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Department of Environmental Protection
SOUTHWEST DISTRICT
BY

January 11, 2005

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Ms. Pelz:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending January 15, 2005.

The data is being submitted as separate monthly reports for October, November and December 2004. The information includes the leachate level in Pump Station B (PSB). The level was below the 24-inch normal operation level during this quarter except for two days in October and one day in November 2004.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Larry Ruiz, SWMD
Walter Gray, SWMD
Joe O'neill, SCS
Paul Schipfer, EPC

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January 11, 2005

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –December 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of December 2004. In addition, the SWMD is providing the December 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for December 2004 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches in December. The average depth of leachate in the PS-B sump for the recorded days in December 2004 was 17.9 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea1204.dep

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MEMORANDUM

DATE: January 11, 2005

TO: Patricia Berry, Solid Waste Management Department

FROM: Larry Ruiz, Sr. Engineering Specialist, SWMD
Raymond Graves, Engineering Tech. II, SWMD

SUBJECT: Leachate Water Balance Report Forms for December 2004
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI and Section 7 of the Capacity Expansion for December 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for December (Figure 1).

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of December.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.01 inches of rainfall at the Southeast County Landfill (SCLF) in December.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In December, the average depth of effluent stored in Pond A was 2.8 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In December, the average depth of effluent stored in Pond B was 1.6 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in December. The average depth of leachate in the PS-B sump for the recorded days in December was 17.9 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in December was 7,003 gallons. A total of 217,080 gallons was pumped from TPS-6 to PS-B in December.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in December was 37,525 gallons. A total of 1,163,285 gallons of leachate was pumped to the storage tank in December.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In December, a total of 242 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In December, 31,427 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In December, a total of 1,194,712 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in December was estimated at 219,300 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In December, a total of 1,137,100 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of December, a total of 240,814 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the Phases I-VI. In December 89,441 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the

cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. In December, a daily average of 98,800 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. In December, a daily average of 54,500 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in December.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. In December, 939,762 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In December, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In December, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for December was 823,300 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF in December was 1,194,712 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,467,355 gallons. The change in storage for the month of December decreased by 272,643 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
DECEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	2.9	1.5	18.0	10,220	37,597	22	2,589	40,186	238,000	28,900	18,045	3,022	103,000	44,000	0	45,118	0	0	38,500
2	0.00	2.6	1.5	18.4	10,500	39,609	15	0	39,609	218,000	29,900	12,042	0	88,000	44,000	0	53,214	0	0	42,600
3	0.00	2.0	1.5	18.4	10,035	39,553	0	3,303	42,856	235,000	29,900	12,033	9,063	61,000	44,000	0	39,573	0	0	38,900
4	0.00	2.7	1.5	18.3	9,450	34,523	0	0	34,523	223,000	28,700	0	0	93,000	44,000	0	36,113	0	0	28,900
5	0.00	*2.4*	*1.5*	*19.3*	*1,673*	*38,424*	*14*	*768*	*39,192*	*236,000*	27,800	0	0	79,000	44,000	0	0	0	0	0
6	0.00	2.0	1.5	20.2	1,673	38,424	14	768	39,192	250,000	31,300	12,035	0	61,000	44,000	0	38,301	0	0	30,600
7	0.00	1.8	1.4	14.7	5,010	38,668	15	0	38,668	259,000	38,600	0	0	52,000	38,000	0	34,528	0	0	27,600
8	0.00	1.8	1.4	14.8	8,665	39,066	3	2,308	41,374	240,000	38,100	12,036	0	52,000	38,000	0	41,426	0	0	33,100
9	0.00	1.7	1.4	17.6	5,330	39,019	13	0	39,019	264,000	38,500	18,055	8,034	48,000	38,000	0	31,526	0	0	31,600
10	0.07	1.8	1.4	16.8	7,645	42,550	0	2,162	44,712	245,000	35,700	18,035	0	52,000	38,000	0	12,569	0	0	10,100
11	0.00	2.2	1.4	18.8	11,670	46,292	0	2,454	48,746	252,000	36,900	0	0	70,000	38,000	0	28,249	0	0	22,600
12	0.00	*2.6*	*1.4*	*19.9*	*5,040*	*36,150*	*12*	*0*	*36,150*	*256,000*	42,900	0	0	88,000	38,000	0	0	0	0	0
13	0.00	3.0	1.4	21.0	5,040	36,150	12	0	36,150	259,000	38,500	12,035	0	108,000	38,000	0	57,059	0	0	45,600
14	0.00	2.6	1.4	17.8	8,930	37,202	0	2,504	39,706	254,000	38,000	18,048	0	88,000	38,000	0	32,486	0	0	26,000
15	0.00	2.6	1.4	17.4	8,755	32,629	0	0	32,629	233,000	36,400	12,030	10,057	88,000	38,000	0	0	0	0	8,000
16	0.00	3.3	1.4	17.5	8,655	31,364	0	0	31,364	211,000	39,500	12,034	8,035	123,000	38,000	0	52,927	0	0	48,800
17	0.00	2.8	1.4	18.5	9,300	35,072	27	2,499	37,571	202,000	35,000	6,015	0	98,000	38,000	0	26,378	0	0	21,100
18	0.00	3.0	1.4	17.3	9,210	42,362	0	0	42,362	204,000	34,900	0	0	108,000	38,000	0	32,569	0	0	26,100
19	0.00	*3.3*	*1.4*	*18.6*	*2,710*	*40,122*	0	*1,202*	*41,324*	*212,000*	39,300	0	0	123,000	38,000	0	0	0	0	0
20	0.00	3.6	1.4	19.9	2,710	40,122	0	1,202	41,324	221,000	38,700	18,068	8,034	145,000	38,000	0	52,689	0	0	48,600
21	0.00	3.3	1.4	18.4	7,170	33,837	29	0	33,837	221,000	39,800	12,032	8,038	123,000	38,000	0	48,523	0	0	45,200
22	0.00	3.0	1.4	18.5	9,440	36,667	0	2,268	38,935	180,000	38,000	6,013	8,043	108,000	38,000	0	51,065	0	0	47,300
23	0.00	2.7	1.4	20.8	10,800	43,578	0	0	43,578	180,000	33,400	12,060	0	93,000	38,000	0	0	0	0	0
24	0.01	3.3	1.4	14.7	9,680	42,608	0	2,507	45,115	182,000	41,800	0	4,014	123,000	38,000	0	29,425	0	0	26,800
25	1.93	*3.4*	*1.5*	*15.7*	2,737	*37,601*	*13*	*785*	*38,387*	*191,000*	41,800	0	0	129,000	38,000	0	0	0	0	0
26	0.00	*3.5*	*1.5*	*16.8*	2,737	*37,601*	13	785	38,387	200,000	38,900	0	0	140,000	44,000	0	0	0	0	3,200
27	0.00	3.6	1.6	17.8	2,737	37,601	13	785	38,387	209,000	41,200	0	4,016	145,000	51,000	0	53,510	0	0	48,400
28	0.00	3.6	2.8	16.9	5,260	27,813	0	0	27,813	202,000	38,400	6,093	7,040	145,000	152,000	0	46,136	0	0	40,100
29	0.00	3.2	2.8	18.7	7,480	30,206	20	2,431	32,637	187,000	38,400	12,053	4,016	118,000	152,000	0	43,194	0	0	37,800
30	0.00	3.0	2.8	15.8	8,360	34,952	0	0	34,952	173,000	40,100	6,030	4,014	108,000	152,000	0	53,184	0	0	45,800
31	0.00	2.9	2.8	17.5	8,410	35,923	10	106	36,029	161,000	37,800	6,022	4,015	103,000	152,000					
																	939,762	0	0	823,300
Total	2.01				217,080	1,163,285	242	31,427	1,194,712			1,137,100	240,814	89,441						
Daily Average		2.8	1.6	17.9	7,003	37,525	8	1,014	38,539	219,300					98,800	54,500	0			26,560
Mo. Average														2,900				30,300	0	0

projects\balance\2004\December-04bal.xls (Revised by ler 1/11/05)

Notes
1. NR = No Records, NA = Not Available
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values
3. Daily average is calculated by dividing the total by the actual days measured in the month
4. Monthly average calculated by dividing the total by the number of days of the month
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges
7. Column V, PPS-B sensor reading plus 9 inches
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal leachate tank
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
DECEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Stn. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	9.0	91,136	1,338,509	2,588,160	3,917,047	8.3	0	18,045	3,022	0.00	2.9	1.5	0.0	28,946	45,118	0	0	0
2	9.4	91,151	1,338,509	2,598,660	3,956,656	7.6	0	12,042	0	0.00	2.6	1.5	0.0	29,887	53,214	0	0	0
3	9.4	91,151	1,341,812	2,608,745	3,996,209	8.2	0	12,033	9,063	0.00	2.0	1.5	0.0	29,887	39,573	0	0	0
4	9.3	91,151	1,341,812	2,618,195	4,030,732	7.8	0	0	0	0.00	2.7	1.5	0.0	28,736	36,113	0	0	0
5	*10.3*	*91,165*	*1,342,580*	*2,619,868*	*4,069,156*	*8.2*	0	0	0	0.00	*2.4*	*1.5*	0.0	27,797	0	0	0	0
6	11.2	91,178	1,343,348	2,621,540	4,107,580	8.7	0	12,035	0	0.00	2.0	1.5	0.0	31,293	38,301	0	0	0
7	5.7	91,193	1,343,348	2,626,550	4,146,248	9.0	0	0	0	0.00	1.8	1.4	0.0	38,610	34,528	0	0	0
8	5.8	91,196	1,345,656	2,635,215	4,185,314	8.3	0	12,036	0	0.00	1.8	1.4	0.0	38,144	41,426	0	0	0
9	8.6	91,209	1,345,656	2,640,545	4,224,333	9.2	0	18,055	8,034	0.00	1.7	1.4	0.0	38,488	31,526	0	0	0
10	7.8	91,209	1,347,818	2,648,190	4,266,883	8.5	0	18,035	0	0.07	1.8	1.4	0.0	35,667	12,569	0	0	0
11	9.8	91,209	1,350,272	2,659,860	4,313,175	8.8	0	0	0	0.00	2.2	1.4	0.0	36,869	28,249	0	0	0
12	*10.9*	*91,221*	*1,350,272*	*2,664,900*	*4,349,325*	*8.9*	0	0	0	0.00	*2.6*	*1.4*	0.0	42,871	0	0	0	0
13	12.0	91,232	1,350,272	2,669,940	4,385,474	9.0	0	12,035	0	0.00	3.0	1.4	0.0	38,517	57,059	0	0	0
14	8.8	91,232	1,352,776	2,678,870	4,422,676	8.8	0	18,048	0	0.00	2.6	1.4	0.0	38,036	32,486	0	0	0
15	8.4	91,232	1,352,776	2,687,625	4,455,305	8.1	0	12,030	10,057	0.00	2.6	1.4	0.0	36,372	0	0	0	0
16	8.5	91,232	1,352,776	2,696,280	4,486,669	7.3	0	12,034	8,035	0.00	3.3	1.4	0.0	39,504	52,927	0	0	0
17	9.5	91,259	1,355,275	2,705,580	4,521,741	7.0	0	6,015	0	0.00	2.8	1.4	0.0	34,950	26,378	0	0	0
18	8.3	91,259	1,355,275	2,714,790	4,564,103	7.1	0	0	0	0.00	3.0	1.4	0.0	34,865	32,569	0	0	0
19	*9.6*	*91,259*	*1,356,477*	*2,717,500*	*4,604,225*	*7.4*	0	0	0	0.00	*3.3*	*1.4*	0.0	39,339	0	0	0	0
20	10.9	91,259	1,357,679	2,720,210	4,644,347	7.7	0	18,068	8,034	0.00	3.6	1.4	0.0	38,701	52,689	0	0	0
21	9.4	91,288	1,357,679	2,727,380	4,678,184	7.7	0	12,032	8,038	0.00	3.3	1.4	0.0	39,798	48,523	0	0	0
22	9.5	91,288	1,359,947	2,736,820	4,714,851	6.3	0	6,013	8,043	0.00	3.0	1.4	0.0	38,045	51,065	0	0	0
23	11.8	91,288	1,359,947	2,747,620	4,758,429	6.3	0	12,060	0	0.00	2.7	1.4	0.0	33,414	0	0	0	0
24	5.7	91,288	1,362,454	2,757,300	4,801,037	6.3	0	0	4,014	0.01	3.3	1.4	0.0	41,817	29,425	0	0	0
25	6.7	*91,301*	*1,363,239*	*2,760,037*	*4,838,638*	*6.6*	0	0	0	1.93	*3.4*	*1.5*	0.0	41,817	0	0	0	0
26	*7.8*	*91,313*	*1,364,025*	*2,762,773*	*4,876,240*	*6.9*	0	0	0	0.00	*3.5*	*1.5*	0.0	38,911	0	0	0	0
27	8.8	91,326	1,364,810	2,765,510	4,913,841	7.3	0	0	4,016	0.00	3.6	1.6	0.0	41,155	0	0	0	0
28	7.9	91,326	1,364,810	2,770,770	4,941,654	7.0	0	6,093	7,040	0.00	3.6	2.8	0.0	38,426	53,510	0	0	0
29	9.7	91,346	1,367,241	2,778,250	4,971,860	6.5	0	12,053	4,016	0.00	3.2	2.8	0.0	38,410	46,136	0	0	0
30	6.8	91,346	1,367,241	2,786,610	5,006,812	6.0	0	6,030	4,014	0.00	3.0	2.8	0.0	40,145	43,194	0	0	0
31	8.5	91,356	1,367,347	2,795,020	5,042,735	5.6	0	6,022	4,015	0.00	2.9	2.8	0.0	37,772	53,184	0	0	0
Totals							0	240,814	89,441	2.01			0	1,137,189	939,762			

projects\balance\2004\December-04bal.xls (Revised by ler 1/11/05)

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August	10.51	0	56,466	1,172,326	924,596	19,149	378,100	0	0	508,762	1,228,792	1,321,845	-93,053
September	15.48	0	54,399	1,184,605	922,815	4,008	508,600	0	0	619,577	1,239,004	1,435,423	-196,419
October	1.22	0	77,309	1,479,967	1,006,683	38,284	790,700	0	0	937,843	1,557,276	1,835,667	-278,391
November	2.51	0	44,165	1,224,334	204,637	67,510	1,062,800	0	0	1,093,567	1,268,499	1,334,947	-66,448
December	2.01	0	31,427	1,163,285	240,814	89,441	1,137,100	0	0	939,762	1,194,712	1,467,355	-272,643
YTD Total	64.09	0	1,534,111	13,928,598	10,103,144	707,001	6,448,100	0	0	5,824,458	15,462,709	17,258,245	-1,795,536

projects\balance\2004\2004-summary xls (Revised by ler 1/11/05)

Note:
1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

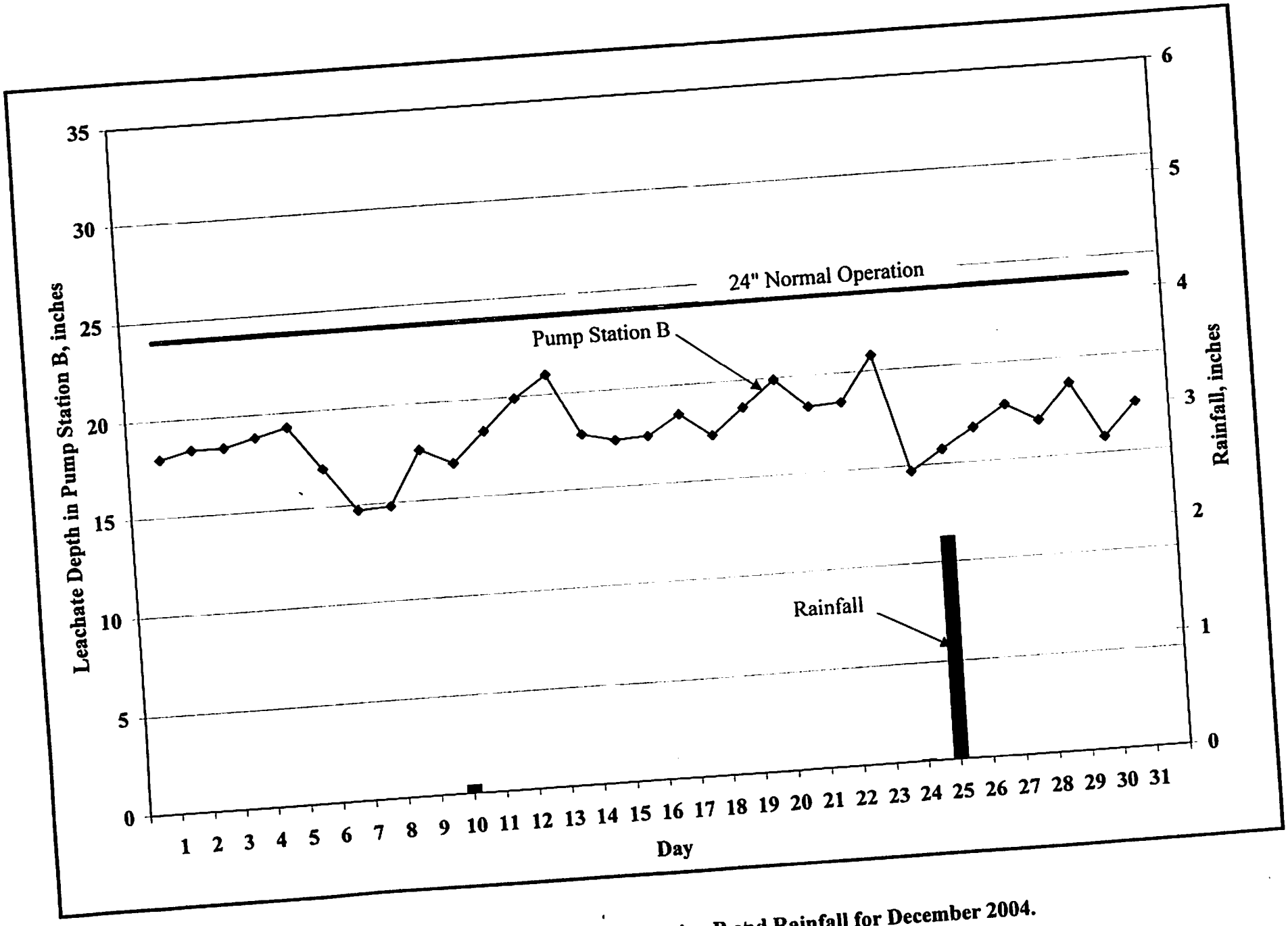

Figure 1. Leachate Levels in Pump Station B and Rainfall for December 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) December, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	10,220	0.00	9.0	37,597	2,589	22	8'3'	0	18,045	3,022	0.00
2	0.0	10,500	0.00	9.4	39,609	0	15	7'7"	0	12,042	0	0.00
3	0.0	10,085	0.00	9.4	39,553	3,303	0	8'2"	0	12,033	9,063	0.00
4	0.0	9,450	0.00	9.3	38,523	0	0	7'9"	0	0	0	0.00
5	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
6	0.0	3,345	0.00	11.2	72,848	1,536	63	8'8"	0	12,035	0	0.00
7	0.0	5,010	0.00	5.7	38,668	0	59	9'0"	0	0	0	0.00
8	0.0	8,715	0.00	5.8	39,066	2,308	3	8'4"	0	12,036	0	0.00
9	0.0	5,330	0.00	8.6	39,019	0	13	9'2"	0	18,055	8,034	0.00
10	0.0	7,645	0.00	7.8	42,550	2,162	0	8'6"	0	18,035	0	0.00
11	0.0	11,670	0.00	9.8	46,292	2,454	0	8'9"	0	0	0	0.00
12	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
13	0.0	10,080	0.00	12.0	72,299	0	23	9'0"	0	12,035	0	0.00
14	0.0	8,930	0.00	8.8	37,202	2,504	0	8'10"	0	18,048	0	0.00
15	0.0	8,755	0.00	8.4	32,629	0	0	8'1"	0	12,030	10,057	0.00
16	0.0	8,655	0.00	8.5	31,364	0	0	7'4"	0	12,034	8,035	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) December, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	9,300	0.00	9.5	35,072	2,499	27	7'0"	0	6,015	0	0.00
18	0.0	9,210	0.00	8.3	42,362	0	0	7'1"	0	0	0	0.00
19	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
20	0.0	5,420	0.00	10.9	80,244	2,404	0	7'8"	0	18,068	8,034	0.00
21	0.0	7,170	0.00	9.4	33,837	0	29	7'8"	0	12,032	8,038	0.00
22	0.0	9,440	0.00	9.5	36,667	2,268	0	6'3"	0	6,013	8,043	0.00
23	0.0	10,800	0.00	11.8	43,578	0	0	6'3"	0	12,060	0	0.00
24	0.0	9,680	0.00	5.7	42,608	2,507	0	6'4"	0	0	4,014	0.07
25	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	1.93
26	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
27	0.0	8,210	0.00	8.8	112,804	2,356	38	7'3"	0	0	4,016	0.00
28	0.0	5,260	0.00	7.9	27,813	0	0	7'0"	0	6,093	7,040	0.00
29	0.0	7,480	0.00	9.7	30,206	2,431	20	6'6"	0	12,053	4,016	0.00
30	0.0	8,360	0.00	6.8	34,952	0	0	6'0"	0	6,030	4,014	0.00
31	0.0	8,410	0.00	8.5	35,923	106	10	5'7"	0	6,022	4,015	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) December,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	2.90	1.50	0	28,946	45,118		0	0				N
2	2.60	1.50	0	29,887	53,214		0	0				N
3	2.00	1.50	0	29,887	39,573		0	0				N
4	2.70	1.50	0	28,736	36,113		0	0				N
5	0.00	0.00	0	27,797	0		0	0				
6	2.00	1.50	0	31,293	38,301		0	0				N
7	1.80	1.40	0	38,610	34,528		0	0				N
8	1.80	1.40	0	38,144	41,426		0	0				N
9	1.70	1.40	0	38,488	31,526		0	0				N
10	1.80	1.40	0	35,667	12,569		0	0				N
11	2.20	1.40	0	36,869	28,249		0	0				N
12	0.00	0.00	0	42,871	0		0	0				
13	3.00	1.40	0	38,517	57,059		0	0				N
14	2.60	1.40	0	38,036	32,486		0	0				N
15	2.60	1.40	0	36,372	0		0	0				
16	3.30	1.40	0	39,504	52,927		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond L Graves

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) December,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	2.80	1.40	0	34,950	26,378		0	0				N
18	3.00	1.40	0	34,865	32,569		0	0				N
19	0.00	0.00	0	39,339	0		0	0				
20	3.60	1.40	0	38,701	52,689		0	0				N
21	3.30	1.40	0	39,798	48,523		0	0				N
22	3.00	1.40	0	38,045	51,065		0	0				N
23	2.70	1.40	0	33,414	0		0	0				
24	3.30	1.40	0	41,817	29,425		0	0				N
25	0.00	0.00	0	41,817	0		0	0				
26	0.00	0.00	0	38,911	0		0	0				
27	3.60	1.60	0	41,155	0		0	0				
28	3.60	2.80	0	38,426	53,510		0	0				N
29	3.20	2.80	0	39,410	46,136		0	0				N
30	3.00	2.80	0	40,145	43,194		0	0				N
31	2.90	2.80	0	37,772	53,184		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Stamm

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December 16, 2004

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –November 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of November 2004. In addition, the SWMD is providing the November 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for November 2004 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches in November except for November 5th due to a bubbler malfunction. The average depth of leachate in the PS-B sump for the recorded days in November 2004 was 19.4 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea1104.dep

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MEMORANDUM

DATE: December 15, 2004

TO: Patricia Berry, Solid Waste Management Department

FROM: Larry Ruiz, Sr. Engineering Specialist, SWMD LR
Raymond Graves, Engineering Tech. II, SWMD

SUBJECT: Leachate Water Balance Report Forms for November 2004
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI and Section 7 of the Capacity Expansion for November 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for November (Figure 1).

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of November.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.51 inches of rainfall at the Southeast County Landfill (SCLF) in November.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In November, the average depth of effluent stored in Pond A was 2.3 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In November, the average depth of effluent stored in Pond B was 1.2 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in November except for November 5th due to a bubbler malfunction. The average depth of leachate in the PS-B sump for the recorded days in November was 19.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in November was 9,647 gallons. A total of 289,420 gallons was pumped from TPS-6 to PS-B in November.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in November was 40,811 gallons. A total of 1,224,334 gallons of leachate was pumped to the storage tank in November.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In November, a total of 283 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). On October 5, 2004, the flow meter was taken offline for repairs. An average of 2,500 gallons per day was used to estimate the leachate removed from Section 7 through November 5th. In November, 44,165 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In November, a total of 1,268,499 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in November was estimated at 204,200 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In November, a total of 1,062,800 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of November, a total of 204,637 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the Phases I-VI. In November 67,510 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. In November, a daily average of 76,700 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. In November, a daily average of 30,200 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in November.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. In November, 1,093,567 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In November, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In November, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for November was 928,800 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF in November was 1,268,499 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,334,947 gallons. The change in storage for the month of November decreased by 66,448 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
NOVEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	2.5	1.6	13.5	25,310	47,714	10	2,500	50,214	180,000	34,500	6,025	0	83,000	51,000	0	60,428	0	0	48,300
2	0.00	1.9	1.6	19.1	23,810	43,176	18	2,500	45,676	187,000	32,200	18,116	0	57,000	51,000	0	43,508	0	0	34,800
3	0.00	1.6	1.5	23.9	3,930	42,768	13	2,500	45,268	189,000	30,900	0	0	44,000	44,000	0	31,826	0	0	25,500
4	0.08	1.5	1.3	19.1	25,070	45,874	17	2,500	48,374	206,000	31,900	11,912	3,021	40,000	44,000	0	27,901	0	0	24,700
5	0.00	1.9	1.3	33.6	26,545	46,419	0	2,500	48,919	216,000	37,800	12,052	3,021	57,000	33,000	0	40,164	0	0	34,500
6	0.00	1.8	1.3	15.8	25,705	37,352	13	998	38,350	206,000	36,100	0	8,012	52,000	33,000	0	44,488	0	0	42,000
7	0.00	*1.7*	*1.3*	*18.1*	*26,865*	*41,639*	*0*	*2,471*	*44,110*	*212,000*	41,300	0	0	*48,000*	*28,000*	0	29,580	0	0	23,700
8	0.00	1.6	1.2	20.3	26,865	41,639	0	2,471	44,110	218,000	36,400	18,048	2,026	44,000	28,000	0	46,488	0	0	38,800
9	0.00	1.4	1.2	19.4	25,560	43,170	0	0	43,170	209,000	34,100	6,015	4,214	36,000	28,000	0	21,904	0	0	20,900
10	0.00	1.6	1.2	21.1	11,240	37,630	39	1,591	39,221	209,000	32,000	6,013	3,022	44,000	28,000	0	34,988	0	0	30,400
11	0.00	1.4	1.2	17.6	-12,920	40,267	12	2,382	42,649	214,000	38,500	0	8,037	36,000	28,000	0	34,881	0	0	34,300
12	0.00	1.4	1.1	21.8	0	40,123	18	21	40,144	211,000	0	12,028	0	36,000	23,000	0	22,565	0	0	18,100
13	0.00	1.8	1.1	20.0	1,040	47,400	0	2,638	50,038	221,000	0	0	0	52,000	23,000	0	29,959	0	0	24,000
14	0.00	*2.3*	*1.1*	*17.7*	*0*	*38,244*	*10*	*1,236*	*39,480*	*222,000*	45,500	0	0	*74,000*	*23,000*	0	0	0	0	0
15	0.00	2.8	1.1	15.3	0	38,244	10	1,236	39,480	223,000	42,600	12,028	0	98,000	23,000	0	64,289	0	0	51,400
16	0.00	2.2	1.1	17.6	0	35,934	14	1,246	37,180	218,000	52,000	12,042	0	70,000	23,000	0	52,284	0	0	41,800
17	0.00	2.1	1.1	17.1	0	40,340	16	1,246	41,586	206,000	39,400	12,057	0	65,000	23,000	0	66,370	0	0	53,100
18	0.00	1.5	1.1	16.4	9,530	40,691	12	0	40,691	192,000	51,600	0	0	40,000	23,000	0	24,179	0	0	19,300
19	0.00	2.0	1.1	16.8	15,230	43,525	0	768	44,293	197,000	51,700	6,013	8,031	61,000	23,000	0	45,820	0	0	43,100
20	0.00	3.0	1.1	16.6	11,820	44,827	0	2,767	47,594	187,000	43,700	0	8,072	108,000	23,000	0	72,101	0	0	64,100
21	0.00	*3.2*	*1.1*	*17.1*	*355*	*38,936*	*14*	*1,324*	*40,260*	*184,000*	51,300	0	0	*118,000*	*23,000*	0	0	0	0	0
22	0.00	3.3	1.1	17.6	355	38,936	14	1,324	40,260	180,000	36,900	6,058	8,048	123,000	23,000	0	54,384	0	0	49,900
23	0.00	2.9	1.0	22.2	7,380	33,216	0	0	33,216	173,000	33,800	12,066	8,000	103,000	19,000	0	55,074	0	0	50,500
24	1.20	2.4	1.0	23.7	10,590	43,082	0	3,844	46,926	178,000	30,600	12,036	0	79,000	19,000	0	48,334	0	0	38,700
25	0.83	*2.7*	*1.2*	*22.4*	*4,600*	*42,266*	0	*836*	*43,102*	*187,000*	26,900	0	0	*93,000*	*23,000*	0	0	0	0	0
26	0.00	3.0	1.3	21.0	4,600	42,266	0	836	43,102	197,000	49,600	12,048	0	108,000	33,000	0	0	0	0	0
27	0.40	3.6	1.4	20.4	630	35,774	0	0	35,774	209,000	29,200	0	0	145,000	38,000	0	78,448	0	0	62,800
28	0.00	*3.4*	*1.5*	*19.7*	*4,230*	*38,285*	*0*	*1,216*	*39,501*	*222,000*	31,200	0	0	*129,000*	*38,000*	0	0	0	0	0
29	0.00	3.1	1.5	18.9	4,230	38,285	0	1,216	39,501	235,000	30,700	18,048	0	113,000	44,000	0	0	0	0	0
30	0.00	3.6	1.5	19.6	6,850	36,313	53	0	36,313	238,000	30,400	12,032	4,006	145,000	44,000	0	63,604	0	0	54,100
Total	2.51				289,420	1,224,334	283	44,165	1,268,499		1,062,800	204,637	67,510				1,093,567	0	0	928,800
Daily Average		2.3	1.2	19.4	9,647	40,811	9	1,472	42,283	204,200				76,700	30,200	0				
Mo. Average													2,300				36,500	0	0	30,960

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
NOVEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	4.5	90,841	1,294,255	2,313,830	2,702,830	6.25	0	6,025	0	0.00	2.5	1.6	0.0	34,496	60,428	0	0	0
2	10.1	90,859	1,296,755	2,337,640	2,746,006	6.50	0	18,116	0	0.00	1.9	1.6	0.0	32,157	43,508	0	0	0
3	14.9	90,872	1,299,255	2,341,570	2,788,774	6.58	0	0	0	0.00	1.6	1.5	0.0	30,854	31,826	0	0	0
4	10.1	90,889	1,301,755	2,366,640	2,834,648	7.17	0	11,912	3,021	0.08	1.5	1.5	0.0	31,864	27,901	0	0	0
5	24.6	90,889	1,304,255	2,393,185	2,881,067	7.50	0	12,052	3,021	0.00	1.9	1.3	0.0	37,762	40,164	0	0	0
6	6.8	90,902	1,305,253	2,418,890	2,918,419	7.17	0	0	8,012	0.00	1.8	1.3	0.0	36,111	44,488	0	0	0
7	*9.1*	*90,902*	*1,307,724*	*2,445,755*	*2,960,058*	*7.4*	0	0	0	0.00	*1.7*	*1.3*	0.0	41,308	29,580	0	0	0
8	11.3	90,902	1,310,195	2,472,620	3,001,696	7.58	0	18,048	2,026	0.00	1.6	1.2	0.0	36,398	46,488	0	0	0
9	10.4	90,902	1,310,195	2,498,180	3,044,866	7.25	0	6,015	4,214	0.00	1.4	1.2	0.0	34,101	21,904	0	0	0
10	12.1	90,941	1,311,786	2,509,420	3,082,496	7.25	0	6,013	3,022	0.00	1.6	1.2	0.0	32,013	34,988	0	0	0
11	8.6	90,953	1,314,168	2,496,500	3,122,763	7.42	0	0	8,037	0.00	1.4	1.2	0.0	38,465	34,881	0	0	0
12	12.8	90,971	1,314,189	2,496,500	3,162,886	7.33	0	12,028	0	0.00	1.4	1.1	0.0	0	22,565	0	0	0
13	11.0	90,971	1,316,827	2,497,540	3,210,286	7.67	0	0	0	0.00	1.8	1.1	0.0	0	29,959	0	0	0
14	*8.7*	*90,981*	*1,318,063*	*2,497,540*	*3,248,530*	*7.7*	0	0	0	0.00	*2.3*	*1.1*	0.0	45,468	0	0	0	0
15	6.3	90,991	1,319,298	2,497,540	3,286,774	7.75	0	12,028	0	0.00	2.8	1.1	0.0	42,583	64,289	0	0	0
16	8.6	91,005	*1,320,544*	2,497,540	3,322,708	7.58	0	12,042	0	0.00	2.2	1.1	0.0	52,034	52,284	0	0	0
17	8.1	91,021	1,321,789	2,497,540	3,363,048	7.17	0	12,057	0	0.00	2.1	1.1	0.0	39,407	66,370	0	0	0
18	7.4	91,033	1,321,789	2,507,070	3,403,739	6.67	0	0	0	0.00	1.5	1.1	0.0	51,562	24,179	0	0	0
19	7.8	91,033	1,322,557	2,522,300	3,447,264	6.83	0	6,013	8,031	0.00	2.0	1.1	0.0	51,657	45,820	0	0	0
20	7.6	91,033	1,325,324	2,534,120	3,492,091	6.50	0	0	8,072	0.00	3.0	1.1	0.0	43,697	72,101	0	0	0
21	*8.1*	*91,047*	*1,326,648*	*2,534,475*	*3,531,027*	*6.4*	0	0	0	0.00	*3.2*	*1.1*	0.0	51,305	0	0	0	0
22	8.6	91,061	1,327,972	2,534,830	3,569,963	6.25	0	6,058	8,048	0.00	3.3	1.1	0.0	36,888	54,384	0	0	0
23	13.2	91,061	1,327,972	2,542,210	3,603,179	6.00	0	12,066	8,000	0.00	2.9	1.0	0.0	33,841	55,074	0	0	0
24	14.7	91,061	1,331,816	2,552,800	3,646,261	6.17	0	12,036	0	1.20	2.4	1.0	0.0	30,597	48,334	0	0	0
25	*13.4*	*91,061*	*1,332,652*	*2,557,400*	*3,688,527*	*6.5*	0	0	0	0.83	*2.7*	*1.2*	0.0	26,854	0	0	0	0
26	12.0	91,061	1,333,488	2,562,000	3,730,793	6.83	0	12,048	0	0.00	3.0	1.3	0.0	49,628	0	0	0	0
27	11.4	91,061	1,333,488	2,562,630	3,766,567	7.25	0	0	0	0.40	3.6	1.4	0.0	29,210	78,448	0	0	0
28	*10.7*	*91,061*	*1,334,704*	*2,566,860*	*3,804,852*	*7.7*	0	0	0	0.00	*3.4*	*1.5*	0.0	31,179	0	0	0	0
29	9.9	91,061	1,335,920	2,571,090	3,843,137	8.17	0	18,048	0	0.00	3.1	1.5	0.0	30,723	0	0	0	0
30	10.6	91,114	1,335,920	2,577,940	3,879,450	8.25	0	12,032	4,006	0.00	3.6	1.5	0.0	30,422	63,604	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	139.4	6.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August	10.51	0	56,466	1,172,326	924,596	19,149	378,100	0	0	508,762	1,228,792	1,321,845	-93,053
September	15.48	0	54,399	1,184,605	922,815	4,008	508,600	0	0	619,577	1,239,004	1,435,423	-196,419
October	1.22	0	77,309	1,479,967	1,006,683	38,284	790,700	0	0	937,843	1,557,276	1,835,667	-278,391
November	2.51	0	44,165	1,224,334	204,637	67,510	1,062,800	0	0	1,093,567	1,268,499	1,334,947	-66,448
December													
YTD Total	62.08	0	1,502,684	12,765,313	9,862,330	617,560	5,311,000	0	0	4,884,696	14,267,997	15,790,890	-1,522,893

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

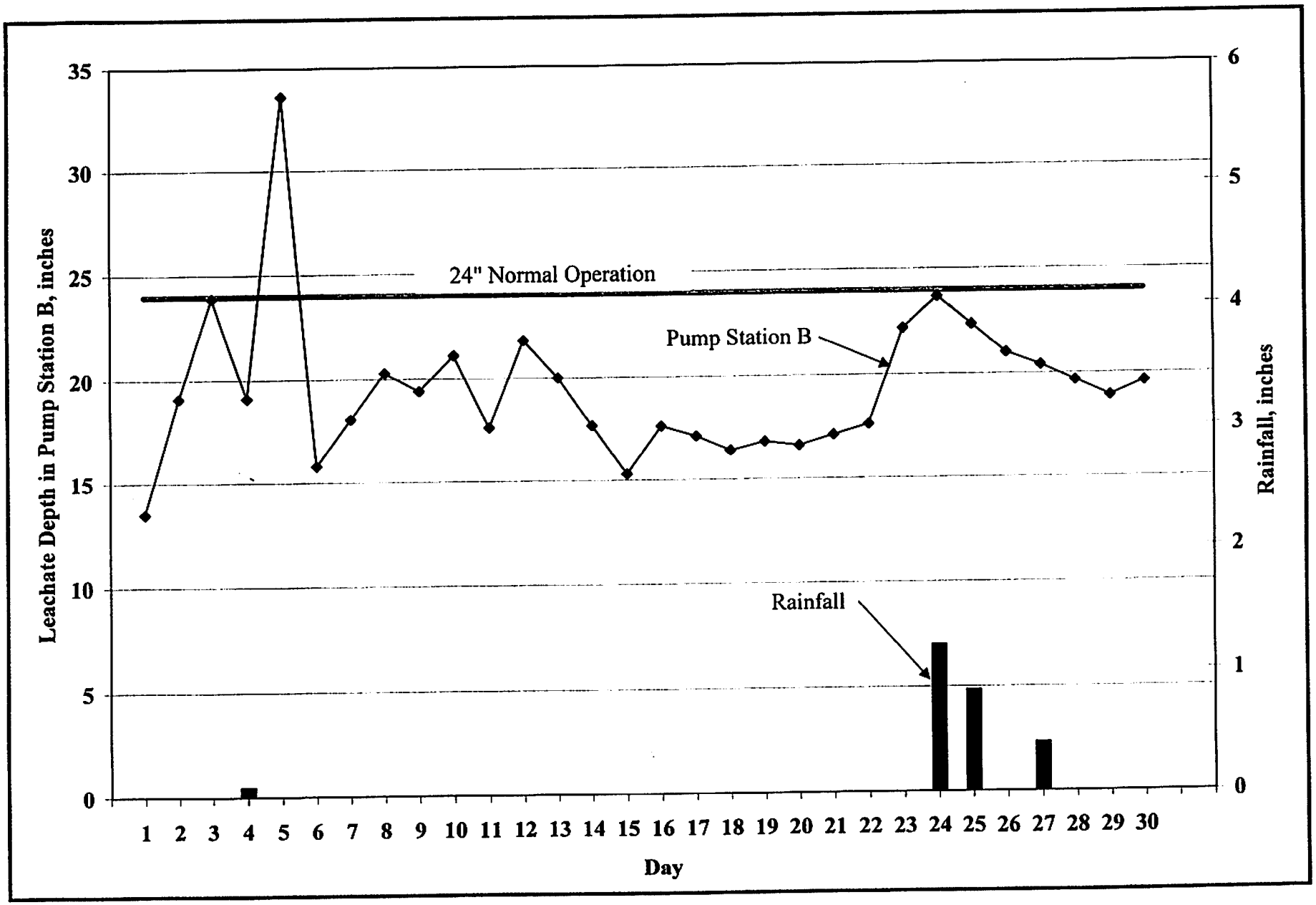

Figure 1. Leachate Levels in Pump Station B and Rainfall for November 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) November, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	50,620	0.00	4.5	95,428	0	20	6'3"	0	6,025	0	0.00
2	0.0	23,810	0.00	10.1	43,176	0	18	6'6"	0	18,116	0	0.00
3	0.0	3,930	0.00	14.9	42,768	0	13	6'7"	0	0	0	0.00
4	0.0	25,070	0.00	10.1	45,874	0	17	7'2"	0	11,912	3,021	0.08
5	0.0	26,545	0.00	*24.6	46,419	0	0	7'6"	0	12,052	3,021	0.00
6	0.0	25,705	0.00	6.8	37,352	998	13	7'2"	0	0	8,012	0.00
7	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
8	0.0	53,730	0.00	11.3	83,277	4,942	0	7'7"	0	18,048	2,026	0.00
9	0.0	25,560	0.00	10.4	43,170	0	0	7'3"	0	6,015	4,214	0.00
10	0.0	11,240	0.00	12.1	37,630	1,591	36	7'3"	0	6,013	3,022	0.00
11	0.0	0	0.00	8.6	38,267	2,382	12	7'5"	0	0	8,037	0.00
12	0.0	0	0.00	12.8	42,123	21	18	7'4"	0	12,028	0	0.00
13	0.0	1,040	0.00	11.0	47,400	2,638	0	7'8"	0	0	0	0.00
14	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
15	0.0	0	0.00	6.3	76,488	2,471	20	7'9"	0	12,028	0	0.00
16	0.0	0	0.00	8.6	35,933	0	14	7'7"	0	12,042	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *See Daily Field Data Entry Form,11/05/04.

