Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

February 07, 2011

Ms. Jennifer Stirk
Volusia County Solid Waste Management
1990 Tomoka Farms Road
Port Orange, FL 32128

RE: Project: Tomoka Remediation
Pace Project No.: 3525886

Dear Ms. Stirk:
Enclosed are the analytical results for sample(s) received by the laboratory on February 04, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Baylor

jeff.baylor@pacelabs.com
Project Manager

Enclosures

cc: Ms. Lynne McDaniel, HDR Engineering, Inc.

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CERTIFICATIONS

Project: Tomoka Remediation
Pace Project No.: 3525886

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Tomoka Remediation
Pace Project No.: 3525886

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3525886001	**EQ Blank**	Water	02/03/11 09:55	02/04/11 07:15
3525886002	**B40-2**	Water	02/03/11 10:33	02/04/11 07:15
3525886003	**B41-1**	Water	02/03/11 11:20	02/04/11 07:15
3525886004	**B-1B**	Water	02/03/11 12:09	02/04/11 07:15
3525886005	**M05-B**	Water	02/03/11 13:05	02/04/11 07:15
3525886006	**B35-2**	Water	02/03/11 14:37	02/04/11 07:15
3525886007	**B33-2**	Water	02/03/11 15:18	02/04/11 07:15
3525886008	**B43-1**	Water	02/03/11 16:22	02/04/11 07:15

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SAMPLE ANALYTE COUNT

Project: Tomoka Remediation
Pace Project No.: 3525886

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3525886001	**EQ Blank**	EPA 350.1	AMD	1	PASI-O
3525886002	**B40-2**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886003	**B41-1**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886004	**B-1B**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886005	**M05-B**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886006	**B35-2**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886007	**B33-2**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O
3525886008	**B43-1**		JSB	6	PASI-O
		EPA 350.1	AMD	1	PASI-O

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PROJECT NARRATIVE

Project: Tomoka Remediation
Pace Project No.: 3525886

Method:
Description: Field Data
Client: Volusia County Solid Waste Management
Date: February 07, 2011

General Information:
7 samples were analyzed for . All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Tomoka Remediation
Pace Project No.: 3525886

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: Volusia County Solid Waste Management
Date: February 07, 2011

General Information:
8 samples were analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: EQ Blank **Lab ID: 3525886001** Collected: 02/03/11 09:55 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.034 I**	mg/L	0.050	0.020	1		02/07/11 12:51	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B40-2 **Lab ID: 3525886002** Collected: 02/03/11 10:33 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**5.76**	Std. Units			1		02/04/11 13:54		
Field Temperature	**21.24**	deg C			1		02/04/11 13:54		
Field Specific Conductance	**557**	umhos/cm			1		02/04/11 13:54		
Oxygen, Dissolved	**1.58**	mg/L			1		02/04/11 13:54	7782-44-7	
REDOX	**38.8**	mV			1		02/04/11 13:54		
Turbidity	**36**	NTU			1		02/04/11 13:54		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.89**	mg/L	0.050	0.020	1		02/07/11 12:53	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B41-1 **Lab ID: 3525886003** Collected: 02/03/11 11:20 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.35**	Std. Units			1		02/04/11 13:57		
Field Temperature	**22.40**	deg C			1		02/04/11 13:57		
Field Specific Conductance	**2215**	umhos/cm			1		02/04/11 13:57		
Oxygen, Dissolved	**0.16**	mg/L			1		02/04/11 13:57	7782-44-7	
REDOX	**-77.2**	mV			1		02/04/11 13:57		
Turbidity	**2.5**	NTU			1		02/04/11 13:57		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**68.3**	mg/L	0.50	0.20	10		02/07/11 14:11	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B-1B **Lab ID: 3525886004** Collected: 02/03/11 12:09 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.26**	Std. Units			1		02/04/11 13:58		
Field Temperature	**22.45**	deg C			1		02/04/11 13:58		
Field Specific Conductance	**1844**	umhos/cm			1		02/04/11 13:58		
Oxygen, Dissolved	**0.14**	mg/L			1		02/04/11 13:58	7782-44-7	
REDOX	**-60.6**	mV			1		02/04/11 13:58		
Turbidity	**1.8**	NTU			1		02/04/11 13:58		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**11.9**	mg/L	0.050	0.020	1		02/07/11 12:55	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: M05-B **Lab ID: 3525886005** Collected: 02/03/11 13:05 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.14**	Std. Units			1		02/04/11 13:59		
Field Temperature	**22.46**	deg C			1		02/04/11 13:59		
Field Specific Conductance	**1632**	umhos/cm			1		02/04/11 13:59		
Oxygen, Dissolved	**0.20**	mg/L			1		02/04/11 13:59	7782-44-7	
REDOX	**-14.3**	mV			1		02/04/11 13:59		
Turbidity	**4.0**	NTU			1		02/04/11 13:59		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.5**	mg/L	0.050	0.020	1		02/07/11 12:57	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B35-2 **Lab ID: 3525886006** Collected: 02/03/11 14:37 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**5.96**	Std. Units			1		02/04/11 14:01		
Field Temperature	**19.05**	deg C			1		02/04/11 14:01		
Field Specific Conductance	**438**	umhos/cm			1		02/04/11 14:01		
Oxygen, Dissolved	**0.17**	mg/L			1		02/04/11 14:01	7782-44-7	
REDOX	**96.5**	mV			1		02/04/11 14:01		
Turbidity	**9.9**	NTU			1		02/04/11 14:01		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**2.2**	mg/L	0.050	0.020	1		02/07/11 13:01	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B33-2 **Lab ID: 3525886007** Collected: 02/03/11 15:18 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.80**	Std. Units			1		02/04/11 14:02		
Field Temperature	**19.60**	deg C			1		02/04/11 14:02		
Field Specific Conductance	**1629**	umhos/cm			1		02/04/11 14:02		
Oxygen, Dissolved	**2.50**	mg/L			1		02/04/11 14:02	7782-44-7	
REDOX	**-13.8**	mV			1		02/04/11 14:02		
Turbidity	**90**	NTU			1		02/04/11 14:02		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.13**	mg/L	0.050	0.020	1		02/07/11 13:03	7664-41-7	

