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January 4, 2012

Mr. John Morris, P.G.  
Florida Department of Environmental Protection  
Southwest District Office - Solid Waste Section  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637-0926

Dept. of Environmental  
Protection  
JAN 05 2012  
Southwest District

**Re: Manatee County Lena Road Landfill  
Monthly Report – December 2011**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2011 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

An inward gradient was present in the Stage I Landfill and the Stage III Landfill.

If you should have any questions concerning this report, please call me at 407/806-4153.

Sincerely,

Joe Miller, P.E.  
Senior Project Manager

Attachments

cc: Mike Gore, Manatee County Solid Waste Division Manager  
Bryan White, Manatee County Landfill Superintendent  
Anthony Detweiler, Manatee County Landfill Operations Supervisor  
File – 120498.94 0100

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# EXHIBIT A

## MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY

### LENA ROAD LANDFILL

#### MONTHLY WATER BALANCE REPORT

**DECEMBER, 2011**

A	B	C	D	E	F	G	H
DATE	LEACHATE STAGE I Lift Station 1 (gallons)	LEACHATE STAGE I Lift Station 2 (gallons)	LEACHATE STAGE I TOTAL (gallons)	LEACHATE STAGE III TOTAL (gallons)	TOTAL LEACHATE PUMPED (gallons)	RAINFALL (Inches)	RAINFALL (gallons)
01-Dec-11	12,330	8,610	20,940	4,200	25,140	0.00	0
02-Dec-11	10,750	8,250	19,000	5,600	24,600	0.00	0
03-Dec-11	0	0	0	0	0	0.00	0
04-Dec-11	0	0	0	0	0	0.00	0
05-Dec-11	44,100	20,920	65,020	18,700	83,720	0.00	0
06-Dec-11	16,160	4,980	21,140	7,400	28,540	0.00	0
07-Dec-11	17,300	5,720	23,020	7,400	30,420	0.08	364,977
08-Dec-11	13,280	4,570	17,850	5,700	23,550	0.00	0
09-Dec-11	15,440	12,650	28,090	7,400	35,490	0.00	0
10-Dec-11	0	0	0	0	0	0.00	0
11-Dec-11	0	0	0	0	0	0.10	456,221
12-Dec-11	41,900	17,870	59,770	18,600	78,370	0.00	0
13-Dec-11	12,940	8,660	21,600	5,500	27,100	0.00	0
14-Dec-11	11,200	6,210	17,410	5,700	23,110	0.00	0
15-Dec-11	12,910	3,410	16,320	8,900	25,220	0.00	0
16-Dec-11	13,350	580	13,930	6,800	20,730	0.00	0
17-Dec-11	0	0	0	0	0	0.00	0
18-Dec-11	0	0	0	0	0	0.00	0
19-Dec-11	36,630	12,570	49,200	22,400	71,600	0.00	0
20-Dec-11	13,330	4,010	17,340	8,900	26,240	0.00	0
21-Dec-11	13,210	7,450	20,660	7,300	27,960	0.00	0
22-Dec-11	14,180	6,090	20,270	5,500	25,770	0.00	0
23-Dec-11	12,850	1,660	14,510	8,700	23,210	0.00	0
24-Dec-11	0	0	0	0	0	0.00	0
25-Dec-11	0	0	0	0	0	0.00	0
26-Dec-11	35,950	11,920	47,870	23,400	71,270	0.00	0
27-Dec-11	14,480	2,710	17,190	6,800	23,990	0.20	912,443
28-Dec-11	12,540	4,020	16,560	7,200	23,760	0.00	0
29-Dec-11	12,350	6,750	19,100	7,000	26,100	0.00	0
30-Dec-11	12,490	7,770	20,260	7,000	27,260	0.00	0
31-Dec-11	0	0	0	0	0	0.00	0
<b>TOTAL</b>	<b>399,670</b>	<b>167,380</b>	<b>567,050</b>	<b>206,100</b>	<b>773,150</b>	<b>0.38</b>	<b>1,733,641</b>
Leachate Pumped as Percentage of Rainfall			53.9%	30.3%			

**Column Notes:**

- A - Date of reading.
- B - Leachate pumped (gallons) from Stage I by lift station 1.
- C - Leachate pumped (gallons) from Stage I by lift station 2.
- D - Total Stage I leachate pumpage (B+C).
- E - Leachate pumped (gallons) from Stage III.
- F - Total leachate pumped to WWTP storage tank (D+E).
- G - Rainfall (inches) recorded on this date.
- H - Rainfall (gallons) calculated based on open area (G x Area x 27,156 gal/acre-in).