Prepared by: Raymond C Grace

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) November, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	0	0.00	8.1	40,341	2,528	16	7'2"	0	12,057	0	0.00
18	0.0	9,530	0.00	7.4	40,691	0	12	6'8"	0	0	0	0.00
19	0.0	15,230	0.00	7.8	43,525	758	0	6'10'	0	6,013	8,031	0.00
20	0.0	11,820	0.00	7.6	44,827	2,777	0	6'6"	0	0	8,072	0.00
21	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
22	0.0	710	0.00	8.6	77,872	2,648	28	6'3"	0	6,058	8,048	0.00
23	0.0	7,380	0.00	13.2	33,216	0	0	6'0"	0	12,066	8,000	0.00
24	0.0	9,390	0.00	14.7	43,082	3,844	0	6'2"	0	12,036	0	1.20
25	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.83
26	0.0	9,200	0.00	12.0	84,532	1,672	0	6'10"	0	12,048	0	0.00
27	0.0	630	0.00	11.4	35,774	0	0	7'3"	0	0	0	0.40
28	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
29	0.0	8,460	0.00	9.9	76,570	2,432	0	8'2"	0	18,048	0	0.00
30	0.0	6,850	0.00	10.6	36,318	0	53	8'3"	0	12,032	4,006	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) November,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	2.50	1.60	0	34,496	60,428		0	0	0			N
2	1.90	1.60	0	32,157	43,508		0	0	0			N
3	1.60	1.50	0	30,854	31,826		0	0	0			N
4	1.50	1.50	0	31,864	27,901		0	0	0			N
5	1.90	1.30	0	37,762	40,164		0	0	0			N
6	1.90	1.30	0	36,111	44,488		0	0	0			N
7	0.00	0.00	0	41,308	29,580		0	0	0			N
8	1.60	1.20	0	36,398	46,488		0	0	0			N
9	1.40	1.20	0	34,101	21,904		0	0	0			N
10	1.60	1.20	0	32,013	34,988		0	0	0			N
11	1.40	1.20	0	38,465	34,881		0	0	0			N
12	1.40	1.10	0	0	22,565		0	0	0			N
13	1.80	1.10	0	0	29,959		0	0	0			N
14	0.00	0.00	0	45,468	0		0	0	0			
15	2.80	1.10	0	42,583	64,289		0	0	0			N
16	2.20	1.10	0	52,034	52,284		0	0	0			N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) November,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	2.10	1.10	0	39,407	66,370		0	0	0			N
18	1.50	1.10	0	51,562	24,179		0	0	0			N
19	2.00	1.10	0	51,657	45,820		0	0	0			N
20	3.00	1.10	0	43,697	72,101		0	0	0			N
21	0.00	0.00	0	51,305	0		0	0	0			
22	3.30	1.10	0	36,888	54,384		0	0	0			N
23	2.90	1.00	0	33,841	55,074		0	0	0			N
24	2.40	1.00	0	30,597	48,334		0	0	0			N
25	0.00	0.00	0	26,854	0		0	0	0			N
26	3.00	1.30	0	49,628	0		0	0	0			
27	3.60	1.40	0	29,210	78,448		0	0	0			N
28	0.00	0.00	0	31,179	0		0	0	0			N
29	3.10	1.50	0	30,723	0		0	0	0			N
30	3.60	1.50	0	30,422	63,604		0	0	0			N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.
(2) If depth is 3.6 feet or greater, contact Supervisor immediately.
(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.
(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

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November 19, 2004

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –October 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of October 2004. In addition, the SWMD is providing the October 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for October 2004 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches in October except for October 1st due to a power outage related to hurricane Jeanne in late September, and October 7 and 15 due to pump repairs. The average depth of leachate in the PS-B sump for the recorded days in October 2004 was 18.7 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea1004.dep

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MEMORANDUM

DATE: November 16, 2004

TO: Patricia Berry, Solid Waste Management Department

FROM: Larry Ruiz, Sr. Engineering Specialist, SWMD
Raymond Graves, Engineering Tech. II, SWMD

SUBJECT: Leachate Water Balance Report Forms for October 2004
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI and Section 7 of the Capacity Expansion for October 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for October (Figure 1).

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of October.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 1.22 inches of rainfall at the Southeast County Landfill (SCLF) in October.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In October, the average depth of effluent stored in Pond A was 1.9 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In October, the average depth of effluent stored in Pond B was 2.5 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in October except for October 1st due to a power outage related to hurricane Jeanne in late September, and October 7th and 15th due to pump repairs. The average depth of leachate in the PS-B sump for the recorded days in October was 18.7 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in October was 23,600 gallons. A total of 731,590 gallons was pumped from TPS-6 to PS-B in October.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in October was 47,741 gallons. A total of 1,479,967 gallons of leachate was pumped to the storage tank in October.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In October, a total of 660 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). On October 5, 2004, the flow meter was taken offline for repairs. An average of 2,500 gallons per day was used to estimate the leachate removed from Section 7. In October, 77,309 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In October, a total of 1,557,276 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in October was estimated at 325,500 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In October, a total of 790,700 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of October, a total of 1,006,683 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the Phases I-VI. In October 38,284 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. In October, a daily average of 58,800 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. In October, a daily average of 125,400 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in October.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. In October, 937,843 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In October, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In October, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for October was 780,900 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF in October was 1,557,276 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,835,667 gallons. The change in storage for the month of October decreased by 278,391 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
OCTOBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	2.5	3.8	33.4	0	73,910	0	2,442	76,352	362,000	16,000	48,262	0	83,000	256,000	0	11,053	0	0	8,800
2	0.00	2.6	3.7	21.4	20,650	59,907	0	2,443	62,350	362,000	14,700	48,103	0	88,000	245,000	0	56,945	0	0	45,600
3	0.00	*2.6*	*3.6*	*17.6*	*20,300*	*54,509*	0	2,462	*56,971*	383,000	18,900	0	0	*88,000*	*234,000*	0	0	0	0	0
4	0.00	2.6	3.5	14.1	20,300	54,509	0	2,462	56,971	403,000	18,200	48,138	2,038	88,000	223,000	0	45,681	0	0	38,200
5	0.00	1.8	3.5	9.3	0	53,167	0	2,500	55,667	386,000	14,900	54,219	0	52,000	223,000	0	42,095	0	0	33,700
6	0.00	1.9	3.2	17.0	3,695	39,043	185	2,500	41,543	365,000	14,200	18,076	0	57,000	192,000	0	36,509	0	0	29,200
7	0.00	2.0	2.9	26.8	17,005	46,473	55	2,500	48,973	379,000	14,200	54,468	0	61,000	162,000	0	35,351	0	0	28,300
8	0.00	1.4	2.9	18.5	29,630	45,487	22	2,500	47,987	365,000	14,000	24,093	0	36,000	162,000	0	0	0	0	0
9	0.00	1.7	2.9	9.4	32,340	57,458	24	2,500	59,958	384,000	14,000	36,247	0	48,000	162,000	0	27,821	0	0	22,300
10	0.00	*1.7*	*2.8*	*16.7*	*33,050*	*50,398*	25	2,500	*52,898*	408,000	16,300	0	0	*48,000*	*152,000*	0	24,451	0	0	19,600
11	1.22	1.6	2.7	23.9	33,050	50,398	25	2,500	52,898	432,000	16,300	54,699	0	44,000	143,000	0	0	0	0	0
12	0.00	2.2	2.8	18.6	6,140	45,277	28	2,500	47,777	415,000	16,000	36,070	0	70,000	152,000	0	0	0	0	0
13	0.00	2.5	2.8	20.2	32,110	51,892	0	2,500	54,392	432,000	11,900	54,191	0	83,000	152,000	0	33,482	0	0	26,800
14	0.00	2.0	2.8	17.4	9,960	53,445	18	2,500	55,945	427,000	15,500	48,630	0	61,000	152,000	0	48,702	0	0	39,000
15	0.00	1.7	2.6	33.3	27,830	54,660	29	2,500	57,160	417,000	34,700	54,213	0	48,000	133,000	0	19,120	0	0	15,300
16	0.00	2.0	2.6	24.6	23,820	30,503	18	2,500	33,003	374,000	20,300	18,069	0	61,000	133,000	0	52,523	0	0	42,000
17	0.00	*1.9*	*2.5*	*17.0*	*47,030*	*9,419*	11	2,500	*11,919*	353,000	23,600	0	0	*57,000*	*115,000*	0	26,056	0	0	20,800
18	0.00	1.7	2.3	9.3	47,030	9,419	11	2,500	11,919	331,000	22,200	54,120	4,062	48,000	106,000	0	39,115	0	0	34,500
19	0.00	1.7	2.1	9.5	34,720	86,528	27	2,500	89,028	353,000	18,400	48,207	4,082	48,000	88,000	0	39,023	0	0	34,500
20	0.00	1.8	1.8	18.5	29,850	48,771	19	2,500	51,271	331,000	34,100	54,207	2,047	52,000	64,000	0	26,915	0	0	23,200
21	0.00	1.8	1.8	17.4	24,000	50,051	15	2,500	52,551	295,000	39,800	36,075	6,052	52,000	64,000	0	35,494	0	0	33,200
22	0.00	1.8	1.8	16.8	30,875	48,855	19	2,500	51,355	274,000	35,500	36,090	4,009	52,000	64,000	0	27,262	0	0	25,000
23	0.00	2.0	1.8	21.6	30,315	48,554	15	2,500	51,054	254,000	35,100	0	0	61,000	64,000	0	39,180	0	0	31,300
24	0.00	*2.0*	*1.8*	*20.5*	*18,460*	*44,390*	12	2,500	*46,890*	266,000	41,100	0	6,029	*61,000*	*64,000*	0	35,885	0	0	33,500
25	0.00	1.9	1.8	19.4	18,460	44,390	12	2,500	46,890	278,000	32,800	54,140	0	57,000	64,000	0	48,162	0	0	38,500
26	0.00	1.7	1.8	21.9	10,880	43,703	25	2,500	46,203	238,000	38,600	54,122	3,023	48,000	64,000	0	29,197	0	0	25,800
27	0.00	1.9	1.6	13.1	28,210	44,423	20	2,500	46,923	189,000	37,100	48,099	0	57,000	51,000	0	43,924	0	0	35,100
28	0.00	1.7	1.6	17.1	26,880	42,008	8	2,500	44,508	156,000	37,100	18,099	3,015	48,000	51,000	0	30,819	0	0	27,100
29	0.00	1.8	1.6	23.8	26,110	43,442	13	2,500	45,942	151,000	38,700	6,046	0	52,000	51,000	0	44,427	0	0	35,500
30	0.00	1.7	1.6	16.4	23,580	47,267	16	2,500	49,767	158,000	41,000	0	3,927	48,000	51,000	0	38,651	0	0	34,100
31	0.00	*2.1*	*1.6*	*15.0*	*25,310*	*47,714*	10	2,500	*50,214*	169,000	45,300	0	0	*65,000*	*51,000*	0	0	0	0	0
Total	1.22				731,590	1,479,967	660	77,309	1,557,276		790,700	1,006,683	38,284				937,843	0	0	780,900
Daily Average		1.9	2.5	18.7	23,600	47,741	21	2,494	50,235	325,500				58,800	125,400	0				
Mo. Average													1,200				30,300	0	0	25,190

projects\balance\2004\October-04bal.xls (Revised by ler 11/16/04)

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser
9. Column XI, calculated from depth in 575,000 gal leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII

TABLE 2. FIELD DATA ENTRY FORM
OCTOBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	24.4	90,171	1,293,948	1,556,930	1,249,059	12.6	30,182	18,080	0	0.00	2.5	4	0	15,969	11,053	0	0	0
2	12.4	90,171	1,296,391	1,577,580	1,308,966	12.6	30,033	18,070	0	0.00	2.6	3.7	0.0	14,660	56,945	0	0	0
3	***8.8***	***90,171***	NR	***1,597,880***	***1,363,475***	***13.3***	**0**	**0**	**0**	**0.00**	***2.6***	***3.6***	**0.0**	**18,916**	**0**	**0**	**0**	**0**
4	5.1	90,171	1,301,315	1,618,180	1,417,983	14.0	30,054	18,084	2,038	0.00	2.6	3.5	0.0	18,150	45,681	0	0	0
5	0.3	90,171	NR	1,618,180	1,471,150	13.4	36,163	18,056	0	0.00	1.8	3.5	0.0	14,895	42,095	0	0	0
6	8.0	90,356	NR	1,621,875	1,510,193	12.7	0	18,076	0	0.00	1.9	3.2	0.0	14,223	36,509	0	0	0
7	17.8	90,411	NR	1,638,880	1,556,666	13.2	36,380	18,088	0	0.00	2.0	2.9	0.0	14,249	35,351	0	0	0
8	9.5	90,433	NR	1,668,510	1,602,153	12.7	6,013	18,080	0	0.00	1.4	2.9	0.0	13,954	0	0	0	0
9	0.4	90,457	NR	1,700,850	1,659,611	13.3	36,247	0	0	0.00	1.7	2.9	0.0	13,953	27,821	0	0	0
10	***7.7***	***90,482***	NR	***1,733,900***	***1,710,009***	***14.2***	**0**	**0**	**0**	**0.00**	***1.7***	***2.8***	**0.0**	**16,515**	**24,451**	**0**	**0**	**0**
11	14.9	90,506	NR	1,766,950	1,760,407	15.0	36,403	18,296	0	1.22	1.6	2.7	0.0	16,328	0	0	0	0
12	9.6	90,534	NR	1,773,090	1,805,684	14.4	36,070	0	0	0.00	2.2	2.8	0.0	16,041	0	0	0	0
13	11.2	90,534	NR	1,805,200	1,857,576	15.0	36,070	18,121	0	0.00	2.5	2.8	0.0	11,873	33,482	0	0	0
14	8.4	90,552	NR	1,815,160	1,911,021	14.8	30,040	18,590	0	0.00	2.0	2.8	0.0	15,474	48,702	0	0	0
15	24.3	90,581	NR	1,842,990	1,965,681	14.5	36,127	18,086	0	0.00	1.7	2.6	0.0	34,697	19,120	0	0	0
16	15.6	90,599	NR	1,866,810	1,996,184	13.0	0	18,069	0	0.00	2.0	2.6	0.0	20,320	52,523	0	0	0
17	***8.0***	***90,610***	NR	***1,913,840***	***2,005,603***	***12.5***	**0**	**0**	**0**	**0.00**	***1.9***	***2.5***	**0.0**	**23,628**	**26,056**	**0**	**0**	**0**
18	0.3	90,621	NR	1,960,870	2,015,021	11.5	36,099	18,021	4,062	0.00	1.7	2.3	0.0	22,178	39,115	0	0	0
19	0.5	90,648	NR	1,995,590	2,101,549	12.3	30,140	18,067	4,082	0.00	1.7	2.1	0.0	18,387	39,023	0	0	0
20	9.5	90,667	NR	2,025,440	2,150,320	11.5	36,149	18,058	2,047	0.00	1.8	1.8	0.0	34,054	26,915	0	0	0
21	8.4	90,682	NR	2,049,440	2,200,371	10.3	36,075	0	6,052	0.00	1.8	1.8	0.0	39,847	35,494	0	0	0
22	7.8	90,701	NR	2,080,315	2,249,226	9.5	36,090	0	4,009	0.00	1.8	1.8	0.0	35,520	27,262	0	0	0
23	12.6	90,716	NR	2,110,630	2,297,780	8.8	0	0	0	0.00	2.0	1.8	0.0	35,055	39,180	0	0	0
24	***11.5***	***90,728***	NR	***2,129,090***	***2,342,170***	***9.3***	**0**	**0**	**6,029**	**0.00**	***2.0***	***1.8***	**0.0**	**41,101**	**35,885**	**0**	**0**	**0**
25	10.4	90,739	NR	2,147,550	2,386,559	9.7	36,088	18,052	0	0.00	1.9	1.8	0.0	32,788	48,162	0	0	0
26	12.9	90,764	NR	2,158,430	2,430,262	8.3	36,063	18,059	3,023	0.00	1.7	1.8	0.0	38,598	29,197	0	0	0
27	4.1	90,784	NR	2,186,640	2,474,685	6.6	36,068	12,031	0	0.00	1.9	1.6	0.0	37,137	43,924	0	0	0
28	8.1	90,792	NR	2,213,520	2,516,693	5.4	0	18,099	3,015	0.00	1.7	1.6	0.0	37,136	30,819	0	0	0
29	14.8	90,805	NR	2,239,630	2,560,135	5.3	0	6,046	0	0.00	1.8	1.6	0.0	38,723	44,427	0	0	0
30	7.4	90,821	NR	2,263,210	2,607,402	5.5	0	0	3,927	0.00	1.7	1.6	0.0	40,968	38,651	0	0	0
31	***6.0***	***90,831***	NR	***2,288,520***	***2,655,116***	***5.9***	**0**	**0**	**0**	**0.00**	***2.1***	***1.6***	**0.0**	**45,264**	**0**	**0**	**0**	**0**
Totals							662,554	344,129	38,284	1.22			0	790,601	937,843	0	0	0

projects\balance\2004\October-04bal.xls (Revised by ler 11/16/04)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August	10.51	0	56,466	1,172,326	924,596	19,149	378,100	0	0	508,762	1,228,792	1,321,845	-93,053
September	15.48	0	54,399	1,184,605	922,815	4,008	508,600	0	0	619,577	1,239,004	1,435,423	-196,419
October	1.22	0	77,309	1,479,967	1,006,683	38,284	790,700	0	0	937,843	1,557,276	1,835,667	-278,391
November													
December													
YTD Total	59.57	0	1,458,519	11,540,979	9,657,693	550,050	4,248,200	0	0	3,791,129	12,999,498	14,455,943	-1,456,445

projects\balance\2004\2004summary xls (Revised by ler 11/16/04)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

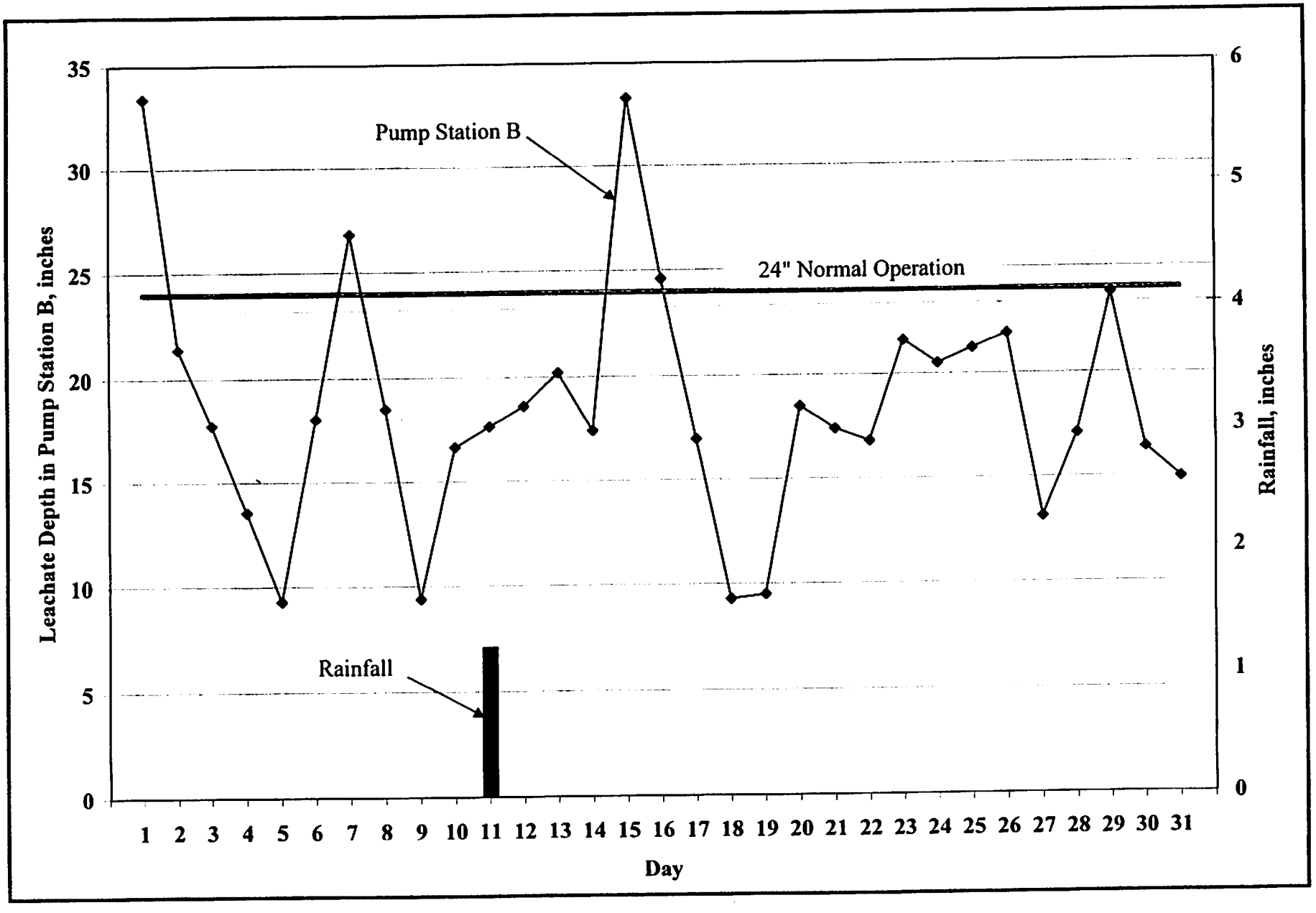

Figure 1. Leachate Levels in Pump Station B and Rainfall for October 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) October, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0	0.00	24.4	73,910	2,442	0	12'7"	30,182	18,080	0	0.00
2	0.0	20,650	0.00	12.4	59,907	2,443	0	12'7"	30,033	18,070	0	0.00
3	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
4	0.0	40,600	0.00	5.1	109,017	4,924	0	14'0"	30,054	18,084	2,038	0.00
5	0.0	0	0.00	0.3	53,167	*0	0	13'5"	36,163	18,056	0	0.00
6	0.0	3,695	0.00	8.0	39,043	0	185	12'8"	0	18,076	0	0.00
7	0.0	17,005	0.00	17.8	46,473	0	55	13'1"	36,380	18,088	0	0.00
8	0.0	29,630	0.00	9.5	45,487	0	22	12'8"	6,013	18,080	0	0.00
9	0.0	32,340	0.00	0.4	57,458	0	24	13'4"	36,247	0	0	0.00
10	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
11	0.0	66,100	0.00	14.9	100,796	0	49	15'0"	36,403	18,296	0	1.22
12	0.0	6,140	0.00	9.6	45,277	0	28	14'5"	36,070	0	0	0.00
13	0.0	32,110	0.00	11.2	51,892	0	0	15'0"	36,070	18,121	0	0.00
14	0.0	9,960	0.00	8.4	53,445	0	18	14'10'	30,040	18,590	0	0.00
15	0.0	27,830	0.00	24.3	54,660	0	29	14'6'	36,127	18,086	0	0.00
16	0.0	23,820	0.00	15.6	30,503	0	18	13'0"	0	18,069	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: * Section 7 pump station flow meter not working as of 10/05/04.

Prepared by: Raymond C Thaver

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) October, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
18	0.0	94,060	0.00	0.3	18,837	0	22	11'6"	36,099	18,021	4,062	0.00
19	0.0	34,720	0.00	0.5	86,528	0	27	12'3"	30,140	18,067	4,082	0.00
20	0.0	29,850	0.00	9.5	48,771	0	19	11'6"	36,149	18,058	2,047	0.00
21	0.0	24,000	0.00	8.4	50,051	0	15	10'3"	36,075	0	6,052	0.00
22	0.0	30,875	0.00	7.8	48,855	0	19	9'6"	36,090	0	4,009	0.00
23	0.0	30,315	0.00	12.6	48,554	0	15	8'10"	0	0	0	0.00
24	0.0	0	0.00	0.0	0	0	0	0.00	0	0	6,029	0.00
25	0.0	36,920	0.00	10.4	88,779	0	23	9'8"	36,088	18,052	0	0.00
26	0.0	10,880	0.00	12.9	43,703	0	25	8'3"	36,063	18,059	3,023	0.00
27	0.0	28,210	0.00	4.1	44,423	0	20	6'7"	36,068	12,031	0	0.00
28	0.0	26,880	0.00	8.1	42,008	0	8	5'5"	0	18,099	3,015	0.00
29	0.0	26,110	0.00	14.8	43,442	0	13	5'3"	0	6,046	0	0.00
30	0.0	23,580	0.00	7.4	47,267	0	16	5'6"	0	0	3,927	0.00
31	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Oct,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	2.50	3.80	0	15,969	11,053		0	0	0			N
2	2.60	3.70	0	14,660	56,945		0	0	0			N
3	0.00	0.00	0	18,916	0		0	0	0			
4	2.60	3.50	0	18,150	45,681		0	0	0			N
5	1.80	3.50	0	14,895	42,095		0	0	0			N
6	1.90	3.20	0	14,223	36,509		0	0	0			N
7	2.00	2.90	0	14,249	35,351		0	0	0			N
8	1.40	2.90	0	13,954	0		0	0	0			
9	1.70	2.90	0	13,953	27,821		0	0	0			N
10	0.00	0.00	0	16,515	24,451		0	0	0			N
11	1.60	2.70	0	16,328	0		0	0	0			
12	2.20	2.80	0	16,041	0		0	0	0			
13	2.50	2.80	0	11,873	33,482		0	0	0			N
14	2.00	2.80	0	15,474	48,702		0	0	0			N
15	1.70	2.60	0	34,697	19,120		0	0	0			N
16	2.00	2.60	0	20,320	52,523		0	0	0			N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Ihara

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Oct,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.00	0.00	0	23,628	26,056	0	0	0	0			N
18	1.70	2.30	0	22,178	39,115	0	0	0	0			N
19	1.70	2.10	0	18,387	39,023	0	0	0	0			N
20	1.80	1.80	0	34,054	26,915	0	0	0	0			N
21	1.80	1.80	0	39,847	35,494	0	0	0	0			N
22	1.80	1.80	0	35,520	27,262	0	0	0	0			N
23	2.00	1.80	0	35,055	39,180	0	0	0	0			N
24	0.00	0.00	0	41,101	35,885	0	0	0	0			N
25	1.90	1.80	0	32,788	48,162	0	0	0	0			N
26	1.70	1.80	0	38,598	29,197	0	0	0	0			N
27	1.90	1.70	0	37,137	43,924	0	0	0	0			N
28	1.70	1.60	0	37,136	30,819	0	0	0	0			N
29	1.80	1.60	0	38,723	44,427	0	0	0	0			N
30	1.70	1.60	0	40,968	38,651	0	0	0	0			N
31	0.00	0.00	0	45,264	0	0	0	0	0			

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves

100494
LR

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October 14, 2004

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Ms. Pelz:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending October 15, 2004.

The data is being submitted as separate monthly reports for July, August and September 2004. The information includes the leachate level in Pump Station B (PSB). The level was below the 24-inch normal operation level during this quarter except for one day in July, two days on August and four days on September 2004.

Also attached are the top of the phosphatic clay liner elevations at the Pump Station B Sump.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Larry Ruiz, SWMD
Walter Gray, SWMD
David Penoyar, SCS
Paul Schipfer, EPC

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D.E.P.
OCT 15 2004
Southwest District Tampa

TABLE 1. APPROXIMATE TOP OF CLAY ELEVATIONS

PUMP STATION B SUMP

SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FL

DATE	NW	NE	SE	SW
March 3, 1999	115.65	115.63	115.66	115.62
May 4, 1999	115.63	115.59	115.63	115.58
July 28, 1999	115.49	115.46	115.49	115.45
September 17, 1999[2]	115.59	115.55	115.65	115.56
November 11, 1999	115.44	115.40	115.50	115.31
January 3, 2000	115.31	115.26	115.36	115.17
March 30, 2000	115.39	115.35	115.45	115.26
July 5, 2000[3]	114.85	114.82	114.90	114.71
October 5, 2000	114.83	114.78	114.87	114.67
April 6, 2001	114.35	115.33	114.33	114.29
April 18, 2001[2]	114.15	114.59	114.17	114.07
August 8, 2001	114.34	115.31	114.32	114.28
September 19, 2001[2]	113.78	114.20	113.79	113.69
December 18, 2001	113.63	114.02	113.62	113.52
March 29, 2002	113.22	113.58	113.21	113.10
August 15, 2002 [2]	112.67	113.04	112.64	112.58
February 1, 2003	112.08	112.46	112.04	111.99
May 1, 2003	111.78	112.19	111.80	111.71
September 2, 2003	111.56	111.92	111.54	111.46
December 1, 2003	111.44	111.80	111.42	111.34
April 1, 2004	111.30	111.66	111.29	111.20
July 31, 2004	111.04	111.41	111.04	110.94

leachate\calcs\ClayTop.xls; updated 8/31/04, ler

Notes:

1. Vertical Datum based on feet NGVD 1929.
2. WMI extended the rods of the settling plates.
3. Benchmarks used in March 30, 2000 survey were found to have settled; elevations shown for July 5, 2000 were tied into new benchmarks.

PICKETT & ASSOCIATES, INC.
Surveyors . Photogrammetrists . Engineers

REPORT OF SURVEY

NOTE: THIS REPORT IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSES SURVEYOR AND MAPPER.

PICKETT & ASSOCIATES, PROJECT NO.: 12131-1
DRAWING NO: N/A
TITLE/TYPE OF SURVEY: SPECIFIC PURPOSE SURVEY
DATE OF SURVEY: 7/31/04
SUBJECT: SOUTHEAST HILLSBOROUGH COUNTY LANDFILL SITE
CLIENT: WASTE MANAGEMENT, INC. OF FLORIDA

PIPE	NORTHING	EASTING	ELEVATION	DESCRIPTION
SW	1251010.1	596333.5	173.47	Top of 4" pipe
	1251010.0	596333.1	173.17	Top of 1" pipe
SE	1251004.7	596338.9	173.57	Top of 4" pipe
	1251004.7	596338.9	173.35	Top of 1" pipe
NE	1251013.2	596343.6	173.86	Top of 4" pipe
	1251013.1	596343.5	173.32	Top of 1" pipe
NW	1251013.7	596335.9	173.25	Top of 4" pipe
	1251013.9	596335.8	173.21	Top of 1" pipe

DATUM:

HORIZONTAL: West Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment based upon control provided by client. Referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

VERTICAL: National Geodetic Vertical Datum of 1929 based upon control provided by client. Referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

Hillsborough County Horizontal Control Monument LW-D
Northing = 1246440.69609
Easting = 600983.62415
Elevation = 118.68

Hillsborough County Horizontal Control Monument LW-E
Northing = 1246382.54988
Easting = 603670.53478
Elevation = 93.06

475 South First Avenue
Bartow, Florida 33830
pickett-inc.com

Business: 863.533.90
Facsimile: 863.534.14
mailbox@pickett-inc.c

NOTES:

The quarterly Specific Purpose Survey was prepared to show the existing conditions of the above ground pipes coming from the vault located at the above referenced landfill.

Deborah L. Peavey, PSM
Florida Registration No. 6345
Pickett & Associates, Inc.
Florida Registration No. 364

9/31/04
Survey Date

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October 14, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OCT 15 2004
SOUTHWEST DISTRICT
TAMPA

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –September 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of September 2004. In addition, the SWMD is providing the September 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for September 2004 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches in September except for September 1st and 24th due to scheduled pump repairs and September 27 through 30 due to a power outage related to Hurricane Jeanne. The average depth of leachate in the PS-B sump for the recorded days in September 2004 was 21.8 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0904.dep

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MEMORANDUM

DATE: October 13, 2004

TO: Patricia Berry, Solid Waste Management Department

FROM: Larry Ruiz, Sr. Engineer, SWMD
Raymond Graves, Engineering Tech. II, SWMD

SUBJECT: Leachate Water Balance Report Forms for September 2004
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) and Section 7 of the Capacity Expansion for September 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for September (Figure 1).

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of September.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 15.48 inches of rainfall at the SCLF in September.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In September, the average depth of effluent stored in Pond A was 2.7 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In September, the average depth of effluent stored in Pond B was 3.8 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in September except for September 1st and 24th due to scheduled pump repairs and September 27th through 30th due to a power outage related to hurricane Jeanne. The average depth of leachate in the PS-B sump for the recorded days in September was 21.8 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in September was 1,961 gallons. A total of 58,840 gallons was pumped from TPS-6 to PS-B in September. TPS-6 was offline for repairs and remained offline through most of the month of September.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in September was 39,487 gallons. A total of 1,184,605 gallons of leachate was pumped to the storage tank in September.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed

1,250 gallons per day. In September, a total of 569 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In September, 54,399 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In September, a total of 1,239,004 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in September, based on recorded days, was estimated at 338,300 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In September, a total of 508,600 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of September, a total of 922,815 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In September 4,008 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In September, a daily average of 94,900 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In September, 245,300 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in September.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In September, 619,577 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In September, no effluent was sprayed as dust control.

