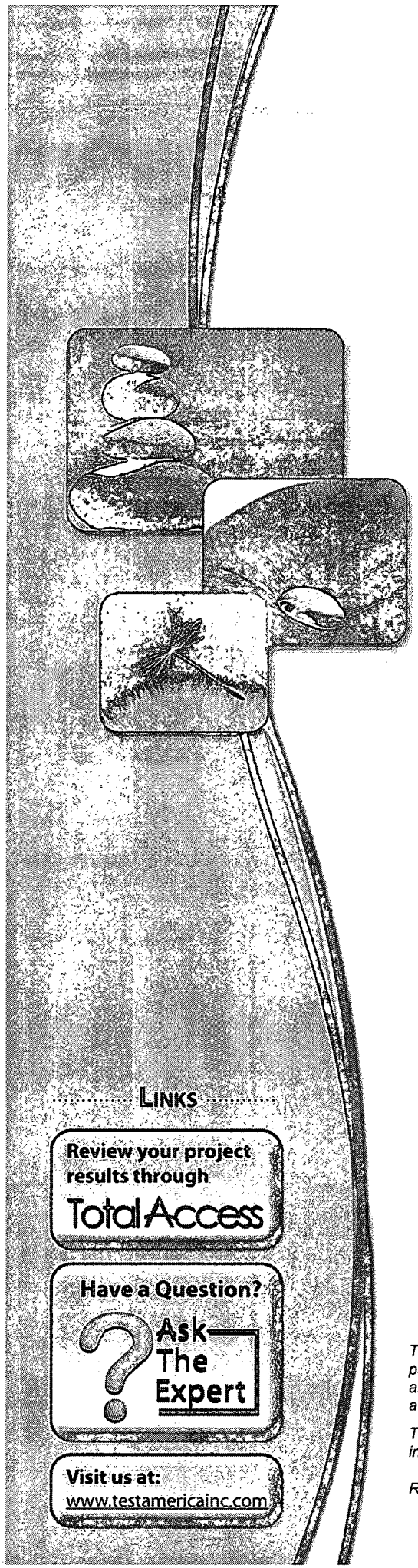
10/2/2013

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



DSA/mdt
Enclosures
xc: Larry Ruiz, Public Utilities
Andy Berry, Public Utilities

G:enviro/self/leachate plant/ltp-effluent-3rdqtr2013.doc



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: 660-55251-1
Client Project/Site: SELF Leachate Effluent

For:
Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
7/17/2013 9:03:16 AM

Nancy Robertson, Project Manager II
nancy.robertson@testamericainc.com

Table of Contents

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-55251-1	LEACHATE EFFLUENT	Water	07/02/13 11:40	07/02/13 15:05
660-55251-2	BLANK EQUIPMENT 55251	Water	07/02/13 11:25	07/02/13 15:05

Job ID: 660-55251-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-55251-1

Comments
No additional comments.

Receipt
The samples were received on 7/2/2013 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 4.1° C.

General Chemistry
No analytical or quality issues were noted.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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 County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT — Lab Sample ID: 660-55251-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	35		25	5.0	mg/L	50		353.2	Total/NA
Total Dissolved Solids	5900		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	18		1.0	1.0	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	470		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	8.32				SU	1		Field Sampling	Total/NA
Field Temperature	31.76				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	6.89				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10665				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT 55251 — Lab Sample ID: 660-55251-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-55251-1

Date Collected: 07/02/13 11:40
Matrix: Water
Date Received: 07/02/13 15:05

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**35**		25	5.0	mg/L			07/03/13 15:56	50
Total Dissolved Solids	**5900**		250	250	mg/L			07/08/13 11:10	1
Total Suspended Solids	**18**		1.0	1.0	mg/L			07/08/13 07:27	1
Biochemical Oxygen Demand	12	U	12	12	mg/L			07/03/13 09:47	1
Chemical Oxygen Demand	**470**		20	6.3	mg/L			07/08/13 11:20	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**8.32**				SU			07/02/13 11:40	1
Field Temperature	**31.76**				Degrees C			07/02/13 11:40	1
Oxygen, Dissolved	**6.89**				mg/L			07/02/13 11:40	1
Specific Conductance	**10665**				uS/cm			07/02/13 11:40	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: BLANK EQUIPMENT 55251
Date Collected: 07/02/13 11:25
Date Received: 07/02/13 15:05

Lab Sample ID: 660-55251-2
Matrix: Water

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			07/03/13 15:53	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			07/08/13 11:10	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			07/08/13 07:27	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			07/03/13 09:47	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			07/08/13 13:57	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-139094/1
Matrix: Water
Analysis Batch: 139094

