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Dept. of Environmental Protection

MAY 07 2013

Southwest District

May 1, 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

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

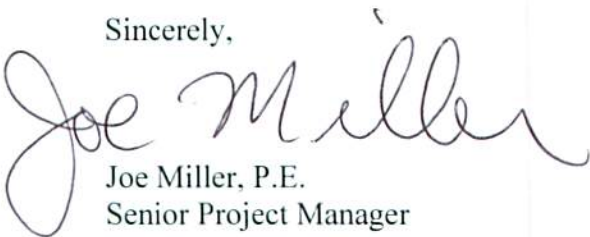
Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2013 (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

EXHIBIT A

Dept. of Environmental Protection

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY

LENA ROAD LANDFILL

MONTHLY WATER BALANCE REPORT

APRIL, 2013

MAY 07 2013

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-Apr-13	45,030	23,480	68,510	0	68,510	0.00	0
02-Apr-13	14,080	3,380	17,460	0	17,460	0.00	0
03-Apr-13	14,260	4,040	18,300	0	18,300	0.00	0
04-Apr-13	15,420	2,820	18,240	0	18,240	3.17	14,462,215
05-Apr-13	18,850	2,940	21,790	0	21,790	0.06	273,733
06-Apr-13	0	0	0	0	0	0.00	0
07-Apr-13	0	0	0	0	0	0.00	0
08-Apr-13	42,080	12,030	54,110	0	54,110	0.00	0
09-Apr-13	13,970	4,000	17,970	0	17,970	0.00	0
10-Apr-13	14,960	4,010	18,970	0	18,970	0.00	0
11-Apr-13	16,930	1,720	18,650	0	18,650	0.00	0
12-Apr-13	20,260	240	20,500	0	20,500	0.04	182,489
13-Apr-13	0	0	0	0	0	0.00	0
14-Apr-13	0	0	0	0	0	0.00	0
15-Apr-13	44,680	11,130	55,810	0	55,810	0.00	0
16-Apr-13	11,320	1,120	12,440	0	12,440	0.00	0
17-Apr-13	11,680	3,830	15,510	0	15,510	0.00	0
18-Apr-13	15,100	5,440	20,540	0	20,540	0.00	0
19-Apr-13	15,610	1,770	17,380	0	17,380	0.07	319,355
20-Apr-13	0	0	0	0	0	0.07	319,355
21-Apr-13	0	0	0	0	0	0.11	501,843
22-Apr-13	41,420	3,180	44,600	0	44,600	0.61	2,782,950
23-Apr-13	14,110	4,750	18,860	0	18,860	0.00	0
24-Apr-13	13,130	2,800	15,930	0	15,930	0.00	0
25-Apr-13	11,960	6,430	18,390	0	18,390	0.00	0
26-Apr-13	11,970	6,900	18,870	0	18,870	0.00	0
27-Apr-13	0	0	0	0	0	0.00	0
28-Apr-13	0	0	0	0	0	0.00	0
29-Apr-13	45,060	15,700	60,760	0	60,760	0.00	0
30-Apr-13	16,210	2,620	18,830	0	18,830	0.00	0
	0	0	0	0	0	0.00	0
TOTAL	468,090	124,330	592,420	0	592,420	4.13	18,841,940
Leachate Pumped as Percentage of Rainfall			5.2%	0.0%			

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 -- 2013

	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	620,550	296,600	917,150	0.73	3,330,416	30.7%	22.7%
FEBRUARY	544,840	235,500	780,340	1.21	5,520,278	16.3%	10.9%
MARCH	621,720	19,300	641,020	1.47	6,706,453	15.3%	0.7%
APRIL	592,420	0	592,420	4.13	18,841,940	5.2%	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		
TOTAL	2,379,530	551,400	2,930,930	7.54	34,399,086	11.4%	4.1%

