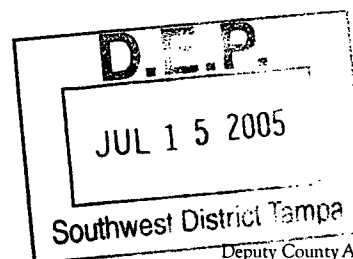


## Hillsborough County Florida

Office of the County Administrator  
Patricia G. Bean



Deputy County Administrator  
Wally Hill

Assistant County Administrators  
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July 14, 2005

Ms. Susan Pelz, P.E.  
Florida Department of Environmental Protection  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619-8318

Re: **Southeast County Landfill  
Leachate Treatment Plant  
Effluent Analytical Data – Second Quarter (April-June, 2005)**

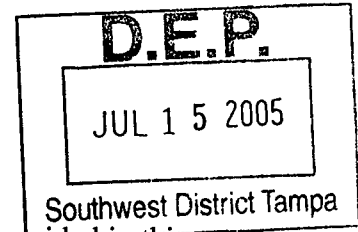
Dear Ms. Pelz:

In accordance with Specific Condition No. 32(b) of the Operation Permit No. 35435-006-SO, the Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the analytical data for the second quarter effluent sampling of the leachate treatment plant at the Southeast County Landfill (SELF). The referenced permit requires the SWMD to sample and analyze the leachate effluent for pH on a weekly basis. It also requires that Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), nitrate, and Total Dissolved Solids (TDS) are sampled and analyzed on a monthly basis.

On April 27, May 5, and June 2, 2005, the SWMD collected the effluent samples for the above referenced parameters from the dedicated effluent sampling port at the treatment plant. The April and May monthly samples were analyzed by our contracted laboratory, Elab, Inc. and the June monthly sample was analyzed by our contracted laboratory, Test America, Inc. Analytical data sheets are attached within this report. Daily effluent pH readings from the leachate plant during these three months ranged from 7.20 – 8.69 pH units.

Nitrates were analyzed and observed during this monitoring period with results of 77 milligrams per liter (mg/l) in April, 65 mg/l in May, and 69.4 mg/l in June 2005. TDS values were also observed during these months at concentrations of 5,500 mg/l, 5,000 mg/l, and 6,110 mg/l, respectively. The SWMD will closely monitor all of the constituent levels at the facility.

Ms. Susan Pelz  
July 14, 2005  
Page 2



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,

A handwritten signature in cursive script, reading "Patricia V. Berry".

Patricia V. Berry  
Landfill Services Section Manager  
Solid Waste Management Department

PVB/mdt  
Enclosures

xc: Larry Ruiz, SWMD  
David Adams, P.G., SWMD  
Daniel Orlosky, SWMD  
Ron Cope, EPC

enviro/projects/self/leachate plant/ltp-effluent-2ndqtr2005.doc

**Monthly Leachate Plant Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05040979**Sample Number:** F05040979-002**D.E.P.****JUL 15 2005****Southwest District Tampa**

<b>Facility WACS:</b>	Leachate Plant	<b>Sample Date/Time:</b>	4/27/2005 10:45:00 AM
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	April 2005
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	WW	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	4/27/2005	10287		umhos/c	
	pH	Grab	N	FLD	4/27/2005	8.60		S.U.	
	Temperature	Grab	N	FLD	4/27/2005	25.86		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	5/2/2005	5500	x	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	4/29/2005	32		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	4/28/2005	77	x	mg/L	0.091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	5/4/2005	10		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	5/3/2005	440		mg/L	78

**Data** U Not Detected Above the MDL  
**Qualifier**  
**Code Key:**

x Value exceeds Maximum Contaminant Level

**Leachate Truck/Plant Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05050185**Sample Number:** F05050185-002

<b>Facility WACS:</b>	Leachate Effluent	<b>Sample Date/Time:</b>	5/5/2005 10:40:00 AM
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	May 2005
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	5/5/2005	1010		umhos/c	
	pH	Grab	N	FLD	5/5/2005	8.03		S.U.	
	Temperature	Grab	N	FLD	5/5/2005	27.34		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	5/9/2005	5000	x	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	5/9/2005	100		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	5/6/2005	65	x	mg/L	0.091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	5/11/2005	11		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	5/10/2005	1000		mg/L	7.8

**Data Qualifier Code Key:**  
 U Not Detected Above the MDL

x Value exceeds Maximum Contaminant Level

Client: HILLSBOROUGH CO. SOLID WASTE MGMT DIV.  
P.O. BOX 1110  
TAMPA, FL 33601  
Attn: JIM CLAYTON

Work Order: OOF0058  
Project: LEACHATE TRUCK MONITORING PROG-  
Project Number: [none]

Sampled: 06/02/05  
Received: 06/02/05

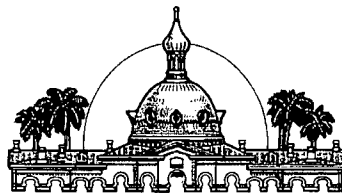
## LABORATORY REPORT

Sample ID: LEACHATE EFFLUENT(PLANT) - Lab Number: OOF0058-01 - Matrix: Water - NonPotable

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
<b>Field Sampling Parameters</b>											
PH	pH	8.60		pH Units	NA	NA	1	06/02/05 11:48	CLI	EPA 150.1	5F07014
NA	Specific Conductance (EC)	10800		uS/cm	NA	NA	1	06/02/05 11:48	CLI	EPA 120.1	5F07014
TEMP	Temperature	29.2		°C	NA	NA	1	06/02/05 11:48	CLI	EPA 170.1	5F07014
<b>General Chemistry Parameters</b>											
E1640606	BOD - 5 Day	3.26		mg/L	2.00	2.00	1	06/08/05 12:39	NMR	EPA 405.1	5F02048
								Prep Date: 06/03/05 12:15			
NA	Chemical Oxygen Demand	242		mg/L	80.0	100	10	06/06/05 08:30	RMV	Hach 8000	5F06011
C010	Total Dissolved Solids	6110		mg/L	1.00	1.00	1	06/07/05 17:15	RMV	SM 2540C	5F06023
E1642818	Total Suspended Solids	55.5		mg/L	1.00	1.00	1	06/06/05 17:55	RMV	EPA 160.2	5F06022
I4797-55-8	Nitrate as N	69.4	Q	mg/L	0.950	1.00	50	06/05/05 04:58	SXP	EPA 300.0	5F03004

10249 +  
L2

LEACHATE  
EFFLUENT



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

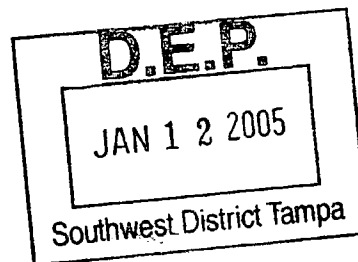
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Manus J. O'Donnell

January 10, 2005



Ms. Susan Pelz, P.E.  
Florida Department of Environmental Protection  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619-8318

Re: **Southeast County Landfill  
Leachate Treatment Plant  
Effluent Analytical Data – Fourth Quarter (October-December, 2004)**

Dear Ms. Pelz:

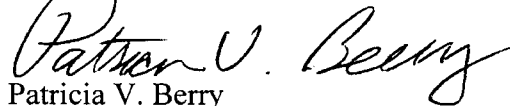
In accordance with Specific Condition No. 32(b) of the Operation Permit No. 35435-006-SO, the Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the analytical data for the fourth quarter effluent sampling of the leachate treatment plant at the Southeast County Landfill (SELF). The referenced permit requires the SWMD to sample and analyze the leachate effluent for pH on a weekly basis. It also requires that Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), nitrate, and Total Dissolved Solids (TDS) sampled on a monthly basis.

