

## SCS ENGINEERS

April 5, 2010  
File No. 09208040.04

Mr. John Morris, P.G.  
Florida Department of Environmental Protection  
Southwest District  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637-0926

Subject: Citrus County Central Landfill  
Quarterly Leachate Sampling -- First Quarter 2010  
Permit No. 21375-008-SO/01

Dear Mr. Morris:

SCS Engineers (SCS) is providing the First Quarter Leachate Effluent monitoring results on behalf of the Citrus County Solid Waste Management Division (County) for the Central Landfill located in Citrus County, Florida (the site). This report provides copies of the final laboratory reports, field forms, and a CD containing an electronic copy of this report and the electronic data deliverable (EDD) in the "ADaPT" format provided by TestAmerica Laboratories Inc., (TestAmerica).

The leachate effluent sample was analyzed in compliance with the permit and for the quarterly parameters listed in Specific Condition Part E.9.b.2 (quarterly) of the permit. The resulting data from the quarterly sampling event are included in Attachment 1 (Effluent data is located on pages 7, 8, 10, 11, 12, and 13 of 26 of the laboratory analytical report.) and Table 1, Attachment 3. These concentrations are similar to historic concentrations (Table 1, Attachment 3). With the exception of sodium, chloride, and total dissolved solids (TDS), the leachate effluent sample complied with the groundwater standards and minimum criteria referenced in Florida Administrative Code (FAC) Chapters 62-520.420 and 62-520.400, respectively. As per Specific Condition Part E.9.b, sodium, chloride, and TDS are not required to meet the groundwater standards and minimum criteria at the discharge point; however they must comply at the edge of the zone of discharge along the western boundary.

First Quarter leachate quality sampling, physical readings and measurements, and leachate quality analyses were performed by TestAmerica. Field work, sampling methodologies, data evaluation, and data Quality Assurance/Quality Control (QA/QC) were conducted in accordance with FAC Chapter 62-160 Standard Operating Procedures (DEP-SOP-001/01) and the TestAmerica quality manual. Laboratory analyses were performed in accordance with Chapter 62-160, FAC DEP-SOP-001/01. TestAmerica is certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).



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April 5, 2010  
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TestAmerica mobilized to the site on January 26, 2010, to collect leachate samples following the FDEP Standard Operating Procedures (SOPs) as guidance for the collection of these samples. Copies of the laboratory report and field forms are presented in Attachment 1.

Monthly samples of the leachate effluent were analyzed for the parameters listed in Specific Condition Part E.9.b.2 (monthly) of the Permit. The monthly samples are collected by the site and analyzed by their contract laboratory. The analytical laboratory reports from the monthly sampling events for January, February, and March of 2010, are included in Attachment 2 and summarized on Table 2, Attachment 3.

If you have any questions regarding this report, please contact the undersigned at (813) 621-0080.

Sincerely,

  
Ken Guilbeault, LEP  
Senior Project Professional

  
C. Ed Hilton, P.E. 416/110  
Vice President  
SCS ENGINEERS

KEG/CEH:keg

cc: T. Casey Stephens – Citrus County  
Solid Waste Administrator, FDEP - Tallahassee

Attachments

DEP Form #: 62-701.900(31), F.A.C  
Form Title: Water Quality Monitoring Certification  
Effective Date: January 6, 2010  
Incorporated in Rule 62-701.510(9), F.A.C.

# Florida Department of Environmental Protection

Bob Martinez Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

## WATER QUALITY MONITORING CERTIFICATION

### PART I GENERAL INFORMATION

- (1) Facility Name Citrus County Central Landfill  
Address PO BOX 340  
City Lecanto Zip 34460  
Telephone Number (352) 527-7670
- (2) WACS Facility ID 39859
- (3) DEP Permit Number 21375-008-SO/01
- (4) Authorized Representative Name Casey Stephens, Title Director of Solid Waste  
Address PO BOX 340  
City Lecanto Zip 34460  
Telephone Number (352) 527-7670

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

Date: 4/5/10

  
Signature of Owner or Authorized Representative

### PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization TestAmerica Laboratories, Inc  
Analytical Lab NELAC / HRS Certification # NELAP Certifications E84282 and E81005  
Lab Name TestAmerica Laboratories, Inc  
Address 6712 Benjamin Road, Suite 100, Tampa, FL 33634  
Phone Number (813) 885-7427  
Email address (if available) nancy.robertson@testamericainc.com

ATTACHMENT 1  
LABORATORY ANALYTICAL RESULTS  
AND FIELD FORMS

## ANALYTICAL REPORT

Job Number: 660-33514-1

Job Description: Citrus County EFF Leachate

For:

SCS Engineers  
4041 Park Oaks Blvd  
Suite 100  
Tampa, FL 33610

Attention: Mr. Ken Guilbeault



Approved for release.  
Nancy Robertson  
Project Manager II  
2/8/2010 9:17 AM

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Nancy Robertson  
Project Manager II  
nancy.robertson@testamericainc.com  
02/08/2010

Methods: FDEP, DOH Certification #: TestAmerica Tampa E84282, TestAmerica Tallahassee E81005.  
These test results meet all the requirements of NELAC unless specified in the case narrative. All questions regarding this test report should be directed to the TestAmerica Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request. The results contained in this test report relate only to these samples included herein.

**Job Narrative**  
**660-33514-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: The matrix spike (MS) recovery for batch 90011 was outside control limits for Bromoform. The associated laboratory control sample (LCS) recovery met acceptance criteria. Sample Leachate EFF is flagged with J3.