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

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			07/03/13 15:51	1

Lab Sample ID: LCS 660-139094/2
Matrix: Water
Analysis Batch: 139094

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	1.04		mg/L		104	90 - 110
Nitrite as N	0.500	0.507		mg/L		101	90 - 110

Lab Sample ID: 660-55257-A-1 MS
Matrix: Water
Analysis Batch: 139094

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

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	1.05		mg/L		105	90 - 110
Nitrite as N	0.10	U	0.500	0.516		mg/L		103	90 - 110

Lab Sample ID: 660-55257-A-1 MSD
Matrix: Water
Analysis Batch: 139094

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

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	1	30
Nitrite as N	0.10	U	0.500	0.511		mg/L		102	90 - 110	1	30

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

Lab Sample ID: MB 660-139161/1
Matrix: Water
Analysis Batch: 139161

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

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			07/08/13 11:10	1

Lab Sample ID: LCS 660-139161/2
Matrix: Water
Analysis Batch: 139161

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9910		mg/L		99	80 - 120

Lab Sample ID: 640-44177-A-1 DU
Matrix: Water
Analysis Batch: 139161

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	280		296		mg/L		6	20

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

Lab Sample ID: MB 660-139148/1
Matrix: Water
Analysis Batch: 139148

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			07/08/13 07:27	1

Lab Sample ID: LCS 660-139148/2
Matrix: Water
Analysis Batch: 139148

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	99.2		mg/L		99	80 - 120

Lab Sample ID: 660-55252-A-2 DU
Matrix: Water
Analysis Batch: 139148

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	3200		3160		mg/L		0.2	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-139045/2 SCB
Matrix: Water
Analysis Batch: 139045

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

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			07/03/13 06:08	1

Lab Sample ID: USB 660-139045/1 USB
Matrix: Water
Analysis Batch: 139045

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

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			07/03/13 06:08	1

Lab Sample ID: LCS 660-139045/3
Matrix: Water
Analysis Batch: 139045

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	189		mg/L		96	85 - 115

Lab Sample ID: 660-55233-B-1 DU
Matrix: Water
Analysis Batch: 139045

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	1600		1640		mg/L		0.5	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-283593/3
Matrix: Water
Analysis Batch: 283593

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			07/08/13 11:20	1

Lab Sample ID: LCS 680-283593/4
Matrix: Water
Analysis Batch: 283593

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	110		mg/L		110	90 - 110

Lab Sample ID: 640-44186-D-1 MS
Matrix: Water
Analysis Batch: 283593

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	71		100	161		mg/L		91	90 - 110

Lab Sample ID: 640-44186-D-1 MSD
Matrix: Water
Analysis Batch: 283593

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	71		100	161		mg/L		91	90 - 110	0	30

Lab Sample ID: MB 680-283634/3
Matrix: Water
Analysis Batch: 283634

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			07/08/13 13:57	1

Lab Sample ID: LCS 680-283634/4
Matrix: Water
Analysis Batch: 283634

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	110		mg/L		110	90 - 110

Lab Sample ID: 680-91559-V-2 MS
Matrix: Water
Analysis Batch: 283634

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	22		100	115		mg/L		93	90 - 110

Lab Sample ID: 680-91559-V-2 MSD
Matrix: Water
Analysis Batch: 283634

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	22		100	124		mg/L		102	90 - 110	8	30

General Chemistry

Analysis Batch: 139045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55233-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 5210B	
LCS 660-139045/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-139045/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-139045/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 139094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	353.2	
660-55257-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-55257-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-139094/2	Lab Control Sample	Total/NA	Water	353.2	
MB 660-139094/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 139148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 2540D	
660-55252-A-2 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 660-139148/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-139148/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 139161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-44177-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 2540C	
LCS 660-139161/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-139161/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 283593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-44186-D-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
640-44186-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
LCS 680-283593/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-283593/3	Method Blank	Total/NA	Water	SM 5220D	

Analysis Batch: 283634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-2	BLANK EQUIPMENT 55251	Total/NA	Water	SM 5220D	
680-91559-V-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-91559-V-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-283634/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-283634/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 139382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55251-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-55251-1

Date Collected: 07/02/13 11:40
Matrix: Water
Date Received: 07/02/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	139045	07/03/13 09:47	AJG	TAL TAM
Total/NA	Analysis	353.2		50	139094	07/03/13 15:56	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	139148	07/08/13 07:27	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	139161	07/08/13 11:10	TKO	TAL TAM
Total/NA	Analysis	SM 5220D		1	283593	07/08/13 11:20	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	139382	07/02/13 11:40		TAL TAM