On October 27, November 22, and December 9, 2004, the SWMD collected the effluent samples for the above referenced parameters from the dedicated effluent sampling port at the plant. Each of these monthly samples was analyzed by our contracted laboratory, Elab, Inc. and the data sheets are attached within this report. Daily effluent pH readings from the leachate plant during these three months ranged from 7.75 – 8.49 pH units, which are within the compliance standards of 6.0 to 8.5 pH units.

It should be noted that the analytical data set from the October and November 2004 sampling event exhibited trace levels of parameters (Chemical Oxygen Demand and Suspended Solids) in the equipment blank below quantitation limits. The detections of these parameters in the equipment blank do not raise any specific questions regarding the validity of the data.

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,

A handwritten signature in black ink, reading "Patricia V. Berry". The signature is fluid and cursive, with the first name "Patricia" being the most prominent.

Patricia V. Berry  
Landfill Services Section Manager  
Solid Waste Management Department

PVB/mdt  
Enclosures

xc: Ron Cope, EPC  
Larry Ruiz, SWMD  
David Adams, P.G., SWMD

enviro/projects/self/leachate plant/ltp-effluent-4thqtr2004.doc

**Leachate Treatment Plant****PARAMETER MONITORING REPORT**

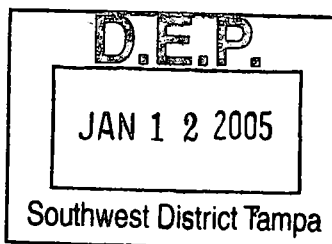
Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04100959

Sample Number: F04100959-001



Facility WACS:	Leachate Effluent	Sample Date/Time:	10/27/2004 10:05:00 AM
Well/Sampling Point WACS:	Equip Blank	Report Period:	October 2004
Well/Sampling Point Name:	Equip Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	EQ Blank
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	10/28/2004	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	10/29/2004	0.77	U	mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	10/28/2004	0.0091	U	mg/L	0.0091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	11/3/2004	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	11/3/2004	10	I	mg/L	6.2

Data  
Qualifier  
Code Key:

\* Value exceeds Maximum Contaminant Level  
U Not Detected Above the MDL

I Analyte detected below quantitation limits



**Leachate Treatment Plant****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

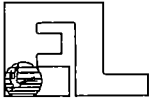
**LAB Submission Number:** F04100959**Sample Number:** F04100959-002

<b>Facility WACS:</b>	Leachate Effluent	<b>Sample Date/Time:</b>	10/27/2004 10:12:00 AM
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	October 2004
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	10/27/2004	10665		umhos/c	
	pH	Grab	N	FLD	10/27/2004	8.30		S.U.	
	Temperature	Grab	N	FLD	10/27/2004	28.39		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	10/28/2004	5400	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	10/29/2004	71		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	10/28/2004	3.2		mg/L	0.046
00310	Biochemical Oxygen Demand	Grab	N	E405.1	11/3/2004	24	U	mg/L	24
00340	Chemical Oxygen Demand	Grab	N	E410.4	11/3/2004	670		mg/L	6.2

**Data** \* Value exceeds Maximum Contaminant Level  
**Qualifier** U Not Detected Above the MDL  
**Code Key:**

I Analyte detected below quantitation limits

**Leachate Plant Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F04110701**Sample Number:** F04110701-001

<b>Facility WACS:</b>	Leachate Effluent	<b>Sample Date/Time:</b>	11/22/2004 10:40:00 AM
<b>Well/Sampling Point WACS:</b>	Equip Blank	<b>Report Period:</b>	November 2004
<b>Well/Sampling Point Name:</b>	Equipment Blank	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	EQ blank QC
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	11/23/2004	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	11/23/2004	0.88	I	mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E353.2	11/23/2004	0.0042	U	mg/L	0.0042
00310	Biochemical Oxygen Demand	Grab	N	E405.1	11/29/2004	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	12/6/2004	6.2	U	mg/L	6.2

<b>Data</b>	*	Value exceeds Maximum Contaminant Level	I	Analyte detected below quantitation limits
<b>Qualifier</b>	U	Not Detected Above the MDL		
<b>Code Key:</b>				

**Leachate Plant Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F04110701**Sample Number:** F04110701-002

<b>Facility WACS:</b>	Leachate Effluent	<b>Sample Date/Time:</b>	11/22/2004 10:50:00 AM
<b>Well/Sampling Point WACS:</b>	Plant Eff	<b>Report Period:</b>	November 2004
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	11/22/2004	11,068		umhos/c	
	pH	Grab	N	FLD	11/22/2004	8.23		S.U.	
	Temperature	Grab	N	FLD	11/22/2004	27.73		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	11/23/2004	5600	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	11/23/2004	75		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E353.2	11/23/2004	120	*	mg/L	0.21
00310	Biochemical Oxygen Demand	Grab	N	E405.1	11/29/2004	7.1		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	12/20/2004	350		mg/L	31

**Data Qualifier Code Key:**

*	Value exceeds Maximum Contaminant Level
U	Not Detected Above the MDL

I Analyte detected below quantitation limits



**Leachate Treatment Plant**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F04120312

**Sample Number:** F04120312-001

<b>Facility WACS:</b>	Leachate Treatment	<b>Sample Date/Time:</b>	12/9/2004 9:40:00 AM
<b>Well/Sampling Point WACS:</b>	EQ Blank	<b>Report Period:</b>	December 2004
<b>Well/Sampling Point Name:</b>	Equipment Blank	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b><u>INORGANICS</u></b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	12/13/2004	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	12/14/2004	0.77	U	mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	12/10/2004	0.0091	U	mg/L	0.0091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	12/15/2004	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	12/15/2004	6.2	U	mg/L	6.2

**Data  
Qualifier  
Code Key:**

\* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL

**Leachate Treatment Plant****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F04120312**Sample Number:** F04120312-002

<b>Facility WACS:</b>	Leachate Treatment	<b>Sample Date/Time:</b>	12/9/2004 9:42:00 AM
<b>Well/Sampling Point WACS:</b>	Leachate	<b>Report Period:</b>	December 2004
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	12/9/2004	10,462		umhos/c	
	pH	Grab	N	FLD	12/9/2004	7.94		S.U.	
	Temperature	Grab	N	FLD	12/9/2004	25.96		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	12/13/2004	6400	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	12/14/2004	58		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	12/10/2004	79	*	mg/L	0.091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	12/15/2004	7.4		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	12/15/2004	510		mg/L	6.2

**Data Qualifier Code Key:**

\* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL

*Effluent*

**Analytical Results Summary for Leachate Samples Collected at Class I/III/C&D Landfills**

Facility Name -- Southeast County Landfill  
Analytical Laboratory -- Advanced Env. Laboratories, Inc.

County -- Hillsborough  
Approval of Sampling QA Plan -- Y

Sampling Frequency -- monthly parameters only  
Approval of Analytical QA Plan -- Y

	Permit	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	
	Limits	1/1/2005												Date Sampled
<b>PARAMETERS</b>		4/15/2005												Data Received
Field Measurements														Notes
pH (Std. Units)	6 - 8.5	8.49												
Inorganics														
Nitrate (mg/L)	10	4												
Total Suspended Solids (mg/L)	20	71												
CBOD <sub>5</sub> (mg/L)	20	10												

	Permit	Effluent												
	Limits	2/1/2005												Date Sampled
<b>PARAMETERS</b>		4/15/2005												Data Received
Field Measurements														
pH (Std. Units)	6 - 8.5	8.21												
Inorganics														
Nitrate (mg/L)	10	120												
Total Suspended Solids (mg/L)	20	42												
CBOD <sub>5</sub> (mg/L)	20	6												

	Permit	Effluent												
	Limits	3/1/2005												Date Sampled
<b>PARAMETERS</b>		4/15/2005												Data Received
Field Measurements														
pH (Std. Units)	6 - 8.5	8.97												
Inorganics														
Nitrate (mg/L)	10	1.4												
Total Suspended Solids (mg/L)	20	60												
CBOD <sub>5</sub> (mg/L)	20	3.8												