No other analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 90114 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

## EXECUTIVE SUMMARY - Detections

Client: SCS Engineers

Job Number: 660-33514-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>660-33514-1</b>	<b>LEACHATE EFF</b>				
Trihalomethanes, Total		38	0.50	ug/L	524.2
Bromoform		7.0 J3	1.0	ug/L	8260B
Chlorodibromomethane		9.7	1.0	ug/L	8260B
Chloroform		8.3	1.0	ug/L	8260B
Bromodichloromethane		13	1.0	ug/L	8260B
Field pH		7.27		SU	Field Sampling
Oxidation Reduction Potential		228		millivolts	Field Sampling
Oxygen, Dissolved		7.01		mg/L	Field Sampling
Sheen		None		SU	Field Sampling
Specific Conductance		3475		umhos/cm	Field Sampling
Turbidity		1.84		NTU	Field Sampling
Temperature		17.1		Degrees C	Field Sampling
Chloride		1000	10	mg/L	300.0
Ammonia (as N)		0.086	0.020	mg/L	350.1
Total Dissolved Solids		2200	17	mg/L	SM 2540C
<b><i>Total Recoverable</i></b>					
Sodium		580	5.0	mg/L	6010B

## METHOD SUMMARY

Client: SCS Engineers

Job Number: 660-33514-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix</b> <b>Water</b>			
Total Trihalomethane Calculation	TAL TAM	EPA-DW 524.2	
Volatile Organic Compounds (GC/MS)	TAL TAM	SW846 8260B	
Purge and Trap	TAL TAM		SW846 5030B
EDB	TAL TAM	EPA 8011	
Microextraction	TAL TAM		SW846 8011
Metals (ICP)	TAL TAM	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL TAM		SW846 3005A
Anions, Ion Chromatography	TAL TAM	MCAWW 300.0	
Nitrogen, Ammonia	TAL TAM	MCAWW 350.1	
Solids, Total Dissolved (TDS)	TAL TAM	SM SM 2540C	
Field Sampling	TAL TAM	EPA Field Sampling	

### Lab References:

TAL TAM = TestAmerica Tampa

### Method References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

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",

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



## METHOD / ANALYST SUMMARY

Client: SCS Engineers

Job Number: 660-33514-1

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
EPA-DW 524.2	Harris, Chris	CH
SW846 8260B	Harris, Chris	CH
EPA 8011	Ballard, James	JB
SW846 6010B	Fox, Greg	GF
EPA Field Sampling	Sampler, Field	FS
MCAWW 300.0	Cerome, Saurel	SC
MCAWW 350.1	Steward, Tiffany	TS
SM SM 2540C	Oonnoony, Thomas	TO

## SAMPLE SUMMARY

Client: SCS Engineers

Job Number: 660-33514-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
660-33514-1	Leachate EFF	Water	01/26/2010 1130	01/26/2010 1725
660-33514-2TB	Trip Blank	Water	01/26/2010 1130	01/26/2010 1725

## Analytical Data

Client: SCS Engineers

Job Number: 660-33514-1

**Client Sample ID: Leachate EFF**

Lab Sample ID: 660-33514-1

Date Sampled: 01/26/2010 1130

Client Matrix: Water

Date Received: 01/26/2010 1725

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### 524.2 Total Trihalomethane Calculation

Method:	524.2	Analysis Batch: 660-90043	Instrument ID:	NOEQUIP
Preparation:	N/A		Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	
Date Analyzed:	01/28/2010 1359		Final Weight/Volume:	1.0 mL
Date Prepared:				

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Trihalomethanes, Total	38		0.25	0.50

# Analytical Data

Client: SCS Engineers

Job Number: 660-33514-1

Client Sample ID: Leachate EFF

Lab Sample ID: 660-33514-1  
Client Matrix: Water

Date Sampled: 01/26/2010 1130  
Date Received: 01/26/2010 1725

## 8260B Volatile Organic Compounds (GC/MS)

Method: 8260B Analysis Batch: 660-90011 Instrument ID: BVMJ5975  
Preparation: 5030B Lab File ID: 1JA2815.D  
Dilution: 1.0 Initial Weight/Volume: 5 mL  
Date Analyzed: 01/28/2010 1359 Final Weight/Volume: 5 mL  
Date Prepared: 01/28/2010 1359

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Benzene	0.50	U	0.50	1.0
Ethylbenzene	0.44	U	0.44	1.0
Toluene	0.51	U	0.51	1.0
Xylenes, Total	0.50	U	0.50	3.0
Vinyl chloride	0.50	U	0.50	1.0
Bromoform	7.0	J3	0.58	1.0
Chlorodibromomethane	9.7		0.34	1.0
Chloroform	8.3		0.90	1.0
Bromodichloromethane	13		0.35	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
Toluene-d8 (Surr)	107		70 - 130	
Dibromofluoromethane	107		70 - 130	
4-Bromofluorobenzene	109		70 - 130	

# Analytical Data

Client: SCS Engineers

Job Number: 660-33514-1

Client Sample ID: Trip Blank

Lab Sample ID: 660-33514-2TB

Date Sampled: 01/26/2010 1130

Client Matrix: Water

Date Received: 01/26/2010 1725

## 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 660-90011	Instrument ID:	BVMJ5975
Preparation:	5030B		Lab File ID:	1JA2812.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	01/28/2010 1250		Final Weight/Volume:	5 mL
Date Prepared:	01/28/2010 1250			

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Benzene	0.50	U	0.50	1.0
Ethylbenzene	0.44	U	0.44	1.0
Toluene	0.51	U	0.51	1.0
Xylenes, Total	0.50	U	0.50	3.0
Vinyl chloride	0.50	U	0.50	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		70 - 130
Dibromofluoromethane	102		70 - 130
4-Bromofluorobenzene	107		70 - 130

