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July 15, 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 – Second Quarter (April-June, 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, the Hillsborough County Public Utilities Department (County), is pleased to provide the quarterly laboratory analytical data for the effluent sampling of the leachate treatment plant located at 15960 County Road 672 in Lithia, Florida.

The referenced permit requires the monthly sampling of the leachate treatment plant effluent and the 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 during this quarterly period ranged from 7.9 - 8.4 pH units and the monthly analytical samples ranged from 8.06 - 8.22 pH units. These values represent 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 dedicated sampling port at the treatment plant on April 1, May 1, and June 5, 2013.

All collected samples were analyzed by our contracted laboratory, Test America, Inc. and the analytical data reports are provided herein for your technical review. No significant changes in the concentrations of any parameters were noted during this quarterly reporting period.

Mr. John Morris July 15, 2013 Page 2

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

Sincerely,

Michael D. Townsel 7/15/12
Senior Hydrologist
Public Utilities Department
Environmental Services

DSA/mdt Enclosures

xe: Larry Ruiz, Public Utilities

Andy Berry, Public Utilities

Ron Cope, EPC

G:enviro/self/leachate plant/ltp-effluent-2ndqtr2013.doc

Sincerely,

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

STATE OF SONAL GEOMATIC

Month	Duil	2013 F	H Calibra		}	
Date	PH 7	F 10		INF PH	EFF PH	POND
1		1002		7.8	8.1	8.4
2	7.02	10.01	day on 44 day, pay, maxampa with the day of the f	7.8	8.2	8.3
3	7.03	10.00		7.9	8.2	8.3
4	762	10.02	risson as and some in something of the first of the contract of	7.9	82	8.4
5	700	10,00		7.9	8.2	
6						-
7						
8	7.02	10.00		7.9	8.2	8.2
9	7.03	10.02		7.7	8.2	8.3
10	7.00	10.01	ne avavumentulinaunti i eriauvalaisi	7.8	8.2	8.3
11	7.00	10,00	n o didinirale anno arrive en 1886	7.9	8.0	8.3
12	701	10.00		7.8	8.0	8.2
13			- v ust	. 		
14						
15	7.02	10,05		7.5	8:3	83
16	7.00	10.01		7. 9	8.3	8.3
17	700	1000		7.8	8.1	8.3
18	7.01	10.00		7.8	8.2	83
19	7.01	10.01	Stage would from the State State (1999)	7.8	8.2	8.2
20						
21						
22	7.02	10.00		7. 7	8.2	8.2
23	7,01	10.02		7.9	82	8.2
24	7.00	10.00		7.9	8.3	8.3
25	7.00	10.00	THE RESIDENCE OF THE PARTY OF T	7.9	8.1	8,5
26	7.02	10.01		7.9	8.1	8.1
27	 	Markey of Mrs. or was from a deal of the				- F
28						
29	1p. 95	1000		7.8	3.1	8.2
30	7,00	10,00		7.8	8.1	المستحسب
31					***************************************	

May 2013

Month] P	H Calibra	ition Log]	
Date	PH 7	F 110		INF PH	EFF PH	POND
1	7.00	10.00		7.8	79	8.1
2	700	10.00		8.0	8.1	
3	4.93	10.01		<u> </u>	31	81
4				والمراجعة		
5						
6	4.98	10.00		7.9	8.1	8.3
7	7.00	10.01				8.3
8	700	10.04	Pag	7.8	8.0	83
9	7.02	10.00	را ند خه میده داران و پیشرون پومین چر را پیش ا	7.8	7.9	8.3
10	7.00	10.01		7.8	7.9	8.3
11						
12			, op nejsop fless grav k greien is old head skeed at rebreifeld	er elleri TT-likerinnen udermiden densk bes		
13	701	10.00			<u> </u>	8,3
14	7.00	10.00		7.8	8.3	8.2
15	7.03	16.01		7.9	8.4	8.4
16	7.01	16.02		8.0	8.3	8.4
17	7.00	10.00		8.0	8.3	8.4
18						
19						
20	700	10.00		7.8	8.3	3.3
21	577	9.98		78	53	8.3
22	7.6.2	10.01		28	5.3	8.3
23	7.01	10.00	h ha da a sa gan (dan 191 merekat 5 merekat	7.9	8.2	<u>S.3</u>
24	7.00	10.00		7.9	8.3	8.2
25					<u> </u>	
26				arra a a ferrando para para proper y proper y a manda	i	
27				·		
28	7.02	10.01		79	83	8.2
29	7.00	10,01		<u>හි.</u> ර	8.2	82
30	7.00	10.01		79	5.3	84
31	7.01	10,01	**************************************	7.3	8 2	VI-7
31	7.01	10,01		7.3	83	

Jun 2013 PH Calibration Log Month PH 7 F 110 INF PH EFF PH POND Date 3 7.02 10.01 8.3 7.9 4 7.00 10,00 8.3 5 700 10,00 5.5 6 7.02 10,00 7.03 7 10.02 9 10 7,01 1000 7.8 8.4 8.3 11 7.00 10.00 12 7.00 フሄ 8.4 10.00 13 4.48 7.8 10.01 14 4.95 7.8 8.3 10.00 15 16 17 1.98 9.95 8.2 8.4. 18 7.01 10.02 7.4 8.3 8.1 19,700 10.00 7. Ç 8.1 8.3 20 7.01 8.3. 10,00 8.1 21 701 10.00 8.1 22 23 24 7.00 16.00 7.6 80 8.1 25 7.02 10.01 8.1 8.0 7.6 28 7.00 10.01 7.4 8.0 8,0 27 7.00 <u>/0,0U</u> 8.0 8.Q 28 7.60

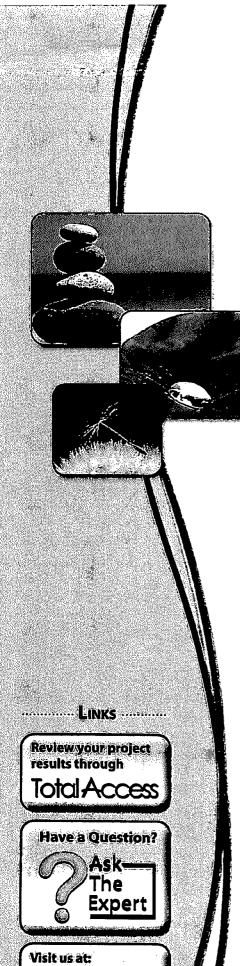
7.6

8.0

8.0

10.60

29 30 31



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<u>TestAmerica</u>

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: 660-53521-1

Client Project/Site: SELF Leachate Plant 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: 4/17/2013 3:56:39 PM

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

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

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

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



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	19

Sample Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-53521-1	LEACHATE EFFLUENT	Water	04/01/13 13:25	04/01/13 15:30
660-53521-2	BLANK EQUIPMENT 53521	Water	04/01/13 13:20	04/01/13 15:30



	Case Narrative
Client: Hillsborough County Public Utilities.Dep Project/Site: SELF Leachate Plant Effluent	TestAmerica Job ID: 660-53521-1
Job ID: 660-53521-1	
Laboratory: TestAmerica Tampa	
Narrativo	
	Job Narrative 660-53521-1
Comments No additional comments.	
Receipt The samples were received on 4/1/2013 3:30 PM; the samples the temperature of the cooler at receipt was 3.2° C.	amples arrived in good condition, properly preserved and, where required, on ice.

General Chemistry

No analytical or quality issues were noted.

TestAmerica Job !D: 660-53521-1

Definitions/Glossary

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

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.

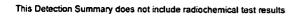
Glossary	
Abbroviation	These commonly used abbreviations may or may not be present in this report.
a .	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)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

Detection Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac (Method	Prep Type
Nitrate as N	110		50	10	mg/L	100	353.2	Total/NA
Total Dissolved Solids	5500		250	250	mg/L	1	SM 2540C	Total/NA
Total Suspended Solids	30		1.0	1.0	mg/L	1	SM 2540D	Total/NA
Biochemical Oxygen Demand	19		12	12	mg/L	1	SM 5210B	Total/NA
Chemical Oxygen Demand	600		20	6.3	mg/L	1	SM 5220D	Total/NA
Field pH	8.07				SU	1	Field Sampling	Total/NA
Field Temperature	26.66				Degrees C	1	Field Sampling	Total/NA
Oxygen, Dissalved	5.83				mg/L	1	Field Sampling	Total/NA
Specific Conductance	11174				umhos/cm	1	Field Sampling	Total/NA

No Detections.



