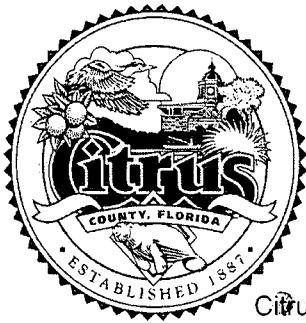




Board of County Commissioners
DEPARTMENT OF PUBLIC WORKS
SOLID WASTE MANAGEMENT DIVISION

P.O. Box 340, Lecanto, Florida 34460

Telephone: (352) 527-7670 FAX: (352) 527-7672

email: landfillinfo@bocc.citrus.fl.us

TDD Telephone 527-5214

Citrus Springs/Dunnellon/Inglis/Yankeetown area Toll Free (352) 489-2120

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

JAN 14 2005

SOUTHWEST DISTRICT
TAMPA

January 10, 2005

Mr. John Morris
Environmental Specialist III
Dept. Of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

**RE: WEEKLY LEACHATE MONITORING REPORT FOR CITRUS COUNTY CENTRAL
LANDFILL 60 AND 80 ACRE SITES - PERMIT NO. 21375-003-SO**

Dear Mr. Morris:

Enclosed please find the following leachate monitoring results for the Citrus County Central Landfill site, together with the Operator's monthly reports covering the quarterly period October through December 2004:

- 1) **Weekly effluent analytical results:** There were no exceedences of permit limits for this time period.
- 2) **Quarterly Effluent results:** Forwarded by Jones, Edmunds and Associates under separate cover letter.

Should further information or clarification be necessary, please do not hesitate to contact me.

Sincerely,

Susan J. Metcalfe
Director, Division of
Solid Waste Management

CC: Tom Dick, Assistant Director, Dept. Public Works w/o attachments
Susan Pelz, Department of Environmental Protection w/xls.sheet

CITRUS COUNTY CENTRAL LANDFILL
WEEKLY LEACHATE MONITORING

SAC Laboratories Results	MAXIMUM CONTAMINANT LEVEL BY PERMIT			
	20	10	20	
	CBOD		SUSPENDED	
DATE	< 5 day	MG/L < NITRATE	MG/L < SOLIDS	MG/L
10/6/04	4.13	0.31	<	1.0
10/13/04	8.47	0.29	<	1.0
10/20/04	3.85	5.7	<	1.0
10/27/04	8.71	0.54	<	1.0
11/3/04	1.66	0.56	<	1.0
11/10/04	2.28	0.8		6.0
11/17/04	3.21	0.25	<	1.0
11/23/04	2.57	0.43	<	1.0
12/1/04	6.36	7.0		1.0
12/8/04	6.85	1.8		4.0
12/15/04	2.26	3.5		1.0
12/22/04	4.2	1.9		7.5
12/29/04	2.67	1.5		10.0

cjw

CITRUS COUNTY CENTRAL LANDFILL

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A
 WHEN COMPLETED MAIL THIS REPORT TO: DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT
 Solid Waste Section, 3804 Coconut Palm Drive Tampa, FL 33619-8218

PERMITTEE NAME: Citrus County Board Of County Commissioners
 MAILING ADDRESS: P.O. Box 340
 Lecanto, FL 34460

PERMIT NUMBER: 21375-003-SO
 WACS FACILITY ID NUMBER: SWD/09/039859
 TEST SITE ID NUMBER: WACS 175
 MONITORING PERIOD:

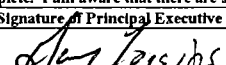
FACILITY: Central Landfill Leachate Plant
 LOCATION: 230 W. Gulf to Lake Hwy
 Lecanto, FL 34461
 COUNTY: Citrus

From: 10/1 To: 10/31/2004
 CLASS SIZE: 1-C
 REPORT: Quarterly
 GROUP: Solid Waste

Please read instructions before completing this form.

Parameter		Quantity or Loading			Quality or Concentration			No. Ex	Frequency of Analysis	Sample Type
		Avg.	Max.	Units	Min.	Avg.	Max.			
Flow, in conduit or thru treatment plant	Sample Measurement	0.014		MGD						
PARM Code 50053	Permit Requirement	Report Mon. AVG.	.030 (3) Month Rolling Average	MGD					Daily	Metered
C OD, 5 day 20 degree C	Sample Measurement					6.3				
PARM Code 80082	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Total Suspended Solids	Sample Measurement					<1				
PARM Code 900201	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Nitrate (as N)	Sample Measurement						5.7			
PARM Code 071850	Permit Requirement					10.0 (Mo. Avg.)			Weekly	Grab
pH	Sample Measurement				7.7		8.4			
PARM Code 00400	Permit Requirement				6.5 Min.		8.5 Max.		Daily	Grab

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

Name/Title of Principal Executive Officer or Authorized Agent	Signature of Principal Executive Officer or Authorized Agent	Telephone No. (include area code)	Date (yy/mm/dd)
Gary Loggins Utility Operator III C/13047		(352)527-7670	05/01/10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

* Rolling Annual Average is the average of the current month's average and the preceding 11 monthly averages.