# Analytical Data

Client: SCS Engineers

Job Number: 660-33514-1

**Client Sample ID: Leachate EFF**

Lab Sample ID: 660-33514-1

Date Sampled: 01/26/2010 1130

Client Matrix: Water

Date Received: 01/26/2010 1725

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## 8011 EDB

Method:	8011	Analysis Batch: 660-90072	Instrument ID:	BSGU
Preparation:	8011	Prep Batch: 660-90069	Initial Weight/Volume:	35.7317 g
Dilution:	1.0		Final Weight/Volume:	2.0 mL
Date Analyzed:	01/29/2010 0046		Injection Volume:	4 uL
Date Prepared:	01/28/2010 1430		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Ethylene Dibromide	0.0098	U	0.0098	0.020
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,1,1,2-Tetrachloroethane	95		60 - 140	

## Analytical Data

Client: SCS Engineers

Job Number: 660-33514-1

**Client Sample ID: Leachate EFF**

Lab Sample ID: 660-33514-1

Date Sampled: 01/26/2010 1130

Client Matrix: Water

Date Received: 01/26/2010 1725

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### 6010B Metals (ICP)-Total Recoverable

Method: 6010B

Analysis Batch: 660-90039

Instrument ID: ICPA

Preparation: 3005A

Prep Batch: 660-89989

Lab File ID: 10A29A

Dilution: 10

Initial Weight/Volume: 50 mL

Date Analyzed: 01/29/2010 1255

Final Weight/Volume: 50 mL

Date Prepared: 01/28/2010 1000

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Analyte	Result (mg/L)	Qualifier	MDL	PQL
Sodium	580		3.1	5.0

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Client: SCS Engineers

Job Number: 660-33514-1

**General Chemistry**

**Client Sample ID: Leachate EFF**

Lab Sample ID: 660-33514-1  
 Client Matrix: Water

Date Sampled: 01/26/2010 1130  
 Date Received: 01/26/2010 1725

Analyte	Result	Qual	Units	MDL	PQL	Dil	Method
Chloride	1000		mg/L	4.0	10	20	300.0
	Analysis Batch: 660-90019		Date Analyzed: 01/28/2010		1406		
Ammonia (as N)	0.086		mg/L	0.010	0.020	1.0	350.1
	Analysis Batch: 660-90114		Date Analyzed: 02/01/2010		1243		

Analyte	Result	Qual	Units	PQL	PQL	Dil	Method
Total Dissolved Solids	2200		mg/L	17	17	1.0	SM 2540C
	Analysis Batch: 660-89979		Date Analyzed: 01/28/2010		0743		



Client: SCS Engineers

Job Number: 660-33514-1

**Field Service / Mobile Lab**

**Client Sample ID: Leachate EFF**

Lab Sample ID: 660-33514-1

Date Sampled: 01/26/2010 1130

Client Matrix: Water

Date Received: 01/26/2010 1725

Analyte	Result	Qual	Units	Dil	Method	Analysis Batch	Date Analyzed	Date Prepared
Field pH	7.27		SU	1.0	Field Sampling	660-90290	01/26/2010	1130
Oxidation Reduction Potential	228		millivolts	1.0	Field Sampling	660-90290	01/26/2010	1130
Oxygen, Dissolved	7.01		mg/L	1.0	Field Sampling	660-90290	01/26/2010	1130
Sheen	None		SU	1.0	Field Sampling	660-90290	01/26/2010	1130
Specific Conductance	3475		umhos/cm	1.0	Field Sampling	660-90290	01/26/2010	1130
Turbidity	1.84		NTU	1.0	Field Sampling	660-90290	01/26/2010	1130
Temperature	17.1		Degrees C	1.0	Field Sampling	660-90290	01/26/2010	1130

## DATA REPORTING QUALIFIERS

Client: SCS Engineers

Job Number: 660-33514-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOA		
	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.
GC Semi VOA		
	U	Indicates that the compound was analyzed for but not detected.
Metals		
	U	Indicates that the compound was analyzed for but not detected.
General Chemistry		
	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.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-90011**

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: MB 660-90011/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1143  
Date Prepared: 01/28/2010 1143

Analysis Batch: 660-90011  
Prep Batch: N/A  
Units: ug/L

Instrument ID: BVMJ GC/MS  
Lab File ID: 1JA2809.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	PQL
Benzene	0.50	U	0.50	1.0
Ethylbenzene	0.44	U	0.44	1.0
Toluene	0.51	U	0.51	1.0
Xylenes, Total	0.50	U	0.50	3.0
Vinyl chloride	0.50	U	0.50	1.0
Bromoform	0.58	U	0.58	1.0
Chlorodibromomethane	0.34	U	0.34	1.0
Chloroform	0.90	U	0.90	1.0
Bromodichloromethane	0.35	U	0.35	1.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	106	70 - 130
Dibromofluoromethane	104	70 - 130
4-Bromofluorobenzene	111	70 - 130
4-Bromofluorobenzene	111	70 - 130

**Lab Control Sample - Batch: 660-90011**

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: LCS 660-90011/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 0948  
Date Prepared: 01/28/2010 0948

Analysis Batch: 660-90011  
Prep Batch: N/A  
Units: ug/L

Instrument ID: BVMJ GC/MS  
Lab File ID: 1JA2804.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	16.9	85	64 - 140	
Ethylbenzene	20.0	17.0	85	69 - 131	
Toluene	20.0	15.0	75	70 - 131	
Vinyl chloride	20.0	15.4	77	48 - 147	
Bromoform	20.0	16.4	82	65 - 130	
Chlorodibromomethane	20.0	16.3	82	70 - 130	
Chloroform	20.0	17.5	87	59 - 130	
Bromodichloromethane	20.0	17.5	88	70 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Matrix Spike - Batch: 660-90011**

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: 660-33514-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1511  
Date Prepared: 01/28/2010 1511