Client Sample Results

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 04/01/13 13:25 Date Received: 04/01/13 15:30

Field Temperature

Oxygen, Dissolved

Specific Conductance

Lab Sample ID: 660-53521-1

04/01/13 13:25

04/01/13 13:25

04/01/13 13:25

Matrix: Water

General Chemistry Analyto	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	110		50	10	mg/L			04/03/13 08:43	100
Total Dissolved Solids	5500		250	250	mg/L			04/05/13 09:14	1
Total Suspended Solids	30		1.0	1.0	mg/L			04/05/13 05:12	1
Biochemical Oxygen Demand	19		12	12	mg/L			04/03/13 06:30	1
Chemical Oxygen Demand	600		20	6.3	mg/L			04/02/13 10:58	1
Method: Field Sampling - Field S	Sampling								
Analyte	Result	Qualifior	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.07				SU			04/01/13 13:25	1

Degrees C

umhos/cm

mg/L

26.66

5.83

11174





Client Sample Results

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1

Client Sample ID: BLANK EQUIPMENT 53521

Lab Sample ID: 660-53521-2

Date Collected: 04/01/13 13:20 Date Received: 04/01/13 15:30 Matrix: Water

	General Chemistry Analyto	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
į	Nitrate as N	0.10	Ü	0.50	0.10	mg/L			04/03/13 08:43	1
-	Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			04/05/13 09:14	1
	Total Suspended Solids	1.0	U	1.0	1.0	mg/L			04/05/13 05:12	1
	Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			04/03/13 06:30	1
	Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			04/02/13 10:58	1



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

-															
Lab Sample ID: MB 660-136088/3											(Client S	ample ID: Met	hod l	Blank
Matrix: Water													Prep Type	e: Tot	al/N/
Analysis Batch: 136088															
		МВ	МВ												
Analyte	R	esult	Qualifier		PQL	1	MDL	Unit		D	Pr	epared	Analyzed	1	DII Fac
Nitrate as N		0.10			0.50		0.10					· · · · · · · · · · · · · · · · · · ·	04/03/13 08:4		1
										٥	4	^ 1_	ID- Lab Cant		
Lab Sample ID: LCS 660-136088/4 Matrix: Water										GII	ent	Sampie	ID: Lab Cont Prep Type		
Analysis Batch: 136088													1 100 130		
Alialysis Batcii. 130000				Spike		LCS	LCS						%Rec.		
A				•				a	11-24		D	%Rec	Limits		
Analyte				Added		Result	Quair	ner ——	Unit		_				
Nitrate Nitrite as N				1.00		1.01			mg/L			101	90 - 110		
Nitrite as N				0.500		0.476	1		mg/L			95	90 - 110		
Lab Sample ID: 660-53534-A-1 MS Matrix: Water												Client	Sample ID: M Prep Typ		-
Analysis Batch: 136088															
Analysis Dateil. 130000	Sample	Sam	nnie	Spike		MS	MS						%Rec.		
Amahda	Result		•	Added		Result		£1.00	Unit		D	%Rec	Limits		
Analyte							Quali								
Nitrate Nitrite as N	0.38			1.00		1.41			mg/L			103	90 - 110		
Nitrite as N	0.10	U		0.500		0.491	ı		mg/L			98	90 - 110		
Lab Sample ID: 660-53534-A-1 MSD)									Clien	t Sa	mple ID	: Matrix Spike	Dup	licate
Matrix: Water													Prep Typ	e: Tot	al/NA
Analysis Batch: 136088															
Analysis Batom 100000	Sample	San	nde	Spike		MSD	MSD						%Rec.		RPI
Analyte	Result		-	Added		Result	-	ane.	Unit		D	%Rec		RPD	Limi
							Quali				_		90 - 110		
Nitrate Nitrite as N	0.38			1.00		1.42			mg/L			104		1	3
Nitrite as N	0.10	U		0.500		0.492	•		mg/L			98	90 - 110	0	30
Method: SM 2540C - Solids, To	tal Dis	sol	ved (TD	S)											
-	tal Dis	sol	ved (TD	S)								Client S	ample ID: Me	thod	Blani
Lab Sample ID: MB 660-136149/1	otal Dis	sol	ved (TD:	S)								Client S	ample ID: Me		
Lab Sample ID: MB 660-136149/1 Matrix: Water	otal Dis	sol	ved (TD	S)								Client S	ample ID: Me Prep Typ		
Lab Sample ID: MB 660-136149/1	otal Dis	,		S)								Client S	•		
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149		мв	МВ	S)	BOI		MDI	Ilmie					Prep Typ		al/N/
Lab Sample ID: MB 660-136149/1 Matrix: Water		MB lesult		S)	PQL 5.0		MDL 5.0			D		Client S	•	e: To	
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids		MB lesult	MB Qualifior	S)				Unit mg/L			P	repared	Analyzed 04/05/13 09:	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2		MB lesult	MB Qualifior	S)							P	repared	Analyzed 04/05/13 09:	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids		MB lesult	MB Qualifior	S)							P	repared	Analyzed 04/05/13 09:	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2		MB lesult	MB Qualifior	S)							P	repared	Analyzed 04/05/13 09:	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water		MB lesult	MB Qualifior	S)		LCS					P	repared	Analyzed 04/05/13 09:	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149		MB lesult	MB Qualifior	Spike			5.0	mg/L	Unit		Pi	repared Sample	Analyzed O4/05/13 09: D: Lab Cont Prep Typ %Rec.	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water		MB lesult	MB Qualifior			LCS Result 9870	5.0	mg/L	Unit mg/L		P	repared	Analyzed O4/05/13 09: D: Lab Cont	e: Tot	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: 640-42964-A-1 DU		MB lesult	MB Qualifior	Spike Added		Result	5.0	mg/L			Pi	Sample %Rec 99	Analyzed O4/05/13 09: PID: Lab Cont Prep Typ Rec. Limits 80 - 120 ent Sample ID	e: Total	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: 640-42964-A-1 DU Matrix: Water		MB lesult	MB Qualifior	Spike Added		Result	5.0	mg/L			Pi	Sample %Rec 99	Analyzed O4/05/13 09: PID: Lab Cont Prep Typ %Rec. Limits 80 - 120	e: Total	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: 640-42964-A-1 DU		MB lesult	MB Qualifior	Spike Added		Result	5.0	mg/L			Pi	Sample %Rec 99	Analyzed O4/05/13 09: PID: Lab Cont Prep Typ Rec. Limits 80 - 120 ent Sample ID	e: Total	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: 640-42964-A-1 DU Matrix: Water		MB tesult 5.0	MB Qualifior U	Spike Added		Result	5.0 LCS Qual	mg/L			Pi	Sample %Rec 99	Analyzed O4/05/13 09: PID: Lab Cont Prep Typ Rec. Limits 80 - 120 ent Sample ID	e: Total	Dil Fa
Lab Sample ID: MB 660-136149/1 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-136149/2 Matrix: Water Analysis Batch: 136149 Analyte Total Dissolved Solids Lab Sample ID: 640-42964-A-1 DU Matrix: Water	F	MB 5.00	MB Qualifior U	Spike Added		Result 9870	LCS Qual	mg/L			Pi	Sample %Rec 99	Analyzed O4/05/13 09: PID: Lab Cont Prep Typ Rec. Limits 80 - 120 ent Sample ID	e: Total	Dil Fa Bample tal/N/

(E)

QC Sample Results

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1

	Jiai Jus	spe	nded (TS	33)											
Lab Sample ID: MB 660-136140/1 Matrix: Water											,	Client S	Sample ID: Me Prep Typ		
Analysis Batch: 136140															
,		MB	MB												
Analyte	Re	esult	Qualifier		PQL		MDL	Unit		D	Pr	epared	Analyzed		Dil Fac
Total Suspended Solids		1.0	U		1.0		1.0	mg/L					04/05/13 05:		1
-															
Lab Sample ID: LCS 660-136140/2										Cli	ient	Sample	D: Lab Con		
Matrix: Water													Prep Typ	e: To	otal/NA
Analysis Batch: 136140															
A				Spike			LCS				_		%Rec.		
Analyto				Added		Result	Qual	littor	Unit		D	%Rec	Limits		
Total Suspended Solids				100		104			mg/L			104	80 - 120		
Lab Sample ID: 660-53521-1 DU										Client	t Sa	mple ID	: LEACHATE	EFFL	LUENT
Matrix: Water													Prep Typ		
Analysis Batch: 136140															
•	Sample	Sam	ple			DU	DU								RPD
Analyte	Result	Qua	lifler			Result	Qual	lifler	Unit		D			RPD	Limit
Total Suspended Solids	30	-				26.8	_		mg/L					10	20
1 - L O L ID - O O O O O 4000 (O)															
Lab Sample ID: SCB 660-136053/2 Matrix: Water Analysis Batch: 136053												Client S	Sample ID: Me Prep Typ		
Matrix: Water Analysis Batch: 136053			SCB		201		***	11-10					Prep Typ	e: To	otal/NA
Matrix: Water Analysis Batch: 136053 Analyte		esult	Qualifier		PQL		MDL 20		_	. <u>D</u> _		Client S	Prep Typ	e: To	Dil Fac
Matrix: Water Analysis Batch: 136053			Qualifier		PQL 2.0			Unit mg/L		<u>D</u> _			Prep Typ	e: To	otal/NA
Matrix: Water Analysis Batch: 136053 Analyte	Re	esult	Qualifier							- D -	Pr	repared	Prep Typ	9 e: To	Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water	Re	esult	Qualifier						·	D -	Pr	repared	Analyzed	30 -	Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1	R	2.0	Qualifier U						· · · · · · ·	- D -	Pr	repared	Analyzed 04/03/13 06:	30 -	Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053	USB	2.0	Qualifler U							- D -	Pr	repared	Analyzed 04/03/13 06:	30 -	Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053	USB	2.0 USB esult	Qualifier U USB Qualifier		2.0			mg/L		- D -	Pi	repared	Analyzed 04/03/13 06:	30 -	Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053	USB	2.0	Qualifier U USB Qualifier		2.0		2.0	mg/L			Pi	repared Client S	Analyzed 04/03/13 06: 6ample ID: Me	30 othod oe: To	Dil Fac 1 I Blank otal/NA
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053	USB	2.0 USB esult	Qualifier U USB Qualifier		2.0		2.0	mg/L Unit		D _	Pi Pi	repared Client S	Analyzed 04/03/13 06: 6ample ID: Me Prep Typ Analyzed 04/03/13 06:	30 othod oe: To	Dil Fac 1 Blank otal/NA Dil Fac
Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-136053/3	USB	2.0 USB esult	Qualifier U USB Qualifier		2.0		2.0	mg/L Unit		D _	Pi Pi	repared Client S	Analyzed O4/03/13 06: Gample ID: Me Prep Typ Analyzed O4/03/13 06:	30 othod oe: To	Dil Fac 1 Blank otal/NA Dil Fac
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Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-136053/3 Matrix: Water Analysis Batch: 136053	USB	2.0 USB esult	Qualifier U USB Qualifier	-	2.0	LCS	2.0 MDL 2.0	mg/L Unit mg/L	Unit mg/L	D _	Pr Pr ient	repared Client S repared Sample	Analyzed 04/03/13 06: 6 ample ID: Me Prep Typ Analyzed 04/03/13 06: 6 ID: Lab Con Prep Typ	30 othod oe: To	Dil Fac 1 Blank otal/NA Dil Fac
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Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-136053/1 Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-136053/3 Matrix: Water Analysis Batch: 136053 Analyte Biochemical Oxygen Demand Lab Sample ID: 660-53539-A-1 DU Matrix: Water	USB	2.0 USB esult	Qualifier U USB Qualifier	Added	2.0	LCS Result	2.0 MDL 2.0	mg/L Unit mg/L		D _	Pr Pr ient	epared Client S epared Sample	Analyzed 04/03/13 06: 6 ample ID: Me Prep Typ Analyzed 04/03/13 06: 6 ID: Lab Con Prep Typ %Rec. Limits 85 - 115	oe: To othod othod strol S oe: To	Dil Fac I Blank Dil Fac Dil Fac Sample Dtal/NA
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Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent

Chemical Oxygen Demand

6.3 U

Method: SM 5220D - COD														
- Lab Sample ID: MB 680-271539/3												Client S	ample ID: Meth	od Blank
Matrix: Water													Prep Type:	Total/NA
Analysis Batch: 271539														
		MB	MB											
Analyto	R	esult	Qualifier		PQL		MDL	Unit		D	P	repared	Analyzed	Dit Fac
Chemical Oxygen Demand		6.3	U	-	20		6.3	mg/L					04/02/13 10:58	1
Lab Sample ID: LCS 680-271539/4										Clie	ent	Sample	ID: Lab Contro	ol Sample
Matrix: Water												•	Prep Type:	
Analysis Batch: 271539														
•				Spike		LCS	LCS						%Rec.	
Analyte				Added		Result	Qua	lifter	Unit		D	%Rec	Limits	
Chemical Oxygen Demand				100		107			mg/L		_	107	90 - 110	
Lab Sample ID: 680-88710-F-1 MS												Client	Sample ID: Mat	rix Spike
Matrix: Water													Prep Type:	•
Analysis Batch: 271539														
•	Sample	Sam	ple	Spike		MS	MS						%Rec.	
Analyte	Result	Qual	ifier	Added		Result	Qua	lifier	Unit		D	%Rec	Limits	
Chemical Oxygen Demand	6.3	Ū		100		110			mg/L		-	110	90 - 110	
Lab Sample ID: 680-88710-F-1 MSD)									Client	S	amnle IC	: Matrix Spike	Dunlicate
Matrix: Water													Prep Type:	-
Analysis Batch: 271539														
•	Sample	Sam	ple	Spike		MSD	MSD)					%Rec.	RPD
Analyte	Result	Qual	ifier	Added		Result	Qua	ilflor	Unit		D	%Rec	Limits Ri	PD Limit

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TestAmerica Job ID: 660-53521-1

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

General Chemistry	1				
Analysis Batch: 13605	3				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-53521-2	BLANK EQUIPMENT 53521	Total/NA	Water	SM 5210B	
660-53539-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	
LCS 660-136053/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-136053/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-136053/1 USB	Method Blank	Total/NA	Water	SM 5210B	
Analysis Batch: 13608	8				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-53521-2	BLANK EQUIPMENT 53521	Total/NA	Water	353.2	
660-53534-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-53534-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
LCS 660-136088/4	Lab Control Sample	Total/NA	Water	353.2	
MB 660-136088/3	Method Blank	Total/NA	Water	353.2	
Analysis Batch: 13614	10				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	· · · · · · · · · · · · · · · · · · ·
660-53521-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-53521-2	BLANK EQUIPMENT 53521	Total/NA	Water	SM 2540D	
LCS 660-136140/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-136140/1	Method Blank	Total/NA	Water	SM 2540D	
Analysis Batch: 13614	19				
– Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-42964-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-53521-2	BLANK EQUIPMENT 53521	Total/NA	Water	SM 2540C	
LCS 660-136149/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-136149/1	Method Blank	Total/NA	Water	SM 2540C	
Analysis Batch: 27153	99				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
660-53521-2	BLANK EQUIPMENT 53521	Total/NA	Water	SM 5220D	
680-88710-F-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
680-88710-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-271539/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-271539/3	Method Blank	Total/NA	Water	SM 5220D	
Field Service / Mo	bile Lab				
Analysis Batch: 13636	33				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-53521-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	·

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Plant Effluent TestAmerica Job ID: 660-53521-1

Lab Sample ID: 660-53521-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 04/01/13 13:25 Date Received: 04/01/13 15:30 Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	136053	04/03/13 06:30	AG	TAL TAM
Total/NA	Analysis	353.2		100	136088	04/03/13 08:43	RWF	TAL TAM
Total/NA	Analysis	SM 2540D		1	136140	04/05/13 05:12	то	TAL TAM
Tota!/NA	Analysis	SM 2540C		1	136149	04/05/13 09:14	то	TAL TAM
Total/NA	Analysis	SM 5220D		1	271539	04/02/13 10:58	RJ	TAL SAV
Total/NA	Analysis	Field Sampling		1	136363	04/01/13 13:25		TAL TAM

Client Sample ID: BLANK EQUIPMENT 53521

Date Collected: 04/01/13 13:20

Date Received: 04/01/13 15:30

Lab Sample ID: 660-53521-2

Matrix: Water

		Batch	Batch		Dilution	Batch	Prepared		
Pre	р Туре	Туре	Method	Run	Factor	Numbor	or Analyzed	Analyst	Lab
Tota	ıl/NA	Analysis	SM 5210B		1	136053	04/03/13 06:30	AG	TAL TAM
Tota	u/NA	Analysis	353.2		1	136088	04/03/13 08:43	RWF	TAL TAM
Tota	al/NA	Analysis	SM 2540D		1	136140	04/05/13 05:12	то	TAL TAM
Tota	al/NA	Analysis	SM 2540C		1	136149	04/05/13 09:14	то	TAL TAM
Tota	al/NA	Analysis	SM 5220D		1	271539	04/02/13 10:58	RJ	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 Plant Effluent TestAmerica Job ID: 660-53521-1

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

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

TestAmerica Tampa



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

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
12LA	DoD ELAP		0399-01	05-31-13
Nabama	State Program	4	41450	06-30-13
Naska (UST)	State Program	10	UST-104	06-19-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Florida	NELAP	4	E87052	06-30-13
SA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawa ii	State Program	9	N/A	06-30-13
flinois	NELAP	5	200022	11-30-13
ndiana	State Program	5	N/A	06-30-13
owa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 °
cuisiana	NELAP	6	30890	06-30-13
.cuisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
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
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
· exas	NELAP	6	T104704185-08-TX	11-30-13
JSDA	Federal		SAV 3-04	04-07-14
/irginia	NELAP	3	460161	06-14-13
Nashington	State Program	10	C1794	06-10-13
Nest Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13

^{*} Expired certification is currently pending renewal and is considered valid.

