



Dept. of Environmental Protection

OCT 08 2013

Southwest District

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October 7, 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 – September 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

OCT 08 2013

LENA ROAD LANDFILL

Southwest District

MONTHLY WATER BALANCE REPORT

SEPTEMBER, 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-Sep-13	0	0	0	0	0	0.42	1,916,129
02-Sep-13	0	0	0	0	0	0.08	364,977
03-Sep-13	116,790	70,010	186,800	89,900	276,700	0.31	1,414,286
04-Sep-13	25,280	18,460	43,740	20,400	64,140	0.05	228,111
05-Sep-13	24,770	15,840	40,610	20,200	60,810	0.02	91,244
06-Sep-13	26,020	12,990	39,010	20,800	59,810	0.77	3,512,904
07-Sep-13	0	0	0	0	0	0.00	0
08-Sep-13	0	0	0	0	0	0.00	0
09-Sep-13	81,710	44,600	126,310	63,700	190,010	0.00	0
10-Sep-13	24,250	14,800	39,050	19,800	58,850	0.00	0
11-Sep-13	23,920	12,820	36,740	17,800	54,540	0.00	0
12-Sep-13	25,070	15,430	40,500	19,900	60,400	0.97	4,425,347
13-Sep-13	27,030	21,830	48,860	23,200	72,060	0.00	0
14-Sep-13	0	0	0	0	0	0.00	0
15-Sep-13	0	0	0	0	0	1.59	7,253,919
16-Sep-13	58,350	72,440	130,790	17,900	148,690	0.02	91,244
17-Sep-13	13,510	19,700	33,210	48,700	81,910	0.00	0
18-Sep-13	38,950	22,490	61,440	28,600	90,040	0.37	1,688,019
19-Sep-13	38,810	21,900	60,710	33,500	94,210	0.00	0
20-Sep-13	22,550	14,690	37,240	17,000	54,240	0.00	0
21-Sep-13	0	0	0	0	0	0.00	0
22-Sep-13	0	0	0	0	0	0.00	0
23-Sep-13	92,970	67,620	160,590	70,600	231,190	4.31	19,663,138
24-Sep-13	36,560	17,690	54,250	32,000	86,250	1.68	7,664,518
25-Sep-13	41,650	5,870	47,520	37,700	85,220	2.08	9,489,403
26-Sep-13	41,260	1,600	42,860	36,900	79,760	0.00	0
27-Sep-13	33,780	13,750	47,530	28,100	75,630	0.00	0
28-Sep-13	0	0	0	0	0	0.00	0
29-Sep-13	0	0	0	0	0	0.00	0
30-Sep-13	95,430	64,100	159,530	77,600	237,130	0.00	0
	0	0	0	0	0	0.00	0
TOTAL	888,660	548,630	1,437,290	724,300	2,161,590	12.67	57,803,239
Leachate Pumped as Percentage of Rainfall			4.1%	3.2%			

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	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	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	513,170	478,700	991,870	3.71	16,925,810	5.0%	7.2%
JUNE	682,480	623,900	1,306,380	19.47	88,826,288	1.3%	1.8%
JULY	1,072,350	706,000	1,778,350	12.61	57,529,506	3.1%	3.1%
AUGUST	1,078,840	690,500	1,769,340	12.21	55,704,621	3.2%	3.2%
SEPTEMBER	1,437,290	724,300	2,161,590	12.67	57,803,239	4.1%	3.2%
OCTOBER			0		0		
NOVEMBER			0		0		
DECEMBER			0		0		
TOTAL	7,163,660	3,774,800	10,938,460	68.21	311,188,551	3.8%	3.1%

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	Stage III	TOTAL
	(acres)	(acres)	(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 SHEET			LAKE LEVEL DATA IN FEET NGVD	
2013 Sep	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.42	0.005	47.90	36.90
2	0.08	0.008	47.90	36.90
3	0.31	0.007	47.90	36.90
4	0.05	0.000	48.00	36.90
5	0.02	0.000	48.00	36.90
6	0.77	0.009	48.00	36.90
7	0.00	0.006	48.00	36.90
8	0.00	0.000	48.00	36.90
9	0.00	0.004	48.00	36.90
10	0.00	0.005	48.00	36.90
11	0.00	0.002	48.00	36.90
12	0.97	0.005	48.00	36.90
13	0.00	0.006	48.00	36.90
14	0.00	0.000	48.00	36.90
15	1.59	0.000	48.00	36.90
16	0.02	0.001	48.00	36.90
17	0.00	0.004	48.00	36.90
18	0.37	0.000	48.00	36.90
19	0.00	0.000	49.50	41.00
20	0.00	0.004	49.60	41.00
21	0.00	0.006	49.60	40.90
22	0.00	0.000	49.40	41.00
23	4.31	0.001	50.00	41.00
24	1.68	0.010	50.30	41.20
25	2.08	0.008	50.60	41.30
26	0.00	0.001	50.60	41.30
27	0.00	0.002	50.90	41.20
28	0.00	0.007	50.90	41.20
29	0.00	0.002	51.10	41.20
30	0.00	0.002	51.10	41.20
31				
TOTAL	12.67	0.105		
AVG		0.004		
MIN				
MAX	4.31	0.010		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: SEPTEMBER 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	30.35	<i>inward</i>	GW-1	38.68	33.63
P-2	42.32	30.22	<i>inward</i>	GW-2	40.92	34.29
P-3	40.36	25.26	<i>inward</i>	GW-3	39.40	34.57
P-4	40.78	23.73	<i>inward</i>	GW-4	40.53	33.48
P-5	40.73	23.68	<i>inward</i>	GW-5	39.90	33.01
P-6	40.74	23.62	<i>inward</i>	GW-6	38.95	32.42
P-7	40.60	23.60	<i>inward</i>	GW-7	39.49	31.60
P-8	40.21	23.59	<i>inward</i>	GW-8	39.75	30.33
P-9	39.97	23.69	<i>inward</i>	GW-9	39.65	30.26
P-10	39.86	22.68	<i>inward</i>	GW-10	38.34	30.55
P-11	40.52	23.92	<i>inward</i>	GW-11	38.26	31.91
P-12	43.28	30.52	<i>inward</i>	GW-12	42.09	32.35
P-13	44.78	30.81	<i>inward</i>	GW-13	44.79	33.84
P-14	45.09	30.69	<i>inward</i>	GW-14	39.63	34.09
P-15	45.57	31.12	<i>inward</i>	GW-15	42.33	35.20
P-16	44.67	31.27	<i>inward</i>	GW-16	44.41	35.98
P-17	44.28	30.17	<i>inward</i>	GW-17	42.19	33.90

Comments:

Date Data Collected: SEPTEMBER 12, 2013

Form Revised December 6, 2004