Analysis Batch: 660-90011  
Prep Batch: N/A  
Units: ug/L

Instrument ID: BVMJ GC/MS  
Lab File ID: 1JA2818.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Sample	Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	0.50	U	20.0	20.1	100	64 - 140	
Ethylbenzene	0.44	U	20.0	19.2	96	69 - 131	
Toluene	0.51	U	20.0	17.9	89	70 - 131	
Vinyl chloride	0.50	U	20.0	18.1	91	48 - 147	
Bromoform	7.0		20.0	19.9	64	65 - 130	J3
Chlorodibromomethane	9.7		20.0	25.7	80	70 - 130	
Chloroform	8.3		20.0	28.2	99	59 - 130	
Bromodichloromethane	13		20.0	34.5	106	70 - 130	

**Duplicate - Batch: 660-90011**

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: 660-33514-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1445  
Date Prepared: 01/28/2010 1445

Analysis Batch: 660-90011  
Prep Batch: N/A  
Units: ug/L

Instrument ID: BVMJ GC/MS  
Lab File ID: 1JA2817.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Sample	Result/Qual	Result	RPD	Limit	Qual
Benzene	0.50	U	0.50	NC	30	U
Ethylbenzene	0.44	U	0.44	NC	30	U
Toluene	0.51	U	0.51	NC	30	U
Xylenes, Total	0.50	U	0.50	NC	30	U
Vinyl chloride	0.50	U	0.50	NC	30	U
Bromoform	7.0		6.84	3	30	
Chlorodibromomethane	9.7		8.91	8	30	
Chloroform	8.3		7.98	4	30	
Bromodichloromethane	13		12.1	9	30	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	105	70 - 130
Dibromofluoromethane	109	70 - 130
4-Bromofluorobenzene	110	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-90069**

**Method: 8011**  
**Preparation: 8011**

Lab Sample ID: MB 660-90069/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1741  
Date Prepared: 01/28/2010 1430

Analysis Batch: 660-90072  
Prep Batch: 660-90069  
Units: ug/L

Instrument ID: HP 5890 DUAL ECD  
Lab File ID: 1A28U013.D  
Initial Weight/Volume: 34.7964 g  
Final Weight/Volume: 2.0 mL  
Injection Volume: 4 uL  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	PQL
Ethylene Dibromide	0.010	U	0.010	0.020
Surrogate	% Rec		Acceptance Limits	
1,1,1,2-Tetrachloroethane	86		60 - 140	

**Lab Control Sample - Batch: 660-90069**

**Method: 8011**  
**Preparation: 8011**

Lab Sample ID: LCS 660-90069/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1801  
Date Prepared: 01/28/2010 1430

Analysis Batch: 660-90072  
Prep Batch: 660-90069  
Units: ug/L

Instrument ID: HP 5890 DUAL ECD  
Lab File ID: 1A28U014.D  
Initial Weight/Volume: 34.7006 g  
Final Weight/Volume: 2.0 mL  
Injection Volume: 4 uL  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethylene Dibromide	0.252	0.224	89	60 - 140	

**Matrix Spike - Batch: 660-90069**

**Method: 8011**  
**Preparation: 8011**

Lab Sample ID: 660-33498-H-4-B MS  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1842  
Date Prepared: 01/28/2010 1430

Analysis Batch: 660-90072  
Prep Batch: 660-90069  
Units: ug/L

Instrument ID: HP 5890 DUAL ECD  
Lab File ID: 1A28U016.D  
Initial Weight/Volume: 36.1711 g  
Final Weight/Volume: 2.0 mL  
Injection Volume: 4 uL  
Column ID: PRIMARY

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Ethylene Dibromide	0.010 U	0.242	0.202	83	60 - 140	

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

## Duplicate - Batch: 660-90069

Lab Sample ID: 660-33511-H-4-B DU  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 2326  
Date Prepared: 01/28/2010 1430

Analysis Batch: 660-90072  
Prep Batch: 660-90069  
Units: ug/L

## Method: 8011 Preparation: 8011

Instrument ID: HP 5890 DUAL ECD  
Lab File ID: 1A28U030.D  
Initial Weight/Volume: 35.8355 g  
Final Weight/Volume: 2.0 mL  
Injection Volume: 4 uL  
Column ID: PRIMARY

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Ethylene Dibromide	0.010 U	0.0098	NC	40	U
Surrogate	% Rec		Acceptance Limits		
1,1,1,2-Tetrachloroethane	95		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-89989**

Lab Sample ID: MB 660-89989/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/29/2010 1026  
 Date Prepared: 01/28/2010 1000

Analysis Batch: 660-90039  
 Prep Batch: 660-89989  
 Units: mg/L

**Method: 6010B  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: TJA ICP TRACE  
 Lab File ID: 10A29A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	PQL
Sodium	0.31	U	0.31	0.50

**Lab Control Sample - Batch: 660-89989**

Lab Sample ID: LCS 660-89989/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/29/2010 1032  
 Date Prepared: 01/28/2010 1000

Analysis Batch: 660-90039  
 Prep Batch: 660-89989  
 Units: mg/L

**Method: 6010B  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: TJA ICP TRACE  
 Lab File ID: 10A29A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sodium	10.0	10.1	101	75 - 125	

**Matrix Spike/  
 Matrix Spike Duplicate Recovery Report - Batch: 660-89989**

MS Lab Sample ID: 660-33484-B-2-B MS  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/29/2010 1050  
 Date Prepared: 01/28/2010 1000

Analysis Batch: 660-90039  
 Prep Batch: 660-89989

**Method: 6010B  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: TJA ICP TRACE  
 Lab File ID: 10A29A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 660-33484-B-2-C MSD  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/29/2010 1055  
 Date Prepared: 01/28/2010 1000

Analysis Batch: 660-90039  
 Prep Batch: 660-89989

Instrument ID: TJA ICP TRACE  
 Lab File ID: 10A29A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Sodium	109	94	75 - 125	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-90019**

**Method: 300.0**  
**Preparation: N/A**

Lab Sample ID: MB 660-90019/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1146  
Date Prepared: N/A