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ANALYTICAL RESULTS

Project: Tomoka Remediation
Pace Project No.: 3525886

Sample: B43-1 **Lab ID: 3525886008** Collected: 02/03/11 16:22 Received: 02/04/11 07:15 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.20**	Std. Units			1		02/04/11 14:03		
Field Temperature	**21.48**	deg C			1		02/04/11 14:03		
Field Specific Conductance	**742**	umhos/cm			1		02/04/11 14:03		
Oxygen, Dissolved	**0.19**	mg/L			1		02/04/11 14:03	7782-44-7	
REDOX	**-16.2**	mV			1		02/04/11 14:03		
Turbidity	**9.3**	NTU			1		02/04/11 14:03		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**2.6**	mg/L	0.050	0.020	1		02/07/11 13:04	7664-41-7	

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QUALITY CONTROL DATA

Project: Tomoka Remediation
Pace Project No.: 3525886

QC Batch: WETA/8519 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 3525886001, 3525886002, 3525886003, 3525886004, 3525886005, 3525886006, 3525886007, 3525886008

METHOD BLANK: 167964 Matrix: Water
Associated Lab Samples: 3525886001, 3525886002, 3525886003, 3525886004, 3525886005, 3525886006, 3525886007, 3525886008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.020U	0.050	02/07/11 12:28	

LABORATORY CONTROL SAMPLE: 167965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 167967

Parameter	Units	3525847001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.020U	1	1.0	100	90-110	

SAMPLE DUPLICATE: 167966

Parameter	Units	3525847001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.020U	0.020U		20	

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QUALIFIERS

Project: Tomoka Remediation
Pace Project No.: 3525886

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tomoka Remediation
Pace Project No.: 3525886

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3525886002	**B40-2**		FLD/		
3525886003	**B41-1**		FLD/		
3525886004	**B-1B**		FLD/		
3525886005	**M05-B**		FLD/		
3525886006	**B35-2**		FLD/		
3525886007	**B33-2**		FLD/		
3525886008	**B43-1**		FLD/		
3525886001	**EQ Blank**	EPA 350.1	WETA/8519		
3525886002	**B40-2**	EPA 350.1	WETA/8519		
3525886003	**B41-1**	EPA 350.1	WETA/8519		
3525886004	**B-1B**	EPA 350.1	WETA/8519		
3525886005	**M05-B**	EPA 350.1	WETA/8519		
3525886006	**B35-2**	EPA 350.1	WETA/8519		
3525886007	**B33-2**	EPA 350.1	WETA/8519		
3525886008	**B43-1**	EPA 350.1	WETA/8519		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

