

4009C00086

**BOARD OF COUNTY COMMISSIONERS
DEPARTMENT OF PUBLIC WORKS**

WACSID# 39859

January 12, 1998

3600 W. SOVEREIGN PATH
LECANTO, FLORIDA 34461

ADMINISTRATION OFFICE
Suite 212
352-527-5477 Phone
352-527-5479 Fax

ENGINEERING DIVISION:
Suite 241
352-527-5446 Phone
352-527-5476 Fax

- Land Section
Suite 205
352-527-5447 Phone
352-527-5459 Fax
- Permits & Compliance Sec.
Suite 204
352-527-5448 Phone
352-527-5319 Fax
- Project Management Sec.
Suite 241
352-527-5449 Phone
352-527-5482 Fax
- Survey Section
Suite 241
352-527-5446 Phone
352-527-5482 Fax

1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

MAINTENANCE OPERATIONS:

- Facilities Maint. Section
PO Box 143
Lecanto, FL 34460
352-527-0333 Phone
352-527-0654 Fax
- Fleet Management Section
PO Box 215
Lecanto, FL 34460
352-746-6888 Phone
352-746-5011 Fax

AQUATIC SERVICES

PO Box 440
Lecanto, FL 34460
352-746-2694 Phone
352-746-9189 Fax

ROAD MAINTENANCE

PO Box 167
Lecanto, FL 34460
352-746-4107 Phone
352-746-1203 Fax

UTILITIES DIVISION

PO Box 440
Lecanto, FL 34460
352-746-2694 Phone
352-746-1676 Fax

SOLID WASTE MANAGEMENT

230 W. Gulf to Lake Highway
PO Box 340
Lecanto, FL 34460
352-746-5000 Phone
352-527-1204 Fax

Ms. Allison Amram, P.G.
Environmental Specialist III
Dept. Of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

REPLY TO:
Solid Waste Management

RE: QUARTERLY LEACHATE MONITORING REPORT FOR CITRUS COUNTY
CENTRAL LANDFILL 60 AND 80 ACRE SITES - PERMIT NO. S009-274381

Dear Ms. Amram:

This was prepared in response to your review comments on the third quarter and annual 1997 leachate analytical report representing samples collected in July and reported to you in October 1997.

I find iron (Fe) analyzed and reported in the quarterly effluent section of that report at 0.072 mg/l. The second value you questioned (720 ug/l) was not located in the report.

The compounds included in Total Trihalomethanes were sampled on the same day and analyzed using two separate analytical methods for reporting the quarterly results and the annual results, as well as detection limits, as summarized below:

Compound :Quarterly	Method	Result	Detection
Bromodichloromethane	524.2	40 ug/l	0.50 ug/l
Bromoform	"	17 ug/l	"
Chloroform	"	24 ug/l	"
Dibromochloromethane	"	34 ug/l	"
Total		115 ug/l	

Compound: Annual	Method	Result	Detection
Bromodichloromethane	5030/8260	30 ug/l	1.0 ug/l
Bromoform	"	9.7 ug/l	"
Chloroform	"	20 ug/l	"
Dibromochloromethane	"	24 ug/l	"
Total		83.8 ug/l	

The Landfill's operating permit (SC 33a) indicates N/A for standards on quarterly Total THMs, while the groundwater standards are applicable to plant effluent for annual

Allison Amram
January 12, 1998
Page 2

testing of Appendix II parameters. The analytical results on the Annual THM's meets the groundwater standards of less than 100 ug/l. The quarterly results for Total THMs for the fourth quarter indicated 51 ug/l using analytical method EPA 601.

The analytical result for 1,4-Dioxane from the annual testing, using approved methods, was based on a minimum detection limit of 100 ug/l, for both influent and effluent samples. Therefore, any detection would exceed the guidance concentration of 5 ug/l. Since that episode, we have changed laboratories and have discussed the detection limit with the new lab. They indicate that the 5 ug/l guidance concentration is an unrealistically low value for minimum detection level. Using the approved method from SW846, Method 8260, they believe that a reasonable minimum detection limit is 100 ug/l. With two different laboratories providing this information to us, and with no personal experience to the contrary, I believe this is a case where we cannot expect to get results with detection as low as the guidance concentration.

We will be sampling for the 1st quarter on the 20th and 21st of this month and will include the re-sampling of 1,4-Dioxane for both influent and effluent, at a detection limit of 100 ug/l using method 8620 (GC/MS).

Your comments on flow amounts are addressed in a separate letter transmitting the 4th quarter leachate monitoring report issued this week.

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

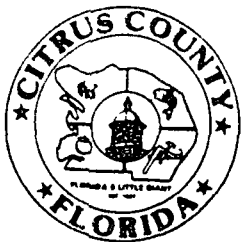
Sincerely,



Susan J. Metcalfe, P.G.
Director, Division of Solid Waste Management

SJM:CJW:cjw

CC: Chongman Lee, GW Analysis - Solid Waste - Tallahassee
Kenneth Saunders, Director, Dept. Public Works
Kim Ford, P.E., Department of Environmental Protection
Citrus County Utilities Division/Plant Operator



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REPLY TO:
Solid Waste Management

RE: QUARTERLY LEACHATE MONITORING REPORT FOR CITRUS COUNTY
CENTRAL LANDFILL 60 AND 80 ACRE SITES - PERMIT NO. S009-274381

Dear Ms. Amram:

Enclosed please find the leachate monitoring results for the Citrus County Central Landfill site, together with the Operator's monthly reports, covering the period 10-97 through 12-97.

There are no exceedences of permit limits for treated leachate during this period.

In response to your review comments of 1/7/98 as to effluent discharge/flow per day, we are reporting meter readings of discharge. This does not necessarily correspond to the previous 24-hour treatment amount and is part of the reason that the reported amounts are occasionally higher than 30,000 gallons. The amount in a treatment batch is controlled. After treatment (nitrification then denitrification) each batch goes to tank #4 (24,000 gallons capacity for flow equalization). At this point, the controlled batch size is no longer in effect. Effluent is then sent through the flow meter to the chlorine contact chamber and finally to the percolation ponds. At one extreme, 39,000 gallons could be sent to the percolation ponds in one day after treating only 15,000. At the other end of the spectrum, two 12,000-gallon batches could be treated with zero discharge through the flow meter to the percolation ponds.

A second reason for showing greater than 30,000 gallons is that on some days the plant is operating automatically and no operator is on duty to take readings. Mondays or the day after a holiday are the most common days for such a situation.

The third reason for the apparent discrepancy is that, infrequently, meter readings are not taken 24-hours apart. The normal routine is to take those meter readings at the beginning of the shift, however if unusual circumstances confront the operator, the readings may be taken later in the day.

At no time was the plant operated to treat more than 30,000 gallons in a single 24-hour day. The maximum has been two 15,000- gallon batches in a day. The monthly operating reports for this quarter indicates the same type of readings for plant flow.

If this is not an acceptable procedure, please let me know.

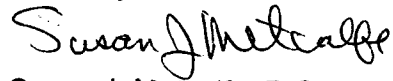
Allison Amram
January 12, 1998
Page 2

We are compiling information on leachate flows, influent and effluent quality, treatment times, costs of onsite vs. offsite treatment and other information. We may, at some time in the future, request a modification of the permit conditions related to allowable leachate treatment volumes, however at the present time we intend to comply with the existing permit.

Your other review comments dated 1/7/98 concerning the third quarter 1997 leachate quality submittal are addressed in a separate letter.

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

Sincerely,



Susan J. Metcalfe, P.G.
Director, Division of Solid Waste Management

SJM:CJW:cjw

CC: Chongman Lee, GW Analysis - Solid Waste - Tallahassee
Kenneth Saunders, Director, Dept. Public Works w/xls.sheet
Kim Ford, P.E., Department of Environmental Protection w/xls.sheet
Citrus County Utilities Division/Plant Operator w/xls.sheets

(swmF:shared;swm_adm:amramlea.doc)

CITRUS COUNTY CENTRAL LANDFILL
OCTOBER, NOVEMBER, DECEMBER, 1997

[illegible]

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS#: 4009C00086

Test Site ID#: _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N): _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

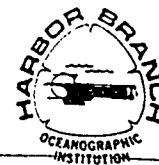
Ground Water Elevation (NGVD): _____

or (MSL): _____

Well Type: ☒ Background
☐ Intermediate
☐ Compliance
☐ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
004000	pH	G	N	EPA 150.1	10/17/97 15:36	8.4	SU	0.20	SU
070304	Total Dissolved Solids	G	N	EPA 160.1	10/16/97 20:10	1000	mg/L	20	mg/L
900201	Total Suspended Solids	G	N	EPA 160.2	10/17/97 9:20	2.0	mg/L	1.0	mg/L
000940	Chloride	G	N	EPA 300.0	10/17/97 11:30	400	mg/L	15	mg/L
000620	Nitrate	G	N	EPA 300.0	10/17/97 10:55	0.35	mg/L	0.060	mg/L
000620	Nitrite	G	N	EPA 300.0	10/17/97 10:55	ND	mg/L	0.044	mg/L
000610	Ammonia	G	N	EPA 350.1	10/21/97 11:11	0.067	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/20/97 15:37	2.4	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/22/97 11:27	2.7	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/20/97 15:37	5.6	mg/L	0.50	mg/L
000340	COD	G	N	EPA 410.4	10/21/97 11:00	120	mg/L	5.0	mg/L
032101	Bromodichloromethane	G	N	EPA 601	10/21/97 14:42	8.3	ug/L	1.0	ug/L
032104	Bromoform	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
032106	Chloroform	G	N	EPA 601	10/21/97 14:42	2.4	ug/L	1.0	ug/L
081521	Dibromochloromethane 32105	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
082080	Total THMs	G	N	EPA 601	10/21/97 14:42	51	ug/L	1.0	ug/L
034030	Benzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034371	Ethylbenzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034010	Toluene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
081551	Total Xylenes	G	N	EPA 602	10/21/97 14:42	1.8	ug/L	1.0	ug/L
031616	Fecal Coliform	G	N	SM9222 D	10/15/97 16:26	4.0	CFU/100mL	1.0	CFU/100mL
001002	Arsenic	G	N	SW-346 6010	10/22/97 9:45	0.0099	mg/L	0.0050	mg/L
001007	Barium	G	N	SW-346 6010	10/22/97 9:45	0.012	mg/L	0.010	mg/L
001027	Cadmium	G	N	SW-346 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS# : 4009C00086

Test Site ID# : _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

Ground Water Elevation (NGVD) : _____

or (MSL): _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N) : _____

- Well Type: ☒ Background
☒ Intermediate
☒ Compliance
☒ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
001034	Chromium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0020	mg/L
001045	Iron	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.040	mg/L
001051	Lead	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0030	mg/L
001147	Selenium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0050	mg/L
001077	Silver	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L
000929	Sodium	G	N	SW-846 6010	10/22/97 9:45	270	mg/L	1.0	mg/L
007900	Mercury	G	N	SW-846 7470	10/22/97 14:15	ND	mg/L	0.00050	mg/L
077651	1,2-Dibromoethane	G	N	SW-846 8011	10/21/97 11:46	ND	ug/L	0.019	ug/L

