

**BOARD OF COUNTY COMMISSIONERS** 

Kevin Beckner Rose V Ferlina Ken Hagan Al Higginbotham lim Norman Mark Sharpe Kevin White

Office of the County Administrator Patricia G. Bean

Lucia E. Garsys
Carl S. Harness
Eric R. Johnson
Maddel S. Merrill
Manus J. O' Donnell
Edith M. Brewan Protection Stewart

**ADMINISTRATORS** 

April 6, 2010

Southwest District

Ms. Susan Pelz, P.E. 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 – First Quarter (January - March, 2010)

Dear Ms. Pelz:

In accordance with the Operation Permit No. 35435-014-SO/01, the Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the analytical data for the first quarter effluent sampling of the leachate treatment plant at the Southeast County Landfill (SCLF).

The referenced permit requires the SWMD to sample the leachate effluent and record the pH value on a weekly basis. Daily effluent pH readings from the leachate plant during the three month period ranged from 7.6–8.3 pH units. The permit also requires that a monthly sample of the effluent be collected and analyzed for Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), and Nitrate.

On January 6, February 3, and March 3, 2010, the SWMD collected the required effluent samples from the dedicated effluent sampling port at the treatment plant. The monthly samples were analyzed by our contracted laboratory, Test America, Inc. for the parameters listed above. The complete analytical data report sheets are provided within this letter report for your technical review.

Nitrate values were below detection limits (BDL) during each month of this monitoring period. In addition, TDS values were observed at concentrations of 6,300 mg/l, 6,100 mg/l, and 5,800

Ms. Susan Pelz April 6, 2010 Page 2

mg/l and COD values were observed at 750 mg/l, 530 mg/l and 460 mg/l, respectively.

Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact me at (813) 276-2908 or David Adams at (813) 276-2944.

Sincerely

Satron V. Benz Patricia V. Berry

Landfill Services Section Manager Solid Waste Management Department

PVB/mdt Enclosures

xc:

Larry Ruiz, SWMD

David Adams, P.G., SWMD

Ron Cope, EPC

G:enviro/projects/self/leachate plant/ltp-effluent-1stqtr2010.doc

Client Sample ID: Leachate Effluent Lab Sample ID: 660-33241-3

Date Sampled: 01/06/2010 1105 Date Received: 01/06/2010 1500

Job Number: 660-33241-2

Analyte	Result/Qualifier	Unit	NON	IE	NONE	Dilution
Method: Field Sampling		Date Ai	nalyzed:	01/06/20	10 1105	
Field pH	8.07	SU	-			1.0
Field Temperature	12.93	Degrees C				1.0
Oxygen, Dissolved	7.59	mg/L				1.0
Specific Conductance	8461	umhos/cm				1.0

Client Sample ID: Leachate Effluent Lab Sample ID: 660-33241-3

Date Sampled: 01/06/2010 1105 Date Received: 01/06/2010 1500

Job Number: 660-33241-1

Analyte	Result/Q	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2			Date A	nalyzed:	01/08/2010 0856	
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B			Date Analyzed: 01/08/2010 0700			
Biochemical Oxygen Demand	170		mg/L	15	20	10
Method: SM 5220D			Date Analyzed: 0		01/11/2010 1340	
Prep Method: SM 5220			Date P	repared:	01/11/2010 1118	
Chemical Oxygen Demand	750		mg/L	10	20	1.0

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-33241-3

Date Sampled: 01/06/2010 1105 Date Received: 01/06/2010 1500

Job Number: 660-33241-1

Analyte	Result/Qualifier	Unit	PQL	PQL	Dilution
Method: SM 2540C		Date Ar	nalyzed:	01/11/2010 1024	
Total Dissolved Solids	6300	mg/L	50	50	1.0
Method: SM 2540D		Date Ar	01/09/2010 1021		
Total Suspended Solids	34	mg/L	1.0	1.0	1.0