D.E.P.
OCT 15 2004
Southwest District Tampa

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In September, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for September was 498,800 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in September was 1,239,004 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,435,423 gallons. The change in storage for the month of September decreased by 196,419 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
SEPTEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	1.9	3.1	33.7	0	22,674	25	2,159	24,833	379,000	29,300	66,318	0	57,000	182,000	0	0	0	0	0
2	0.00	2.4	3.1	17.6	0	52,332	28	0	52,332	345,000	29,000	48,106	0	79,000	182,000	0	62,708	0	0	50,200
3	0.00	1.9	3.1	10.1	0	45,333	14	1,952	47,285	319,000	28,100	18,086	0	57,000	182,000	0	51,776	0	0	41,400
4	0.62	1.9	2.8	19.5	0	43,356	27	2,211	45,567	317,000	20,300	18,178	0	57,000	152,000	0	26,639	0	0	21,300
5	6.13	2.3	3.1	*18.4*	0	*48,064*	21	*2,135*	*50,200*	359,000	15,000	0	0	79,000	172,000	0	0	0	0	0
6	1.10	2.8	3.3	*19.3*	0	*48,064*	21	*2,135*	*50,200*	402,000	14,700	0	0	98,000	202,000	0	0	0	0	0
7	0.00	3.2	3.6	19.2	0	48,064	21	2,135	50,200	444,000	22,700	18,138	0	118,000	234,000	0	0	0	0	0
8	0.06	3.6	3.6	20.1	0	39,608	27	0	39,608	449,000	26,300	42,406	0	145,000	234,000	0	0	0	0	0
9	1.28	3.6	3.8	16.5	0	38,912	0	2,073	40,985	420,000	24,900	48,604	0	145,000	256,000	0	10,464	0	0	8,400
10	0.00	3.6	4.1	20.0	0	37,454	0	2,247	39,701	408,000	0	60,492	0	145,000	267,000	0	25,942	0	0	20,800
11	0.00	3.4	4.1	19.0	3,780	38,257	0	2,213	40,470	379,000	0	18,202	0	129,000	267,000	0	53,419	0	0	42,700
12	0.00	3.4	4.1	*19.0*	0	*47,719*	53	*2,138*	*49,857*	407,000	24,500	0	0	129,000	267,000	0	0	0	0	0
13	0.00	1.9	4.1	17.0	0	47,719	53	2,138	49,857	434,000	28,300	54,108	0	57,000	267,000	0	0	0	0	0
14	0.00	2.5	4.1	22.7	0	43,476	0	2,181	45,657	396,000	25,900	72,484	0	83,000	267,000	0	36,118	0	0	28,900
15	0.00	2.3	4.1	15.1	0	44,021	38	2,179	46,200	367,000	22,000	66,205	0	74,000	267,000	0	0	0	0	0
16	0.05	2.7	4.0	19.9	0	43,795	44	2,189	45,984	326,000	27,600	72,286	0	93,000	267,000	0	20,880	0	0	16,700
17	0.00	2.7	4.0	22.4	0	42,005	0	0	42,005	286,000	30,900	42,116	0	93,000	267,000	0	41,522	0	0	33,200
18	0.00	2.5	4.0	20.7	0	43,551	40	2,232	45,783	271,000	27,100	0	0	83,000	267,000	0	27,245	0	0	21,800
19	0.00	2.7	4.0	*18.8*	0	*42,820*	29	*2,217*	*45,037*	296,000	28,800	0	0	93,000	267,000	0	0	0	0	0
20	0.20	2.8	4.0	16.9	0	42,820	29	2,217	45,037	322,000	19,900	42,072	0	98,000	267,000	0	10,300	0	0	8,200
21	0.18	3.0	4.0	22.8	0	42,092	32	1,412	43,504	295,000	31,400	48,122	0	108,000	267,000	0	0	0	0	0
22	0.00	3.5	4.0	21.9	0	40,268	24	2,180	42,448	269,000	16,300	54,104	4,008	140,000	267,000	0	59,375	0	0	50,700
23	0.00	2.7	4.0	16.8	0	38,604	26	0	38,604	245,000	15,600	30,062	0	93,000	267,000	0	39,153	0	0	31,300
24	0.00	2.2	4.0	33.3	0	42,734	20	2,342	45,076	245,000	0	36,074	0	70,000	267,000	0	55,546	0	0	44,400
25	0.01	1.8	3.7	21.5	29,200	52,543	0	2,143	54,686	257,000	0	0	0	52,000	245,000	0	35,495	0	0	28,400
26	5.37	2.1	4.0	*24.6*	0	*14,630*	0	*2,100*	*16,730*	274,000	0	0	0	65,000	267,000	0	0	0	0	0
27	0.48	2.3	4.3	*27.7*	0	*0*	0	*0*	*0*	290,000	0	0	0	74,000	267,000	0	0	0	0	0
28	0.00	2.3	4.3	*30.8*	0	*0*	0	*0*	*0*	290,000	0	6,000	0	74,000	267,000	0	0	0	0	0
29	0.00	3.4	3.8	33.9	25,860	42,000	0	5,032	47,032	312,000	0	18,248	0	129,000	256,000	0	0	0	0	0
30	0.00	3.4	3.8	33.9	0	51,689	0	2,440	54,129	345,000	0	42,404	0	129,000	256,000	0	62,995	0	0	50,400
Total	15.48				58,840	1,184,605	569	54,399	1,239,004		508,600	922,815	4,008				619,577	0	0	498,800
Daily Average		2.7	3.8	21.8	1,961	39,487	19	1,813	44,250	338,300				94,900	245,300	0				
Mo. Average													100				20,700	0	0	16,630

projects\balance\2004\09-04.xls (Revised by ler 10/12/04)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values
3. Daily average is calculated by dividing the total by the actual days measured in the month
4. Monthly average calculated by dividing the total by the number of days of the month
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
SEPTEMBER 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	24.7	89,627	1,239,266	1,498,090	13,210	13.17	30,060	36,258	0	0.00	1.9	3.1	0.0	29,288	0	0	0	0
2	8.6	89,655	1,239,266	1,498,090	65,542	12.00	36,070	12,036	0	0.00	2.4	3.1	0.0	29,014	62,708	0	0	0
3	1.1	89,669	1,241,218	1,498,090	110,875	11.08	0	18,086	0	0.00	1.9	3.1	0.0	28,086	51,776	0	0	0
4	10.5	89,696	1,243,429	1,498,090	154,231	11.00	0	18,178	0	0.62	1.9	2.8	0.0	20,254	26,639	0	0	0
5	*10.4*	*89,717*	*1,245,564*	*1,498,090*	*202,295*	*12*	0	0	0	6.13	*2.3*	*3.1*	0.0	14,950	0	0	0	0
6	*10.3*	*89,737*	*1,247,700*	*1,498,090*	*250,360*	*14*	0	0	0	1.10	*2.8*	*3.3*	0.0	14,689	0	0	0	0
7	10.2	89,758	1,249,835	1,498,090	298,424	15.42	0	18,138	0	0.00	3.2	3.6	0.0	22,695	0	0	0	0
8	11.1	89,785	1,249,835	1,498,090	338,032	15.58	24,042	18,364	0	0.06	3.6	3.6	0.0	26,254	0	0	0	0
9	7.5	89,785	1,251,908	1,498,090	376,944	14.58	36,390	12,214	0	1.28	3.6	3.8	0.0	24,921	10,464	0	0	0
10	11.0	89,785	1,254,155	1,498,090	414,398	14.17	36,082	24,410	0	0.00	3.6	4.1	0.0	0	25,942	0	0	0
11	10.0	89,785	1,256,368	1,501,870	452,655	13.17	0	18,202	0	0.00	3.4	4.1	0.0	0	53,419	0	0	0
12	*9.0*	*89,838*	*1,258,506*	*1,501,870*	*500,374*	*14*	0	0	0	0.00	*3.4*	*4.1*	0.0	24,511	0	0	0	0
13	8.0	89,890	1,260,643	1,501,870	548,093	15.08	36,054	18,054	0	0.00	1.9	4.1	0.0	28,307	0	0	0	0
14	13.7	89,890	1,262,824	1,501,870	591,569	13.75	36,048	36,436	0	0.00	2.5	4.1	0.0	25,888	36,118	0	0	0
15	6.1	89,928	1,265,003	1,501,870	635,590	12.75	36,065	30,140	0	0.00	2.3	4.1	0.0	22,012	0	0	0	0
16	10.9	89,972	1,267,192	1,501,870	679,385	11.33	36,050	36,236	0	0.05	2.7	4.0	0.0	27,606	20,880	0	0	0
17	13.4	89,972	1,267,192	1,501,870	721,390	9.92	30,062	12,054	0	0.00	2.7	4.0	0.0	30,925	41,522	0	0	0
18	11.7	90,012	1,269,424	1,501,870	764,941	9.42	0	0	0	0.00	2.5	4.0	0.0	27,106	27,245	0	0	0
19	*9.8*	*90,041*	*1,271,641*	*1,501,870*	*807,761*	*10*	0	0	0	0.00	*2.7*	*4.0*	0.0	28,775	0	0	0	0
20	7.9	90,069	1,273,857	1,501,870	850,581	11.17	30,054	12,018	0	0.20	2.8	4.0	0.0	19,912	10,300	0	0	0
21	13.8	90,101	1,275,269	1,501,870	892,673	10.25	36,090	12,032	0	0.18	3.0	4.0	0.0	31,366	0	0	0	0
22	12.9	90,125	1,277,449	1,501,870	932,941	9.33	42,072	12,032	4,008	0.00	3.5	4.0	0.0	16,259	59,375	0	0	0
23	7.8	90,151	1,277,449	1,501,870	971,545	8.50	30,062	0	0	0.00	2.7	4.0	0.0	15,603	39,153	0	0	0
24	24.3	90,171	1,279,791	1,501,870	1,014,279	8.50	36,074	0	0	0.00	2.2	4.0	0.0	0	55,546	0	0	0
25	12.5	90,171	1,281,934	1,531,070	1,066,822	8.92	0	0	0	0.01	1.8	3.7	0.0	0	35,495	0	0	0
26	*15.6*	*90,171*	*1,284,034*	*1,531,070*	*1,081,452*	*10*	0	0	0	5.37	*2.1*	*4.0*	0.0	0	0	0	0	0
27	*18.7*	*90,171*	*1,284,034*	1,531,070	*1,081,452*	10.08	0	0	0	0.48	2.3	4.3	0.0	0	0	0	0	0
28	*21.8*	*90,171*	*1,284,034*	1,531,070	*1,081,452*	10.08	0	6,000	0	0.00	2.3	4.3	0.0	0	0	0	0	0
29	24.9	90,171	1,289,066	1,556,930	1,123,452	10.83	0	18,248	0	0.00	3.4	3.8	0.0	0	0	0	0	0
30	24.9	90,171	1,291,506	1,556,930	1,175,141	12.00	30,360	12,044	0	0.00	3.4	3.8	0.0	0	62,995	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	139.4	6.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August	10.51	0	56,466	1,172,326	924,596	19,149	378,100	0	0	508,762	1,228,792	1,321,845	-93,053
September	15.48	0	54,399	1,184,605	922,815	4,008	508,600	0	0	619,577	1,239,004	1,435,423	-196,419
October													
November													
December													
YTD Total	58.35	0	1,381,210	10,061,012	8,651,010	511,766	3,457,500	0	0	2,853,286	11,442,222	12,620,276	-1,178,054

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

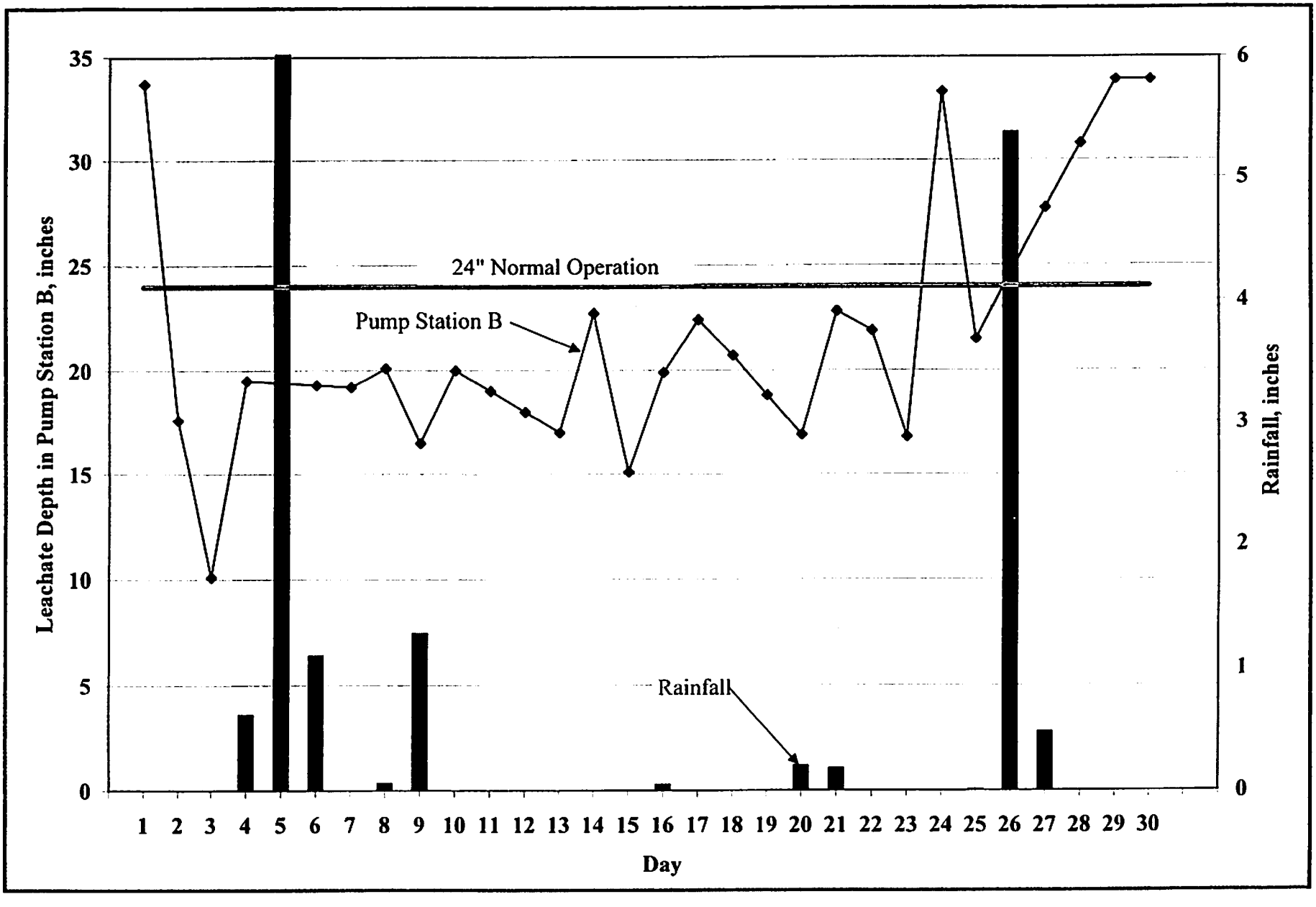

Figure 1. Leachate Levels in Pump Station B and Rainfall for September 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) September, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0	0.00	24.7	22,674	2,159	25	13'2"	30,060	36,258	0	0.00
2	0.0	0	0.00	8.6	52,332	0	28	12'0"	36,070	12,036	0	0.00
3	0.0	0	0.00	1.1	45,333	1,952	14	11'1"	0	18,086	0	0.00
4	0.0	0	0.00	10.5	43,356	2,211	27	11'0"	0	18,178	0	0.62
5	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	6.13
6	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	1.10
7	0.0	0	0.00	10.2	144,193	6,406	62	15'5"	0	18,138	0	0.00
8	0.0	0	0.00	11.1	39,608	0	27	15'7"	24,042	18,364	0	0.06
9	0.0	0	0.00	7.5	38,912	2,073	0	14'7"	36,390	12,214	0	1.28
10	0.0	0	0.00	11.0	37,454	2,247	0	14'2"	36,082	24,410	0	0.00
11	0.0	3,780	0.00	10.0	38,257	2,213	0	13'2"	0	18,202	0	0.00
12	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
13	0.0	0	0.00	8.0	95,438	4,275	105	15'1"	36,054	18,054	0	0.00
14	0.0	0	0.00	13.7	43,476	2,181	0	13'9"	36,048	36,436	0	0.00
15	0.0	0	0.00	6.1	44,021	2,179	38	12'9"	36,065	30,140	0	0.00
16	0.0	0	0.00	10.9	43,798	2,189	44	11'4"	36,050	36,236	0	0.05

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Turner

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) September, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	0	0.00	13.4	42,005	0	0	9'11"	30,062	12,054	0	0.00
18	0.0	0	0.00	11.7	43,551	2,232	40	9'5"	0	0	0	0.00
19	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
20	0.0	0	0.00	7.9	85,640	4,433	57	11'2"	30,054	12,018	0	0.20
21	0.0	0	0.00	13.8	42,092	1,412	32	10'3"	36,090	12,032	0	0.18
22	0.0	0	0.00	12.9	40,268	2,180	24	9'4"	42,072	12,032	4,008	0.00
23	0.0	0	0.00	7.8	38,604	0	26	8'6"	30,062	0	0	0.00
24	0.0	0	0.00	24.3	42,734	2,322	20	8'6"	36,074	0	0	0.00
25	0.0	29,260	0.00	12.5	52,543	2,163	0	8'11"	0	0	0	0.01
26	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	5.37
27	0.0	0	0.00	0.0	0	0	0	10'1"	0	0	0	0.48
28	0.0	0	0.00	0.0	0	0	0	0.00	0	6,000	0	0.00
29	0.0	25,860	0.00	24.9	56,630	7,132	0	10'10"	0	18,248	0	0.00
30	0.0	0	0.00	24.9	51,697	2,440	0	12'0"	30,360	12,044	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: No readings Sept.27,28, due to hurricane Jeanne power outage.

Prepared by: Raymond C Hauer

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Sept,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	1.90	3.10	0	29,288	0		0	0	0			
2	2.40	3.10	0	29,014	62,708		0	0	0			N
3	1.90	3.10	0	28,086	51,776		0	0	0			N
4	1.90	2.80	0	20,254	26,639		0	0	0			N
5	0.00	0.00	0	14,950	0		0	0	0			
6	0.00	0.00	0	14,689	0		0	0	0			
7	3.20	3.60	0	22,695	0		0	0	0			
8	3.60	3.60	0	26,254	0		0	0	0			
9	3.60	3.80	0	24,921	10,464		0	0	0			N
10	3.60	4.10	0	0	25,942		0	0	0			N
11	3.40	4.10	0	0	53,419		0	0	0			N
12	0.00	0.00	0	24,511	0		0	0	0			
13	1.90	4.10	0	28,307	0		0	0	0			
14	2.50	4.10	0	25,888	36,118		0	0	0			N
15	2.30	4.10	0	22,012	0		0	0	0			
16	2.70	4.00	0	27,606	20,880		0	0	0			N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Stevens

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Sept,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	2.70	4.00	0	30,925	41,522		0	0	0			N
18	2.50	4.00	0	27,106	27,245		0	0	0			N
19	0.00	0.00	0	28,775	0		0	0	0			
20	2.80	4.00	0	19,912	10,300		0	0	0			N
21	3.00	4.00	0	31,366	0		0	0	0			
22	3.50	4.00	0	16,259	59,375		0	0	0			N
23	2.70	4.00	0	15,603	39,153		0	0	0			N
24	2.20	4.00	0	0	55,546		0	0	0			N
25	1.80	3.70	0	0	35,495		0	0	0			N
26	0.00	0.00	0	0	0		0	0	0			
27	2.30	4.30	0	0	0		0	0	0			
28	2.30	4.30	0	0	0		0	0	0			
29	3.40	3.80	0	0	0		0	0	0			
30	3.40	3.80	0	0	62,995		0	0	0			N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond Stowe

BOARD OF COUNTY COMMISSIONERS
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September 20, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OCT 15 2004
SOUTHWEST DISTRICT
TAMPA

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –August 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of August 2004. In addition, the SWMD is providing the August 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for August 2004 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches in August except for two days due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in August 2004 was 20.1 inches.

D.E.P.
OCT 15 2004
Southwest District Tampa

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0804.dep

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MEMORANDUM

DATE: September 14, 2004

TO: Patricia Berry, Solid Waste Management Department

FROM: Larry Ruiz, Sr. Engineer, SWMD
Matt Matthews, Sr. Engineering Tech., SWMD

SUBJECT: Leachate Water Balance Report Forms for August 2004
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) and Section 7 of the Capacity Expansion for August 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for August (Figure 1).

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of August.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 10.51 inches of rainfall at the SCLF in August.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In August, the average depth of effluent stored in Pond A was 3.1 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In August, the average depth of effluent stored in Pond B was 3.8 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in August except for two days due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in August was 20.1 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in August was 7,874 gallons. A total of 244,090 gallons was pumped from TPS-6 to PS-B in August. On August 14, TPS-6 was taken offline for repairs and remained offline through the month of August.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in August was 37,817 gallons. A total of 1,172,326 gallons of leachate was pumped to the storage tank in August.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In August, a total of 728 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In August, 56,466 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In August, a total of 1,228,792 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in August, based on recorded days, was estimated at 377,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In August, a total of 378,100 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of August, a total of 924,596 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In August 19,149 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on

the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In August, a daily average of 117,700 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In August, 237,300 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in August.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In August, 508,762 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In August, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In August, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for August was 422,600 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in August was 1,228,792 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,321,845 gallons. The change in storage for the month of August decreased by 93,053 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
AUGUST 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in)	Depth in Pond A (ft)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal)	Leachate Pumped to MLPS from Phases I-VI (gal)	Leachate Pumped from Sec 7 Leak Det (gal)	Leachate Pumped to MLPS from Section 7 (gal)	Total Leachate Pumped to LTRF (gal)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal)	Total Leachate Hauled (gal)	Leachate Dust Control (Sprayed) (gal)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal)	Effluent Dust Control (Sprayed) (gal)	Total Effluent Hauled (gal)	Total Evaporation (gal)
1	0.20	3.6	2.5	18.2	***27,890***	***35,579***	***0***	1,111	***36,690***	***275,000***	24,800	0	0	***145,000***	***124,000***	0	0	0	0	0
2	0.00	3.6	2.8	18.5	27,890	35,579	0	1,111	36,690	290,000	20,900	36,079	0	145,000	152,000	0	0	0	0	0
3	0.07	3.6	2.9	20.7	30,610	38,124	77	2,322	40,446	276,000	24,300	36,085	3,018	145,000	162,000	0	30,814	0	0	27,100
4	0.58	3.5	2.9	16.9	30,410	37,418	0	2,234	39,652	259,000	24,100	36,079	0	140,000	162,000	0	7,744	0	0	6,200
5	0.17	3.6	3.1	11.1	22,580	36,572	45	2,193	38,765	245,000	23,300	36,073	0	145,000	182,000	0	4,650	0	0	3,700
6	0.00	3.6	3.2	20.2	7,960	34,062	41	2,205	36,267	225,000	23,800	36,089	0	145,000	192,000	0	0	0	0	0
7	0.92	3.6	3.4	18.0	0	38,080	21	0	38,080	216,000	21,400	0	0	145,000	213,000	0	0	0	0	0
8	0.33	3.6	3.6	17.1	***13,155***	***32,784***	***28***	2,230	***35,014***	***239,000***	23,400	0	0	***145,000***	***223,000***	0	0	0	0	0
9	0.18	3.6	3.8	16.2	13,155	32,784	28	2,230	35,014	261,000	23,100	36,082	0	145,000	256,000	0	0	0	0	0
10	0.00	3.6	4.0	16.7	8,175	32,498	0	2,272	34,770	247,000	2,500	0	0	145,000	267,000	0	0	0	0	0
11	0.43	3.3	4.0	19.5	28,385	37,544	0	2,180	39,724	324,000	100	24,074	0	123,000	267,000	0	0	0	0	0
12	0.45	3.4	4.0	18.8	26,680	38,458	0	0	38,458	326,000	0	30,377	0	129,000	267,000	0	0	0	0	0
13	1.30	3.5	4.0	23.4	7,200	35,954	65	2,252	38,206	336,000	0	30,115	0	140,000	267,000	0	0	0	0	0
14	0.70	3.6	4.2	17.1	0	37,658	41	2,243	39,901	358,000	0	0	0	145,000	267,000	0	0	0	0	0
15	0.27	3.6	4.3	18.5	0	***32,647***	***33***	2,141	***34,788***	***397,000***	0	0	0	***145,000***	***267,000***	0	0	0	0	0
16	0.00	3.6	4.4	19.8	0	32,647	33	2,141	34,788	437,000	0	18,142	0	145,000	267,000	0	0	0	0	0
17	1.35	3.5	4.4	16.7	0	36,398	0	593	36,991	477,000	0	31,275	0	140,000	267,000	0	0	0	0	0
18	0.00	3.5	4.6	33.4	0	29,994	43	2,298	32,292	494,000	0	36,382	0	140,000	267,000	0	0	0	0	0
19	0.72	3.5	4.6	22.4	0	42,412	0	1,928	44,340	480,000	0	60,291	8,071	140,000	267,000	0	62,500	0	0	56,500
20	0.00	2.5	4.5	16.8	0	37,954	43	2,357	40,311	466,000	0	41,939	0	83,000	267,000	0	0	0	0	0
21	1.00	2.5	4.5	18.1	0	37,254	0	2,270	39,524	466,000	0	30,188	0	83,000	267,000	0	52,722	0	0	42,200
22	0.01	3.1	4.5	25.8	0	***39,805***	***0***	2,160	***41,965***	***481,000***	17,100	0	0	***113,000***	***267,000***	0	0	0	0	0
23	0.27	3.6	4.4	33.5	0	39,805	0	2,160	41,965	497,000	27,100	36,202	0	145,000	267,000	0	0	0	0	0
24	0.00	3.4	4.4	21.7	0	51,588	56	2,155	53,743	489,000	16,000	61,144	0	129,000	267,000	0	67,358	0	0	53,900
25	0.10	2.7	4.3	19.7	0	41,866	22	0	41,866	461,000	16,600	36,262	0	93,000	267,000	0	62,565	0	0	50,100
26	0.00	2.2	4.1	23.6	0	40,472	36	2,187	42,659	456,000	13,700	48,434	0	70,000	267,000	0	50,224	0	0	40,200
27	0.07	1.8	3.9	22.3	0	39,958	25	2,255	42,213	444,000	4,200	60,372	0	52,000	267,000	0	41,204	0	0	33,000
28	0.00	1.6	3.6	22.8	0	41,252	32	2,692	43,944	434,000	4,100	24,206	8,060	44,000	234,000	0	30,310	0	0	30,700
29	0.00	1.8	3.5	20.7	0	***43,373***	***22***	1,185	***44,558***	***452,000***	18,700	0	0	***52,000***	***223,000***	0	0	0	0	0
30	0.04	1.9	3.4	18.5	0	43,373	22	1,185	44,558	470,000	25,400	72,488	0	57,000	213,000	0	44,483	0	0	35,600
31	1.35	1.4	3.4	17.3	0	38,434	16	2,177	40,611	432,000	23,500	66,218	0	36,000	213,000	0	54,188	0	0	43,400
Total	10.51				244,090	1,172,326	728	56,466	1,228,792		378,100	924,596	19,149				508,762	0	0	422,600
Daily Average		3.1	3.8	20.1	7,874	37,817	23	1,821	39,638	377,700				117,700	237,300	0				
Mo. Average													600				16,400	0	0	13,630

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Notes
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII

TABLE 2. FIELD DATA ENTRY FORM
AUGUST 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled Contractor (gal.)	Leachate Hauled County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled Contractor (gal.)	Effluent Hauled County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	*9.2*	*88,874*	*1,181,752*	*1,281,890*	*8,853,789*	*10*	0	0	0	0.20	*3.6*	*3*	0	24,806	0	0	0	0
2	9.5	88,874	1,182,863	1,309,780	8,889,368	10.08	36,079	0	0	0.00	3.6	2.8	0.0	20,920	0	0	0	0
3	11.7	88,951	1,185,185	1,340,390	8,927,492	9.58	36,085	0	3,018	0.07	3.6	2.9	0.0	24,258	30,814	0	0	0
4	7.9	88,951	1,187,419	1,370,800	8,964,910	9.0	36,079	0	0	0.58	3.5	2.9	0.0	24,054	7,744	0	0	0
5	2.1	88,996	1,189,612	1,393,380	9,001,482	8.50	36,073	0	0	0.17	3.6	3.1	0.0	23,282	4,650	0	0	0
6	11.2	89,037	1,191,817	1,401,340	9,035,544	7.8	36,089	0	0	0.00	3.6	3.2	0.0	23,774	0	0	0	0
7	9.0	89,058	1,191,817	1,401,340	9,073,624	7.50	0	0	0	0.92	3.6	3.4	0.0	21,408	0	0	0	0
8	*8.1*	*89086*	*1194047*	*1414495*	*9106408*	*8.3*	0	0	0	0.33	*3.6*	*3.6*	0.0	23,416	0	0	0	0
9	7.2	89,113	1,196,277	1,427,650	9,139,192	9.08	36,082	0	0	0.18	3.6	3.8	0.0	23,110	0	0	0	0
10	7.7	89,113	1,198,549	1,435,825	9,171,690	8.58	0	0	0	0.00	3.6	4.0	0.0	2,480	0	0	0	0
11	10.5	89,113	1,200,729	1,464,210	9,209,234	11.3	24,074	0	0	0.43	3.3	4.0	0.0	50	0	0	0	0
12	9.8	89,113	1,200,729	1,490,890	9,247,692	11.33	30,377	0	0	0.45	3.4	4.0	0.0	0	0	0	0	0
13	14.4	89,178	1,202,981	1,498,090	9,283,646	11.67	30,115	0	0	1.30	3.5	4.0	0.0	0	0	0	0	0
14	8.1	89,219	1,205,224	1,498,090	9,321,304	12.42	0	0	0	0.70	3.6	4.2	0.0	0	0	0	0	0
15	*9.5*	*89252*	*1207365*	*1498090*	*9353951*	*13.8*	0	0	0	0.27	*3.6*	*4.3*	0.0	0	0	0	0	0
16	10.8	89,285	1,209,506	1,498,090	9,386,598	15.17	0	18,142	0	0.00	3.6	4.4	0.0	0	0	0	0	0
17	7.7	89,285	1,210,099	1,498,090	9,422,996	16.58	0	31,275	0	1.35	3.5	4.4	0.0	0	0	0	0	0
18	24.4	89,328	1,212,397	1,498,090	9,452,990	17.2	36,382	0	0	0.00	3.5	4.6	0.0	0	0	0	0	0
19	13.4	89,328	1,214,325	1,498,090	9,495,402	16.67	30,178	30,113	8,071	0.72	3.5	4.6	0.0	0	62,500	0	0	0
20	7.8	89,371	1,216,682	1,498,090	9,533,356	16.17	18,084	23,855	0	0.00	2.5	4.5	0.0	0	0	0	0	0
21	9.1	89,371	1,218,952	1,498,090	9,570,610	16.17	0	30,188	0	1.00	2.5	4.5	0.0	0	52,722	0	0	0
22	*16.8*	*89371*	*1221112*	*1498090*	*9610415*	*16.7*	0	0	0	0.01	*3.1*	*4.5*	0.0	17,104	0	0	0	0
23	24.5	89,371	1,223,272	1,498,090	9,650,220	17.25	0	36,202	0	0.27	3.6	4.4	0.0	27,092	0	0	0	0
24	12.7	89,427	1,225,427	1,498,090	9,701,808	17.00	30,628	30,516	0	0.00	3.4	4.4	0.0	16,036	67,358	0	0	0
25	10.7	89,449	1,225,427	1,498,090	9,743,674	16.0	0	36,262	0	0.10	2.7	4.3	0.0	16,554	62,565	0	0	0
26	14.6	89,485	1,227,614	1,498,090	9,784,146	15.83	36,140	12,294	0	0.00	2.2	4.1	0.0	13,664	50,224	0	0	0
27	13.3	89,510	1,229,869	1,498,090	9,824,104	15.42	36,110	24,262	0	0.07	1.8	3.9	0.0	4,246	41,204	0	0	0
28	13.8	89,542	1,232,561	1,498,090	9,865,356	15.08	0	24,206	8,060	0.00	1.6	3.6	0.0	4,100	30,310	0	0	0
29	*11.7*	*89564*	*1233746*	*1498090*	*9908729*	*15.7*	0	0	0	0	*1.8*	*3.5*	0.0	18,734	0	0	0	0
30	9.5	89,586	1,234,930	1,498,090	9,952,102	16.33	36,098	36,390	0	0.04	1.9	3.4	0.0	25,412	44,483	0	0	0
31	8.3	89,602	1,237,107	1,498,090	9,990,536	15.00	36,086	30,132	0	1.35	1.4	3.4	0.0	23,496	54,188	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August	10.51	0	56,466	1,172,326	924,596	19,149	378,100	0	0	508,762	1,228,792	1,321,845	-93,053
September													
October													
November													
December													
YTD Total	42.87	0	1,326,811	8,876,407	7,728,195	507,758	2,948,900	0	0	2,233,709	10,203,218	11,184,853	-981,635

projects\balance\2004\2004summary.xls (Revised by ler 9/10/04)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

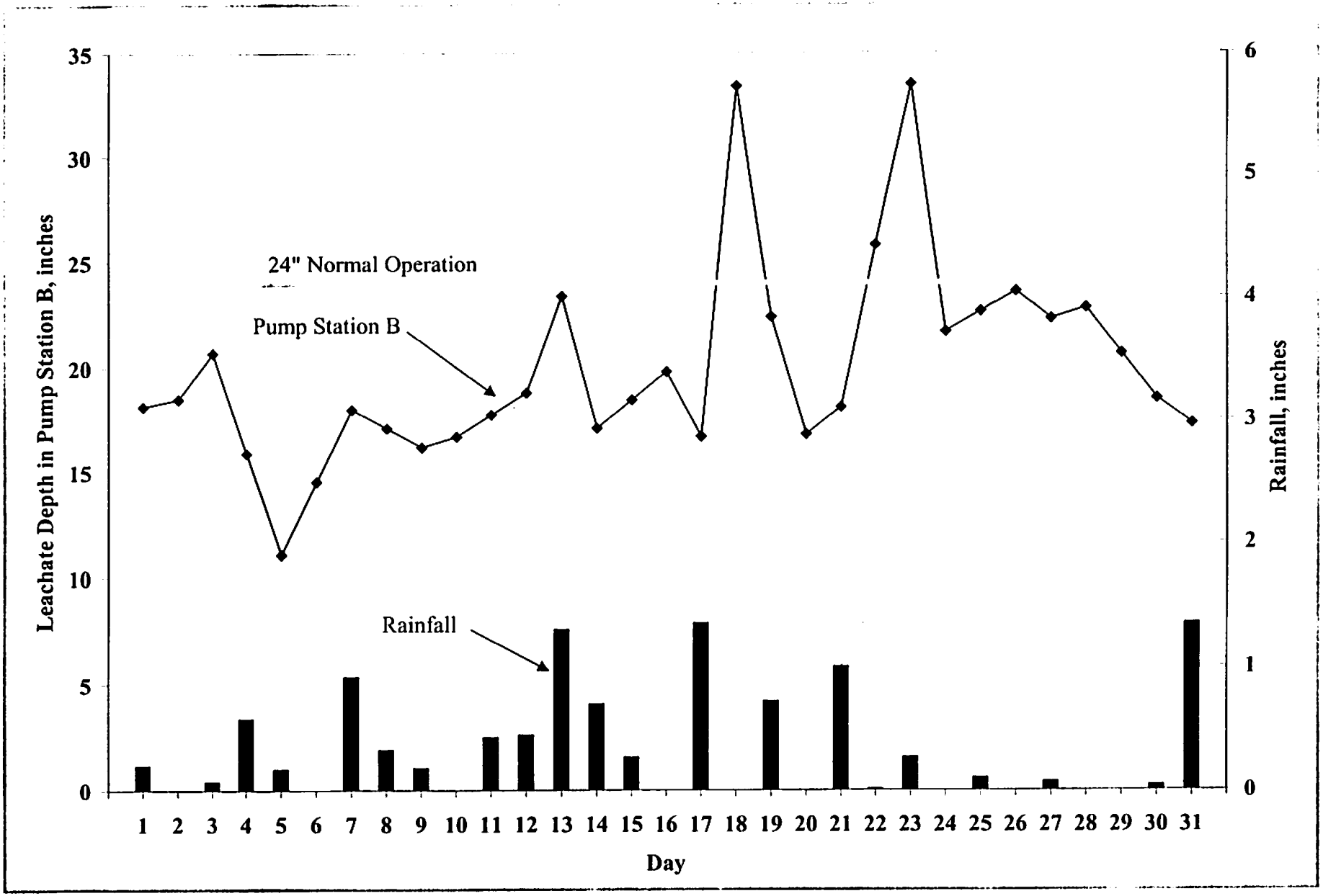

Figure 1. Leachate Levels in Pump Station B and Rainfall for August 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) August, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.20
2	0.0	55,780	0.00	9.5	71,158	2,222	0	10'1"	36,079	0	0	0.00
3	0.0	30,610	0.00	11.7	38,124	2,322	77	9'7"	36,085	0	3,018	0.07
4	0.0	30,410	0.00	7.9	37,410	2,234	0	9'0"	36,079	0	0	0.58
5	0.0	22,580	0.00	2.1	36,572	2,193	45	8'6"	36,073	0	0	0.17
6	0.0	7,960	0.00	11.2	34,062	2,205	41	7'10"	36,089	0	0	0.00
7	0.0	0	0.00	9.0	38,080	0	21	7'6"	0	0	0	0.92
8	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.33
9	0.0	26,310	0.00	7.2	65,568	4,460	55	9'1"	36,082	0	0	0.18
10	0.0	8,175	0.00	7.7	32,498	2,272	0	8'7"	0	0	0	0.00
11	0.0	28,385	0.00	10.5	37,544	2,180	0	11'3"	24,074	0	0	0.43
12	0.0	26,680	0.00	9.8	38,458	0	0	11'4'	30,377	0	0	0.45
13	0.0	7,200	0.00	14.4	35,954	2,252	65	11'8"	30,115	0	0	1.30
14	0.0	0	0.00	8.1	37,658	2,243	31	12'5"	0	0	0	0.70
15	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.27
16	0.0	0	0.00	10.8	65,294	4,282	66	15'2"	0	18,142	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) August, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	0	0.00	7.7	36,398	593	0	16'7"	0	31,275	0	1.35
18	0.0	0	0.00	24.4	29,994	2,298	43	17'2"	36,382	0	0	0.00
19	0.0	0	0.00	13.4	42,412	1,928	0	16'8"	30,178	30,113	8,071	0.72
20	0.0	0	0.00	7.8	37,954	2,357	43	16'2"	18,084	23,855	0	0.00
21	0.0	0	0.00	9.1	37,254	2,270	0	16'2"	0	30,188	0	1.00
22	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.01
23	0.0	0	0.00	24.5	79,610	4,320	0	17'3'	0	36,202	0	0.27
24	0.0	0	0.00	12.7	51,588	2,155	56	17'0"	30,628	30,516	0	0.00
25	0.0	0	0.00	10.7	41,866	0	22	16'0'	0	36,262	0	0.10
26	0.0	0	0.00	14.6	40,472	2,187	36	15'10"	36,140	12,294	0	0.00
27	0.0	0	0.00	13.3	39,958	2,255	25	15'2"	36,110	24,262	0	0.07
28	0.0	0	0.00	13.8	41,252	2,692	32	15'1"	0	24,206	8,060	0.00
29	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
30	0.0	0	0.00	9.5	86,746	2,369	44	16'4"	36,098	36,390	0	0.04
31	0.0	0	0.00	8.3	38,434	2,171	16	15'0"	36,086	30,132	0	1.35

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Grant for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) August,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.00	0.00	0	24,806	0		0	0				
2	3.60	2.80	0	20,920	0		0	0				
3	3.60	2.90	0	24,258	30,814		0	0				N
4	3.50	2.90	0	24,054	7,744		0	0				N
5	3.60	3.10	0	23,282	4,650		0	0				N
6	3.60	3.20	0	23,774	0		0	0				
7	3.60	3.40	0	21,408	0		0	0				
8	0.00	0.00	0	23,416	0		0	0				
9	3.60	3.80	0	23,110	**15,122		0	0				
10	3.60	4.00	0	2,480	**22,494		0	0				
11	3.30	4.00	0	50	0		0	0				
12	3.40	4.00	0	0	0		0	0				
13	3.50	4.00	0	0	0		0	0				
14	3.60	4.00	0	0	0		0	0				
15	0.00	0.00	0	0	0		0	0				
16	3.60	4.00	0	0	0		0	0				

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: ** Effluent sent back to G.S.T.

Prepared by: Raymond C. Grover for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) August,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	3.50	4.40	0	0	0		0	0				
18	3.50	4.00	0	0	0		0	0				
19	3.50	4.60	0	0	62,500		0	0				N
20	2.50	4.50	0	0	0		0	0				
21	2.50	4.00	0	0	52,722		0	0				N
22	0.00	0.00	0	17,104	0		0	0				
23	3.60	4.40	0	27,092	0		0	0				
24	3.40	4.40	0	16,036	67,358		0	0				N
25	2.70	4.30	0	16,554	62,565		0	0				N
26	2.20	4.10	0	13,664	50,224		0	0				N
27	1.80	3.90	0	4,246	41,204		0	0				N
28	1.60	3.60	0	4,100	30,310		0	0				N
29	0.00	0.00	0	18,734	0		0	0				
30	1.90	3.40	0	25,412	44,483		0	0				N
31	1.40	3.40	0	23,496	54,188		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Arms for Matt

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August 17, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OCT 15 2004
SOUTHWEST DISTRICT
TAMPA

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –July 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of July 2004. In addition, the SWMD is providing the July 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for July 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal level of 24 inches in June except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in July 2004 was 19.3 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0704.dep

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

August 13, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for July 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for July 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for July (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of July.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 10.51 inches of rainfall at the SCLF in July.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In July, the average depth of effluent stored in Pond A was 1.4 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In July, the average depth of effluent stored in Pond B was 0.3 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in July except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in July was 19.3 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in July was 11,573 gallons. A total of 358,775 gallons was pumped from TPS-6 to PS-B in July.