3525886

Page: 1 of 1

1421504

Section A Required Client Information:

Company: Volusia County
Address: 1990 Tomoka Farms Rd. Daytona Bch, FL 32124
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Jennifer Stirk
Copy To:
Purchase Order No.:
Project Name: Tomoka Remediation
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☑ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: FL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: NH3	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	EQ	WT	G			2/3/11	955		1		1							1		
2	B40-2						1033													
3	B41-1						1120													
4	B-1B						1209													
5	MO5-B						1305													
6	B35-2						1437													
7	B33-2						1518													
8	B43-1						1622													
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Stacy Smith	2/3/11	1655	[illegible]	2/4/11	8:15	2.6	Y		

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Stacey Smith
SIGNATURE of SAMPLER: Stacy Smith
DATE Signed (MM/DD/YY): 2/3/11

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: EQ	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water:	Sampling Device: **PP**

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(-) X 0.16 Gallons/Foot = Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet):	Final Pump or Tubing Depth in Well:	Purging Initiated At:	Purging Ended At:	Total Volume Purged (Gallons):

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or µS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
955												

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacy Smith	955	

Pump or Tubing Depth in Well (Feet):	Sample Pump Flow Rate (mL per minute):	Tubing Material Code:	Field Decontamination:	Field-Filtered:	Duplicate:
	100-200ml	PE	[Yes] [No]	[Yes] [No] Filter Size: µm	[Yes] [No]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[✓] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: –
Wind Direction: –

[ ] **Surface Water** Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: _____
Type: [ ] Lake [ ] Stream [ ] River [ ] Other _____

[ ] **Waste Water**: Start Time _____ Finish Time _____
Sampling Point: _____ Volume: _____
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment Sampling Point: Sample Depth: [ ] Composite [ ] Grab

[ ] Drum Waste Type: Layers [Yes] [No] [ ] Composite [ ] Grab

[ ] Other: Sampling Point: Sample Depth: [ ] Composite [ ] Grab

Field Notes:

On Ice @ Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B40-2	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 8.51	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(17.38 - 8.51) X 0.16 Gallons/Foot = 1.42 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 13	Final Pump or Tubing Depth in Well: 17	Purging Initiated At: 1010	Purging Ended At: 1032	Total Volume Purged (Gallons): 3.5

	Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or µS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
①	1016	1.50	1.50	0.25	15.63	5.97	21.01	549	1.47	110	tan	none	63.0
1020	~~1018~~	0.50	2.00	② 0.13	15.75	5.95	20.97	553	1.53	110	↓	↓	52.0
1024	~~1020~~	0.50	2.50	↓	16.23	5.80	20.90	567	1.57	40	↓	↓	42.3
	1028	0.50	3.00	↓	16.45	5.76	21.16	566	1.30	29	↓	↓	38.8
	1032	0.50	3.50	↓	16.66	5.76	21.24	557	1.58	36	↓	↓	38.8

Well Capacity (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

Tubing Inside DIA. Capacity (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

①SLS 2/3/11 well drew down, had to slow purge.

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacy Smith	1033	1035

Pump or Tubing Depth in Well (Feet): 17	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: [Yes] [No]	Field-Filtered: [Yes] [No] Filter Size: µm	Duplicate: [Yes] [No]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions

[ ] Sunny
[ ] Partly Cloudy
[✓] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: -
Wind Direction: -

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: ____
Type: [ ] Lake [ ] Stream [ ] River [ ] Other ____

[ ] Waste Water: Start Time ____ Finish Time ____
Sampling Point: ____ Volume: ____
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

[ ] Drum Waste — Type: — Layers [Yes] [No] — [ ] Composite [ ] Grab

[ ] Other: — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

Field Notes: well drew completely down, grabbed sample after 5 readings even tho not stabilized

On Ice @ 1036 Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B41-1	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 12.19	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(38.28 - 12.19) X 0.16 Gallons/Foot = 4.17 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 16	Final Pump or Tubing Depth in Well: 16	Purging Initiated At: 1104	Purging Ended At: 1119	Total Volume Purged (Gallons): 7.5

