



An employee-owned company

September 9, 2010

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

SEP 09 2010

Southwest District

**Re: Manatee County Lena Road Landfill  
Monthly Report – August 2010**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2010 (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  
Jeanne' Detweiler, Manatee County Division/Landfill  
File – 120498.94 0100

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# EXHIBIT A

Dept. Of Environmental Protection

SEP 09 2010

Southwest District

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY

LENA ROAD LANDFILL

MONTHLY WATER BALANCE REPORT

**AUGUST, 2010**

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-Aug-10	0	0	0	0	0	0.05	228,111
02-Aug-10	80,630	2,250	82,880	30,200	113,080	0.01	45,622
03-Aug-10	23,160	370	23,530	10,000	33,530	0.06	273,733
04-Aug-10	21,080	320	21,400	9,000	30,400	0.80	3,649,770
05-Aug-10	23,900	600	24,500	9,400	33,900	0.64	2,919,816
06-Aug-10	25,410	370	25,780	9,700	35,480	0.16	729,954
07-Aug-10	0	0	0	0	0	0.00	0
08-Aug-10	0	0	0	0	0	2.58	11,770,510
09-Aug-10	118,250	1,000	119,250	29,700	148,950	0.02	91,244
10-Aug-10	31,430	420	31,850	11,400	43,250	0.06	273,733
11-Aug-10	30,010	240	30,250	11,200	41,450	0.60	2,737,328
12-Aug-10	30,290	230	30,520	11,000	41,520	0.01	45,622
13-Aug-10	32,300	490	32,790	14,200	46,990	0.00	0
14-Aug-10	0	0	0	0	0	0.00	0
15-Aug-10	0	0	0	0	0	0.00	0
16-Aug-10	94,550	2,300	96,850	40,800	137,650	0.00	0
17-Aug-10	28,000	290	28,290	12,000	40,290	0.00	0
18-Aug-10	27,470	700	28,170	12,500	40,670	0.00	0
19-Aug-10	26,720	470	27,190	11,700	38,890	0.00	0
20-Aug-10	2,540	1,890	4,430	12,300	16,730	0.00	0
21-Aug-10	0	0	0	0	0	0.02	91,244
22-Aug-10	0	0	0	0	0	0.60	2,737,328
23-Aug-10	0	2,440	2,440	34,300	36,740	1.93	8,805,071
24-Aug-10	84,680	250	84,930	13,500	98,430	0.36	1,642,397
25-Aug-10	39,170	0	39,170	15,300	54,470	1.91	8,713,827
26-Aug-10	46,030	0	46,030	19,200	65,230	0.05	228,111
27-Aug-10	42,170	40	42,210	18,600	60,810	2.11	9,626,270
28-Aug-10	0	0	0	0	0	0.07	319,355
29-Aug-10	0	0	0	0	0	0.00	0
30-Aug-10	23,290	730	24,020	53,000	77,020	0.21	958,065
31-Aug-10	0	0	0	15,900	15,900	0.01	45,622
<b>TOTAL</b>	<b>831,080</b>	<b>15,400</b>	<b>846,480</b>	<b>404,900</b>	<b>1,251,380</b>	<b>12.26</b>	<b>55,932,732</b>
Leachate Pumped as Percentage of Rainfall			2.5%	1.8%			

**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
TOTAL	132.0	66.0	198.0
<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 -- 2010

MONTH	B	C	D	E	F	G	H
	STAGE I LEACHATE (gallons)	STAGE III LEACHATE (gallons)	TOTAL LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	STAGE I LEACHATE/ RAINFALL (%)	STAGE III LEACHATE/ RAINFALL (%)
JANUARY	680,510	605,300	1,285,810	3.21	14,644,704	7.7%	10.5%
FEBRUARY	728,310	543,100	1,271,410	2.72	12,409,219	9.7%	11.1%
MARCH	890,130	579,900	1,470,030	4.36	19,891,249	7.4%	7.4%
APRIL	780,100	485,800	1,265,900	2.54	11,588,021	11.1%	10.7%
MAY	536,970	374,700	911,670	1.78	8,120,739	10.9%	11.7%
JUNE	600,970	367,900	968,870	8.68	39,600,009	2.5%	2.4%
JULY	1,012,160	376,100	1,388,260	6.59	30,064,984	5.5%	3.2%
AUGUST	846,480	404,900	1,251,380	12.26	55,932,732	2.5%	1.8%
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
<b>TOTAL</b>	<b>6,075,630</b>	<b>3,737,700</b>	<b>9,813,330</b>	<b>42.14</b>	<b>192,251,658</b>	<b>5.2%</b>	<b>4.9%</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 (acres)	Stage III (acres)	TOTAL (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 AUGUST 2010