On June 8, TPS-6 was taken offline to evaluate overall leachate quantity removal. TPS-6 remained offline until July 8. It appears the flow through TPS-6 is insignificant. However, further investigation is necessary. The SWMD will continue the evaluation after the rainy season and will inform the FDEP of the results.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in July was 34,091 gallons. A total of 1,056,815 gallons of leachate was pumped to the storage tank in July.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In July, a total of 951 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In July, 72,043 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In July, a total of 1,128,858 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in July, based on recorded days, was estimated at 233,500 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In July, a total of 341,400 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of July, a total of 860,830 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In July 49,166 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In July, a daily average of 50,400 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In July, 312,000 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in July.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In July, 210,964 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In July, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In July, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for July was 207,900 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in July was 1,128,858 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,251,396 gallons. The change in storage for the month of July decreased by 122,538 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S. van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JULY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.06	1.3	0.0	16.4	0	30,945	28	2,548	33,493	305,000	3,900	72,171	0	36,000	0	0	16,930	0	0	13,500
2	0.22	1.4	0.0	20.3	0	32,411	32	2,643	35,054	257,000	27,800	42,148	0	36,000	0	0	23,588	0	0	18,900
3	0.35	1.5	0.0	21.1	0	34,143	64	4,929	39,072	228,000	27,300	0	4,010	40,000	0	0	27,778	0	0	25,400
4	0.52	0.0	0.0	NR	0	33,288	27	2,353	35,641	NR	28,400	0	0	800	0	0	0	0	0	0
5	2.35	2.0	0.0	17.6	0	33,288	27	2,353	35,641	266,000	0	18,065	0	61,000	0	0	42,796	0	0	34,200
6	0.00	0.0	0.0	NR	0	29,732	27	1,223	30,955	NR	0	18,041	0	800	0	0	0	0	0	0
7	0.00	2.1	0.0	17.0	0	29,732	27	1,223	30,955	259,000	0	78,221	0	65,000	0	0	41,552	0	0	33,200
8	0.00	1.7	0.0	21.7	11,115	38,904	39	6,972	45,876	194,000	0	60,272	4,013	48,000	0	0	0	0	0	3,200
9	0.00	0.8	0.0	18.4	10,680	34,356	34	1,706	36,062	180,000	0	36,165	4,009	17,000	0	0	58,320	0	0	49,900
10	0.00	0.8	0.0	23.2	10,030	30,409	36	2,581	32,990	182,000	0	24,105	0	17,000	0	0	0	0	0	0
11	0.10	0.0	0.0	NR	10,620	31,728	25	2,421	34,149	NR	0	0	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	21.9	10,620	31,728	25	2,421	34,149	230,000	0	36,102	8,025	800	0	0	0	0	0	6,400
13	0.00	0.0	0.0	17.9	10,800	33,986	41	2,465	36,451	230,000	0	24,065	6,024	800	0	0	0	0	0	4,800
14	0.00	0.0	0.0	17.6	9,940	33,571	39	2,411	35,982	238,000	0	36,133	0	800	0	0	0	0	0	0
15	0.00	0.0	0.0	21.5	10,650	34,930	42	2,411	37,341	240,000	0	18,050	4,011	800	0	0	0	0	0	2,400
16	0.00	0.0	0.0	17.0	11,820	33,960	21	0	33,960	261,000	0	42,115	4,019	800	0	0	0	0	0	3,200
17	0.00	0.0	0.0	19.5	10,810	33,195	28	2,490	35,685	257,000	0	30,087	0	800	0	0	0	0	0	0
18	1.33	0.0	0.0	NR	3,763	33,811	25	2,417	36,228	NR	0	0	0	800	0	0	0	0	0	0
19	1.17	0.0	0.0	16.8	3,763	33,811	25	2,417	36,228	300,000	21,200	78,318	0	800	0	0	0	0	0	0
20	1.72	1.5	0.0	19.3	0	31,276	36	0	31,276	250,000	19,600	54,156	0	40,000	0	0	0	0	0	0
21	0.00	2.1	0.0	19.8	0	28,838	35	2,090	30,928	206,000	19,600	72,231	0	65,000	0	0	0	0	0	0
22	0.00	2.5	0.0	12.3	32,320	37,536	28	68	37,604	166,000	14,100	18,064	0	83,000	0	0	0	0	0	0
23	0.00	2.7	0.0	12.2	30,750	41,118	25	4,033	45,151	180,000	14,400	36,143	4,013	93,000	0	0	0	0	0	3,200
24	0.00	2.9	0.0	20.5	29,790	35,548	32	2,102	37,650	161,000	14,800	12,027	4,018	103,000	0	0	0	0	0	3,200
25	0.00	0.0	0.0	NR	18,478	30,891	0	2,200	33,091	NR	11,900	0	0	800	0	0	0	0	0	0
26	1.35	3.3	0.0	33.6	18,478	30,891	0	2,200	33,091	206,000	21,600	0	4,016	123,000	0	0	0	0	0	3,200
27	0.58	3.6	1.0	18.6	21,270	44,854	79	2,731	47,585	240,000	26,100	0	0	145,000	19,000	0	0	0	0	0
28	0.10	3.6	1.5	19.9	7,845	34,849	25	1,889	36,738	247,000	22,100	6,015	0	145,000	44,000	0	0	0	0	0
29	0.28	3.6	1.8	21.9	28,215	38,589	31	2,267	40,856	281,000	21,500	30,087	0	145,000	64,000	0	0	0	0	0
30	0.00	3.6	2.1	17.4	26,515	36,920	0	2,271	39,191	257,000	24,200	18,049	0	145,000	88,000	0	0	0	0	0
31	0.38	3.6	2.2	17.8	30,505	37,578	51	2,209	39,787	259,000	22,900	0	4,008	145,000	97,000	0	0	0	0	3,200
Total	10.51				358,775	1,056,815	951	72,043	1,128,858		341,400	860,830	49,166		312,000		210,964	0	0	207,900
Daily Average		1.4	0.3	19.3	11,573	34,091	31	2,324	36,415	233,500				50,400	0	0				
Mo. Average													1,680				6,800	0	0	6,710

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
JULY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate				Effluent	Leachate	Effluent	Effluent Hauled		Effluent
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal)
1	7.4	87,951	1,111,146	895,225	7,792,340	10.58	30,039	42,132	0	0.06	1.3	0.0	0.0	3,941	16,930	0	0	0
2	11.3	87,983	1,113,789	895,225	7,824,751	8.92	30,116	12,032	0	0.22	1.4	0.0	0.0	27,839	23,588	0	0	0
3	12.1	88,047	1,118,718	895,225	7,858,894	7.92	0	0	4,010	0.35	1.5	0.0	0.0	27,346	27,778	0	0	0
4	NR	***88,074***	***1,121,071***	***895,225***	***7,892,182***	NR	0	0	0	0.52	0.0	0.0	0.0	28,408	0	0	0	0
5	8.6	88,100	1,123,424	895,225	7,925,470	9.25	18,065	0	0	2.35	2.0	0.0	0.0	0	42,796	0	0	0
6	NR	88,127	1,124,647	895,225	7,955,202	NR	0	18,041	0	0.00	0.0	0.0	0.0	0	0	0	0	0
7	8.0	88,153	1,125,869	895,225	7,984,934	9.00	42,113	36,108	0	0.00	2.1	0.0	0.0	0	41,552	0	0	0
8	12.7	88,192	1,132,841	906,340	8,023,838	6.75	18,069	42,203	4,013	0.00	1.7	0.0	0.0	0	0	0	0	0
9	9.4	88,226	1,134,547	917,020	8,058,194	6.25	0	36,165	4,009	0.00	0.8	0.0	0.0	0	58,320	0	0	0
10	14.2	88,262	1,137,128	927,050	8,088,603	6.33	0	24,105	0	0.00	0.8	0.0	0.0	0	0	0	0	0
11	NR	***88,287***	***1,139,549***	***937,670***	***8,120,331***	NR	0	0	0	0.10	0.0	0.0	0.0	0	0	0	0	0
12	12.9	88,311	1,141,970	948,290	8,152,058	8.00	0	36,102	8,025	0.00	0.0	0.0	0.0	0	0	0	0	0
13	8.9	88,352	1,144,435	959,090	8,186,044	8.00	0	24,065	6,024	0.00	0.0	0.0	0.0	0	0	0	0	0
14	8.6	88,391	1,146,846	969,030	8,219,615	8.25	0	36,133	0	0.00	0.0	0.0	0.0	0	0	0	0	0
15	12.5	88,433	1,149,257	979,680	8,254,545	8.33	0	18,050	3,011	0.00	0.0	0.0	0.0	0	0	0	0	0
16	8.0	88,454	1,149,257	991,500	8,288,505	9.08	0	42,115	4,019	0.00	0.0	0.0	0.0	0	0	0	0	0
17	10.5	88,482	1,151,747	1,002,310	8,321,700	8.92	0	30,087	0	0.00	0.0	0.0	0.0	0	0	0	0	0
18	NR	***88,507***	***1,154,164***	***1,006,073***	***8,355,511***	NR	0	0	0	1.33	0.0	0.0	0.0	0	0	0	0	0
19	7.8	88,532	1,156,581	1,009,835	8,389,322	10.42	42,129	36,189	0	1.17	0.0	0.0	0.0	21,166	0	0	0	0
20	10.3	88,568	1,156,581	1,009,835	8,420,598	8.67	30,092	24,064	0	1.72	1.5	0.0	0.0	19,624	0	0	0	0
21	10.8	88,603	1,158,671	1,009,835	8,449,436	7.17	36,134	36,097	0	0.00	2.1	0.0	0.0	19,598	0	0	0	0
22	3.3	88,631	1,158,739	1,042,155	8,486,972	5.75	0	18,064	0	0.00	2.5	0.0	0.0	14,080	0	0	0	0
23	3.2	88,656	1,162,772	1,072,905	8,528,090	6.25	0	36,143	4,013	0.00	2.7	0.0	0.0	14,372	0	0	0	0
24	11.5	88,688	1,164,874	1,102,695	8,563,638	5.58	0	12,027	4,018	0.00	2.9	0.0	0.0	14,830	0	0	0	0
25	NR	***88,688***	***1,167,074***	***1,121,173***	***8,594,529***	NR	0	0	0	0.00	0.0	0.0	0.0	11,858	0	0	0	0
26	24.6	88,688	***1,169,274***	1,139,650	8,625,420	7.17	0	0	4,016	1.35	3.3	0.0	0.0	21,604	0	0	0	0
27	9.6	88,767	1,172,005	1,160,920	8,670,274	8.00	0	0	0	0.58	3.6	1.0	0.0	26,126	0	0	0	0
28	10.9	88,792	1,173,894	1,168,765	8,705,123	8.58	0	6,015	0	0.10	3.6	1.5	0.0	22,096	0	0	0	0
29	12.9	88,823	1,176,161	1,196,980	8,743,712	9.75	0	30,087	0	0.28	3.6	1.8	0.0	21,462	0	0	0	0
30	8.4	88,823	1,178,432	1,223,495	8,780,632	8.92	0	18,049	0	0.00	3.6	2.1	0.0	24,154	0	0	0	0
31	8.8	88,874	1,180,641	1,254,000	8,818,210	9.00	0	0	4,008	0.38	3.6	2.2	0.0	22,946	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	132.4	6.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July	10.51	0	72,043	1,056,815	860,830	49,166	341,400	0	0	210,964	1,128,858	1,251,396	-122,538
August													
September													
October													
November													
December													
YTD Total	32.36	0	1,270,345	7,704,081	6,803,599	488,609	2,570,800	0	0	1,724,947	8,974,426	9,863,008	-888,582

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

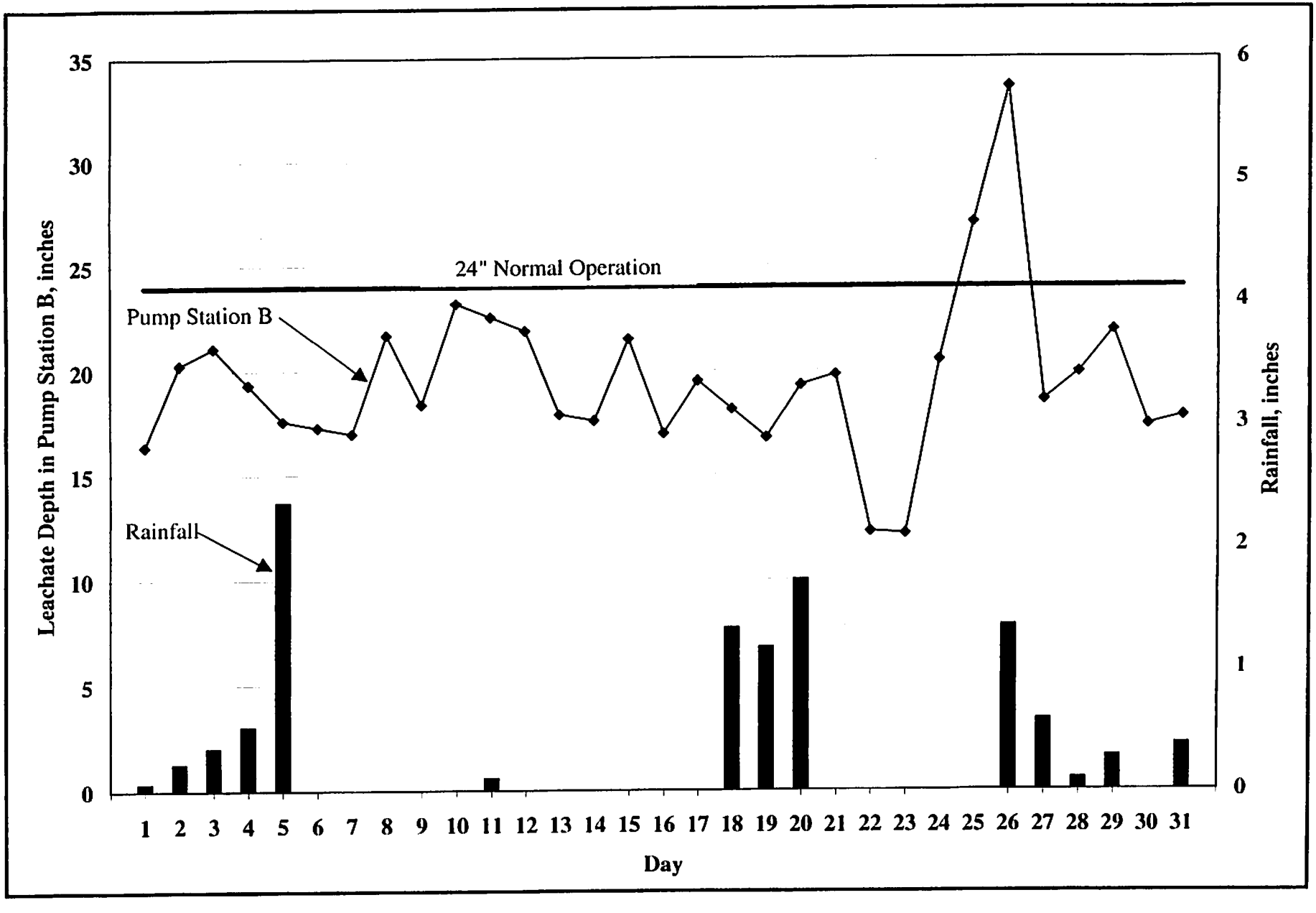

Figure 1. Leachate Levels in Pump Station B and Rainfall for July 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) July, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0	0.00	7.4	30,945	2,548	28	10'7"	30,039	42,132	0	0.06
2	0.0	0	0.00	11.3	32,411	2,643	32	8'11"	30,116	12,032	0	0.22
3	0.0	0	0.00	12.1	34,143	4,929	64	7'11"	0	0	4,010	0.35
4	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.52
5	0.0	0	0.00	8.6	66,576	4,706	53	9'3"	18,065	0	0	2.35
6	0.0	0	0.00	*0	0	0	0	0.00	0	18,041	0	0.00
7	0.0	0	0.00	8.0	62,464	2,445	53	9'0"	42,113	36,108	0	0.00
8	0.0	11,115	0.00	12.7	35,904	6,972	39	6'9"	18,069	42,203	4,013	0.00
9	0.0	10,680	0.00	9.4	34,356	1,706	34	6'3"	0	36,165	4,009	0.00
10	0.0	10,030	0.00	14.2	30,409	2,581	36	6'4"	0	24,105	0	0.00
11	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.10
12	0.0	21,240	0.00	12.9	63,455	4,842	49	8'0"	0	36,102	8,025	0.00
13	0.0	10,800	0.00	8.9	33,986	2,465	41	8'0"	0	24,065	6,024	0.00
14	0.0	9,940	0.00	8.6	33,571	2,411	39	8'3"	0	36,133	0	0.00
15	0.0	10,650	0.00	12.5	34,930	2,411	42	8'4"	0	18,050	3,011	0.00
16	0.0	11,820	0.00	8.0	33,960	0	21	9'1"	0	42,115	4,019	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Teco power outage, no readings.7/06/04

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) July, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	10,810	0.00	10.5	33,195	2,490	28	8'11"	0	30,087	0	0.00
18	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	1.33
19	0.0	7,525	0.00	7.8	67,622	4,834	50	10'5"	42,129	36,189	0	1.17
20	0.0	0	0.00	10.3	31,276	0	36	8'8"	30,092	24,064	0	1.72
21	0.0	0	0.00	10.8	28,838	2,090	35	7'2"	36,134	36,097	0	0.00
22	0.0	32,320	0.00	3.3	37,536	68	28	5'9"	0	18,064	0	0.00
23	0.0	30,750	0.00	3.2	41,118	4,033	25	6'3"	0	36,143	4,013	0.00
24	0.0	29,790	0.00	11.5	35,548	2,102	32	5'7'	0	12,027	4,018	0.00
25	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.00
26	0.0	36,955	0.00	24.6	61,782	5,269	0	7'2'	0	0	4,016	1.35
27	0.0	21,270	0.00	9.6	44,854	12,400	79	8'0"	0	0	0	0.58
28	0.0	7,845	0.00	10.9	34,852	1,887	25	8'7"	0	6,015	0	0.10
29	0.0	28,215	0.00	12.9	38,586	2,267	31	9'9"	0	30,087	0	0.28
30	0.0	26,515	0.00	8.4	36,920	2,271	0	8'11"	0	18,049	0	0.00
31	0.0	30,505	0.00	8.8	37,578	2,209	51	9'0"	0	0	4,008	0.38

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Grava for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) July,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	1.30	0.00	0	3,941	16,930		0	0	0			N
2	1.40	0.00	0	27,839	23,588		0	0	0			N
3	1.40	0.00	0	27,346	27,778		0	0	0			N
4	0.00	0.00	0	28,408	0		0	0	0			0
5	2.00	0.00	0	*0	42,796		0	0	0			N
6	0.00	0.00	0	0	0		0	0	0			0
7	2.10	0.00	0	0	41,552		0	0	0			N
8	1.70	0.00	0	0	0		0	0	0			0
9	0.80	0.00	0	0	58,320		0	0	0			N
10	0.80	0.00	0	0	0		0	0	0			0
11	0.00	0.00	0	0	0		0	0	0			0
12	0.00	0.00	0	0	0		0	0	0			0
13	0.00	0.00	0	0	0		0	0	0			0
14	0.00	0.00	0	0	0		0	0	0			0
15	0.00	0.00	0	0	0		0	0	0			0
16	0.00	0.00	0	0	0		0	0	0			0

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Leachate Plant not in operation, 7/05/04 thru 7/18/04.

Prepared by: Raymond C Travis for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) July,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.00	0.00	0	0	0		0	0	0			0
18	0.00	0.00	0	0	0		0	0	0			0
19	0.00	0.00	0	21,166	0		0	0	0			0
20	1.50	0.00	0	19,624	0		0	0	0			0
21	2.10	0.00	0	19,598	0		0	0	0			0
22	2.50	0.00	0	14,080	0		0	0	0			0
23	2.70	0.00	0	14,372	0		0	0	0			0
24	2.90	0.00	0	14,830	0		0	0	0			0
25	0.00	0.00	0	11,858	0		0	0	0			0
26	3.30	0.00	0	21,604	0		0	0	0			0
27	3.60	1.00	0	26,126	0		0	0	0			0
28	3.60	1.50	0	22,096	0		0	0	0			0
29	3.60	1.80	0	21,462	0		0	0	0			0
30	3.60	2.10	0	24,154	0		0	0	0			0
31	3.60	2.20	0	22,946	0		0	0	0			0

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Grave for Matt

100494
QTR 11

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July 14, 2004

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

inbox 8/11/04

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Ms. Pelz:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending July 15, 2004.

The data is being submitted as separate monthly reports for April, May and June 2004. The information includes the leachate level in Pump Station B (PSB). The level was below the 24-inch normal operation level during this quarter except for one day in June due to a power outage.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC

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JUL 14 2004
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July 14, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUL 14 2004
SOUTHWEST DISTRICT TAMPA

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –June 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of June 2004. In addition, the SWMD is providing the June 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for June 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal level of 24 inches in June except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in June 2004 was 16.9 inches.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0604.dep

Environmental Consultants

3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

July 14, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for June 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for June 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for June (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of June.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 7.14 inches of rainfall at the SCLF in June.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In June, the average depth of effluent stored in Pond A was 1.6 feet.

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JUL 14 2004
Southwest District Tampa

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent was stored in Pond B in June.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches in June except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in June was 16.9 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in June was 2,629 gallons. A total of 78,855 gallons was pumped from TPS-6 to PS-B in June.

On June 8, TPS-6 was taken offline to evaluate overall leachate quantity removal. TPS-6 remained offline for the remainder of the month. In previous months, it appeared the daily removal from TPS-6 was in the same magnitude as the overall quantity being removed from the SCLF, which may have indicated that the leachate from Phase IV was reaching PS-B (i.e., TPS-6 was recirculating the leachate back to PS-B rather than providing additional removal from Phase IV as intended). The SWMD will inform the FDEP of the results of this evaluation.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in June was

33,269 gallons. A total of 998,065 gallons of leachate was pumped to the storage tank in June.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In June, a total of 671 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In June, 139,047 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In June, a total of 1,137,112 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in June, based on recorded days, was estimated at 226,600 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In June, a total of 808,400 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the

month of June, a total of 367,775 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In June 52,075 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In June, a daily average of 47,200 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In June, no effluent was stored in Pond B for evaporation.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in June.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the

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JUL 14 2004
Southwest District Tampa

flow meter at the irrigation pump station. In June, 736,129 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In June, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In June, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for June was 630,500 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in June was 1,276,159 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,228,250 gallons. The change in storage for the month of June increased by 47,909 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JUNE 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Elfhaem Sprayed Pond B (gal)	Elfhaem Irrigation (gal.)	Elfhaem Dust Control (Sprayed) (gal.)	Total Elfhaem Hauled (gal.)	Total Evaporation (gal.)
1	0.00	1.6	0.0	21.9	14,920	34,289	29	2,668	36,957	178,000	29,200	12,078	0	44,000	0	0	33,197	0	0	26,600
2	0.00	1.4	0.0	11.4	13,960	36,683	10	2,688	39,371	175,000	27,000	0	0	36,000	0	0	29,022	0	0	23,200
3	0.00	1.3	0.0	22.6	13,680	26,026	26	0	26,026	180,000	27,000	0	0	36,000	0	0	17,590	0	0	14,100
4	0.00	1.4	0.0	18.2	15,045	29,360	19	2,796	32,156	189,000	35,000	0	0	36,000	0	0	27,512	0	0	22,000
5	0.33	1.5	0.0	23.3	15,335	60,058	47	2,699	62,757	197,000	51,700	0	0	40,000	0	0	32,950	0	0	26,400
6	0.00	0.0	0.0	NR	2,958	15,908	9	1,321	17,229	NR	35,200	0	0	800	0	0	0	0	0	0
7	0.06	2.5	0.0	17.1	2,958	15,908	9	1,321	17,229	202,000	35,200	0	2,003	83,000	0	0	55,746	0	0	46,200
8	0.00	2.1	0.0	21.6	0	28,355	10	1,322	29,677	199,000	36,300	0	4,000	65,000	0	0	43,298	0	0	37,800
9	0.07	1.9	0.0	22.6	0	29,654	12	2,532	32,186	197,000	34,100	18,078	6,032	57,000	0	0	50,054	0	0	44,900
10	0.98	1.4	0.0	21.7	0	29,903	9	3,116	33,019	173,000	25,500	18,119	0	36,000	0	0	26,178	0	0	20,900
11	0.00	1.5	0.0	17.6	0	32,519	21	2,850	35,369	175,000	23,000	18,141	0	40,000	0	0	0	0	0	0
12	0.00	2.0	0.0	18.0	0	31,559	13	12,054	43,613	180,000	21,800	18,053	4,011	61,000	0	0	43,414	0	0	37,900
13	0.40	0.0	0.0	NR	0	30,345	16	4,246	34,591	NR	22,900	0	0	800	0	0	0	0	0	0
14	0.42	1.9	0.0	18.4	0	30,345	16	4,246	34,591	204,000	9,600	0	0	57,000	0	0	0	0	0	0
15	0.67	2.2	0.0	11.8	0	34,590	19	5,748	40,338	242,000	21,600	0	0	70,000	0	0	42,578	0	0	34,100
16	0.00	1.7	0.0	11.5	0	30,725	24	5,599	36,324	259,000	26,400	36,103	4,130	48,000	0	0	34,802	0	0	31,100
17	0.00	1.4	0.0	18.1	0	26,558	22	11,003	37,561	247,000	25,000	24,064	4,013	36,000	0	0	0	0	0	3,200
18	0.00	1.9	0.0	11.9	0	32,522	16	7,490	40,012	240,000	26,200	30,076	0	57,000	0	0	33,366	0	0	26,700
19	0.00	1.9	0.0	10.5	0	31,415	26	2,940	34,355	223,000	25,400	12,032	4,012	57,000	0	0	33,166	0	0	29,700
20	0.00	0.0	0.0	NR	0	33,509	28	3,778	37,287	NR	26,400	0	0	800	0	0	0	0	0	0
21	0.00	1.9	0.0	13.2	0	33,509	28	3,778	37,287	238,000	26,600	24,063	8,022	57,000	0	0	46,654	0	0	43,700
22	0.33	1.3	0.0	11.4	0	32,486	41	4,692	37,178	230,000	32,300	6,015	0	36,000	0	0	0	0	0	0
23	0.33	1.9	0.0	11.0	0	29,470	29	478	29,948	235,000	12,400	12,033	0	57,000	0	0	49,696	0	0	39,800
24	0.72	1.2	0.0	33.5	0	20,283	33	7,637	27,920	233,000	14,100	18,052	8,019	32,000	0	0	0	0	0	6,400
25	0.00	1.6	0.0	23.5	0	26,143	23	10,163	36,306	240,000	19,600	18,049	3,821	44,000	0	0	0	0	0	3,100
26	1.68	2.0	0.0	14.4	0	41,051	22	7,947	48,998	252,000	32,900	12,021	0	61,000	0	0	40,172	0	0	32,100
27	1.12	0.0	0.0	NR	0	56,636	30	6,175	62,810	NR	30,100	0	0	800	0	0	0	0	0	0
28	0.00	2.6	0.0	10.6	0	56,636	30	6,175	62,810	329,000	25,800	24,243	0	88,000	0	0	0	0	0	0
29	0.03	3.0	0.0	9.6	0	45,927	27	7,218	53,145	338,000	25,000	30,191	0	108,000	0	0	64,302	0	0	51,400
30	0.00	2.2	0.0	12.9	0	35,696	27	4,369	40,065	336,000	25,100	36,362	4,012	70,000	0	0	32,432	0	0	29,200
Total	7.14				78,855	998,065	671	139,047	1,137,112		808,400	367,775	52,075		0		736,129	0	0	630,500
Daily Average		1.6	0.0	16.9	2,629	33,269	22	4,635	37,904	226,600				47,200	0	0				
Mo. Average													1,700				24,500	0	0	21,020

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Notes

1 NR = No Records, NA = Not Available.
2 Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values
3 Daily average is calculated by dividing the total by the actual days measured in the month
4 Monthly average calculated by dividing the total by the number of days of the month
5 Column II. Trace is less than 0.01 inches and is not included in total
6 Columns III and IV, field measured at staff gauges
7 Column V, PS-B sensor reading plus 9 inches
8 Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser
9 Column XI, calculated from depth in 575,000 gal leachate tank
10 Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11 Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII

TABLE 2. FIELD DATA ENTRY FORM
JUNE 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor (gal.)	County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	12.9	87,281	972,219	831,290	6,797,619	6.17	0	12,078	0	0.00	1.6	0.0	0.0	29,172	33,197	0	0	0
2	2.4	87,291	974,907	845,250	6,834,302	6.08	0	0	0	0.00	1.4	0.0	0.0	27,045	29,022	0	0	0
3	13.6	87,317	974,907	858,930	6,860,328	6.25	0	0	0	0.00	1.3	0.0	0.0	27,045	17,590	0	0	0
4	9.2	87,336	977,703	873,975	6,889,688	6.58	0	0	0	0.00	1.4	0.0	0.0	35,025	27,512	0	0	0
5	14.3	87,383	980,402	889,310	6,949,746	6.83	0	0	0	0.33	1.5	0.0	0.0	51,676	32,950	0	0	0
6	NR	*87,392*	*981,723*	*892,268*	*6,965,654*	NR	0	0	0	0.00	0.0	0.0	0.0	35,150	0	0	0	0
7	8.1	87,401	983,044	895,225	6,981,561	7.00	0	0	2,003	0.06	2.5	0.0	0.0	35,150	55,746	0	0	0
8	12.6	87,411	984,366	895,225	7,009,916	6.92	0	0	4,000	0.00	2.1	0.0	0.0	36,264	43,298	0	0	0
9	13.6	87,423	986,898	895,225	7,039,570	6.83	0	18,078	6,032	0.07	1.9	0.0	0.0	34,132	50,054	0	0	0
10	12.7	87,432	990,014	895,225	7,069,473	6.00	0	18,119	0	0.98	1.4	0.0	0.0	25,482	26,178	0	0	0
11	8.6	87,453	992,864	895,225	7,101,992	6.08	0	18,143	0	0.00	1.5	0.0	0.0	23,026	0	0	0	0
12	9.0	87,466	1,004,918	895,225	7,133,551	6.25	0	18,053	4,011	0.00	2.0	0.0	0.0	21,842	43,414	0	0	0
13	NR	*87,482*	*1,009,164*	*895,225*	*7,163,896*	NR	0	0	0	0.40	0.0	0.0	0.0	22,870	0	0	0	0
14	9.4	87,498	1,013,410	895,225	7,194,240	7.08	0	0	0	0.42	1.9	0.0	0.0	9,570	0	0	0	0
15	2.8	87,517	1,019,158	895,225	7,228,830	8.42	0	0	0	0.67	2.2	0.0	0.0	21,594	42,578	0	0	0
16	2.5	87,541	1,024,757	895,225	7,259,555	9.00	0	36,103	4,130	0.00	1.7	0.0	0.0	26,402	34,802	0	0	0
17	9.1	87,563	1,035,760	895,225	7,286,113	8.58	0	24,064	4,013	0.00	1.4	0.0	0.0	25,008	0	0	0	0
18	2.9	87,579	1,043,250	895,225	7,318,635	8.33	0	30,076	0	0.00	1.9	0.0	0.0	26,154	33,366	0	0	0
19	1.5	87,605	1,046,190	895,225	7,350,050	7.75	0	12,032	4,012	0.00	1.9	0.0	0.0	25,386	33,166	0	0	0
20	NR	*87,633*	*1,049,968*	*895,225*	*7,383,559*	NR	0	0	0	0.00	0.0	0.0	0.0	26,440	0	0	0	0
21	4.2	87,661	1,053,745	895,225	7,417,068	8.25	0	24,063	8,022	0.00	1.9	0.0	0.0	26,630	46,654	0	0	0
22	2.4	87,702	1,058,437	895,225	7,449,554	8.00	0	6,015	0	0.33	1.3	0.0	0.0	32,268	0	0	0	0
23	2.0	87,731	1,058,915	895,225	7,479,024	8.17	0	12,033	0	0.33	1.9	0.0	0.0	12,412	49,696	0	0	0
24	24.5	87,764	1,066,552	895,225	7,499,307	8.08	0	18,052	8,019	0.72	1.2	0.0	0.0	14,094	0	0	0	0
25	14.5	87,787	1,076,715	895,225	7,525,450	8.33	0	18,049	3,821	0.00	1.6	0.0	0.0	19,564	0	0	0	0
26	5.4	87,809	1,084,662	895,225	7,566,501	8.75	0	12,021	0	1.68	2.0	0.0	0.0	32,920	40,172	0	0	0
27	NR	*87,839*	*1,090,837*	*895,225*	*7,623,137*	NR	0	0	0	1.12	0.0	0.0	0.0	30,080	0	0	0	0
28	1.6	87,869	1,097,011	895,225	7,679,772	11.42	0	24,243	0	0.00	2.6	0.0	0.0	25,786	0	0	0	0
29	0.6	87,896	1,104,229	895,225	7,725,699	11.75	0	30,191	0	0.03	3.0	0.0	0.0	24,964	64,302	0	0	0
30	3.9	87,923	1,108,598	895,225	7,761,395	11.67	0	36,362	4,012	0.00	2.2	0.0	0.0	25,074	32,432	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	132.4	6.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June	7.14	0	139,047	1,137,112	367,775	52,075	808,400	0	0	736,129	1,276,159	1,228,250	47,909
July													
August													
September													
October													
November													
December													
YTD Total	21.85	0	1,198,302	6,647,266	5,942,769	439,443	2,229,400	0	0	1,513,983	7,845,568	8,611,612	-766,044

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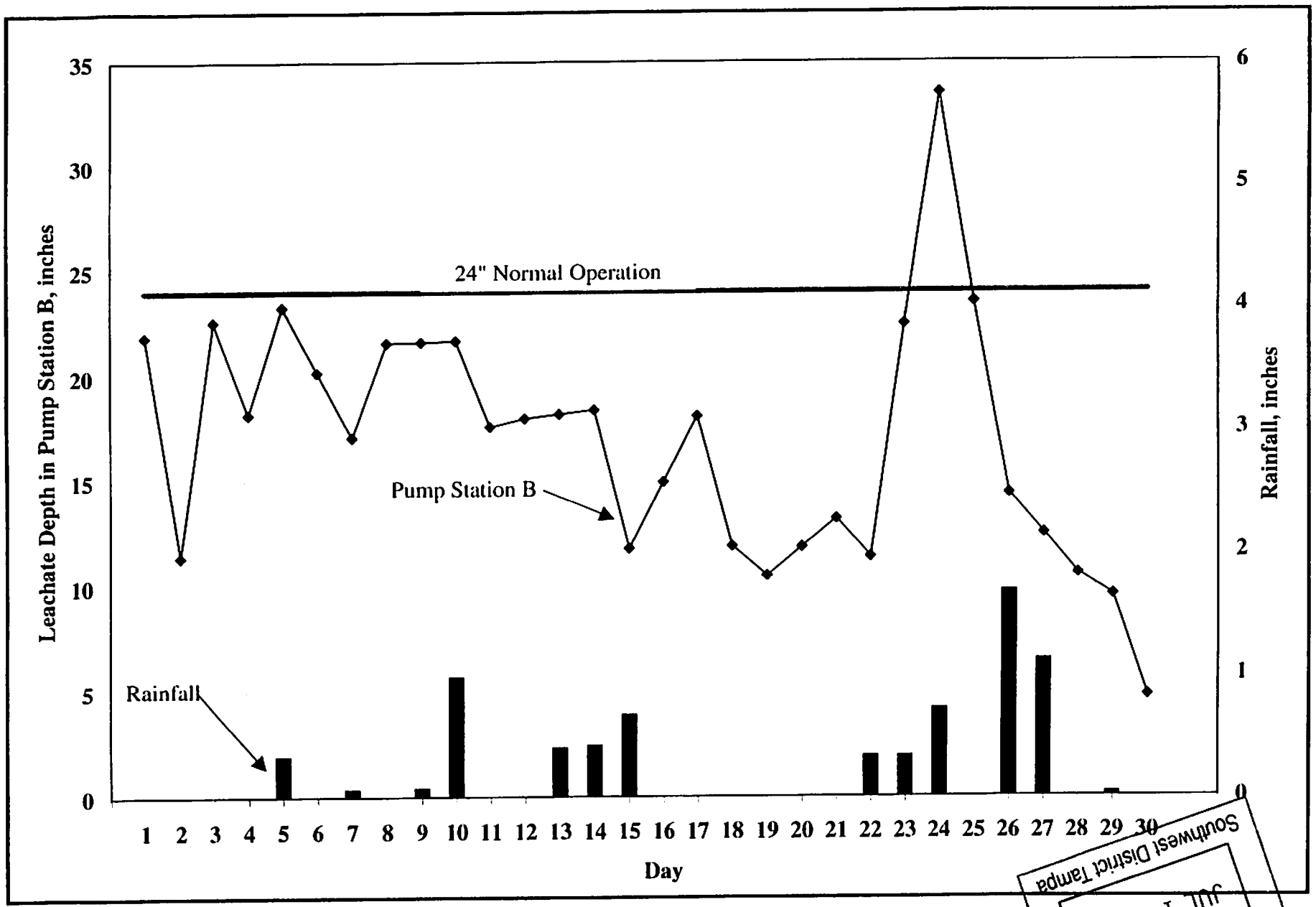
Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.



Southwest District Tampa
JUL 14 2004
D.E.P.