DER Form 17-001.00019
Concrete Wastewater Treatment Plant Monthly Operating Report
Effective Date July 1, 1991
DER Acquisition No. (Filed in by DER)

SOLID WASTE LEACHATE TREATMENT FACILITY

Monthly Operating Report

Part II - General Information

(1) Month DECEMBER Year 1999

(2) Plant's DER Identification Number 400900086

(3) Plant Name CENTRAL LANDFILL
LEACHATE PLANT

(4) Plant Address SR 443 MILES
E. LECANTO

(5) City LECANTO

(6) County CITRUS

(7) Phone Number (352) 746-2694

(8) Permit Number S-009-187229

(9) Plant Type 1-C

(10) Test Site Identification Number N/A

(11) Fecal Coliform Sample Method
☒ Membrane Filter ☐ Most Probable Number

(12) Type of Effluent Disposal or Reclaimed Water Reuse N/A

(13) Limited Wet Weather Discharge Activated
☐ Yes ☐ No ☒ Not Applicable

(14) Cumulative Days of Wet Weather Discharge N/A

(15) Plant Staffing

Day Shift Operator Class C Cert. No. 8197

Evening Shift Operator Class _____ Cert. No. _____

Night Shift Operator Class _____ Cert. No. _____

Lead Operator James A. Brumfield 8197
Signature _____ Cert. No. _____

Parameter	Units	STORET Code	Value
(16) Monthly average daily flow	mgd	050053	0.27
(17) Permitted capacity	mgd	-	0.30
(18) Three-month average daily flow	mgd	-	0.24
(19) Percent of permitted capacity	%	-	81%
(20) CBOD ₅ Effluent	mg/L	080082	5.2
(21) CBOD ₅ Effluent	lbs/day	-	N/A
(22) TSS Effluent	mg/L	900201	1.9
(23) TSS Effluent	lbs/day	-	N/A
(24) Minimum pH		-	6.8
(25) Maximum pH		-	8.1
(26) Total N	mg/L	000600	2.2
(27) TKN	mg/L	000625	1.1
(28) Ammonia (NH ₃ - N)	mg/L	000610	0.06
(29) Nitrate	mg/L	071850	0.6
(30) Total Phosphorus	mg/L	000665	2.1
(31) Minimum Chlorine Residual	mg/L	-	0.5
(32) Maximum Chlorine Residual	mg/L	-	2.2
(33) Other Effluent Parameters			N/A
COD	mg/L		42

OGR Form 17-00180078
 Citrus County Wastewater Treatment Plant
 Permit Title Monthly Operating Report
 Effective Date July 1, 1991
 OGR Address No. (Place in by OGR)

SOLID WASTE LEACHATE TREATMENT FACILITY Monthly Operating Report

Month December Year 1997

Day of the Month	Flow (mgd)	Chlorine Residual after Contact	Chlorine Residual after Dechlorination	CBOD ₅ Influent (mg/L)	TSS Influent (mg/L)	CBOD ₅ Effluent (mg/L)	TSS Effluent (mg/L)	pH Effluent	TKN Effluent (mg/L)	NH ₃ - N Effluent (mg/L)	Nitrate Effluent (mg/L)	Total P Effluent (mg/L)	Fecal Coliform (#/100ml)	COD	Total N						
1	33285	.9						8.0													
2	7128	1.3						6.8													
3	15495	1.5				4.2	1.0	7.5	1.1	N/D	0.10	3.5	N/D	52	12						
4	16939	1.0						7.9													
5	26911	1.7						8.0													
6	28217	1.5						7.9													
7	N/R																				
8	30927	1.7						7.8													
9	5319	.5						7.0													
10	12855	1.2				7.7	2.6	7.1	0.92	0.11	2.5	2.5	<1.0	32	3.5						
11	29884	1.5						8.0													
12	36482	.9						8.1													
13	23311	.6						8.1													
14	N/R																				
15	48744	.8						8.0													
16	9011	1.1						7.9													
17	34485	2.2				6.4	<2.0	7.4	1.11	<0.05	<0.06	7.1	<1.0	52	1.11						
18	24909	2.2						7.6													
19	33771	1.1						7.9													
20	29825	2.2						7.8													
21	N/A																				
22	56892	1.7						7.7													
23	27962	1.0				3.4	<2.0	7.4	1.19	<0.05	<0.06	1.2	<1.0	38	1.19						
24	33030	1.6						7.8													
25	36349	1.3						8.0													
26	24388	1.4						7.8													
27	24569	1.9						8.0													
28	31399	1.4						8.0													
29	24009	2.2						7.3													
30	26219	2.2				4.4	<2.0	7.16	1.4	<0.05	<0.06	<0.02	<1.0	36	4.2						
31	26020	2.2						8.0													

Lead Operator: This is to certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief, this information is true, complete, and accurate.

Signed: James A. Brunswick
 Name (Please Type) James A. Brunswick
 Company Name Citrus County Utility Division

Date: 1/8/98
 Telephone No. (Please Type) _____

1. *Phragmites australis* (Cav.) Trin. ex Steud.

EFFWKLY.XLS
4th Quarter 97

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS# : 4009C00086

Test Site ID# : _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

Ground Water Elevation (NGVD) : _____

or (MSL): _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N) : _____

Well Type: ☒ Background

☐ Intermediate

☐ Compliance

☐ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
004000	pH	G	N	EPA 150.1	10/17/97 15:36	8.4	SU	0.20	SU
070304	Total Dissolved Solids	G	N	EPA 160.1	10/16/97 20:10	1000	mg/L	20	mg/L
900201	Total Suspended Solids	G	N	EPA 160.2	10/17/97 9:20	2.0	mg/L	1.0	mg/L
000940	Chloride	G	N	EPA 300.0	10/17/97 11:30	400	mg/L	15	mg/L
000620	Nitrate	G	N	EPA 300.0	10/17/97 10:55	0.35	mg/L	0.060	mg/L
000620	Nitrite	G	N	EPA 300.0	10/17/97 10:55	ND	mg/L	0.044	mg/L
000610	Ammonia	G	N	EPA 350.1	10/21/97 11:11	0.067	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/20/97 15:37	2.4	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/22/97 11:27	2.7	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/20/97 15:37	5.6	mg/L	0.50	mg/L
000340	COD	G	N	EPA 410.4	10/21/97 11:00	120	mg/L	5.0	mg/L
032101	Bromodichloromethane	G	N	EPA 601	10/21/97 14:42	8.3	ug/L	1.0	ug/L
032104	Bromoform	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
032106	Chloroform	G	N	EPA 601	10/21/97 14:42	2.4	ug/L	1.0	ug/L
081521	Dibromochloromethane	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
082080	Total THMs	G	N	EPA 601	10/21/97 14:42	51	ug/L	1.0	ug/L
034030	Benzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034371	Ethylbenzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034010	Toluene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
081551	Total Xylenes	G	N	EPA 602	10/21/97 14:42	1.8	ug/L	1.0	ug/L
031616	Fecal Coliform	G	N	SM9222 D	10/15/97 16:26	4.0	CFU/100mL	1.0	CFU/100mL
001002	Arsenic	G	N	SW-846 6010	10/22/97 9:45	0.0099	mg/L	0.0050	mg/L
001007	Barium	G	N	SW-846 6010	10/22/97 9:45	0.012	mg/L	0.010	mg/L
001027	Cadmium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS# : 4009C00086

Test Site ID# : _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

Ground Water Elevation (NGVD) : _____

or (MSL): _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N) : _____

Well Type: ☒ Background

☒ Intermediate

☒ Compliance

☒ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
001034	Chromium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0020	mg/L
001045	Iron	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.040	mg/L
001051	Lead	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0030	mg/L
001147	Selenium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0050	mg/L
001077	Silver	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L
000929	Sodium	G	N	SW-846 6010	10/22/97 9:45	270	mg/L	1.0	mg/L
007900	Mercury	G	N	SW-846 7470	10/22/97 14:15	ND	mg/L	0.00050	mg/L
077651	1,2-Dibromoethane	G	N	SW-846 8011	10/21/97 11:46	ND	ug/L	0.019	ug/L

DER Permit No.	17-60180003
Comprehensive Wastewater Treatment Plant	
Monthly Operating Report	
Effective Date	July 1, 1991
DER Application No.	(Filed in or DER)

SOLID WASTE LEACHATE TREATMENT FACILITY

Monthly Operating Report

Part II - General Information

(1) Month DECEMBER Year 1999

(2) Plant's DER Identification Number 400900086

(3) Plant Name CENTRAL LANDFILL
LEACHATE PLANT

(4) Plant Address SR 443 MILES
E. LECANTO

(5) City LECANTO

(6) County CITRUS

(7) Phone Number (352) 746-2694

(8) Permit Number S-009-187229

(9) Plant Type I-C

(10) Test Site Identification Number N/A

(11) Fecal Coliform Sample Method
☒ Membrane Filter ☐ Most Probable Number

(12) Type of Effluent Disposal or Reclaimed Water Reuse N/A

(13) Limited Wet Weather Discharge Activated
☐ Yes ☐ No ☒ Not Applicable

(14) Cumulative Days of Wet Weather Discharge N/A

(15) Plant Staffing

Day Shift Operator Class C Cert. No. 8197

Evening Shift Operator Class _____ Cert. No. _____

Night Shift Operator Class _____ Cert. No. _____

Lead Operator James A. Bums 8197
Signature _____ Cert. No. _____

Parameter	Units	STORET Code	Value
(16) Monthly average daily flow	mgd	050053	0.27
(17) Permitted capacity	mgd	-	0.30
(18) Three-month average daily flow	mgd	-	0.24
(19) Percent of permitted capacity	%	-	81%
(20) CBOD ₅ Effluent	mg/L	080082	5.2
(21) CBOD ₅ Effluent	lbs/day	-	N/A
(22) TSS Effluent	mg/L	900201	1.9
(23) TSS Effluent	lbs/day	-	N/A
(24) Minimum pH		-	6.8
(25) Maximum pH		-	8.1
(26) Total N	mg/L	000600	2.2
(27) TKN	mg/L	000625	1.1
(28) Ammonia (NH ₃ - N)	mg/L	000610	0.06
(29) Nitrate	mg/L	071850	0.6
(30) Total Phosphorus	mg/L	000665	2.1
(31) Minimum Chlorine Residual	mg/L	-	0.5
(32) Maximum Chlorine Residual	mg/L	-	2.2
(33) Other Effluent Parameters			N/A
COD	mg/L		42



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form #	17-601.900(1)
Form Title	Consolidated Wastewater Treatment Plant Monthly Operating Report
Effective Date	July 1, 1991
DER Approval No.	
Filed in by DER	

SOLID WASTE LEACHATE TREATMENT FACILITY

Monthly Operating Report

Part I - Instructions

- (1) Enter the month and the year of this report.
- (2) Enter the plant's DER identification number (also known as the GMS number). This number should be obtained from the FDER District Office issuing the permit and will remain the same throughout the life of the plant.
- (3)-(7) Enter the plant's name, address, city, county, and phone number.
- (8) Enter the plant's current State of Florida permit number.
- (9) Enter one digit and one letter code to indicate the type of treatment and the plant size. First record the number from 1 to 4 that indicates the type of treatment. Then record the letter A to D that indicates the plant size as shown below.