Analysis Batch: 660-90019  
Prep Batch: N/A  
Units: mg/L

Instrument ID: ICS 2000  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	PQL
Chloride	0.20	U	0.20	0.50

**Lab Control Sample - Batch: 660-90019**

**Method: 300.0**  
**Preparation: N/A**

Lab Sample ID: LCS 660-90019/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 1203  
Date Prepared: N/A

Analysis Batch: 660-90019  
Prep Batch: N/A  
Units: mg/L

Instrument ID: ICS 2000  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	10.0	10.4	104	90 - 110	

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 660-90019**

**Method: 300.0**  
**Preparation: N/A**

MS Lab Sample ID: 640-25852-J-3 MS ^2  
Client Matrix: Water  
Dilution: 2.0  
Date Analyzed: 01/28/2010 1423  
Date Prepared: N/A

Analysis Batch: 660-90019  
Prep Batch: N/A

Instrument ID: ICS 2000  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 640-25852-J-3 MSD ^2  
Client Matrix: Water  
Dilution: 2.0  
Date Analyzed: 01/28/2010 1441  
Date Prepared: N/A

Analysis Batch: 660-90019  
Prep Batch: N/A

Instrument ID: ICS 2000  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 5 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chloride	102	102	90 - 110	1	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-90114**

**Method: 350.1**  
**Preparation: N/A**

Lab Sample ID: MB 660-90114/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/01/2010 1206  
Date Prepared: N/A

Analysis Batch: 660-90114  
Prep Batch: N/A  
Units: mg/L

Instrument ID: Autoanalyzer  
Lab File ID: N/A  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	MDL	PQL
Ammonia (as N)	0.010	U	0.010	0.020

**Lab Control Sample - Batch: 660-90114**

**Method: 350.1**  
**Preparation: N/A**

Lab Sample ID: LCS 660-90114/12  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/01/2010 1207  
Date Prepared: N/A

Analysis Batch: 660-90114  
Prep Batch: N/A  
Units: mg/L

Instrument ID: Autoanalyzer  
Lab File ID: N/A  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia (as N)	0.500	0.526	105	90 - 110	

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 660-90114**

**Method: 350.1**  
**Preparation: N/A**

MS Lab Sample ID: 660-33526-A-1 MS  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/01/2010 1226  
Date Prepared: N/A

Analysis Batch: 660-90114  
Prep Batch: N/A

Instrument ID: Autoanalyzer  
Lab File ID: N/A  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 660-33526-A-1 MSD  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 02/01/2010 1227  
Date Prepared: N/A

Analysis Batch: 660-90114  
Prep Batch: N/A

Instrument ID: Autoanalyzer  
Lab File ID: N/A  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ammonia (as N)	81	82	90 - 110	1	30	J3	J3

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: SCS Engineers

Job Number: 660-33514-1

**Method Blank - Batch: 660-89979**

**Method: SM 2540C**  
**Preparation: N/A**

Lab Sample ID: MB 660-89979/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 0734  
Date Prepared: N/A

Analysis Batch: 660-89979  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	PQL	PQL
Total Dissolved Solids	5.0	U	5.0	5.0

**Lab Control Sample - Batch: 660-89979**

**Method: SM 2540C**  
**Preparation: N/A**

Lab Sample ID: LCS 660-89979/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 0734  
Date Prepared: N/A

Analysis Batch: 660-89979  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	10000	9900	99	80 - 120	

**Duplicate - Batch: 660-89979**

**Method: SM 2540C**  
**Preparation: N/A**

Lab Sample ID: 660-33514-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/28/2010 0744  
Date Prepared: N/A

Analysis Batch: 660-89979  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 15 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	2200	2270	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Orlando Service Center**  
 8010 Sunport Drive Suite 116  
 Orlando, FL 32809  
 Phone (813) 885-7427 Fax (813) 885-7049

**Chain of Custody Record**

660-33514

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sample: <i>Det Harry Tank</i>		Lab PM: Robertson, Nancy		Carrier Tracking No(s):		COC No: 660-27090.1							
Client Contact: Mr. Ken Guilbeault		Phone:		E-Mail: nancy.robertson@testamericainc.com				Page: Page 1 of 1							
Company: SCS Engineers		Address: 4041 Park Oaks Blvd Suite 100		City: Tampa		State, Zip: FL, 33610		Job #:							
Due Date Requested:		TAT Requested (days):		PO #: Purchase Order Requested		WO #:		Project #: 66002924							
Email: kguilbeault@scsengineers.com		Project Name: Citrus County Leachate EFF Quarterly		Site: <i>EFF Leachate Tank</i>		SSOW#:		Preservation Codes:							
								A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)							
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/foil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	350.1 - Ammonia (as N)	6010B - Sodium	8260B - Volatiles for BTEX and Vinyl Chloride	300.0_28D - Chloride	2540C - Total Dissolved Solids	8011 - EDB	Total Number of Containers	Special Instructions/Note:
<i>EFF (Leachate)</i>		<i>1-26-10</i>	<i>1130</i>	<i>G</i>	Water	X	X	X	X	X	X	X	X		
					Water										
<b>Possible Hazard Identification</b>		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>							
Deliverable Requested: I, II, III, IV, Other (specify)								<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Empty Kit Relinquished by: <i>[Signature]</i>		Date: <i>1010/1-25-10</i>		Time: <i>1725-10 @ 1010</i>		Method of Shipment: <i>Krebel DB6</i>									
Relinquished by: <i>[Signature]</i>		Date/Time: <i>1-26-10 1135</i>		Company:		Received by: <i>[Signature]</i>		Date/Time: <i>1-26-10 1135</i>		Company:					
Relinquished by: <i>[Signature]</i>		Date/Time: <i>1-26-10</i>		Company:		Received by: <i>[Signature]</i>		Date/Time: <i>1-26-10 1125</i>		Company: <i>IA-DMP</i>					
Relinquished by: <i>[Signature]</i>		Date/Time: <i>1/26/10</i>		Company: <i>IA-DMP</i>		Received by: <i>[Signature]</i>		Date/Time: <i>1/26-10 1125</i>		Company: <i>IA-TT</i>					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: <i>210°C CW-07</i>									

