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March 5, 2013

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  
MAR 06 2013  
Southwest District

**Re: Manatee County Lena Road Landfill  
Monthly Report – February 2013**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2012 (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

**FEBRUARY, 2013**

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-Feb-13	10,390	4,330	14,720	7,800	22,520	0.00	0
02-Feb-13	0	0	0	0	0	0.00	0
03-Feb-13	0	0	0	0	0	0.00	0
04-Feb-13	46,990	19,880	66,870	25,500	92,370	0.00	0
05-Feb-13	17,050	7,760	24,810	10,400	35,210	0.00	0
06-Feb-13	17,640	5,340	22,980	8,900	31,880	0.00	0
07-Feb-13	15,420	4,320	19,740	7,400	27,140	0.00	0
08-Feb-13	19,220	1,080	20,300	10,100	30,400	0.03	136,866
09-Feb-13	0	0	0	0	0	0.00	0
10-Feb-13	0	0	0	0	0	0.00	0
11-Feb-13	39,250	11,950	51,200	22,700	73,900	0.00	0
12-Feb-13	16,300	2,560	18,860	8,700	27,560	0.00	0
13-Feb-13	19,090	1,400	20,490	8,800	29,290	0.04	182,489
14-Feb-13	17,320	2,130	19,450	8,800	28,250	0.28	1,277,420
15-Feb-13	14,820	4,150	18,970	8,900	27,870	0.15	684,332
16-Feb-13	0	0	0	0	0	0.18	821,198
17-Feb-13	0	0	0	0	0	0.00	0
18-Feb-13	0	0	0	0	0	0.00	0
19-Feb-13	50,480	27,580	78,060	30,300	108,360	0.00	0
20-Feb-13	17,840	3,950	21,790	10,200	31,990	0.00	0
21-Feb-13	15,630	5,620	21,250	7,400	28,650	0.00	0
22-Feb-13	16,740	3,010	19,750	8,700	28,450	0.00	0
23-Feb-13	0	0	0	0	0	0.00	0
24-Feb-13	0	0	0	0	0	0.00	0
25-Feb-13	51,820	1,390	53,310	25,300	78,610	0.53	2,417,973
26-Feb-13	19,530	440	19,970	10,500	30,470	0.00	0
27-Feb-13	14,530	930	15,460	7,700	23,160	0.00	0
28-Feb-13	12,900	3,960	16,860	7,400	24,260	0.00	0
	0	0	0	0	0	0.00	0
	0	0	0	0	0	0.00	0
	0	0	0	0	0	0.00	0
<b>TOTAL</b>	<b>433,060</b>	<b>111,780</b>	<b>544,840</b>	<b>235,500</b>	<b>780,340</b>	<b>1.21</b>	<b>5,520,278</b>
Leachate Pumped as Percentage of Rainfall			16.3%	10.9%			

**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 -- 2013

	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	620,550	296,600	917,150	0.73	3,330,416	30.7%	22.7%
FEBRUARY	433,060	111,780	544,840	1.21	5,520,278	12.9%	5.2%
MARCH			0		0		
APRIL			0		0		
MAY			0		0		
JUNE			0		0		
JULY			0		0		
AUGUST			0		0		
SEPTEMBER			0		0		
OCTOBER			0		0		
NOVEMBER			0		0		
DECEMBER			0		0		
<b>TOTAL</b>	<b>1,053,610</b>	<b>408,380</b>	<b>1,461,990</b>	<b>1.94</b>	<b>8,850,693</b>	<b>19.6%</b>	<b>11.7%</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>



LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2013 Feb	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.005	45.60	34.90
2	0.00	0.005	45.50	34.50
3	0.00	0.006	45.40	34.50
4	0.00	0.006	45.20	34.70
5	0.00	0.007	45.00	34.70
6	0.00	0.007	45.00	34.50
7	0.00	0.006	44.90	34.40
8	0.03	0.006	44.90	34.20
9	0.00	0.005	44.90	33.90
10	0.00	0.005	44.90	33.70
11	0.00	0.005	44.70	33.70
12	0.00	0.006	44.60	33.70
13	0.04	0.007	44.50	33.50
14	0.28	0.006	44.40	33.30
15	0.15	0.006	44.50	33.40
16	0.18	0.008	44.50	33.40
17	0.00	0.006	44.10	33.40
18	0.00	0.006	44.40	33.20
19	0.00	0.008	44.30	33.20
20	0.00	0.007	44.30	33.00
21	0.00	0.008	44.20	32.70
22	0.00	0.007	44.20	32.70
23	0.00	0.008	44.20	32.50
24	0.00	0.007	44.00	32.50
25	0.00	0.008	44.00	32.40
26	0.53	0.008	44.10	32.40
27	0.00	0.006	44.00	32.40
28	0.00	0.007	43.90	32.40
29				
30				
31				
TOTAL	1.21	0.182		
AVG		0.007		
MIN				
MAX	0.53	0.008		

Fax # 9-708-5668

**FIGURE L-7**

Manatee County Lena Road Landfill

**Monthly Groundwater Gradient Report**

Month and Year: FEBRUARY 2013

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	30.11	<i>inward</i>	GW-1	38.68	31.52
P-2	42.32	29.99	<i>inward</i>	GW-2	40.92	31.54
P-3	40.36	24.88	<i>inward</i>	GW-3	39.40	31.39
P-4	40.78	23.70	<i>inward</i>	GW-4	40.53	30.56
P-5	40.73	23.65	<i>inward</i>	GW-5	39.90	30.13
P-6	40.74	23.68	<i>inward</i>	GW-6	38.95	29.34
P-7	40.60	23.60	<i>inward</i>	GW-7	39.49	26.95
P-8	40.21	23.51	<i>inward</i>	GW-8	39.75	25.74
P-9	39.97	23.56	<i>inward</i>	GW-9	39.65	26.35
P-10	39.86	22.60	<i>inward</i>	GW-10	38.34	26.20
P-11	40.52	23.79	<i>inward</i>	GW-11	38.26	28.72
P-12	43.28	30.04	<i>inward</i>	GW-12	42.09	30.06
P-13	44.78	30.68	<i>inward</i>	GW-13	44.79	33.45
P-14	45.09	30.69	<i>inward</i>	GW-14	39.63	33.56
P-15	45.57	31.05	<i>inward</i>	GW-15	42.33	34.42
P-16	44.67	31.21	<i>inward</i>	GW-16	44.41	34.00
P-17	44.28	30.10	<i>inward</i>	GW-17	42.19	34.31

Comments:

Date Data Collected: February 14, 2013

Form Revised December 6, 2004