Client Sample ID: BLANK EQUIPMENT 55251

Lab Sample ID: 660-55251-2

Date Collected: 07/02/13 11:25
Matrix: Water
Date Received: 07/02/13 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	139045	07/03/13 09:47	AJG	TAL TAM
Total/NA	Analysis	353.2		1	139094	07/03/13 15:53	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	139148	07/08/13 07:27	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	139161	07/08/13 11:10	TKO	TAL TAM
Total/NA	Analysis	SM 5220D		1	283634	07/08/13 13:57	TAR	TAL SAV

Laboratory References:

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

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

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

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 County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55251-1

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		399.01	07-31-13
A2LA	ISO/IEC 17025		399.01	02-28-15
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
Iowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Puerto Rico	State Program	2	GA00006	01-01-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13
Wisconsin	State Program	5	999819810	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Serial Number

7/17/2013

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

MATRIX TYPE (INDICATE): COMPOSITE (C) OR GRAB (G) | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT...)

REQUIRED ANALYSES: COD (H2SO4) | BOD (Ice) | TDS (Ice) | TSS (Ice) | Nitrate (Ice)

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)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	COD (H2SO4)	BOD (Ice)	TDS (Ice)	TSS (Ice)	Nitrate (Ice)	REMARKS
7-2-13	1140	Leachate Effluent	G	X				X	X	X	X	X	
7-2-13	1125	Equipment Blank	G	X				X	X	X	X	X	

NUMBER OF CONTAINERS SUBMITTED

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
JF	7-2-13	1505						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
	7-2-13	1505						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
						4.1 °C cw07

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

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: 660-57514.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 660-55251-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 7/10/2013			Preservation Codes:
City: Savannah	TAT Requested (days):			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)
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

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 sub to Savannah	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LEACHATE EFFLUENT (not blank) (660-55251-1)	7/2/13	11:40 Eastern		Water			X	1	
BLANK EQUIPMENT (660-55251-2)	7/2/13	11:25 Eastern		Water			X	1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
1	[signature]	7-5-13 @ 15:30	TA-TAL	[signature]	07/06/13 0940	TA-SAV
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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: 3.0/3.0°C

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7/17/2013

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-55251-1

Login Number: 55251

List Number: 1

Creator: McNulty, Carol

List Source: TestAmerica Tampa

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

Login Sample Receipt Checklist

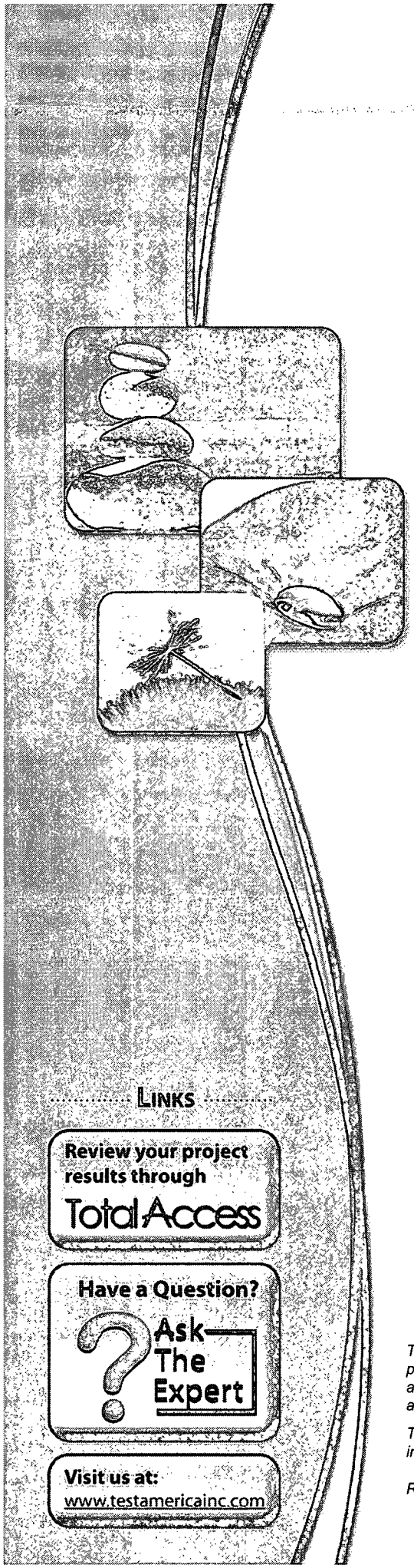
Client: Hillsborough County Public Utilities Dep

Job Number: 660-55251-1

Login Number: 55251
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 07/06/13 09:39 AM

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?	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	



LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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: 660-55780-1
Client Project/Site: SELF Leachate Effluent

For:
Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:
8/15/2013 2:35:40 PM

Nancy Robertson, Project Manager II
nancy.robertson@testamericainc.com

Table of Contents

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-55780-1	LEACHATE EFFLUENT	Water	08/02/13 10:27	08/02/13 14:20
660-55780-2	BLANK EQUIPMENT	Water	08/02/13 10:15	08/02/13 14:20

Case Narrative

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Job ID: 660-55780-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-55780-1

Comments
No additional comments.