Type of Treatment		Plant Size (mgd)			
		A	B	C	D
1	Activated Sludge, Attached Growth, or Combined Treatment systems that include nutrient removal processes. (Nitrification alone is not considered nutrient removal.)	≥3.0	≥0.5 but <3.0	≥0.002 but <0.5	---
2	Activated Sludge or Combined Treatment systems that do not include nutrient removal processes.	≥5.0	≥1.0 but <5.0	≥0.002 but <1.0	---
3	Activated Sludge operated in the extended aeration mode.	≥8.0	≥2.0 but <8.0	≥0.025 but <2.0	≥0.002 but <0.02
4	Attached Growth Treatment systems (trickling filters or RBC's) that do not include nutrient removal processes.	≥10.0	≥3.0 but <10.0	≥0.025 but <3.0	≥0.002 but <0.02
5	Septic tank or other on-site waste treatment systems with subsurface disposal.	---	---	---	≥0.005

- (10) Enter the test site identification number.
- (11) Check the type of fecal coliform sample method used.
- (12) Enter the type of effluent disposal or reclaimed water reuse (e.g., surface water discharge, ocean outfall, slow rate land application-public access, slow rate land application-restricted public access, rapid rate land application, absorption field, under ground injection.)
- (13) If this plant does not have a limited wet weather discharge permitted under the provisions of Rule 17-010.860(5), F.A.C., check not applicable. If the plant has a wet weather discharge permitted and did not activate the discharge during the reporting month, check not applicable. If the plant activated the wet weather discharge during the reporting month, check yes and attach DER Form 17-601.900(2), F.A.C.
- (14) Enter the total number of days during the current calendar year that the limited wet weather discharge was activated, if applicable.
- (15) Enter the operator Class A, B, C, or D and the certification number of the operator who will have responsibility for the plant or shift for the majority of the time. For example, in shift rotations, enter the operator who will cover that shift most of the time throughout the year. The lead operator is usually in charge of the day shift. Note: This form must be signed by the lead operator as defined in Rule 17-602.200(11).
- (16) Enter the monthly average daily flow in mgd, recorded to three significant figures.
- (17) Enter the permitted capacity in mgd, recorded to three significant figures.
- (18) Enter the three month average daily flow as defined in Rule 17-601.200(46) in mgd, recorded to three significant figures.
- (19) Enter the percent the three month average daily flow is of the permitted capacity.
- (20) Enter the average monthly CBOD₅ of the effluent as recorded in Item 34.
- (21) Enter the average monthly CBOD₅ of the effluent in lbs/day if required by permit.
- (22) Enter the average monthly TSS of the effluent in mg/L as recorded in Item 34.
- (23) Enter the average monthly TSS of the effluent in lbs/day if required by permit.
- (24) Enter the minimum monthly pH of the effluent recorded to the nearest 0.1.
- (25) Enter the maximum monthly pH of the effluent recorded to the nearest 0.1.
- (26)-(30) Enter the results of the nutrient analysis in mg/L as required by the permit.
- (31) Enter the minimum value of total chlorine residual (mg/L to nearest 0.1) measured for disinfection effectiveness after chlorine contact as recorded in Item 34.
- (32) If applicable, enter the maximum value of total chlorine residual (mg/L to nearest 0.01) measured after dechlorination for dechlorination effectiveness as recorded in Item 34.
- (33) This space is provided for plants which may have additional reporting requirements (i.e., dissolved oxygen).
- (34) Record parameters as directed by Chapter 17-600, F.A.C., this chapter, and the permit. Record units as indicated on the form (e.g., mgd, mg/L, lbs/day, etc.) Use blank columns as needed. If there are no fecal coliforms detected, enter NO in the column labeled fecal coliform.

SOLID WASTE LEACHATE TREATMENT FACILITY Monthly Operating Report

Month December Year 1997

Day of the Month	Flow (mgd)	Chlorine Residual after Contact	Chlorine Residual after Decoloration	CBOD ₅ Influent (mg/L)	TSS Influent (mg/L)	CBOD ₅ Effluent (mg/L)	TSS Effluent (mg/L)	pH Effluent	TKN Effluent (mg/L)	NH ₃ - N Effluent (mg/L)	Nitrate Effluent (mg/L)	Total P Effluent (mg/L)	Fecal Coliform (#/100ml)	COD	TOTAL N				
1	33285	.9						8.0											
2	7128	1.3						6.8											
3	15495	1.5				4.2	1.0	7.5	1.1	N/D	0.10	3.5	N/D	52	1.2				
4	16939	1.0						7.9											
5	24911	1.7						8.0											
6	28217	1.5						7.9											
7	N/R																		
8	30927	1.7						7.8											
9	5319	.5						7.0											
10	12855	1.2				7.7	2.6	7.1	0.92	0.11	2.5	2.5	<1.0	32	3.5				
11	29884	1.5						8.0											
12	36482	.9						8.1											
13	23311	.6						8.1											
14	N/R																		
15	48744	.8						8.0											
16	9011	1.1						7.9											
17	34485	2.2				6.4	<2.0	7.4	1.11	<0.05	<0.06	7.1	<1.0	52	1.11				
18	24909	2.2						7.6											
19	33771	1.1						7.9											
20	29825	2.2						7.8											
21	N/A																		
22	56892	1.7						7.7											
23	27962	1.0				3.4	<2.0	7.4	1.19	<0.05	<0.06	1.2	<1.0	38	1.19				
24	33030	1.6						7.8											
25	36349	1.3						8.0											
26	24388	1.4						7.8											
27	24569	1.9						8.0											
28	31399	1.4						8.0											
29	24009	2.2						7.3											
30	26219	2.2				4.4	<2.0	7.6	1.4	<0.05	<0.06	<0.02	<1.0	36	4.2				
31	26030	2.2						8.0											

Lead Operator: This is to certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief, this information is true, complete, and accurate.

Signed: James A. Brunswick
 Name (Please Type) James A. Brunswick
 Company Name Citrus County Utility Division

Date: 1/8/98
 Telephone No. (Please Type): _____

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**

5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584



**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**



**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

January 7, 1998

A DIVISION OF HARBOR BRANCH OCEANOGRAPHIC INSTITUTION, INC.

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)

GMS # 4009C00086Sample Date/Lab ID: 12/30/97 77099001

Test Site #: _____

 Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate
Test Site Name: LeachateSample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered / Unfiltered	Preservative Added
004000	pH	150.1	12/31/97	7.6	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	12/31/97	<2.0	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	12/31/97	<0.060	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	12/31/97	2.8	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	01/05/98	<0.05	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	01/05/98	1.4	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	01/07/98	4.2	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	01/05/98	0.02	mg/L	0.050	U	H ₂ SO ₄
000340	COD	410.4	01/05/98	36	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	12/31/97	4.4	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	12/30/97	<1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

Yes No If Yes, _____

COMMENTS

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
<i>[Signature]</i>	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED FOR LAB BY:	DATE: <i>12/31/97</i>
	TIME:	LAB NAME: <i>B. North</i>	TIME: <i>10/5</i>

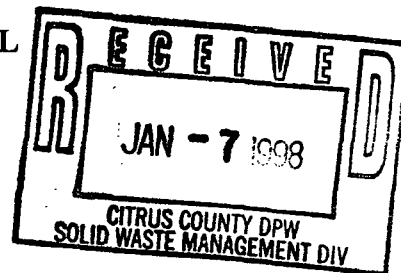
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

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FAX (561) 467-1584


**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**



**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**



DECEMBER 31, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)



GMS # 4009C00086

Sample Date/Lab ID: 12/23/97 77012001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: Leachate

2478

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.1	12/24/97	7.4	S.U.	0.20	—	—
900201	Total Suspended Solids	160.2	12/26/97	<2.0	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	12/25/97	<0.060	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	12/25/97	<0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	12/24/97	<0.05	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	12/31/97	1.19	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	12/31/97	1.19	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	12/30/97	1.2	mg/L	0.25	U	H ₂ SO ₄
000340	COD	410.4	12/24/97	38	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD ₅	SM5210 B	12/24/97	3.4	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	12/23/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Lebanon, Fla. 34460
 PHONE: 904-746-5000
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate
 HBOI W/O & HPN: 7012

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No If Yes, _____

SAMPLED BY: T. Resinger
 DATE: 12-23-97
 TIME: 10:00 Am
 METHOD OF SHIPMENT: _____
 COOLER NO.(s) _____

MATRIX KEY		PRESERVATION KEY		ANALYSES REQUESTED										COMMENTS	
	S = Solid	H = Hydrochloric Acid		<div style="transform: rotate(-45deg); position: absolute; top: 0; left: 0;"> pH CBOD TSS Nitrate Nitrite COD TP NH3 TKN TN </div>											
	SL = Sludge	N = Nitric Acid													
	DW = Drinking	S = Sulfuric Acid													
	GW = Ground	SH = Sodium Hydroxide													
	SW = Surface	P = Phosphoric Acid													
	WW = Waste	ST = Sodium Thiosulfate													
		U = None / Unpreserved													

FIELD ID	SAMPLING		SAMPLE TYPE	MATRIX	#	PRESERVATIVE →	SAMPLE LOCATION ↓									
	DATE	TIME														
	12-23	10:00 Am	WW 6	WW	3	Leachate	U	H2SO4								
							2	1								

RELINQUISHED BY**:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED FOR LAB BY:	DATE: <u>122497</u>
	TIME:	LAB NAME: <u>Ben North</u>	TIME: <u>1025</u>

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

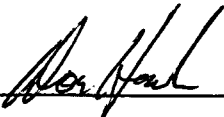
(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**


**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**



**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**



DECEMBER 24, 1997

RECEIVED
DEC 30 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY



CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)

GMS # 4009C00086

Sample Date/Lab ID: 12/17/97 76841001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: Leachate

247P

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.1	12/19/97	7.4	S.U.	0.20	—	—
900201	Total Suspended Solids	160.2	12/19/97	<2.0	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	12/18/97	<0.060	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	12/18/97	< 0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	12/22/97	<0.05	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	12/22/97	1.11	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	12/22/97	1.11	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	12/22/97	3.1	mg/L	0.25	U	H ₂ SO ₄
000340	COD	410.4	12/19/97	52	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	12/19/97	6.4	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	12/17/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

Field Data Sheet

Sampler(s) Diemst. Date 12/17/97 Sample Time _____ Field ID# 1
Project Name Citrus Co. Landfill

Sample Type (circle one): WW SW GW DW ReagWtr. Sludge Sediment Soil Other
Sample Site Identification Leachate Eff.

Sampling Method: Grab Composite Monitoring Well: Bailer Pump
Sampling Equipment: _____
Site and Weather Conditions Sunny, 70's, calm, damp.