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

LECHATE April 2013

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
4/1/13	7355262	5281870	2860223	32.96	DRY	OK	R.B.
4/2/13	7356670	5285250	2860223	32.95	Dry	OK	R.B.
4/3/13	7358096	5289290	2860223	32.94	DRY	OK	R.B.
4/4/13	7359638	5292110	2860223	32.98	Dry	OK	R.B.
4/5/13	7361523	5292020	2860223	32.27	Dry	OK	R.B.
4/8/13	7365731	5307080	2860223	33.24	Dry	OK	R.B.
4/9/13	7367128	5311080	2860223	33.28	Dry	OK	R.B.
4/10/13	7368624	5315090	2860223	33.23	29.86	OK	R.B.
4/11/13	7370317	5316810	2860228	32.21	29.75	OK	R.B.
4/12/13	7372343	5317050	2860228	33.21	29.62	OK	R.B.
4/15/13	7376611	5328180	2860228	33.18	29.40	OK	R.B.
4/16/13	7377943	5329300	2860228	33.17	29.30	OK	R.B.
4/18/13	7380621	5338570	2860228	33.12	DRY	OK	TR
4/19/13	7382182	5340340	2860228	33.10	DRY	OK	TR
4/22/13	7386324	5343520	2860228	33.13	Dry	OK	R.B.
4/23/13	7387735	5348270	2860228	33.12	Dry	OK	R.B.
4/24/13	7389048	5351070	2860228	33.11	Dry	OK	R.B.
4/25/13	7390244	5357500	2860228	33.10	Dry	OK	R.B.
4/26/13	7391441	5364470	2860228	33.08	Dry	OK	R.B.
4/29/13	7395947	5380100	2860229	33.02	Dry	OK	R.B.
4/30/13	7397568	5382720	2860229	33.00	Dry	OK	R.B.
4-17-13	7379111	5333130	2860228	33.16	29.30	OK	R.B.

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2013 Apr	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.006	41.20	32.40
2	0.00	0.005	41.10	32.40
3	0.00	0.006	40.90	32.30
4	3.17	0.005	41.10	32.20
5	0.06	0.006	41.40	32.50
6	0.00	0.005	41.50	32.50
7	0.00	0.005	41.60	32.50
8	0.00	0.005	41.70	32.60
9	0.00	0.005	41.80	32.60
10	0.00	0.005	41.70	32.60
11	0.00	0.006	41.80	32.60
12	0.04	0.005	41.70	32.70
13	0.00	0.005	41.70	32.80
14	0.00	0.005	41.90	32.70
15	0.00	0.005	41.90	32.70
16	0.00	0.009	41.90	32.50
17	0.00	0.005	41.80	32.60
18	0.00	0.005	41.60	32.60
19	0.07	0.005	41.50	32.40
20	0.07	0.004	41.40	32.30
21	0.11	0.004	41.40	32.30
22	0.61	0.004	41.40	32.30
23	0.00	0.004	41.50	32.40
24	0.00	0.004	41.50	32.40
25	0.00	0.004	41.40	32.40
26	0.00	0.003	41.20	32.30
27	0.00	0.004	41.10	32.20
28	0.00	0.004	41.00	32.10
29	0.00	0.004	40.80	32.00
30	0.00	0.010	40.70	31.80
31				
TOTAL	4.13	0.152		
AVG		0.005		
MIN				
MAX	3.17	0.010		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: APRIL 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	30.13	<i>inward</i>	GW-1	38.68	31.98
P-2	42.32	29.97	<i>inward</i>	GW-2	40.92	32.18
P-3	40.36	25.17	<i>inward</i>	GW-3	39.40	31.89
P-4	40.78	24.44	<i>inward</i>	GW-4	40.53	31.20
P-5	40.73	24.43	<i>inward</i>	GW-5	39.90	30.97
P-6	40.74	24.39	<i>inward</i>	GW-6	38.95	30.20
P-7	40.60	24.35	<i>inward</i>	GW-7	39.49	27.74
P-8	40.21	24.33	<i>inward</i>	GW-8	39.75	26.33
P-9	39.97	24.32	<i>inward</i>	GW-9	39.65	26.35
P-10	39.86	23.36	<i>inward</i>	GW-10	38.34	26.29
P-11	40.52	24.34	<i>inward</i>	GW-11	38.26	28.99
P-12	43.28	30.14	<i>inward</i>	GW-12	42.09	30.46
P-13	44.78	30.66	<i>inward</i>	GW-13	44.79	33.26
P-14	45.09	30.67	<i>inward</i>	GW-14	39.63	32.88
P-15	45.57	30.03	<i>inward</i>	GW-15	42.33	33.74
P-16	44.67	31.23	<i>inward</i>	GW-16	44.41	33.63
P-17	44.28	30.13	<i>inward</i>	GW-17	42.19	33.19

Comments:

Date Data Collected: April 18, 2013

Form Revised December 6, 2004