Receipt
The samples were received on 8/2/2013 2:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7° C.

General Chemistry
Method 353.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140300 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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 County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT — Lab Sample ID: 660-55780-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	120		0.50	0.10	mg/L	1		353.2	Total/NA
Total Dissolved Solids	5200		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	83		2.3	2.3	mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	700		200	63	mg/L	10		SM 5220D	Total/NA
Field pH	7.81				SU	1		Field Sampling	Total/NA
Field Temperature	32.68				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	3.70				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10680				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT — Lab Sample ID: 660-55780-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT
Date Collected: 08/02/13 10:27
Date Received: 08/02/13 14:20

Lab Sample ID: 660-55780-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**120**		0.50	0.10	mg/L			08/13/13 16:24	1
Total Dissolved Solids	**5200**		250	250	mg/L			08/08/13 13:09	1
Total Suspended Solids	**83**		2.3	2.3	mg/L			08/08/13 09:47	1
Biochemical Oxygen Demand	6.0	U	6.0	6.0	mg/L			08/03/13 10:30	1
Chemical Oxygen Demand	**700**		200	63	mg/L			08/08/13 13:44	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.81**				SU			08/02/13 10:27	1
Field Temperature	**32.68**				Degrees C			08/02/13 10:27	1
Oxygen, Dissolved	**3.70**				mg/L			08/02/13 10:27	1
Specific Conductance	**10680**				uS/cm			08/02/13 10:27	1

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: BLANK EQUIPMENT
Date Collected: 08/02/13 10:15
Date Received: 08/02/13 14:20

Lab Sample ID: 660-55780-2
Matrix: Water

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			08/13/13 16:24	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			08/08/13 13:09	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			08/08/13 09:47	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			08/03/13 10:30	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			08/08/13 13:44	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-140063/12
Matrix: Water
Analysis Batch: 140063

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.305	I	0.50	0.10	mg/L			08/03/13 11:01	1

Lab Sample ID: LCS 660-140063/13
Matrix: Water
Analysis Batch: 140063

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.494	I	mg/L		99	90 - 110

Lab Sample ID: 660-55780-1 MS
Matrix: Water
Analysis Batch: 140063

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.50		0.500	0.978		mg/L		95	90 - 110

Lab Sample ID: 660-55780-1 MS
Matrix: Water
Analysis Batch: 140063

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.51		1.00	1.47		mg/L		96	90 - 110

Lab Sample ID: 660-55780-1 MSD
Matrix: Water
Analysis Batch: 140063

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.50		0.500	1.00		mg/L		99	90 - 110	2	30

Lab Sample ID: 660-55780-1 MSD
Matrix: Water
Analysis Batch: 140063

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.51		1.00	1.50		mg/L		99	90 - 110	2	30

Lab Sample ID: MB 660-140300/12
Matrix: Water
Analysis Batch: 140300

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

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			08/09/13 12:51	1

Lab Sample ID: LCS 660-140300/13
Matrix: Water
Analysis Batch: 140300

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	1.02		mg/L		102	90 - 110

Method: 353.2 - Nitrate (Continued)

Lab Sample ID: LCS 660-140300/13
Matrix: Water
Analysis Batch: 140300

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.500	0.456	I	mg/L		91	90 - 110

Lab Sample ID: 660-55896-D-1 MS
Matrix: Water
Analysis Batch: 140300

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

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	0.798		mg/L		80	90 - 110
Nitrite as N	0.10	U	0.500	0.405	I	mg/L		81	90 - 110

Lab Sample ID: 660-55896-D-1 MSD
Matrix: Water
Analysis Batch: 140300

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

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	0.800		mg/L		80	90 - 110	0	30
Nitrite as N	0.10	U	0.500	0.409	I	mg/L		82	90 - 110	1	30

Lab Sample ID: 660-55902-A-13 MS
Matrix: Water
Analysis Batch: 140300

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

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	0.945		mg/L		95	90 - 110
Nitrite as N	0.10	U	0.500	0.410	I	mg/L		82	90 - 110

Lab Sample ID: 660-55902-A-13 MSD
Matrix: Water
Analysis Batch: 140300

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

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	0.960		mg/L		96	90 - 110	2	30
Nitrite as N	0.10	U	0.500	0.417	I	mg/L		83	90 - 110	2	30