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or µS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1113	4.50	4.50	0.50	12.33	6.37	22.38	2167	0.33	8.3	yellow	leachate/ solvent	-70.1
1116	1.50	6.00	↓	↓	6.35	22.42	2199	0.18	3.1	↓	↓	-74.8
1119	1.50	7.50	↓	↓	6.35	22.40	2215	0.16	2.5	↓	↓	-77.2

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacy Smith	1120	1121

Pump or Tubing Depth in Well (Feet): 16	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: (Yes) [No]	Field-Filtered: [Yes] (No) Filter Size: ___ µm	Duplicate: [Yes] (No)

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[ ] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: —
Wind Direction: —

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: ___
Type: [ ] Lake [ ] Stream [ ] River [ ] Other ___

[ ] Waste Water: Start Time ___ Finish Time ___
Sampling Point: ___ Volume: ___
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

[ ] Drum Waste — Type: — Layers [Yes] [No] — [ ] Composite [ ] Grab

[ ] Other: — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

Field Notes: heavy equipment being operated near by - air full of exhaust.

On Ice @ 1122 Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B-1B	Sample ID:	Date: 2/3/11

PURGING DATA

SD 2/3/11 YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: B 11.64	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(35.82 - 11.64) X 0.16 Gallons/Foot = 3.86 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 16	Final Pump or Tubing Depth in Well: 16	Purging Initiated At: 1144	Purging Ended At: 1208	Total Volume Purged (Gallons): 6.0

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or mS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1200	4.00	4.00	0.25	12.20	6.28	22.45	1836	0.17	1.7	yellow	none	-58.7
1204	1.00	5.00	↓	↓	6.27	22.43	1837	0.15	2.0	↓	↓	-59.5
1208	1.00	6.00	↓	↓	6.26	22.45	1844	0.14	1.8	↓	↓	-60.6

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacy Smith	1209	1210

Pump or Tubing Depth in Well (Feet): 16	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: [Yes] [No]	Field-Filtered: [Yes] [No] Filter Size: µm	Duplicate: [Yes] [No]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[X] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: 5
Wind Direction: NW

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth:_____
Type: [ ] Lake [ ] Stream [ ] River [ ] Other _____

[ ] Waste Water: Start Time _____ Finish Time _____
Sampling Point:_____ Volume:_____
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment Sampling Point: Sample Depth: [ ] Composite [ ] Grab

[ ] Drum Waste Type: Layers [Yes] [No] [ ] Composite [ ] Grab

[ ] Other: Sampling Point: Sample Depth: [ ] Composite [ ] Grab

Field Notes:

On Ice @ 1211 Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: MO5-B	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 13.28	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(35.78 - 13.28) X 0.16 Gallons/Foot = 3.60 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 16	Final Pump or Tubing Depth in Well: 16	Purging Initiated At: 1232	Purging Ended At: 1304	Total Volume Purged (Gallons): 8.0

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or (µS/cm))	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1248	4.00	4.00	0.25	13.76	6.21	22.43	1513	0.17	8.5	yellow	sulfur	-6.1
1252	1.00	5.00	↓	↓	6.17	22.46	1590	0.16	8.8	↓	↓	-8.0
1256	1.00	6.00	↓	↓	6.16	22.45	1620	0.17	6.5	↓	↓	-10.4
1300	1.00	7.00	↓	↓	6.15	22.45	1627	0.18	4.0	↓	↓	-12.0
1304	1.00	8.00	↓	↓	6.14	22.46	1632	0.20	4.0	↓	↓	-14.3

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacey Smith	1305	1306

Pump or Tubing Depth in Well (Feet): 16	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: [Yes] [No]	Field-Filtered: [Yes] [No] Filter Size: ___µm	Duplicate: [Yes] [No]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[X] Cloudy
Temperature: 60
Rain: [Yes] [No]
Wind Speed: -
Wind Direction: -

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: ____ Type: [ ] Lake [ ] Stream [ ] River [ ] Other ____

[ ] Waste Water: Start Time ____ Finish Time ____ Sampling Point: ____ Volume: ____ [ ] Composite [ ] Grab mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