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Certification Summary

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

TestAmerica Job ID: 660-53521-1

Laboratory: TestAmerica Savannah (Continued)
All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

1	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

ANALYSIS REQUEST AND CHAIN OF CUSTOD TestAmerica								ORI	D		©	6712 Tam	Ameri 2 Benj pa, Fl	jamir L 336	Rd,:	Suite			Phor	ne: (8	<u>americain</u> 313) 885 7 3) 885 704	7427	
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CLIENT (STE) PI Michael Tov CLIENT NAME			(813) 663-	3222	(813) 274-6801	MCACATE			SOLVENT)											DELIVE		_	_
		@hillsboroug	hcounty.org	ORAB (G)	إ	١	ID (OIL, S	COD	BOD	TDS	TSS	Nitrate						(SLERCH	ARGE) DATE DUE:	0	;		
332 North Falkenburg Road Tampa, Florida 33619 COMPANY CONTRACTING THIS WORK			TE (C) OR	AQUEOUS (WATER)	DEMISO	NONAGUEGUS LICKID (OIL, S	H2SO4 C(ă				-						ROFOOOLER					
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TestAmerica Tampa

6712 Benjamin Road Suite 100

Tampa, FL 33634

Chain of Custody Record



Phone (813) 885-7427 Fax (813) 885-7049 THE LEADER IN THURSDAMENTAL INSTRUCT Sampler Lab PM Carrier Tracking No(s): COC No. Client Information (Sub Contract Lab) Roburtson, Nancy 660-54454.1 Client Contact Phone E-Mail Shipping/Receiving nancy.robertson@testamericainc.com Page 1 of 1 Company Job #: TestAmerica Laboratories, Inc. **Analysis Requested** 660-53521-1 Address: Oue Date Requested: Preservation Codes: 5102 LaRoche Avenue. 4/8/2013 A - HCL M - Hawane CIV: TAT Requested (days): B - NaOH N - None Savannah C - Zn Acetale O - AsNaO2 State, 2m. D - Natric Acid P - Na204S GA, 31404 Q - No2SO3 E - NoHSO4 Phone F - MeOH R - Na2S2SO3 PO# G - Amehler S · H2SO4 912-354-7858(Tel) 912-352-0165(Fax) T - TSP Dorlocallydrate 11 - Ascorbic Acid Emad WO # 1.400 U - Acetona V - MCAA J - Di Water Project Name Project # K - EDTA W - ph 4-5 SELF, Leachate Trucks, EFF L EDA Z - other (specify) 66003914 SSOW#: Other: Leachale, Tank Trucks Matrix Sample Type Sycabol (C=comp. Sample Sample Identification - Client ID (Lab ID) Sample Date Time G=grab) OT- Tissue, A-A Special Instructions/Note: Preservation Code: 13:25 SELF Leachate Plant (660-53521-1) 4/1/13 Water Х Eastern 13 20 Equipment Blank (660-53521-2) 4/1/13 Water Х Eastern Possible Hazard Identification Sample Disposel (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposel By Lab Archive For Month Unconfirmed Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements: Empty Kit Relinquished by Date Time: Mathad of Shipment Reinquished by Company Received by Leongobia 0715 Relinquished by: Company Received by Сотралу Reinquished by: Date/Time Company Data/Time: Received by: Company Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) *C and Other Remarks Λ Yes Δ No

Page

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THE WELL AND A PROPERTY OF THE AND KNOWN METERS AND ASSESSMENT

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-53521-1

Login Number: 53521

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.</td <td>N/A</td> <td></td>	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

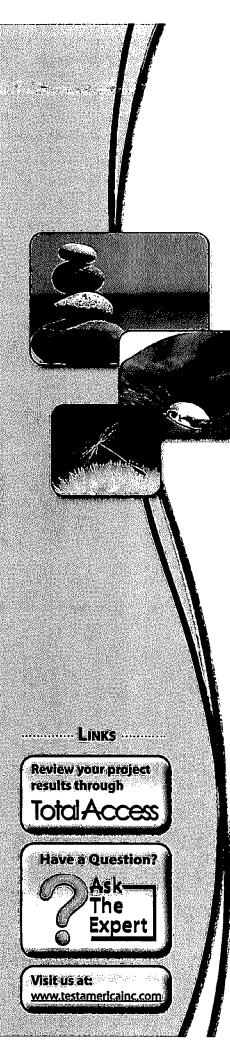
Job Number: 660-53521-1

Login Number: 53521 List Number: 1 List Source: TestAmerica Savannah List Creation: 04/02/13 08:47 AM

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	





<u>TestAmerica</u>

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: 660-54117-1

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: 5/10/2013 9:45:47 AM

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

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

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

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

2

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Sample Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-54117-1	LEACHATE EFFLUENT	Water	05/01/13 14:30	05/01/13 16:45
660-54117-2	BLANK EQUIPMENT	Water	05/01/13 14:35	05/01/13 16:45





Case Narrative

Client: Hillsborough County Public Utilities Dep TestAmerica Job ID: 660-54117-1
Project/Site: SELF Leachate Effluent

Job ID: 660-54117-1
Laboratory: TestAmerica Tampa

Job Narrative 660-54117-1

Comments

Narrative

No additional comments.

Receipt

The samples were received on 5/1/2013 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.5° C.

General Chemistry

Method 353.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 137110 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

TestAmerica Tampa 5/10/2013

Definitions/Glossary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54117-1

Qualifiers

General Chemistry

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

Detection Summary

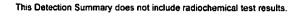
Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54117-1

Client Sample ID: LEACHAT	E EFFLUEN					Lab	Sample ID:	660-54117-1
Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac D	Method	Prep Type
Nitrate as N	35		13	2.5	mg/L	25	353.2	Total/NA
Total Dissolved Solids	5300		250	250	mg/L	1	SM 2540C	Total/NA
Total Suspended Solids	54		1.2	1.2	mg/L	1	SM 2540D	Total/NA
Biochemical Oxygen Demand	22		12	12	mg/L	1	SM 5210B	Total/NA
Chemical Oxygen Demand	620		20	6.3	mg/L	1	SM 5220D	Total/NA
Field pH	8.22				SU	1	Field Sampling	Total/NA
Field Temperature	29.78				Degrees C	1	Field Sampling	Total/NA
Oxygen, Dissolved	4.81				mg/L	1	Field Sampling	Total/NA
Specific Conductance	11493	· ·			umhos/cm	1	Field Sampling	Total/NA
Client Sample ID: BLANK E	QUIPMENT					Lab	Sample ID:	660-54117-:

No Detections.





Project/Site: SELF Leachate Effluent

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 05/01/13 14:30 Date Received: 05/01/13 16:45 Lab Sample ID: 660-54117-1

Matrix: Water

General Chemistry									
Analyto	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	35		13	2.5	mg/L			05/02/13 16:15	25
Total Dissolved Solids	5300		250	250	mg/L			05/03/13 09:08	1
Total Suspended Solids	54		1.2	1.2	mg/L			05/03/13 05:35	1
Biochemical Oxygen Demand	22		12	12	mg/L			05/02/13 10:40	1
Chemical Oxygen Demand	620	1	20	6.3	mg/L			05/08/13 12:15	1
 Method: Field Sampling - Field S	ampling								
Analyto	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.22				SU			05/01/13 14:30	1
Field Temperature	29.78				Degrees C			05/01/13 14:30	1
Oxygen, Dissolved	4.81				mg/L			05/01/13 14:30	1

umhos/cm

Client Sample ID: BLANK EQUIPMENT

11493

Date Collected: 05/01/13 14:35

Specific Conductance

Date Received: 05/01/13 16:45

Lab Sample ID: 660-54117-2

05/01/13 14:30

Matrix: Water

General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	Ū	0.50	0.10	mg/L			05/02/13 16:07	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			05/03/13 09:08	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			05/03/13 05:35	1
Biochemical Oxygen Demand	2.0	υ	2.0	2.0	mg/L			05/02/13 10:40	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			05/08/13 12:15	1