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

Lab Sample ID: MB 660-140243/1
Matrix: Water
Analysis Batch: 140243

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

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			08/08/13 13:09	1

Lab Sample ID: LCS 660-140243/2
Matrix: Water
Analysis Batch: 140243

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9910		mg/L		99	80 - 120

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

Lab Sample ID: 660-55798-B-1 DU
Matrix: Water
Analysis Batch: 140243

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	860		840		mg/L		2	20

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

Lab Sample ID: MB 660-140231/1
Matrix: Water
Analysis Batch: 140231

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			08/08/13 09:47	1

Lab Sample ID: LCS 660-140231/2
Matrix: Water
Analysis Batch: 140231

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	98.8		mg/L		99	80 - 120

Lab Sample ID: 660-55780-1 DU
Matrix: Water
Analysis Batch: 140231

Client Sample ID: LEACHATE EFFLUENT
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	83		68.2		mg/L		19	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-140062/2 SCB
Matrix: Water
Analysis Batch: 140062

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

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			08/03/13 10:30	1

Lab Sample ID: USB 660-140062/1 USB
Matrix: Water
Analysis Batch: 140062

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

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			08/03/13 10:30	1

Lab Sample ID: LCS 660-140062/3
Matrix: Water
Analysis Batch: 140062

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

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

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

Lab Sample ID: 660-55790-B-1 DU
Matrix: Water
Analysis Batch: 140062

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	230		228		mg/L		1	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-288395/3
Matrix: Water
Analysis Batch: 288395

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			08/08/13 13:44	1

Lab Sample ID: LCS 680-288395/4
Matrix: Water
Analysis Batch: 288395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	97.6		mg/L		98	90 - 110

Lab Sample ID: 400-78188-B-1 MS
Matrix: Water
Analysis Batch: 288395

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	98	J3	100	189		mg/L		91	90 - 110

Lab Sample ID: 400-78188-B-1 MSD
Matrix: Water
Analysis Batch: 288395

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	98	J3	100	196		mg/L		98	90 - 110	4	30

General Chemistry

Analysis Batch: 140062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 5210B	
660-55790-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-140062/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-140062/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-140062/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 140063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1 MS	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MS	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MSD	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-1 MSD	LEACHATE EFFLUENT	Total/NA	Water	353.2	
LCS 660-140063/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-140063/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 140231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55780-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540D	
LCS 660-140231/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-140231/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 140243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540C	
660-55798-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 660-140243/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-140243/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 140300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55896-D-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-55896-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-55902-A-13 MS	Matrix Spike	Total/NA	Water	353.2	
660-55902-A-13 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-140300/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-140300/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 140406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	353.2	

Analysis Batch: 288395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-78188-B-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
400-78188-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	

General Chemistry (Continued)

Analysis Batch: 288395 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-2	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
LCS 680-288395/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-288395/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 140130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-55780-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Client Sample ID: LEACHATE EFFLUENT

Lab Sample ID: 660-55780-1

Date Collected: 08/02/13 10:27
Matrix: Water
Date Received: 08/02/13 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	140062	08/03/13 10:30	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	140231	08/08/13 09:47	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	140243	08/08/13 13:09	TKO	TAL TAM
Total/NA	Analysis	353.2		1	140406	08/13/13 16:24	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		10	288395	08/08/13 13:44	JER	TAL SAV
Total/NA	Analysis	Field Sampling		1	140130	08/02/13 10:27		TAL TAM

Client Sample ID: BLANK EQUIPMENT

Lab Sample ID: 660-55780-2

Date Collected: 08/02/13 10:15
Matrix: Water
Date Received: 08/02/13 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	140062	08/03/13 10:30	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	140231	08/08/13 09:47	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	140243	08/08/13 13:09	TKO	TAL TAM
Total/NA	Analysis	353.2		1	140406	08/13/13 16:24	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		1	288395	08/08/13 13:44	JER	TAL SAV

Laboratory References:

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

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

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

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 County Public Utilities Dep
Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-55780-1

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-13 *
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13 *
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: Hillsborough County Public Utilities Dep
TestAmerica Job ID: 660-55780-1
Project/Site: SELF Leachate Effluent

Laboratory: TestAmerica Savannah (Continued)

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

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

* Expired certification is currently pending renewal and is considered valid.

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

8/15/2013

Client Information	Sampler: ZACK PATTERSON	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-49819-16225.1
Client Contact: Michael Townsel	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: Hillsborough County Public Utilities Dep				Job #:
Address: Solid Waste Management Group Brandon Support Operations Co	Due Date Requested:			
City: Tampa	TAT Requested (days):			
State, Zip: FL, 33619				
Phone:	PO #: DPSW11616001			
Email: townselm@hillsboroughcounty.org	WO #:			
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Florida	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	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 - Nitrate	2540C, 2540D, 5210B	5220D - Chemical Oxygen Demand	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
Leachate Effluent	8.2.13	10.27	G	Water	NO	NO	X	X	X		
Equipment Blank	8.2.13	10.15	G	Water	NO	NO	X	X	X		