A-1

DAILY SAMPLE RESULTS - PART B

47.7%

3
01/10/2005

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

Client CITRUS COUNTY UTILITIES

Sample Number E042175

Project LEACHATE PLANT

Date/Time Sampled 10/27/04 0930 HRS

Sample Description WWTP/EFF

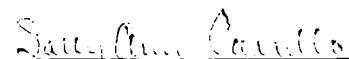
Date/Time Received 10/27/04 1045 HRS

PO NO 55573

Invoice Number 6980

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	8.71	0.3 mg/L	LP	10/27/04 1500 HRS
SM2540-D	TSS	mg/L	<1	1.0 mg/L	AP	10/29/04 0930 HRS
SM4500-NO3-E	NITRATE	mg/L	0.54	0.10 mg/L	CK	10/27/04 1100 HRS

NOV


Laboratory Manager

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

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

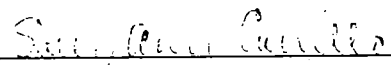
Client	CITRUS COUNTY UTILITIES	Sample Number	E042133
Project	LEACHATE LANDFILL	Date/Time Sampled	10/20/04 1030 HRS
Project No	55573	Date/Time Received	10/20/04 1140 HRS
Sample Description	WWTP/INF	Invoice Number	6980

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	317.0	0.3 mg/L	LP	10/20/04 1500 HRS
SM2540-D	TSS	mg/L	18.0	1.0 mg/L	AP	10/22/04 0900 HRS

Sample Description	WWTP/EFF	Date/Time Sampled	10/20/04 1040 HRS
		Date/Time Received	10/20/04 1140 HRS

Method	Analytes	Units	Results	% Removal MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	3.85	98.79% 0.3 mg/L	LP	10/20/04 1500 HRS
SM2540-D	TSS	mg/L	<1	100% 1.0 mg/L	AP	10/22/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	5.7	0.10 mg/L	CK	10/21/04 1012 HRS

AMMONIA
SUB TO
ADVANCED ENVIRONMENTAL LABORATORIES
DHR'S CERTIFICATION #E84589/E82574


Laboratory Manager

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

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

Client CITRUS COUNTY UTILITIES **Sample Number** E042072
Project LEACHATE PLANT **Date/Time Sampled** 10/13/04 1000 HRS
Sample Description WWTP/EFF **Date/Time Received** 10/13/04 1015 HRS
PO NO 55573 **Invoice Number** 6980

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	8.47	0.3 mg/L	LP	10/13/04 1100 HRS
SM2540-D	TSS	mg/L	<1	1.0 mg/L	AP	10/15/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.29	0.10 mg/L	CK	10/13/04 1025 HRS

OCT 20

Sally Ann Cavillo
Laboratory Manager

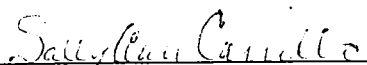
For all Results qualified with an I, the PQL is defined to be 4 times the MDL

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

Client CITRUS COUNTY UTILITIES **Sample Number** E042012
Project LEACHATE PLANT **Date/Time Sampled** 10/6/04 1030 HRS
Sample Description WWTP/EFF **Date/Time Received** 10/6/04 1240 HRS
PO NO 55573 **Invoice Number** 6980

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	4.13	0.3 mg/L	LP	10/6/04 1230 HRS
SM2540-D	TSS	mg/L	<1	1.0 mg/L	AP	10/8/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.31	0.10 mg/L	CK	10/6/04 1255 HRS

OCT 20 2004


Laboratory Manager

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

CITRUS COUNTY CENTRAL LANDFILL

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A
 WHEN COMPLETED MAIL THIS REPORT TO: DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT
 Solid Waste Section, 3804 Coconut Palm Drive Tampa, FL 33619-8218

PERMITTEE NAME: Citrus County Board Of County Commissioners
 MAILING ADDRESS: P.O. Box 340
 Lecanto, FL 34460

PERMIT NUMBER: 21375-003-SO
 WACS FACILITY ID NUMBER: SWD/09/039859
 TEST SITE ID NUMBER: WACS 175
 MONITORING PERIOD:

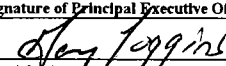
FACILITY: Central Landfill Leachate Plant
 LOCATION: 230 W. Gulf to Lake Hwy
 Lecanto, FL 34461
 COUNTY: Citrus

From: 11/1 To: 11/31/04
 CLASS SIZE: 1-C
 REPORT: Quarterly
 GROUP: Solid Waste

Please read instructions before completing this form.

Parameter		Quantity or Loading			Quality or Concentration			No. Ex	Frequency of Analysis	Sample Type
		Avg.	Max.	Units	Min.	Avg.	Max.			
Flow, in conduit or thru treatment plant	Sample Measurement	0.008		MGD						
PARM Code 50053	Permit Requirement	Report Mon. Avg.	0.010 (3) Month Rolling Average	MGD					Daily	Metered
C OD, 5 day 20 degree C	Sample Measurement					2.4				
PARM Code 80082	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Total Suspended Solids	Sample Measurement					6.0				
PARM Code 900201	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Nitrate (as N)	Sample Measurement						0.8			
PARM Code 071850	Permit Requirement					10.0 (Mo. Avg.)			Weekly	Grab
pH	Sample Measurement				7.8		8.4			
PARM Code 00400	Permit Requirement				6.5 Min.		8.5 Max.		Daily	Grab

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

Name/Title of Principal Executive Officer or Authorized Agent	Signature of Principal Executive Officer or Authorized Agent	Telephone No. (Include area code)	Date (yy/mm/dd)
Gary Loggins Utility Operator III C/13047		(352)527-7670	05/01/10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

* Rolling Annual Average is the average of the current month's average and the preceding 11 monthly averages.