Figure 1. Leachate Levels in Pump Station B and Rainfall for June 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1.	0.0	14,920	0.0	12.9	34,289	2,668	29	6'2"	0	12,078	0	0
2.	0.0	13,960	0.0	2.4	36,683	2,688	10	6'1"	0	0	0	0
3.	0.0	13,680	0.0	13.6	26,023	0	26	6'3"	0	0	0	0
4.	0.0	15,045	0.0	9.2	29,360	2,796	19	6'7"	0	0	0	0
5.	0.0	15,335	0.0	14.3	30,058	2,699	47	6'10"	0	0	0	0.33
6.	0.0	0.00	0.0	0.0	0	0	0	0	0	0	0	0
7.	0.0	5,915	0.0	8.1	61,815	2,642	18	7'0"	0	0	2,003	0.06
8.	0.0	0	0.0	12.6	28,355	1,322	10	6'11"	0	0	4,000	0
9	0.0	0	0.0	13.6	29,654	2,532	12	6'10"	0	18,078	6,032	0.07
10	0.0	0	0.0	12.7	29,903	3,116	9	6'0"	0	18,119	0	0.98
11.	0.0	0	0.0	8.6	32,519	2,850	21	6'1"	0	18,143	0	0
12.	0.0	0	0.0	9.0	31,559	2,054	13	6'3"	0	18,053	4,011	0
13.	0.0	0	0.0	0.0	0	0	0	0	0	0	0	0.40
14.	0.0	0	0.0	9.4	60,689	8,492	32	7'1"	0	0	0	0.42
15.	0.0	0	0.0	2.8	34,590	5,748	19	8'5"	0	0	0	0.67
16.	0.0	0	0.0	2.5	30,725	5,599	24	9'0"	0	36,103	4,130	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17.	0.0	0	0.0	9.1	26,558	11,003	22	8'7"	0	24,064	4,013	0
18.	0.0	0	0.0	2.9	32,522	7,490	16	8'4"	0	30,076	0	0
19.	0.0	0	0.0	1.5	31,415	2,940	26	7'9"	0	12,032	4,012	0
20.	0.0	0	0.0	0.0	0	0	0	0.00	0	0	0	0
21.	0.0	0	0.0	4.2	67,018	7,555	56	8'3'	0	24,063	8,022	0
22.	0.0	0	0.0	2.4	32,486	4,692	41	8'0"	0	6,015	0	0.33
23.	0.0	0	0.0	2.0	29,470	478	29	8'2"	0	12,033	0	0.33
24.	0.0	0	0.0	24.5	20,283	7,637	33	8'1"	0	18,052	8,019	0.72
25.	0.0	0	0.0	14.5	26,143	10,163	23	8'4"	0	18,049	3,821	0
26.	0.0	0	0.0	5.4	41,051	7,947	22	8'9"	0	12,021	0	1.68
27.	0.0	0	0.0	0.0	0	0	0	0.00	0	0	0	1.12
28.	0.0	0	0.0	1.6	113,271	12,349	60	11'5"	0	24,243	0	0
29.	0.0	0	0.0	0.6	45,927	7,218	27	11'9"	0	30,191	0	0.03
30.	0.0	0	0.0	3.9	35,696	4,369	27	11'8"	0	36,362	4,012	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	1.60	0.00	0	29,172	33,197		0	0				N
2	1.40	0.00	0	27,045	29,022		0	0				N
3	1.30	0.00	0	27,045	17,590		0	0				N
4	1.40	0.00	0	35,025	27,512		0	0				N
5	1.50	0.00	0	51,676	32,950		0	0				
6	0.00	0.00	0	35,150	0		0	0				N
7	2.50	0.00	0	35,150	55,746		0	0				N
8	2.10	0.00	0	36,264	43,298		0	0				N
9	1.90	0.00	0	34,132	50,054		0	0				N
10	1.40	0.00	0	25,482	26,178		0	0				
11	1.50	0.00	0	23,026	0		0	0				N
12	2.00	0.00	0	21,842	43,414		0	0				
13	0.00	0.00	0	22,870	0		0	0				
14	1.90	0.00	0	9,570	0		0	0				N
15	2.20	0.00	0	21,594	42,578		0	0				N
16	1.70	0.00	0	26,402	34,802		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond L. Graves for Mutt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	1.40	0.00	0	25,008	0		0	0				
18	1.90	0.00	0	26,154	33,366		0	0				N
19	1.90	0.00	0	25,386	33,166		0	0				N
20	0.00	0.00	0	26,440	0		0	0				
21	1.90	0.00	0	26,630	46,654		0	0				N
22	1.30	0.00	0	32,268	0		0	0				
23	1.90	0.00	0	12,412	49,696		0	0				N
24	1.20	0.00	0	14,094	0		0	0				
25	1.60	0.00	0	19,564	0		0	0				
26	2.00	0.00	0	32,920	40,172		0	0				N
27	0.00	0.00	0	30,080	0		0	0				
28	2.60	0.00	0	25,786	0		0	0				
29	3.00	0.00	0	24,964	64,302		0	0				N
30	2.20	0.00	0	25,074	62,432		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

100494
QRTR II

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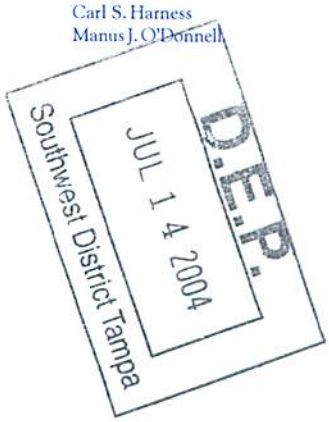

June 14, 2004

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –May 2004 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of May 2004. In addition, the SWMD is providing the May 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for May 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. The average depth of leachate in PS-B for the recorded days in May 2004 was 20.4 inches, which is below the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0504.dep

Environmental Consultants

3012 U.S. Highway 301 No...
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

June 8, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for May 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for May 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for May (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of May.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.44 inches of rainfall at the SCLF in May.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In May, the average depth of effluent stored in Pond A was 1.9 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent was stored in Pond B in May.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In May, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in May was 20.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). A new flow meter was installed and put into service at TPS-6 on May 1. On May 11, TPS-6 was offline while video inspection of the access pipe to PS-B took place. The average daily amount of leachate pumped from TPS-6 in May was 28,119 gallons. A total of 843,582 gallons was pumped from TPS-6 to PS-B in May.

It appears the daily removal from TPS-6 is in the same magnitude as the overall quantity being removed from the SCLF. This may be an indication that the leachate from Phase IV is reaching PS-B (i.e., TPS-6 is recirculating the leachate back to PS-B rather than providing additional removal from Phase IV as intended). In June 2004, the SWMD will shut down TPS-6 to evaluate if there is a significant change in overall removal quantity during this period. The SWMD will inform the FDEP of the results of this evaluation.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in May was

34,509 gallons. A total of 1,035,269 gallons of leachate was pumped to the storage tank in May.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. In May, a total of 823 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In May, 138,659 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In May, a total of 1,173,928 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in May, based on recorded days, was estimated at 203,600 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. In May, a total of 864,800 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the

month of May, a total of 535,801 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In May 63,502 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In May, a daily average of 55,100 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In May, no effluent was stored in Pond B for evaporation.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in May.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the

flow meter at the irrigation pump station. In May, 777,854 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In May, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In May, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for May was 673,000 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in May was 1,173,928 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,464,103 gallons. The change in storage for the month of May decreased by 290,175 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MAY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-II (in.)	Leachate Pumped to PS-II from LPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.23	1.5	0.0	21.1	*27,212*	30,828	72	2,765	33,593	168,000	33,300	0	8,143	40,000	0	0	28,755	0	0	29,500
2	0.01	NR	0.0	NR	36,738	40,145	33	2,824	42,969	NR	45,100	0	0	NR	0	0	0	0	0	0
3	1.72	2.5	0.0	22.2	36,738	40,145	33	2,824	42,969	189,000	25,100	30,052	0	83,000	0	0	20,319	0	0	16,300
4	0.00	2.7	0.0	18.1	31,655	35,256	43	18,325	53,581	221,000	22,700	48,087	0	93,000	0	0	0	0	0	0
5	0.00	3.1	0.0	19.6	30,905	33,245	32	19,278	52,523	204,000	33,000	48,134	0	113,000	0	0	48,222	0	0	38,600
6	0.00	2.7	0.0	21.8	11,035	28,545	20	8,780	37,325	180,000	24,300	18,040	2,100	93,000	0	0	37,708	0	0	33,800
7	0.00	2.4	0.0	10.8	29,680	35,005	25	6,673	41,678	175,000	28,700	24,134	7,956	79,000	0	0	48,523	0	0	48,200
8	0.00	2.0	0.0	19.3	24,960	30,353	10	7,412	37,765	178,000	25,400	0	12,106	61,000	0	0	46,426	0	0	46,800
9	0.00	NR	0.0	NR	31,490	34,089	27	4,160	38,248	NR	34,200	0	0	NR	0	0	0	0	0	0
10	0.00	2.1	0.0	21.3	31,490	34,089	27	4,160	38,248	193,000	25,900	24,096	0	65,000	0	0	48,050	0	0	38,400
11	0.00	1.6	0.0	10.9	23,650	35,906	0	5,563	41,469	202,000	27,100	30,126	8,034	44,000	0	0	34,103	0	0	33,700
12	0.00	1.4	0.0	11.1	31,770	34,485	50	2,786	37,271	182,000	30,100	12,055	2,030	36,000	0	0	21,708	0	0	19,000
13	0.00	1.5	0.0	22.9	31,070	32,751	18	3,058	35,811	180,000	30,500	24,102	4,038	40,000	0	0	29,014	0	0	26,100
14	0.00	1.5	0.0	23.1	31,235	33,481	32	3,009	36,490	170,000	26,400	18,085	5,056	40,000	0	0	24,635	0	0	23,800
15	0.00	1.4	0.0	22.8	30,715	33,575	28	5,235	38,810	173,000	24,400	0	0	36,000	0	0	24,163	0	0	19,300
16	0.00	NR	0.0	NR	30,085	32,579	29	2,765	35,344	NR	32,200	0	0	NR	0	0	0	0	0	0
17	0.48	2.0	0.0	22.4	30,085	32,579	29	2,765	35,344	206,000	29,800	18,061	2,041	61,000	0	0	48,313	0	0	40,300
18	0.00	1.4	0.0	22.9	29,180	31,195	32	3,250	34,445	216,000	27,900	12,034	0	36,000	0	0	28,777	0	0	23,000
19	0.00	1.3	0.0	21.6	31,575	35,178	15	2,802	37,980	216,000	25,100	24,067	0	36,000	0	0	21,486	0	0	17,200
20	0.00	1.3	0.0	18.2	23,020	29,288	32	2,705	31,993	209,000	24,500	6,020	3,989	36,000	0	0	19,527	0	0	18,800
21	0.00	1.3	0.0	17.2	25,245	31,186	17	2,842	34,028	216,000	25,400	30,114	0	36,000	0	0	22,447	0	0	18,000
22	0.00	1.3	0.0	19.3	25,530	32,252	43	2,712	34,964	202,000	26,000	12,026	0	36,000	0	0	20,967	0	0	16,800
23	0.00	NR	0.0	NR	25,635	33,830	21	2,871	36,701	NR	25,900	0	0	NR	0	0	0	0	0	0
24	0.00	1.9	0.0	16.0	25,635	33,830	21	2,871	36,701	218,000	25,500	24,066	4,005	57,000	0	0	34,401	0	0	30,700
25	0.00	1.6	0.0	16.1	25,710	34,149	25	2,641	36,790	211,000	25,300	18,041	4,000	44,000	0	0	29,486	0	0	26,300
26	0.00	1.4	0.0	20.8	24,780	33,398	20	2,555	35,953	209,000	23,100	18,068	0	36,000	0	0	18,455	0	0	14,800
27	0.00	1.5	0.0	22.9	25,190	33,951	13	2,780	36,731	206,000	30,400	18,048	0	40,000	0	0	27,387	0	0	21,900
28	0.00	1.5	0.0	22.5	24,670	33,006	21	0	33,006	194,000	28,700	24,065	0	40,000	0	0	29,170	0	0	23,300
29	0.00	1.4	0.0	22.6	24,260	33,361	25	2,480	35,841	185,000	28,800	30,104	0	36,000	0	0	25,558	0	0	20,400
30	0.00	NR	0.0	NR	16,340	31,794	16	2,885	34,679	NR	29,300	0	0	NR	0	0	0	0	0	0
31	0.00	2.0	0.0	21.8	16,340	31,794	16	2,885	34,679	187,000	29,200	24,176	0	61,000	0	0	40,258	0	0	32,200
Total	2.44				843,582	1,035,269	823	138,659	1,173,928		864,800	535,801	63,502		0		777,854	0	0	673,000
Daily Average		1.9	0.0	20.4	28,119	34,509	27	4,622	39,131	203,600				55,100	0	0				
Mo. Average													2,100				25,900	0	0	22,430

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Notes

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II. Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PS-II sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
MAY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII		IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled										Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor (gal.)	County (gal.)		Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	12.1	86,501	833,657	0	5,758,889	5.83	0	0		8,143	0.23	1.5	0.0	0.0	33,305	28,755	0	0	0
2	NR	*86,534*	*836,481*	*36,738*	*5,799,034*	NR	0	0		0	0.01	NR	0.0	0.0	45,128	0	0	0	0
3	13.2	86,567	839,304	73,475	5,839,179	6.58	30,052	0		0	1.72	2.5	0.0	0.0	25,064	20,319	0	0	0
4	9.1	86,610	857,629	105,130	5,874,435	7.67	30,037	18,050		0	0.00	2.7	0.0	0.0	22,744	0	0	0	0
5	10.6	86,642	876,907	136,035	5,907,680	7.08	30,059	18,075		0	0.00	3.1	0.0	0.0	32,962	48,222	0	0	0
6	12.8	86,662	885,687	147,070	5,936,225	6.25	6,013	12,027		2,104	0.00	2.7	0.0	0.0	24,305	37,704	0	0	0
7	1.8	86,687	892,360	176,750	5,971,230	6.08	0	24,134		7,956	0.00	2.4	0.0	0.0	28,703	48,523	0	0	0
8	10.3	86,697	899,772	201,710	6,001,583	6.17	0	0		12,106	0.00	2.0	0.0	0.0	25,427	46,426	0	0	0
9	NR	*86,724*	*903,932*	*233,200*	*6,035,672*	NR	0	0		0	0.00	NR	0.0	0.0	34,151	0	0	0	0
10	12.3	86,751	908,091	264,690	6,069,760	6.75	6,009	18,087		0	0.00	2.1	0.0	0.0	25,907	48,050	0	0	0
11	1.9	86,751	913,654	288,340	6,105,666	7.00	6,004	24,122		8,034	0.00	1.6	0.0	0.0	27,128	34,103	0	0	0
12	2.1	86,801	916,440	320,110	6,140,151	6.33	0	12,055		2,030	0.00	1.4	0.0	0.0	30,091	21,708	0	0	0
13	13.9	86,819	919,498	351,180	6,172,904	6.25	0	24,102		4,038	0.00	1.5	0.0	0.0	30,470	29,014	0	0	0
14	14.1	86,851	922,507	382,415	6,206,385	5.92	0	18,085		5,056	0.00	1.5	0.0	0.0	26,354	24,635	0	0	0
15	13.8	86,879	927,742	413,130	6,239,960	6.00	0	0		0	0.00	1.4	0.0	0.0	24,419	24,163	0	0	0
16	NR	*86,908*	*930,507*	*443,215*	*6,272,539*	NR	0	0		0	0.00	NR	0.0	0.0	32,166	0	0	0	0
17	13.4	86,937	933,272	473,300	6,305,118	7.17	0	18,061		2,041	0.48	2.0	0.0	0.0	20,805	48,313	0	0	0
18	13.9	86,969	936,522	502,480	6,336,313	7.50	0	12,034		0	0.00	1.4	0.0	0.0	27,931	28,777	0	0	0
19	12.6	86,984	939,324	534,055	6,371,491	7.50	0	24,067		0	0.00	1.3	0.0	0.0	25,104	21,486	0	0	0
20	9.2	87,016	942,029	557,075	6,400,779	7.25	0	6,020		3,989	0.00	1.3	0.0	0.0	24,540	19,527	0	0	0
21	8.2	87,033	944,871	582,320	6,431,965	7.50	0	30,114		0	0.00	1.3	0.0	0.0	25,385	22,447	0	0	0
22	10.3	87,076	947,583	607,850	6,464,217	7.00	0	12,026		0	0.00	1.3	0.0	0.0	25,953	20,967	0	0	0
23	NR	*87,097*	*950,454*	*633,485*	*6,498,047*	NR	0	0		0	0.00	NR	0.0	0.0	25,944	0	0	0	0
24	7.0	87,117	953,325	659,120	6,531,877	7.58	0	24,066		4,005	0.00	1.9	0.0	0.0	25,461	34,401	0	0	0
25	7.1	87,142	955,966	684,830	6,566,026	7.33	0	18,041		4,000	0.00	1.6	0.0	0.0	25,828	29,486	0	0	0
26	11.8	87,162	958,521	709,570	6,599,424	7.25	0	18,068		0	0.00	1.4	0.0	0.0	23,067	18,455	0	0	0
27	13.9	87,175	961,301	734,760	6,633,375	7.17	0	18,048		0	0.00	1.5	0.0	0.0	30,421	27,387	0	0	0
28	13.5	87,196	961,301	759,430	6,666,381	6.75	0	24,065		0	0.00	1.5	0.0	0.0	28,716	29,170	0	0	0
29	13.6	87,221	963,781	783,690	6,699,742	6.42	0	30,104		0	0.00	1.4	0.0	0.0	28,849	25,558	0	0	0
30	NR	*87,237*	*966,666*	*800,030*	*6,731,536*	NR	0	0		0	0.00	NR	0.0	0.0	29,313	0	0	0	0
31	12.8	87,252	969,551	816,370	6,763,330	6.50	0	24,176		0	0.00	2.0	0.0	0.0	29,167	40,258	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	132.4	6.5
Final	23	0
Not Opened	0	0

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May	2.44	0	138,659	1,035,269	535,801	63,502	864,800	0	0	777,854	1,173,928	1,464,103	-290,175
June													
July													
August													
September													
October													
November													
December													
YTD Total	14.71	0	1,059,255	5,510,154	5,574,994	387,368	1,421,000	0	0	777,854	6,569,409	7,383,362	-813,953

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

D.E.P.
JUL 14 2004
Southwest District Tampa

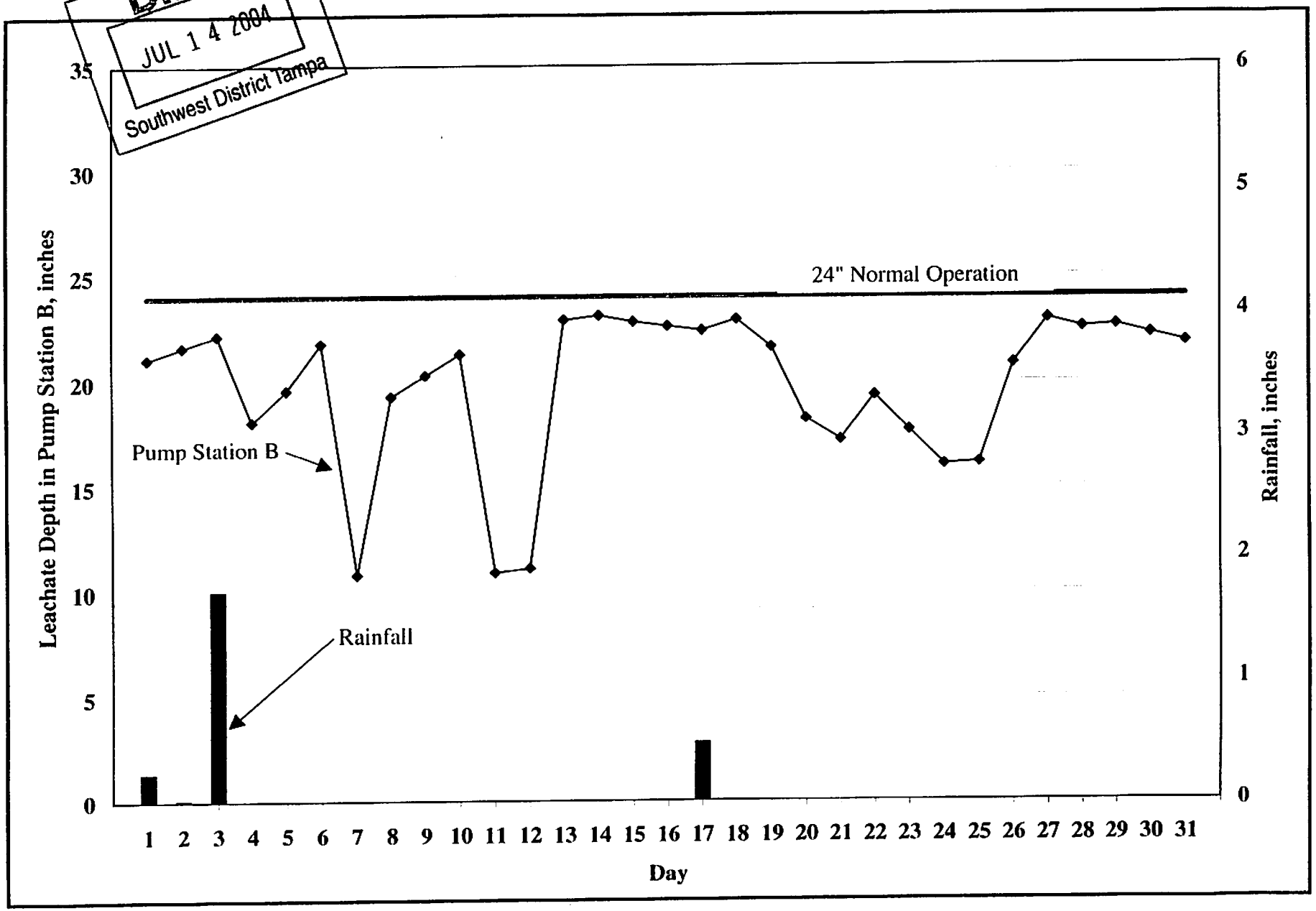

Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0	0.00	12.1	30,828	2,765	72	5'10"	0	0	8,143	0.23
2	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0.01
3	0.0	73,475	0.00	13.2	80,290	5,647	66	6'7"	30,052	0	0	1.72
4	0.0	31,655	0.00	18.1	35,256	18,325	43	7'8"	30,037	18,050	0	0
5	0.0	30,905	0.00	10.6	33,245	19,278	32	7'1"	30,059	18,075	0	0
6	0.0	11,035	0.00	12.8	28,545	8,780	20	6'3"	6,013	12,027	2,104	0
7	0.0	29,860	0.00	1.8	35,005	6,673	25	6'1"	0	24,134	7,956	0
8	0.0	24,960	0.00	10.3	30,353	7,412	10	6'2"	0	0	12,106	0
9	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
10	0.0	62,980	0.00	12.3	68,177	8,319	54	6'9"	6,009	18,087	0	0
11	0.0	23,650	0.00	1.9	35,906	5,563	29	7'0"	6,004	24,122	8,034	0
12	0.0	31,770	0.00	2.1	34,485	2,786	21	6'4"	0	12,055	2,030	0
13	0.0	31,070	0.00	13.9	32,753	3,058	18	6'3"	0	24,102	4,038	0
14	0.0	31,235	0.00	14.1	33,481	3,009	32	5'11"	0	18,085	5,056	0
15	0.0	30,715	0.00	13.8	33,575	5,235	28	6'0"	0	0	0	0
16	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Travis for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	60,170	0.00	13.4	65,158	5,530	58	7'2"	0	18,061	2,041	0.48
18	0.0	29,180	0.00	13.9	31,195	3,250	32	7'6"	0	12,034	0	0
19	0.0	31,575	0.00	12.6	35,178	2,802	15	7'6"	0	24,067	0	0
20	0.0	23,020	0.00	9.2	29,288	2,705	32	7'3"	0	6,020	3,989	0
21	0.0	25,245	0.00	8.2	31,186	2,842	17	7'6"	0	30,114	0	0
22	0.0	25,530	0.00	10.3	32,252	2,812	43	7'0"	0	12,026	0	0
23	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
24	0.0	51,270	0.00	7.0	67,660	5,642	41	7'7"	0	24,066	4,005	0
25	0.0	25,710	0.00	7.1	34,149	2,641	25	7'4"	0	18,041	4,000	0
26	0.0	24,740	0.00	11.8	33,398	2,555	20	7'3"	0	18,068	0	0
27	0.0	25,190	0.00	13.9	33,591	2,780	13	7'2"	0	18,048	0	0
28	0.0	24,670	0.00	13.5	33,006	0	21	6'9"	0	24,065	0	0
29	0.0	24,260	0.00	13.6	33,361	2,479	25	6'5"	0	30,104	0	0
30	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
31	0.0	32,680	0.00	12.8	63,588	5,771	31	6'6"	0	24,176	0	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Tower for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	1.5	0.0	0	33,305	28,755		0	0				N
2	0.0	0.0	0	45,128	0		0	0				0
3	2.5	0.0	0	25,064	20,319		0	0				N
4	2.7	0.0	0	22,744	0		0	0				0
5	3.1	0.0	0	32,962	48,222		0	0				N
6	2.7	0.0	0	24,305	37,704		0	0				N
7	2.4	0.0	0	28,703	48,523		0	0				N
8	2.0	0.0	0	25,427	46,426		0	0				N
9	0.0	0.0	0	34,151	0		0	0				0
10	2.1	0.0	0	25,907	48,050		0	0				N
11	1.6	0.0	0	27,128	34,103		0	0				N
12	1.4	0.0	0	30,091	21,708		0	0				N
13	1.5	0.0	0	30,470	29,014		0	0				N
14	1.5	0.0	0	26,354	24,635		0	0				N
15	1.4	0.0	0	24,419	24,163		0	0				N
16	0.0	0.0	0	32,166	0		0	0				0

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Mutt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	2.0	0.0	0	20,805	48,313		0	0				N
18	1.4	0.0	0	27,931	28,777		0	0				N
19	1.3	0.0	0	25,104	21,486		0	0				N
20	1.3	0.0	0	24,540	19,527		0	0				N
21	1.3	0.0	0	25,385	22,447		0	0				N
22	1.3	0.0	0	25,953	20,967		0	0				N
23	0.0	0.0	0	25,944	0		0	0				0
24	1.9	0.0	0	25,461	34,401		0	0				N
25	1.6	0.0	0	25,828	29,486		0	0				N
26	1.4	0.0	0	23,067	18,455		0	0				N
27	1.5	0.0	0	30,421	27,387		0	0				N
28	1.5	0.0	0	28,716	29,170		0	0				N
29	1.4	0.0	0	28,849	25,558		0	0				N
30	0.0	0.0	0	29,313	0		0	0				0
31	2.0	0.0	0	29,167	40,258							N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Travers for Matt

100494
QTR II

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May 21, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUL 14 2004
SOUTHWEST DISTRICT
TAMPA

RE: Southeast County Landfill –April 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of April 2004. In addition, the SWMD is providing the April 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for April 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. The average depth of leachate in PS-B for the recorded days in April 2004 was 18.9 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0404.dep

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

May 19, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for April 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for April 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for April (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of April.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.50 inches of rainfall at the SCLF in April.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In April, the average depth of effluent stored in Pond A was 1.1 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent was stored in Pond B in April.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In April, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in April was 18.9 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). TPS-6 was offline April 6, 7, 10-12 and 17-23. The average daily amount of leachate pumped from TPS-6 in April was 21,064 gallons. A total of 631,920 gallons was pumped from TPS-6 to PS-B in April.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in April was 36,042 gallons. A total of 1,081,247 gallons of leachate was pumped to the storage tank in April.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250

gallons per day. In April, a total of 2,092 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). The pump was down part of the day April 8. In April, 302,904 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In April, a total of 1,384,151 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in April, based on recorded days, was estimated at 269,600 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility has completed inspection and tank testing. The LTRF resumed operation on April 14. In April, a total of 556,200 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of April, a total of 975,987 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in

the active area of the SCLF. In April 97,193 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In April, a daily average of 35,100 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In April, no effluent was stored in Pond B for evaporation.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in April.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In April, 529,394 gallons of effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In April, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In April, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for April was 501,000 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in April was 1,384,151 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,629,380 gallons. The change in storage for the month of April decreased by 245,229 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
APRIL 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	00	17.6	42,645	43,418	298	2,526	45,944	214,000	0	24,072	3,012	800	0	0	0	0	0	2,400
2	0.00	0.0	00	21.7	44,695	37,965	268	21,063	59,028	216,000	0	18,061	6,047	800	0	0	0	0	0	4,800
3	0.00	0.0	00	19.5	40,930	40,469	199	5,602	46,071	238,000	0	0	0	800	0	0	0	0	0	0
4	0.00	0.0	00	NR	37,720	36,512	98	5,218	41,730	NR	0	0	0	800	0	0	0	0	0	2,400
5	0.00	0.0	00	17.8	37,720	36,512	98	5,218	41,730	319,000	0	24,049	3,024	800	0	0	0	0	0	2,400
6	0.00	0.0	00	22.7	5,800	35,640	92	2,523	38,163	317,000	0	36,120	3,022	800	0	0	0	0	0	2,400
7	0.00	0.0	00	21.2	0	35,813	47	2,796	38,609	333,000	0	12,037	4,018	800	0	0	0	0	0	3,200
8	0.00	0.0	00	17.8	19,020	38,069	29	8	38,077	350,000	0	60,172	4,029	800	0	0	0	0	0	3,200
9	0.00	0.0	00	20.1	27,045	38,779	70	7,094	45,873	326,000	0	60,133	4,015	800	0	0	0	0	0	3,200
10	0.00	0.0	00	21.8	6,695	35,278	53	2,432	37,710	322,000	0	0	0	800	0	0	0	0	0	0
11	0.32	0.0	00	NR	3,215	36,950	42	1,368	38,317	NR	0	0	0	800	0	0	0	0	0	0
12	2.18	0.0	00	20.8	3,215	36,950	42	1,368	38,317	394,000	0	48,128	0	800	0	0	0	0	0	0
13	0.00	0.0	00	19.9	32,120	40,703	50	71,433	112,136	470,000	0	66,425	0	800	0	0	0	0	0	0
14	0.00	0.0	00	20.6	33,670	34,359	73	35,702	70,061	446,000	36,000	78,701	4,028	800	0	0	0	0	0	3,200
15	0.00	1.9	00	20.7	32,590	33,623	48	27,974	61,597	398,000	35,100	103,019	4,201	57,000	0	0	0	0	0	3,400
16	0.00	2.8	00	16.6	29,520	29,594	64	38,555	68,149	333,000	31,500	72,148	4,009	98,000	0	0	59,010	0	0	50,400
17	0.00	1.6	00	18.1	0	23,834	47	6,618	30,452	247,000	34,000	54,095	0	44,000	0	0	43,025	0	0	31,400
18	0.00	2.6	00	21.3	0	24,624	33	9,361	33,985	206,000	34,900	0	0	88,000	0	0	0	0	0	0
19	0.00	3.5	00	17.6	0	27,569	32	5,167	32,736	204,000	43,700	54,100	4,004	140,000	0	0	52,139	0	0	44,900
20	0.00	3.3	00	11.1	0	36,240	37	5,821	42,061	173,000	27,500	18,071	4,010	123,000	0	0	16,966	0	0	16,800
21	0.00	2.9	00	20.5	0	38,469	85	5,598	44,067	180,000	29,300	48,141	1,424	103,000	0	0	51,697	0	0	42,500
22	0.00	2.4	00	11.6	0	44,095	47	6,452	50,547	182,000	33,500	24,110	0	79,000	0	0	41,280	0	0	33,000
23	0.00	2.2	00	12.1	0	36,341	41	4,978	41,319	182,000	34,500	12,025	2,015	70,000	0	0	45,515	0	0	38,000
24	0.00	1.9	00	17.9	36,500	38,674	48	5,578	44,252	192,000	23,400	0	8,028	57,000	0	0	43,078	0	0	40,900
25	0.00	0.0	00	NR	34,243	38,338	37	2,930	41,267	NR	19,400	0	0	800	0	0	0	0	0	0
26	0.00	0.8	00	18.4	34,243	38,338	37	2,930	41,267	247,000	36,500	42,097	4,007	17,000	0	0	45,987	0	0	40,000
27	0.00	1.6	00	22.0	35,045	40,359	42	5,308	45,667	221,000	35,200	30,048	4,005	44,000	0	0	37,056	0	0	32,800
28	0.00	1.5	00	21.8	34,140	37,228	37	2,866	40,094	218,000	35,700	48,089	12,028	40,000	0	0	28,994	0	0	32,800
29	0.00	1.6	00	18.9	31,330	33,482	0	3,011	36,493	180,000	32,700	30,073	6,045	44,000	0	0	38,962	0	0	36,000
30	0.00	1.4	00	21.3	29,820	33,024	0	5,408	38,432	170,000	33,300	12,073	12,222	36,000	0	0	25,685	0	0	30,300
Total	2.50				631,920	1,081,247	2,092	302,904	1,384,151		556,200	975,987	97,193		0		529,394	0	0	501,000
Daily Average		1.1	00	18.9	21,064	36,042	70	10,097	46,138	269,600				35,100	0	0				
Mo. Average													3,200				17,680	0	0	16,700

I:\projects\hillsbor\892000\2024\Leachate Balance\2004\02-04.xls (Revised by scv 5/11/04)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II: Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV: field measured at staff gauges.
7. Column V: PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX: Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI: calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX: quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
APRIL 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	8.6	84,635	530,514	76,686,245	4,690,232	7.42	0	24,072	3,012	0.00	0.0	0.0	0	0	0	0	0	0
2	12.7	84,903	551,577	76,730,940	4,728,197	7.50	0	18,061	6,047	0.00	0.0	0.0	0	0	0	0	0	0
3	10.5	85,102	557,179	76,771,870	4,768,666	8.25	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
4	NR	*85,200*	*562,397*	*76,809,590*	*4,805,178*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
5	8.8	85,297	567,615	76,847,310	4,841,690	11.08	24,049	0	3,024	0.00	0.0	0.0	0	0	0	0	0	0
6	13.7	85,389	570,138	76,853,110	4,877,330	11.00	24,035	12,085	3,022	0.00	0.0	0.0	0	0	0	0	0	0
7	12.2	85,436	572,934	76,853,110	4,913,143	11.58	0	12,037	4,018	0.00	0.0	0.0	0	0	0	0	0	0
8	8.8	85,465	572,942	76,872,130	4,951,212	12.17	42,108	18,064	4,029	0.00	0.0	0.0	0	0	0	0	0	0
9	11.1	85,535	580,036	76,899,175	4,989,991	11.33	48,082	12,051	4,015	0.00	0.0	0.0	0	0	0	0	0	0
10	12.8	85,588	582,468	76,905,870	5,025,269	11.17	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
11	NR	*85,630*	*583,836*	*76,909,085*	*5,062,219*	NR	0	0	0	0.32	0.0	0.0	0	0	0	0	0	0
12	11.8	85,671	585,203	76,912,300	5,099,168	13.67	42,112	6,016	0	2.18	0.0	0.0	0	0	0	0	0	0
13	10.9	85,721	656,636	76,944,420	5,139,871	16.33	42,097	24,328	0	0.00	0.0	0.0	0	0	0	0	0	0
14	11.6	85,794	692,338	76,978,090	5,174,230	15.50	48,077	30,624	4,028	0.00	0.0	0.0	0	35,987	0	0	0	0
15	11.7	85,842	720,312	77,010,680	5,207,853	13.83	72,920	30,099	4,201	0.00	1.9	0.0	0	35,123	0	0	0	0
16	7.6	85,906	758,867	77,040,200	5,237,447	11.58	48,073	24,075	4,009	0.00	2.8	0.0	0	11,526	59,010	0	0	0
17	9.1	85,953	765,485	77,040,200	5,261,281	8.58	36,057	18,038	0	0.00	1.6	0.0	0	33,961	43,025	0	0	0
18	12.3	85,986	774,846	77,040,200	5,285,905	7.17	0	0	0	0.00	2.6	0.0	0	34,917	0	0	0	0
19	8.6	86,018	780,013	77,040,200	5,313,474	7.08	42,068	12,032	4,004	0.00	3.5	0.0	0	43,674	52,139	0	0	0
20	2.1	86,055	785,834	77,040,200	5,349,714	6.00	0	18,071	4,010	0.00	3.3	0.0	0	27,530	16,966	0	0	0
21	11.5	86,140	791,432	77,040,200	5,388,183	6.25	24,034	24,107	1,424	0.00	2.9	0.0	0	29,274	51,697	0	0	0
22	2.6	86,187	797,884	77,040,200	5,432,278	6.33	0	24,110	0	0.00	2.4	0.0	0	33,509	41,280	0	0	0
23	3.1	86,228	802,862	77,040,200	5,468,619	6.33	0	12,025	2,015	0.00	2.2	0.0	0	34,502	45,515	0	0	0
24	8.9	86,276	808,440	77,076,700	5,507,293	6.67	0	0	8,028	0.00	1.9	0.0	0	23,425	43,078	0	0	0
25	NR	*86,313*	*811,370*	*77,110,943*	*5,545,631*	NR	0	0	0	0.00	0.0	0.0	0	19,398	0	0	0	0
26	9.4	86,350	814,299	77,145,185	5,583,968	8.58	42,097	0	4,007	0.00	0.8	0.0	0	36,500	45,987	0	0	0
27	13.0	86,392	819,607	77,180,230	5,624,327	7.67	30,048	0	4,005	0.00	1.6	0.0	0	35,221	37,056	0	0	0
28	12.8	86,429	822,473	77,214,370	5,661,555	7.58	30,049	18,040	12,028	0.00	1.5	0.0	0	35,726	28,994	0	0	0
29	9.9	86,429	825,484	77,245,700	5,695,037	6.25	6,013	24,060	6,045	0.00	1.6	0.0	0	32,731	38,962	0	0	0
30	12.3	86,429	830,892	77,275,520	5,728,061	5.92	0	12,073	12,222	0.00	1.4	0.0	0	33,306	25,685	0	0	0

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Notes.