QC Sample Results

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

Lab Sample ID: MB 660-137110/12											Client S	ample ID: Meth	od Blai
Matrix: Water												Prep Type:	
Analysis Batch: 137110													
•		MB	MB										
Analyto	R	esuit	Qualifier		PQL		MDL Un	it	D	P	repared	Analyzed	Dil F
Nitrate as N		0.10	Ü		0.50	-	0.10 mg	/L				05/02/13 16:00	
Lab Sample ID: LCS 660-137110/13									CII	ent	Sample	ID: Lab Contro	I Samp
Matrix: Water												Prep Type:	Total/N
Analysis Batch: 137110													
				Spike			LCS					%Rec.	
Analyte				Added			Qualifier	Unit		D	%Rec	Limits	
Nitrate Nitrite as N				1.00		0.985		mg/L			99	90 - 110	
Nitrite as N				0.500		0.496	1	mg/L			99	90 - 110	
Lab Sample ID: 660-54113-A-1 MS											Client	Sample ID: Mat	rix Spi
Matrix: Water												Prep Type:	Total/N
Analysis Batch: 137110													
	Sample	Sam	ple	Spike			MS					%Rec.	
Analyte	Result	Qual	ifier	Added		Result	Qualifier	Unit		D	%Rec	Limits	
Nitrate Nitrite as N	0.39	1 J3		1.00		1.81	J3	mg/L		_	142	90 - 110	
Nitrite as N	0.10	J3 U		0.500		0.598	13	mg/L			120	90 - 110	
Lab Sample ID: 660-54113-A-1 MSD	ı								Clien	t Sa	emple ID	: Matrix Spike I	Duplica
Matrix: Water									•		p.o 12	Prep Type:	•
Analysis Batch: 137110												Flat litte.	IOUAN
	Sample	Sam	ple	Spike		MSD	MSD					%Rec.	R
Analyte	Result			Added			Qualifier	Unit		D	%Rec	Limits Ri	
Nitrate Nitrite as N	0.39			1.00		1.80		mg/L		_	141	90 - 110	1
Nitrite as N		J3 U		0.500		0.587		mg/L			117	90 - 110	2
Method: SM 2540C - Solids, To	tal Dis	sol	ed (TD:	<u></u>									
		-	, oa (, D	- -									
- • • • • • • • • • • • • • • • • • • •													
Lab Sample ID: MB 660-137094/1											Client S	ample ID: Meth	
Matrix: Water											Client S	ample ID: Meth Prep Type:	
Matrix: Water		MB	MB								Client S		
Matrix: Water Analysis Batch: 137094	R	MB			POI		MDI Un	.	n	Đ	Client S	Prep Type:	Total/N
Matrix: Water Analysis Batch: 137094 ^{Analyte}	R	esult	Qualifier		PQL 50		MDL Un		_ <u>D</u> _	P	Client S	Prep Type:	
Matrix: Water Analysis Batch: 137094	R		Qualifier		PQL 5.0		MDL Un		D -	P	Client S	Prep Type:	Total/N
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids	R	esult	Qualifier						D	P	repared	Analyzed 05/03/13 09:08	Total/N
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2	R	esult	Qualifier						CII	P	repared	Analyzed 05/03/13 09:08	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water	R	esult	Qualifier						CII	P	repared	Analyzed 05/03/13 09:08	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water	R	esult	Qualifier	Spike		LCS	5.0 mg		CII	P	repared	Analyzed 05/03/13 09:08 D: Lab Contro	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094	R	esult	Qualifier	Spike			5.0 mg	/L	CII	Pi	repared : Sample	Analyzed 05/03/13 09:08 PiD: Lab Contro Prep Type:	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094	R	esult	Qualifier	Added		Result	5.0 mg	/L Unit	CII	P	repared Sample	Analyzed 05/03/13 09:08 DE: Lab Contro Prep Type: %Rec. Limits	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094	R	esult	Qualifier	-			5.0 mg	/L	CI	Pi	repared : Sample	Analyzed 05/03/13 09:08 PiD: Lab Contro Prep Type:	Total/N Dil F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: 660-54113-B-1 DU	R	esult	Qualifier	Added		Result	5.0 mg	/L Unit	CII	Pi	repared Sample %Rec 98	Analyzed 05/03/13 09:08 DE: Lab Contro Prep Type: %Rec. Limits	Dill F
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: 660-54113-B-1 DU Matrix: Water	R	esult	Qualifier	Added		Result	5.0 mg	/L Unit	CI	Pi	repared Sample %Rec 98	Analyzed 05/03/13 09:08 PID: Lab Contro Prep Type: **Rec. Limits 80 - 120	Dill F Total/N Total/N
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: 660-54113-B-1 DU Matrix: Water		5.0	Qualifier U	Added		Result 9810	5.0 mg	/L Unit	CII	Pi	repared Sample %Rec 98	Analyzed 05/03/13 09:08 PiD: Lab Contro Prep Type: **Rec. Limits 80 - 120 ent Sample ID:	Dill F Total/N Total/N
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: 660-54113-B-1 DU Matrix: Water Analysis Batch: 137094	R	5.0	Qualifier U	Added		Result 9810	5.0 mg	/L Unit	CII	Pi	repared Sample %Rec 98	Analyzed 05/03/13 09:08 PiD: Lab Contro Prep Type: **Rec. Limits 80 - 120 ent Sample ID:	Dill F Total/N Total/N
Matrix: Water Analysis Batch: 137094 Analyte Total Dissolved Solids Lab Sample ID: LCS 660-137094/2 Matrix: Water Analysis Batch: 137094 Analyte		5.0	Qualifier	Added		Result 9810 DU	5.0 mg	· Unit mg/L	CII	Pi	repared Sample %Rec 98	Analyzed 05/03/13 09:08 PiD: Lab Contro Prep Type: *Rec. Limits 80 - 120 ent Sample ID: Prep Type:	Dill F Total/N Duplica Total/N

QC Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

-															
Lab Sample ID: MB 660-137084/1 Matrix: Water												Client S	ample ID: Meth		
Matrix: vvaler Analysis Batch: 137084													Prep Type:	1012	al/N/
Allalysis Batcii. 137004		МВ	MB												
Analyte	R		Qualifier		PQL		MDL	Unit		D	P	repared	Analyzed	r	DII Fa
Total Suspended Solids		1.0			1.0			mg/L		. - .			05/03/13 05:35		
Lab Sample ID: LCS 660-137084/2										CI	ient	Sample	ID: Lab Contro	ıl Sa	mplo
Matrix: Water												·	Prep Type:		•
Analysis Batch: 137084				Spike		1.08	LCS						%Rec.		
Analyte				Added		Result		lfior	Unit		D	%Rec	Limits		
Total Suspended Solids				100		96.0			mg/L		-	96	80 - 120		
Lab Sample ID: 660-54117-1 DU										Clian	4 6 4	mala ID	. I EACUATE EI		IEAT
Matrix: Water										Cilen	ı sa	mpie iD	: LEACHATE EI Prep Type:		
Analysis Batch: 137084													£ -3,6		
	Sample	Sam	ple			DU	DU								RP
Analyte	Result	Qual	lifier			Result	Qual	ifior	Unit		D		RI	P D	Limi
Total Suspended Solids	54					53.0			mg/L		_			2	2
Lab Sample ID: SCB 660-137029/2 Matrix: Water												Client S	ample ID: Meth Prep Type:		
Lab Sample ID: SCB 660-137029/2 Matrix: Water	SCB	SCB.	SCB									Client S	-		
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte	SCB	osult	Qualifier		PQL		MDL	Unit				Client S	-	Tota	al/N
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte	SCB		Qualifier		PQL 2.0		MDL 2.0	Unit mg/L		<u>D</u> .			Prep Type:	Tota	al/N/ Dii Fa
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand	SCB R	osult	Qualifier							_ <u>D</u> .	Pı	repared	Prep Type:	Tota	al/N
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand	SCB R	osult	Qualifier								Pı	repared	Analyzed 05/02/13 06:48	Tota	al/N, Dii Fa Blan
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1	SCB R	osult	Qualifier							_ <u>D</u> .	Pı	repared	Analyzed 05/02/13 06:48 Gample ID: Meth	Tota	al/N/ Dii Fa Blan
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029	SCB Re	2.0	Qualifier U		2.0					_ <u>D</u> .	Pı	repared	Analyzed 05/02/13 06:48 Gample ID: Meth	Tota	al/N/ Dii Fa Blani
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte	SCB Re	2.0 USB	Qualifier U USB Qualifier		2.0		2.0	mg/L Unit		D .	Pi	repared	Analyzed 05/02/13 06:48 Gample ID: Meth	Total	al/N/ Dii Fa Blan al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte	SCB Re	2.0	Qualifier U USB Qualifier		2.0		2.0	mg/L		<u> </u>	Pi	repared Client S	Analyzed 05/02/13 06:48 sample ID: Meth Prep Type:	Total	al/N/ Dii Fa Blani al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3	SCB Re	2.0 USB	Qualifier U USB Qualifier		2.0		2.0	mg/L Unit		. <u>D</u>	Pi	repared Client S	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48	Total	al/N/ Dii Fa Blan al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water	SCB Re	2.0 USB	Qualifier U USB Qualifier		2.0		2.0	mg/L Unit		. <u>D</u>	Pi	repared Client S	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48	Total	al/N/ Dii Fa Blani al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water	SCB Re	2.0 USB	Qualifier U USB Qualifier		2.0		2.0 MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pi	repared Client S	Analyzed 05/02/13 06:48 sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 s ID: Lab Contro	Total	al/N/ Dii Fa Blan al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029	SCB Re	2.0 USB	Qualifier U USB Qualifier	Spiko	2.0	LCS	2.0 MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 DID: Lab Contro Prep Type: %Rec.	Total	al/N/ Dii Fa Blani al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte Analysis Batch: 137029	SCB Re	2.0 USB	Qualifier U USB Qualifier	Added	2.0	LCS Result	2.0 MDL 2.0	mg/L Unit mg/L	Unit	. <u>D</u>	Pi	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 DID: Lab Contro Prep Type: %Rec. Limits	Total	al/N/ Dil Fa Blan al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029	SCB Re	2.0 USB	Qualifier U USB Qualifier	•	2.0	LCS	2.0 MDL 2.0	mg/L Unit mg/L	Unit mg/L	. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 DID: Lab Contro Prep Type: %Rec.	Total	al/N/ Dii Fa Blani al/N/
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: 660-54107-B-1 DU	SCB Re	2.0 USB	Qualifier U USB Qualifier	Added	2.0	LCS Result	2.0 MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 DI: Lab Contro Prep Type: %Rec. Limits 85 - 115	Total	al/N. Blan Blan Dil Fa
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: 660-54107-B-1 DU Matrix: Water	SCB Re	2.0 USB	Qualifier U USB Qualifier	Added	2.0	LCS Result	2.0 MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 D: Lab Contro Prep Type: %Rec. Limits 85 - 115	Total	al/N/ Dii Fa Blan al/N/ Dii Fa
Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte	SCB R	USB esuit 2.0	Qualifier USB Qualifier U	Added	2.0	LCS Result	MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 DI: Lab Contro Prep Type: %Rec. Limits 85 - 115	Total	al/N/ Dii Fa Blani al/N/ Dii Fa
Lab Sample ID: SCB 660-137029/2 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: USB 660-137029/1 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: LCS 660-137029/3 Matrix: Water Analysis Batch: 137029 Analyte Biochemical Oxygen Demand Lab Sample ID: 660-54107-B-1 DU Matrix: Water	SCB Re	USB osuit 2.0	Qualifier USB Qualifier U	Added	2.0	LCS Result	MDL 2.0	mg/L Unit mg/L		. <u>D</u>	Pr Pr	repared Client S repared Sample	Analyzed 05/02/13 06:48 Sample ID: Meth Prep Type: Analyzed 05/02/13 06:48 0 ID: Lab Contro Prep Type: %Rec. Limits 85 - 115 ent Sample ID: Prep Type:	Total	al/N/ DII Fa Blani al/N/ DII Fa