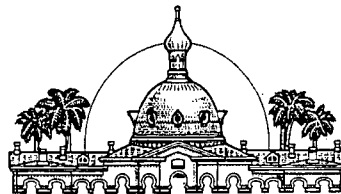
	Permit													
	Limits													Date Sampled
<b>PARAMETERS</b>														Data Received
Field Measurements														
pH (Std. Units)	6 - 8.5													
Inorganics														
Nitrate (mg/L)	10													
Total Suspended Solids (mg/L)	20													
CBOD <sub>5</sub> (mg/L)	20													

	Permit													
	Limits													Date Sampled
<b>PARAMETERS</b>														Data Received
Field Measurements														
pH (Std. Units)	6 - 8.5													
Inorganics														
Nitrate (mg/L)	10													
Total Suspended Solids (mg/L)	20													
CBOD <sub>5</sub> (mg/L)	20													

NOTES:

\* Leachate Plant offline for refurbishing from 10/7/03 to 2/18/04

100494



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

BOARD OF COUNTY COMMISSIONERS

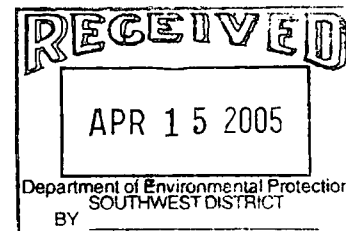
Brian Blair  
Kathy Castor  
Ken Hagan  
Jim Norman  
Thomas Scott  
Mark Sharpe  
Ronda Storms

Deputy County Administrator  
Wally Hill

Assistant County Administrators  
Bernardo Garcia  
Carl S. Harness  
Manus J. O'Donnell

April 15, 2005

Ms. Susan Pelz, P.E.  
Florida Department of Environmental Protection  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619-8318



Re: **Southeast County Landfill  
Leachate Treatment Plant  
Effluent Analytical Data – First Quarter (January-March, 2005)**

Dear Ms. Pelz:

In accordance with Specific Condition No. 32(b) of the Operation Permit No. 35435-006-SO, 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 (SELF). The referenced permit requires the SWMD to sample and analyze the leachate effluent for pH on a weekly basis. It also requires that Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), nitrate, and Total Dissolved Solids (TDS) sampled on a monthly basis.

On January 19, February 21, and March 28, 2005, the SWMD collected the effluent samples for the above referenced parameters from the dedicated effluent sampling port at the plant. Each of these monthly samples was analyzed by our contracted laboratory, Elab, Inc. and the data sheets are attached within this report. Daily effluent pH readings from the leachate plant during these three months ranged from 8.21 – 8.57 pH units. The March 2005 sample exhibited a pH value exceeding the compliance standard of 6.0 to 8.5 pH units. pH has since been observed within the secondary drinking water standards (SDWS) as listed in Chapter 62-550.310 and .320, Florida Administrative Code.

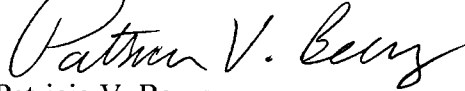
Nitrate was observed at a level of 120 mg/l in the February 2005. However, the January 2005 sample was observed at 4 mg/l and the March 2005 result was observed at 1.4 mg/l. Based on the historical data for treated effluent from the leachate treatment plant, the February value appears to be an isolated incident and the SWMD does not foresee any future issues with Nitrate.

Ms. Susan Pelz  
April 15, 2005  
Page 2

It should be noted that the analytical data set from the January and March 2005 sampling events exhibited trace levels of Suspended Solids in the equipment blank below quantitation limits. The detections of this parameter in the equipment blank do not raise any specific questions regarding the validity of these data reports.

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,



Patricia V. Berry  
Landfill Services Section Manager  
Solid Waste Management Department

PVB/mdt  
Enclosures

xc: Larry Ruiz, SWMD  
David Adams, P.G., SWMD  
Daniel Orlosky, SWMD  
Ron Cope, EPC

enviro/projects/self/leachate plant/ltp-effluent-1stqtr2005.doc





**Leachate Treatment Plant Leachate Eff**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

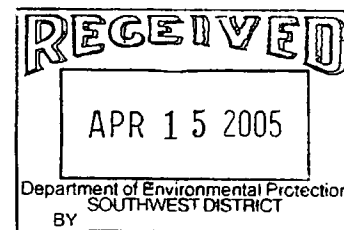
Leachate (Rule 62-701.510)

**LAB Submission Number:** F05010541

**Sample Number:** F05010541-001

<b>Facility WACS:</b>	Leachate Treatment Plant	<b>Sample Date/Time:</b>	1/19/2005
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	January 2005
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	1/19/2005	9903		umhos/c	
	pH	Grab	N	FLD	1/19/2005	8.49		S.U.	
	Temperature	Grab	N	FLD	1/19/2005	18.59		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	1/21/2005	5000	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	1/24/2005	71		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E353.2	1/20/2005	4.0	V	mg/L	0.0042
00310	Biochemical Oxygen Demand	Grab	N	E405.1	1/26/2005	10		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	1/24/2005	450		mg/L	6.2



**Data** \* Value exceeds Maximum Contaminant Level I Analyte detected below quantitation limits  
**Qualifier** U Not Detected Above the MDL V Analyte detected in the associated Method Blank  
**Code Key:**



**Leachate Treatment Plant Leachate Eff**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05010541

**Sample Number:** F05010541-002

<b>Facility WACS:</b>	Leachate Treatment Plant	<b>Sample Date/Time:</b>	1/19/2005 10:40:00 AM
<b>Well/Sampling Point WACS:</b>	EQ Blank	<b>Report Period:</b>	January 2005
<b>Well/Sampling Point Name:</b>	Equipment Blank	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	1/21/2005	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	1/24/2005	2.0	I	mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E353.2	1/20/2005	0.077	V	mg/L	0.0042
00310	Biochemical Oxygen Demand	Grab	N	E405.1	1/26/2005	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	1/24/2005	6.2	U	mg/L	6.2

<b>Data</b>	*	Value exceeds Maximum Contaminant Level	I	Analyte detected below quantitation limits
<b>Qualifier</b>	U	Not Detected Above the MDL	V	Analyte detected in the associated Method Blank
<b>Code Key:</b>				



**Leachate Treatment Plant**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05020763

**Sample Number:** F05020763-001

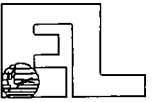
<b>Facility WACS:</b>	Leachate Treatment Plant	<b>Sample Date/Time:</b>	2/21/2005 11:48:00 AM
<b>Well/Sampling Point WACS:</b>	EQ Blank	<b>Report Period:</b>	Februray 2005
<b>Well/Sampling Point Name:</b>	Equipment Blank #3	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b><u>INORGANICS</u></b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	2/22/2005	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	2/24/2005	0.77	U	mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	2/23/2005	0.0091	U	mg/L	0.0091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	2/28/2005	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	3/3/2005	6.2	U	mg/L	6.2

**Data  
Qualifier  
Code Key:**

\* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL

**Leachate Treatment Plant****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05020763**Sample Number:** F05020763-002

<b>Facility WACS:</b>	Leachate Treatment Plant	<b>Sample Date/Time:</b>	2/21/2005 11:55:00 AM
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	Februray 2005
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	2/21/2005	10495		umhos/c	
	pH	Grab	N	FLD	2/21/2005	8.21		S.U.	
	Temperature	Grab	N	FLD	2/21/2005	25.32		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	2/22/2005	5900	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	2/24/2005	42		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	2/23/2005	120	*	mg/L	0.091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	2/28/2005	6.0		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	3/3/2005	380		mg/L	6.2