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	0	6
Intermediate	132.4	6.5
Final	23	0
Not Opened	0	0

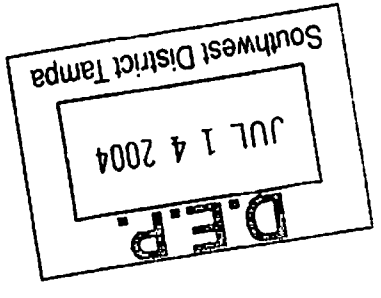

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April	2.50	0	302,904	1,081,247	975,987	97,193	556,200	0	0	0	1,384,151	1,629,380	-245,229
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	12.27	0	920,596	4,474,885	5,039,193	323,866	556,200	0	0	0	5,395,481	5,919,259	-523,778

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

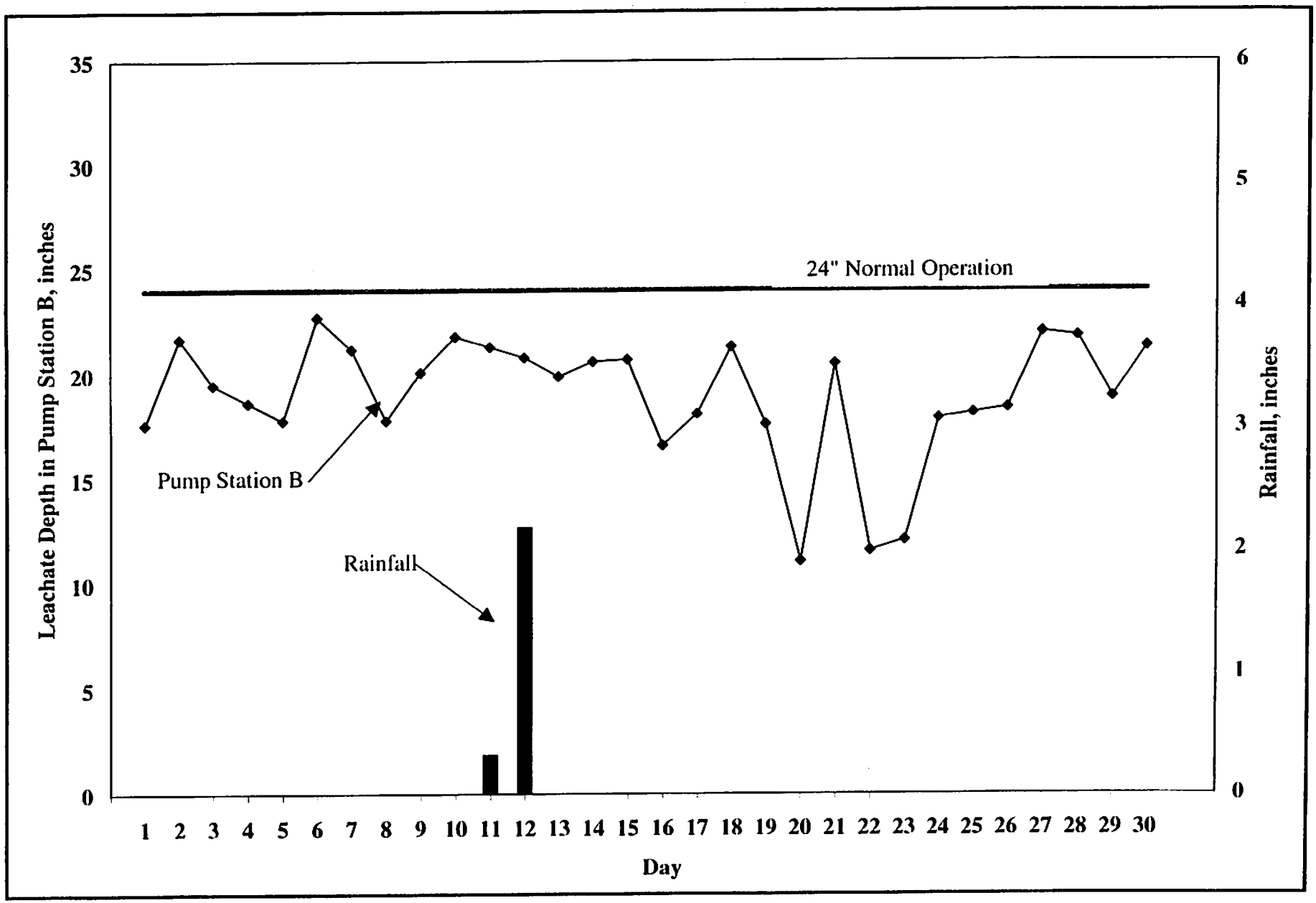


Figure 1. Leachate Levels in Pump Station B and Rainfall for April 2004.

Revised

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1		42,645	0.0	8.6	43,418	2,526	302	7'5"	0	24,072	3,012	0
2		44,695	0.0	12.7	37,965	21,063	268	7'6"	0	18,061	6,047	0
3		40,930	0.0	10.5	40,469	5,602	199	8'3"	0	0	0	0
4		-	0.0	0.0	0	0	0	0	0	0	0	0
5		75,440	0.0	8.8	73,024	10,436	195	11'1"	24,049	0	3,024	0
6		*5,800	0.0	13.7	35,640	2,523	92	11'0"	24,035	12,085	3,022	0
7		*0	0.0	12.2	35,813	2,796	47	11'7"	0	12,037	4,018	0
8		19,020	0.0	8.8	38,069	*8	29	12'2"	42,108	18,064	4,029	0
9		27,045	0.0	11.1	38,779	7,094	70	11'4"	48,082	12,051	4,015	0
10		*6,695	0.0	12.8	35,278	2,432	53	11'2"	0	0	0	0
11		-	0.0	0.0	0	0	0	0	0	0	0	0.32
12		*6,430	0.0	11.8	73,899	2,735	83	13'8"	42,112		0	2.18
13		32,120	0.0	10.9	40,703	71,433	50	16'4"	42,097	24,328	0	0
14		33,670	0.0	11.6	34,359	35,702	73	15'6"	48,077	30,624	4,028	0
15		32,590	0.0	11.7	32,590	27,974	48	13'10"	72,920	30,099	4,201	0
16		29,520	0.0	7.6	29,590	38,555	64	11'7"	48,073	24,075	4,009	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: * See Daily Field Data Entry Forms.

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17		0	0.0	9.1	23,834	6,618	47	8'7"	36,057	18,038	0	0
18		0	0.0	12.3	24,624	9,367	33	7'2"	0	0	0	0
19		0	0.0	8.6	27,569	5,167	32	7'1"	42,068	12,032	4,004	0
20		0	0.0	*2.1	36,246	5,821	37	6'0"	0	18,071	4,010	0
21		0	0.0	11.5	38,469	5,598	85	6'3"	24,034	24,107	1,424	0
22		0	0.0	11.6	44,095	6,452	47	6'4"	0	24,110	0	0
23		0	0.0	12.1	36,341	4,978	41	6'4"	0	12,025	2,015	0
24		36,500	0.0	8.9	38,674	5,578	48	6'8"	0	0	8,028	0
25		-	0.0	0.0	0	0	0	0	0	0	0	0
26		68,485	0.0	9.4	76,675	5,859	74	8'7"	42,097	0	4,007	0
27		35,045	0.0	22.9	40,359	5,308	42	7'8"	30,048	0	4,005	0
28		34,140	0.0	21.8	37,228	2,866	37	7'6"	30,049	18,040	12,028	0
29		31,330	0.0	18.9	33,482	3,011	0	6'3"	6,013	24,060	6,045	0
30		29,850	0.0	21.3	33,024	5,408	0	5'10"	0	12,073	12,222	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0		0	0				0
2	0.0	0.0	0	0	0		0	0				0
3	0.0	0.0	0	0	0		0	0				0
4	0.0	0.0	0	0	0		0	0				0
5	0.0	0.0	0	0	0		0	0				0
6	0.0	0.0	0	0	0		0	0				0
7	0.0	0.0	0	0	0		0	0				0
8	0.0	0.0	0	0	0		0	0				0
9	0.0	0.0	0	0	0		0	0				0
10	0.0	0.0	0	0	0		0	0				0
11	0.0	0.0	0	0	0		0	0				0
12	0.0	0.0	0	0	0		0	0				0
13	0.0	0.0	0	0	0		0	0				0
14	0.0	0.0	0	35,987	0		0	0				0
15	1.9	0.0	0	35,123	0		0	0				0
16	2.8	0.0	0	31,526	59,010		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond L. Graves for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	1.6	0.00	0	33,961	43,025		0	0				N
18	2.6	0.00	0	34,917	0		0	0				0
19	3.5	0.00	0	43,674	52,139		0	0				N
20	3.3	0.00	0	27,530	46,966		0	0				N
21	2.9	0.00	0	29,274	51,697		0	0				N
22	2.4	0.00	0	33,509	41,280		0	0				N
23	2.2	0.00	0	34,502	45,515		0	0				N
24	1.9	0.00	0	23,425	43,078		0	0				N
25	0.0	0.00	0	19,398	0		0	0				0
26	1.8	0.00	0	36,500	45,987		0	0				N
27	1.6	0.00	0	35,221	37,056		0	0				N
28	1.5	0.00	0	35,726	28,994		0	0				N
29	1.6	0.00	0	32,731	38,962		0	0				N
30	1.4	0.00	0	33,306	25,685		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Stone for Mott

100494

Hillsborough County
Florida

ROUTING SLIP
INTER-OFFICE

D.E.P.
APR 2 1 2004
Southwest District Tampa

TO: **Susan Pelz, DEP**

FROM: **Ella Jackson, Solid Waste**

SUBJECT: **Quarterly Reports**

REQUESTED ACTION

___ Resubmitting the quarterly reports for January, February and March 2004.

REMARKS

If you have any questions, you may reach me at 276-2910.

Thanks

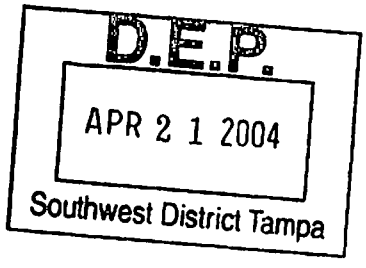
FROM: Ella Jackson, Solid Waste DATE: 4/20/04

BOARD OF COUNTY COMMISSIONERS
Kathy Castor
Pat Frank
Ken Hagan
Jim Norman
Jan K. Platt
Thomas Scott
Ronda Storms

Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

Assistant County Administrators
Bernardo Garcia
Carl S. Harness



April 14, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Ford:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending April 15, 2004.

The data is being submitted as separate monthly reports for January, February and March 2004. The information includes the leachate level in Pump Station B (PSB). The level was below the 24-inch normal operation level during this quarter except for one day in the month of January 2004 due to a power outage.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC
Susan J. Pelz, P.E.

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

Leachate Quantity Report

SCS ENGINEERS

April 14, 2004
File No. 09200020.24

CORRES
FILE
FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OCT 03 2005
SOUTHWEST DISTRICT
TAMPA

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for March 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for March 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for March (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of March.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.58 inches of rainfall at the SCLF in March.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In March, no effluent was stored in Pond A.

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Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. February 14 through March 26, Pond B was used for temporary storage of leachate prior to transport while the 575,000-gallon tank was emptied for inspection and maintenance. The average depth of temporary leachate storage in Pond B for March was 1.4 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In March, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in March was 17.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in March was 40,065 gallons. A total of 1,242,022 gallons was pumped from TPS-6 to PS-B in March.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Through March 24, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was empty for inspection and maintenance. Beginning March 25, leachate was again pumped through the MLPS to the 575,000-gallon storage tank. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in March was 37,157 gallons. A total of 1,151,878 gallons of leachate was pumped to the storage tank or through Pond B in March.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. From March 18-22, the removal rate exceeded 1,250 gallons per day due to excessive stormwater storage in the eastern cell of Section 7. Minimization of future occurrences was described in a letter submitted to the FDEP on March 26, 2004 along with revised replacement pages L-6 and L-7 for the Operations Plan and revised replacement drawings. In March, a total of 19,320 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In March, 117,482 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In March, a total of 1,269,360 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. From February 14 through March 24, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was emptied for inspection and maintenance. Leachate depth was again measured in the tank beginning March 25. The average daily amount of leachate stored in the tank in March, based on recorded days, was estimated at 35,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is currently undergoing

inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In March, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of March, a total of 1,053,126 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In March 75,397 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in March is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In March, no effluent was stored in Pond B for evaporation. However, from February 14 through March 26, Pond B was used for temporary storage of leachate while the 575,000-gallon tank was emptied for inspection and maintenance. In March a total of 1,623,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in March.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In March, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In March, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In March, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for March was 60,100 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in March was 1,269,360 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,128,523 gallons. The balance for the month of March increased by 140,837 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S-van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WA[illegible]ALANCE REPORT FORM
MAR[illegible]2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	1.5	9.5	28,587	32,114	264	4,029	36,143	0	0	0	0	RR	44,000	0	0	0	0	0
2	0.00	0.0	1.9	10.3	30,955	34,144	326	2,776	36,920	0	0	18,122	2,015	RR	72,000	0	0	0	0	1,600
3	0.00	0.0	1.9	11.4	32,815	34,308	340	5,073	39,381	0	0	96,282	2,015	RR	72,000	0	0	0	0	1,600
4	0.00	0.0	1.3	11.6	31,435	34,698	350	2,806	37,504	0	0	18,013	2,014	RR	33,000	0	0	0	0	1,600
5	0.00	0.0	1.3	15.8	35,430	36,411	311	2,737	39,148	0	0	72,072	2,009	RR	33,000	0	0	0	0	1,600
6	0.00	0.0	1.2	11.6	35,740	37,865	434	2,731	40,596	0	0	12,023	1,997	RR	28,000	0	0	0	0	1,600
7	0.00	0.0	0.0	NR	34,305	37,027	383	1,655	38,682	NR	0	0	0	RR	0	0	0	0	0	0
8	0.00	0.0	2.1	11.0	34,305	37,027	383	1,655	38,682	0	0	48,068	4,012	RR	88,000	0	0	0	0	3,200
9	0.00	0.0	1.9	17.2	41,560	33,857	446	7,232	41,089	0	0	54,084	4,015	RR	72,000	0	0	0	0	3,200
10	0.00	0.0	1.8	21.9	45,390	38,978	420	2,717	41,695	0	0	60,610	4,030	RR	64,000	0	0	0	0	3,200
11	0.00	0.0	1.5	18.9	36,080	32,119	424	2,380	34,499	0	0	60,071	2,978	RR	44,000	0	0	0	0	2,[illegible]
12	0.00	0.0	1.2	19.1	41,460	33,066	*324*	2,420	35,486	0	0	24,023	4,029	RR	28,000	0	0	0	0	3,[illegible]
13	0.00	0.0	1.5	22.5	42,210	35,000	*324*	2,371	37,461	0	0	6,005	4,023	RR	44,000	0	0	0	0	3,200
14	0.00	0.0	0.0	NR	41,280	33,918	*324*	1,241	35,159	NR	0	0	0	RR	0	0	0	0	0	0
15	0.30	0.0	2.0	23.1	41,280	33,918	*324*	1,241	35,159	0	0	54,068	3,015	RR	80,000	0	0	0	0	2,400
16	2.27	0.0	1.9	22.9	49,770	41,736	736	2,991	44,727	0	0	72,054	0	RR	72,000	0	0	0	0	0
17	0.01	0.0	2.1	NR	45,420	38,841	755	2,959	41,800	0	0	30,011	3,024	RR	88,000	0	0	0	0	2,400
18	0.00	0.0	2.6	NR	54,060	80,454	1,024	11,669	92,123	0	0	54,336	3,012	RR	133,000	0	0	0	0	2,400
19	0.00	0.0	2.4	9.3	28,430	41,259	1,272	5,835	47,094	0	0	60,034	2,014	RR	115,000	0	0	0	0	1,600
20	0.00	0.0	2.0	19.6	33,705	33,080	1,261	5,883	38,963	0	0	54,037	4,526	RR	80,000	0	0	0	0	3,600
21	0.00	0.0	0.0	NR	44,515	36,456	*1,413*	6,724	43,179	NR	0	0	0	RR	0	0	0	0	0	0
22	0.00	0.0	2.5	18.7	44,515	36,456	*1,413*	6,724	43,179	0	0	36,021	4,508	RR	124,000	0	0	0	0	3,600
23	0.00	0.0	2.5	19.5	39,085	33,956	1,201	5,510	39,466	0	0	60,037	7,525	RR	124,000	0	0	0	0	6,000
24	0.00	0.0	2.1	22.5	41,000	31,820	1,198	4,817	36,637	0	0	42,017	5,523	RR	88,000	0	0	0	0	4,400
25	0.00	0.0	1.8	23.3	44,890	29,786	1,020	1,134	31,920	48,000	0	42,156	0	RR	64,000	0	0	0	0	0
26	0.00	0.0	1.3	17.8	44,395	33,659	635	6,990	40,649	91,000	0	30,903	4,018	RR	33,000	0	0	0	0	3,200
27	0.00	0.0	0.0	21.9	48,430	36,452	555	2,694	39,146	127,000	0	0	0	RR	0	0	0	0	0	0
28	0.00	0.0	0.0	NR	45,865	37,579	371	2,590	40,169	NR	0	0	0	RR	0	0	0	0	0	0
29	0.00	0.0	0.0	17.8	45,865	37,579	371	2,590	40,169	216,000	0	0	2,074	RR	0	0	0	0	0	1,700
30	0.00	0.0	0.0	18.0	39,365	38,087	362	2,670	40,757	245,000	0	18,043	0	RR	0	0	0	0	0	0
31	0.00	0.0	0.0	18.6	40,060	40,139	357	2,640	42,779	238,000	0	30,036	3,021	RR	0	0	0	0	0	2,400
Total	2.58				1,242,022	1,151,878	19,320	117,482	1,269,360		0	1,053,126	75,397		1,623,000		0	0	0	60,
Daily Average		0.0	1.4	17.4	40,065	37,157	623	3,790	40,947	35,700				RR	0	0		0	0	1,940
Mo. Average													2,400							

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-II sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
MARCH 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	0.5	65,278	414,535	75,430,165	3,527,050	0.00	0	0	0	0.00	0.0	1.5	0	0	0	0	0	0
2	1.3	65,604	417,311	75,461,120	3,561,194	0.00	0	18,122	2,015	0.00	0.0	1.9	0	0	0	0	0	0
3	2.4	65,944	422,384	75,493,935	3,595,502	0.00	78,171	18,111	2,015	0.00	0.0	1.9	0	0	0	0	0	0
4	2.6	66,294	425,190	75,525,370	3,630,200	0.00	18,013	0	2,014	0.00	0.0	1.3	0	0	0	0	0	0
5	6.8	66,605	427,927	75,560,800	3,666,611	0.00	48,016	24,056	2,009	0.00	0.0	1.3	0	0	0	0	0	0
6	2.6	67,039	430,658	75,596,540	3,704,476	0.00	0	12,023	1,997	0.00	0.0	1.2	0	0	0	0	0	0
7	NR	*67,422*	*432,313*	*75,630,845*	*3,741,503*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
8	2.0	67,805	433,968	75,665,150	3,778,530	0.00	30,013	18,055	4,012	0.00	0.0	2.1	0	0	0	0	0	0
9	8.2	68,251	441,200	75,706,710	3,812,387	0.00	30,021	24,063	4,015	0.00	0.0	1.9	0	0	0	0	0	0
10	12.9	68,671	443,917	75,752,100	3,851,365	0.00	30,529	30,081	4,030	0.00	0.0	1.8	0	0	0	0	0	0
11	9.9	69,095	446,297	75,788,180	3,883,484	0.00	30,014	30,057	2,978	0.00	0.0	1.5	0	0	0	0	0	0
12	10.1	69,095	448,717	75,829,640	3,916,550	0.00	0	24,023	4,029	0.00	0.0	1.2	0	0	0	0	0	0
13	13.5	69,095	451,088	75,871,850	3,951,640	0.00	0	6,005	4,023	0.00	0.0	1.5	0	0	0	0	0	0
14	NR	*NR*	*452,329*	*75,913,050*	*3,985,558*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
15	14.1	70,393	453,569	75,954,250	4,019,476	0.00	24,051	30,017	3,015	0.30	0.0	2.0	0	0	0	0	0	0
16	13.9	71,129	456,560	76,004,020	4,061,212	0.00	42,019	30,035	0	2.27	0.0	1.9	0	0	0	0	0	0
17	NR	71,884	459,519	76,049,440	4,100,053	0.00	30,011	0	3,024	0.01	0.0	2.1	0	0	0	0	0	0
18	NR	72,908	471,188	76,103,480	4,180,507	0.00	30,283	24,053	3,012	0.00	0.0	2.6	0	0	0	0	0	0
19	0.3	74,180	477,023	76,131,910	4,221,766	0.00	30,011	30,023	2,014	0.00	0.0	2.4	0	0	0	0	0	0
20	10.6	75,441	482,906	76,165,615	4,254,846	0.00	30,014	24,023	4,526	0.00	0.0	2.0	0	0	0	0	0	0
21	NR	*76,855*	*489,630*	*76,210,130*	*4,291,302*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
22	9.7	78,268	496,353	76,254,645	4,327,757	0.00	30,014	6,007	4,508	0.00	0.0	2.5	0	0	0	0	0	0
23	10.5	79,469	501,863	76,293,730	4,361,713	0.00	30,013	30,024	7,525	0.00	0.0	2.5	0	0	0	0	0	0
24	13.5	80,667	506,680	76,334,730	4,393,533	0.00	30,007	12,010	5,523	0.00	0.0	2.1	0	0	0	0	0	0
25	14.3	81,687	507,814	76,379,620	4,423,319	1.67	30,133	12,023	0	0.00	0.0	1.8	0	0	0	0	0	0
26	8.8	82,322	514,804	76,424,015	4,456,978	3.17	18,910	11,993	4,018	0.00	0.0	1.3	0	0	0	0	0	0
27	12.9	82,877	517,498	76,472,445	4,493,430	4.42	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
28	NR	*83,248*	*520,088*	*76,518,310*	*4,531,009*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
29	8.8	83,618	522,678	76,564,175	4,568,588	7.50	0	0	2,074	0.00	0.0	0.0	0	0	0	0	0	0
30	9.0	83,980	525,348	76,603,540	4,606,675	8.50	18,043	0	0	0.00	0.0	0.0	0	0	0	0	0	0
31	9.6	84,337	527,988	76,643,600	4,646,814	8.25	18,007	12,029	3,021	0.00	0.0	0.0	0	0	0			

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	6
Final	23	0
Not Opened	0	6.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

Month	Rainfall (in.)	Leachate Arriving at LTRF: Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate Arriving at LTRF: Leachate from Section 7 Pumped to LTRF (gal.)	Leachate Arriving at LTRF: Leachate from Phases I-VI Pumped to LTRF (gal.)	Leachate Leaving LTRF: Total Leachate Hauled from LTRF (gal.)	Leachate Leaving LTRF: Leachate Dust Control (Sprayed) (gal.)	Leachate Leaving LTRF: Leachate Treated at LTRF (gal.)	Effluent Disposal: Total Effluent Hauled (gal.)	Effluent Disposal: Effluent Dust Control (Sprayed) (gal.)	Effluent Disposal: Effluent Irrigation (gal.)	Inflow / Outflow For LTRF: Total Inflow To LTRF (gal.)	Inflow / Outflow For LTRF: Total Outflow From LTRF (gal.)	Inflow / Outflow For LTRF: Balance[1] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	9.77	0	617,692	3,393,638	4,063,206	226,673	0	0	0	0	4,011,330	4,289,879	-278,549

[Project\Hillsborough\92000020.24\Leachate Balance\2004\2004summary.xls (Revised by scv 3/18/14)]

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

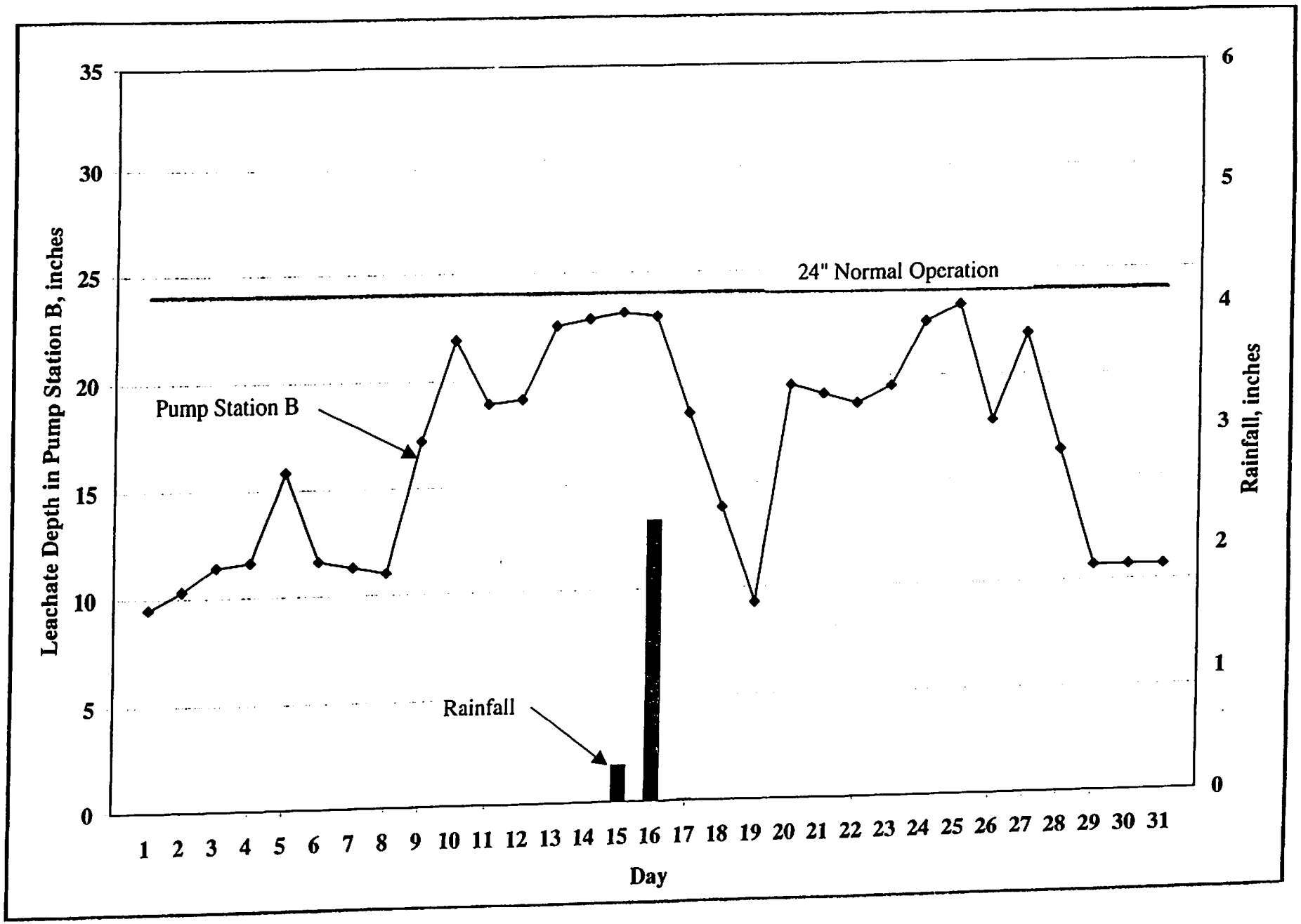

Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2004.

TABLE 1. LEACHATE HAULING SUMMARY
SOUTHEAST COUNTY LANDFILL
YEAR-2004

Date	Leachate Hauled		Effluent Hauled	
	Contractor (gal.)	County (gal.)	Contractor (gal.)	County (gal.)
January	665,717	747,625	0	0
February	497,284	1,099,454	0	0
March	626,293	426,833	0	0
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total	1,789,294	2,273,912	0	0

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D.E.P.
APR 2 1 2004
Southwest District Tampa

February 12, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –January 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of January 2004. In addition, the SWMD is providing the January 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for January 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches except for one day due to power outage. The average depth of leachate in PS-B for the recorded days in January 2004 was 19.0 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0104.dep

Environmental Consultants

3012 U.S. Highway 301 Nor
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

February 9, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for January 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for January 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for January (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of January.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 4.10 inches of rainfall at the SCLF in January.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In January, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In January no effluent or leachate was stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In January , PS-B was below the normal operation level of 24 inches except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in January was 19.0 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in January was 24,655 gallons. A total of 764,310 gallons was pumped from TPS-6 to PS-B in January.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in January was 38,350 gallons. A total of 1,188,837 gallons of leachate was pumped to the storage tank in January.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Section 7 at the Capacity Expansion became active to receive waste on January 5 and Column VIII presents the quantity of leachate removed from the leak detection system of Section 7.

The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. In January, a total of 6,186 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In January, 255,259 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In January, 1,444,096 gallons of leachate was pumped to the LTRF from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in January, based on recorded days, was estimated at 400,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is now being readied for its three-year inspection and tank testing. After the inspections are completed, the LTRF will resume full operation. In January, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of January, a total of 1,413,342 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In January, 123,926 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in January is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In January, no effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in January.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the

flow meter at the irrigation pump station. In January, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In January, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In January, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for January was 98,900 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in January was 1,444,096 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,537,268 gallons. The balance for the month of January decreased by 93,172 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JANUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	NR	28,150	34,193	0	0	34,193	NR	0	24,050	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	20.5	28,150	34,193	0	0	34,193	365,000	0	30,080	7,103	800	0	0	0	0	0	5,700
3	0.00	0.0	0.0	19.6	31,020	36,888	0	0	36,888	386,000	0	30,086	8,347	800	0	0	0	0	0	6,700
4	0.00	NR	NR	NR	31,728	38,269	0	0	38,269	NR	0	0	0	NR	NR	0	0	0	0	0
5	0.00	0.0	0.0	18.9	31,728	38,269	0	0	38,269	509,000	0	66,176	8,033	800	0	0	0	0	0	6,400
6	0.00	0.0	0.0	19.1	30,720	37,820	126	0	37,820	394,000	0	66,166	8,009	800	0	0	0	0	0	6,400
7	0.00	0.0	0.0	18.4	26,135	34,542	0	2,620	37,162	372,000	0	60,168	8,002	800	0	0	0	0	0	6,400
8	0.00	0.0	0.0	20.3	26,940	33,898	0	0	33,898	341,000	0	60,199	8,001	800	0	0	0	0	0	6,400
9	0.10	0.0	0.0	23.2	14,285	34,538	0	0	34,538	312,000	0	48,114	8,021	800	0	0	0	0	0	6,400
10	0.00	0.0	0.0	21.1	4,535	39,937	0	0	39,937	302,000	0	48,103	0	800	0	0	0	0	0	0
11	0.00	NR	NR	NR	3,050	32,883	0	1,253	34,136	NR	0	0	0	NR	NR	0	0	0	0	0
12	0.00	0.0	0.0	16.7	3,050	32,883	0	1,253	34,136	322,000	0	30,142	8,004	800	0	0	0	0	0	6,400
13	0.00	0.0	0.0	17.6	22,250	34,647	0	0	34,647	324,000	0	54,126	8,011	800	0	0	0	0	0	6,400
14	0.00	0.0	0.0	16.3	27,560	37,979	334	2,482	40,461	312,000	0	54,139	4,012	800	0	0	0	0	0	3,200
15	0.00	0.0	0.0	17.1	33,045	42,432	0	0	42,432	290,000	0	46,029	4,011	800	0	0	0	0	0	3,200
16	0.00	0.0	0.0	21.0	33,105	36,617	204	0	36,617	293,000	0	24,073	8,014	800	0	0	0	0	0	6,400
17	0.00	0.0	0.0	18.2	30,960	42,536	0	2,750	45,286	317,000	0	0	4,035	800	0	0	0	0	0	3,200
18	1.23	NR	NR	NR	33,335	44,527	256	31,726	76,253	NR	0	0	0	NR	NR	0	0	0	0	0
19	0.01	0.0	0.0	18.2	33,335	44,527	256	31,726	76,253	470,000	0	60,384	4,016	800	0	0	0	0	0	3,200
20	0.00	0.0	0.0	18.1	27,190	38,175	610	26,848	65,023	468,000	0	60,155	0	800	0	0	0	0	0	0
21	0.00	0.0	0.0	15.0	24,210	32,852	765	11,064	43,916	461,000	0	78,190	0	800	0	0	0	0	0	0
22	0.00	0.0	0.0	15.5	26,165	33,091	600	7,868	40,959	439,000	0	54,140	8,028	800	0	0	0	0	0	6,400
23	0.00	0.0	0.0	18.0	26,225	33,931	399	2,699	36,630	410,000	0	48,390	0	800	0	0	0	0	0	0
24	0.00	0.0	0.0	16.3	26,067	33,619	271	2,752	36,371	408,000	0	30,052	4,010	800	0	0	0	0	0	3,200
25	0.00	NR	NR	NR	29,517	38,688	285	2,944	41,632	NR	0	0	0	NR	NR	0	0	0	0	0
26	0.00	0.0	0.0	18.3	29,517	38,688	285	2,944	41,632	451,000	0	48,162	4,053	800	0	0	0	0	0	3,200
27	1.60	0.0	0.0	16.2	31,070	41,700	340	11,074	52,774	456,000	0	30,165	0	800	0	0	0	0	0	0
28	0.00	0.0	0.0	19.5	20,430	70,420	508	58,238	128,658	530,000	0	78,542	4,288	800	0	0	0	0	0	3,400
29	0.00	0.0	0.0	33.0	4,220	12,001	395	10,857	22,858	518,000	0	84,451	7,928	800	0	0	0	0	0	6,300
30	0.18	0.0	0.0	18.7	26,610	58,918	294	27,074	85,992	506,000	0	96,609	0	800	0	0	0	0	0	0
31	0.98	0.0	0.0	19.5	20,010	45,179	259	17,087	62,266	463,000	0	102,451	0	800	0	0	0	0	0	0
Total	4.10				764,310	1,188,837	6,186	255,259	1,444,096		0	1,413,342	123,926				0	0	0	98,900
Daily Average		0.0	0.0	19.0	24,655	38,350	200	8,234	46,584	400,700				800	0	0				
Mo. Average													4,000					0	0	3,190

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
JANUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled Contractor (gal.)	Leachate Hauled County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled Contractor (gal.)	Effluent Hauled County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	NR	0	0	*73,973,580*	*1,287,369*	NR	0	24,050	0	0.00	0.0	0.0	0	0	0	0	0	0
2	11.5	0	0	74,001,730	1,321,562	12.67	0	30,080	7,103	0.00	0.0	0.0	0	0	0	0	0	0
3	10.6	0	0	74,032,750	1,358,450	13.42	0	30,086	8,347	0.00	0.0	0.0	0	0	0	0	0	0
4	NR	0	0	*74,064,478*	*1,396,719*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
5	9.9	51,814	9,939,158	74,096,205	1,434,988	17.67	36,064	30,112	8,033	0.00	0.0	0.0	0	0	0	0	0	0
6	10.1	51,940	9,939,158	74,126,925	1,472,808	13.67	36,051	30,115	8,009	0.00	0.0	0.0	0	0	0	0	0	0
7	9.4	51,940	9,941,778	74,153,060	1,507,350	12.92	30,057	30,111	8,002	0.00	0.0	0.0	0	0	0	0	0	0
8	11.3	51,940	9,941,778	74,180,000	1,541,248	11.83	30,046	30,153	8,001	0.00	0.0	0.0	0	0	0	0	0	0
9	14.2	51,940	9,941,778	74,194,285	1,575,786	10.83	24,044	24,070	8,021	0.10	0.0	0.0	0	0	0	0	0	0
10	12.1	51,940	9,941,778	74,198,820	1,615,723	10.50	18,019	30,084	0	0.00	0.0	0.0	0	0	0	0	0	0
11	NR	*51,940*	*9,943,031*	*74,201,870*	*1,648,606*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
12	7.7	51,940	9,944,284	74,204,920	1,681,488	11.17	0	30,142	8,004	0.00	0.0	0.0	0	0	0	0	0	0
13	8.6	51,940	9,944,284	74,227,170	1,716,135	11.25	30,046	24,080	8,011	0.00	0.0	0.0	0	0	0	0	0	0
14	7.3	52,274	9,946,766	74,254,730	1,754,114	10.83	24,038	30,101	4,012	0.00	0.0	0.0	0	0	0	0	0	0
15	8.1	52,274	9,946,766	74,287,775	1,796,546	10.08	27,976	18,053	4,011	0.00	0.0	0.0	0	0	0	0	0	0
16	12.0	52,478	9,946,766	74,320,880	1,833,163	10.17	0	24,073	8,014	0.00	0.0	0.0	0	0	0	0	0	0
17	9.2	52,478	9,949,516	74,351,840	1,875,699	11.00	0	0	4,035	0.00	0.0	0.0	0	0	0	0	0	0
18	NR	*52,734*	*9,981,242*	*74,385,175*	*1,920,226*	NR	0	0	0	1.23	NR	NR	0	0	0	0	0	0
19	9.2	52,990	12,967	74,418,510	1,964,752	16.33	30,088	30,296	4,016	0.01	0.0	0.0	0	0	0	0	0	0
20	9.1	53,600	39,815	74,445,700	2,002,927	16.25	30,066	30,089	0	0.00	0.0	0.0	0	0	0	0	0	0
21	6.0	54,365	50,879	74,469,910	2,035,779	16.00	48,089	30,101	0	0.00	0.0	0.0	0	0	0	0	0	0
22	6.5	54,965	58,747	74,496,075	2,068,870	15.25	30,057	24,083	8,028	0.00	0.0	0.0	0	0	0	0	0	0
23	9.0	55,364	61,446	74,522,300	2,102,801	14.25	18,031	30,359	0	0.00	0.0	0.0	0	0	0	0	0	0
24	7.3	55,635	64,198	74,548,367	2,136,420	14.17	0	30,052	4,010	0.00	0.0	0.0	0	0	0	0	0	0
25	NR	*55,920*	*67,142*	*74,577,884*	*2,175,108*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
26	9.3	56,204	70,086	74,607,400	2,213,795	15.67	18,040	30,122	4,053	0.00	0.0	0.0	0	0	0	0	0	0
27	7.2	56,544	81,160	74,638,470	2,255,495	15.83	0	30,165	0	1.60	0.0	0.0	0	0	0	0	0	0
28	10.5	57,052	139,398	74,658,900	2,325,915	18.42	48,185	30,357	4,288	0.00	0.0	0.0	0	0	0	0	0	0
29	24.0	57,447	150,255	74,663,120	2,337,916	18.00	48,190	36,261	7,928	0.00	0.0	0.0	0	0	0	0	0	0
30	9.7	57,741	177,329	74,689,730	2,396,834	17.58	66,249	30,360	0	0.18	0.0	0.0	0	0	0	0	0	0
31	10.5	58,000	194,416	74,709,740	2,442,013	16.1	72,381	30,070	0	0.98	0.0	0.0	0	0	0	0	0	0

f:\project\hillsbor\09200020 23\LeachateBalance\2004\01-04 xls (Revised by scv 2/6/04)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	1	7
Intermediate	138.4	0
Final	23	0
Not Opened	0	5.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