A-1

DAILY SAMPLE RESULTS - PART B

Three-month Average Daily Flow:	0.008
Daily Flow % of Permitted Capacity:	26.2%

PLANT STAFFING:	Day Shift Operator	Class: C	Certificate No.: 13667	Name: Gerald Nusbaum
	Evening Shift Operator	Class:	Certificate No.:	Name:
	Night Shift Operator	Class:	Certificate No.:	Name:
	Lead Operator	Class: C	Certificate No.: 13047	Name: Gary Loggins

Flow 2004 rev
NOV 04

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

Client CITRUS COUNTY UTILITIES

Sample Number E042371

Project LEACHATE PLANT

Date/Time Sampled 11/23/04 1010 HRS

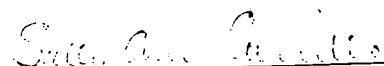
Sample Description WWTP/EFF

Date/Time Received 11/23/04 1055 HRS

PO NO 55573

Invoice Number 7047

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.57	0.3 mg/L	LP	11/24/04 0800 HRS
SM2540-D	TSS	mg/L	<1	1.0 mg/L	AP	11/25/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.43	0.10 mg/L	CK	11/24/04 0815 HRS


Laboratory Manager

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

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

Client	CITRUS COUNTY UTILITIES	Sample Number	E042343
Project	LEACHATE LANDFILL	Date/Time Sampled	11/17/04 0915 HRS
Project No	55573	Date/Time Received	11/17/04 1305 HRS
Sample Description	WWTP/INF	Invoice Number	7047

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	222	0.3 mg/L	LP	11/18/04 1000 HRS
SM2540-D	TSS	mg/L	20.0	1.0 mg/L	AP	11/19/04 0900 HRS

Sample Description	WWTP/EFF	Date/Time Sampled	11/17/04 0930 HRS
		Date/Time Received	11/17/04 1305 HRS

Method	Analytes	Units	Results	% Removal MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	3.21	98.55% 0.3 mg/L	LP	11/18/04 1000 HRS
SM2540-D	TSS	mg/L	<1	100% 1.0 mg/L	AP	11/19/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.25	0.10 mg/L	CK	11/18/04 0815 HRS

AMMONIA
SUB TO
ADVANCED ENVIRONMENTAL LABORATORIES
DHRS CERT IFICATION #E84589/E82574

Sally Ann Camillo
Laboratory Manager

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

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

Client CITRUS COUNTY UTILITIES **Sample Number** E042285
Project LEACHATE PLANT **Date/Time Sampled** 11/10/04 1100 HRS
Sample Description WWTP/EFF **Date/Time Received** 11/10/04 1210 HRS
PO NO 55573 **Invoice Number** 7047

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.28	0.3 mg/L	LP	11/10/04 1230 HRS
SM2540-D	TSS	mg/L	6.0	1.0 mg/L	AP	11/12/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.80	0.10 mg/L	CK	11/11/04 1000 HRS

NOV 22 2004

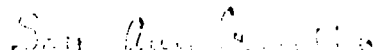
Sarah Ann Canillo
Laboratory Manager

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

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

Client	CITRUS COUNTY UTILITIES	Sample Number	E042221
Project	LEACHATE PLANT	Date/Time Sampled	11/3/04 0945 HRS
Sample Description	WWTP/EFF	Date/Time Received	11/3/04 1115 HRS
PO NO	55573	Invoice Number	7047

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	1.66	0.3 mg/L	LP	11/3/04 1230 HRS
SM2540-D	TSS	mg/L	<1	1.0 mg/L	AP	11/5/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	0.56	0.10 mg/L	CK	11/4/04 0700 HRS


Laboratory Manager

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

CITRUS COUNTY CENTRAL LANDFILL

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A
 WHEN COMPLETED MAIL THIS REPORT TO: DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT
 Solid Waste Section, 3804 Coconut Palm Drive Tampa, FL 33619-8218

PERMITTEE NAME: Citrus County Board Of County Commissioners
 MAILING ADDRESS: P.O. Box 340
 Lecanto, FL 34460

PERMIT NUMBER: 21375-003-SO
 WACS FACILITY ID NUMBER: SWD/09/039859
 TEST SITE ID NUMBER: WACS 175
 MONITORING PERIOD:

FACILITY: Central Landfill Leachate Plant
 LOCATION: 230 W. Gulf to Lake Hwy
 Lecanto, FL 34461
 COUNTY: Citrus

From: 12/1 To: 12/31/2004

CLASS SIZE: 1-C

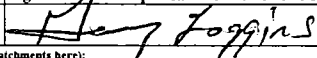
REPORT: Quarterly

GROUP: Solid Waste

Please read instructions before completing this form.

