



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

April 2, 2014

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 – March 2014**

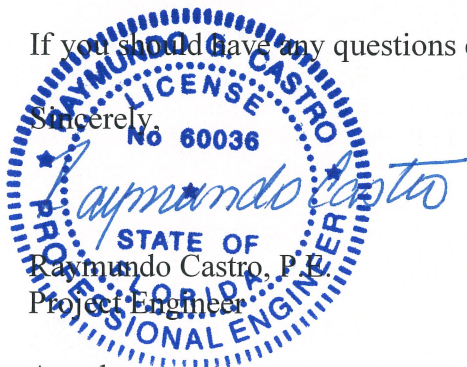
Dear Mr. Morris:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2014 (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 407/806-4156.

Sincerely,



Raymundo Castro, P.E.
Project Engineer

Attachments

cc: C. Mike Gore, Manatee County Utilities Department Director
Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor
File – 120498.94 0100

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY

LENA ROAD LANDFILL

MONTHLY WATER BALANCE REPORT

MARCH - 2014

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-Mar-14	0	0	0	0	0	0.00	0
02-Mar-14	0	0	0	0	0	0.00	0
03-Mar-14	40,030	290	40,320	27,300	67,620	0.00	0
04-Mar-14	15,530	0	15,530	8,900	24,430	0.00	0
05-Mar-14	15,640	0	15,640	10,600	26,240	0.00	0
06-Mar-14	16,310	1,990	18,300	10,800	29,100	1.26	5,748,388
07-Mar-14	18,210	260	18,470	13,400	31,870	0.00	0
08-Mar-14	0	0	0	0	0	0.00	0
09-Mar-14	0	0	0	0	0	0.00	0
10-Mar-14	38,650	100	38,750	5,600	44,350	0.00	0
11-Mar-14	16,580	0	16,580	23,000	39,580	0.00	0
12-Mar-14	17,800	0	17,800	13,500	31,300	0.40	1,824,885
13-Mar-14	15,970	1,670	17,640	10,500	28,140	0.00	0
14-Mar-14	10,580	460	11,040	9,400	20,440	0.00	0
15-Mar-14	0	0	0	0	0	0.00	0
16-Mar-14	0	0	0	0	0	0.00	0
17-Mar-14	46,110	1,580	47,690	39,500	87,190	4.10	18,705,073
18-Mar-14	22,300	530	22,830	19,300	42,130	0.78	3,558,526
19-Mar-14	15,170	290	15,460	12,300	27,760	0.00	0
20-Mar-14	16,870	340	17,210	15,500	32,710	0.00	0
21-Mar-14	17,220	330	17,550	16,800	34,350	0.00	0
22-Mar-14	0	0	0	0	0	0.00	0
23-Mar-14	0	0	0	0	0	0.00	0
24-Mar-14	51,770	1,000	52,770	43,200	95,970	1.64	7,482,029
25-Mar-14	21,760	380	22,140	19,500	41,640	1.20	5,474,656
26-Mar-14	14,830	290	15,120	10,700	25,820	0.00	0
27-Mar-14	14,040	250	14,290	15,500	29,790	0.03	136,866
28-Mar-14	17,380	290	17,670	16,900	34,570	0.00	0
29-Mar-14						0.54	2,463,595
30-Mar-14							
31-Mar-14	57,630	1,120	58,750	51,000	109,750	0.00	0
TOTAL	500,380	11,170	511,550	393,200	904,750	9.95	45,394,020
Leachate Pumped as Percentage of Rainfall			1.9%	2.2%			

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 -- 2014

	B	C	D	E	F	G	H
MONTH	STAGE I LEACHATE (gallons)	STAGE III LEACHATE (gallons)	TOTAL LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	STAGE I LEACHATE/ RAINFALL (%)	STAGE III LEACHATE /RAINFALL (%)
JANUARY	862,790	297,700	1,160,490	3.93	17,929,497	7.9%	4.2%
FEBRUARY	440,660	265,900	706,560	3.18	14,507,837	5.0%	4.7%
MARCH	551,550	393,200	944,750	9.95	45,394,020	2.0%	2.2%
APRIL							
MAY							
JUNE							
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
TOTAL	1,855,000	956,800	2,811,800	17.06	77,831,354	3.9%	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 (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

DATE	LEACHATE			STORMWATER		COMMENTS	NAME
	METER #1	METER #2	METER #3	S. G. #1	S. G. #2		
3/3/14	8071948	8327580	2911292	34.47	dry	OK	John Gighaldi
3/4/14	8073501	8327580	2911381	34.47	dry	OK	TR
2/5/14	8073065	8327580	2911467	34.46	dry	OK	R.B.
3/6/14	8071616	8329570	2911545	34.45	dry	OK	R.B.
3/7/14	8070517	8329630	2911729	34.54	dry	OK	R.B.
3/10/14	8082302	8329630	2911765	34.49	dry	OK	R.B.
3/11/14	8084040	8329630	2912015	34.49	dry	OK	R.B.
3/12/14	8085820	8329630	2912150	34.48	dry	OK	R.B.
3/13/14	8087417	8331600	2912255	33.98	dry	OK	R.B.
3/14/14	8088415	8332000	2912349	33.98	dry	OK	R.B.
3/17/14	8093086	8333646	2912744	33.98	dry	OK	R.B.
3/18/14	8095316	8333417	2912937	34.61	32.38	OK	R.B.
3/19/14	8096833	8334440	2913060	34.60	32.24	OK	R.B.
3/20/14	8098520	8334400	2913215	34.55	32.09	OK	R.B.
3/21/14	8100342	8335130	2913383	34.52	31.98	OK	R.B.
3/24/14	8105491	8336130	2913815	34.51	31.66	OK	R.B.
3/24/14							
3/25/14	8107545	8336510	2914010	34.61	32.00	OK	R.B.
3/26/14	8109076	8336800	2914117	34.55	32.00	OK	R.B.
3/27/14	8110482	8337080	2914272	34.51	31.88	OK	R.B.
3/28/14	8112220	8337340	2914441	34.52	31.88	OK	R.B.
3/31/14	8117483	8338460	2914951	34.52	31.70	OK	R.B.