660-55780 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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: Rodney Price Date: 7-30-2013 Time: 0911 Method of Shipment: Client PU

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Zack Patterson	8.2.13 1420			8/2/13 1420	TAFRA
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: 4.7° C wet

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: 660-58523.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 660-55780-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 8/9/2013			Preservation Codes:
City: Savannah	TAT Requested (days):			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)
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

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 sub to Savannah	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LEACHATE EFFLUENT (not blank) (660-55780-1)	8/2/13	10:27 Eastern		Water			X	1	
BLANK EQUIPMENT (660-55780-2)	8/2/13	10:15 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
[signature]	8-2-13 @ 1600	TA TRA	[signature]	08/03/13 0820	TA SAV
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: 3.2°C

55780

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF	SITE LOCATION:	
WELL NO: SELF leachate Effluent	SAMPLE ID: Leachate Effluent.	DATE: 8.2.13

PURGING DATA

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

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

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)
10.36					7.80	32.80	10674	3.62		light Brown	N/A
10.39					7.80	32.75	10679	3.66		↓	↓
10.42					7.81	32.68	10680	3.70			

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: ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): Zack Patterson	SAMPLING INITIATED AT: 11:27	SAMPLING ENDED AT: 11.30
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N N/A TUBING Y N (replaced)		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			

REMARKS: Grab Sample

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 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: SELF EQ Blank	SITE LOCATION:	
WELL NO: Equipment Blank	SAMPLE ID: EFF PLANT EQ	DATE: 8.2.13

PURGING DATA

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

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

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)

EQ 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: ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): Zack Patterson	SAMPLING INITIATED AT: 11.15	SAMPLING ENDED AT: 11.20
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: N/A	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N N/A	TUBING N/A N (replaced)	DUPLICATE: Y (N)	

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

REMARKS:

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 12, 2009

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-55780-1

Login Number: 55780
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa

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

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-55780-1

Login Number: 55780
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 08/03/13 09:17 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.	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: 660-56355-1
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:
9/16/2013 10:55:06 AM

Nancy Robertson, Project Manager II
nancy.robertson@testamericainc.com

Table of Contents

Sample Summary

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

TestAmerica Job ID: 660-56355-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-56355-1	Leachate Effluent	Water	09/06/13 10:35	09/06/13 13:00
660-56355-2	BLANK FIELD	Water	09/06/13 10:30	09/06/13 13:00

Case Narrative

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

TestAmerica Job ID: 660-56355-1

Job ID: 660-56355-1

Laboratory: TestAmerica Tampa

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Narrative

Job Narrative
660-56355-1

Comments
No additional comments.

Receipt
The samples were received on 9/6/2013 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 4.1° C.

General Chemistry
Method SM 2540D: The matrix duplicate % RPD in batch 141344 was outside the control limits.

No other analytical or quality issues were noted.

Qualifiers

General Chemistry

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

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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: 660-56355-1

Client Sample ID: Leachate Effluent — Lab Sample ID: 660-56355-1

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	6000		50	50	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	120		4.2	4.2	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	350		120	120	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	960		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	7.73				SU	1		Field Sampling	Total/NA
Field Temperature	32.32				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.62				mg/L	1		Field Sampling	Total/NA
Specific Conductance	10534				uS/cm	1		Field Sampling	Total/NA

Client Sample ID: BLANK FIELD — Lab Sample ID: 660-56355-2

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: 660-56355-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-56355-1

Date Collected: 09/06/13 10:35
Date Received: 09/06/13 13:00

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	130		50	10	mg/L			09/07/13 14:23	100
Total Dissolved Solids	6000		50	50	mg/L			09/12/13 10:15	1
Total Suspended Solids	120		4.2	4.2	mg/L			09/12/13 07:04	1
Biochemical Oxygen Demand	350		120	120	mg/L			09/07/13 11:06	1
Chemical Oxygen Demand	960		20	6.3	mg/L			09/13/13 12:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.73				SU			09/06/13 10:35	1
Field Temperature	32.32				Degrees C			09/06/13 10:35	1
Oxygen, Dissolved	2.62				mg/L			09/06/13 10:35	1
Specific Conductance	10534				uS/cm			09/06/13 10:35	1

Client Sample Results

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

TestAmerica Job ID: 660-56355-1

Client Sample ID: BLANK FIELD
Date Collected: 09/06/13 10:30
Date Received: 09/06/13 13:00

Lab Sample ID: 660-56355-2
Matrix: Water

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			09/07/13 08:38	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			09/12/13 10:15	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			09/12/13 07:04	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			09/07/13 11:06	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			09/13/13 12:15	1