Client Sample ID: Leachate Effluent Equipment Blank Lab Sample ID: 660-33241-4

Date Sampled: 01/06/2010 1100 Date Received: 01/06/2010 1500

Job Number: 660-33241-1

Analyte	Result/Q	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2			Date Analyzed:		08/2010 0856	
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B		Date Analyzed: 01/08/2010 0700				
Biochemical Oxygen Demand	1.5	U	mg/L	1.5	2.0	1.0
Method: SM 5220D		Date Analyzed: 01/11/2010 1340				
Prep Method: SM 5220		Date Prepared: 01/11/2010 1118				
Chemical Oxygen Demand	10	U	mg/L	10	20	1.0

Client Sample ID: Leachate Effluent Equipment Blank

Lab Sample ID: 660-33241-4

Date Sampled: 01/06/2010 1100 Date Received: 01/06/2010 1500

Job Number: 660-33241-1

Analyte	Result/Qu	ualifier	Unit	PQL	PQL	Dilution	
Method: SM 2540C					/11/2010 1025	125	
Total Dissolved Solids	5.0	U	mg/L	5.0	5.0	1.0	
Method: SM 2540D			Date A	nalyzed: 01	/09/2010 1022		
Total Suspended Solids	1.0	U	mg/L	1.0	1.0	1.0	

## **DATA REPORTING QUALIFIERS**

Client: Hillsborough County Job Number: 660-33241-1

Lab Section	Qualifier	Description
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.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
GC/MS Semi 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.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
GC Semi VOA		
	J1	Estimated value; value may not be accurate. Surrogate recovery outside of criteria.
	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.
Metals		
	U	Indicates that the compound was analyzed for but not detected.
	1	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

## **DATA REPORTING QUALIFIERS**

Client: Hillsborough County

Job Number: 660-33241-1

Lab Section	Qualifier	Description
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.
	I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Date Sampled: 02/03/2010 1250

Job Number: 660-33654-1

Client Matrix: Water

Date Received: 02/03/2010 1440

Client Sample ID:	Leachate Effluent
Lab Sample ID:	660-33654-1

Analyte	Result/Qu	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2			Date Analyzed: 02/0		02/05/2010 0831	
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B			Date A	nalyzed:	02/04/2010 1530	
Biochemical Oxygen Demand	15	U	mg/L	15	20	10
Method: SM 5220D			Date Analyzed:		02/10/2010 1425	
Prep Method: SM 5220			Date P	repared:	02/09/2010 1255	
Chemical Oxygen Demand	530		mg/L	20	40	2.0

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-33654-1

Date Sampled: 02/03/2010 1250 Date Received: 02/03/2010 1440

Job Number: 660-33654-1

Analyte	Result/Qualifier	Unit	NONE	NONE	Dilution
Method: Field Sampling		Date A	nalyzed: 02/03	3/2010 1250	
Field pH	7.86	SU			1.0
Field Temperature	21.40	Degrees C			1.0
Oxygen, Dissolved	7.53	mg/L			1.0
Specific Conductance	10570	umhos/cm			1.0

Client Sample ID: Leachate Effluent Lab Sample ID: 660-33654-1

Date Sampled: 02/03/2010 1250 Date Received: 02/03/2010 1440

Job Number: 660-33654-1

Analyte	Result/Qualifier	Unit	PQL	PQL	Dilution
Method: SM 2540C		Date Ar	nalyzed:	02/09/2010 1103	
Total Dissolved Solids	6100	mg/L	50	50	1.0
Method: SM 2540D		Date Analyzed: 02/08/2010 1240			
Total Suspended Solids	22	mg/L	1.0	1.0	1.0

Client Sample ID: Equipment Blank 33654 Lab Sample ID: 660-33654-2

Date Sampled: 02/03/2010 1240 Date Received: 02/03/2010 1440

Job Number: 660-33654-1

Analyte	Result/Qu	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2			Date Analyzed: 02/05/20		05/2010 0831	
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B			Date Analyzed: 02/04/2010 1530			
Biochemical Oxygen Demand	1.5	U	mg/L	1.5	2.0	1.0
Method: SM 5220D			Date Analyzed: 02/10/2010 1443			
Prep Method: SM 5220			Date Prepared: 02/09/2010 1255			
Chemical Oxygen Demand	10	U	mg/L	10	20	1.0