	Stage I (acres)	Stage III (acres)	TOTAL (acres)
Initial Cover	--	66.0	66.0
Intermediate Cover	102.0	--	102.0
Closed	30.0	--	30.0
<b>TOTAL</b>	<b>132.0</b>	<b>66.0</b>	<b>198.0</b>
<b>Open Area</b>	<b>102.0</b>	<b>66.0</b>	<b>168.0</b>

**Comments**

## EXHIBIT B

### MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY LENA ROAD LANDFILL MONTHLY LEACHATE TRACKING SUMMARY -- 2011

	B	C	D	E	F	G	H
MONTH	STAGE I	STAGE III	TOTAL			STAGE I	STAGE III
	LEACHATE	LEACHATE	LEACHATE	RAINFALL	RAINFALL	LEACHATE/ RAINFALL	LEACHATE /RAINFALL
	(gallons)	(gallons)	(gallons)	(inches)	(gallons)	(%)	(%)
JANUARY	563,230	153,700	716,930	3.67	16,743,322	5.5%	2.3%
FEBRUARY	463,860	61,000	524,860	0.97	4,425,347	17.3%	3.5%
MARCH	522,550	237,300	759,850	8.59	39,189,410	2.2%	1.5%
APRIL	666,280	305,100	971,380	2.93	13,367,284	8.2%	5.8%
MAY	559,070	477,800	1,036,870	1.11	5,064,056	18.2%	24.0%
JUNE	463,120	642,500	1,105,620	5.21	23,769,130	3.2%	6.9%
JULY	333,160	348,300	681,460	6.57	29,973,740	1.8%	3.0%
AUGUST	760,350	84,100	844,450	7.17	32,711,067	3.8%	0.7%
SEPTEMBER	740,990	335,200	1,076,190	6.56	29,928,118	4.1%	2.9%
OCTOBER	674,600	331,100	1,005,700	3.53	16,104,612	6.9%	5.2%
NOVEMBER	632,210	221,900	854,110	0.84	3,832,259	27.2%	14.7%
DECEMBER	567,050	206,100	773,150	0.38	1,733,641	53.9%	30.3%
<b>TOTAL</b>	<b>6,946,470</b>	<b>3,404,100</b>	<b>10,350,570</b>	<b>47.53</b>	<b>216,841,986</b>	<b>5.3%</b>	<b>4.0%</b>

Notes:

1. (B) Total leachate pumped from Stage I.
2. (C) Total leachate pumped from Stage III.
3. (D) Total leachate (Column B+C) pumped to the WWTP storage tank.
4. (E) Total rainfall in inches.
5. (F) Total rainfall in gallons (Stage I and III Open Area of 168-acres x Rainfall)
6. (G) Stage I leachate pumped as a percentage of rainfall.
7. (H) Stage III leachate pumped as a percentage of rainfall.

**Landfill Stage Land Areas**

	Stage I	Stage III	TOTAL
	(acres)	(acres)	(acres)
Initial Cover	--	66.0	66.0
Intermediate Cov.	102.0	--	102.0
Closed	30.0	--	30.0
<b>TOTAL</b>	<b>132.0</b>	<b>66.0</b>	<b>198.0</b>
<b>Open Area</b>	<b>102.0</b>	<b>66.0</b>	<b>168.0</b>

