

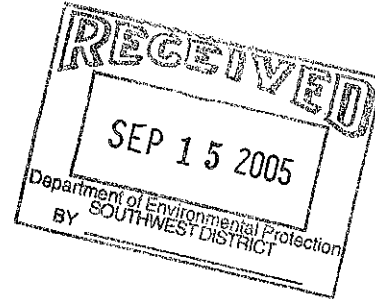


An employee-owned company

39884

September 14, 2005

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
3804 Coconut Palm Drive
Tampa, Florida 33619



**Re: Manatee County Lena Road Landfill
Monthly Report – August 2005**

Dear Mr. Morris:

Attached is the August 2005 monthly report for the Lena Road Landfill. The report consists of the monthly water balance report (Exhibit A), the leachate-tracking summary (Exhibit B), the field readings for the water balance report, and the monthly groundwater gradient report. An inward gradient was present in Stage I and Stage III of the landfill.

The groundwater monitoring wells and piezometers were replaced as required by the recently issued landfill operation permit. Included with this letter is a survey of the installed wells. Piezometers P-3, P-4, P-5, P-6, and P-7 could not be installed on the north side of the Stage III Landfill due to the construction in this area related to replacement of the leachate collection system. To determine the gradient direction, the water levels in GW-3, GW-4, GW-5, GW-6 and GW-7 were compared to the leachate level as measured by P-2. P-11 and GW-11 could not be installed on the south side of the Stage III Landfill due to the pending construction. Existing PZ-17 and GC-6 were left in place to measure the gradient direction on the south side of the Stage III Landfill. These piezometers and wells will be installed as soon as the leachate collection system replacement is completed.

If you should have any questions concerning this report, please contact me in our Orlando office at 407/647-7275, Ext. 4153.

Sincerely,

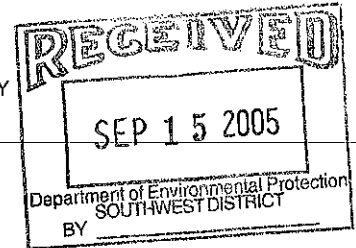
Joe Miller, P.E.
Senior Project Manager

cc: Daniel T. Gray, Director, Utility Operations Department
Gus DiFonzo, Solid Waste Manager
Mike Gore/Jeanne Detweiler, Manatee County Landfill Division
File – 120498.93 0100, August 2005

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EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 LENA ROAD LANDFILL
 MONTHLY WATER BALANCE REPORT
 AUGUST, 2005



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-Aug-05	54,960	30	54,990	304,600	359,590	0.00	0
02-Aug-05	18,920	10	18,930	116,500	135,430	0.00	0
03-Aug-05	18,290	10	18,300	105,300	123,600	0.00	0
04-Aug-05	17,740	0	17,740	101,600	119,340	0.00	0
05-Aug-05	16,140	10	16,150	93,500	109,650	0.02	91,244
06-Aug-05	0	0	0	0	0	0.04	182,489
07-Aug-05	0	0	0	0	0	0.59	2,691,706
08-Aug-05	52,360	10	52,370	271,300	323,670	0.30	1,368,664
09-Aug-05	19,330	20	19,350	92,600	111,950	0.06	273,733
10-Aug-05	19,210	10	19,220	92,800	112,020	0.00	0
11-Aug-05	18,630	0	18,630	90,000	108,630	0.00	0
12-Aug-05	19,410	20	19,430	87,700	107,130	0.00	0
13-Aug-05	0	0	0	0	0	0.27	1,231,798
14-Aug-05	0	0	0	0	0	0.20	912,443
15-Aug-05	56,590	9,080	65,670	297,000	362,670	0.00	0
16-Aug-05	16,400	0	16,400	88,900	105,300	0.00	0
17-Aug-05	17,110	0	17,110	87,000	104,110	0.00	0
18-Aug-05	18,110	21,740	39,850	84,500	124,350	1.35	6,158,988
19-Aug-05	16,930	7,950	24,880	176,400	201,280	0.02	91,244
20-Aug-05	0	0	0	0	0	0.00	0
21-Aug-05	0	0	0	0	0	0.42	1,916,129
22-Aug-05	52,040	17,530	69,570	346,900	416,470	0.08	364,977
23-Aug-05	18,570	4,830	23,400	99,300	122,700	0.76	3,467,282
24-Aug-05	17,050	4,810	21,860	130,500	152,360	0.13	593,088
25-Aug-05	16,500	4,520	21,020	123,700	144,720	0.15	684,332
26-Aug-05	19,080	4,780	23,860	118,700	142,560	0.00	0
27-Aug-05	0	0	0	0	0	0.08	364,977
28-Aug-05	0	0	0	0	0	0.00	0
29-Aug-05	54,670	13,080	67,750	319,700	387,450	0.00	0
30-Aug-05	16,530	4,190	20,720	102,800	123,520	0.00	0
31-Aug-05	15,260	3,550	18,810	93,500	112,310	0.00	0
TOTAL	589,830	96,180	686,010	3,424,800	4,110,810	4.47	20,393,092
Leachate Pumped as Percentage of Rainfall			5.5%	42.7%			