Job Number: 660-33654-1

Client Sample ID: Equipment Blank 33654 Lab Sample ID: 660-33654-2

Date Sampled: 02/03/2010 1240 Date Received: 02/03/2010 1440

Analyte	Result/Q	ualifier	Unit	PQL	PQL	Dilution
Method: SM 2540C			Date A	nalyzed:	02/09/2010 1104	
Total Dissolved Solids	5.0	U	mg/L	5.0	5.0	1.0
Method: SM 2540D			Date Analyzed: 02/08/2010 1241			
Total Suspended Solids	1.0	U	mg/L	1.0	1.0	1.0

## **DATA REPORTING QUALIFIERS**

Client: Hillsborough County

Job Number: 660-33654-1

Lab Section	Qualifier	Description
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.

Job Number: 660-34151-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-34151-1

Date Sampled: 03/03/2010 1130 Date Received: 03/03/2010 1455

Analyte	Result/Qu	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2			Date A	nalyzed: 03	3/04/2010 1500	
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B			Date Analyzed: 03/04/2010 1720		3/04/2010 1720	
Biochemical Oxygen Demand	1.5	U	mg/L	1.5	2.0	1.0
Method: SM 5220D			Date Analyzed: 03/09/2010 1420			
Prep Method: SM 5220	Date Prepared: 03/09/2010 1108		3/09/2010 1108			
Chemical Oxygen Demand	460		mg/L	10	20	1.0

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-34151-1

Date Sampled: 03/03/2010 1130 Date Received: 03/03/2010 1455

Job Number: 660-34151-1

Analyte	Result/Qualifier	Unit	NON	NE NONE	Dilution
Method: Field Sampling		Date A	nalyzed:	03/03/2010 1130	
Field pH	8.04	SU			1.0
Field Temperature	16.80	Degrees C			1.0
Oxygen, Dissolved	6.00	mg/L			1.0
Specific Conductance	8484	umhos/cm			1.0

Job Number: 660-34151-1

Client Sample ID: Leachate Effluent

Lab Sample ID: 660-34151-1

Date Sampled: 03/03/2010 1130 Date Received: 03/03/2010 1455

Analyte	Result/Qualifier	Unit	PQL	PQL	Dilution
Method: SM 2540C		Date A	nalyzed:	03/08/2010 1447	
Total Dissolved Solids	5800	mg/L	25	25	1.0
Method: SM 2540D		Date A	nalyzed:	03/08/2010 0907	
Total Suspended Solids	11	mg/L	1.0	1.0	1.0

Client Sample ID: Equipment Blank Lab Sample ID: 660-34151-2

Date Sampled: 03/03/2010 1125 Date Received: 03/03/2010 1455

Job Number: 660-34151-1

Analyte	Result/Qı	ualifier	Unit	MDL	PQL	Dilution
Method: 353.2		4/2010 1500	2010 1500			
Nitrate as N	0.10	U	mg/L	0.10	0.50	1.0
Method: SM 5210B			Date Analyzed: 03/04/2010 1720			
Biochemical Oxygen Demand	1.5	U	mg/L	1.5	2.0	1.0
Method: SM 5220D			Date A	nalyzed: 03/0	8/2010 1411	
Prep Method: SM 5220			Date P	repared: 03/0	8/2010 1147	
Chemical Oxygen Demand	10	U	mg/L	10	20	1.0

Client Sample ID: Equipment Blank Lab Sample ID: 660-34151-2

Date Sampled: 03/03/2010 1125 Date Received: 03/03/2010 1455

Job Number: 660-34151-1

1.0

1.0

Client Matrix: Water

1.0

**Analyte** Result/Qualifier Unit **PQL PQL** Dilution Method: SM 2540C Date Analyzed: 03/08/2010 1448 **Total Dissolved Solids** 5.0 U mg/L 5.0 1.0 Method: SM 2540D Date Analyzed: 03/08/2010 0907 **Total Suspended Solids** 1.0 U

mg/L

## **DATA REPORTING QUALIFIERS**

Client: Hillsborough County

Job Number: 660-34151-1

Lab Section	Qualifier	Description
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.