QC Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

Method: SM 5220D - COD															
Lab Sample ID: MB 680-276003/3 Matrix: Water Analysis Batch: 276003		MB										Client S	ample ID: Prep 1	Method Type: To	
Analyte	R		MB Qualifier		PQL		MDI	Unit		D	Ð	repared	Analya	rod	Dil Fac
Chemical Oxygen Demand			U		20			mg/L		. - .			05/08/13		1
Lab Sample ID: LCS 680-276003/4										CI	ient	Sample	ID: Lab C	ontrol S	ample
Matrix: Water												•		ype: To	•
Analysis Batch: 276003													•	•	
				Spike		LCS	LCS						%Rec.		
Analyte				Added		Result	Qua	lifier	Unit		D	%Rec	Limits		
Chemical Oxygen Demand				100	-	105			mg/L		_	105	90 - 110		
Lab Sample ID: 660-54117-2 MS										Cli	ent	Sample	ID: BLAN	(EQUIP	MENT
Matrix: Water													Prep 1	ype: To	tal/NA
Analysis Batch: 276003													-		
	Sample	Sam	ple	Spike		MS	MS						%Rec.		
Analyte	Result	Qual	ifier	Added		Result	Qua	lifier	Unit		D	%Rec	Limits		
Chemical Oxygen Demand	6.3	Ū		100		98.2			mg/L		_	98	90 - 110		•
Lab Sample ID: 660-54117-2 MSD										Cli	ent	Sample	ID: BLANK	(EQUIP	MENT
Matrix: Water												·	Prep 1	ype: To	tal/NA
Analysis Batch: 276003													•	•	
	Sample	Sam	ple	Spike		MSD	MSE)					%Rec.		RPD
Analyte	Result	Qual	ifier	Added		Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Limit
Chemical Oxygen Demand	6.3	Ū		100	-	98.2			mg/L		_	98	90 - 110		30

QC Association Summary

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

General Chemistry					
Analysis Batch: 13702	9				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-54107-B-1 DU	Duplicate	Total/NA	Water	SM 5210B	
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5210B	
660-54117-2	BLANK EQUIPMENT	Total/NA	Water	SM 5210B	
LCS 660-137029/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-137029/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-137029/1 USB	Method Blank	Total/NA	Water	SM 5210B	
Analysis Batch: 13708	4				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	•
660-54117-1 DU	LEACHATE EFFLUENT	Total/NA	Water	SM 2540D	
660-54117-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540D	
LCS 660-137084/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-137084/1	Method Blank	Total/NA	Water	SM 2540D	
 Analysis Batch: 13709	4				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-54113-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	SM 2540C	
660-54117-2	BLANK EQUIPMENT	Total/NA	Water	SM 2540C	
LCS 660-137094/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-137094/1	Method Blank	Total/NA	Water	SM 2540C	
– Analysis Batch: 13711	0				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-54113-A-1 MS	Matrix Spike	Total/NA	Water	353.2	
660-54113-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	353.2	
660-54117-2	BLANK EQUIPMENT	Total/NA	Water	353.2	
LCS 660-137110/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-137110/12	Method Blank	Total/NA	Water	353.2	
Analysis Batch: 27600	3				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	SM 5220D	
660-54117-2	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
660-54117-2 MS	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
660-54117-2 MSD	BLANK EQUIPMENT	Total/NA	Water	SM 5220D	
LCS 680-276003/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-276003/3	Method Blank	Total/NA	Water	SM 5220D	
Field Service / Mol	pile Lab				
Analysis Batch: 13709	6	· · · · · · · · · · · · · · · · · · ·			
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batci
660-54117-1	LEACHATE EFFLUENT	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dop

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54117-1

Client Sample ID: LEACHATE EFFLUENT

Date Collected: 05/01/13 14:30 Date Received: 05/01/13 16:45 Lab Sample ID: 660-54117-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzod	Analyst	Lab
Total/NA	Analysis	SM 5210B		1 -	137029	05/02/13 10:40	AG	TAL TAM
Total/NA	Analysis	SM 2540D		1	137084	05/03/13 05:35	то	TAL TAM
Total/NA	Analysis	SM 2540C		1	137094	05/03/13 09:08	то	TAL TAM
Total/NA	Analysis	353.2		25	137110	05/02/13 16:15	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		1	276003	05/08/13 12:15	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	137096	05/01/13 14:30		TAL TAM

Client Sample ID: BLANK EQUIPMENT

Date Collected: 05/01/13 14:35

Date Received: 05/01/13 16:45

Lab Sample ID: 660-54117-2

Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B		1	137029	05/02/13 10:40	ĀĞ	TAL TAM
Total/NA	Analysis	SM 2540D		1	137084	05/03/13 05:35	то	TAL TAM
Total/NA	Analysis	SM 2540C		1	137094	05/03/13 09:08	то	TAL TAM
Total/NA	Analysis	353.2		1	137110	05/02/13 16:07	RWF	TAL TAM
Total/NA	Analysis	SM 5220D		1	276003	05/08/13 12:15	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

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Method Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54117-1

Method	Method Description	Protocol	Laboratory
353.2	Nitrate	MCAVW	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

99

TestAmerica Job ID: 660-54117-1

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	05-31-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
ndiana	State Program	5	N/A	06-30-13
lowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
ouisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
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
Pennsylvania	NELAP	3	68-00474	06-30-13 *
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13 °
Washington	State Program	10	C1794	06-10-13
Nest Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	06-30-13

^{*} Expired certification is currently pending renewal and is considered valid.

Certification Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-54117-1

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
1	Wisconsin	State Program		5	999819810	08-31-13
Į	Wyoming	State Program	·	8	8TMS-Q	06-30-13





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TestAmerica Tampa

6712 Benjamin Road Suite 100

Tampa, FL 33634 Phone (813) 865-7427 Fax (813) 885-7049

Chain of Custody Record



7 Hold (013) 003-7427 FAX (013) 003-7049	Sampter			Lat	PM:							Cari	er Track	ma Not	¢):		COC No:	ENVIRONMENTAL RESTING	
Client Information (Sub Contract Lab)	Phone	···			bertso lad.	n, Na	ncy					1			-,		660-55443.1	660-55443.1	
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City. Savannah	TAT Requested (days):		·	_լ՝ [1		A - HCL B - NaOH	M - Hexane N - None	
State, Zip					1		İ										C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S	
GA, 31404 Phone.	POII																E - NaHSO4 F - MeOH	Q - Na2SQ3 R - Na2S2SQ3	
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Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-54117-1

Login Number: 54117

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.</td <td>N/A</td> <td></td>	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	
s 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

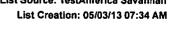
Client: Hillsborough County Public Utilities Dep

Job Number: 660-54117-1

Login Number: 54117 List Number: 1

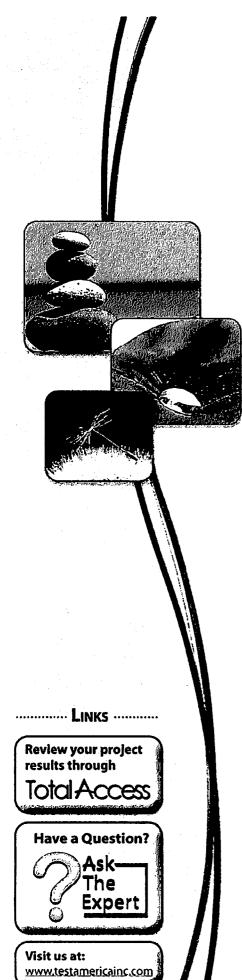
List Source: TestAmerica Savannah

Creator: Barnett, Eddie T



Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	





<u>TestAmerica</u>

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: 660-54725-1

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: 6/20/2013 8:32:42 AM

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

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

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

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



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Sample Summary

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent TestAmerica Job ID: 660-54725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-54725-1	LEACHATE EFFLUENT (not bl	ank) Water	06/05/13 13:13	06/05/13 15:56
660-54725-2	BLANK EQUIPMENT 54725	Water	06/05/13 12:55	06/05/13 15:56

Case Narrative

Client: Hillsborough County Public Utilities Dep Project/Site: SELF Leachate Effluent	TestAmerica Job ID: 660-54725-1
Job ID: 660-54725-1	
Laboratory: TestAmerica Tampa	
Narrative	
	Job Narrativo 660-54725-1
Comments No additional comments.	
Receipt	
The samples were received on 6/5/2013 3:56 PM; the sail The temperature of the cooler at receipt was 4.9° C.	mples arrived in good condition, properly preserved and, where required, on ice.
General Chemistry	

No analytical or quality issues were noted.