**Data Qualifier Code Key:**

\* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL



**Leachate Plant Monitoring**

**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05031013

**Sample Number:** F05031013-001

<b>Facility WACS:</b>	Leachate Plant	<b>Sample Date/Time:</b>	3/28/2005 12:20:00 PM
<b>Well/Sampling Point WACS:</b>	EQ Blank	<b>Report Period:</b>	March 2005
<b>Well/Sampling Point Name:</b>	Equipment Blank	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	EQ Blank
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b><u>INORGANICS</u></b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	3/29/2005	1.2	U	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	3/31/2005	6.5		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	3/30/2005	0.0091	U	mg/L	0.0091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	4/4/2005	2.0	U	mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	3/31/2005	7.8	U	mg/L	7.8

**Data  
Qualifier  
Code Key:**

\* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL

**Leachate Plant Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

**LAB Submission Number:** F05031013**Sample Number:** F05031013-002

<b>Facility WACS:</b>	Leachate Plant	<b>Sample Date/Time:</b>	3/28/2005 12:25:00 PM
<b>Well/Sampling Point WACS:</b>	Leachate Eff	<b>Report Period:</b>	March 2005
<b>Well/Sampling Point Name:</b>	Leachate Eff	<b>Well Purged:</b>	YES
<b>Classification of Groundwater:</b>	G-II	<b>Well Type:</b>	Effluent
<b>Ground Water Elevation: (NGVD):</b>			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<b>FIELD</b>									
	Conductivity	Grab	N	FLD	3/28/2005	366		umhos/c	
	pH	Grab	N	FLD	3/28/2005	8.57		S.U.	
	Temperature	Grab	N	FLD	3/28/2005	27.30		deg C	
<b>INORGANICS</b>									
70300	Solids, Total Dissolved	Grab	N	E160.1	3/29/2005	5000	*	mg/L	1.2
00530	Solids, Suspended (Residue, Non-	Grab	N	E160.2	3/31/2005	60		mg/L	0.77
00620	Nitrogen, Nitrate	Grab	N	E300.0	3/30/2005	1.4		mg/L	0.0091
00310	Biochemical Oxygen Demand	Grab	N	E405.1	4/4/2005	3.8		mg/L	2.0
00340	Chemical Oxygen Demand	Grab	N	E410.4	3/31/2005	560		mg/L	7.8

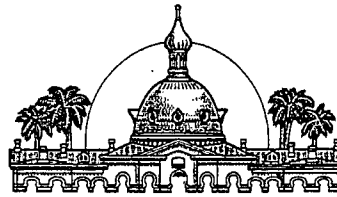
**Data** \* Value exceeds Maximum Contaminant Level  
**Qualifier**  
**Code Key:**

U Not Detected Above the MDL

## BOARD OF COUNTY COMMISSIONERS

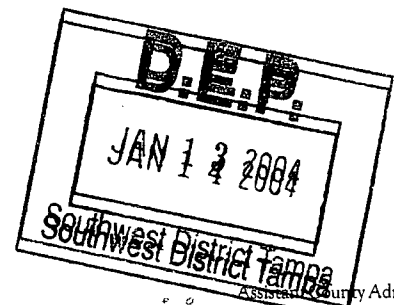
Kathy Castor  
Pat Frank  
Ken Hagan  
Jim Norman  
Jan K. Platt  
Thomas Scott  
Ronda Storms

*Susan*  
*Lora*  
*Fy I*  
*1/12/04*



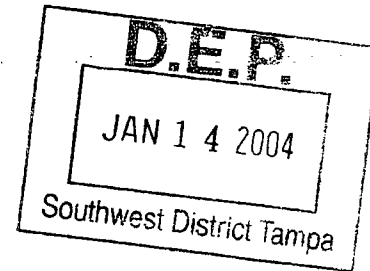
# Hillsborough County Florida

Office of the County Administrator  
Patricia G. Bean



Assistant County Administrators  
Bernardo Garcia  
Carl S. Harness

January 13, 2004



*John*  
Mr. Kim Ford, P. E.  
Florida Department of Environmental Protection  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619

RE: Southeast County Landfill Reporting – Permit No. 35435-006-SO

Dear Mr. Ford:

In accordance with Permit No. 35435-006-SO, Specific Condition No. 41, the Solid Waste Management Department (SWMD) is submitting the required reporting for the Southeast County Landfill (SELF) and Leachate Treatment and Reclamation Facility (LTRF).

The water quality and leachate reporting for the SELF for the period of July through December 2003 was previously submitted to the DEP in October 2003. Information related to sludge and leachate effluent testing for the LTRF is provided below and is submitted to satisfy the January 15, 2004 reporting requirement.

The LTRF resumed operation in late August 2003. Prior to the commencement of facility operations, a plan was developed to start the LTRF process in stages in order to define the effectiveness of the leachate treatment system for the reduction of cyanide. As the DEP is aware, the LTRF system is a combined biochemical and physicochemical system; the biochemical process reduces biodegradable nutrients in the leachate, and the physicochemical process (activated carbon adsorption) reduces the chemical oxygen demand (refractory organic) content. Because cyanide is amenable to biochemical digestion processes, it was decided to first operate only the biochemical portion of the LTRF treatment system in order to observe the effectiveness of the biological cyanide reduction. After the biochemical process in the LTRF achieved steady-state operating conditions, analytical evaluations were conducted during October and November 2003 (results attached) in which the raw leachate and LTRF effluent were tested for nutrient content, total suspended solids content, and cyanide reduction. Sludge analysis, conducted in accordance with Specific Condition No. 32C, is also attached.

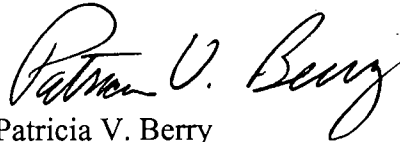
Mr. Kim Ford  
January 13, 2004  
Page Two

Annual leachate effluent testing, as required by Specific Condition No. 32A, was not completed during the month-long system evaluation, as the LTRF was not fully operating at the original intent of design. As part of the staged LTRF start-up planning, the full complement of leachate effluent and sludge analytical testing was to resume after the start-up of both the biological process and the carbon adsorption process in the LTRF.

The LTRF operations were suspended in early December 2003, and the facility is now being readied for its three-year inspection and tank testing. After the inspections of the LTRF are completed, the treatment facility will resume full operation with both the biochemical and carbon adsorption processes on-line. After the system is at steady-state operating conditions, the annual leachate effluent and sludge testing will be conducted per the permit requirements.

Should you have any questions concerning the information provided, please contact me at the SWMD at 813-276-2908.

Sincerely,



Patricia V. Berry  
Landfill Services Section Manager  
Solid Waste Management Department

Attachments

xc: Ron Cope, EPC  
David Adams, SWMD  
Larry Ruiz, SCS





**Certificate of Analysis Summary 238221**  
Hillsborough County Solid Waste Management Department, Tampa, FL  
Project Name: 15960 CR 672, Lithia, FL



Project Id:

Contact: Matt Matthews

Project Location:

Date Received in Lab: Tue Nov-04-03 09:40 am

Report Date: 13-NOV-03

Project Manager: Tom Helton

<b>Analysis Requested</b>	<b>Lab Id:</b>	238221-001	238221-002				
	<b>Field Id:</b>	INFLUENT	EFFLUENT				
	<b>Depth:</b>						
	<b>Matrix:</b>	WATER	WATER				
	<b>Sampled:</b>	Nov-04-03 09:00	Nov-04-03 09:00				
<b>BOD by EPA 405.1</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-13-03 13:35	Nov-13-03 13:35				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Biochemical Oxygen Demand		65.4 2.00	55.2 2.00				
<b>COD by EPA 410.4</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-06-03 11:00	Nov-06-03 11:00				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
COD - Chemical Oxygen Demand		700 10.0	329 10.0				
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-06-03 14:00	Nov-06-03 14:00				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrate		U 0.200	25.4 0.200				
Nitrite		U 0.200	166 0.200				
<b>Nitrogen, Ammonia by EPA 350.3</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-07-03 09:20	Nov-07-03 09:20				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrogen, Ammonia (as N)		263 0.100	0.190 0.100				
<b>Nitrogen, Kjeldahl, Total by EPA 351.3</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-11-03 09:00	Nov-11-03 09:00				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrogen, Total Kjeldahl		192 1.00	3.96 1.00				
<b>TSS by EPA 160.2</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-05-03 10:10	Nov-05-03 10:10				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
TSS, Total Suspended Solids		6.00 5.00	45.0 5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Tom Helton  
Laboratory Manager