[ ] Drum Waste — Type: — Layers [Yes] [No] — [ ] Composite [ ] Grab

[ ] Other: — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

Field Notes:

On Ice @ 1307 Bottles Preserved <2pH

See Work Order/Bottle Order

V:\Field\Field Sheets

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B35-2	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 2.60	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(17.70 - 2.60) X 0.16 Gallons/Foot = 2.42 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 8	Final Pump or Tubing Depth in Well: 8	Purging Initiated At: 1420	Purging Ended At: 1436	Total Volume Purged (Gallons): 4.0

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or µS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1430	2.50	2.50	0.25	6.82	5.56	18.98	441	0.24	13	tan	Sulfur	105.2
1433	0.75	3.25	↓	5.90	5.53	18.99	441	0.19	11	↓	↓	101.8
1436	0.75	4.00	↓	5.96	5.52	19.05	438	0.17	9.9	↓	↓	96.5

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacey Smith	1437	1438

Pump or Tubing Depth in Well (Feet): 8	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: [Yes] [No]	Field-Filtered: [Yes] [NO] Filter Size: µm	Duplicate: [Yes] [NO]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[X] Cloudy
Temperature: 60
Rain: [Yes] [No]
Wind Speed: 3
Wind Direction: S

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: _____
Type: [ ] Lake [ ] Stream [ ] River [ ] Other _____

[ ] Waste Water: Start Time _____ Finish Time _____
Sampling Point: _____ Volume: _____
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

[ ] Drum Waste — Type: — Layers [Yes] [No] — [ ] Composite [ ] Grab

[ ] Other: — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

Field Notes: got truck stuck 2x trying to get to well

On Ice @ 1440 Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B33-2	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 6.48	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(17.75 - 6.48) X 0.16 Gallons/Foot = 1.75 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 11	Final Pump or Tubing Depth in Well: 15	Purging Initiated At: 1504	Purging Ended At: 1517	Total Volume Purged (Gallons): 3.25

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or mS/cm)	Dissolved Oxygen (circle mg/L or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1511	1.75	1.75	0.25	13.80	6.82	19.47	1623	2.50	80	tan	leachate	-24.8
1513	0.50	2.25	↓	14.07	6.81	19.55	1630	2.67	90	↓	↓	-23.0
1515	0.50	2.75	↓	14.25	6.81	19.60	1628	2.56	90	↓	↓	-18.6
1517	0.50	3.25	↓	14.36	6.80	19.60	1629	2.50	90	↓	↓	-13.8

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacy Smith	1518	1519

Pump or Tubing Depth in Well (Feet): 15	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: [Yes] [No]	Field-Filtered: [Yes] [No] Filter Size: ___ µm	Duplicate: [Yes] [No]

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[x] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: 5-10
Wind Direction: S

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: ____ Type: [ ] Lake [ ] Stream [ ] River [ ] Other ____

[ ] Waste Water: Start Time ____ Finish Time ____ Sampling Point: ____ Volume: ____ [ ] Composite [ ] Grab mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment Sampling Point: Sample Depth: [ ] Composite [ ] Grab

[ ] Drum Waste Type: Layers [Yes] [No] [ ] Composite [ ] Grab

[ ] Other: Sampling Point: Sample Depth: [ ] Composite [ ] Grab

Field Notes: next to leachate tanks

On Ice @ 1520 Bottles Preserved <2pH

See Work Order/Bottle Order

Pace Analytical Field Sampling Log

Site Name: Tomokal Landfill Remediation Project	Site Location: Volusia County, FL	
Well #: B43-1	Sample ID:	Date: 2/3/11

PURGING DATA

YSI: 02606/2697

Well Diameter: 2"	Tubing Diameter: 3/8"	Well Screen Interval Depth: Feet to	Static Depth to Water: 7.10	Sampling Device: PP

Well Volume Purge: (Total Well Depth – Static Depth to Water) X Well Capacity= Well Volume

(28.90 - 7.10) X 0.16 Gallons/Foot = 3.49 Gallons

Equipment Volume Purge: Pump Volume + (Tubing Capacity X Tubing Length) + Flow Cell Volume= Equipment Volume

+(X)+ = Gallons

Initial Pump or Tubing Depth in Well (Feet): 12	Final Pump or Tubing Depth in Well: 12	Purging Initiated At: 1555	Purging Ended At: 1621	Total Volume Purged (Gallons): 6.5