Page 23 of 30 02/08/2010

JOB NUMBER: 660-33514 Logged in TALS By: Charles Volz

Cooler Received on (date) 1-26-10 And Opened By (full name): Amanda Harrison

1. Shipper (circle one) FEDEX UPS DHL WALK-IN COURIER OTHER: TV  
lab

2. Tracking # \_\_\_\_\_

3. Temperature of rep. sample or temp blank when opened: 2.0°C au-07  
Degrees Celsius

4. Number of H2SO4 (sulfuric acid) preserved containers: 1

All containers pH < 2? yes If not please comment below:

\_\_\_\_\_

5. Number of HCL (hydrochloric acid) preserved containers: \_\_\_\_\_

All containers pH < 2? \_\_\_\_\_ If not please comment below:

\_\_\_\_\_

6. Number of HNO3 (nitric acid) preserved containers: 1

All containers pH < 2? yes If not please comment below:

\_\_\_\_\_

7. Number of NaOH (sodium hydroxide) preserved containers: \_\_\_\_\_

All containers pH > 12? \_\_\_\_\_ If not please comment below:

\_\_\_\_\_

8. Number of Unpreserved containers: 2

All containers pH between 6 and 8? yes If not please comment below:

\_\_\_\_\_

9. Was chlorine present in any of the unpreserved containers? NO

If yes, which samples? \_\_\_\_\_

Meter #s: Cy Clone Meters

PAGE: 1 of 1

Form FD 9000-7: Field Parameter Data Sheet for Surface Water

CLIENT NAME: SCS Engineers  
SURVEY/PROJECT: EFF (Leachate)

SAMPLERS: Bret Harvey  
Shawn Victory

Time Out: \_\_\_\_\_  
Time In: \_\_\_\_\_

SAMPLE ID	TIME HR:MIN	TOTAL DEPTH (feet)	SECCHI (feet)	SAMPLE DEPTH (feet)	WATER TEMP (Celsius)	DO (mg/L)	FIELD Ox-Red (mV)	Cond (µS/cm)	SALINITY (ppt)	PH (su)	TURBIDITY (NTU)	Comments
<u>EFF</u>	<u>1130</u>	<u>—</u>	<u>—</u>	<u>Surface</u>	<u>17.1</u>	<u>7.01</u>	<u>228</u>	<u>3475</u>	<u>NA</u>	<u>7.27</u>	<u>1.84</u>	<u>No Sheen</u>

Instrument Calibrations: YSI 3500 Calibrated to pH 7.00, slope to pH 4.00, pH 6.00 = 6.00

KCL Conductivity Standards: 0.001M = 145 (147µΩ/cm) 0.01M = 112 (1413µΩ/cm) YSI 85 D.O. Meter Calibrated to 16.1 mg/L @ 9.31°C Cooler Temp: \_\_\_\_\_°C

Signature: Bret Harvey Relinquished by: Shawn Victory Date: 1/26/10 Time: 1315

Date Completed: 1/26/10 Received by: \_\_\_\_\_ Date: 1/1 Time: \_\_\_\_\_

FIELD CONDITIONS FOR STATION#	AT TIME
CLOUD COVER (%): <u>NA</u>	WIND DIRECTION: _____
PREVIOUS RAINFALL: _____	TIDAL STAGE: _____
WIND SPEED (MPH/KNOTS): _____	WAVE CONDITIONS: _____

Note: This Sheet is used for recording Sample Data - Calibration information must also be documented

### Field Instrument Maintenance Logbook

TestAmerica, Analytical Testing Corp. 4310 East Anderson Road, Orlando, Florida 32812

INSTRUMENT (MAKE/MODEL#) YSI 556 MPS INSTRUMENT # Cyclone -517871

PARAMETER: [check only one]

- TEMPERATURE   
  CONDUCTIVITY   
  SALINITY   
  pH   
  ORP  
 TURBIDITY   
  RESIDUAL CL   
  DO   
  OTHER \_\_\_\_\_

**STANDARDS:** [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A Fisher Buffer Solution ph 7.00 Lot 092920 exp 06/11

Standard B Fisher Buffer Solution ph 4.00 Lot 093798 exp 07/11

Standard C \_\_\_\_\_

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
1-25-10	1005	A	7.00	7.01	.01	YES	INIT	<i>JK</i>
↓	↓	B	4.00	4.01	.01	↓	↓	<i>JK</i>
1-26-10	957	A	7.00	7.00	0	YES	INIT	<i>JK</i>
↓	↓	B	4.00	4.02	.02	↓	↓	<i>JK</i>

Field Instrument Maintenance Logbook

TestAmerica, Analytical Testing Corp. 4310 East Anderson Road, Orlando, Florida 32812

INSTRUMENT (MAKE/MODEL#) YSI 556 MPS

INSTRUMENT # Cydonie-51387A1

PARAMETER: [check only one]

- TEMPERATURE     CONDUCTIVITY     SALINITY     pH     ORP  
 TURBIDITY     RESIDUAL CL     DO     OTHER \_\_\_\_\_

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A Conductivity Standard 100 Mc Lot 2903689 3/11

Standard B Conductivity Standard 1000 Mc Lot 2903689 3/11

Standard C \_\_\_\_\_

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
1-25-10	1006	A	100	100	0	YES	INIT	JW
↓	↓	B	1000	1000	0	↓	L	JW
1-26-10	1001	A	100	95	5	NO	CONT	JW
↓	↓	B	1000	1000	0	YES	INIT	JW