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2014 Mar	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.005	46.60	37.70
2	0.00	0.006	46.60	37.70
3	0.00	0.007	46.70	37.70
4	0.00	0.009	46.10	37.60
5	0.00	0.011	46.60	37.60
6	1.26	0.011	46.80	37.70
7	0.00	0.008	46.90	37.70
8	0.00	0.005	46.90	37.70
9	0.00	0.005	46.90	37.60
10	0.00	0.007	46.90	37.60
11	0.00	0.008	47.00	37.60
12	0.40	0.010	47.00	37.60
13	0.00	0.007	47.00	37.50
14	0.00	0.007	47.00	37.50
15	0.00	0.008	47.00	37.50
16	0.00	0.008	46.90	37.50
17	4.10	0.009	47.10	37.50
18	0.78	0.012	47.40	37.70
19	0.00	0.009	47.50	37.60
20	0.00	0.010	47.50	37.60
21	0.00	0.010	47.40	37.60
22	0.00	0.010	47.40	37.60
23	0.00	0.010	47.50	37.60
24	1.64	0.010	47.60	37.60
25	1.20	0.010	47.80	37.70
26	0.00	0.007	47.90	37.60
27	0.03	0.008	48.00	37.60
28	0.00	0.009	48.00	37.60
29	0.54	0.009	48.10	37.60
30	0.00	0.008	48.30	37.60
31	0.00	0.008	48.40	37.60
TOTAL	9.95	0.261		
AVG		0.008		
MIN				
MAX	4.10	0.012		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: MARCH 2014

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	30.16	<i>inward</i>	GW-1	38.68	34.33
P-2	42.32	30.00	<i>inward</i>	GW-2	40.92	35.20
P-3	40.36	25.01	<i>inward</i>	GW-3	39.40	34.22
P-4	40.78	23.66	<i>inward</i>	GW-4	40.53	33.92
P-5	40.73	23.67	<i>inward</i>	GW-5	39.90	33.22
P-6	40.74	23.66	<i>inward</i>	GW-6	38.95	32.34
P-7	40.60	23.52	<i>inward</i>	GW-7	39.49	30.60
P-8	40.21	23.48	<i>inward</i>	GW-8	39.75	29.33
P-9	39.97	23.59	<i>inward</i>	GW-9	39.65	31.04
P-10	39.86	22.60	<i>inward</i>	GW-10	38.34	30.21
P-11	40.52	23.83	<i>inward</i>	GW-11	38.26	31.58
P-12	43.28	30.36	<i>inward</i>	GW-12	42.09	32.19
P-13	44.78	30.70	<i>inward</i>	GW-13	44.79	34.41
P-14	45.09	29.94	<i>inward</i>	GW-14	39.63	35.43
P-15	45.57	31.05	<i>inward</i>	GW-15	42.33	36.20
P-16	44.67	31.28	<i>inward</i>	GW-16	44.41	35.83
P-17	44.28	30.15	<i>inward</i>	GW-17	42.19	35.55

Comments:

Date Data Collected: MARCH 18, 2014

Form Revised December 6, 2004



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April 2, 2014

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

**Re: Manatee County Lena Road Landfill
Methane Probes and Buildings Sampling
First Quarter of 2014**

Dear Mr. Morris:

The methane monitoring probes and buildings at the Lena Road Landfill were sampled for the 1st quarter of 2014 on March 18, 2014 using a PhotoVac FID MicroFID Analyzer (Serial # CZSR 307). The results are summarized on the attached table.

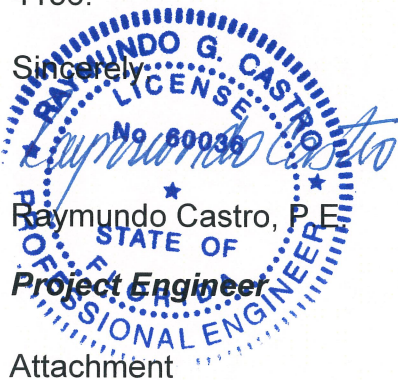
The readings at all the probes and buildings were zero.

If you should have any questions concerning this report, please call me at 407/806-4156.

Sincerely,

Raymundo Castro, P.E.

Project Engineer



Attachment

cc: C. Mike Gore, Manatee County Utilities Department Director
Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor
File – 100037050 0200, Monitoring

u:\so\projects\manatee county\sw-05 annual monitoring\2014\March\gas migration report 1st quarter 2014.docx

**MANATEE COUNTY LENA ROAD LANDFILL
GAS MONITORING REPORT
FIRST QUARTER 2014
DECEMBER 2013 - MARCH 2014**

METHANE GAS READINGS

Date of Readings: MARCH 18, 2014

Gas Monitoring Probe or Building	Reading % LEL	NOTES
GMW-1	0.0	
GMW-2	0.0	
GMW-3	0.0	
GMW-4	0.0	
GMW-5	0.0	
GMW-6	0.0	
GMW-7	0.0	
GMW-8	0.0	
GMW-9	0.0	
GMW-10	0.0	
GMW-11A	0.0	
GMW-11B	0.0	
GMW-11C	0.0	
Administration Building	0.0	
HH Waste Drop-off Building	0.0	
Scale House Building	0.0	
Maintenance Office	0.0	
Maintenance Building	0.0	

FIGURE K-9