Time	Volume Purged (Gal)	CUMUL Volume Purged (Gal)	Purge Rate (gpm)	Depth to Water (Feet)	pH (Standard Units)	Temp. (°C)	Conductivity (µmhos/cm or (µS/cm))	Dissolved Oxygen (circle (mg/l) or % saturation)	Turbidity (NTUs)	Color (Describe)	Odor (Describe)	ORP
1609	3.50	3.50	0.25	8.25	6.25	21.40	721	0.23	24	tan	sulfur	-13.2
1613	1.00	4.50	↓	↓	6.27	21.31	731	0.21	18	↓	↓	-14.6
1617	1.00	5.50	↓	8.30	6.21	21.42	736	0.26	15	slight tan clear	↓	-15.2
1621	1.00	6.50	↓	↓	6.20	21.48	742	0.19	9.3	↓	↓	-16.2

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

SAMPLING DATA

Sampled By (Print)	Sampler(s) Signatures	Sampling Initiated At:	Sampling Ended At:
Stacey Smith / Pace	Stacey Smith	1622	1623

Pump or Tubing Depth in Well (Feet): 12	Sample Pump Flow Rate (mL per minute): 100-200ml	Tubing Material Code: PE	Field Decontamination: (Yes) [No]	Field-Filtered: [Yes] (No) Filter Size: ____ µm	Duplicate: [Yes] (No)

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Total Volume Added in Field (mL)	Final pH	Intended Analysis and/or Method	Sampling Equipment Code
	1	PE	250 ml				Anions	PP

Weather Conditions
[ ] Sunny
[ ] Partly Cloudy
[✓] Cloudy
Temperature: 55
Rain: [Yes] [No]
Wind Speed: 5-10
Wind Direction: S

[ ] Surface Water — Taken From: [ ] Shore [ ] Surface [ ] Boat [ ] Mid-Depth [ ] Bridge [ ] Bottom [ ] Wading [ ] Other
Total Depth: _____
Type: [ ] Lake [ ] Stream [ ] River [ ] Other _____

[ ] Waste Water: Start Time _____ Finish Time _____
Sampling Point: _____ Volume: _____
[ ] Composite [ ] Grab
mL per: [ ] Hour [ ] ½ Hour [ ]

[ ] Soils/Sediment — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

[ ] Drum Waste — Type: — Layers [Yes] [No] — [ ] Composite [ ] Grab

[ ] Other: — Sampling Point: — Sample Depth: — [ ] Composite [ ] Grab

Field Notes:

On Ice @ 1624 Bottles Preserved <2pH

See Work Order/Bottle Order

Sample Condition Upon Receipt Form (SCUR)

Table Number: _____

Pace Analytical

Client Name: VOLCOU Project # 3525886

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ B&B ☐ Other _____

Tracking # _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used T-39 **Type of Ice:** (Wet) Blue None

Cooler Temperature 2.6 **(Actual)** (Temp should be above freezing to 6°C)

Receipt of samples satisfactory: ☐ Yes ☐ No

Rush TAT requested on COC: ☐

Date and Initials of person examining contents: _____

Secondary Review Initials: _____

If yes, then all conditions below were met:	If no, then mark box & describe issue (use comments area if necessary):
Chain of Custody Present	☐
Chain of Custody Filled Out	☐
Relinquished Signature & Sampler Name COC	☐
Samples Arrived within Hold Time	☐
Sufficient Volume	☐
Correct Containers Used	☐
Containers Intact	☐
Sample Labels match COC (sample IDs & date/time of collection)	☐ No Labels: ☐ No Time/Date on Labels: ☐
All containers needing preservation are found to be in compliance with EPA recommendation.	☐
No Headspace in VOA Vials (>6mm):	☐

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): _____

Project Manager Review: _____ **Date:** 2/14/11

Finished Product Information Only

F.P. Sample ID: _____

Production Code: _____

Date/Time Opened: _____

Number of Unopened Bottles Remaining: _____

Extra Sample in Shed: Yes No

Size & Qty of Bottles Received

_____ x 5 Gal
_____ x 2.5 Gal
_____ x 1 Gal
_____ x 1 Liter
_____ x 500 mL
_____ x 250 mL
_____ x Other: _____