### Field Instrument Maintenance Logbook

TestAmerica, Analytical Testing Corp. 4310 East Anderson Road, Orlando, Florida 32812

INSTRUMENT (MAKE/MODEL#) Hach 2100P Turbiditymeter INSTRUMENT # 2

PARAMETER: [check only one]

- TEMPERATURE      CONDUCTIVITY      SALINITY      pH      ORP
- TURBIDITY      RESIDUAL CL      DO      OTHER \_\_\_\_\_

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A Hach Turbidity Standards kit cat A8018 .16 NTU  
 Standard B ↓ ↓ ↓ ↓ ↓ 20 NTU  
 Standard C ↓ ↓ ↓ ↓ ↓ 100 NTU  
 Standard D ↓ ↓ ↓ ↓ ↓ 800 NTU

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
1-25-10	1010	A	.16	.21	.05	NO	CONT	W
↓	↓	B	20	18.5	1.5	↓	↓	↓
↓	↓	C	100	95	5	↓	↓	↓
↓	↓	D	800	786	16	↓	↓	↓
1-26-10	1015	A	.16	.21	.05	NO	CONT	W
↓	↓	B	20	18.5	1.5	↓	↓	↓
↓	↓	C	100	96	4	↓	↓	↓
↓	↓	D	800	785	15	↓	↓	↓



Field Instrument Maintenance Logbook

TestAmerica, Analytical Testing Corp. 4310 East Anderson Road, Orlando, Florida 32812

INSTRUMENT (MAKE/MODEL#) YSI 556 MPS INSTRUMENT # Cyclonax 5138 741

PARAMETER: [check only one]

- TEMPERATURE     CONDUCTIVITY     SALINITY     pH     ORP  
 TURBIDITY     RESIDUAL CL     DO     OTHER \_\_\_\_\_

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A Zobell's Solution for ORP 428 mV Lot 2904631 June/2010

Standard B \_\_\_\_\_

Standard C \_\_\_\_\_

	DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
2.0	1-25-10	1000	16.1	9.88	16.1 / 9.85	1.03	YES	INIT	AW
2.0	1-26-10	954	16.0	9.80	16.0 / 9.80	0	YES	INIT	AW
RP	1-26-10	957	429 A	428	428	0	YES	INIT	AW

## Login Sample Receipt Check List

Client: SCS Engineers

Job Number: 660-33514-1

**Login Number: 33514**  
**Creator: Volz, Charles**  
**List Number: 1**

**List Source: TestAmerica Tampa**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is 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	2.0 Degrees C. CU-07
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers 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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

ATTACHMENT 2

MONTHLY LEACAHATE QUALITY  
ANALYTICAL RESULTS FOR  
JANUARY, FEBRUARY, AND MARCH 2010

**S.A.C. ENVIRONMENTAL LABORATORY INC  
FLDOH CERTIFICATION #84492  
ANALYTICAL REPORT**

SOLID WASTE MANAGEMENT  
PO BOX 340  
LECANTO FL 34460

**Invoice Number** 10812

**Client** CITRUS COUNTY UTILITIES **Sample Number** E100023  
**Project** LANDFILL LEACHATE PLANT **Date/Time Sampled** 1/6/10 0815 HRS  
**Sample Description** WWTP/EFF **Date/Time Received** 1/6/10 1040 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	1.50	0.30 mg/L	SJL	1/7/10 1249 HRS
SM2540-D	TSS	mg/L	<1	1.00 mg/L	SJL	1/8/10 0935 HRS
SM4500-NO3-E	NITRATE	mg/L	1.25	0.06 mg/L	CK	1/6/10 1045 HRS

*Sally Ann Cavillo*  
Laboratory Manager

These results relate only to this sample.

For all results qualified with an L, the PQL is defined to be 4 times the MDL

---

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514

S.A.C. ENVIRONMENTAL LABORATORY INC  
FLDOH CERTIFICATION #84492  
ANALYTICAL REPORT

SOLID WASTE MANAGEMENT  
PO BOX 340  
LECANTO FL 34460

Invoice Number 10874

Client CITRUS COUNTY UTILITIES Sample Number E100212  
Project LANDFILL LEACHATE PLANT Date/Time Sampled 2/3/10 1030 HRS  
Sample Description WWTP/EFF Date/Time Received 2/3/10 1300 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	1.77	0.30 mg/L	SJL	2/3/10 1500 HRS
SM2540-D	TSS	mg/L	2.50	1.00 mg/L	SJL	2/5/10 1015 HRS
SM4500-NO3-E	NITRATE	mg/L	6.12	0.06 mg/L	CK	2/4/10 0900 HRS

*Sally Ann Saville*  
Laboratory Manager

These results relate only to this sample.

For all results qualified with an I, the PQL is defined to be 4 times this MDL

**S.A.C. ENVIRONMENTAL LABORATORY INC**  
**FLDOH CERTIFICATION #84492**  
**ANALYTICAL REPORT**

SOLID WASTE MANAGEMENT  
 PO BOX 340  
 LECANTO FL 34460

*Invoice Number* 10923

*Client* CITRUS COUNTY UTILITIES *Sample Number* E100408  
*Project* LANDFILL LEACHATE PLANT *Date/Time Sampled* 3/2/10 0941 HRS  
*Sample Description* WWTP/EFF *Date/Time Received* 3/2/10 1221 HRS

Method	Analytes	Units	Results	MDL	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	1.64	0.30 mg/L	SJL	3/3/10 1100 HRS
SM2540-D	TSS	mg/L	<1	1.00 mg/L	SJL	3/5/10 1010 HRS
SM4500-NO3-E	NITRATE	mg/L	1.06	0.06 mg/L	CK	3/3/10 0800 HRS