# Certificate of Analysis Summary 238221

Hillsborough County Solid Waste Management Department, Tampa, FL

Project Name: 15960 CR 672, Lithia, FL



Project Id:

Contact: Matt Matthews

Project Location:

Date Received in Lab: Tue Nov-04-03 09:40 am

Report Date: 13-NOV-03

Project Manager: Tom Helton

<i>Analysis Requested</i>	<i>Lab Id:</i>	238221-001	238221-002				
	<i>Field Id:</i>	INFLUENT	EFFLUENT				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
	<i>Sampled:</i>	Nov-04-03 09:00	Nov-04-03 09:00				
Total Cyanide by EPA 335.2	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-12-03 07:50	Nov-12-03 07:50				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Cyanide, Total		U 0.004	U 0.004				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Tom Helton  
Laboratory Manager



# Certificate of Analysis Summary 238412

Hillsborough County Solid Waste Management Department, Tampa, FL

Project Name: Leachate Plant



Project Id:

Contact: Matt Matthews

Project Location: Leachate Plant

Date Received in Lab: Tue Nov-11-03 12:00 pm

Report Date: 14-NOV-03

Project Manager: Tom Helton

<i>Analysis Requested</i>	<i>Lab Id:</i>	238412-001	238412-002				
	<i>Field Id:</i>	Influent	Effluent				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
	<i>Sampled:</i>	Nov-11-03 11:45	Nov-11-03 11:45				
<b>COD by EPA 410.4</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-12-03 17:00	Nov-12-03 17:00				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
COD - Chemical Oxygen Demand		744 10.0	345 10.0				
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-12-03 10:30	Nov-12-03 10:30				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrate		2.03 0.200	88.9 2.00				
Nitrite		U 0.200	U 0.200				
<b>Nitrogen Ammonia by EPA 350.2</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-12-03 15:00	Nov-12-03 15:00				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrogen, Ammonia (as N)		226 1.00	0.210 0.100				
<b>Nitrogen, Kjeldahl, Total by EPA 351.3</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-13-03 08:50	Nov-13-03 08:50				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrogen, Total Kjeldahl		237 10.0	8.77 1.00				
<b>Phosphorus, All Forms by EPA 365.3</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-13-03 16:21	Nov-13-03 16:21				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Phosphorus, Total (as P)		0.804 0.050	1.15 0.050				
<b>TSS by EPA 160.2</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-12-03 13:45	Nov-12-03 13:45				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
TSS, Total Suspended Solids		41.0 5.00	77.1 5.00				

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*Tom Helton*

Tom Helton  
Laboratory Manager



**Certificate of Analysis Summary 238412**  
**Hillsborough County Solid Waste Management Department, Tampa, FL**



Project Id:

Project Name: Leachate Plant

Date Received in Lab: Tue Nov-11-03 12:00 pm

Contact: Matt Matthews

Report Date: 14-NOV-03

Project Location: Leachate Plant

Project Manager: Tom Helton

<i>Analysis Requested</i>	<i>Lab Id:</i>	238412-001	238412-002				
	<i>Field Id:</i>	Influent	Effluent				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
	<i>Sampled:</i>	Nov-11-03 11:45	Nov-11-03 11:45				
Total Cyanide by EPA 335.2	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-13-03 13:39	Nov-13-03 13:39				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Cyanide, Total		U 0.004	U 0.004				

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Tom Helton  
Laboratory Manager



**Certificate of Analysis Summary 238550**  
**Hillsborough County Solid Waste Management Department, Tampa, FL**  
**Project Name: Leachate Plant**



Project Id:

Contact: Matt Matthews

Project Location: Leachate Plant

Date Received in Lab: Tue Nov-18-03 11:45 am

Report Date: 25-NOV-03

Project Manager: Tom Helton

<i>Analysis Requested</i>	<i>Lab Id:</i>	238550-001	238550-002				
	<i>Field Id:</i>	Influent	Effluent				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
	<i>Sampled:</i>	Nov-18-03 11:00	Nov-18-03 11:00				
<b>COD by EPA 410.4</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-19-03 13:25	Nov-19-03 13:25				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
COD - Chemical Oxygen Demand		739 10.0	516 10.0				
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-19-03 10:30	Nov-19-03 10:30				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrate		U 0.200	U 0.200				
Nitrite		U 0.200	U 0.200				
<b>Nitrogen, Ammonia by EPA 350.3</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-20-03 08:25	Nov-20-03 08:25				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrogen, Ammonia (as N)		230 0.100	0.200 0.100				
<b>Nitrogen, Kjeldahl, Total by EPA 351.3</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-20-03 10:20	Nov-20-03 10:20				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Nitrogen, Total Kjeldahl		193 1.00	9.01 1.00				
<b>Phosphorus, All Forms by EPA 365.3</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-21-03 13:27	Nov-21-03 13:27				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Phosphorus, Total (as P)		1.28 0.250	4.51 0.500				
<b>TSS by EPA 160.2</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-19-03 10:40	Nov-19-03 10:40				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
TSS, Total Suspended Solids		50.0 5.00	75.6 5.00				

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Tom Helton  
 Laboratory Manager



**Certificate of Analysis Summary 238550**  
**Hillsborough County Solid Waste Management Department, Tampa, FL**



Project Id:

Contact: Matt Matthews

Project Location: Leachate Plant

Project Name: Leachate Plant

Date Received in Lab: Tue Nov-18-03 11:45 am

Report Date: 25-NOV-03

Project Manager: Tom Helton

<i>Analysis Requested</i>	<i>Lab Id:</i>	238550-001	238550-002				
	<i>Field Id:</i>	Influent	Effluent				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
	<i>Sampled:</i>	Nov-18-03 11:00	Nov-18-03 11:00				
Total Cyanide by EPA 335.2	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-25-03 14:48	Nov-25-03 14:48				
	<i>Units/RL:</i>	mg/L RL	mg/L RL				
Cyanide, Total		U 0.004	U 0.004				

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Laboratory Manager



# Certificate of Analysis Summary 238723

Hillsborough County Solid Waste Management Department, Tampa, FL



Project Id:

Contact: Matt Matthews

Project Location: Leachate Plant

Project Name: Leachate Plant

Date Received in Lab: Tue Nov-25-03 08:37 am

Report Date: 03-DEC-03

Project Manager: Tom Helton

<b>Analysis Requested</b>	<b>Lab Id:</b>	238723-001	238723-002				
	<b>Field Id:</b>	Influent	Effluent				
	<b>Depth:</b>						
	<b>Matrix:</b>	WATER	WATER				
	<b>Sampled:</b>	Nov-25-03 00:00	Nov-25-03 00:00				
<b>COD by EPA 410.4</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-26-03 12:00	Nov-26-03 12:00				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
COD - Chemical Oxygen Demand		700 10.0	327 10.0				
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-26-03 14:25	Nov-26-03 14:25				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrate		0.781 0.200	U 0.200				
Nitrite		U 0.200	U 0.200				
<b>Nitrogen, Ammonia by EPA 350.3</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Dec-01-03 09:45	Dec-01-03 09:45				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrogen, Ammonia (as N)		287 0.100	0.170 0.100				
<b>Nitrogen, Kjeldahl, Total by EPA 351.3</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Dec-02-03 08:25	Dec-02-03 08:25				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Nitrogen, Total Kjeldahl		84.1 1.00	3.87 1.00				
<b>Phosphorus, All Forms by EPA 365.3</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Dec-03-03 09:09	Dec-03-03 09:09				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
Phosphorus, Total (as P)		0.606 0.500	1.94 0.500				
<b>TSS by EPA 160.2</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Nov-26-03 11:20	Nov-26-03 11:20				
	<b>Units/RL:</b>	mg/L RL	mg/L RL				
TSS, Total Suspended Solids		40.0 5.00	71.3 5.00				