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 -- 2005**

	B	C	D	E	F	G	H
	STAGE I	STAGE III	TOTAL			STAGE I	STAGE III
MONTH	LEACHATE	LEACHATE	LEACHATE	RAINFALL	RAINFALL	LEACHATE/ RAINFALL	LEACHATE /RAINFALL
	(gallons)	(gallons)	(gallons)	(inches)	(gallons)	(%)	(%)
JANUARY	736,740	2,684,167	3,420,907	1.51	6,888,942	17.6%	99.2%
FEBRUARY	545,500	2,046,567	2,592,067	4.89	22,309,222	4.0%	23.4%
MARCH	779,900	5,231,667	6,011,567	5.34	24,362,218	5.3%	54.7%
APRIL	607,730	2,340,867	2,948,597	4.57	20,849,314	4.8%	28.6%
MAY	636,620	2,336,167	2,972,787	3.92	17,883,875	5.9%	33.3%
JUNE	710,600	4,870,700	5,581,300	10.15	46,306,462	2.5%	26.8%
JULY	675,600	4,090,000	4,765,600	8.35	38,094,479	2.9%	27.3%
AUGUST	686,010	3,424,800	4,110,810	4.47	20,393,092	5.5%	42.7%
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
TOTAL	5,378,700	27,024,935	32,403,635	43.20	197,087,603	4.5%	34.9%

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

LANDFILL SHEET		
2005 Aug	RAIN FALL	LEACHATE MGD
1	0.00	0.132
2	0.00	0.133
3	0.00	0.126
4	0.00	0.118
5	0.02	0.113
6	0.04	0.108
7	0.59	0.110
8	0.30	0.114
9	0.06	0.112
10	0.00	0.112
11	0.00	0.106
12	0.00	0.796
13	0.27	0.100
14	0.20	0.109
15	0.00	0.096
16	0.00	0.000
17	0.00	0.102
18	1.35	0.112
19	0.02	0.203
20	0.00	0.126
21	0.42	0.117
22	0.08	0.114
23	0.76	0.109
24	0.13	0.156
25	0.15	0.132
26	0.00	0.132
27	0.08	0.123
28	0.00	0.120
29	0.00	0.115
30	0.00	0.113
31	0.00	0.110
TOTAL	4.47	4.269
AVG		0.138
MIN		
MAX	1.35	0.796

Fax # 9-741-3396

LEACHATE METER READINGS
AUGUST 2005

DATE	LEACHATE			STORMWATER			COMMENTS	NAME
	METER #1	METER #2	METER #3	S. G. #1	S. G. #2	S. G. #3		
8/1/05	2507031	1689067	1932666	34.25	DRY		OK	A.S.
8/2/05	2508923	1689068	1933831	34.25	DRY		OK	A.S.
8/3/05	2510752	1689069	1934884	34.26	DRY		OK	A.S.
8/4/05	2512526	1689069	1935900	34.26	DRY		OK	A.S.
8/5/05	2514140	1689070	1936835	34.26	DRY		OK	A.S.
8/8/05	2519376	1689071	1939548	34.29	DRY		OK	A.S.
8/9/05	2521309	1689073	1940474	34.38	DRY		OK	A.S.
8/10/05	2523230	1689074	1941402	34.38	DRY		OK	A.S.
8/11/05	2525093	1689074	1942302	34.38	DRY		OK	A.S.
8/12/05	2527634	1689076	1943199	34.37	DRY		OK	A.S.
8/15/05	2532693	1689984	1946149	34.38	29.00		OK	A.S.
8/16/05	2534333	1689984	1947038	34.39	29.00		OK	A.S.
8/17/05	2536044	1689984	1947908	34.38	29.00		POWER FAIL AT 12:50 P.M. RESET PUMPS	A.S.
8/18/05	2537855	1692158	1948753	34.37	28.95		OK	A.S.
8/19/05	2539548	1692953	1950517	34.62	30.40		OK	A.S.
8/22/05	2544752	1694706	1953986	34.61	30.23		OK	A.S.
8/23/05	2546609	1695189	1954979	34.63	30.18		OK	A.S.
8/24/05	2548314	1695670	1956284	34.97	30.97		OK	A.S.
8/25/05	2549964	1696122	1957521	34.98	30.90		OK	A.S.
8/26/05	2551872	1696600	1958708	34.98	30.70		OK	A.S.
8/29/05	2557339	1697908	1961905	34.95	30.52		OK	A.S.
8/30/05	2558992	1698327	1962933	34.98	30.50		OK	C.M.
8/31/05	2560518	1698682	1963868	34.90	30.40		OK	A.S.