Method: 353.2 - Nitrate

Lab Sample ID: MB 660-141200/12
Matrix: Water
Analysis Batch: 141200

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

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			09/07/13 08:30	1

Lab Sample ID: LCS 660-141200/13
Matrix: Water
Analysis Batch: 141200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.984		mg/L		98	90 - 110
Nitrite as N	0.500	0.518		mg/L		104	90 - 110

Lab Sample ID: 660-56344-B-1 MS
Matrix: Water
Analysis Batch: 141200

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

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	0.966		mg/L		97	90 - 110
Nitrite as N	0.10	U	0.500	0.497	I	mg/L		99	90 - 110

Lab Sample ID: 660-56344-B-1 MSD
Matrix: Water
Analysis Batch: 141200

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

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	1.03		mg/L		103	90 - 110	6	30
Nitrite as N	0.10	U	0.500	0.534		mg/L		107	90 - 110	7	30

Lab Sample ID: MB 660-141202/1
Matrix: Water
Analysis Batch: 141202

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

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			09/07/13 14:20	1

Lab Sample ID: LCS 660-141202/2
Matrix: Water
Analysis Batch: 141202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	1.01		mg/L		101	90 - 110
Nitrite as N	0.500	0.525		mg/L		105	90 - 110

Lab Sample ID: 660-56365-A-2 MS
Matrix: Water
Analysis Batch: 141202

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

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	1.03		mg/L		103	90 - 110
Nitrite as N	0.10	U	0.500	0.538		mg/L		108	90 - 110

Method: 353.2 - Nitrate (Continued)

Lab Sample ID: 660-56365-A-2 MSD
Matrix: Water
Analysis Batch: 141202

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

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	1.03		mg/L		103	90 - 110	0	30
Nitrite as N	0.10	U	0.500	0.536		mg/L		107	90 - 110	0	30

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

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Lab Sample ID: MB 660-141356/1
Matrix: Water
Analysis Batch: 141356

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

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			09/12/13 10:15	1

Lab Sample ID: LCS 660-141356/2
Matrix: Water
Analysis Batch: 141356

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

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: 640-44944-H-5 DU
Matrix: Water
Analysis Batch: 141356

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	390		373		mg/L		4	20

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

Lab Sample ID: MB 660-141344/1
Matrix: Water
Analysis Batch: 141344

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			09/12/13 07:04	1

Lab Sample ID: LCS 660-141344/2
Matrix: Water
Analysis Batch: 141344

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	105		mg/L		105	80 - 120

Lab Sample ID: 660-56355-1 DU
Matrix: Water
Analysis Batch: 141344

Client Sample ID: Leachate Effluent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	120		96.7	J3	mg/L		22	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-141201/2 SCB
Matrix: Water
Analysis Batch: 141201

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

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			09/07/13 09:59	1

Lab Sample ID: USB 660-141201/1 USB
Matrix: Water
Analysis Batch: 141201

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

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			09/07/13 09:59	1

Lab Sample ID: LCS 660-141201/3
Matrix: Water
Analysis Batch: 141201

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	185		mg/L		93	85 - 115

Lab Sample ID: 660-56355-1 DU
Matrix: Water
Analysis Batch: 141201

Client Sample ID: Leachate Effluent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	350		343		mg/L		0.6	20

Method: SM 5220D - COD

Lab Sample ID: MB 680-293710/3
Matrix: Water
Analysis Batch: 293710

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			09/13/13 12:15	1

Lab Sample ID: LCS 680-293710/4
Matrix: Water
Analysis Batch: 293710

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	102		mg/L		102	90 - 110

Lab Sample ID: 400-79757-B-1 MS
Matrix: Water
Analysis Batch: 293710

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100		100	200		mg/L		96	90 - 110

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

TestAmerica Job ID: 660-56355-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: 400-79757-B-1 MSD
Matrix: Water
Analysis Batch: 293710

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	100		100	200		mg/L		96	90 - 110	0	30

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General Chemistry

Analysis Batch: 141200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-56344-B-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-56344-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-56355-2	BLANK FIELD	Total/NA	Water	353.2	
LCS 660-141200/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-141200/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 141201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-56355-1	Leachate Effluent	Total/NA	Water	SM 5210B	
660-56355-1 DU	Leachate Effluent	Total/NA	Water	SM 5210B	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 5210B	
LCS 660-141201/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-141201/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-141201/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 141202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-56355-1	Leachate Effluent	Total/NA	Water	353.2	
660-56365-A-2 MS	Matrix Spike	Total/NA	Water	353.2	
660-56365-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-141202/2	Lab Control Sample	Total/NA	Water	353.2	
MB 660-141202/1	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 141344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-56355-1	Leachate Effluent	Total/NA	Water	SM 2540D	
660-56355-1 DU	Leachate Effluent	Total/NA	Water	SM 2540D	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 2540D	
LCS 660-141344/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-141344/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 141356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-44944-H-5 DU	Duplicate	Total/NA	Water	SM 2540C	
660-56355-1	Leachate Effluent	Total/NA	Water	SM 2540C	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 2540C	
LCS 660-141356/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-141356/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 293710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-79757-B-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
400-79757-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
660-56355-1	Leachate Effluent	Total/NA	Water	SM 5220D	
660-56355-2	BLANK FIELD	Total/NA	Water	SM 5220D	
LCS 680-293710/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-293710/3	Method Blank	Total/NA	Water	SM 5220D	