Field Instrument Beginning Calibration

pH meter Yes No Buffer 4.0 7.0 7.22 10.0 10.13 Slope =
Conductivity meter Yes No Buffer 147 1414 1384-1413 12900
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from 98.3
Field Filtered: Yes No Duplicate: Yes No Field Decontamination: Yes No

Parameter	Sample Containers	pH Check
Nutrient	Plastic - H ₂ SO ₄	<2
Metals	Plastic - HNO ₃	<2
Sulfide	Plastic - NaOH / Zn Acetate	>12
Cyanide	Plastic - NaOH / (NO Sulfide) / Ascorbic Acid	>12
Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res.)	
Oil and Grease	Glass - HCl	<2
TRPH	Glass - HCl	<2
VOA	Glass - HCl	<2
SVOC	Glass - (DRW NO Chlorine Res.)	
Other Phenols	Glass - H ₃ PO ₄	<2
Other		

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH meter Yes No Buffer 4.0 7.0 7.02 10.0 10.11 Slope =
Conductivity meter Yes No Buffer 147 1414 1356-1413 12900
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from 98.5

General Site Information/Comments _____

Project Name	Citrus Co. Landfill
Date	12/17/97

Page 1 of 1

[illegible]

COMPANY: W. W. Landfill
ADDRESS: _____
PHONE: _____
FAX: _____
CLIENT CONTACT: S. Metcalfe
PURCHASE ORDER #: _____

DATE NEEDED: Normal - 7A1
CLIENT PROJECT: _____
PROJECT NAME / #: Leachate Weekly
HBOI W/O & HPN: 6841

SPECIAL INSTRUCTIONS:
☐ **RUSH in** **BUSINESS DAYS**
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected
 safety hazards associated with these
 samples other than those listed below?
 Yes ☐ No ☒ If Yes, _____

SAMPLED BY: Dienst.
DATE: 12/17/97
TIME: _____
METHOD OF SHIPMENT: Courier
COOLER NO.(s) _____

MATRIX KEY	PRESERVATION KEY
S = Solid	H = Hydrochloric Acid
SL = Sludge	N = Nitric Acid
DW = Drinking	S = Sulfuric Acid
GW = Ground	SH = Sodium Hydroxide
SW = Surface	P = Phosphoric Acid
WW = Waste	ST = Sodium Thiosulfate
	U = None / Unpreserved

ANALYSES REQUESTED

SAMPLING			SAMPLE	#	PRESERVATIVE →									
FIELD ID	DATE	TIME	TYPE	MATRIX		SAMPLE LOCATION ↓	S	ST	U					
	12/17/97	13:44	G.	WW.	4	Leachate Eff.	.2	1	1					
					4	Total								

RELINQUISHED BY**: <i>D. Dienstberger</i>	DATE: <i>12/17/97</i>	RECEIVED BY:	DATE:
	TIME: <i>17:50</i>		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED FOR LAB BY:	DATE: <i>12/17/97</i>
	TIME:	LAB NAME: <i>B. Nath</i>	TIME: <i>1750</i>

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

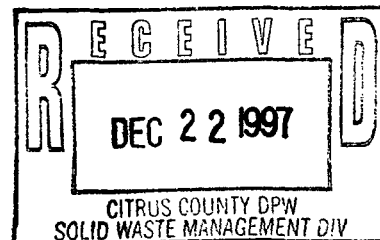
**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink, positioned above a horizontal line.

DECEMBER 18, 1997





Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)



GMS # 4009C00086

Sample Date/Lab ID: 12/10/97 76668001

Test Site #: _____

 Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate
Test Site Name: Leachate

747P

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.1	12/15/97	7.1	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	12/12/97	2.6	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	12/11/97	2.5	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	12/11/97	< 0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	12/15/97	0.11	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	12/14/97	0.92	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	12/18/97	3.5	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	12/14/97	2.5	mg/L	0.25	U	H ₂ SO ₄
000340	COD	410.4	12/12/97	32	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	12/11/97	7.7	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	12/10/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

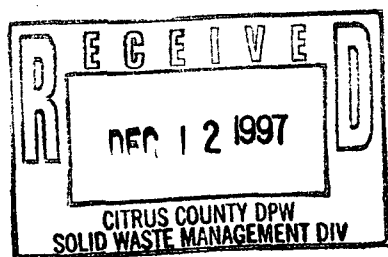
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**

5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584



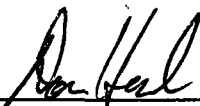
**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



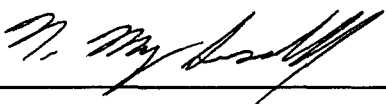
**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**

**PROJECT MANAGER:
DON HASH**



**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**



DECEMBER 11, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.



CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.600 (11)

GMS # 4009C00086

Test Site #: _____

Test Site Name: LeachateSample Date/Lab ID: 12/03/97 10:10 (76506001)
 Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

747P

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Detection Limit	Sample Filtered/Unfiltered	Preservative Added
004000	pH	EPA 150.1	12/05/97	7.5	S.U.	0.20	U	None
900201	Total Suspended Solids	EPA 160.2	12/05/97	1.0	mg/L	1.0	U	None
000620	Nitrite	EPA 300.0	12/05/97	ND	mg/L	0.044	U	None
000620	Nitrate	EPA 300.0	12/05/97	0.10	mg/L	0.060	U	None
000610	Ammonia	EPA 350.1	12/05/97	ND	mg/L	0.050	U	None
000600	Total Nitrogen	EPA 351.2	12/10/97	1.2	mg/L	0.20	U	None
000625	Total Kjeldahl Nitrogen	EPA 351.2	12/08/97	1.1	mg/L	0.40	U	None
000665	Total Phosphorus	EPA 365.4	12/08/97	3.5	mg/L	0.20	U	None
000340	COD	EPA 410.4	12/08/97	52	mg/L	5.0	U	None
80082	CBOD5	SM5210 B	12/04/97	4.2	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	12/03/97	ND	CFU/100mL	1.0	U	None

*Well development is the process of pumping the well prior to sampling in order to obtain a representative ground water sample.

DEP Form 17-1.216(2)

Effective January 1, 1983

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Lebanon Fla. 34460
 PHONE: 904-746-5000
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate
 HBOI W/O & HPN: 6506

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No If Yes, _____

SAMPLED BY: I. Resinger
 DATE: 12-3-97
 TIME: 10:10
 METHOD OF SHIPMENT: _____
 COOLER NO.(s) _____

MATRIX KEY	PRESERVATION KEY
S = Solid	H = Hydrochloric Acid
SL = Sludge	N = Nitric Acid
DW = Drinking	S = Sulfuric Acid
GW = Ground	SH = Sodium Hydroxide
SW = Surface	P = Phosphoric Acid
WW = Waste	ST = Sodium Thiosulfate
	U = None / Unpreserved

ANALYSES REQUESTED										COMMENTS
PH	TS	Nitrate-Nitrite	COO, TP, NH3	TKN	TN					
										PH 7.1 Temp 20°C

RELINQUISHED BY**: <u>Gerry Resinger</u>	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: _____	DATE: <u>120497</u>
	TIME: _____	LAB NAME: <u>B. Nath</u>	TIME: <u>0950</u>

DER Permit No.	17-60163003
Consolidated Wastewater Treatment Plant	
Plant No.	Monthly Operating Report
Effective Date	July 1, 1997
DER Application No.	Filed in by DER

SOLID WASTE LEACHATE TREATMENT FACILITY

Monthly Operating Report

Part II - General Information

(1) Month NOVEMBER Year 1997

(2) Plant's DER Identification Number 400900086

(3) Plant Name CENTRAL LAND FILL
LEACHATE PLANT

(4) Plant Address SR 44 3 MILES
E. LECANTO

(5) City LECANTO

(6) County CITRUS

(7) Phone Number (352) 746-2694

(8) Permit Number S-009-187229

(9) Plant Type I-C

(10) Test Site Identification Number N/A

(11) Fecal Coliform Sample Method
☒ Membrane Filter ☐ Most Probable Number

(12) Type of Effluent Disposal or Reclaimed Water Reuse N/A

(13) Limited Wet Weather Discharge Activated
☐ Yes ☐ No ☒ Not Applicable

(14) Cumulative Days of Wet Weather Discharge N/A

(15) Plant Staffing

Day Shift Operator Class C Cert. No. 8197

Evening Shift Operator Class _____ Cert. No. _____

Night Shift Operator Class _____ Cert. No. _____

Lead Operator James A. Blumauer 8197
Signature _____ Cert. No. _____

Parameter	Units	STORET Code	Value
(16) Monthly average daily flow	mgd	050053	.024
(17) Permitted capacity	mgd	-	.030
(18) Three-month average daily flow	mgd	-	.021
(19) Percent of permitted capacity	%	-	72%
(20) CBOD ₅ Effluent	mg/L	080082	49
(21) CBOD ₅ Effluent	lbs/day	-	N/A
(22) TSS Effluent	mg/L	900201	2.7
(23) TSS Effluent	lbs/day	-	N/A
(24) Minimum pH		-	7.4
(25) Maximum pH		-	8.2
(26) Total N	mg/L	000600	1.0
(27) TKN	mg/L	000625	.98
(28) Ammonia (NH ₃ - N)	mg/L	000610	<.05
(29) Nitrate	mg/L	071850	.05
(30) Total Phosphorus	mg/L	000665	4.1
(31) Minimum Chlorine Residual	mg/L	-	.5
(32) Maximum Chlorine Residual	mg/L	-	2.2
(33) Other Effluent Parameters			N/A
<u>COD</u>	<u>mg/L</u>		<u>49</u>

SOLID WASTE LEACHATE TREATMENT FACILITY Monthly Operating Report

Month November Year 1997

Day of the Month	Flow (mgd)	Chlorine Residual after Contact	Chlorine Residual after Dechlorination	CBOD ₅ Influent (mg/L)	TSS Influent (mg/L)	CBOD ₅ Effluent (mg/L)	TSS Effluent (mg/L)	pH Effluent	TKN Effluent (mg/L)	NH ₃ - N Effluent (mg/L)	Nitrate Effluent (mg/L)	Total P Effluent (mg/L)	Fecal Coliform (#/100ml)	COD	Total N						
1	28382	2.2						7.5													
2	N/R							7.5													
3	44913	1.8						7.4													
4	24037	2.2						7.5													
5	26174	2.2				4.2	2.5	8.1	<1.0	<.05	.062	6.3	<1.0	36	<1.0						
6	22256	2.2						7.4													
7	19552	2.2						7.8													
8	26425	.5						7.8													
9	N/R							7.8													
10	56204	.5						7.8													
11	21025	.5						7.9													
12	22333	.9				<2.0	4.2	8.0	1.4	<.05	<.06	2.3	14	80	1.6						
13	12921	.6						7.9													
14	18157	.8						7.8													
15	22707	1.1						8.1													
16	N/R																				
17	61990	.6						7.9													
18	28420	.9						7.5													
19	17685	1.6				<2.2	3.2	7.9	.69	<.05	.068	5.7	<1.0	34	.76						
20	21288	.7						7.5													
21	24813	.8						7.5													
22	26603	.7						7.7													
23	N/R							7.7													
24	53969	.6						7.7													
25	24971	1.2				3.4	<1.0	8.2	.84	<.05	.032	2.1	<1.0	46	.87						
26	14400	.6						7.7													
27	21032	.6						7.7													
28	26120	.7						7.7													
29	27201	.5						8.1													
30	N/R																				
31																					

Lead Operator: This is to certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief, this information is true, complete and accurate.