Parameter		Quantity or Loading			Quality or Concentration			No. Ex	Frequency of Analysis	Sample Type
		Avg.	Max.	Units	Min.	Avg.	Max.			
Flow, in conduit or thru treatment plant	Sample Measurement	0.007		MGD						
PARM Code 50053	Permit Requirement	Report Mon. AVE.	.030 (3) Month Rolling Average	MGD					Daily	Metered
C OD, 5 day 20 degree C	Sample Measurement					4.5				
PARM Code 80082	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Total Suspended Solids	Sample Measurement					4.7				
PARM Code 900201	Permit Requirement					20 (Mo. Avg.)			Weekly	Grab
Nitrate (as N)	Sample Measurement						7.0			
PARM Code 071850	Permit Requirement					10.0 (Mo. Avg.)			Weekly	Grab
pH	Sample Measurement				7.8		8.4			
PARM Code 00400	Permit				6.5		8.5		Daily	Grab

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

Name/Title of Principal Executive Officer or Authorized Agent	Signature of Principal Executive Officer or Authorized Agent	Telephone No. (Include area code)	Date (yy/mm/dd)
Gary Loggins Utility Operator III C/13047		(352)527-7670	05/01/10

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

* Rolling Annual Average is the average of the current month's average and the preceding 11 monthly averages.

A-1

DAILY SAMPLE RESULTS - PART B

Three-month Average Daily Flow:	0.007
Daily Flow % of Permitted Capacity:	24.2%

PLANT STAFFING:	Day Shift Operator	Class: C	Certificate No.: 13887	Name: Gerald Nusbaum
	Evening Shift Operator	Class:	Certificate No.:	Name:
	Night Shift Operator	Class:	Certificate No.:	Name:
Type of Effluent Disposal or Reclaimed Water Reuse:		Perc. Pond		
Limited Wet Weather Discharge Activated:	No:	Yes:	Not applicable: X	

* Attach additional sheets if necessary to list all certified operators.

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

Client CITRUS COUNTY UTILITIES

Sample Number E042417

Project LEACHATE PLANT

Date/Time Sampled 12/1/04 1115 HRS

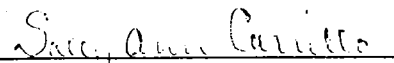
Sample Description WWTP/EFF

Date/Time Received 12/1/04 1215 HRS

PO NO 55573

Invoice Number 7137

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	6.36	0.3 mg/L	AP	12/2/04 1100 HRS
SM2540-D	TSS	mg/L	1.0	1.0 mg/L	AP	12/3/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	7.0	0.10 mg/L	CK	12/2/04 0930 HRS

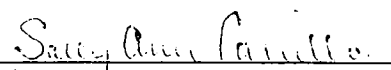

Laboratory Manager

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

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

Client CITRUS COUNTY UTILITIES **Sample Number** E042490
Project LEACHATE PLANT **Date/Time Sampled** 12/8/04 0945 HRS
Sample Description WWTP/EFF **Date/Time Received** 12/8/04 1058 HRS
PO NO 55573 **Invoice Number** 7137

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	6.85	0.3 mg/L	LP	12/10/04 0700 HRS
SM2540-D	TSS	mg/L	4.0	1.0 mg/L	AP	12/10/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	1.8	0.10 mg/L	CK	12/9/04 0900 HRS


Laboratory Manager

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

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

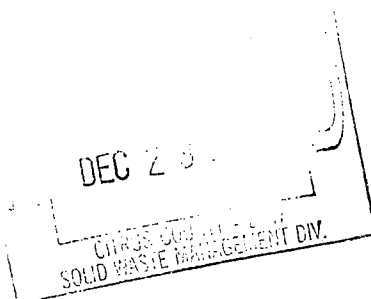
Client CITRUS COUNTY UTILITIES **Sample Number** E042538
Project LEACHATE LANDFILL **Date/Time Sampled** 12/15/04 0930 HRS
Project No 55573 **Date/Time Received** 12/15/04 1222 HRS
Sample Description WWTP/INF **Invoice Number** 7137

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	134.0	0.3 mg/L	LP	12/15/04 1445 HRS
SM2540-D	TSS	mg/L	32.0	1.0 mg/L	AP	12/17/04 0930 HRS

Sample Description WWTP/EFF **Date/Time Sampled** 12/15/04 0945 HRS
Date/Time Received 12/15/04 1222 HRS

Method	Analytes	Units	Results	% Removal MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.26	98.31% 0.3 mg/L	LP	12/15/04 1445 HRS
SM2540-D	TSS	mg/L	1.0	97.0% 1.0 mg/L	AP	12/17/04 0930 HRS
SM4500-NO3-E	NITRATE	mg/L	3.5	0.10 mg/L	CK	12/16/04 0915 HRS

AMMONIA
SUB TO
ADVANCED ENVIRONMENTAL LABORATORIES
DHR CERTIFICATION #E84589/E82574



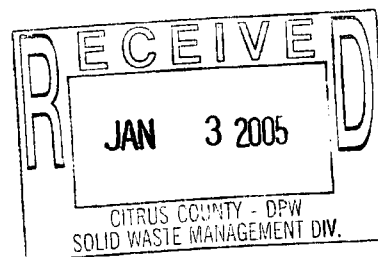
Sally Ann Carrillo
Laboratory Manager

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

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

Client CITRUS COUNTY UTILITIES **Sample Number** E042605
Project LEACHATE PLANT **Date/Time Sampled** 12/22/04 1100 HRS
Sample Description WWTP/EFF **Date/Time Received** 12/22/04 1226 HRS
PO NO 55573 **Invoice Number** 7137

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	4.20	0.3 mg/L	LP	12/22/04 1300 HRS
SM2540-D	TSS	mg/L	7.5	1.0 mg/L	AP	12/24/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	1.9	0.10 mg/L	CK	12/23/04 0815 HRS



