



An employee-owned company

December 1, 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
DEC 06 2010
Southwest District

**Re: Manatee County Lena Road Landfill
Monthly Report – November 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
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
NOVEMBER, 2010

Dept. Of Environmental Protection
DEC 06 2010
 Southwest District

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-Nov-10	72,120	1,230	73,350	34,000	107,350	0.00	0
02-Nov-10	16,630	200	16,830	7,900	24,730	0.08	364,977
03-Nov-10	1,000	200	1,200	10,300	11,500	0.01	45,622
04-Nov-10	40,880	360	41,240	7,300	48,540	1.17	5,337,789
05-Nov-10	23,050	350	23,400	8,800	32,200	0.02	91,244
06-Nov-10	0	0	0	0	0	0.00	0
07-Nov-10	0	0	0	0	0	0.00	0
08-Nov-10	41,200	2,820	44,020	25,200	69,220	0.00	0
09-Nov-10	18,290	560	18,850	8,300	27,150	0.00	0
10-Nov-10	18,570	500	19,070	8,500	27,570	0.00	0
11-Nov-10	0	0	0	0	0	0.00	0
12-Nov-10	15,020	310	15,330	7,600	22,930	0.00	0
13-Nov-10	0	0	0	0	0	0.00	0
14-Nov-10	0	0	0	0	0	0.00	0
15-Nov-10	64,990	5,230	70,220	32,300	102,520	0.00	0
16-Nov-10	19,120	420	19,540	7,900	27,440	0.10	456,221
17-Nov-10	15,670	150	15,820	7,700	23,520	0.00	0
18-Nov-10	14,910	160	15,070	8,100	23,170	0.00	0
19-Nov-10	12,890	620	13,510	7,100	20,610	0.00	0
20-Nov-10	0	0	0	0	0	0.00	0
21-Nov-10	0	0	0	0	0	0.00	0
22-Nov-10	42,050	1,300	43,350	23,700	67,050	0.03	136,866
23-Nov-10	14,800	510	15,310	7,400	22,710	0.01	45,622
24-Nov-10	18,110	500	18,610	8,700	27,310	0.00	0
25-Nov-10	0	0	0	0	0	0.00	0
26-Nov-10	31,790	900	32,690	14,100	46,790	0.10	456,221
27-Nov-10	0	0	0	0	0	0.13	593,088
28-Nov-10	0	0	0	0	0	0.00	0
29-Nov-10	48,100	680	48,780	22,600	71,380	0.00	0
30-Nov-10	14,440	150	14,590	6,800	21,390	0.02	91,244
	0	0	0	0	0	0.00	0
TOTAL	543,630	17,150	560,780	264,300	825,080	1.67	7,618,896
Leachate Pumped as Percentage of Rainfall			12.1%	8.8%			

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
Open Area	102.0	66.0	168.0

Comments

EXHIBIT B

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY LENA ROAD LANDFILL MONTHLY LEACHATE TRACKING SUMMARY -- 2010

	B	C	D	E	F	G	H
MONTH	STAGE I	STAGE III	TOTAL			STAGE I	STAGE III
	LEACHATE (gallons)	LEACHATE (gallons)	LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	LEACHATE/ RAINFALL (%)	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	1,015,480	335,600	1,351,080	1.89	8,622,583	19.4%	9.9%
OCTOBER	590,250	250,400	840,650	0.00	0	N/A	N/A
NOVEMBER	560,780	264,300	825,080	1.67	7,618,896	12.1%	8.8%
DECEMBER							
TOTAL	8,242,140	4,588,000	12,830,140	45.70	208,493,136	6.5%	5.6%

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
TOTAL	132.0	66.0	198.0
Open Area	102.0	66.0	168.0

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2010 Nov	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.010	38.80	30.70
2	0.08	0.010	40.60	28.90
3	0.01	0.012	38.80	30.40
4	1.17	0.012	38.70	30.30
5	0.02	0.011	38.70	30.40
6	0.00	0.009	38.50	30.70
7	0.00	0.009	38.60	30.60
8	0.00	0.010	38.50	30.60
9	0.00	0.011	38.50	30.50
10	0.00	0.011	38.40	30.40
11	0.00	0.010	38.40	30.50
12	0.00	0.010	38.40	30.40
13	0.00	0.010	38.40	30.40
14	0.00	0.010	38.40	30.20
15	0.00	0.011	38.30	30.50
16	0.10	0.011	38.30	30.40
17	0.00	0.010	38.30	30.40
18	0.00	0.009	38.30	30.20
19	0.00	0.009	38.20	30.30
20	0.00	0.009	38.20	30.30
21	0.00	0.009	38.20	29.90
22	0.03	0.009	38.20	29.80
23	0.01	0.010	38.20	29.70
24	0.00	0.010	38.20	29.70
25	0.00	0.010	38.20	29.70
26	0.10	0.011	38.30	29.70
27	0.13	0.010	38.30	29.80
28	0.00	0.009	38.30	29.70
29	0.00	0.009	38.20	29.60
30	0.02	0.010	38.20	29.60
31				
TOTAL	1.67	0.301		
AVG		0.010		
MIN				
MAX	1.17	0.012		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: NOVEMBER 2010

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	29.58	<i>inward</i>	GW-1	38.68	30.10
P-2	42.32	28.73	<i>inward</i>	GW-2	40.92	30.12
P-3	40.36	25.15	<i>inward</i>	GW-3	39.40	31.62
P-4	40.78	22.03	<i>inward</i>	GW-4	40.53	30.65
P-5	40.73	20.92	<i>inward</i>	GW-5	39.90	30.35
P-6	40.74	19.93	<i>inward</i>	GW-6	38.95	29.63
P-7	40.60	18.82	<i>inward</i>	GW-7	39.49	27.24
P-8	40.21	18.56	<i>inward</i>	GW-8	39.75	25.82
P-9	39.97	19.39	<i>inward</i>	GW-9	39.65	26.13
P-10	39.86	19.28	<i>inward</i>	GW-10	38.34	25.87
P-11	40.52	22.32	<i>inward</i>	GW-11	38.26	29.11
P-12	43.28	28.30	<i>inward</i>	GW-12	42.09	30.54
P-13	44.78	30.52	<i>inward</i>	GW-13	44.79	32.41
P-14	45.09	29.84	<i>inward</i>	GW-14	39.63	32.23
P-15	45.57	30.96	<i>inward</i>	GW-15	42.33	33.76
P-16	44.67	31.05	<i>inward</i>	GW-16	44.41	33.17
P-17	44.28	30.02	<i>inward</i>	GW-17	42.19	32.59

Comments:

Date Data Collected: November 18, 2010

Form Revised December 6, 2004