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*Tom Helton*

Tom Helton  
Laboratory Manager



**Certificate of Analysis Summary 238723**  
**Hillsborough County Solid Waste Management Department, Tampa, FL**  
**Project Name: Leachate Plant**



**Project Id:**  
**Contact:** Matt Matthews  
**Project Location:** Leachate Plant

**Date Received in Lab:** Tue Nov-25-03 08:37 am  
**Report Date:** 03-DEC-03  
**Project Manager:** Tom Helton

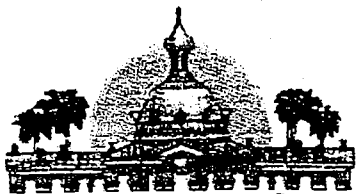
<i>Analysis Requested</i>	<i>Lab Id:</i>	238723-001	238723-002				
	<i>Field Id:</i>	Influent	Effluent				
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER				
<b>Total Cyanide by EPA 335.2</b>	<i>Sampled:</i>	Nov-25-03 00:00	Nov-25-03 00:00				
	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-02-03 08:54	Dec-02-03 08:54				
	<i>Units/RL:</i>	ug/L RL	ug/L RL				
Cyanide, Total		U 4.00	U 4.00				

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Laboratory Manager





# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

	DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE		
	THURSDAY	02 OCT 03	BULLOCK	0800	1600		
	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	819	454					430
Suspended Solids	780	710	7800	OR	2830	4440	710
Ammonia	91	8.8					2.4
Nitrate, Pulled		59					6.9
Phosphorus		NR					NR
D.O.			2.34		6.23		
PH	7.43		7.62		8.33		8.11
Sludge Judge (DOB)				14"		12"	
Settlability			940		220		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## EFFLUENT BASIN

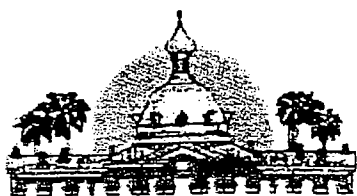
PH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.43			

## TEST FREQUENCY:

**COD** *Wednesday and Friday*  
**Suspended Solids** *Tuesday, Thursday*  
**Ammonia** *Monday, Friday*  
**Phosphorus** *Tuesday, Friday*  
**PH** *Daily*  
**Settlability** *Daily*

**TKN**  
**Nitrate**  
**D.O.**  
**Sludge Judge**  
**Effluent Basin**

*Tuesday and Thursday*  
*Daily*  
*Daily*  
*Daily*  
*Daily*



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
SUNDAY	05 OCT 03	BULLOCK	0800	1600

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	NR	NR					NR
Suspended Solids	670	650	8010	9990	2580	3810	620
Ammonia	119	0.856					0.953
Nitrate, Pulled		282					46
Phosphorus		NR					NR
D.O.			3.51		6.25		
PH	7.44		7.73		8.34		8.24
Sludge Judge (DOB)				14"		11"	
Settlability			830		200		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## EFFLUENT BASIN

pH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.90			

## TEST FREQUENCY:

COD *Wednesday and Friday*  
 Suspended Solids *Tuesday, Thursday*  
 Ammonia *Monday, Friday*  
 Phosphorus *Tuesday, Friday*  
 PH *Daily*  
 Settlability *Daily*

TKN  
 Nitrate  
 D.O.  
 Sludge Judge  
 Effluent Basin

*Tuesday and Thursday*  
*Daily*  
*Daily*  
*Daily*  
*Daily*



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
Thursday	16OCT 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	NR	NR					NR
Suspended Solids	710	560	6800	7400	2980	8740	580
Ammonia	129	4.5					4.1
Nitrate, Pulled		55					77
Phosphorus		NR					NR
D.O.			2.8		6.81		
PH	7.36		7.70		8.13		8.08
Sludge Judge (DOB)				10"		6"	
Settlability			780		430		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## POND BASIN

pH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.26			

## TEST FREQUENCY:

*COD*

*Suspended Solids*

*Ammonia*

*Phosphorus*

*Wednesday and Friday*

*Tuesday, Thursday*

*Monday, Friday*

*Tuesday, Friday*

*TKN*

*Nitrate*

*D.O.*

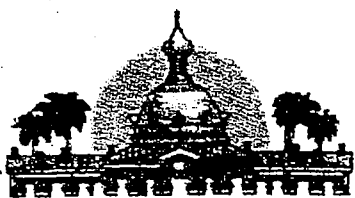
*Sludge Judge*

*Tuesday and Thursday*

*Daily*

*Daily*

*Daily*



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
Tuesday	21OCT 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	NR	NR					NR
Suspended Solids	210	120	5000	7750	3350	5380	100
Ammonia	223	4.3					3.7
Nitrate, Pulled		98					83
Phosphorus		NR					NR
D.O.			2.15		2.18		
PH	7.33		7.50		7.62		7.63
Sludge Judge (DOB)				16"		11"	
Settlability			870		660		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## POND BASIN

PH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
7.92			

## TEST FREQUENCY:

COD  
Suspended Solids  
Ammonia  
Phosphorus

Wednesday and Friday  
Tuesday, Thursday  
Monday, Friday  
Tuesday, Friday

TKN  
Nitrate  
D.O.  
Sludge Judge

Tuesday and Thursday  
Daily  
Daily  
Daily



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
Thursday	30OCT 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	NR	NR					NR
Suspended Solids	480	410	5370	7160	2540	4520	510
Ammonia	1.48	4.1					4.3
Nitrate, Pulled		173					26
Phosphorus		NR					NR
D.O.			3.0		3.7		
PH	7.64		7.82		8.35		8.15
Sludge Judge (DOB)				26"		6"	
Settlability			690		350		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT.						SENT OUT

## POND BASIN

pH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.32			

## TEST FREQUENCY:

**COD** *Wednesday and Friday*  
**Suspended Solids** *Tuesday, Thursday*  
**Ammonia** *Monday, Friday*  
**Phosphorus** *Tuesday, Friday*

**TKN**  
**Nitrate**  
**D.O.**  
**Sludge Judge**

*Tuesday and Thursday*  
*Daily*  
*Daily*  
*Daily*



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

MONDAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
	3NOV 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD							
Suspended Solids	580	510	5310	5380	3040	5110	530
Ammonia	149	5.4					4.0
Nitrate, Pulled		120					72
Phosphorus		NR					NR
D.O.			3.2		2.2		
PH	7.38		7.67		7.77		7.91
Sludge Judge (DOB)				26"		11"	
Settlability			550 separation		700		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT.						SENT OUT

## POND BASIN

pH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.36			

## TEST FREQUENCY:

*COD*  
*Suspended Solids*  
*Ammonia*  
*Phosphorus*

*Wednesday and Friday*  
*Tuesday, Thursday*  
*Monday, Friday*  
*Tuesday, Friday*

*TKN*  
*Nitrate*  
*D.O.*  
*Sludge Judge*

*Tuesday and Thursday*  
*Daily*  
*Daily*  
*Daily*





# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
Monday	10 NOV 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	NR	NR					NR
Suspended Solids	410	210	5280	5870	2710	6320	830
Ammonia	199	4.6					2.6
Nitrate, Pulled		130					3.9
Phosphorus		NR					NR
D.O.			2.54				
PH	7.59		7.42		7.91		7.97
Sludge Judge (DOB)				30"		12"	
Settlability			0		850		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT.						SENT OUT

