



Atkins North America, Inc.
482 South Keller Road
Orlando, Florida 32810-6101
Telephone: +1.407.647.7275
www.atkinsglobal.com/northamerica

Dept. of Environmental
Protection
JUL 13 2011
Southwest District

July 7, 2011

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 – June 2011**

Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2011 (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

u:\so\projects\manatee county\sw-05 annual monitoring\2011\may\monthlyltr_June 2011.docx

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 LENA ROAD LANDFILL
 MONTHLY WATER BALANCE REPORT
JUNE, 2011

Dept. of Environmental Protection
 JUL 13 2011
 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-Jun-11	0	0	0	34,900	34,900	0.35	1,596,775
02-Jun-11	26,660	3,600	30,260	0	30,260	0.03	136,866
03-Jun-11	0	0	0	72,600	72,600	0.00	0
04-Jun-11	0	0	0	0	0	0.00	0
05-Jun-11	0	0	0	0	0	0.00	0
06-Jun-11	55,690	10,160	65,850	19,800	85,650	0.00	0
07-Jun-11	14,660	1,160	15,820	18,200	34,020	0.00	0
08-Jun-11	12,670	1,170	13,840	17,000	30,840	0.00	0
09-Jun-11	12,070	3,160	15,230	0	15,230	0.00	0
10-Jun-11	13,090	1,390	14,480	16,700	31,180	0.00	0
11-Jun-11	0	0	0	0	0	0.00	0
12-Jun-11	0	0	0	0	0	0.74	3,376,038
13-Jun-11	39,790	5,180	44,970	53,900	98,870	0.00	0
14-Jun-11	11,710	2,700	14,410	17,900	32,310	0.00	0
15-Jun-11	14,290	1,760	16,050	20,200	36,250	0.00	0
16-Jun-11	11,440	2,990	14,430	17,400	31,830	0.00	0
17-Jun-11	12,310	2,460	14,770	17,700	32,470	0.00	0
18-Jun-11	0	0	0	0	0	0.00	0
19-Jun-11	0	0	0	0	0	0.00	0
20-Jun-11	33,820	3,540	37,360	56,900	94,260	0.00	0
21-Jun-11	11,250	2,090	13,340	16,400	29,740	0.15	684,332
22-Jun-11	10,990	1,270	12,260	18,400	30,660	1.35	6,158,988
23-Jun-11	13,890	700	14,590	18,400	32,990	0.33	1,505,530
24-Jun-11	16,560	1,120	17,680	22,000	39,680	0.70	3,193,549
25-Jun-11	0	0	0	0	0	0.55	2,509,217
26-Jun-11	0	0	0	0	0	0.02	91,244
27-Jun-11	47,290	3,080	50,370	97,700	148,070	0.59	2,691,706
28-Jun-11	18,090	990	19,080	28,200	47,280	0.40	1,824,885
29-Jun-11	19,600	550	20,150	34,000	54,150	0.00	0
30-Jun-11	17,870	310	18,180	44,200	62,380	0.00	0
	0	0	0	0	0	0.00	0
TOTAL	413,740	49,380	463,120	642,500	1,105,620	5.21	23,769,130
Leachate Pumped as Percentage of Rainfall			3.2%	6.9%			

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
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 -- 2011

	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	563,230	153,700	716,930	3.67	16,743,322	5.5%	2.3%
FEBRUARY	463,860	61,000	524,860	0.97	4,425,347	17.3%	3.5%
MARCH	522,550	237,300	759,850	8.59	39,189,410	2.2%	1.5%
APRIL	666,280	305,100	971,380	2.93	13,367,284	8.2%	5.8%
MAY	559,070	477,800	1,036,870	1.11	5,064,056	18.2%	24.0%
JUNE	463,120	642,500	1,105,620	5.21	23,769,130	3.2%	6.9%
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
TOTAL	3,238,110	1,877,400	5,115,510	22.48	102,558,549	5.2%	4.7%