Definitions/Glossary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Qualifiers

General Chemistry

Qualifier Qualifier Description

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

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
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

Client Sample ID: BLANK EQUIPMENT 54725

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Lab Sample ID: 660-54725-1

lient Sample ID: LEACHATE EFFLUENT (not blank)						Lab Sample ID: 660-54725-1			
Analyto	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	77		25	5.0	mg/L	50		353.2	Total/NA
Total Dissolved Solids	6200		250	250	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	63		2.5	2.5	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	15		12	12	mg/L	1		SM 5210B	Total/NA
Chemical Oxygen Demand	620		20	6.3	mg/L	1		SM 5220D	Total/NA
Field pH	8.06				SU	1		Field Sampling	Total/NA
Field Temperature	31.58				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.78				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11655				uS/cm	1		Field Sampling	Total/NA

Lab Sample ID: 660-54725-2

No Detections.



Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Client Sample ID: LEACHATE EFFLUENT (not blank)

Lab Sample ID: 660-54725-1

Matrix: Water

Date Collected: 06/05/13 13:13

Date Received: 06/05/13 15:56

General Chemistry									
Analyte	Result	Qualifler	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	77		25	5.0	mg/L			06/06/13 14:39	50
Total Dissolved Solids	6200		250	250	mg/L			08/12/13 12:42	1
Total Suspended Solids	63		2.5	2.5	mg/L			06/12/13 07:40	1
Biochemical Oxygen Demand	16		12	12	mg/L			06/06/13 08:30	1
Chemical Oxygen Demand	620		20	6.3	mg/L			06/10/13 14:06	1
Method: Field Sampling - Field S	Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzod	Dil Fac
Field pH	8.06				SU			06/05/13 13:13	1
Field Temperature	31.68				Degrees C			06/05/13 13:13	1
Oxygen, Dissolved	4.78				mg/L			06/05/13 13:13	1
Specific Conductance	11665				uS/cm			06/05/13 13:13	1



Client Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Client Sample ID: BLANK EQUIPMENT 54725

Date Collected: 06/05/13 12:55 Date Received: 06/05/13 15:56 Lab Sample ID: 660-54725-2 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	-		06/06/13 14:21	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			06/12/13 12:42	1
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			06/12/13 07:40	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			06/06/13 08:30	1
Chemical Oxygen Demand	6.3	U	20	6.3	mg/L			06/10/13 14:06	1



			QC	Sam	ple F	Resu	Its								
Client: Hillsborough County Public Uti Project/Site: SELF Leachate Effluent	lities Dep	D		· · •	•		-				-	TestAme	erica Job ID:	660-5	4725-1
Method: 353.2 - Nitrate															
Lab Sample ID: MB 660-138162/12												Client S	iample ID: N	/lethoc	d Blank
Matrix: Water													Prep Ty	/pe: To	otal/NA
Analysis Batch: 138162															
		MB													
Analyto	R		Qualifier		PQL		MDL	-		D	P	repared	Analyzo		Dil Fac
Nitrate as N		0.10	υ		0.50		0.10	mg/L					06/06/13 1	4:18	1
Lab Sample ID: LCS 660-138162/13 Matrix: Water	ı									CI	ient	Sample	D: Lab Co Prep Ty		Sample otal/NA
Analysis Batch: 138162															
· 				Spike			LCS						%Rec.		
Analyte				Added			Quali	flor	Unit		D	%Rec	Limits		
Nitrate Nitrite as N		- !		1.00		0.966			mg/L			97	90 - 110		
Nitrite as N				0.500		0.485	1		mg/L			97	90 . 110		
Lab Sample ID: 660-54725-2 MS Matrix: Water									Clie	nt Sa	mpl	e ID: BL	ANK EQUIF		T 54725 otal/NA
Analysis Batch: 138162															
	Sample	Samı	ple	Spike		MS	MS						%Rec.		
Analyto	Result	Qual	ifler	Added		Result	Quali	flor	Unit		D	%Rec	Limits		
Nitrate Nitrite as N	0.10			1.00		0.991			mg/L			99	90 - 110		
Nitrite as N	0.10			0.500		0.494	- 1		mg/L			99	90 - 110		
Lab Sample ID: 660-54725-2 MSD Matrix: Water									Clie	nt Sa	mpl	e ID: BL	ANK EQUIF		
Analysis Batch: 138162													Figh is	/pe. II	otal/NA
Analysis Baton. 100102	Sample	Samı	ole	Spike		MSD	MSD						%Rec.		RPD
Analyte	Result	-		Added			Quali	fier	Unit		D	%Rec	Limits	RPD	_
Nitrate Nitrite as N	0.10	•		1.00	•	1.01	_		mg/L		_	101	90 - 110	2	
Nitrite as N	0.10			0.500		0.503			mg/L			101	90 - 110	2	
Method: SM 2540C - Solids, To	tol Die	Sook	and (TDS						•						
method. Sin 2540C - Solids, 10	סומו טוס	SUIV	reu (TDS	"											
Lab Sample ID: MB 660-138353/1 Matrix: Water												Client S	Sample ID: N		d Blank otal/NA
Analysis Batch: 138353															
		MB	MB												
Analyte	R	esult	Qualifier		PQL		MDL	Unit		D	P	repared	Analyze	əd	Dil Fac
Total Dissolved Solids		5.0	U		5.0		5.0	mg/L					06/12/13 1	2:42	1
Lab Sample ID: LCS 660-138353/2 Matrix: Water										CI	ient	Sample	D: Lab Co Prep T		Sample otal/NA
Analysis Batch: 138353															
• •				Spike			LCS						%Rec.		
Analyto				Added			Quali	flor	Unit		D	%Rec	Limits		
Total Dissolved Solids				10000		9890)		mg/L			99	80 - 120		
Lab Sample ID: 640-43831-A-2 DU												Cli	ent Sample		uplicate

TestAmerica Tampa

Prep Type: Total/NA

RPD

8.0

RPD

Limit

20

DU DU

1270

Result Qualifler

Unit

mg/L

D

Sample Sample

1300

Result Qualifier

Matrix: Water

Total Dissolved Solids

Analyto

Analysis Batch: 138353

QC Sample Results

		QC Sam	ple F	Resu	lts					
Client: Hillsborough County Public L Project/Site: SELF Leachate Effluen		·						TestAme	rica Job ID: 660	-54725-1
Method: SM 2540D - Solids,	Total Suspende	ed (TSS)						• •		
Lab Sample ID: MB 660-138320/1								Client S	ample ID: Meth	od Blank
Matrix: Water								0110111	Prep Type:	
Analysis Batch: 138320									,p .,p.	
	мв мв									
Analyto	Result Qui	allflor	PQL		MDL Unit		D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0 U		1.0		1.0 mg/L				06/12/13 07:40	1
Lab Sample ID: LCS 660-138320/	2						Clie	ent Sample	ID: Lab Contro	i Sample
Matrix: Water								•	Prep Type:	-
Analysis Batch: 138320										
		Spike		LCS	LCS				%Rec.	
Analyto		Added		Result	Qualifier	Unit		D %Rec	Limits	
Total Suspended Solids		100		95.2		mg/L		95	80 - 120	
Lab Sample ID: 660-54725-1 DU Matrix: Water					Clien	t Sampl	le ID: I	LEACHATE	E EFFLUENT (no Prep Type:	•
Analysis Batch: 138320										
!	Sample Sample			DU	DU					RPD
Analyte	Result Qualifier			Result	Qualifier	Unit		D	RF	D Limit
Total Suspended Solids	63			53.0		mg/L				17 20
Method: SM 5210B - BOD, 5-	Day									
Lab Sample ID: SCB 660-138133/ Matrix: Water	2 SCB							Client S	iample ID: Meth Prep Type:	
Analysis Batch: 138133									riop type.	TOWNTA
Analysis Satoli. 100100	SCB SC	В								
Analyte	Result Qu	alifier	PQL		MDL Unit		D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0 U		2.0	-	2.0 mg/L				06/06/13 07:58	1
Lab Sample ID: USB 660-138133/	4 IISB							Client S	iample ID: Meth	ad Blank
Matrix: Water	1000							Client	•	
Analysis Batch: 138133									Prep Type:	IOLAIINA
Analysis Batch. 130133	USB US	R								
Analyte	Result Qui		PQL		MDL Unit		D	December	*	B# F
Biochemical Oxygen Demand	2.0 U	:: ::	2.0		2.0 mg/L	÷	U	Prepared	Analyzed 06/06/13 07:58	Dil Fac
	_				_					
Lab Sample ID: LCS 660-138133/	3						Clic	ent Sample	D: Lab Contro	•
Matrix: Water									Prep Type:	Total/NA
Analysis Batch: 138133										
		Spike		LCS	LC\$				%Rec.	
Analyto		Added		Result	Qualifier	Unit		D %Rec	Limits	
Biochemical Oxygen Demand		198		188	1	mg/L		95	85 - 115	
Lab Sample ID: 660-54716-A-1 Di Matrix: Water	U							Clic	ent Sample ID: (Prep Type:	
Analysis Batch: 138133									• ••	
	Sample Sample			DU	DU					RPD
Annivto	Pasult Outliffor			Doeule	Ouglifice	Heit		^		

RPD

NC

Limit

20

Result Qualifier

12 U

Unit

mg/L

D

Result Qualifier

12 U

Biochemical Oxygen Demand

QC Sample Results

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

ħ	A	0	tŀ	10	d:	SM	5220D	- (CO	D
---	---	---	----	----	----	----	-------	-----	----	---

Lab Sample ID: MB 680-279840/3 Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA

Analysis Batch: 279840 MB MB

Rosult Qualifier Analyte PQL MDL Unit D Prepared Analyzed Dil Fac 6.3 mg/L Chemical Oxygen Demand 6.3 U 20 06/10/13 14:06

Lab Sample ID: LCS 680-279840/4 Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA Analysis Batch: 279840

Spike LCS LCS %Rec.