## POND BASIN

PH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.13			

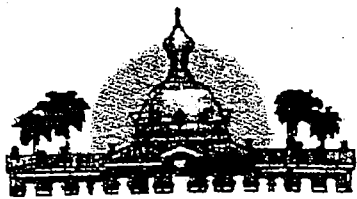
## TEST FREQUENCY:

*COD*  
*Suspended Solids*  
*Ammonia*  
*Phosphorus*

*Wednesday and Friday*  
*Tuesday, Thursday*  
*Monday, Friday*  
*Tuesday, Friday*

*TKN*  
*Nitrate*  
*D.O.*  
*Sludge Judge*

*Tuesday and Thursday*  
*Daily*  
*Daily*  
*Daily*



# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE
Tuesdat	18NOV 03	Bullock	0700	1530

	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	981	451					Under range
Suspended Solids	920	980	4090	6820	2970	5380	880
Ammonia	118	5.5					4.0
Nitrate, Pulled		142					11
Phosphorus		NR					NR
D.O.			2.85		1.63		
PH	7.42		7.91		8.98		8.74
Sludge Judge (DOB)				14"		11"	
Settlability			1000		570		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## POND BASIN

PH	SLOPE	ALKALINITY	RESIDUAL CHLORINE

## TEST FREQUENCY:

*COD*

*Suspended Solids*

*Ammonia*

*Phosphorus*

*Wednesday and Friday*

*Tuesday, Thursday*

*Monday, Friday*

*Tuesday, Friday*

*TKN*

*Nitrate*

*D.O.*

*Sludge Judge*

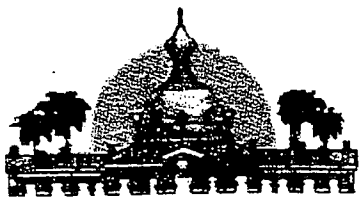
*Tuesday and Thursday*

*Daily*

*Daily*

*Daily*





# Hillsborough County Southeast Landfill Leachate Treatment Facility Daily Operational Readings – Plant Analysis

	DAY	DATE	OPERATOR	TIME ON-SITE	TIME LEFT SITE		
	Monday	24NOV 03	Bullock	0700	1530		
	INFLUENT	1 <sup>ST</sup> STAGE EFFLUENT	1 <sup>ST</sup> STAGE MIXED LIQUOR	1 <sup>ST</sup> STAGE RETURN SLUDGE	2 <sup>ND</sup> STAGE MIXED LIQUOR	2 <sup>ND</sup> STAGE RETURN SLUDGE	EFFLUENT CCC
COD	949	592					226
Suspended Solids			3100		2500		
Ammonia	104	4.6					4.5
Nitrate, Pulled		158					0.195
Phosphorus		NR					NR
D.O.			1.67		3.66		
PH	7.50		7.54		8.67		8.69
Sludge Judge (DOB)				24"		12"	
Settlability			990		980		
BOD, Date Pulled	SENT OUT						SENT OUT
TKN, Date Pulled	SENT OUT						SENT OUT

## POND BASIN

PH	SLOPE	ALKALINITY	RESIDUAL CHLORINE
8.50			

## TEST FREQUENCY:

*COD*

*Suspended Solids*

*Ammonia*

*Phosphorus*

*Wednesday and Friday*

*Tuesday, Thursday*

*Monday, Friday*

*Tuesday, Friday*

*TKN*

*Nitrate*

*D.O.*

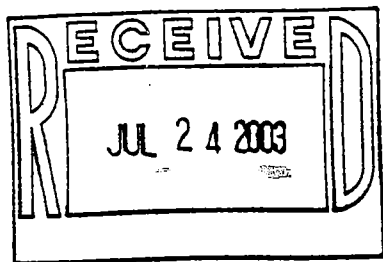
*Sludge Judge*

*Tuesday and Thursday*

*Daily*

*Daily*

*Daily*



## ANALYTICAL REPORT

ELAB, Inc.

Date: 11-Jul-03

CLIENT: Hillsborough County Solid Waste  
Lab Order: F03060484  
Project: Southeast Leachate Treatment Plant Monitoring  
Lab ID: F03060484-001

Client Sample ID: TR Plant - Waste Sludge  
Collection Date: 6/17/2003 9:34:00 AM  
Sample Description:  
Matrix: Sludge

Analyses	Result	Qual	MDL	RL	Units	DF	Date Analyzed	Batch ID
<b>SOLIDS, PERCENT MOISTURE</b>	<b>D2216</b>		PrepDate:				Analyst: MDE	
Percent Moisture	44.64		0		wt%	1	6/18/2003	R16044
<b>MERCURY, TCLP</b>	<b>SW1311/74</b>		PrepDate: 6/26/2003 9:30:00 AM				Analyst: TPE	
Mercury	ND		0.00052	0.0020	mg/L	1	6/27/2003	11910
<b>METALS, TCLP</b>	<b>SW1311/60</b>		PrepDate: 6/26/2003 9:05:00 AM				Analyst: TPE	
Arsenic	0.019		0.0027	0.0050	mg/L	1	6/27/2003 8:02:00 PM	11909
Barium	0.033	V	0.00018	0.010	mg/L	1	6/27/2003 8:02:00 PM	11909
Cadmium	0.0020		0.00045	0.0010	mg/L	1	6/27/2003 8:02:00 PM	11909
Chromium	0.015		0.00066	0.0050	mg/L	1	6/27/2003 8:02:00 PM	11909
Lead	ND		0.0015	0.0050	mg/L	1	6/27/2003 8:02:00 PM	11909
Selenium	0.015		0.0028	0.0050	mg/L	1	6/27/2003 8:02:00 PM	11909
Silver	0.0043	I	0.0012	0.010	mg/L	1	6/27/2003 8:02:00 PM	11909
<b>8081/1311: PESTICIDES, TCLP</b>	<b>SW1311/80</b>		PrepDate: 7/3/2003 1:30:00 PM				Analyst: SBA	
alpha-BHC	ND		0.000030	0.000050	mg/L	1	7/7/2003	11980
beta-BHC	ND		0.00011	0.00020	mg/L	1	7/7/2003	11980
Chlordane	ND		0.0014	0.0050	mg/L	1	7/7/2003	11980
Endrin	ND		0.00016	0.0010	mg/L	1	7/7/2003	11980
gamma-BHC	ND		0.00014	0.00050	mg/L	1	7/7/2003	11980
Heptachlor	ND		0.00016	0.0020	mg/L	1	7/7/2003	11980
Heptachlor epoxide	ND		0.00014	0.00050	mg/L	1	7/7/2003	11980
Methoxychlor	ND		0.00011	0.0010	mg/L	1	7/7/2003	11980
Toxaphene	ND		0.0013	0.0050	mg/L	1	7/7/2003	11980
Surr: Decachlorobiphenyl	89.1		0		%REC	1	7/7/2003	11980
Surr: Tetrachloro-m-xylene	69.2		0		%REC	1	7/7/2003	11980
<b>8151/1311: HERBICIDES, TCLP</b>	<b>SW1311/81</b>		PrepDate: 6/26/2003 8:30:00 AM				Analyst: EM	
2,4,5-TP (Silvex)	ND		0.00030	0.0020	mg/L	1	6/27/2003	11900
2,4-D	ND		0.0015	0.0020	mg/L	1	6/27/2003	11900
Surr: DCAA	79.4		0		%REC	1	6/27/2003	11900

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value above quantitation range
- Analyte detected below quantitation limits
- Spike Recovery outside accepted recovery limits

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit



# ANALYTICAL REPORT

ELAB, Inc.