## LECHATE DECEMBER 2011

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
12/1/11	6466391	3975180	2804045	33.63	DRY	OK	R.B.
12/2/11	6467466	3983430	2804101	33.62	DRY	OK	R.B.
12/5/11	6471876	4004350	2804288	33.58	DRY	OK	R.B.
12/6/11	6473492	4009330	2804362	33.57	DRY	OK	R.B.
12/7/11	6475222	4015050	2804436	33.56	DRY	OK	R.B.
12/8/11	6476550	4019620	2804493	33.55	DRY	OK	R.B.
12/9/11	6478094	4032270	2804567	33.53	DRY	OK	R.B.
12/12/11	6482284	4050140	2804753	33.51	DRY	OK	R.B.
12/13/11	6483578	4058800	2804808	33.50	DRY	OK	R.B.
12/14/11	6484698	406561	2804865	33.49	DRY	OK	T.C.
12/15/11	6485989	4068420	2804954	33.47	DRY	OK	R.B.
12/16/11	6487324	4069000	2805022	33.46	DRY	OK	R.B.
12/19/11	6490987	408157	2805246	33.40	DRY	OK	T.C.
12/20/11	6492320	408558	2805335	33.37	DRY	OK	TC.
12/21/11	6493641	4093030	2805408	33.37	DRY	OK	TC.
12/22/11	6495059	409912	2805463	33.36	DRY	OK	M.B.
12/23/11	6496344	41007800	2805550	33.35	DRY	OK	J.G.
12/26/11	6499939	4112760	2805784	33.28	DRY	OK	T.C.
12/27/11	6501387	4115410	2805852	33.29	DRY	OK	T.C.
12/28/11	6502641	4119430	2805924	33.29	DRY	OK	TC.
12/29/11	6503876	4126180	2805994	33.27	DRY	OK	TC.
12/30/11	6505125	4133950	2806064	33.25	DRY	OK	TC.
1/2/12	6508608	4155670	2806274	33.20	DRY	OK	TC.

Landfill

LANDFILL SHEET		
2011 Dec	RAIN FALL	LEACHATE MGD
1	0.00	0.004
2	0.00	0.004
3	0.00	0.005
4	0.00	0.006
5	0.00	0.006
6	0.00	0.005
7	0.08	0.006
8	0.00	0.004
9	0.00	0.005
10	0.00	0.005
11	0.10	0.005
12	0.00	0.004
13	0.00	0.007
14	0.00	0.006
15	0.00	0.006
16	0.00	0.006
17	0.00	0.005
18	0.00	0.005
19	0.00	0.006
20	0.00	0.008
21	0.00	0.007
22	0.00	0.007
23	0.00	0.006
24	0.00	0.006
25	0.00	0.006
26	0.00	0.006
27	0.20	0.006
28	0.00	0.004
29	0.00	0.005
30	0.00	0.005
31	0.00	0.004
TOTAL	0.38	0.170
AVG		0.005
MIN		
MAX	0.20	0.008

LAKE LEVEL DATA IN FEET NGVD	
SOUTH (86 ACRE)	EAST (63 ACRE)
38.50	32.10
38.50	32.00
38.50	31.80
38.50	31.70
38.50	31.30
38.30	31.20
38.50	30.90
38.30	30.90
39.60	30.60
39.50	30.70
39.40	30.50
39.40	30.30
39.30	30.40
39.30	30.30
39.00	30.30
38.90	30.30
38.90	30.30
38.80	30.30
38.70	29.40
38.50	28.70
38.30	28.30
38.30	27.80
38.20	27.80
38.10	27.50
37.90	26.80
37.80	26.60
37.70	26.60
37.70	26.40
37.60	27.30
37.60	27.60
37.50	27.60

Fax # 9-708-5668

FAXED

## FIGURE L-7

Manatee County Lena Road Landfill

# Monthly Groundwater Gradient Report

Month and Year: DECEMBER 2011

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	30.14	<i>inward</i>	GW-1	38.68	31.54
P-2	42.32	30.00	<i>inward</i>	GW-2	40.92	31.53
P-3	40.36	25.05	<i>inward</i>	GW-3	39.40	31.90
P-4	40.78	23.77	<i>inward</i>	GW-4	40.53	30.99
P-5	40.73	23.64	<i>inward</i>	GW-5	39.90	30.73
P-6	40.74	23.62	<i>inward</i>	GW-6	38.95	30.02
P-7	40.60	23.54	<i>inward</i>	GW-7	39.49	27.64
P-8	40.21	23.59	<i>inward</i>	GW-8	39.75	26.21
P-9	39.97	23.64	<i>inward</i>	GW-9	39.65	26.45
P-10	39.86	22.48	<i>inward</i>	GW-10	38.34	26.32
P-11	40.52	23.70	<i>inward</i>	GW-11	38.26	28.74
P-12	43.28	29.94	<i>inward</i>	GW-12	42.09	30.76
P-13	44.78	30.60	<i>inward</i>	GW-13	44.79	33.47
P-14	45.09	29.94	<i>inward</i>	GW-14	39.63	33.02
P-15	45.57	30.99	<i>inward</i>	GW-15	42.33	33.71
P-16	44.67	31.18	<i>inward</i>	GW-16	44.41	33.05
P-17	44.28	30.06	<i>inward</i>	GW-17	42.19	33.36

Comments:

Date Data Collected: December 21, 2011

Form Revised December 6, 2004