Signature: James A. Brunswick C8197

Date: 12/10/97

Name (Please Type) James A. Brunswick

Company Name Citrus County Utility Division

Telephone No. (Please Type) _____

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**

5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584



**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

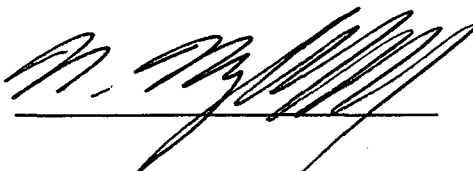
**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**



**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**



DECEMBER 3, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

CITRUS COUNTY CENTRAL LANDFILL**PARAMETER MONITORING REPORT**

Rule 62-522.900 (11)

GMS # 4009C00086Sample Date/Lab ID: 11/25/97 76381001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: LeachateSample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.1	11/26/97	8.2	S.U.	0.20	—	—
900201	Total Suspended Solids	160.2	11/28/97	< 1.0	mg/L	1.0	U	None
000620	Nitrate-Nitrogen	300.0	11/26/97	0.032	mg/L	0.030	U	None
000620	Nitrite-Nitrogen	300.0	11/26/97	< 0.022	mg/L	0.022	U	None
000610	Ammonia-Nitrogen	350.1	12/02/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	12/01/97	0.84	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	12/02/97	0.87	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	12/01/97	2.1	mg/L	0.10	U	H ₂ SO ₄
000340	COD	410.4	12/01/97	46	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	11/27/97	3.4	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	11/25/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Lebanon, Fla. 34460
 PHONE: 904-246-5000
 FAX: 904-522-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate
 HBOI W/O & HPN: 76381

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No If Yes, _____

SAMPLED BY: T. Resinger
 DATE: _____
 TIME: _____
 METHOD OF SHIPMENT: _____
 COOLER NO.(s) _____

G = Grab
 C = Composite
 O = Other

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED										COMMENTS
PH	CBOD	TSS	Nitrate	Nitrite	COD	TP	Ammonia	TKN	IN	
U	H ₂ SO ₄									PH - 4.7 12°C
2	1									

RELINQUISHED BY: <u>T. Resinger</u>	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: _____	DATE: <u>11/26/97</u>
	TIME: _____		TIME: <u>0930</u>
LAB NAME: <u>L. Dickinson</u>			

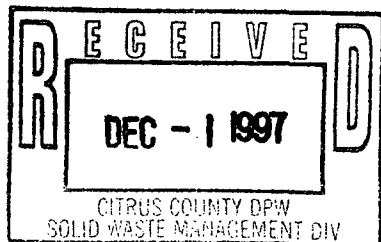
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**

5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584



**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink, positioned above a horizontal line.

November 26, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)



GMS # 4009C00086

Sample Date/Lab ID: 11/19/97 76244001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: Leachate

7479

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered / Unfiltered	Preservative Added
004000	pH	150.1	11/22/97	7.9	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	11/21/97	3.2	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	11/20/97	0.068	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	11/20/97	< 0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	11/20/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	11/21/97	0.69	mg/L	0.20	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	11/25/97	0.76	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	11/21/97	5.7	mg/L	0.50	U	H ₂ SO ₄
000340	COD	410.4	11/21/97	34	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	11/20/97	2.2	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	11/19/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Lecanto FL 34460
 PHONE: 904-446-5000
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: weekly leachate
 HBOI W/O & HPN: 6244

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No If Yes, _____

SAMPLED BY: T. Resinger
 DATE: 11-19-97
 TIME: 10:00 Am
 METHOD OF SHIPMENT: _____
 COOLER NO.(s) _____

G = Grab
 C = Composite
 O = Other

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED

COMMENTS

FIELD ID	SAMPLING		SAMPLE TYPE	MATRIX	#	PRESERVATIVE →	D	H ₂ SO ₄								PH 7.5 Temp 15°C
	DATE	TIME				SAMPLE LOCATION ↓										
	11/19	10:00 Am	G	WW	3	Leachate	2	1								
						</										

RELINQUISHED BY: <u>Terry Resinger</u>	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: _____	DATE: <u>11/20/97</u>
	TIME: _____	LAB NAME: <u>Ben North</u>	TIME: <u>0930</u>

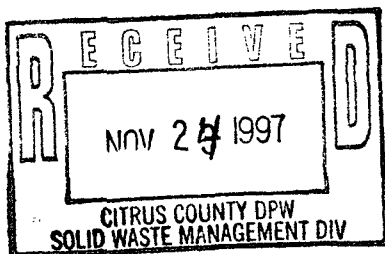
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink, positioned above a horizontal line.

November 19, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)



GMS # 4009C00086

Sample Date/Lab ID: 11/12/97 76087001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: Leachate

147P

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant./Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.11	11/18/97	8.0	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	11/14/97	4.2	mg/L	1.0	U	None
000620	Nitrate-Nitrogen	300.0	11/13/97	<0.060	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	11/13/97	0.17	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	11/14/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	11/14/97	1.4	mg/L	1.0	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	11/19/97	1.6	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	11/14/97	2.3	mg/L	0.20	U	H ₂ SO ₄
000340	COD	410.4	11/13/97	80	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	11/13/97	<2.0	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	11/12/97	14	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Lecanto Fla. 34460
 PHONE: 904-527-7460
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #:

DATE NEEDED:
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: weekly leachate
 HBOI W/O & HPN: 16087

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No If Yes,

SAMPLED BY: Terry Resinger
 DATE: 11-12-97
 TIME:
 METHOD OF SHIPMENT:
 COOLER NO.(s)

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED										COMMENTS	
<div>PH CBOD TSS Nitrate Nitrite CO₂ TP NH₃ TKN TN</div>											
FIELD ID	SAMPLING		SAMPLE	MATRIX	#	PRESERVATIVE →					COMMENTS
	DATE	TIME	TYPE			SAMPLE LOCATION ↓					
U	11-12-97	10:03 AM	G	WW	3	Leachate	U	H ₂ SO ₄			PH Temp 7.9 20°C
2								1			

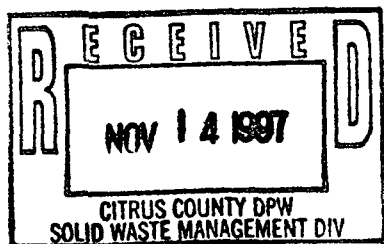
RELINQUISHED BY:** <u>Terry Resinger</u>	DATE: <u>11/ 197</u>	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED FOR LAB BY:	DATE: <u>11-13-97</u>
	TIME:		LAB NAME: <u>B. North</u>

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584



**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230
SAC HRS#84470/E84492 FOR FECAL COLIFORMS**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink, positioned above a horizontal line.

November 12, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

**CITRUS COUNTY CENTRAL LANDFILL**

PARAMETER MONITORING REPORT

Rule 62-522.900 (11)

GMS # 4009C00086Sample Date/Lab ID: 11/05/97 75950001

Test Site #: _____

Test Site Name: Leachate

1478

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Sample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.11	11/11/97	8.1	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	11/07/97	< 2.5	mg/L	2.5	U	None
000620	Nitrate-Nitrogen	300.0	11/07/97	0.062	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	11/07/97	< 0.022	mg/L	0.022	U	None
000610	Ammonia-Nitrogen	350.1	11/07/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	11/07/97	< 1.0	mg/L	1.0	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	11/07/97	< 1.0	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	11/07/97	6.3	mg/L	0.50	U	H ₂ SO ₄
000340	COD	410.4	11/07/97	36	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	11/06/97	4.2	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	11/05/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

REQUEST FORM A

S. A. C. Environmental Laboratory, Inc.

5376 S. Suncoast Blvd.
Homosassa, FL 34446
(352) 621-3513 • FAX (352) 621-3514

SHADED AREA FOR LAB USE ONLY

CHAIN OF CUSTODY — ENVIRONMENTAL

CLIENT/COMPANY ORDERING TEST <i>NBEL 1-800-333-4260</i> <i>Don Nash</i>			PROJECT/SITE NAME <i>Citrus County</i> <i>Landfill</i>			# OF CONTAINERS	MATRIX CODE	SAMPLE METHOD	OTHER	TESTS REQUESTED (✓)										FIELD CONTROL	CUSTODY SEAL
SAMPLER'S: (Signature) <i>Steve K...</i>			PERMIT #							COD	BOD	TSS	NITRATE	MLSS	FECAL	INITIALS & DATE TEST COMPLETED	IN-HOUSE QUALITY CONTROL	REMARKS			
LABORATORY #	COLLECTION		DESCRIPTION OF COLLECTION SITE	# OF CONTAINERS	MATRIX CODE	SAMPLE METHOD	OTHER	COD	BOD	TSS	NITRATE	MLSS	FECAL	INITIALS & DATE TEST COMPLETED	IN-HOUSE QUALITY CONTROL	REMARKS	FIELD CONTROL	CUSTODY SEAL			
	DATE	TIME																			
<i>E 2</i>	<i>11-5</i>	<i>1010</i>	<i>leachate</i>	<i>1</i>	<i>GW</i>																
<i>E</i>																					
<i>E</i>																					
<i>E</i>																					
<i>E</i>																					
<i>E</i>																					

FIELD COMMENTS: CARRIER _____ AIRBILL NO. _____ COOLER NO. _____ DATE SHIPPED _____

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.