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

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER # 1	METER # 2	METER # 3	S. G. # 1	S. G. # 2		
6/1/11	6133244	3681280	2784372	31.52	Dry	OK	R.B.
6/2/11	6135910	3684080	2784721	31.51	Dry	OK	R.B.
6/3/11	6135910	3684880	2784721	31.50	Dry	OK	R.B.
6/6/11	6141479	3695040	2785447	31.48	Dry	OK	R.B.
6/7/11	6142945	3696200	2785645	31.40	Dry	OK	R.B.
6/8/11	6144212	3697370	2785827	31.40	Dry	OK	R.B.
6/9/11	6145419	3700530	2785997	31.38	Dry	OK	R.B.
6/10/11	6146728	3701920	2786164	31.36	Dry	OK	R.B.
6/13/11	6150707	3707100	2786703	31.35	Dry	OK	Jackie
6/14/11	6157822	3709200	2786882	31.30	Dry	OK	Jackie
6/15/11	6158307	3711560	2787084	31.29	Dry	OK	R.B.
6/16/11	6154451	3714550	2787258	31.27	Dry	OK	R.B.
6/17/11	6155682	3717010	2787435	31.26	Dry	OK	R.B.
6/20/11	6159064	3720550	2788004	31.28	Dry	OK	R.B.
6/21/11	6160189	3722640	2788168	31.17	Dry	OK	R.B.
6/22/11	6161288	3723910	2788352	31.17	Dry	OK	R.B.
6/23/11	6162677	3724610	2788536	31.27	Dry	OK	R.B.
6/24/11	6164333	3725730	2788756	31.28	Dry	OK	R.B.
6/27/11	6169062	3728810	2789733	31.44	29.97	OK	R.B.
6/28/11	6170871	3729800	2790015	31.49	30.20	OK	R.B.
6/29/11	6172831	3730350	2790355	31.52	30.40	OK	R.B.
6/30/11	6174618	3730660	2790797	31.51	30.28	OK	R.B.

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2011 Jun	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.35	0.007	36.40	29.30
2	0.03	0.007	36.20	29.30
3	0.00	0.007	36.20	29.30
4	0.00	0.007	36.20	29.30
5	0.00	0.007	36.10	29.30
6	0.00	0.007	36.10	29.30
7	0.00	0.007	36.10	29.30
8	0.00	0.007	36.20	29.30
9	0.00	0.007	36.20	29.30
10	0.00	0.007	36.00	29.30
11	0.00	0.007	36.00	29.30
12	0.74	0.007	36.20	29.30
13	0.00	0.007	36.00	29.30
14	0.00	0.007	36.00	29.30
15	0.00	0.007	36.00	29.00
16	0.00	0.007	36.00	28.80
17	0.00	0.007	35.70	28.80
18	0.00	0.007	35.70	28.60
19	0.00	0.007	35.60	28.10
20	0.00	0.007	35.60	27.90
21	0.15	0.007	35.40	27.70
22	1.35	0.006	35.40	26.70
23	0.33	0.008	35.50	26.30
24	0.70	0.009	35.40	26.10
25	0.55	0.009	35.60	26.20
26	0.02	0.012	35.60	26.50
27	0.59	0.010	35.50	26.60
28	0.40	0.010	35.70	26.70
29	0.00	0.013	35.50	27.10
30	0.00	0.013	35.40	27.10
31				
TOTAL	5.21	0.237		
AVG		0.008		
MIN				
MAX	1.35	0.013		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: JUNE 2011

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	28.27	<i>inward</i>	GW-1	38.68	29.92
P-2	42.32	27.19	<i>inward</i>	GW-2	40.92	29.94
P-3	40.36	23.68	<i>inward</i>	GW-3	39.40	31.27
P-4	40.78	20.82	<i>inward</i>	GW-4	40.53	30.12
P-5	40.73	20.32	<i>inward</i>	GW-5	39.90	29.90
P-6	40.74	19.98	<i>inward</i>	GW-6	38.95	29.39
P-7	40.60	20.93	<i>inward</i>	GW-7	39.49	27.24
P-8	40.21	19.84	<i>inward</i>	GW-8	39.75	25.65
P-9	39.97	19.85	<i>inward</i>	GW-9	39.65	24.55
P-10	39.86	19.67	<i>inward</i>	GW-10	38.34	24.49
P-11	40.52	21.21	<i>inward</i>	GW-11	38.26	28.75
P-12	43.28	27.97	<i>inward</i>	GW-12	42.09	29.89
P-13	44.78	28.95	<i>inward</i>	GW-13	44.79	30.99
P-14	45.09	28.32	<i>inward</i>	GW-14	39.63	31.03
P-15	45.57	29.60	<i>inward</i>	GW-15	42.33	33.92
P-16	44.67	29.94	<i>inward</i>	GW-16	44.41	32.75
P-17	44.28	29.12	<i>inward</i>	GW-17	42.19	31.89

Comments:

Date Data Collected: June 20, 2011

Form Revised December 6, 2004