Sally Ann Canillo
Laboratory Manager

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

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

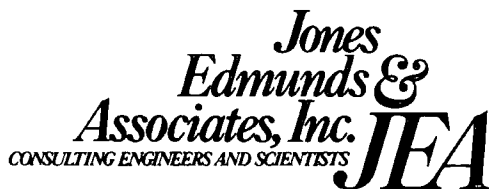
Client CITRUS COUNTY UTILITIES **Sample Number** E042637
Project LEACHATE PLANT **Date/Time Sampled** 12/29/04 1010 HRS
Sample Description WWTP/EFF **Date/Time Received** 12/29/04 1242 HRS
PO NO 55573 **Invoice Number** 7137

Method	Analytes	Units	Results	MDL mg/L	Analyst	Analysis Date/Time
SM5210-B	CBOD	mg/L	2.67	0.3 mg/L	LP	12/29/04 1300 HRS
SM2540-D	TSS	mg/L	10.0	1.0 mg/L	AP	12/31/04 0900 HRS
SM4500-NO3-E	NITRATE	mg/L	1.5	0.10 mg/L	CK	12/30/04 1430 HRS

Sally Ann Canella
Laboratory Manager

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

5376 S SUNCOAST BOULEVARD HOMOSASSA FL 34446 352.621.3513 FAX 352.621.3514



December 29, 2004

Mr. John Morris, P.G.
Florida Department of Environmental Protection - Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Quarterly Leachate Sampling – Fourth Quarter 2004
Citrus County Landfill
Permit No. 21375-003-SO
Jones Edmunds Project No. 03860-011-01

Dear Mr. Morris:

This report presents data from the Fourth Quarter sampling of the Leachate Effluent at the Citrus County Landfill, performed on October 27, 2004.

The Leachate Effluent was sampled for the quarterly parameters as required by the permit

Monthly Operating Reports (October, November, and December) and Weekly Leachate Effluent Analytical Reports will be forwarded under separate cover.

If you have any questions regarding this report, please contact us at (352) 377-5821.

Sincerely,

John D. Locklear
Project Manager

M:\EnvDocs\Citrus County\2004\04q4\04q4leachate letter.doc

xc: Susan Metcalfe, P.G.

Attachments



Citrus County Central Landfill Parameter Monitoring Report

PART III Analytical Results

Facility GMS #: SWD/09/39859

Test Site ID #: 175

Well Name: Leachate Effluent

Classification of Ground Water: GII

Ground Water Elevation (NGVD):

Sampling Date/Time: 10/27/04 10:00:00 AM

Report Period: FOURTH QUARTER 2004

Well Purged:

Well Type: ☐ Background
☐ Intermediate
☐ Compliance
☐ Other
☐ Detection

STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS DATE/TIME	ANALYSIS RESULT *	UNITS	DETECTION LIMIT/UNITS
00094	CONDUCTIVITY (FIELD)	E	No	EPA 120.1	10/27/04 10:00:00 AM	2610	µmhos/cm	
00406	pH (FIELD)	E	No	EPA 150.1	10/27/04 10:00:00 AM	8.50	S.U.	
70300	TOTAL DISSOLVED SOLIDS	E	No	EPA 160.1	11/02/04 1:00:00 PM	1600	mg/L	2mg/L
00010	TEMPERATURE (FIELD)	E	No	EPA 170.1	10/27/04 10:00:00 AM	23.1	Deg. C	
82078	TURBIDITY (FIELD)	E	No	EPA 180.1	10/27/04 10:00:00 AM	1.47	NTU	
00929	SODIUM	E	No	EPA 273.1	10/30/04	390000	µg/L	1000µg/L
00940	CHLORIDE	E	No	EPA 300	11/04/04 4:18:00 PM	540	mg/L	10mg/L
00299	DISSOLVED OXYGEN (FIELD)	E	No	EPA 360.1	10/27/04 10:00:00 AM	4.50	mg/L	
38760	1,2-DIBROMO-3-CHLOROPROPANE	E	No	EPA 8011	11/01/04 7:07:00 PM	<0.02	µg/L	0.02µg/L
77651	1,2-DIBROMOETHANE (EDB)	E	No	EPA 8011	11/01/04 7:07:00 PM	<0.02	µg/L	0.02µg/L
78124	BENZENE	E	No	EPA 8260	10/31/04 3:19:00 PM	<1	µg/L	1µg/L
34371	ETHYLBENZENE	E	No	EPA 8260	10/31/04 3:19:00 PM	<1	µg/L	1µg/L
78131	TOLUENE	E	No	EPA 8260	10/31/04 3:19:00 PM	<1	µg/L	1µg/L
81551	XYLENES	E	No	EPA 8260	10/31/04 3:19:00 PM	<3	µg/L	3µg/L

Citrus County Central Landfill

Parameter Monitoring Report

PART III Analytical Results

Facility GMS #: SWD/09/39859

Test Site ID #:

Well Name: EQUBLK (ORL34237-1)

Classification of Ground Water:

Ground Water Elevation (NGVD):

Sampling Date/Time: 10/27/04 8:45:00 AM

Report Period: FOURTH QUARTER 2004

Well Purged:

Well Type: ☐ Background
☐ Intermediate
☐ Compliance
☐ Other
☐ Detection

STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS DATE/TIME	ANALYSIS RESULT *	UNITS	DETECTION LIMIT/UNITS
70300	TOTAL DISSOLVED SOLIDS	E	No	EPA 160.1	11/02/04 1:00:00 PM	44	mg/L	2mg/L
00929	SODIUM	E	No	EPA 273.1	10/30/04	<1000	µg/L	1000µg/L
00940	CHLORIDE	E	No	EPA 300	11/03/04 4:30:00 PM	1.3	mg/L	1mg/L
38760	1,2-DIBROMO-3-CHLOROPROPANE	E	No	EPA 8011	11/01/04 6:54:00 PM	<0.02	µg/L	0.02µg/L
77651	1,2-DIBROMOETHANE (EDB)	E	No	EPA 8011	11/01/04 6:54:00 PM	<0.02	µg/L	0.02µg/L
78124	BENZENE	E	No	EPA 8260	10/31/04 3:53:00 PM	<1	µg/L	1µg/L
34371	ETHYLBENZENE	E	No	EPA 8260	10/31/04 3:53:00 PM	<1	µg/L	1µg/L
78131	TOLUENE	E	No	EPA 8260	10/31/04 3:53:00 PM	<1	µg/L	1µg/L
81551	XYLENES	E	No	EPA 8260	10/31/04 3:53:00 PM	<3	µg/L	3µg/L

Citrus County Central Landfill Parameter Monitoring Report

PART III Analytical Results**Facility GMS #:** SWD/09/39859**Test Site ID #:****Well Name:** TRIP (ORL34237-3)**Classification of Ground Water:****Ground Water Elevation (NGVD):****Sampling Date/Time:** 10/27/04**Report Period:** FOURTH QUARTER 2004**Well Purged:****Well Type:** ☐ Background
☐ Intermediate
☐ Compliance
☐ Other
☐ Detection

STORET CODE	PARAMETER MONITORED	SAMPLING METHOD	FIELD FILTERED	ANALYSIS METHOD	ANALYSIS DATE/TIME	ANALYSIS RESULT *	UNITS	DETECTION LIMIT/UNITS
78124	BENZENE		No	EPA 8260	10/31/04 4:23:00 PM	<1	µg/L	1µg/L
34371	ETHYLBENZENE		No	EPA 8260	10/31/04 4:23:00 PM	<1	µg/L	1µg/L
78131	TOLUENE		No	EPA 8260	10/31/04 4:23:00 PM	<1	µg/L	1µg/L
81551	XYLENES		No	EPA 8260	10/31/04 4:23:00 PM	<3	µg/L	3µg/L

Environmental Conservation Laboratories, Inc.
10775 Central Port Drive
Orlando, Florida 32824
407 / 826-5314
Fax 407 / 850-6945
www.encolabs.com



DHRS Certification No. E83182

CLIENT : Jones Edmunds & Associates, Inc.
ADDRESS: 730 N.E. Waldo Road
Bldg. A
Gainesville, FL 32641

REPORT # : ORL34237
DATE SUBMITTED: October 29, 2004
DATE REPORTED : November 5, 2004

ATTENTION: Tim Cully

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

REFERENCE: CITRUS CO.

03860-011-01

10/27/04

ORL34237-1 : LEACHATE EFFLUENT EQB (04Q4CCLEFFEQB) @ 08:45
ORL34237-2 : LEACHATE EFFLUENT (04Q4CCLEFF) @ 10:00
ORL34237-3 : TRIP BLANK (04Q4CCLEFFTB)

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. This data has been produced in accordance with NELAC Standards (July, 2002). This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

PROJECT MANAGER

A handwritten signature in cursive script, reading "Jody Goostree".
Jody Goostree

ENCO LABORATORIES

REPORT #	:	ORL34237
DATE REPORTED	:	November 5, 2004
REFERENCE	:	03860-011-01
PROJECT NAME	:	Citrus CO

RESULTS OF ANALYSIS

STATION NAME	PARAMETER	RESULT	UNITS	METHOD
LEACHATE EFFLUENT EQB	TOTAL DIS. SOLIDS	44	mg/L	EPA 160.1
LEACHATE EFFLUENT EQB	SODIUM	<1	mg/L	EPA 273.1
LEACHATE EFFLUENT EQB	CHLORIDE	1.3	mg/L	EPA 300
LEACHATE EFFLUENT EQB	DIBROMOCHLOROPROPANE	<0.02	ug/L	EPA 8011
LEACHATE EFFLUENT EQB	ETHYLENE DIBROMIDE	<0.02	ug/L	EPA 8011
LEACHATE EFFLUENT EQB	BENZENE	<1	ug/L	EPA 8260
LEACHATE EFFLUENT EQB	ETHYLBENZENE	<1	ug/L	EPA 8260
LEACHATE EFFLUENT EQB	TOTAL XYLENE	<3	ug/L	EPA 8260
LEACHATE EFFLUENT EQB	TOLUENE	<1	ug/L	EPA 8260

ENCO LABORATORIES

REPORT #	:	ORL34237
DATE REPORTED	:	November 5, 2004
REFERENCE	:	03860-011-01
PROJECT NAME	:	Citrus CO