RELINQUISHED BY (SIGNATURE) <i>[Signature]</i>	RECEIVED BY (SIGNATURE) <i>[Signature]</i>	DATE <i>11/17</i>	TIME <i>1:50</i>	LABORATORY COMMENTS:		
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME			
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	MATRIX CODES GW — GROUND WATER SW — SURFACE WATER SO — SOIL SL — SLUDGE WW — WASTE WATER	LOGGED BY: DATE: _____ TIME: _____	ACCT. # / PROJECT #

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Leesville, Fla. 34460
 PHONE: 904-746-5000
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate
 HBOI W/O & HPN: 5950

SPECIAL INSTRUCTIONS:
☐ RUSH in _____ BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes ___ No ___ If Yes, _____

SAMPLED BY: T. Resinger
 DATE: 11-5-97
 TIME: 10:10 AM
 METHOD OF SHIPMENT: _____
 COOLER NO.(s) _____

G = Grab
 C = Composite
 O = Other

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED

Handwritten notes:
 PH 6.80
 TS Nitrate
 COD TP
 NH3 TN TN

COMMENTS

FIELD ID	SAMPLING		SAMPLE TYPE	MATRIX	#	PRESERVATIVE →	U	H ₂ SO ₄																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
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RELINQUISHED BY: <u>T. Resinger</u>	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: <u>B. Nath</u>	DATE: <u>11-06-97</u>
	TIME: _____	LAB NAME: _____	TIME: <u>1125</u>

DER Form 17-60160001
 Domestic Wastewater Treatment Plant
 Monthly Operating Report
 Effective Date July 1, 1991
 DER Admission No. (Filed in by DER)

SOLID WASTE LEACHATE TREATMENT FACILITY

Monthly Operating Report

Part II - General Information

- (1) Month OCTOBER Year 1997
- (2) Plant's DER Identification Number 400900086
- (3) Plant Name CENTRAL LANDFILL
LEACHATE PLANT
- (4) Plant Address SR 44 3 miles
E. LECANTO
- (5) City LECANTO
- (6) County CITRUS
- (7) Phone Number (352) 746-2694
- (8) Permit Number S-009-187229
- (9) Plant Type I-C
- (10) Test Site Identification Number N/A
- (11) Fecal Coliform Sample Method
☒ Membrane Filter ☐ Most Probable Number
- (12) Type of Effluent Disposal or Reclaimed Water Reuse N/A
- (13) Limited Wet Weather Discharge Activated
☐ Yes ☐ No ☒ Not Applicable
- (14) Cumulative Days of Wet Weather Discharge N/A
- (15) Plant Staffing
 Day Shift Operator Class C Cert. No. 8197
 Evening Shift Operator Class _____ Cert. No. _____
 Night Shift Operator Class _____ Cert. No. _____
 Lead Operator James A. Bunsawick 8197
 Signature _____ Cert. No. _____

Parameter	Units	STORET Code	Value
(16) Monthly average daily flow	mgd	050053	0.20
(17) Permitted capacity	mgd	-	0.30
(18) Three-month average daily flow	mgd	-	0.19
(19) Percent of permitted capacity	%	-	57%
(20) CBOD ₅ Effluent	mg/L	080082	6.7
(21) CBOD ₅ Effluent	lbs/day	-	N/A
(22) TSS Effluent	mg/L	900201	2.9
(23) TSS Effluent	lbs/day	-	N/A
(24) Minimum pH		-	7.1
(25) Maximum pH		-	8.4
(26) Total N	mg/L	000600	1.9
(27) TKN	mg/L	000625	1.8
(28) Ammonia (NH ₃ - N)	mg/L	000610	0.057
(29) Nitrate	mg/L	071850	0.28
(30) Total Phosphorus	mg/L	000665	5.8
(31) Minimum Chlorine Residual	mg/L	-	.5
(32) Maximum Chlorine Residual	mg/L	-	2.2
(33) Other Effluent Parameters			N/A
<u>COD</u>	<u>mg/L</u>		<u>65.4</u>

O&M Form 17-60180078
 Orange County Wastewater Treatment Plant
 Permit Title Monthly Operating Report
 Effective Date July 1, 1991
 O&M Approval No. / Rec'd by O&M

SOLID WASTE LEACHATE TREATMENT FACILITY Monthly Operating Report

Month Oct Year 1997

Day of the Month	Flow (mgd)	Chlorine Residual after Contact	Chlorine Residual after Dechlorination	CBOD ₅ Influent (mg/L)	TSS Influent (mg/L)	CBOD ₅ Effluent (mg/L)	TSS Effluent (mg/L)	pH Effluent	TKN Effluent (mg/L)	NH ₃ - N Effluent (mg/L)	Nitrate Effluent (mg/L)	Total P Effluent (mg/L)	Fecal Coliform (#/100ml)	COD	TOTAL N						
1	22064	.5						7.8													
2	28792	1.2				4.0	<5.0	8.2	1.1	0.66	0.20	6.8	<1.0	42	1.3						
3	21131	.9						8.2													
4	26736	.7						7.8													
5	N/R							7.8													
6	53256	.7						7.7													
7	20849	.6						7.9													
8	24237	.7						7.7													
9	27227	.5				9.1	5.5	8.3	1.4	<0.05	<0.6	5.2	<1.0	45	1.4						
10	26574	.7						7.6													
11	15612	.7						7.6													
12	N/R																				
13	19281	.5						7.3													
14	N/R							7.6													
15	19813	.5				5.2	2.0	8.4	2.4	0.067	0.35	5.6	4.0	120	2.75						
16	12649	.7						8.1													
17	23252	.7						7.1													
18	17527	.5						7.3													
19	N/R																				
20	22154	1.2						7.9													
21	7086	2.2						7.8													
22	15207	1.2				11	ND	8.2	2.5	ND	0.14	5.7	ND	81	2.6						
23	13960	.9						8.3													
24	15690	.9						8.3													
25	10899	.5						8.2													
26	N/R																				
27	23239	1.3						8.1													
28	8053	1.9						8.1													
29	13843	2.2				4.1	<2.0	7.85	1.4	<0.05	0.12	5.5	12	39	1.5						
30	26030	.9						7.5													
31	16418	2.2						7.6													

Lead Operator: This is to certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief, this information is true, complete and accurate.

Signed: James A. Brunswick
 Name (Please Type) James A. Brunswick
 Company Name Citrus County Utility Division

Date: _____
 Telephone No. (Please Type) _____

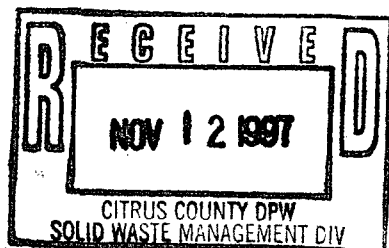
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in black ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in black ink, positioned above a horizontal line.

November 5, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY

CITRUS COUNTY CENTRAL LANDFILL

PARAMETER MONITORING REPORT

Rule 62-522.600 (11)

GMS # 4009C00086

Sample Date/Lab ID: 10/029/97 75780001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: Leachate

Test Site Name: Leachate

2478

Sample Method: Grab, where applicable



Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered / Unfiltered	Preservative Added
004000	pH	150.1	10/31/97	7.85	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	10/31/97	< 2.0	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	10/31/97	0.12	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	10/31/97	< 0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	10/31/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	11/02/97	1.4	mg/L	1.0	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	11/05/97	1.5	mg/L	N/A	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	11/02/97	5.5	mg/L	0.50	U	H ₂ SO ₄
000340	COD	410.4	11/04/97	39	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	10/30/97	4.1	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	10/29/97	12	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: P.O. Box 340
Levento, FL 34460
 PHONE: 904-746-5000
 FAX: 904-527-1204
 CLIENT CONTACT: Jim Brunswick
 PURCHASE ORDER #:

DATE NEEDED:
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate
 HBOI W/O & HPN: 5780

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION**
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No X If Yes,

SAMPLED BY: L. Gallagher
 DATE: 10/29/97
 TIME:
 METHOD OF SHIPMENT: Q
 COOLER NO.(s)

G = Grab
 C = Composite
 O = Other

MATRIX		PRESERVATION KEY		ANALYSES REQUESTED										COMMENTS
KEY		H = Hydrochloric Acid N = Nitric Acid S = Sulfuric Acid SH = Sodium Hydroxide P = Phosphoric Acid ST = Sodium Thiosulfate U = None / Unpreserved		<div>Ph CBOD, TSS Nitrate, Nitrite COD, TP, NH3 TKN, TN</div>										
MATRIX	#	PRESERVATIVE →		U	H2SO4									
		SAMPLE LOCATION ↓												
WW	3	Leachate		2	1								Cond PH Temp 1926 6.81 19.62	
							</							

RELINQUISHED BY: <i>[Signature]</i>	DATE: <u>10/30/97</u>	RECEIVED BY:	DATE:
	TIME: <u>0930</u>		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:
RELINQUISHED BY:	DATE:	RECEIVED FOR LAB BY:	DATE: <u>10.30.97</u>
	TIME:	LAB NAME: <u>R. North</u>	TIME: <u>0930</u>

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in black ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in black ink, positioned above a horizontal line.


OCTOBER 30, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

Due to a dilution of the matrix spike and matrix spike duplicate, precision could not be determined for Total Kjeldahl Nitrogen and Total Phosphorus. Accuracy was demonstrated in the laboratory control sample for both analyses.


Eric Charest
Quality Assurance Manager

CITRUS COUNTY CENTRAL LANDFILL**PARAMETER MONITORING REPORT**

Rule 62-522.600 (11)

GMS # 4009C00086Sample Date/Lab ID: 10/022/97 75615001

Test Site #: _____

Site Type: ☐ Background
☐ Site Boundary
☐ Intermediate
☐ Compliance
☒ Other: LeachateTest Site Name: LeachateSample Method: Grab, where applicable

Storet Code	Parameter Monitored	Analysis Method	Analysis Date	Analysis Result	Units	Practical Quant. Level	Sample Filtered /Unfiltered	Preservative Added
004000	pH	150.1	10/24/97	8.2	S.U.	0.20	--	--
900201	Total Suspended Solids	160.2	10/23/97	< 2.0	mg/L	2.0	U	None
000620	Nitrate-Nitrogen	300.0	10/24/97	0.14	mg/L	0.060	U	None
000620	Nitrite-Nitrogen	300.0	10/24/97	< 0.044	mg/L	0.044	U	None
000610	Ammonia-Nitrogen	350.1	10/28/97	< 0.050	mg/L	0.050	U	H ₂ SO ₄
000625	Total Kjeldahl Nitrogen	351.2	10/28/97	2.5	mg/L	2.0	U	H ₂ SO ₄
000600	Total Nitrogen	351.2	10/30/97	2.6	mg/L	0.20	U	H ₂ SO ₄
000665	Total Phosphorus	365.4	10/26/97	5.7	mg/L	0.50	U	H ₂ SO ₄
000340	COD	410.4	10/28/97	81	mg/L	5.0	U	H ₂ SO ₄
80082	CBOD5	SM5210 B	10/23/97	11	mg/L	2.0	U	None
031616	Fecal Coliform	SM9222 D	10/22/97	< 1.0	CFU/100mL	1.0	U	Na ₂ S ₂ O ₃

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill
 ADDRESS: _____
 PHONE: _____
 FAX: _____
 CLIENT CONTACT: Susan Metcalf
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: Citrus County Landfill
 PROJECT NAME / #: Weekly Leachate Sample
 HBOI W/O & HPN: 15615

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No X If Yes, _____

SAMPLED BY: 10/22/97 LG
 DATE: _____
 TIME: _____
 METHOD OF SHIPMENT: Courier
 COOLER NO.(s): _____

G = Grab
 C = Composite
 O = Other

MATRIX KEY	PRESERVATION KEY
S = Solid	H = Hydrochloric Acid
SL = Sludge	N = Nitric Acid
DW = Drinking	S = Sulfuric Acid
GW = Ground	SH = Sodium Hydroxide
SW = Surface	P = Phosphoric Acid
WW = Waste	ST = Sodium Thiosulfate
	U = None / Unpreserved

ANALYSES REQUESTED

FIELD ID	SAMPLING		SAMPLE TYPE	MATRIX	#	PRESERVATIVE → SAMPLE LOCATION ↓	<div style="display: flex; justify-content: space-between; font-size: small;"> Fecal Coliform PH, CBOD, TSS NO₂, NO₃, Cond COD, T-phos NH₃, TKN, TN </div>								COMMENTS
	DATE	TIME					Na ₂ S ₂ O ₃	U	H ₂ SO ₄						
	10/22	1000	G	WW	4	Leachate	1	2	1						PH Cond Temp 8.13 2003 26.1

RELINQUISHED BY: <u>Christy Hallag</u>	DATE: <u>10/22/97</u>	RECEIVED BY: _____	DATE: _____
	TIME: <u>1400</u>		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: _____	DATE: <u>10-22-97</u>
	TIME: _____		TIME: <u>1400</u>
LAB NAME: <u>Bridgeport</u>			

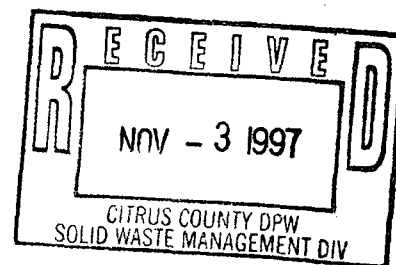
**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**



**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink, positioned above a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink, positioned above a horizontal line.