Date: 11-Jul-03

CLIENT: Hillsborough County Solid Waste

Client Sample ID: TR Plant - Waste Sludge

Lab Order: F03060484

Collection Date: 6/17/2003 9:34:00 AM

Project: Southeast Leachate Treatment Plant Monitoring

Sample Description:

Lab ID: F03060484-001

Matrix: Sludge

Analyses	Result	Qual	MDL	RL	Units	DF	Date Analyzed	Batch ID
<b>8260/1311: VOLATILES, TCLP</b>								
	SW1311/82		PrepDate: 7/2/2003				Analyst: LGO	
1,1-Dichloroethene	ND		0.0010	0.010	mg/L	10	7/3/2003	12092
1,2-Dichloroethane	ND		0.0010	0.010	mg/L	10	7/3/2003	12092
1,4-Dichlorobenzene	ND		0.0010	0.010	mg/L	10	7/3/2003	12092
2-Butanone	ND		0.0029	0.20	mg/L	10	7/3/2003	12092
Benzene	ND		0.0031	0.010	mg/L	10	7/3/2003	12092
Carbon tetrachloride	ND		0.0025	0.010	mg/L	10	7/3/2003	12092
Chlorobenzene	ND		0.0010	0.010	mg/L	10	7/3/2003	12092
Chloroform	ND		0.0028	0.010	mg/L	10	7/3/2003	12092
Tetrachloroethene	ND		0.0011	0.010	mg/L	10	7/3/2003	12092
Trichloroethene	ND		0.0015	0.010	mg/L	10	7/3/2003	12092
Vinyl chloride	ND		0.0014	0.010	mg/L	10	7/3/2003	12092
Surr: 4-Bromofluorobenzene	117		0		%REC	10	7/3/2003	12092
Surr: Dibromofluoromethane	105		0		%REC	10	7/3/2003	12092
Surr: Toluene-d8	101		0		%REC	10	7/3/2003	12092
<b>8270/1311: SEMIVOLATILES, TCLP</b>								
	SW1311/82		PrepDate: 7/3/2003 4:00:00 PM				Analyst: TKA	
1,4-Dichlorobenzene	ND		0.0010	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
2,4,5-Trichlorophenol	ND		0.0017	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
2,4,6-Trichlorophenol	ND		0.00093	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
2,4-Dinitrotoluene	ND		0.0014	0.13	mg/L	1	7/9/2003 12:50:00 AM	12089
Hexachlorobenzene	ND		0.00059	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
Hexachlorobutadiene	ND		0.00098	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
Hexachloroethane	ND		0.015	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
m&p-Cresol	ND		0.0021	0.10	mg/L	1	7/9/2003 12:50:00 AM	12089
Nitrobenzene	ND		0.0014	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
o-Cresol	ND		0.0015	0.050	mg/L	1	7/9/2003 12:50:00 AM	12089
Pentachlorophenol	ND		0.0014	0.20	mg/L	1	7/9/2003 12:50:00 AM	12089
Pyridine	ND		0.00091	0.20	mg/L	1	7/9/2003 12:50:00 AM	12089
Surr: 2,4,6-Tribromophenol	56.9		0		%REC	1	7/9/2003 12:50:00 AM	12089
Surr: 2-Fluorobiphenyl	53.3		0		%REC	1	7/9/2003 12:50:00 AM	12089

Qualifiers:

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- L Value above quantitation range
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- S Spike Recovery outside accepted recovery limits

- V Analyte detected in the associated Method Blank
- Q Holding times for preparation or analysis exceeded
- U Not Detected at the Reporting Limit



## ANALYTICAL REPORT

ELAB, Inc.

Date: 11-Jul-03

CLIENT: Hillsborough County Solid Waste  
Lab Order: F03060484  
Project: Southeast Leachate Treatment Plant Monitoring  
Lab ID: F03060484-001

Client Sample ID: TR Plant - Waste Sludge  
Collection Date: 6/17/2003 9:34:00 AM  
Sample Description:  
Matrix: Sludge

Analyses	Result	Qual	-MDL	RL	Units	DF	Date Analyzed	Batch ID
8270/1311: SEMIVOLATILES, TCLP	SW1311/82		PrepDate: 7/3/2003 4:00:00 PM				Analyst: TKA	
Surr: 2-Fluorophenol	28.0		0		%REC	1	7/9/2003 12:50:00 AM	12089
Surr: Nitrobenzene-d5	58.1		0		%REC	1	7/9/2003 12:50:00 AM	12089
Surr: Phenol-d6	18.5		0		%REC	1	7/9/2003 12:50:00 AM	12089
Surr: p-Terphenyl-d14	68.0		0		%REC	1	7/9/2003 12:50:00 AM	12089

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- L Value above quantitation range
- I Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- V Analyte detected in the associated Method Blank
- Q Holding times for preparation or analysis exceeded
- U Not Detected at the Reporting Limit

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE  
COC SHEET SOUTHEAST LEACHATE TREATMENT PLANT MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

RELINQUISHED BY: <u>CL</u>	REP. OF CONTRACT LAB.	DATE   TIME
ACCEPTED BY: <u>DC</u>	REP. OF COMMON CARRIER	<u>6-12-03   5:00</u>
RELINQUISHED BY: <u>[Signature]</u>	REP. OF COMMON CARRIER	<u>6-13-03   3:00P</u>
ACCEPTED BY: <u>[Signature]</u>	REP. OF SOLID WASTE DEPT.	<u>6-13-03   3:05P</u>

LOCATION: TR. PLANT - WASTE SLUDGE SAMPLE MATRIX: SLUDGE  
PERSONAL ENGAGED IN SAMPLE COLLECTION: [Signature] | [Signature]

FIELD PARAMETERS N/A:

CONTAINER CODE:

NO. COL.	TYPE	PRESERVATIVE	CONTAINER TYPE	COLLECTED	
				DATE	TIME
	BACTERIA	NA2SO4 NONE	100 ml. POLY BAG		
	CARBAMATE	1 ml. MCA	40 ml. SEPTUM VIAL		
	CYANIDE	2 ml. NaOH	500 ml. PLASTIC		
	DIQUAT	2 ml. H2SO4	500 ml. PLASTIC		
	EDB	NONE	40 ml. SEPTUM VIAL		
<u>2</u>	GENERAL	NONE <del>61455 202 + 902.32 oz. PLASTIC</del>	<del>40 ml. SEPTUM VIAL</del>	<u>6-17-03</u>	<u>934A</u>
	GLYPHOSATE	NONE	40 ml. SEPTUM VIAL		
	METALS	2 ml. HNO3	1000 ml. PLASTIC		
	NUTRIENTS	2 ml. H2SO4	500 ml. PLASTIC		
	ORGANICS	NONE	4 ltr. AMBER GLASS		
	PHENOL	4 ml. H2SO4	120 ml. AMBER GLASS		
	RADIOLOGY	10 ml. HNO3	1 Gal. PLASTIC		
	VOC	1:1 HCL	40 ml. SEPTUM VIAL		
	ZDA 505	NONE	40 ml. SEPTUM VIAL		

2 TOTAL No. OF SAMPLES COLLECTED:

ANALYSES REQUESTED:

FULL TCLP

PRESERVED SAMPLES PH 2.0 N/A SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

RELINQUISHED BY: <u>[Signature]</u>	REP. OF SOLID WASTE DEPT.	DATE   TIME
ACCEPTED BY: <u>[Signature]</u>	REP. OF COMMON CARRIER	<u>6-17-03   200P</u>
RELINQUISHED BY: <u>[Signature]</u>	REP. OF COMMON CARRIER	<u>6-17-03   200P</u>
ACCEPTED BY: <u>[Signature]</u>	REP. OF CONTRACT LAB.	<u>6/18/03   09:40</u>

COMMON CARRIER UTILIZED: GREYHOUND BUS LINES OTHER: \_\_\_\_\_

COMMENT'S: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_