RESULTS OF ANALYSIS

STATION NAME	PARAMETER	RESULT	UNITS	METHOD
LEACHATE EFFLUENT	SPEC COND-FIELD	2.61	umhos/cm	EPA 120.1
LEACHATE EFFLUENT	PH-FIELD	8.5	S.U.	EPA 150.1
LEACHATE EFFLUENT	TOTAL DIS. SOLIDS	1600	mg/L	EPA 160.1
LEACHATE EFFLUENT	TEMP-FIELD	23.1	Deg. C	EPA 170.1
LEACHATE EFFLUENT	TURBIDITY-FIELD	1.47	NTU	EPA 180.1
LEACHATE EFFLUENT	SODIUM	390	mg/L	EPA 273.1
LEACHATE EFFLUENT	CHLORIDE	540	mg/L	EPA 300
LEACHATE EFFLUENT	DISSOLVED OXYGEN	4.5	mg/L	EPA 360.1
LEACHATE EFFLUENT	DIBROMOCHLOROPROPANE	<0.02	ug/L	EPA 8011
LEACHATE EFFLUENT	ETHYLENE DIBROMIDE	<0.02	ug/L	EPA 8011
LEACHATE EFFLUENT	BENZENE	<1	ug/L	EPA 8260
LEACHATE EFFLUENT	ETHYLBENZENE	<1	ug/L	EPA 8260
LEACHATE EFFLUENT	TOTAL XYLENE	<3	ug/L	EPA 8260
LEACHATE EFFLUENT	TOLUENE	<1	ug/L	EPA 8260

ENCO LABORATORIES

REPORT #	:	ORL34237
DATE REPORTED	:	November 5, 2004
REFERENCE	:	03860-011-01
PROJECT NAME	:	Citrus CO

RESULTS OF ANALYSIS

STATION NAME	PARAMETER	RESULT	UNITS	METHOD
TRIP BLANK	BENZENE	<1	ug/L	EPA 8260
TRIP BLANK	ETHYLBENZENE	<1	ug/L	EPA 8260
TRIP BLANK	TOTAL XYLENE	<3	ug/L	EPA 8260
TRIP BLANK	TOLUENE	<1	ug/L	EPA 8260

ENCO LABORATORIES

REPORT # : ORL34237
 DATE REPORTED: November 5, 2004
 REFERENCE : CITRUS CO.
 PROJECT NAME : 03860-011-01

PAGE 1 OF 4

RESULTS OF ANALYSIS

EPA METHOD 8260 -
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Methyl tert-butyl ether	1.0 U	ug/L
Benzene	1.0 U	ug/L
Toluene	1.0 U	ug/L
Chlorobenzene	1.0 U	ug/L
Ethylbenzene	1.0 U	ug/L
m-Xylene & p-Xylene	2.0 U	ug/L
o-Xylene	1.0 U	ug/L
1,2-Dichlorobenzene	1.0 U	ug/L
1,3-Dichlorobenzene	1.0 U	ug/L
1,4-Dichlorobenzene	1.0 U	ug/L
<u>Surrogate:</u>	<u>% RECOV</u>	<u>LIMITS</u>
Bromofluorobenzene	104	52-149
Dibromofluoromethane	79	70-132
D8-Toluene	114	60-135
Date Analyzed	10/31/04 13:49	

EPA METHOD 8011 -
EDB & DBCP by GC/ECD

	<u>LAB BLANK</u>	<u>Units</u>
Ethylene Dibromide	0.020 U	ug/L
Dibromochloropropane	0.020 U	ug/L
Date Prepared	10/31/04	
Date Analyzed	11/01/04 14:23	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES

REPORT # : ORL34237
 DATE REPORTED: November 5, 2004
 REFERENCE : CITRUS CO.
 PROJECT NAME : 03860-011-01

PAGE 2 OF 4

RESULTS OF ANALYSIS

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>LAB BLANK</u>	<u>Units</u>
Sodium	273.1	1.0 U	mg/L
Date Analyzed		10/30/04	

<u>EPA METHOD 300 - Anions by IC</u>	<u>LAB BLANK</u>	<u>Units</u>
Chloride	1.0 U	mg/L
Date Analyzed	11/03/04 06:49	

<u>MISCELLANEOUS</u>	<u>METHOD</u>	<u>LAB BLANK</u>	<u>Units</u>
Total Dis. Solids	160.1	2.0 U	mg/L
Date Analyzed		11/02/04 13:00	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES

REPORT # : ORL34237

DATE REPORTED: November 5, 2004

REFERENCE : CITRUS CO.

PROJECT NAME : 03860-011-01

PAGE 3 OF 4

LABORATORY CERTIFICATIONS

Laboratory Certification: NELAC:E83182

All analyses reported with this project were analyzed by the facility indicated unless identified below.

ENCO LABORATORIES

REPORT # : ORL34237

DATE REPORTED: November 5, 2004

REFERENCE : CITRUS CO.

PROJECT NAME : 03860-011-01

PAGE 4 OF 4

QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY</u> <u>LCS/MS/MSD</u>	<u>LCS</u> <u>LIMITS</u>	<u>MS/MSD</u> <u>LIMITS</u>	<u>RPD</u> <u>MS/MSD</u>	<u>RPD</u> <u>LIMITS</u>
<u>EPA Method 8260</u>					
1,1-Dichloroethene	52/ 65/ 66	49-156	36-185	2	34
Benzene	84/ 86/ 87	64-132	65-143	1	25
Trichloroethene	82/ 95/ 93	66-130	51-152	2	28
Toluene	85/ 88/ 88	58-132	62-144	<1	24
Chlorobenzene	98/106/106	68-135	64-140	<1	23
<u>EPA Method 8011</u>					
Ethylene Dibromide	124/120/120	53-154	57-130	<1	18
Dibromochloropropane	116/112/112	38-163	60-130	<1	20
<u>TOTAL METALS</u>					
Sodium; 273.1	94/ 95/ 95	84-111	63-133	<1	15
<u>EPA Method 300</u>					
Chloride	100/104/ 92	90-110	51-149	12	26
<u>MISCELLANEOUS</u>					
Total Dis. Solids, 160.1	101/ NA/ NA	82-115	NA	NA	NA

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

NA = Not applicable

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

Environmental Conservation Laboratories, Inc.