**OCTOBER 22, 1997 - WEEKLY
OCTOBER 30, 1997 - QUARTERLY**



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

HBEL Sample ID: 75451001

Facility GMS #: 4009C00086

Sampling Date/Time: 10/15/97 11:45

Test Site ID#: N/A

Report Period: 1997/Weekly

Test Site Name: Leachate Effluent

Well Purged (Y/N): _____

Classification of Ground Water: _____

Well Type: _____

Background
Intermediate
Compliance
Other

Ground Water Elevation (NGVD): _____ (ft)
or (MSL): _____

2478

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Units	Detection Limits	Units
004000	pH	G	N	EPA 150.1	10/17/97	8.4	S.U.	0.20	S.U.
900201	Total Suspended Solids	G	N	EPA 160.2	10/17/97	2.0	mg/L	1.0	mg/L
000620	Nitrate-Nitrogen	G	N	EPA 300.0	10/17/97	0.35	mg/L	0.06	mg/L
000620	Nitrite-Nitrogen	G	N	EPA 300.0	10/17/97	< 0.04	mg/L	0.04	mg/L
000610	Ammonia-Nitrogen	G	N	EPA 350.1	10/21/97	0.067	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/20/97	2.4	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/20/97	2.75	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/20/97	5.6	mg/L	0.50	mg/L
000340	COD	G	N	EPA 410.4	10/21/97	120	mg/L	5.0	mg/L
080082	CBOD5	G	N	SM5210 B	10/17/97	5.2	mg/L	2.0	mg/L
031616	Fecal Coliform	G	N	SM9222 D	10/17/97	4.0	CFU/100mL	1.0	CFU/100mL

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS#: 4009C00086

Test Site ID#: _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N): _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

Ground Water Elevation (NGVD): _____

or (MSL): _____

Well Type: ☒ Background
☒ Intermediate
☒ Compliance
☒ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
004000	pH	G	N	EPA 150.1	10/17/97 15:36	8.4	SU	0.20	SU
070304	Total Dissolved Solids	G	N	EPA 160.1	10/16/97 20:10	1000	mg/L	20	mg/L
900201	Total Suspended Solids	G	N	EPA 160.2	10/17/97 9:20	2.0	mg/L	1.0	mg/L
000940	Chloride	G	N	EPA 300.0	10/17/97 11:30	400	mg/L	15	mg/L
000620	Nitrate	G	N	EPA 300.0	10/17/97 10:55	0.35	mg/L	0.060	mg/L
000620	Nitrite	G	N	EPA 300.0	10/17/97 10:55	ND	mg/L	0.044	mg/L
000610	Ammonia	G	N	EPA 350.1	10/21/97 11:11	0.067	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/20/97 15:37	2.4	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/22/97 11:27	2.7	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/20/97 15:37	5.6	mg/L	0.50	mg/L
000340	COD	G	N	EPA 410.4	10/21/97 11:00	120	mg/L	5.0	mg/L
032101	Bromodichloromethane	G	N	EPA 601	10/21/97 14:42	8.3	ug/L	1.0	ug/L
032104	Bromoform	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
032106	Chloroform	G	N	EPA 601	10/21/97 14:42	2.4	ug/L	1.0	ug/L
081521	Dibromochloromethane	G	N	EPA 601	10/21/97 14:42	20	ug/L	1.0	ug/L
082080	Total THMs	G	N	EPA 601	10/21/97 14:42	51	ug/L	1.0	ug/L
034030	Benzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034371	Ethylbenzene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
034010	Toluene	G	N	EPA 602	10/21/97 14:42	ND	ug/L	1.0	ug/L
081551	Total Xylenes	G	N	EPA 602	10/21/97 14:42	1.8	ug/L	1.0	ug/L
031616	Fecal Coliform	G	N	SM9222 D	10/15/97 16:26	4.0	CFU/100mL	1.0	CFU/100mL
001002	Arsenic	G	N	SW-846 6010	10/22/97 9:45	0.0099	mg/L	0.0050	mg/L
001007	Barium	G	N	SW-846 6010	10/22/97 9:45	0.012	mg/L	0.010	mg/L
001027	Cadmium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

Facility GMS# : 4009C00086

Test Site ID# : _____

Well Name: Leachate Effluent

Classification of Ground Water: _____

Ground Water Elevation (NGVD) : _____

or (MSL): _____

HBEL Sample ID: 75451001

Sampling Date/Time: 10/15/97 11:45

Report Period: Quarterly October 1997

Well Purged (Y/N) : _____

Well Type: ☒ Background
☐ Intermediate
☐ Compliance
☐ Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date/Time	Analysis Result/Units		Detection Limits/Units	
001034	Chromium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0020	mg/L
001045	Iron	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.040	mg/L
001051	Lead	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0030	mg/L
001147	Selenium	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0050	mg/L
001077	Silver	G	N	SW-846 6010	10/22/97 9:45	ND	mg/L	0.0010	mg/L
000929	Sodium	G	N	SW-846 6010	10/22/97 9:45	270	mg/L	1.0	mg/L
007900	Mercury	G	N	SW-846 7470	10/22/97 14:15	ND	mg/L	0.00050	mg/L
077651	1,2-Dibromoethane	G	N	SW-846 8011	10/21/97 11:46	ND	ug/L	0.019	ug/L

PAGE \ OF \

CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County Landfill Leachate
 ADDRESS: _____
 PHONE: _____
 FAX: _____
 CLIENT CONTACT: Susan Metcalf
 PURCHASE ORDER #: _____

DATE NEEDED: _____
 CLIENT PROJECT: _____
 PROJECT NAME / #: Quarterly Effluent
 HBOI W/O & HPN: 3451

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes No X If Yes, _____

SAMPLED BY: L. Gerken
 DATE: 10/15/97
 TIME: _____
 METHOD OF SHIPMENT: Courier
 COOLER NO.(s) 48-122

G = Grab
 C = Composite
 O = Other

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED												COMMENTS
Metals	601 (THM5)	602 (BTEX)	801 EDB	Fe	Caliform	Chloride	PH	500 D.TSS	NO ₂	NO ₃	NH ₃ TN	
MNO ₃	HCl	U	N ₂ Thio	U	Sulfuric							
1	3 ^{EDL}	3	1	1	1							Cond PH Temp 1927 7.63 27.5

RELINQUISHED BY: <u>[Signature]</u>	DATE: <u>10/15/97</u>	RECEIVED BY: _____	DATE: _____
	TIME: <u>15:53</u>		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: <u>[Signature]</u>	DATE: <u>10/15/97</u>
	TIME: _____		TIME: <u>1553</u>

030497

Page 2 of 2[illegible]

Field Data Sheet

1 of 2

Sampler(s) Craig Martin Date 10/15 Sample Time _____ Field ID# _____
Project Name Citrus County Landfill

Sample Type (circle one): WW SW GW DW ReagWtr. Sludge Sediment Soil Other
Sample Site Identification Leachate

Sampling Method: Grab Composite Monitoring Well: Bailer Pump
Sampling Equipment: None
Site and Weather Conditions Partly cloudy, warm

Field Instrument Beginning Calibration

pH meter Yes No Buffer 4.0 _____ 7.0 6.99 10.0 9.97 Slope
Conductivity meter Yes No Buffer 147 _____ 1414 _____ 12900 _____ 97.6
Turbidity meter Yes No Buffer 0.5 _____ 5.0 _____ 20 _____
DO meter Yes No Temp C° _____ Adjust _____ from _____

Field Filtered: Yes No Duplicate: Yes No Field Decontamination: Yes No

Parameter	Sample Containers	pH Check
Nutrient	Plastic - H ₂ SO ₄	<2 ✓
Metals	Plastic - HNO ₃	<2
Sulfide	Plastic - NaOH / Zn Acetate	>12
Cyanide	Plastic - NaOH / (NO Sulfide) / Ascorbic Acid	>12
Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res.)	
Oil and Grease	Glass - HCl	<2
TRPH	Glass - HCl	<2
VOA	Glass - HCl	<2
SVOC	Glass - (DRW NO Chlorine Res.)	
Other Phenols	Glass - H ₃ PO ₄	<2
Other		

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH meter Yes No Buffer 4.0 _____ 7.0 _____ 10.0 _____
Conductivity meter Yes No Buffer 147 _____ 1414 _____ 12900 _____
Turbidity meter Yes No Buffer 0.5 _____ 5.0 _____ 20 _____
DO meter Yes No Temp C° _____ Adjust _____ from _____

General Site Information/Comments A copy of the chain of custody
was left at the front office for Jim Brunswick.

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**

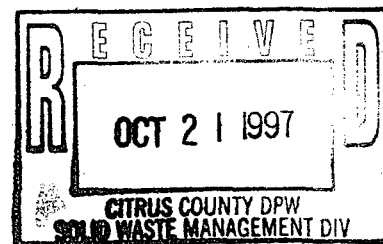


5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**



**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**

**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in dark ink over a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in dark ink over a horizontal line.