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: AUGUST 2005

all higher

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	29.53	<i>inward</i>	GW-1	38.68	32.43
P-2	42.32	28.55	<i>inward</i>	GW-2	40.92	31.79
P-3 *	42.32	28.55	<i>inward</i>	GW-3	39.40	33.92
P-4 *	42.32	28.55	<i>inward</i>	GW-4	40.53	32.88
P-5 *	42.32	28.55	<i>inward</i>	GW-5	39.90	31.99
P-6 *	42.32	28.55	<i>inward</i>	GW-6	38.95	31.19
P-7 *	42.32	28.55	<i>inward</i>	GW-7	39.49	29.39
P-8	40.21	22.46	<i>inward</i>	GW-8	39.75	27.77
P-9	39.97	20.26	<i>inward</i>	GW-9	39.65	29.07
P-10	39.86	20.74	<i>inward</i>	GW-10	38.34	29.69
P-11(PZ-17) **	40.57	28.97	<i>inward</i>	GW-11 (GC-6)**	39.02	32.22
P-12	43.28	29.46	<i>inward</i>	GW-12	42.09	30.13
P-13	44.78	30.31	<i>inward</i>	GW-13	44.79	34.84
P-14	45.09	29.87	<i>inward</i>	GW-14	39.63	35.02
P-15	45.57	30.90	<i>inward</i>	GW-15	42.33	36.47
P-16	44.67	31.09	<i>inward</i>	GW-16	44.41	37.42
P-17	44.28	29.89	<i>inward</i>	GW-17	42.19	34.77

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-3, GW-4, GW-5, GW-6 and GW-7.

** P-11 and GE-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: August 30, 2005

Form Revised December 6, 2004

LENA ROAD LANDFILL PIEZOMETERS AND MONITORING WELLS

HORIZONTAL DATA: NAD83(1990)

VERTICAL DATA: NGVD 1929

Name	Northing	Easting	Elev.	Ground Elev.
GW-1	1141555.836	514101.2946	38.68	36.5
GW-2	1141565.321	512079.528	40.92	38.6
GW-3	1141382.246	511374.680	39.40	36.7
GW-4	1141410.648	510878.613	40.53	38.0
GW-5	1141415.374	510383.901	39.90	37.2
GW-6	1141424.677	509886.008	38.95	37.0
GW-7	1141435.593	509387.991	39.49	36.6
GW-8	1141305.399	509044.793	39.75	37.0
GW-9	1140722.840	509305.788	39.65	37.0
GW-10	1140206.615	509611.461	38.34	35.9
GW-12	1139527.507	511409.936	42.09	40.2
GW-13	1139203.084	512112.455	44.79	42.8
GW-14	1138496.263	513011.134	39.63	36.6
GW-15	1138992.935	513634.354	42.33	39.7
GW-16	1140276.769	513645.173	44.41	41.3
GW-17	1141976.954	513542.637	42.19	39.1
PZ-1	1141618.682	514103.390	42.68	39.5
PZ-2	1141507.415	512079.730	42.32	38.9
PZ-8	1141313.863	509125.203	40.21	37.3
PZ-9	1140745.817	509323.037	39.97	37.4
PZ-10	1140205.638	509631.702	39.86	36.7
PZ-12	1139533.927	511469.648	43.28	40.4
PZ-13	1139230.927	512162.080	44.78	42.8
PZ-14	1138593.317	513011.049	45.09	42.8
PZ-15	1138993.166	513574.513	45.57	42.6
PZ-16	1140275.169	513579.896	44.67	43.0
PZ-17	1141978.597	513606.645	44.28	42.8