Login Sample Disposition Form

Client Name: TEA

Login #: 61-34237

Proj. Name: CITRUS CO. LF

Date Rec'd: 10/29/04 Logged By: DOE

Samples received via:

Client Drop-off

Lab Pickup

Courier

greyhound
LIST AND ATTACH BILLS

Container Descriptions and Preservation

Indicate presv. type and # of each

Containers	None	HCl	HNO ₃	H ₂ SO ₄	NaOH	Other
1 L Glass						
1 L Plastic						
500 ml Plastic						
250 ml Plastic	2		2			
250 ml Glass						
60 ml Soil Vial						
40 ml Vial	4	6				
Other						

Receiving Temperatures

Total Number of Coolers: 1

Cooler Number	Receipt Temperature
<u>B1/LH 3*</u>	2-6° <u>On Ice</u> No Ice
	2-6° On Ice No Ice
	2-6° On Ice No Ice
	2-6° On Ice No Ice
	2-6° On Ice No Ice
	2-6° On Ice No Ice
	2-6° On Ice No Ice

Provide details of "No Ice" in Notification/Comments.

Sample Receipt Disposition

1. Were sample containers received intact? Yes
2. Were sample containers properly preserved? Yes
3. Were proper containers used for analyses requested? Yes
4. Do sample labels match Chain-of-Custody record? Yes
5. Were samples received under custody seal? Yes
6. If received under custody seal, were all seals intact? Yes
7. Were volatile containers preserved (check labels only)? Yes
8. Were aqueous volatile samples headspace-free? Yes
9. Were aqueous samples checked for residual chlorine? Yes

No
No
No
No
No
No
No
No
No

N/A
N/A
N/A
N/A
N/A
N/A
N/A
N/A
N/A

Any discrepancies must be noted below and approved by lab management.

Client Notification

1. Does client need to be notified? Yes
2. Who notified client? _____
3. Who was notified? _____
4. When? _____
5. Client requests following action(s) be taken:

by: Phone Fax Mail

- _____ Continue analysis and report disposition in final report.
- _____ Cancel affected analyses only (identify in comments below).
- _____ Cancel all analyses.
- _____ Other (explain in comments below).

Comments

Project Status

- ☒ Samples received into lab.
- ☐ Samples rejected

K. Carey
APPROVED BY

11/1/04
DATE



ENVIRONMENTAL CONSERVATION LABORATORIES

QSARF # B4418

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10775 Central Port Drive
Orlando, Florida 32824
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE <u>Citrus Co. LANDFILL</u>		PROJECT NO. <u>0386001101</u>		P.O. NUMBER —		MATRIX TYPE		REQUIRED ANALYSIS		PAGE <u>1</u> OF <u>1</u>							
PROJECT LOC. (State) <u>FLA</u>		SAMPLER(S) NAME <u>ESWANLEY</u>		PHONE <u>377 5821</u>		FAX —		☒ STANDARD REPORT DELIVERY ☐ EXPEDITED REPORT DELIVERY (surcharge) Date Due: _____									
CLIENT NAME <u>JE A</u>		CLIENT PROJECT MANAGER <u>T Cully</u>															
CLIENT ADDRESS (CITY, STATE, ZIP) <u>730 NE WALDO Rd Gainesville FL 32641</u>																	
SAMPLE																	
STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	PRESERVATIVE	NUMBER OF CONTAINERS SUBMITTED	REMARKS
<u>Leachate</u> <u>1 Effluent EOB</u>	<u>10-27-04</u>	<u>0845</u>	<u>X</u>		<u>0424CCLEFFERB</u>								<u>X</u>	<u>X</u>	<u>X</u>		
<u>Leachate</u> <u>2 Effluent</u>	<u>10-27-04</u>	<u>1000</u>	<u>X</u>		<u>0424CCLEFF</u>		<u>X</u>							<u>X</u>	<u>X</u>		
<u>TRIP</u> <u>3 Blank</u>	<u>10-27-04</u>	<u>—</u>	<u>—</u>		<u>0424CCLEFFTB</u>								<u>X</u>	<u>X</u>			
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
SAMPLE KIT PREPARED BY: <u>JE</u>		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME						
<u>JACKSONVILLE</u> <u>ORLANDO</u>		<u>10-11-04</u>	<u>11:20</u>	<u>Joanne Fournier</u>		<u>10-11-04</u>	<u>11:20</u>	<u>ESWANLEY</u>		<u>10-25-04</u>	<u>0900</u>						
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME						
<u>ESWANLEY</u>		<u>10-27-04</u>	<u>0800</u>	<u>ESWANLEY</u>				<u>ESWANLEY</u>									
RECEIVED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME						
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT		ENCO LOG NO.		REMARKS									
<u>Dana Fournier</u>		<u>10/29/04</u>	<u>11:15</u>	<u>YES</u> ☐ NO		<u>041-34237</u>		<u>Grayhound Co.ville => ORLANDO</u>									
☐ Jacksonville ☒ Orlando																	