Analyte Added Result Qualifier Unit %Rec Limits Chemical Oxygen Demand 100 101 90 . 110 mg/L 101

Lab Sample ID: 660-54729-D-2 MS Client Sample ID: Matrix Spike

Matrix: Water Prep Type: Total/NA

Analysis Batch: 279840 Sample Sample Spike MS MS %Roc.

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits 6.4 I Chemical Oxygen Demand 100 99.1 mg/L 90 . 110

Lab Sample ID: 660-54729-D-2 MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Water Prep Type: Total/NA

Analysis Batch: 279840

Sample Sample Spike MSD MSD %Rec. RPD Rosult Qualifier Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chemical Oxygen Demand 6.4 1 100 99.1 mg/L 90.110

Prep Batch

Prop Batch

QC Association Summary

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Ge	neral	Chem	istrv
			,

Analysi	s Batch:	138133
---------	----------	--------

Lab Sample ID	Client Sampte ID	Prop Type	Matrix	Method	Prep Batch
660-54716-A-1 DU	Duplicate	Total/NA	Water	SM 5210B	· · · · · · · · · · · · · · · · · · ·
660-54725-1	LEACHATE EFFLUENT (not blank)	Total/NA	Water	SM 5210B	
660-54725-2	BLANK EQUIPMENT 54725	Total/NA	Water	SM 5210B	
LCS 660-138133/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-138133/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-138133/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 138162

Lab Sample ID	Client Sample ID	Prop Type	Matrix	Method
660-54725-1	LEACHATE EFFLUENT (not blank)	Total/NA	Water	353.2
660-54725-2	BLANK EQUIPMENT 54725	Total/NA	Water	353.2
660-54725-2 MS	BLANK EQUIPMENT 54725	Total/NA	Water	353.2
660-54725-2 MSD	BLANK EQUIPMENT 54725	Total/NA	Water	353.2
LCS 660-138162/13	Lab Control Sample	Total/NA	Water	353.2
MB 660-138162/12	Method Blank	Total/NA	Water	363.2

Analysis Batch: 138320

Lab Sample ID	Client Sample ID	Prop Type	Matrix	Method
660-54725-1	LEACHATE EFFLUENT (not blank)	Total/NA	Water	SM 2540D
660-54725-1 DU	LEACHATE EFFLUENT (not blank)	Total/NA	Water	SM 2540D
660-54725-2	BLANK EQUIPMENT 54725	Total/NA	Water	SM 2540D
LCS 660-138320/2	Lab Control Sample	Total/NA	Water	SM 2540D
MB 660-138320/1	Method Blank	Total/NA	Water	SM 2540D

Analysis Batch: 138353

Lab Sample ID	Client Sample tD	Prop Typo	Matrix	Method	Prep Batch
640-43831-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	
660-54725-1	LEACHATE EFFLUENT (not blank)	Total/NA	Water	SM 2540C	
660-54725-2	BLANK EQUIPMENT 54725	Total/NA	Water	SM 2540C	
LCS 660-138353/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-138353/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 279840

Lab Sample ID	Client Sample ID	Prop Type	Matrix	Method	Prep Batch
660-54725-1	LEACHATE EFFLUENT (not blank)	Total/NA	Water	SM 5220D	1 Top Dately
660-54725-2	BLANK EQUIPMENT 54725	Tota!/NA	Water	SM 5220D	
660-54729-D-2 MS	Matrix Spike	Total/NA	Water	SM 5220D	
660-54729-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 680-279840/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 680-279840/3	Method Blank	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 138346

Lab Sample ID 660-54725-1	Client Sample ID LEACHATE EFFLUENT (not blank)	Prop Type Tota!/NA	Matrix Water	Method Field Sampling	Prep Batch
I		• ••			Prep B

Lab Chronicle

Client: Hillsborough County Public Utilities Dep

Project/Site: SELF Leachate Effluent

TestAmerica Job ID: 660-54725-1

Client Sample ID: LEACHATE EFFLUENT (not blank)

Date Collected: 06/05/13 13:13 Date Received: 06/05/13 15:56 Lab Sample ID: 660-54725-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туро	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B	•	1	138133	06/06/13 08:30	AG	TAL TAM
Total/NA	Analysis	353.2		50	138162	06/06/13 14:39	EE	TAL TAM
Total/NA	Analysis	SM 2540D		1	138320	06/12/13 07:40	то	TAL TAM
Total/NA	Analysis	SM 2540C		1	138353	06/12/13 12:42	то	TAL TAM
Total/NA	Analysis	SM 5220D		1	279840	06/10/13 14:06	TAR	TAL SAV
Total/NA	Analysis	Field Sampling		1	138346	06/05/13 13:13		TAL TAM

Client Sample ID: BLANK EQUIPMENT 54725

Date Collected: 06/05/13 12:55

Date Received: 06/05/13 15:56

Lab Sample ID: 660-54725-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туро	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5210B	+	1	138133	06/06/13 08:30	AG	TAL TAM
Total/NA	Analysis	353.2		1	138162	06/06/13 14:21	EE	TAL TAM
Total/NA	Analysis	SM 2540D		1	138320	06/12/13 07:40	то	TAL TAM
Total/NA	Analysis	SM 2540C		1	138353	06/12/13 12:42	то	TAL TAM
Total/NA	Analysis	SM 5220D	İ	1	279840	06/10/13 14:06	TAR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Şavannah, 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: 660-54725-1

Method	Method Description	Protocal	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: 660-54725-1

Laboratory: TestAmerica Tampa

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

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

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP	FLY VARIOU	399.01	07-31-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-13
Indiana	State Program	5	N/A	06-30-13
lowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-12 *
Kentucky (UST)	State Program	4	18	03-31-13 *
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 °
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-14
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
Pennsylvania	NELAP	3	68-00474	06-30-13 °
Puerto Rico	State Program	2	GA00006	01-01-14
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13 *
Washington	State Program	10	C1794	06-10-13 *
West Virginia	State Program	3	9950C	12-31-13

^{*} Expired certification is currently pending renewal and is considered valid.



Certification Summary

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

TestAmerica Job ID: 660-54725-1

Laboratory: TestAmerica Savannah (Continued)

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

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



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Original - Return to Laboratory with Sample(s)

TestAmerica Tampa

6712 Benjamin Road Suite 100

Tampa, FL 33634 Phone (813) 885-7427 Fex (813) 885-7049

Chain of Custody Record



Priorie (613) 663-7427 PBX (613) 665-7049	Semplor.			- IL	ab PM;			_					Carr	er Tro	rtina i	Molet:				DIVIRONMENTAL TEST
Client Information (Sub Contract Lab)	Phone			F	Robert	son, I	Vancy									110(0)			COC No: 660-56688,1	
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TestAmerica Laboratories, Inc.										Analy	ysis	Req	ues	ted					Job # 660-54725-1	
Address: 5102 LaRoche Avenue.	Due Date Reques 6/12/2013	ited:			7.		$\neg \tau$	Ť	Τ	Т					1	T	Т	1.	- Preservation C	odes:
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912-354-7858(Tel) 912-352-0105(Fax)					€						ĺ							1	G - Amortion H - Ascorbic Acid	S - H2SO4 T - TSP Oodecohydrat
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Page 18 of 21

Robertson, Nancy

From:

Townsel, Michael [TownselM@HillsboroughCounty.ORG]

Sent:

Wednesday, June 05, 2013 4:57 PM

To:

Robertson, Nancy

Subject: Field Parameters-Southeast Landfill Plant

Hi Nancy,

Here are the field parameters for the monthly plant effluent sample collected today on 6/5/13.

Temp. - 31.58 Conductivity - 11,655 Dissolved Oxygen - 4.78 pH - 8.06

No turbidity collected.

Thanks!

Michael D. Tawnsel Senior Hydrologist Public Utilities Department Environmental Services p: 813.272.5977 x43955

e: townselm@hillsboroughcounty.org

w: http://www.hillsboroughcounty.org

Please note: all correspondence to or from this office is subject to Florida's Public Records laws.



Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-54725-1

Login Number: 54725 List Number: 1 List Source: TestAmerica Tampa

Creator: McNulty, Carol

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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	



Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-54725-1

List Source: TestAmerica Savannah

List Creation: 06/07/13 08:42 AM

List Number: 1 Creator: Conner, Keaton

Login Number: 54725

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td>· —-</td>	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.	eurT	
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	