QC Association Summary

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

TestAmerica Job ID: 660-56355-1

Field Service / Mobile Lab

Analysis Batch: 141218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-56355-1	Leachate Effluent	Total/NA	Water	Field Sampling	

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Lab Chronicle

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

TestAmerica Job ID: 660-56355-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-56355-1

Date Collected: 09/06/13 10:35

Matrix: Water

Date Received: 09/06/13 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	141201	09/07/13 11:06	ELE	TAL TAM
Total/NA	Analysis	353.2		100	141202	09/07/13 14:23	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	141344	09/12/13 07:04	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	141356	09/12/13 10:15	TKO	TAL TAM
Total/NA	Analysis	SM 5220D		1	293710	09/13/13 12:15	JER	TAL SAV
Total/NA	Analysis	Field Sampling		1	141218	09/06/13 10:35		TAL TAM

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-56355-2

Date Collected: 09/06/13 10:30

Matrix: Water

Date Received: 09/06/13 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	141200	09/07/13 08:38	ELE	TAL TAM
Total/NA	Analysis	SM 5210B		1	141201	09/07/13 11:06	ELE	TAL TAM
Total/NA	Analysis	SM 2540D		1	141344	09/12/13 07:04	TKO	TAL TAM
Total/NA	Analysis	SM 2540C		1	141356	09/12/13 10:15	TKO	TAL TAM
Total/NA	Analysis	SM 5220D		1	293710	09/13/13 12:15	JER	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: 660-56355-1

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: 660-56355-1

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	07-31-14
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-13 *
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13 *
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14

* Expired certification is currently pending renewal and is considered valid.

Certification Summary

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

TestAmerica Job ID: 660-56355-1

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
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13 *
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

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* Expired certification is currently pending renewal and is considered valid.

Serial Number

9/16/2013

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

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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...)	REQUIRED ANALYSES: H2SO4	COD	BOD	TDS	TSS	Nitrate	NUMBER OF CONTAINERS SUBMITTED: H2SO4	COD	BOD	TDS	TSS	Nitrate	REMARKS
9-6-13	10.35	Leachate Effluent	G	X					X	X	X	X	X		1	1	1	1	1	
9-6-13	10.30	Equipment Blank	G	X					X	X	X	X	X		1	1	1	1	1	

660-56355 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	9-6-13	1300						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Carol McNulty	9/6/13	1300						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
						4.1° C CU07

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

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: 660-59622.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 660-56355-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 9/13/2013			Preservation Codes:
City: Savannah	TAT Requested (days):			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:
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: SELF,Leachate Trucks, EFF	Project #: 66003914			
Site: Leachate, Tank Trucks	SSOW#:			

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 sub to Savannah	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate Effluent (660-56355-1)	9/6/13	10:35 Eastern		Water			X		
Equipment Blank (660-56355-2)	9/6/13	10:30 Eastern		Water			X		

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
[signature]	9-6-13 @ 1505	TA TPA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 9/7/13	Company TASON

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.8c

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9/16/2013

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	SELF TAMP	SITE LOCATION:	LITHIA, FL
WELL NO:	Leachate Eff.	SAMPLE ID:	DATE: 9-6-13

PURGING DATA

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

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet N/A 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):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
—	—	—	—	—

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)
10.35	/	/	/	/	7.73	32.32	10534	2.62	/	Brown	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:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
ZACH PATTERSON		10.35	10.45

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
N/A			

FIELD DECONTAMINATION: ~~PUMP Y N~~ ~~TUBING Y N (replaced)~~ 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			

REMARKS: 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 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	SELF IAMP	SITE LOCATION:	Lithia, FL
WELL NO:	Field Blank	SAMPLE ID:	DATE: 9-6-13

PURGING DATA

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

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

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" = 0.66; 6" = 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:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
ZACK PATTERSON		10.30	10.40

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y (N)

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

REMARKS: 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.**

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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 12, 2009

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-56355-1

Login Number: 56355

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

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

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-56355-1

Login Number: 56355
List Number: 1
Creator: Mulvehill, Dana J

List Source: TestAmerica Savannah
List Creation: 09/07/13 09:30 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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	