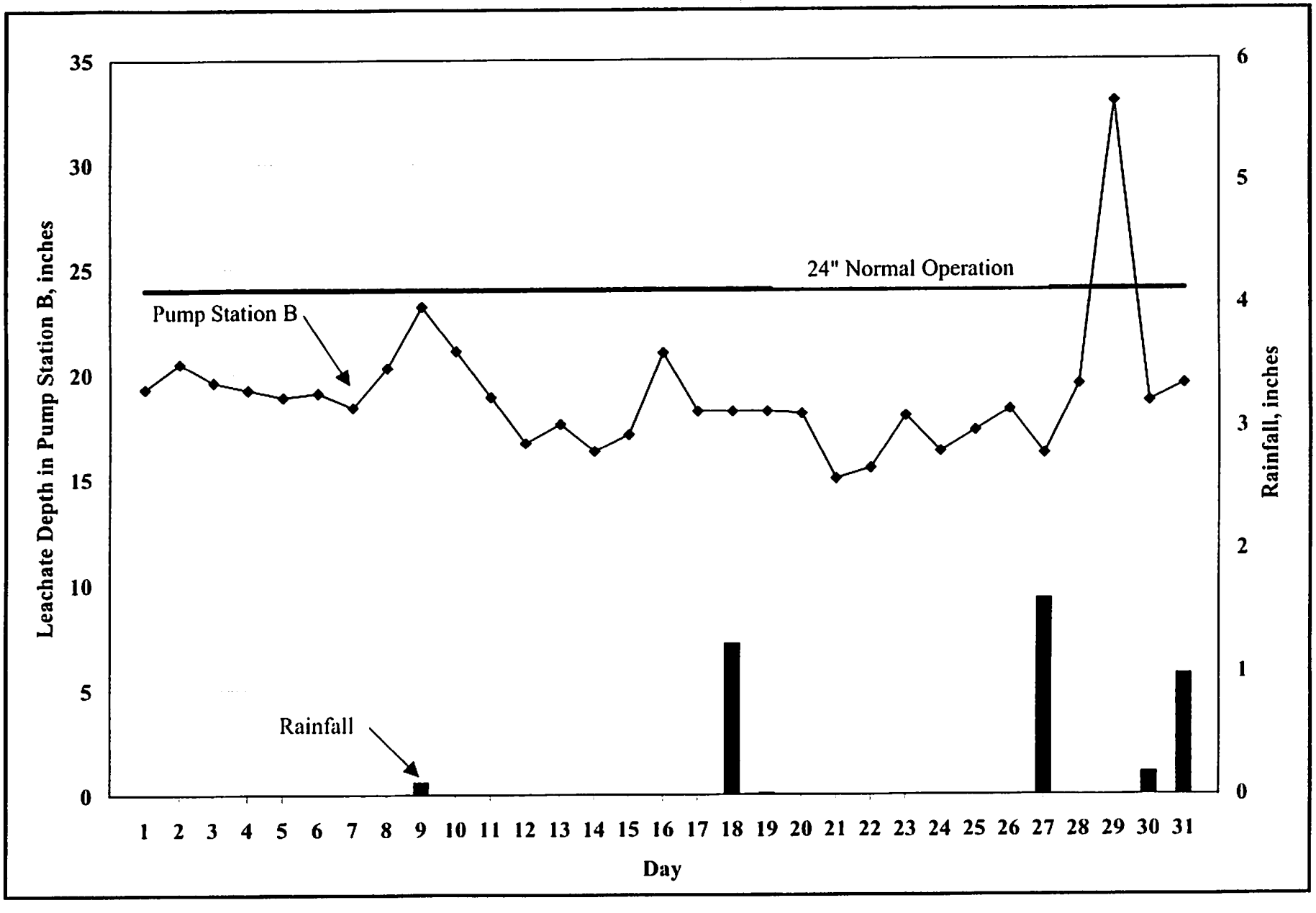

Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0.0	0.00	0.0	0	0	0	0.00	0	24,050	0	0
2	0.0	74001730	0.00	11.5	1,321,562	0	0	12'8"	0	30,080	7,103	0
3	0.0	74032750	0.00	10.6	1,358,450	0	0	13'5"	0	30,086	8,347	0
4	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
5	0.0	74096205	0.00	9.9	1,434,988	9,939,158	51,814	14'8"	36,064	30,112	8,033	0
6	0.0	74126925	0.00	10.1	1,472,808	9,939,158	51,940	13'8"	36,051	30,115	8,009	0
7	0.0	74153060	0.00	9.4	1,507,350	9,941,778	51,940	12'11"	30,057	30,111	8,002	0
8	0.0	74180000	0.00	11.3	1,541,248	9,941,778	51,940	11'10"	30,046	30,153	8,001	0
9	0.0	74194285	0.00	14.2	1,575,786	9,941,778	51,940	10'10"	24,044	24,070	8,021	0.10
10	0.0	74198820	0.00	12.1	1,615,723	9,941,778	51,940	10'6"	18,019	30,084	0	0
11	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
12	0.0	74204920	0.00	7.7	1,681,488	9,944,284	51,940	11'2"	0	30,142	8,004	0
13	0.0	74227170	0.00	8.6	1,716,135	9,946,766	51,940	11'3"	30,046	24,080	8,011	0
14	0.0	74254730	0.00	7.3	1,754,114	9,946,766	52,274	10'10"	24,038	30,101	4,012	0
15	0.0	74287775	0.00	8.1	1,796,546	9,946,766	52,274	10'1"	27,976	18,053	4,011	0
16	0.0	74320880	0.00	12.0	1,833,163	9,949,516	52,478	10'2"	0	24,073	8,014	0

Note:

Comments: _____

Prepared by: Raymond C. Grover for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	74351840	0.00	9.2	1,875,699	9,949,516	52,478	11'0"	0	0	4,035	0
18	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	1.23
19	0.0	74418510	0.00	9.2	1,964,752	12,967	52,990	16'4"	30,088	30,296	4,016	0.01
20	0.0	74445700	0.00	9.1	2,002,927	39,815	53,600	16'3"	30,066	30,089	0	0
21	0.0	74469910	0.00	6.0	2,035,779	50,879	54,365	16'0"	48,089	30,101	0	0
22	0.0	74496075	0.00	6.5	2,068,870	58,747	54,965	15'3"	30,057	24,083	8,028	0
23	0.0	74522300	0.00	9.0	2,102,801	61,466	55,364	14'3"	18,031	30,359	0	0
24	0.0	74548367	0.00	7.3	2,136,420	64,198	55,635	14'2"	0	30,052	4,010	0
25	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
26	0.0	74607400	0.00	9.3	2,213,795	70,086	56,204	15'8"	18,040	30,122	4,053	0
27	0.0	74638470	0.00	7.2	2,255,495	81,160	56,544	15'10"	0	30,165	0	1.60
28	0.0	74658900	0.00	10.5	2,325,915	139,398	57,052	18'5"	48,185	30,357	4,288	0
29	0.0	74663120	0.00	*33.4	2,337,916	150,255	57,447	18'0"	48,190	36,261	7,928	0
30	0.0	74689730	0.00	9.7	2,396,834	177,329	57,741	17'7"	66,249	30,360	0	0.18
31	0.0	74709740	0.00	10.5	2,442,013	194,416	58,000	16'1"	72,381	30,070	0	0.98

Note:

Comments: *Teco power problem.

Prepared by: Raymond C Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0	0	0	0			0
2	0.0	0.0	0	0	0	0	0	0			0
3	0.0	0.0	0	0	0	0	0	0			0
4	0.0	0.0	0	0	0	0	0	0			0
5	0.0	0.0	0	0	0	0	0	0			0
6	0.0	0.0	0	0	0	0	0	0			0
7	0.0	0.0	0	0	0	0	0	0			0
8	0.0	0.0	0	0	0	0	0	0			0
9	0.0	0.0	0	0	0	0	0	0			0
10	0.0	0.0	0	0	0	0	0	0			0
11	0.0	0.0	0	0	0	0	0	0			0
12	0.0	0.0	0	0	0	0	0	0			0
13	0.0	0.0	0	0	0	0	0	0			0
14	0.0	0.0	0	0	0	0	0	0			0
15	0.0	0.0	0	0	0	0	0	0			0
16	0.0	0.0	0	0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Treatment plant off line for repairs.

Prepared by: Raymond C Graves for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January.2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
17	0.0	0.0		0	0	0	0	0			0
18	0.0	0.0		0	0	0	0	0			0
19	0.0	0.0		0	0	0	0	0			0
20	0.0	0.0		0	0	0	0	0			0
21	0.0	0.0		0	0	0	0	0			0
22	0.0	0.0		0	0	0	0	0			0
23	0.0	0.0		0	0	0	0	0			0
24	0.0	0.0		0	0	0	0	0			0
25	0.0	0.0		0	0	0	0	0			0
26	0.0	0.0		0	0	0	0	0			0
27	0.0	0.0		0	0	0	0	0			0
28	0.0	0.0		0	0	0	0	0			0
29	0.0	0.0		0	0	0	0	0			0
30	0.0	0.0		0	0	0	0	0			0
31	0.0	0.0		0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves for Matt

BOARD OF COUNTY COMMISSIONERS
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D.E.P.
APR 2 1 2004
Southwest District Tampa

March 15, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –February 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of February 2004. In addition, the SWMD is providing the February 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for February 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches. The average depth of leachate in PS-B for the recorded days in February 2004 was 18.8 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0204.dep

Environmental Consultants

3012 U.S. Highway 301 N
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

March 9, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for February 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for February 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for February (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of February.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.09 inches of rainfall at the SCLF in February.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In February, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. Beginning on February 14, Pond B was used for temporary storage of leachate prior to transport while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, the average depth of temporary leachate storage in Pond B was 1.0 foot.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In February, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in February was 18.8 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in February was 23,856 gallons. A total of 691,838 gallons was pumped from TPS-6 to PS-B in February.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Beginning February 16, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was empty for inspection and maintenance. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in February was 36,308 gallons. A total of 1,052,923 gallons of leachate was pumped to the storage tank or through Pond B in February.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. In February, a total of 7,014 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In February, 244,951 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In February, a total of 1,297,874 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in February, based on recorded days, was estimated at 178,300 gallons. Beginning February 14, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was emptied for inspection and maintenance.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is being prepared for its three-year inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In February, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of February, a total of 1,596,738 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In February, 27,350 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in February is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In February, no effluent was stored in Pond B for evaporation. However, beginning on February 14, Pond B was used for temporary storage of leachate while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, a total of 1,285,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in February.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In February, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In February, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In February, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for February was 21,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in February was 1,297,874 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,624,088 gallons. The balance for the month of February decreased by 326,214 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE I. LEACHATE WATER BALANCE REPORT FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.04	0.0	0.0	NR	19,950	39,648	393	27,382	67,030	NR	0	0	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	21.2	19,950	39,647	392	27,382	67,029	530,000	0	72,321	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	16.7	21,790	31,735	645	22,654	54,389	506,000	0	72,193	0	800	0	0	0	0	0	0
4	0.00	0.0	0.0	20.5	26,150	33,982	418	12,154	46,336	487,000	0	60,195	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	21.3	24,120	30,364	303	10,862	41,226	473,000	0	84,285	2,018	800	0	0	0	0	0	1,600
6	0.00	0.0	0.0	18.8	27,640	36,627	273	6,503	43,130	413,000	0	132,317	0	800	0	0	0	0	0	0
7	0.00	0.0	0.0	21.9	28,760	39,300	194	5,547	44,847	365,000	0	54,119	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	NR	10,230	28,310	192	2,682	30,991	NR	0	0	0	800	0	0	0	0	0	0
9	0.00	0.0	0.0	16.6	10,230	28,310	192	2,682	30,991	365,000	0	48,324	2,044	800	0	0	0	0	0	1,600
10	0.00	0.0	0.0	20.6	26,500	36,476	187	2,855	39,331	348,000	0	96,239	2,004	800	0	0	0	0	0	1,600
11	0.00	0.0	0.0	20.8	27,970	39,939	131	2,887	42,826	295,000	0	84,181	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	21.1	27,390	40,920	91	2,784	43,704	261,000	0	72,137	2,012	800	0	0	0	0	0	1,600
13	0.00	0.0	0.0	19.5	25,240	38,741	70	2,878	41,619	230,000	0	66,191	3,023	800	0	0	0	0	0	2,400
14	0.70	0.0	1.2	17.5	27,298	38,054	59	7,297	45,351	170,000	0	60,119	2,008	800	28,000	0	0	0	0	1,600
15	0.00	0.0	0.0	NR	19,041	38,094	137	7,298	45,392	NR	0	0	0	800	0	0	0	0	0	0
16	0.00	0.0	2.4	22.0	19,041	38,094	137	7,298	45,392	113,000	0	54,174	2,012	800	115,000	0	0	0	0	1,600
17	0.00	0.0	2.3	20.2	4,445	28,344	180	2,743	31,087	79,000	0	64,427	4,027	800	106,000	0	0	0	0	3,200
18	0.00	0.0	2.4	18.4	17,715	31,580	135	2,821	34,401	0	0	35,861	2,000	800	115,000	0	0	0	0	1,600
19	0.00	0.0	2.4	16.2	26,330	31,714	115	31,726	63,440	0	0	66,550	0	800	115,000	0	0	0	0	0
20	0.00	0.0	2.1	16.5	31,570	39,186	145	2,926	42,112	0	0	54,810	2,021	800	88,000	0	0	0	0	1,600
21	0.00	0.0	2.0	20.6	31,500	41,079	166	2,663	43,742	0	0	60,187	2,169	800	80,000	0	0	0	0	1,700
22	0.00	0.0	0.0	NR	26,113	38,825	191	1,283	40,108	0	0	0	0	800	0	0	0	0	0	0
23	0.00	0.0	2.2	20.6	26,113	38,825	191	1,283	40,108	0	0	36,107	0	800	97,000	0	0	0	0	0
24	2.23	0.0	2.3	14.2	29,865	39,235	244	2,549	41,780	0	0	54,316	2,012	800	106,000	0	0	0	0	1,600
25	0.02	0.0	2.6	20.3	33,800	46,852	162	6,737	53,589	0	0	48,578	0	800	133,000	0	0	0	0	0
26	0.10	0.0	2.8	21.7	26,340	42,243	593	27,475	69,718	0	0	96,380	0	800	152,000	0	0	0	0	0
27	0.00	0.0	2.3	11.7	25,340	25,836	486	2,339	28,175	0	0	72,447	0	800	106,000	0	0	0	0	0
28	0.00	0.0	1.5	11.8	22,820	38,850	330	5,037	43,887	0	0	50,280	0	800	44,000	0	0	0	0	0
29	0.00	0.0	0.0	NR	28,588	32,115	263	4,030	36,145	0	0	0	0	800	0	0	0	0	0	0
Total	3.09				691,838	1,052,923	7,014	244,951	1,297,874		0	1,596,738	27,350		1,285,000		0	0	0	21,700
Daily Average		0.0	1.0	18.8	23,856	36,308	242	8,447	44,754	178,300				800	0	0				
Mo. Average													900				0	0	0	750

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	NR	*58,393*	*221,798*	*74,729,690*	*2,481,661*	NR	0	0	0	0.04	0.0	0.0	0	0	0	0	0	0
2	12.2	58,785	249,180	74,749,640	2,521,308	18.42	42,154	30,167	0	0.00	0.0	0.0	0	0	0	0	0	0
3	7.7	59,430	271,834	74,771,430	2,553,043	17.58	42,080	30,113	0	0.00	0.0	0.0	0	0	0	0	0	0
4	11.5	59,848	284,188	74,797,580	2,587,025	16.92	30,082	30,113	0	0.00	0.0	0.0	0	0	0	0	0	0
5	12.3	60,151	295,050	74,821,700	2,617,389	16.42	24,034	60,251	2,018	0.00	0.0	0.0	0	0	0	0	0	0
6	9.8	60,424	301,553	74,849,340	2,654,016	14.33	72,140	60,177	0	0.00	0.0	0.0	0	0	0	0	0	0
7	12.9	60,618	307,100	74,878,100	2,693,316	12.67	0	54,119	0	0.00	0.0	0.0	0	0	0	0	0	0
8	NR	*60,810*	*309,782*	*74,888,330*	*2,721,626*	NR	0	0	0		0.0	0.0	0	0	0	0	0	0
9	7.6	61,002	312,463	74,898,560	2,749,935	12.67	0	48,324	2,044	0.00	0.0	0.0	0	0	0	0	0	0
10	11.6	61,189	315,318	74,925,060	2,786,411	12.08	36,074	60,165	2,004	0.00	0.0	0.0	0	0	0	0	0	0
11	11.8	61,320	318,205	74,953,030	2,826,350	10.25	30,039	54,142	0	0.00	0.0	0.0	0	0	0	0	0	0
12	12.1	61,411	320,989	74,980,420	2,867,270	9.08	24,046	48,091	2,012	0.00	0.0	0.0	0	0	0	0	0	0
13	10.5	61,481	323,867	75,005,660	2,906,011	8.00	12,007	54,184	3,023	0.00	0.0	0.0	0	0	0	0	0	0
14	8.5	61,540	*331,164*	75,032,958	2,944,065	5.92	24,046	36,073	2,008	0.70	0.0	1.2	0	0	0	0	0	0
15	NR	*61,677*	*338,462*	*75,051,999*	*2,982,159*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
16	13.0	61,813	345,759	75,071,040	3,020,253	3.92	6,010	48,164	2,012	0.00	0.0	2.4	0	0	0	0	0	0
17	11.2	61,993	348,502	75,075,485	3,048,597	2.75	16,237	48,190	4,027	0.00	0.0	2.3	0	0	0	0	0	0
18	9.4	62,128	351,323	75,093,200	3,080,177	0.00	0	35,861	2,000	0.00	0.0	2.4	0	0	0	0	0	0
19	7.2	62,243	354,188	75,119,530	3,111,891	0.00	6,013	60,537	0	0.00	0.0	2.4	0	0	0	0	0	0
20	7.5	62,388	357,114	75,151,100	3,151,077	0.00	0	54,810	2,021	0.00	0.0	2.1	0	0	0	0	0	0
21	11.6	62,554	359,777	75,182,600	3,192,156	0.00	0	60,187	2,169	0.00	0.0	2.0	0	0	0	0	0	0
22	NR	*62,745*	*361,060*	*75,208,713*	*3,230,981*	0.00	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
23	11.6	62,936	362,343	75,234,825	3,269,805	0.00	0	36,107	0	0.00	0.0	2.2	0	0	0	0	0	0
24	5.2	63,180	364,888	75,264,690	3,309,040	0.00	0	54,316	2,012	2.23	0.0	2.3	0	0	0	0	0	0
25	11.3	63,342	371,625	75,298,490	3,355,892	0.00	0	48,578	0	0.02	0.0	2.6	0	0	0	0	0	0
26	12.7	63,935	399,100	75,324,830	3,398,135	0.00	78,227	18,153	0	0.10	0.0	2.8	0	0	0	0	0	0
27	2.7	64,421	401,439	75,350,170	3,423,971	0.00	42,071	30,376	0	0.00	0.0	2.3	0	0	0	0	0	0
28	2.8	64,751	406,476	75,372,990	3,462,821	0.00	12,024	38,256	0	0.00	0.0	1.5	0	0	0	0	0	0
29	NR	*65,014*	*410,506*	*75,401,578*	*3,494,936*	0.00	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	1	7
Intermediate	138.4	0
Final	23	0
Not Opened	0	5.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	7.19	0	500,210	2,241,760	3,010,080	151,276	0	0	0	0	2,741,970	3,161,356	-419,386

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

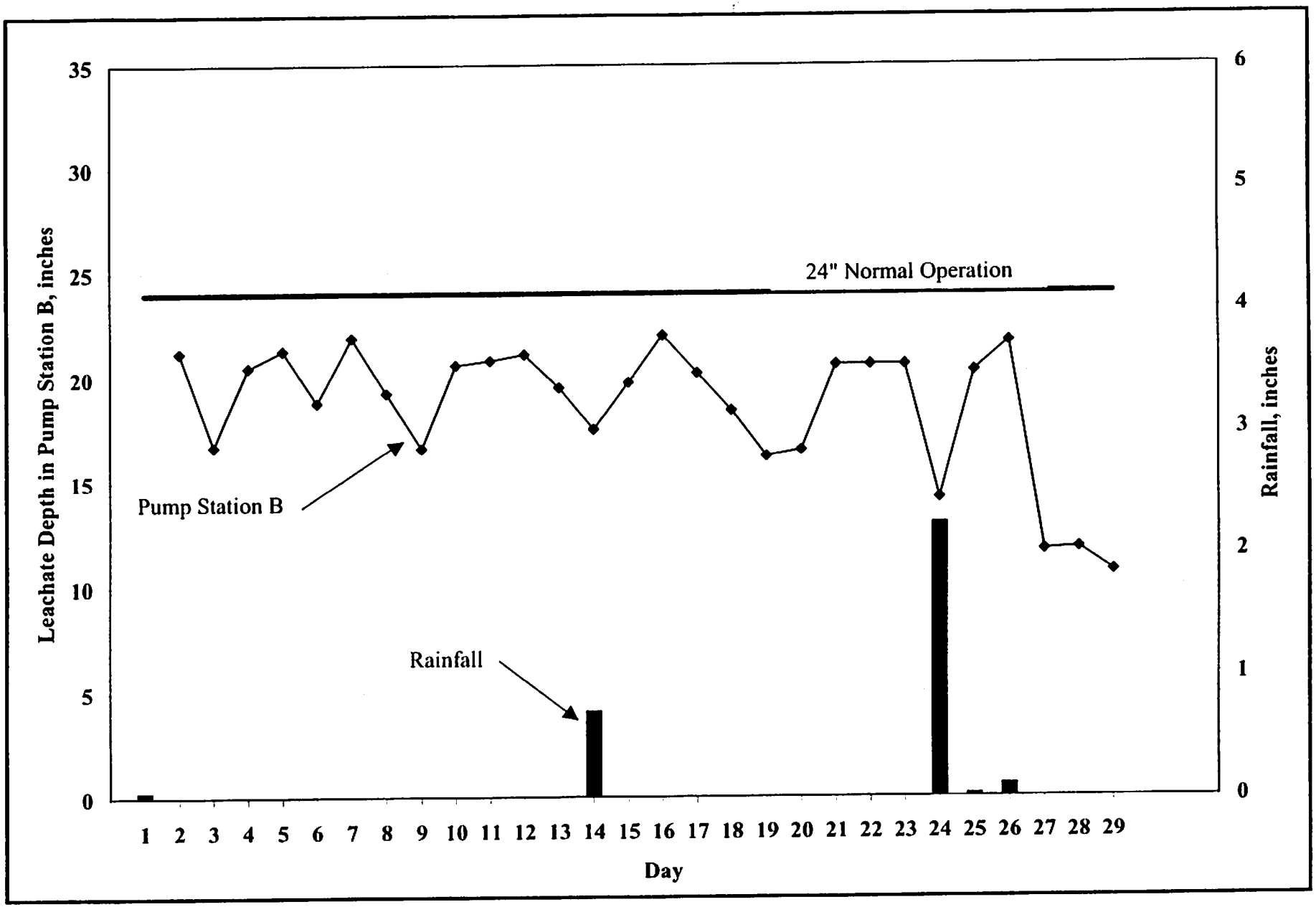

Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1		0	0.0	0.0	0	0	0	0	0	0	0	0.10
2		74749640	0.0	12.2	2,521,308	249,180	58,785	18'5"	42,154	30,167	0	0
3		74771430	0.0	7.7	2,553,043	271,834	59,430	17'7"	42,080	30,113	0	0
4		74797580	0.0	11.5	2,587,025	284,188	59,848	16'11"	30,082	30,113	0	0
5		74821700	0.0	12.3	2,617,389	295,050	60,151	16'5"	24,034	60,251	2,018	0
6		74849340	0.0	9.8	2,654,016	301,553	60,424	14'4"	72,140	60,177	0	0
7		74878100	0.0	12.9	2,693,316	307,100	60,618	12'8"	0	54,119	0	0
8		0	0.0	0.0	0	0	0	0	0	0	0	0
9		74898560	0.0	7.6	2,749,935	312,463	61,002	12'8"	0	48,324	2,044	0
10		74925060	0.0	11.6	2,786,411	315,318	61,189	12'1"	36,074	60,165	2,004	0
11		74953030	0.0	11.8	2,826,350	318,205	61,320	10'3"	30,039	54,142	0	0
12		74980420	0.0	12.1	2,867,270	328,989	61,411	9'1"	24,046	48,091	2,012	0
13		75005660	0.0	10.5	2,906,011	323,867	61,481	8'0"	12,007	54,184	3,023	0
14		75032958	1.2	8.5	2,944,065	326,361	61,540	5'11"	24,046	36,073	2,008	0.70
15		0	0.0	0.0	0	0	0	0	0	0	0	0
16		75071040	2.4	13.0	3,020,253	345,759	61,813	3'11"	6,010	48,164	2,012	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Tyree for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17		75075485	2.3	11.2	3,048,597	348,502	61,993	2'9"	16,237	48,190	4,027	0
18		75093200	2.4	9.4	3,080,177	351,323	62,128	*0	0	35,861	2,000	0
19		75119530	2.4	7.2	3,111,891	354,188	62,243	0	6,013	60,537	0	0
20		75151100	2.1	7.6	3,151,077	357,114	62,388	0	0	54,810	2,021	0
21		75182600	2.0	11.6	3,192,156	359,777	62,554	0	0	60,187	2,169	0
22		0	0.0	0.0	0	0	0	0	0	0	0	0
23		75234825	2.2	11.6	3,269,805	362,343	62,936	0	0	36,107	0	0
24		75264690	2.3	5.2	3,309,040	364,888	63,180	0	0	54,316	2,012	2.23
25		75298490	2.6	11.3	3,355,892	371,625	63,342	0	0	48,578	0	0.02
26		75324830	2.8	12.7	3,398,135	399,100	63,935	0	78,227	18,153	0	0.10
27		75350170	2.3	2.7	3,432,971	401,439	64,421	0	42,071	30,376	0	0
28		75372990	1.5	2.8	3,462,821	406,476	64,751	0	12,024	38,256	0	0
29		0	0.0	0.0	0	0	0	0	0	0	0	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *575k G.S.T. Empty for maintance,2/18/04.

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0	0	0	0	0	0		
2	0.0	0.0	0	0	0	0	0	0	0	0		
3	0.0	0.0	0	0	0	0	0	0	0	0		
4	0.0	0.0	0	0	0	0	0	0	0	0		
5	0.0	0.0	0	0	0	0	0	0	0	0		
6	0.0	0.0	0	0	0	0	0	0	0	0		
7	0.0	0.0	0	0	0	0	0	0	0	0		
8	0.0	0.0	0	0	0	0	0	0	0	0		
9	0.0	0.0	0	0	0	0	0	0	0	0		
10	0.0	0.0	0	0	0	0	0	0	0	0		
11	0.0	0.0	0	0	0	0	0	0	0	0		
12	0.0	0.0	0	0	0	0	0	0	0	0		
13	0.0	0.0	0	0	0	0	0	0	0	0		
14	0.0	0.0	0	0	0	0	0	0	0	0		
15	0.0	0.0	0	0	0	0	0	0	0	0		
16	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graver for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.0	0.0	0	0	0	0	0	0	0	0		
18	0.0	0.0	0	0	0	0	0	0	0	0		
19	0.0	0.0	0	0	0	0	0	0	0	0		
20	0.0	0.0	0	0	0	0	0	0	0	0		
21	0.0	0.0	0	0	0	0	0	0	0	0		
22	0.0	0.0	0	0	0	0	0	0	0	0		
23	0.0	0.0	0	0	0	0	0	0	0	0		
24	0.0	0.0	0	0	0	0	0	0	0	0		
25	0.0	0.0	0	0	0	0	0	0	0	0		
26	0.0	0.0	0	0	0	0	0	0	0	0		
27	0.0	0.0	0	0	0	0	0	0	0	0		
28	0.0	0.0	0	0	0	0	0	0	0	0		
29	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

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Florida

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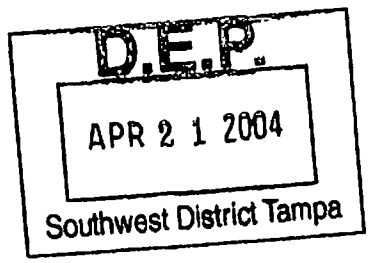
April 13, 2004



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

Subject: Hillsborough Heights/Taylor Road Landfills - March 2004 Monthly Operations Report

Dear Mr. Morris:

As requested in the Florida Department of Environmental Protection (DEP) February 6, 1998 correspondence, the Solid Waste Management Department (SWMD) is providing the March 2004 monthly operations report for the Hillsborough Heights and Taylor Road Landfills (Landfill). The report provides information concerning the operation and maintenance of the landfill gas collection systems, the perimeter gas monitoring results (quarterly), leachate and condensate removal, and site improvements status.

Bar punch probe gas reading and surface gas reading are included for perimeter gas monitoring wells reading above the 5% regulatory limit.

The March 2004 report includes the following attachments.

- Attachment A, Taylor Road Landfill - Landfill Gas Extraction Wells Monitoring Results

- Attachment B, Taylor Road Landfill –Liquids Management Summary (Gas Extraction Wells and Condensate Sumps)

- Attachment C, Hillsborough Heights Landfill - Landfill Gas Extraction Wells Monitoring Results

- Attachment D, Hillsborough Heights Landfill - Liquids Management Summary (Gas Extraction Wells and Leachate Sumps)

Liquids Removal

Total liquids removal from the Hillsborough Heights and Taylor Road Landfills for March 2004, from the information provided in Attachments B and D, is summarized below.

- Taylor Road Condensate	1,000 gallons
-Taylor Road Gas Extraction Wells Pumping Activities	8,750 gallons
- Hillsborough Heights Gas Extraction Wells Pumping Activities	50,920 gallons
- Hillsborough Heights Landfill Leachate Collection System Sump Removal Quantities	27,505 gallons
TOTAL REMOVAL QUANTITY	**88,175 gallons**

Maintenance and Repair

No maintenance was required for the Taylor Road gas system during the month of March 2004.

During the month of March 2004, maintenance for the Hillsborough Heights gas system included the removal and cleaning of the secondary flame arrestor and the pneumatic pump from extraction well #5.

Also included in this package for your information is a Glossary of Terms. Should you have any questions concerning the information provided, please call me at (813) 276-2908.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

xc: Daryl H. Smith, SWMD
David Adams, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Kim Ford, DEP
Randall Chaffins, EPA
Ron Cope, EPC

g/lfs/hhtrm03.04

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

April 14, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for March 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for March 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for March (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of March.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.58 inches of rainfall at the SCLF in March.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In March, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. February 14 through March 26, Pond B was used for temporary storage of leachate prior to transport while the 575,000-gallon tank was emptied for inspection and maintenance. The average depth of temporary leachate storage in Pond B for March was 1.4 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In March, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in March was 17.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in March was 40,065 gallons. A total of 1,242,022 gallons was pumped from TPS-6 to PS-B in March.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Through March 24, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was empty for inspection and maintenance. Beginning March 25, leachate was again pumped through the MLPS to the 575,000-gallon storage tank. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in March was 37,157 gallons. A total of 1,151,878 gallons of leachate was pumped to the storage tank or through Pond B in March.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. From March 18-22, the removal rate exceeded 1,250 gallons per day due to excessive stormwater storage in the eastern cell of Section 7. Minimization of future occurrences was described in a letter submitted to the FDEP on March 26, 2004 along with revised replacement pages L-6 and L-7 for the Operations Plan and revised replacement drawings. In March, a total of 19,320 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In March, 117,482 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In March, a total of 1,269,360 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. From February 14 through March 24, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was emptied for inspection and maintenance. Leachate depth was again measured in the tank beginning March 25. The average daily amount of leachate stored in the tank in March, based on recorded days, was estimated at 35,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is currently undergoing

inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In March, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of March, a total of 1,053,126 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In March 75,397 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in March is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In March, no effluent was stored in Pond B for evaporation. However, from February 14 through March 26, Pond B was used for temporary storage of leachate while the 575,000-gallon tank was emptied for inspection and maintenance. In March a total of 1,623,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in March.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In March, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In March, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In March, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for March was 60,100 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in March was 1,269,360 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,128,523 gallons. The balance for the month of March increased by 140,837 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S-van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MARCH 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from LPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	1.5	9.5	28,587	32,114	264	4,029	36,143	0	0	0	0	800	44,000	0	0	0	0	0
2	0.00	0.0	1.9	10.3	30,955	34,144	326	2,776	36,920	0	0	18,122	2,015	800	72,000	0	0	0	0	1,600
3	0.00	0.0	1.9	11.4	32,815	34,308	340	5,073	39,381	0	0	96,282	2,015	800	72,000	0	0	0	0	1,600
4	0.00	0.0	1.3	11.6	31,435	34,698	350	2,806	37,504	0	0	18,013	2,014	800	33,000	0	0	0	0	1,600
5	0.00	0.0	1.3	15.8	35,430	36,411	311	2,737	39,148	0	0	72,072	2,009	800	33,000	0	0	0	0	1,600
6	0.00	0.0	1.2	11.6	35,740	37,865	434	2,731	40,596	0	0	12,023	1,997	800	28,000	0	0	0	0	0
7	0.00	0.0	0.0	NR	34,305	37,027	383	1,655	38,682	NR	0	0	0	800	0	0	0	0	0	3,200
8	0.00	0.0	2.1	11.0	34,305	37,027	383	1,655	38,682	0	0	48,068	4,012	800	88,000	0	0	0	0	3,200
9	0.00	0.0	1.9	17.2	41,560	33,857	446	7,232	41,089	0	0	54,084	4,015	800	72,000	0	0	0	0	3,200
10	0.00	0.0	1.8	21.9	45,390	38,978	420	2,717	41,695	0	0	60,610	4,030	800	64,000	0	0	0	0	2,400
11	0.00	0.0	1.5	18.9	36,080	32,119	424	2,380	34,499	0	0	60,071	2,978	800	44,000	0	0	0	0	3,200
12	0.00	0.0	1.2	19.1	41,460	33,066	*324*	2,420	35,486	0	0	24,023	4,029	800	28,000	0	0	0	0	3,200
13	0.00	0.0	1.5	22.5	42,210	35,090	*324*	2,371	37,461	0	0	6,005	4,023	800	44,000	0	0	0	0	0
14	0.00	0.0	0.0	NR	41,280	33,918	*324*	1,241	35,159	NR	0	0	0	800	0	0	0	0	0	2,400
15	0.30	0.0	2.0	23.1	41,280	33,918	*324*	1,241	35,159	0	0	54,068	3,015	800	80,000	0	0	0	0	0
16	2.27	0.0	1.9	22.9	49,770	41,736	736	2,991	44,727	0	0	72,054	0	800	72,000	0	0	0	0	2,400
17	0.01	0.0	2.1	NR	45,420	38,841	755	2,959	41,800	0	0	30,011	3,024	800	88,000	0	0	0	0	2,400
18	0.00	0.0	2.6	NR	54,000	80,454	1,024	11,669	92,123	0	0	54,336	3,012	800	133,000	0	0	0	0	1,600
19	0.00	0.0	2.4	9.3	28,430	41,259	1,272	5,835	47,094	0	0	60,034	2,014	800	115,000	0	0	0	0	3,600
20	0.00	0.0	2.0	19.6	33,705	33,080	1,261	5,883	38,963	0	0	54,037	4,526	800	80,000	0	0	0	0	0
21	0.00	0.0	0.0	NR	44,515	36,456	*1,413*	6,724	43,179	NR	0	0	0	800	0	0	0	0	0	3,600
22	0.00	0.0	2.5	18.7	44,515	36,456	*1,413*	6,724	43,179	0	0	36,021	4,508	800	124,000	0	0	0	0	6,000
23	0.00	0.0	2.5	19.5	39,065	33,956	1,201	5,510	39,466	0	0	60,037	7,525	800	124,000	0	0	0	0	4,400
24	0.00	0.0	2.1	22.5	41,000	31,820	1,198	4,817	36,637	0	0	42,017	5,523	800	88,000	0	0	0	0	0
25	0.00	0.0	1.8	23.3	44,890	29,786	1,020	1,134	30,920	48,000	0	42,156	0	800	64,000	0	0	0	0	3,200
26	0.00	0.0	1.3	17.8	44,395	33,659	635	6,990	40,649	91,000	0	30,903	4,018	800	33,000	0	0	0	0	0
27	0.00	0.0	0.0	21.9	48,430	36,452	555	2,694	39,146	127,000	0	0	0	800	0	0	0	0	0	0
28	0.00	0.0	0.0	NR	45,865	37,579	371	2,590	40,169	NR	0	0	0	800	0	0	0	0	0	1,700
29	0.00	0.0	0.0	17.8	45,865	37,579	371	2,590	40,169	216,000	0	0	2,074	800	0	0	0	0	0	0
30	0.00	0.0	0.0	18.0	39,365	38,087	362	2,670	40,757	245,000	0	18,043	0	800	0	0	0	0	0	2,400
31	0.00	0.0	0.0	18.6	40,060	40,139	357	2,648	42,779	238,000	0	30,036	3,021	800	0	0	0	0	0	
Total	2.58				1,242,022	1,151,878	19,320	117,482	1,269,360		0	1,053,126	75,397		1,623,000		0	0	0	60,100
Daily Average		0.0	1.4	17.4	40,065	37,157	623	3,790	40,947	35,700				800	0	0				
Mo. Average													2,400				0	0	0	1,940

I:\projects\hillsbor\99200120.240\eachateBalance\2004\02-04.xls (Revised by scs 4/13/04)

Notes

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
MARCH 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	0.5	65,278	414,535	75,430,165	3,527,050	0.00	0	0	0	0.00	0.0	1.5	0	0	0	0	0	0
2	1.3	65,604	417,311	75,461,120	3,561,194	0.00	0	18,122	2,015	0.00	0.0	1.9	0	0	0	0	0	0
3	2.4	65,944	422,384	75,493,935	3,595,502	0.00	78,171	18,111	2,015	0.00	0.0	1.9	0	0	0	0	0	0
4	2.6	66,294	425,190	75,525,370	3,630,200	0.00	18,013	0	2,014	0.00	0.0	1.3	0	0	0	0	0	0
5	6.8	66,605	427,927	75,560,800	3,666,611	0.00	48,016	24,056	2,009	0.00	0.0	1.3	0	0	0	0	0	0
6	2.6	67,039	430,658	75,596,540	3,704,476	0.00	0	12,023	1,997	0.00	0.0	1.2	0	0	0	0	0	0
7	NR	*67,422*	*432,313*	*75,630,845*	*3,741,503*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
8	2.0	67,805	433,968	75,665,150	3,778,530	0.00	30,013	18,055	4,012	0.00	0.0	2.1	0	0	0	0	0	0
9	8.2	68,251	441,200	75,706,710	3,812,387	0.00	30,021	24,063	4,015	0.00	0.0	1.9	0	0	0	0	0	0
10	12.9	68,671	443,917	75,752,100	3,851,365	0.00	30,529	30,081	4,030	0.00	0.0	1.8	0	0	0	0	0	0
11	9.9	69,095	446,297	75,788,180	3,883,484	0.00	30,014	30,057	2,978	0.00	0.0	1.5	0	0	0	0	0	0
12	10.1	69,095	448,717	75,829,640	3,916,550	0.00	0	24,023	4,029	0.00	0.0	1.2	0	0	0	0	0	0
13	13.5	69,095	451,088	75,871,850	3,951,640	0.00	0	6,005	4,023	0.00	0.0	1.5	0	0	0	0	0	0
14	NR	*NR*	*452,329*	*75,913,050*	*3,985,558*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
15	14.1	70,393	453,569	75,954,250	4,019,476	0.00	24,051	30,017	3,015	0.30	0.0	2.0	0	0	0	0	0	0
16	13.9	71,129	456,560	76,004,020	4,061,212	0.00	42,019	30,035	0	2.27	0.0	1.9	0	0	0	0	0	0
17	NR	71,884	459,519	76,049,440	4,100,053	0.00	30,011	0	3,024	0.01	0.0	2.1	0	0	0	0	0	0
18	NR	72,908	471,188	76,103,480	4,180,507	0.00	30,283	24,053	3,012	0.00	0.0	2.6	0	0	0	0	0	0
19	0.3	74,180	477,023	76,131,910	4,221,766	0.00	30,011	30,023	2,014	0.00	0.0	2.4	0	0	0	0	0	0
20	10.6	75,441	482,906	76,165,615	4,254,846	0.00	30,014	24,023	4,526	0.00	0.0	2.0	0	0	0	0	0	0
21	NR	*76,855*	*489,630*	*76,210,130*	*4,291,302*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
22	9.7	78,268	496,353	76,254,645	4,327,757	0.00	30,014	6,007	4,508	0.00	0.0	2.5	0	0	0	0	0	0
23	10.5	79,469	501,863	76,293,730	4,361,713	0.00	30,013	30,024	7,525	0.00	0.0	2.5	0	0	0	0	0	0
24	13.5	80,667	506,680	76,334,730	4,393,533	0.00	30,007	12,010	5,523	0.00	0.0	2.1	0	0	0	0	0	0
25	14.3	81,687	507,814	76,379,620	4,423,319	1.67	30,133	12,023	0	0.00	0.0	1.8	0	0	0	0	0	0
26	8.8	82,322	514,804	76,424,015	4,456,978	3.17	18,910	11,993	4,018	0.00	0.0	1.3	0	0	0	0	0	0
27	12.9	82,877	517,498	76,472,445	4,493,430	4.42	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
28	NR	*83,248*	*520,088*	*76,518,310*	*4,531,009*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
29	8.8	83,618	522,678	76,564,175	4,568,588	7.50	0	0	2,074	0.00	0.0	0.0	0	0	0	0	0	0
30	9.0	83,980	525,348	76,603,540	4,606,675	8.50	18,043	0	0	0.00	0.0	0.0	0	0	0	0	0	0
31	9.6	84,337	527,988	76,643,600	4,646,814	8.25	18,007	12,029	3,021	0.00	0.0	0.0	0	0	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	6
Final	23	0
Not Opened	0	6.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	9.77	0	617,692	3,393,638	4,063,206	226,673	0	0	0	0	4,011,330	4,289,879	-278,549