OCTOBER 16, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

HBEL Sample ID: 75272001

Facility GMS #: 4009C00086

Sampling Date/Time: 10/09/97 75272001

Test Site ID#: N/A

Report Period: 1997/Weekly

Test Site Name: Leachate Effluent

Well Purged (Y/N): _____

Classification of Ground Water: _____

Well Type: _____

Background
Intermediate
Compliance
Other

Ground Water Elevation (NGVD): _____ (ft)
or (MSL): _____

756~

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Units	Detection Limits	Units
004000	pH	G	N	EPA 150.1	10/13/97	8.3	S.U.	0.20	S.U.
900201	Total Suspended Solids	G	N	EPA 160.2	10/11/97	5.5	mg/L	5.0	mg/L
000620	Nitrate-Nitrogen	G	N	EPA 300.0	10/11/97	< 0.60	mg/L	0.60	mg/L
000620	Nitrite-Nitrogen	G	N	EPA 300.0	10/11/97	< 0.44	mg/L	0.44	mg/L
000610	Ammonia-Nitrogen	G	N	EPA 350.1	10/13/97	< 0.050	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/14/97	1.4	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/15/97	1.4	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/14/97	5.2	mg/L	0.50	mg/L
000340	COD	G	N	EPA 410.4	10/13/97	45	mg/L	5.0	mg/L
080082	CBOD5	G	N	SM5210 B	10/10/97	9.1	mg/L	2.0	mg/L
031616	Fecal Coliform	G	N	SM9222 D	10/09/97	< 1.0	CFU/100mL	1.0	CFU/100mL

Field Data Sheet

Sampler (s) Dienot Date 10/9/97 Sample Time _____ Field ID# 1
Project Name Citrus Co

Sample Type (circle one): WW SW GW DW ReagWtr Sludge Sediment Soil Other
Sample Site Identification Leachate Effluent

Sampling Method: Grab Composite Monitoring Well: Bailer Pump

Sampling Equipment: _____

Site and Weather Conditions Sunny; mild; E. wind @ 5-10; dry

Field Instrument Beginning Calibration

pH meter Yes No Buffer 4.0 7.0 6.99 10.0 10.00 Slope =
Conductivity meter Yes No Buffer 147 1414 1412-1413 12900 97.4
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from

Field Filtered: Yes No Duplicate: Yes No Field Decontamination: Yes No

Parameter	Sample Containers	pH Check
Nutrient	Plastic - H ₂ SO ₄	<2
Metals	Plastic - HNO ₃	<2
Sulfide	Plastic - NaOH / Zn Acetate	>12
Cyanide	Plastic - NaOH / (NO Sulfide) / Ascorbic Acid	>12
Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res.)	
Oil and Grease	Glass - HCl	<2
TRPH	Glass - HCl	<2
VOA	Glass - HCl	<2
SVOC	Glass - (DRW NO Chlorine Res.)	
Other Phenols	Glass - H ₂ PO ₄	<2
Other		

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH meter Yes No Buffer 4.0 7.0 6.99 10.0 9.99 Slope =
Conductivity meter Yes No Buffer 147 1414 1413-1413 12900 99.4
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from

General Site Information/Comments _____

Project Name Citrus Co.
Date 10-9-97 Leachate Weekly

Page 1 of 1

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CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County
 ADDRESS: _____
 PHONE: _____
 FAX: _____
 CLIENT CONTACT: _____
 PURCHASE ORDER #: _____

DATE NEEDED: Normal TAT
 CLIENT PROJECT: _____
 PROJECT NAME / #: Leachate - Weekly
 HBOI W/O & HPN: 5272

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes ☒ No ☐ If Yes, _____

SAMPLED BY: Dienst
 DATE: 10/9/97
 TIME: _____
 METHOD OF SHIPMENT: Courier
 COOLER NO.(s) _____

G = Grab
 C = Composite
 O = Other

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED									
<div>Fecal PH, CBOD, TSS; NO₂, NO₃ COD, NH₃ Tot. P, TKN</div>									
							COMMENTS		
ST	U	S					PH:	SC:	T
1	1	1					7.25	1500	21

RELINQUISHED BY**: <u>D. Dienstberger</u>	DATE: <u>10/9/97</u> TIME: <u>13:10</u>	RECEIVED BY:	DATE:
RELINQUISHED BY:	DATE: <u>13:10</u> TIME:	RECEIVED BY:	DATE:
RELINQUISHED BY:	DATE: TIME:	RECEIVED FOR LAB BY: <u>R. Nath</u>	DATE: <u>10-9-97</u> TIME: <u>1310</u>

**HARBOR BRANCH
ENVIRONMENTAL LABORATORY**



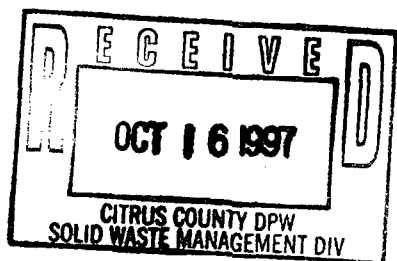
5600 U.S. 1 NORTH
FORT PIERCE, FLORIDA 34946

(561) 465-2400, Ext. 285 or 448
FAX (561) 467-1584

**ANALYTICAL REPORT FOR:
CITRUS COUNTY CENTRAL LANDFILL
LEACHATE SAMPLE
GMS # 4009C00086**

**PRESENTED TO:
CATHY WINTER**

**ANALYSIS BY:
HARBOR BRANCH ENVIRONMENTAL LABORATORY
CompQAP #870174G
HRS #E96080/96230**



**PROJECT MANAGER:
DON HASH**

A handwritten signature of Don Hash, written in black ink over a horizontal line.

**LABORATORY DIRECTOR:
N. MYRON GUNSALUS, JR.**

A handwritten signature of N. Myron Gunsalus, Jr., written in black ink over a horizontal line.

OCTOBER 10, 1997



Quality Control Summary

- **Laboratory Blank:** All analytes were below Reporting Detection Limits (RDL).
- **Laboratory Control Sample:** Recoveries for analytes were within laboratory accuracy limits.
- **Matrix Spike/Matrix Spike Duplicate:** Recoveries for analytes were within laboratory precision and accuracy limits.
- **Sample Duplicate:** Analysis data demonstrated acceptable reproducibility of laboratory processes.

HARBOR BRANCH ENVIRONMENTAL LABORATORY



PART III ANALYTICAL RESULTS

HBEL Sample ID: 75127001

Facility GMS #: 4009C00086

Sampling Date/Time: 10/02/97 75127001

Test Site ID#: _____

Report Period: 1997/Weekly

Well Name: Leachate

Well Purged (Y/N): _____

Classification of Ground Water: _____

Well Type: ☐ Background
☐ Intermediate
☐ Compliance
☐ Other

Ground Water Elevation (NGVD): _____ (ft)
or (MSL): _____

Storet Code	Parameter Monitored	Sampling Method	Field Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Units	Detection Limits	Units
004000	pH	G	N	EPA 150.1	10/03/97	8.2	S.U.	0.20	S.U.
900201	Total Suspended Solids	G	N	EPA 160.2	10/06/97	< 5.0	mg/L	5.0	mg/L
000620	Nitrate-Nitrogen	G	N	EPA 300.0	10/04/97	0.20	mg/L	0.060	mg/L
000620	Nitrite-Nitrogen	G	N	EPA 300.0	10/04/97	< 0.044	mg/L	0.044	mg/L
000610	Ammonia-Nitrogen	G	N	EPA 350.1	10/07/97	0.066	mg/L	0.050	mg/L
000625	Total Kjeldahl Nitrogen	G	N	EPA 351.2	10/09/97	1.1	mg/L	0.20	mg/L
000600	Total Nitrogen	G	N	EPA 351.2	10/10/97	1.3	mg/L	0.20	mg/L
000665	Total Phosphorus	G	N	EPA 365.4	10/09/97	6.8	mg/L	2.0	mg/L
000340	COD	G	N	EPA 410.4	10/05/97	42	mg/L	5.0	mg/L
80082	CBOD5	G	N	SM5210 B	10/03/97	4.0	mg/L	2.0	mg/L
031616	Fecal Coliform	G	N	SM9222 D	10/02/97	< 1.0	CFU/100mL	1.0	CFU/100mL

Field Data Sheet

Sampler(s) Dierst / Gallagher Date 10/2/97 Sample Time 11:08 Field ID# 1
Project Name Crystal R. Landfill (Citrus Co.)

Sample Type (circle one) WW ~~SW~~ ~~GW~~ ~~DW~~ ReagWtr. Sludge Sediment Soil Other
Sample Site Identification Leachate

Sampling Method: Grab Composite Monitoring Well: Bailer Pump

Sampling Equipment: _____

Site and Weather Conditions Sunny, warm, dry, calm

Field Instrument Beginning Calibration

pH meter Yes No Buffer 4.0 7.0 6.99 10.0 9.99 Slope =
Conductivity meter Yes No Buffer 147 1414 1406-1413 12900 98.3
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from

Field Filtered: Yes No Duplicate: Yes No Field Decontamination: Yes No

Parameter	Sample Containers	pH Check
Nutrient	Plastic - H ₂ SO ₄	<2
Metals	Plastic - HNO ₃	<2
Sulfide	Plastic - NaOH / Zn Acetate	>12
Cyanide	Plastic - NaOH / (NO Sulfide) / Ascorbic Acid	>12
Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res.)	
Oil and Grease	Glass - HCl	<2
TRPH	Glass - HCl	<2
VOA	Glass - HCl	<2
SVOC	Glass - (DRW NO Chlorine Res.)	
Other Phenols	Glass - H ₃ PO ₄	<2
Other		

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH meter Yes No Buffer 4.0 7.0 6.99 10.0 9.99 Slope =
Conductivity meter Yes No Buffer 147 1414 1416-1413 12900 97.9
Turbidity meter Yes No Buffer 0.5 5.0 20
DO meter Yes No Temp C° Adjust from

General Site Information/Comments _____

Project Name Citrus Co. (Crystal R.) Landfill
Date 10/2/97

Page 1 of 1

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CHAIN OF CUSTODY RECORD
The ENVIRONMENTAL LABORATORY at Harbor Branch
 5600 U. S. 1 North, Ft. Pierce, FL 34946 • (561) 465-2400, Ext. 285 • Fax (561) 467-1584

COMPANY: Citrus County
 ADDRESS: _____
 PHONE: _____
 FAX: _____
 CLIENT CONTACT: _____
 PURCHASE ORDER #: _____

DATE NEEDED: Normal TAT
 CLIENT PROJECT: _____
 PROJECT NAME / #: Leachate Sample
 HBOI W/O & HPN: 5127

SPECIAL INSTRUCTIONS:
☐ RUSH in BUSINESS DAYS
SAMPLE SAFETY INFORMATION **:
 Are there any other known or suspected safety hazards associated with these samples other than those listed below?
 Yes ☐ No ☒ If Yes, _____

SAMPLED BY: Gallagher / Dienst
 DATE: 10-2-97
 TIME: _____
 METHOD OF SHIPMENT: Courier
 COOLER NO.(s) _____

MATRIX KEY
 S = Solid
 SL = Sludge
 DW = Drinking
 GW = Ground
 SW = Surface
 WW = Waste

PRESERVATION KEY
 H = Hydrochloric Acid
 N = Nitric Acid
 S = Sulfuric Acid
 SH = Sodium Hydroxide
 P = Phosphoric Acid
 ST = Sodium Thiosulfate
 U = None / Unpreserved

ANALYSES REQUESTED

SAMPLING			SAMPLE	#	PRESERVATIVE →	U	ST	S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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RELINQUISHED BY**: <u>D. Dienstberger</u>	DATE: <u>10-2-97</u>	RECEIVED BY: _____	DATE: _____
	TIME: <u>16:00</u>		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED BY: _____	DATE: _____
	TIME: _____		TIME: _____
RELINQUISHED BY: _____	DATE: _____	RECEIVED FOR LAB BY: _____	DATE: <u>10-02-97</u>
	TIME: _____	LAB NAME: <u>D. Dienstberger</u>	TIME: <u>1600</u>