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
8/2/10	5566642	2952660	2757691	32.30	30.60	OK	R.B.
8/3/10	5568958	2953030	2757131	32.31	30.48	OK	R.B.
8/4/10	5571066	2953350	2757621	32.31	30.41	OK	R.B.
8/5/10	5573456	2953150	2757115	32.40	30.48	OK	R.B.
8/6/10	5575497	2954320	2758012	32.48	30.74	OK	R.B.
8/9/10	5587833	2953320	2759307	33.17	32.32	OK	R.B.
8/10/10	5590965	2955740	2759423	33.57	32.34	OK	R.B.
8/11/10	5593166	2955980	2758335	33.89	32.34	OK	R.B.
8/12/10	5596995	2956210	2758645	33.60	32.30	OK	R.B.
8/13/10	5600225	2956700	2759787	33.47	32.22	OK	R.B.
8/16/10	5609680	2959000	2759195	32.26	31.94	OK	R.B.
8/17/10	5612480	2959290	2759315	32.26	31.80	OK	R.B.
8/18/10	5615237	2959990	2759440	32.27	31.68	OK	R.B.
8/19/10	5617899	2960460	2759557	32.39	31.52	OK	R.B.
8/20/10	5618153	2962350	2759690	32.39	31.39	OK	R.B.
8/23/10	5618153	2964790	2760023	32.42	31.14	OK	R.B.
8/24/10	5626621	2965240	2760150	32.41	32.36	OK	R.B.
8/25/10	5630538	2965040	2760311	32.27	32.31	OK	R.B.
8/26/10	5635141	2965240	2760923	32.42	32.35	OK	R.B.
8/27/10	5639358	2965080	2760689	32.60	32.30	OK	R.B.
8/30/10	5641088	2965240	2761249	32.27	32.26	OK	R.B.
8/31/10	5641088	2965240	2761080	32.27	32.27	OK	R.B.

FAX  
 407-647-0664  
 Joe Miller

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2010 Aug	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.05	0.014	36.50	35.90
2	0.01	0.013	36.50	36.20
3	0.06	0.012	36.60	35.90
4	0.80	0.013	36.50	36.00
5	0.64	0.014	36.50	35.90
6	0.16	0.013	36.60	35.90
7	0.00	0.013	36.50	35.70
8	2.58	0.015	36.90	35.80
9	0.02	0.024	37.00	35.80
10	0.06	0.016	37.10	35.80
11	0.60	0.016	37.40	35.90
12	0.01	0.017	37.50	35.90
13	0.00	0.017	37.60	35.90
14	0.00	0.016	37.80	35.70
15	0.00	0.016	37.90	35.60
16	0.00	0.016	38.10	35.90
17	0.00	0.015	38.10	35.60
18	0.00	0.015	38.10	35.60
19	0.00	0.013	38.00	35.50
20	0.00	0.008	37.90	35.60
21	0.02	0.008	38.00	35.70
22	0.60	0.008	38.00	35.60
23	1.93	0.020	38.30	35.70
24	0.36	0.020	38.50	35.70
25	1.91	0.019	38.90	36.00
26	0.05	0.022	38.90	36.40
27	2.11	0.022	39.00	36.60
28	0.07	0.013	39.30	36.60
29	0.00	0.011	39.40	36.70
30	0.21	0.011	39.60	36.60
31	0.01	0.014	39.60	36.50
<b>TOTAL</b>	<b>12.26</b>	<b>0.464</b>		
<b>AVG</b>		<b>0.015</b>		
<b>MIN</b>				
<b>MAX</b>	<b>2.58</b>	<b>0.024</b>		

Fax # 9-708-5668

**FIGURE L-7**

Manatee County Lena Road Landfill

**Monthly Groundwater Gradient Report**

**Month and Year: AUGUST 2010**

Piezometers Inside Slurry Wall			Gradient Flow	Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation		Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	30.09	<i>inward</i>	GW-1	38.68	33.11
P-2	42.32	29.26	<i>inward</i>	GW-2	40.92	33.27
P-3	40.36	26.51	<i>inward</i>	GW-3	39.40	35.03
P-4	40.78	22.08	<i>inward</i>	GW-4	40.53	33.23
P-5	40.73	20.94	<i>inward</i>	GW-5	39.90	33.18
P-6	40.74	19.86	<i>inward</i>	GW-6	38.95	32.62
P-7	40.60	18.92	<i>inward</i>	GW-7	39.49	31.58
P-8	40.21	18.86	<i>inward</i>	GW-8	39.75	31.38
P-9	39.97	19.51	<i>inward</i>	GW-9	39.65	30.71
P-10	39.86	19.27	<i>inward</i>	GW-10	38.34	30.43
P-11	40.52	22.37	<i>inward</i>	GW-11	38.26	31.33
P-12	43.28	29.71	<i>inward</i>	GW-12	42.09	32.22
P-13	44.78	30.63	<i>inward</i>	GW-13	44.79	32.84
P-14	45.09	30.54	<i>inward</i>	GW-14	39.63	34.18
P-15	45.57	30.92	<i>inward</i>	GW-15	42.33	35.13
P-16	44.67	30.99	<i>inward</i>	GW-16	44.41	35.00
P-17	44.28	30.05	<i>inward</i>	GW-17	42.19	34.20

Comments:

Date Data Collected: Septemebr 2, 2010

Form Revised December 6, 2004