*Sally Ann Camillo*  
 Laboratory Manager

*These results relate only to this sample.*

*For all results qualified with an I, the PQL is defined to be 4 times the MDL*

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514

ATTACHMENT 3

TABLES

**Table 1. Summary of Leachate Effluent Quality Analytical Results  
Citrus County Central Landfill**

Parameter	Standard	MCL	Units	Leachate Effluent						
				10/15/2008	1/27/2009	4/20/2009	7/21/2009	9/9/2009	10/14/2009	1/26/2010
<b>Volatile Organics</b>								Resample		
Acetone	GCTL	6300	ug/L	---	---	---	21	---	---	---
Benzene	PDWS	1	ug/L	0.5 U	1 U	0.5 U	0.5 U	---	0.5 U	0.5 U
Ethylbenzene	SDWS	30	ug/L	0.5 U	1 U	0.5 U	0.44 U	---	0.44 U	0.44 U
Ethylene Dibromide	PDWS	0.02	ug/L	0.0061 U	0.0064 U	0.0064 U	0.5 U	---	0.0061 U	0.0098 U
Toluene	SDWS	40	ug/L	0.5 U	1 U	0.5 U	0.51 U	---	0.51 U	0.51 U
Vinyl chloride	PDWS	1	ug/L	0.53 U	1.1 U	0.53 U	0.5 U	---	0.5 U	0.5 U
Xylenes, Total	SDWS	20	ug/L	1 U	2.1 I	1 U	0.5 U	---	0.5 U	0.5 U
<b>Trihalomethanes</b>										
Bromodichloromethane	See Total THMs		ug/L	---	14	---	410	0.35 U	---	13
Bromoform	See Total THMs		ug/L	---	2.9	---	71	0.58 U	---	7
Chloroform	See Total THMs		ug/L	---	11	---	370	0.90 U	---	8.3
Dibromochloromethane	See Total THMs		ug/L	---	6.9	---	280	0.58 U	---	9.7
Total THMs	Permit	100	ug/L	---	34.8	---	1131	Not Detected	---	38
<b>Metals</b>										
Arsenic	PDWS	0.01	mg/L	---	---	---	0.0091 I	---	---	---
Barium	PDWS	2	mg/L	---	---	---	0.058	---	---	---
Cobalt	GCTL	0.14	mg/L	---	---	---	0.011	---	---	---
Chromium	PDWS	0.1	mg/L	---	---	---	0.0058 I	---	---	---
Copper	SDWS	1	mg/L	---	---	---	0.014	---	---	---
Nickel	PDWS	0.1	mg/L	---	---	---	0.046	---	---	---
Iron	SDWS	0.3	mg/L	---	---	---	0.068 I	---	---	---
Zinc	SDWS	5	mg/L	---	---	---	0.020 I	---	---	---
<b>General Chemistry</b>										
Ammonia, Total	GCTL	2.8	mg/L	0.094	1.1	0.19	0.16	---	0.010 U	0.086
Chloride	SDWS	250	mg/L	940	1300	1500	710	---	910	1000
Cyanide	PDWS	0.2	mg/L	---	---	---	0.014	---	---	---
Sodium	PDWS	160	mg/L	570	800	820	430	---	570	580
TDS	SDWS	500	mg/L	2400	2800	3000	1800	---	2000	2200
<b>General Field Parameters</b>										
Conductivity	NS	NS	umhos/cm	3929	4907	4820	3462	2786	3772	3475
Dissolved Oxygen	NS	NS	mg/L	2.96	0.93	2.78	1.34	0.3	0.72	7.01
pH	SDWS	6.5-8.5	pH Units	7.87	7.79	7.68	7.49	7.94	7.83	7.27
Oxygen Reduction Potential	NS	NS	mV	---	---	---	---	---	---	228
Temperature, Water	NS	NS	deg C	26.55	17.35	24.83	31.5	27.9	27.9	17.1
Turbidity	NS	NS	NTU	1.07	1.65	5	---	6.67	4.73	1.84

**Notes**

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.).
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.).
3. GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.).
4. THMs = Trihalomethanes
5. NS = No numeric standard has been set for this analyte.
6. --- = Parameter not analyzed.
7. mg/l: milligrams per liter.
8. ug/l: micrograms per liter.
9. NTU: nephelometric turbidity units.
10. Yellow Shaded values indicate parameter concentrations exceeded primary, secondary Drinking Water Standards or groundwater cleanup target levels.
11. I = Analyte detected below quantitation limits.
12. U = Analyte concentration was below the laboratory detection limit (value shown).



**Table 2. Twelve Month Summary of Leachate Effluent Monthly Analytical Results  
Citrus County Central Landfill**

Parameter	Standard	MCL	Units												
				4/1/2009	5/12/2009	6/4/2009	7/1/2009	8/5/2009	9/9/2009	10/7/2009	11/4/2009	12/9/2009	1/6/2010	2/3/2010	3/2/2010
CBOD	Permit	20	mg/L	2.78	3.3	10.04	5.96	2.38	1.54	1.48	2.4	1.76	1.5	1.77	1.64
TSS	Permit	20	mg/L	3	7	1	5	5	3.5	5	1.0 U	1.0 U	1.0 U	6.5	1.0 U
Nitrate	Permit	10	mg/L	1.85	0.52	0.46	5.68	0.38	0.45	1.01	3.6	1.38	1.25	6.12	1.06

Notes

1. mg/l: milligrams per liter.
2. ug/l: micrograms per liter.
3. Yellow Shaded values indicate parameter concentrations exceeded Permit MCL levels.
4. I = Analyte detected below quantitation limits.
5. U = Analyte concentration was below the laboratory detection limit (value shown).

ATTACHMENT 4

COMPACT DISK CONTAINING  
REPORT IN PDF FORMAT AND  
ADaPT FILE