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

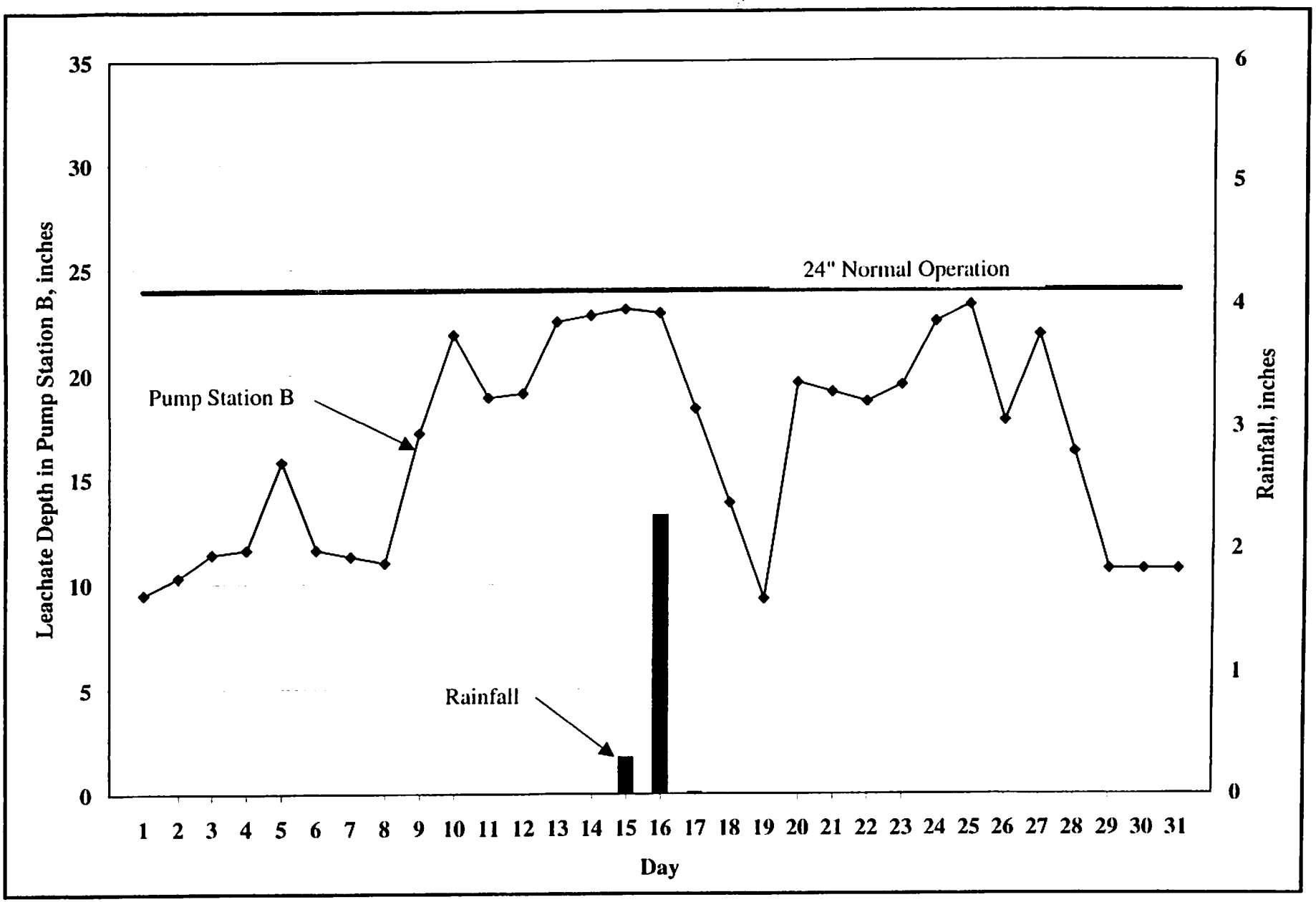

Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2004.

TABLE 1. LEACHATE HAULING SUMMARY
SOUTHEAST COUNTY LANDFILL
YEAR-2004

Date	Leachate Hauled		Effluent Hauled	
	Contractor (gal.)	County (gal.)	Contractor (gal.)	County (gal.)
January	665,717	747,625	0	0
February	497,284	1,099,454	0	0
March	626,293	426,833	0	0
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total	1,789,294	2,273,912	0	0

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LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) March, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1		75430165	1.5	0.5	3,527,050	414,535	65,278	0	0	0	0	0
2		75461120	1.9	1.3	3,561,194	417,311	65,604	0	0	18,122	2,015	
3		75493935	1.9	2.4	3,595,502	422,384	65,944	0	78,171	18,111	2,015	0
4		75525370	1.3	2.6	3,630,200	425,190	66,294	0	18,013	0	2,014	0
5		75560800	1.3	6.8	3,666,611	427,927	66,605	0	48,016	24,056	2,009	0
6		75560800	1.2	2.6	3,704,476	430,658	67,039	0	0	12,023	1,997	0
7		0	0.0	0.0	0	0	0	0	0	0	0	0
8		75665150	2.1	2.0	3,778,530	433,968	67,805	0	30,013	18,055	4,012	0
9		75706710	1.9	8.2	3,812,387	441,200	68,251	0	30,021	24,063	4,015	0
10		75752100	1.8	12.9	3,851,365	443,917	68,671	0	30,529	30,081	4,030	0
11		75788180	1.5	9.9	3,883,484	446,297	69,095	0	30,014	30,057	2,978	0
12		75829640	1.2	10.1	3,916,550	448,717	69,095	0	0	24,023	4,029	0
13		75871850	1.5	13.5	3,951,640	451,088	69,095	0	0	6,005	4,023	0
14		0	0.0	0.0	0	0	0	0	0	0	0	0
15		75954250	2.0	14.1	4,019,476	453,569	70,393	0	24,051	30,017	3,015	0.30
16		76004020	1.9	13.9	4,061,212	456,560	71,129	0	42,019	30,035	0	2.27

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond Graves for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) March, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17		76049440	2.1	*0	4,100,053	459,518	71,884	0	30,011	0	3,024	0.01
18		76103480	2.6	*0	4,180,507	471,188	72,908	0	30,283	24,053	3,012	0
19		76131910	2.4	0.3	4,221,766	477,023	74,180	0	30,011	30,023	2,014	0
20		76165615	2.0	10.6	4,254,846	482,906	75,441	0	30,014	24,023	4,526	0
21		0	0.0	0.0	0	0	0	0	0	0	0	0
22		76254645	2.5	9.7	4,327,757	496,353	78,268	0	30,014	6,007	4,508	0
23		76293730	2.5	10.5	4,361,713	501,863	79,469	0	30,013	30,024	7,525	0
24		76334730	2.1	13.5	4,393,533	506,680	80,667	0	30,007	12,010	5,523	0
25		76377620	1.8	14.3	4,423,319	507,814	81,687	1'8"	30,133	12,023	0	0
26		76424015	1.3	8.8	4,456,978	514,804	82,322	3'2"	18,910	11,993	4,018	0
27		76472445	0.0	12.9	4,493,430	517,498	82,877	4'5"	0	0	0	0
28		0	0.0	0.0	0	0	0	0	0	0	0	0
29		76564175	0.0	8.8	4,568,588	522,678	83,618	7'6"	0	0	2,074	0
30		76603540	0.0	9.0	4,606,675	523,348	83,980	8'6"	18,043	0	0	0
31		76643600	0.0	9.6	4,646,814	527,988	84,337	8'3"	18,007	12,029	3,021	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Pump station- B- bubbler system not working.

Prepared by: Raymond C Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) March,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.00	0.00	0	0	0	0	0	0	0	0		
2	0.00	0.00	0	0	0	0	0	0	0	0		
3	0.00	0.00	0	0	0	0	0	0	0	0		
4	0.00	0.00	0	0	0	0	0	0	0	0		
5	0.00	0.00	0	0	0	0	0	0	0	0		
6	0.00	0.00	0	0	0	0	0	0	0	0		
7	0.00	0.00	0	0	0	0	0	0	0	0		
8	0.00	0.00	0	0	0	0	0	0	0	0		
9	0.00	0.00	0	0	0	0	0	0	0	0		
10	0.00	0.00	0	0	0	0	0	0	0	0		
11	0.00	0.00	0	0	0	0	0	0	0	0		
12	0.00	0.00	0	0	0	0	0	0	0	0		
13	0.00	0.00	0	0	0	0	0	0	0	0		
14	0.00	0.00	0	0	0	0	0	0	0	0		
15	0.00	0.00	0	0	0	0	0	0	0	0		
16	0.00	0.00	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Mott

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) March,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.00		0	0	0	0	0	0	0	0		
18	0.00	0.00	0	0	0	0	0	0	0	0		
19	0.00	0.00	0	0	0	0	0	0	0	0		
20	0.00	0.00	0	0	0	0	0	0	0	0		
21	0.00	0.00	0	0	0	0	0	0	0	0		
22	0.00	0.00	0	0	0	0	0	0	0	0		
23	0.00	0.00	0	0	0	0	0	0	0	0		
24	0.00	0.00	0	0	0	0	0	0	0	0		
25	0.00	0.00	0	0	0	0	0	0	0	0		
26	0.00	0.00	0	0	0	0	0	0	0	0		
27	0.00	0.00	0	0	0	0	0	0	0	0		
28	0.00	0.00	0	0	0	0	0	0	0	0		
29	0.00	0.00	0	0	0	0	0	0	0	0		
30	0.00	0.00	0	0	0	0	0	0	0	0		
31	0.00	0.00	0	0	0	0		0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Tews for Matt

100494

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Edwin J. Hunzeker

July 10, 2003

D.E.P.
JUL 14 2003
Southwest District Tampa

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Ford:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending July 15, 2003.

The data is being submitted as separate monthly reports for April, May and June 2003. The information includes the leachate level in Pump Station B (PSB), which was below the 24-inch normal operation level during the months of April and May. On June 19, 22, 23, and 25 the PS-B was above the normal operation level of 24 inches.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Allen H. Mangum for PVB

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC
Susan J. Pelz, P.E.

D.E.P.
JUL 1 4 2003
Southwest District Tampa

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July 10, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – June 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of June 2003. In addition, the SWMD is providing the June 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for June 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was above the normal operation level of 24 inches on June 19, 22, 23 and 25 due to power outages. The average depth of leachate in PS-B for the recorded days in June 2003 was 21.8 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

for PVB

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0603.dep

Environmental Consultants

3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

July 9, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for June 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for June 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for June (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of June.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 17.01 inches of rainfall at the SCLF in June.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In June, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in June.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was above the normal operation level of 24 inches on June 19, 22, 23, and 25 due to power outtages. The average depth of leachate in the PS-B sump for the recorded days in June was 21.8 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in June was 27,423 gallons. A total of 822,690 gallons was pumped from TPS-6 to PS-B in June.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in June was 53,410 gallons. A total of 1,602,291 gallons of leachate was pumped to the storage tank in June.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In June, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In June, 1,602,291 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in June, based on recorded days, was estimated at 284,600 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in June.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of June, a total of 1,769,463 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In June, 21,082 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In June, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in June.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in June.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In June, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In June, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In June, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for June was 16,800 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in June was 1,602,291 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 1,790,545 gallons. The balance for the month of June decreased by 188,254 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S. van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

Larry E. Ruiz

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Attachments
cc: Matt Matthews

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JUNE 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	NR	16,460	37,537	0	0	37,537	NR	0	0	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	19.1	16,460	37,537	0	0	37,537	322,000	0	36,085	6,039	800	0	0	0	0	0	4,800
3	0.70	0.0	0.0	22.5	0	33,704	0	0	33,704	307,000	0	84,216	3,012	800	0	0	0	0	0	2,400
4	0.27	0.0	0.0	17.5	28,970	43,304	0	0	43,304	269,000	0	84,181	0	800	0	0	0	0	0	0
5	0.40	0.0	0.0	19.1	29,885	39,390	0	0	39,390	240,000	0	54,066	0	800	0	0	0	0	0	0
6	0.45	0.0	0.0	19.0	26,055	38,475	0	0	38,475	214,000	0	66,124	0	800	0	0	0	0	0	0
7	0.57	0.0	0.0	20.8	30,010	37,264	0	0	37,264	204,000	0	0	0	800	0	0	0	0	0	0
8	0.68	0.0	0.0	NR	28,755	39,702	0	0	39,702	NR	0	0	0	800	0	0	0	0	0	0
9	0.70	0.0	0.0	24.6	28,755	39,702	0	0	39,702	278,000	0	66,106	0	800	0	0	0	0	0	0
10	0.00	0.0	0.0	21.1	26,710	43,363	0	0	43,363	266,000	0	60,162	0	800	0	0	0	0	0	2,400
11	0.00	0.0	0.0	20.3	29,240	39,037	0	0	39,037	259,000	0	60,100	3,030	800	0	0	0	0	0	0
12	0.00	0.0	0.0	22.0	31,260	40,871	0	0	40,871	230,000	0	84,353	0	800	0	0	0	0	0	2,400
13	0.00	0.0	0.0	23.6	29,990	38,824	0	0	38,824	206,000	0	0	3,001	800	0	0	0	0	0	2,400
14	0.38	0.0	0.0	26.6	29,930	39,419	0	0	39,419	238,000	0	30,065	3,000	800	0	0	0	0	0	2,400
15	0.00	0.0	0.0	NR	21,110	39,749	0	0	39,749	NR	0	0	0	800	0	0	0	0	0	0
16	0.43	0.0	0.0	17.3	21,110	39,749	0	0	39,749	281,000	0	90,235	0	800	0	0	0	0	0	0
17	0.04	0.0	0.0	17.2	48,380	39,823	0	0	39,823	218,000	0	30,071	3,000	800	0	0	0	0	0	2,400
18	3.37	0.0	0.0	16.2	31,700	43,153	0	0	43,153	240,000	0	30,091	0	800	0	0	0	0	0	0
19	0.52	0.0	0.0	33.9	27,360	36,936	0	0	36,936	252,000	0	2,682	0	800	0	0	0	0	0	0
20	2.37	0.0	0.0	19.7	26,050	82,331	0	0	82,331	338,000	0	102,253	0	800	0	0	0	0	0	0
21	3.58	0.0	0.0	18.8	38,120	89,977	0	0	89,977	336,000	0	99,277	0	800	0	0	0	0	0	0
22	0.95	0.0	0.0	NR	20,015	160,332	0	0	160,332	NR	0	0	0	800	0	0	0	0	0	0
23	0.35	0.0	0.0	33.7	20,015	160,332	0	0	160,332	497,000	0	126,673	0	800	0	0	0	0	0	0
24	0.00	0.0	0.0	17.6	21,130	43,771	0	0	43,771	398,000	0	163,493	0	800	0	0	0	0	0	0
25	0.00	0.0	0.0	33.3	30,090	53,569	0	0	53,569	398,000	0	150,435	0	800	0	0	0	0	0	0
26	0.02	0.0	0.0	17.2	36,130	65,109	0	0	65,109	331,000	0	120,356	0	800	0	0	0	0	0	0
27	0.00	0.0	0.0	23.2	34,550	50,432	0	0	50,432	276,000	0	96,181	0	800	0	0	0	0	0	0
28	1.22	0.0	0.0	22.5	34,960	49,345	0	0	49,345	223,000	0	54,122	0	800	0	0	0	0	0	0
29	0.01	0.0	0.0	NR	29,745	49,779	0	0	49,779	NR	0	0	0	800	0	0	0	0	0	0
30	0.00	0.0	0.0	18.5	29,745	49,779	0	0	49,779	274,000	0	78,134	0	800	0	0	0	0	0	0
Total	17.01				822,690	1,602,291	0	0	1,602,291		0	1,769,463	21,082				0	0	0	16,800
Daily Average		0.0	0.0	21.8	27,423	53,410	0	0	53,410	284,000	0	76,933		800	0	0				
Mo. Average											0	58,982	700				0	0	0	560

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
JUNE 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	NR	0	0	*67,536,600*	*1,621,911*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	10.1	0	0	67,553,060	1,659,447	11.17	36,085	0	6,039	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	13.5	0	0	67,553,060	1,693,151	10.67	78,195	6,021	3,012	0.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	8.5	0	0	67,582,030	1,736,455	9.33	78,165	6,016	0	0.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10.1	0	0	67,611,915	1,775,845	8.33	54,066	0	0	0.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	10.0	0	0	67,637,970	1,814,320	7.42	60,112	6,012	0	0.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	11.8	0	0	67,667,980	1,851,584	7.08	0	0	0	0.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	NR	0	0	*67,696,735*	*1,891,286*	NR	0	0	0	0.68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	15.6	0	0	67,725,490	1,930,987	9.67	60,090	6,018	0	0.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	12.1	0	0	67,752,200	1,974,350	9.25	54,144	6,018	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	11.3	0	0	67,781,440	2,013,387	9.00	54,084	6,016	3,030	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	13.0	0	0	67,812,700	2,054,258	8.00	78,339	6,014	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	14.6	0	0	67,842,690	2,093,082	7.17	0	0	3,001	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	17.6	0	0	67,872,620	2,132,501	8.25	30,065	0	3,000	0.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	NR	0	0	*67,893,730*	*2,172,250*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	8.3	0	0	67,914,840	2,211,998	9.75	84,214	6,021	0	0.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	8.2	0	0	67,963,220	2,251,821	8.25	24,054	6,017	3,000	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	7.2	0	0	67,994,920	2,294,974	8.33	30,091	0	0	3.37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	24.9	0	0	68,022,280	2,331,910	8.75	2,682	0	0	0.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	10.7	0	0	68,048,330	2,414,241	11.75	96,236	6,017	0	2.37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	9.8	0	0	68,086,450	2,504,218	11.67	99,277	0	0.	3.58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	NR	0	0	*68,106,465*	*2,664,550*	NR	0	0	0	0.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	24.7	0	0	68,126,480	2,824,882	17.25	114,541	12,132	0	0.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	8.6	0	0	68,147,610	2,868,653	17.67	132,822	30,671	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	24.3	0	0	68,177,700	2,922,222	13.83	120,285	30,150	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	8.2	0	0	68,213,830	2,987,331	11.50	96,286	24,070	0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	14.2	0	0	68,248,380	3,037,763	9.58	72,126	24,055	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	13.5	0	0	68,283,340	3,087,108	7.75	30,060	24,062	0	1.22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	NR	0	0	*68,313,085*	*3,136,887*	NR	0	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	9.5	0	0	68,342,830	3,186,665	9.50	78,134	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May	3.13	0	0	1,280,930	1,233,501	120,688	0	0	0	0	1,280,930	1,354,189	-73,259
June	17.01	0	0	1,602,291	1,769,463	21,082	0	0	0	0	1,602,291	1,790,545	-188,254
July													
August													
September													
October													
November													
December													
YTD Total	28.93	0	0	9,162,875	9,656,977	496,549	0	0	0	0	9,162,875	10,153,526	-990,651

f:\project\Hillsborough\09200020.23\leachate Balance\2003\2003summary.xls (Revised to include Section 7 SCVD 2-10-03)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

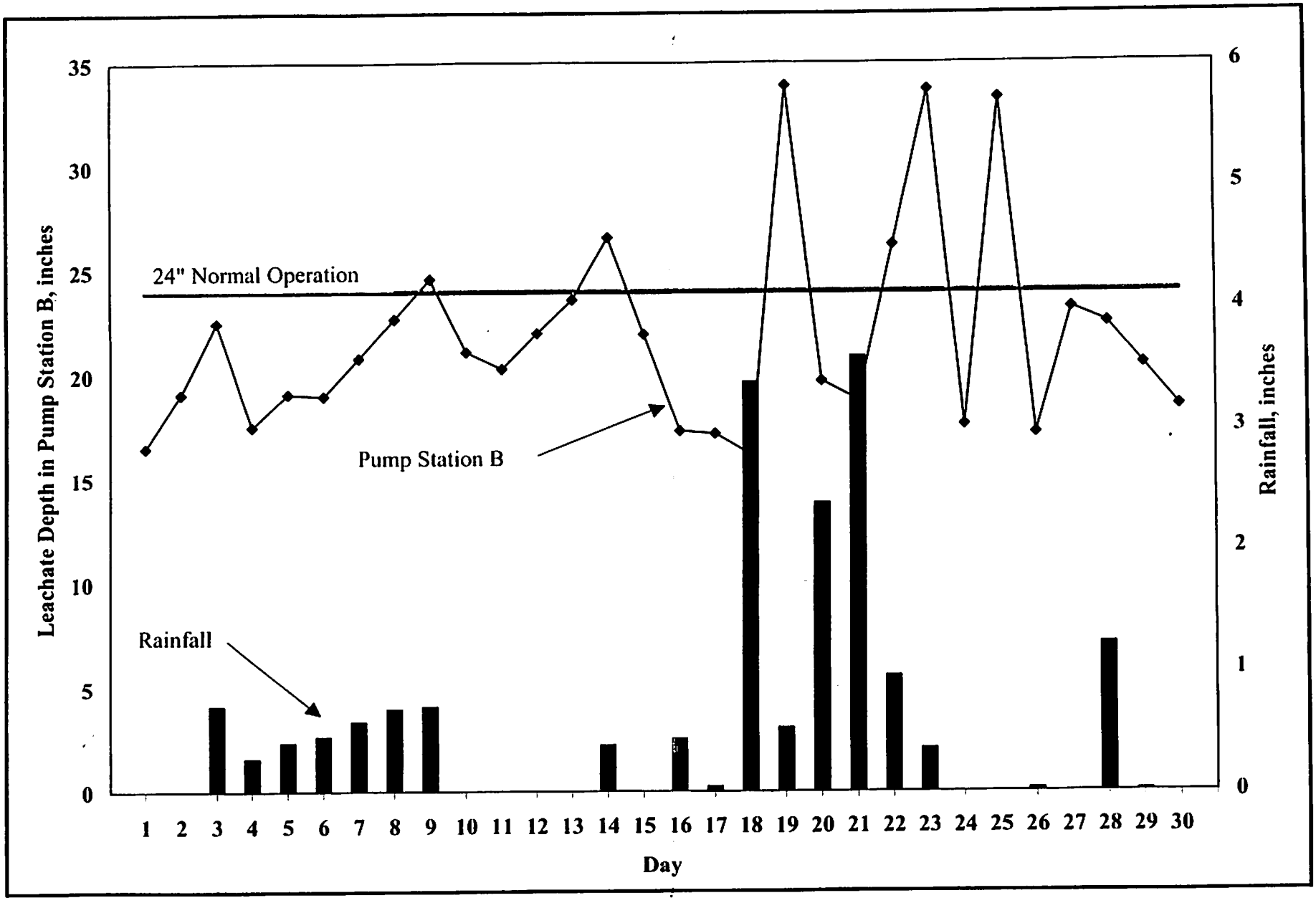

Figure 1. Leachate Levels in Pump Station B and Rainfall for June 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0	0	0	0	0	0	0	0
2		0	10.1	1,659,447	11'2"	36,085	0	6,039	0
3		0	13.5	1,693,151	10'8"	78,195	6,021	3,012	0.70
4		0	8.5	1,736,455	9'4"	78,165	6,016	0	0.27
5		- 0	10.1	1,775,845	8'4"	54,066	0	0	0.40
6		0	10.0	1,814,320	7'5"	60,112	6,012	0	0.45
7		0	11.2	1,851,584	7'1"	0	0	0	0.57
8		0	0	0	0	0	0	0	0.68
9		0	15.6	1,930,987	9'8"	60,090	6,018	0	0.70
10		0	12.1	1,974,350	9'3"	54,144	6,018	0	0
11		0	11.3	2,013,387	9'0"	54,084	6,016	3,030	0
12		0	13.0	2,054,258	8'0"	78,339	6,014	0	0
13		0	*23.6	2,093,082	7'2"	0	0	3,001	0
14		0	8.6	2,132,501	8'3"	30,065	0	3,000	0.38
15		0	0	0	0	0	0	0	0
16		0	8.3	2,211,998	9'9"	84,214	6,021	0	0.43

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *See Daily Field Data Entry Form.

Prepared by: Raymond C. Haver for Matt

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) June,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0	8.2	2,251,721	8'3"	24,054	6,017	3,000	0.04
18		0	7.2	2,294,974	8'4"	30,091	0	0	3.37
19		0	*24.9	2,331,910	8'9"	2,682	0	0	0.52
20		0	19.7	2,414,241	11'9"	96,236	6,017	0	2.37
21		0	9.8	2,504,218	11'8"	99,277	0	0	3.58
22		0	0	0	0	0	0	0	0.95
23		0	*24.7	2,724,882	17'3"	114,541	12,132	0	0.35
24		0	8.6	2,862,653	17'8"	132,822	30,671	0	0
25		0	*24.3	2,922,222	13'10"	120,285	30,150	0	0
26		0	8.2	2,987,331	11'6"	96,286	24,070	0	0.02
27		0	14.2	3,037,763	9'7"	72,126	24,055	0	0
28		0	13.5	3,087,107	7'9"	30,060	24,062	0	1.22
29		0	0	0	0	0	0	0	0.01
30		0	9.5	3,186,665	9'6"	78,134	0	0	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *See Daily Field Data Entry Form.

Prepared by: Raymond C Graves for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL

(Month/Year) June 2003

Action	Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	0	X	X	X	X	X	X	0	X	X	X	X		X	0	X
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.													X			
575,000 Gallon Tank at LTRF																
Normal Operation.	0		X	X	X	X	X	0	X	X	X	X	X	X	0	X
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.		X														
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken.																
Runoff Type 1=Severe, 2= Moderate, 3= Minor / To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond Graver for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) June,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X		X	X	0		X		X	X	X	0	X		
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.			X				X		X							
575,000 Gallon Tank at LTRF																
Normal Operation.						0							0			
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.																
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond Shaver for Matt

leachfrm.xls
Revised 04/23/01

100494

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SOUTHWEST DISTRICT
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Assistant County Administrators
Bernardo Garcia
Carl S. Harness

April 14, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Ford:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending April 15, 2004.

The data is being submitted as separate monthly reports for January, February and March 2004. The information includes the leachate level in Pump Station B (PSB). The level was below the 24-inch normal operation level during this quarter except for one day in the month of January 2004 due to a power outage.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC
Susan J. Pelz, P.E.

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April 14, 2004

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
APR 16 2004
SOUTHWEST DISTRICT
TAMPA

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –March 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of March 2004. In addition, the SWMD is providing the March 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for March 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches. The average depth of leachate in PS-B for the recorded days in March 2004 was 17.4 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0304.dep

Environmental Consultants

3012 U.S. Highway 301 N.
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

March 9, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for February 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for February 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for February (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of February.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.09 inches of rainfall at the SCLF in February.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In February, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. Beginning on February 14, Pond B was used for temporary storage of leachate prior to transport while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, the average depth of temporary leachate storage in Pond B was 1.0 foot.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In February, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in February was 18.8 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in February was 23,856 gallons. A total of 691,838 gallons was pumped from TPS-6 to PS-B in February.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Beginning February 16, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was empty for inspection and maintenance. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in February was 36,308 gallons. A total of 1,052,923 gallons of leachate was pumped to the storage tank or through Pond B in February.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. In February, a total of 7,014 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In February, 244,951 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In February, a total of 1,297,874 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in February, based on recorded days, was estimated at 178,300 gallons. Beginning February 14, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was emptied for inspection and maintenance.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is being prepared for its three-year inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In February, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of February, a total of 1,596,738 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In February, 27,350 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in February is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In February, no effluent was stored in Pond B for evaporation. However, beginning on February 14, Pond B was used for temporary storage of leachate while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, a total of 1,285,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in February.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In February, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In February, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In February, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for February was 21,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in February was 1,297,874 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,624,088 gallons. The balance for the month of February decreased by 326,214 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.04	0.0	0.0	NR	19,950	39,648	393	27,382	67,030	NR	0	0	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	21.2	19,950	39,647	392	27,382	67,029	530,000	0	72,321	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	16.7	21,790	31,735	645	22,654	54,389	506,000	0	72,193	0	800	0	0	0	0	0	0
4	0.00	0.0	0.0	20.5	26,150	33,982	418	12,154	46,336	487,000	0	60,195	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	21.3	24,120	30,364	303	10,862	41,226	473,000	0	84,285	2,018	800	0	0	0	0	0	1,600
6	0.00	0.0	0.0	18.8	27,640	36,627	273	6,503	43,130	413,000	0	132,317	0	800	0	0	0	0	0	0
7	0.00	0.0	0.0	21.9	28,760	39,300	194	5,547	44,847	365,000	0	54,119	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	NR	10,230	28,310	192	2,682	30,991	NR	0	0	0	800	0	0	0	0	0	0
9	0.00	0.0	0.0	16.6	10,230	28,310	192	2,682	30,991	365,000	0	48,324	2,044	800	0	0	0	0	0	1,600
10	0.00	0.0	0.0	20.6	26,500	36,476	187	2,855	39,331	348,000	0	96,239	2,004	800	0	0	0	0	0	1,600
11	0.00	0.0	0.0	20.8	27,970	39,939	131	2,887	42,826	295,000	0	84,181	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	21.1	27,390	40,920	91	2,784	43,704	261,000	0	72,137	2,012	800	0	0	0	0	0	1,600
13	0.00	0.0	0.0	19.5	25,240	38,741	70	2,878	41,619	230,000	0	66,191	3,023	800	0	0	0	0	0	2,400
14	0.70	0.0	1.2	17.5	27,298	38,054	59	7,297	45,351	170,000	0	60,119	2,008	800	28,000	0	0	0	0	1,600
15	0.00	0.0	0.0	NR	19,041	38,094	137	7,298	45,392	NR	0	0	0	800	0	0	0	0	0	0
16	0.00	0.0	2.4	22.0	19,041	38,094	137	7,298	45,392	113,000	0	54,174	2,012	800	115,000	0	0	0	0	1,600
17	0.00	0.0	2.3	20.2	4,445	28,344	180	2,743	31,087	79,000	0	64,427	4,027	800	106,000	0	0	0	0	3,200
18	0.00	0.0	2.4	18.4	17,715	31,580	135	2,821	34,401	0	0	35,861	2,000	800	115,000	0	0	0	0	1,600
19	0.00	0.0	2.4	16.2	26,330	31,714	115	31,726	63,440	0	0	66,550	0	800	115,000	0	0	0	0	0
20	0.00	0.0	2.1	16.5	31,570	39,186	145	2,926	42,112	0	0	54,810	2,021	800	88,000	0	0	0	0	1,600
21	0.00	0.0	2.0	20.6	31,500	41,079	166	2,663	43,742	0	0	60,187	2,169	800	80,000	0	0	0	0	1,700
22	0.00	0.0	0.0	NR	26,113	38,825	191	1,283	40,108	0	0	0	0	800	0	0	0	0	0	0
23	0.00	0.0	2.2	20.6	26,113	38,825	191	1,283	40,108	0	0	36,107	0	800	97,000	0	0	0	0	0
24	2.23	0.0	2.3	14.2	29,865	39,235	244	2,545	41,780	0	0	54,316	2,012	800	106,000	0	0	0	0	1,600
25	0.02	0.0	2.6	20.3	33,800	46,852	162	6,737	53,589	0	0	48,578	0	800	133,000	0	0	0	0	0
26	0.10	0.0	2.8	21.7	26,340	42,243	593	27,475	69,718	0	0	96,380	0	800	152,000	0	0	0	0	0
27	0.00	0.0	2.3	11.7	25,340	25,836	486	2,339	28,175	0	0	72,447	0	800	106,000	0	0	0	0	0
28	0.00	0.0	1.5	11.8	22,820	38,850	330	5,037	43,887	0	0	50,280	0	800	44,000	0	0	0	0	0
29	0.00	0.0	0.0	NR	28,588	32,115	263	4,030	36,145	0	0	0	0	800	0	0	0	0	0	0
Total	3.09				691,838	1,052,923	7,014	244,951	1,297,874		0	1,596,738	27,350		1,285,000		0	0	0	21,700
Daily Average		0.0	1.0	18.8	23,856	36,308	242	8,447	44,754	178,300				800	0	0				
Mo. Average													900				0	0	0	750

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Notes
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent Sprayed	Leachate Treated	Effluent Irrigation	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	(Pond B) (gal)	at LTRF (gal.)	(gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	NR	*58,393*	*221,798*	*74,729,690*	*2,481,661*	NR	0	0	0	0.04	0.0	0.0	0	0	0	0	0	0
2	12.2	58,785	249,180	74,749,640	2,521,308	18.42	42,154	30,167	0	0.00	0.0	0.0	0	0	0	0	0	0
3	7.7	59,430	271,834	74,771,430	2,553,043	17.58	42,080	30,113	0	0.00	0.0	0.0	0	0	0	0	0	0
4	11.5	59,848	284,188	74,797,580	2,587,025	16.92	30,082	30,113	0	0.00	0.0	0.0	0	0	0	0	0	0
5	12.3	60,151	295,050	74,821,700	2,617,389	16.42	24,034	60,251	2,018	0.00	0.0	0.0	0	0	0	0	0	0
6	9.8	60,424	301,553	74,849,340	2,654,016	14.33	72,140	60,177	0	0.00	0.0	0.0	0	0	0	0	0	0
7	12.9	60,618	307,100	74,878,100	2,693,316	12.67	0	54,119	0	0.00	0.0	0.0	0	0	0	0	0	0
8	NR	*60,810*	*309,782*	*74,888,330*	*2,721,626*	NR	0	0	0		0.0	0.0	0	0	0	0	0	0
9	7.6	61,002	312,463	74,898,560	2,749,935	12.67	0	48,324	2,044	0.00	0.0	0.0	0	0	0	0	0	0
10	11.6	61,189	315,318	74,925,060	2,786,411	12.08	36,074	60,165	2,004	0.00	0.0	0.0	0	0	0	0	0	0
11	11.8	61,320	318,205	74,953,030	2,826,350	10.25	30,039	54,142	0	0.00	0.0	0.0	0	0	0	0	0	0
12	12.1	61,411	320,989	74,980,420	2,867,270	9.08	24,046	48,091	2,012	0.00	0.0	0.0	0	0	0	0	0	0
13	10.5	61,481	323,867	75,005,660	2,906,011	8.00	12,007	54,184	3,023	0.00	0.0	0.0	0	0	0	0	0	0
14	8.5	61,540	*331,164*	75,032,958	2,944,065	5.92	24,046	36,073	2,008	0.70	0.0	1.2	0	0	0	0	0	0
15	NR	*61,677*	*338,462*	*75,051,999*	*2,982,159*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
16	13.0	61,813	345,759	75,071,040	3,020,253	3.92	6,010	48,164	2,012	0.00	0.0	2.4	0	0	0	0	0	0
17	11.2	61,993	348,502	75,075,485	3,048,597	2.75	16,237	48,190	4,027	0.00	0.0	2.3	0	0	0	0	0	0
18	9.4	62,128	351,323	75,093,200	3,080,177	0.00	0	35,861	2,000	0.00	0.0	2.4	0	0	0	0	0	0
19	7.2	62,243	354,188	75,119,530	3,111,891	0.00	6,013	60,537	0	0.00	0.0	2.4	0	0	0	0	0	0
20	7.5	62,388	357,114	75,151,100	3,151,077	0.00	0	54,810	2,021	0.00	0.0	2.1	0	0	0	0	0	0
21	11.6	62,554	359,777	75,182,600	3,192,156	0.00	0	60,187	2,169	0.00	0.0	2.0	0	0	0	0	0	0
22	NR	*62,745*	*361,060*	*75,208,713*	*3,230,981*	0.00	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
23	11.6	62,936	362,343	75,234,825	3,269,805	0.00	0	36,107	0	0.00	0.0	2.2	0	0	0	0	0	0
24	5.2	63,180	364,888	75,264,690	3,309,040	0.00	0	54,316	2,012	2.23	0.0	2.3	0	0	0	0	0	0
25	11.3	63,342	371,625	75,298,490	3,355,892	0.00	0	48,578	0	0.02	0.0	2.6	0	0	0	0	0	0
26	12.7	63,935	399,100	75,324,830	3,398,135	0.00	78,227	18,153	0	0.10	0.0	2.8	0	0	0	0	0	0
27	2.7	64,421	401,439	75,350,170	3,423,971	0.00	42,071	30,376	0	0.00	0.0	2.3	0	0	0	0	0	0
28	2.8	64,751	406,476	75,372,990	3,462,821	0.00	12,024	38,256	0	0.00	0.0	1.5	0	0	0	0	0	0
29	NR	*65,014*	*410,506*	*75,401,578*	*3,494,936*	0.00	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	1	7
Intermediate	138.4	0
Final	23	0
Not Opened	0	5.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	7.19	0	500,210	2,241,760	3,010,080	151,276	0	0	0	0	2,741,970	3,161,356	-419,386

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

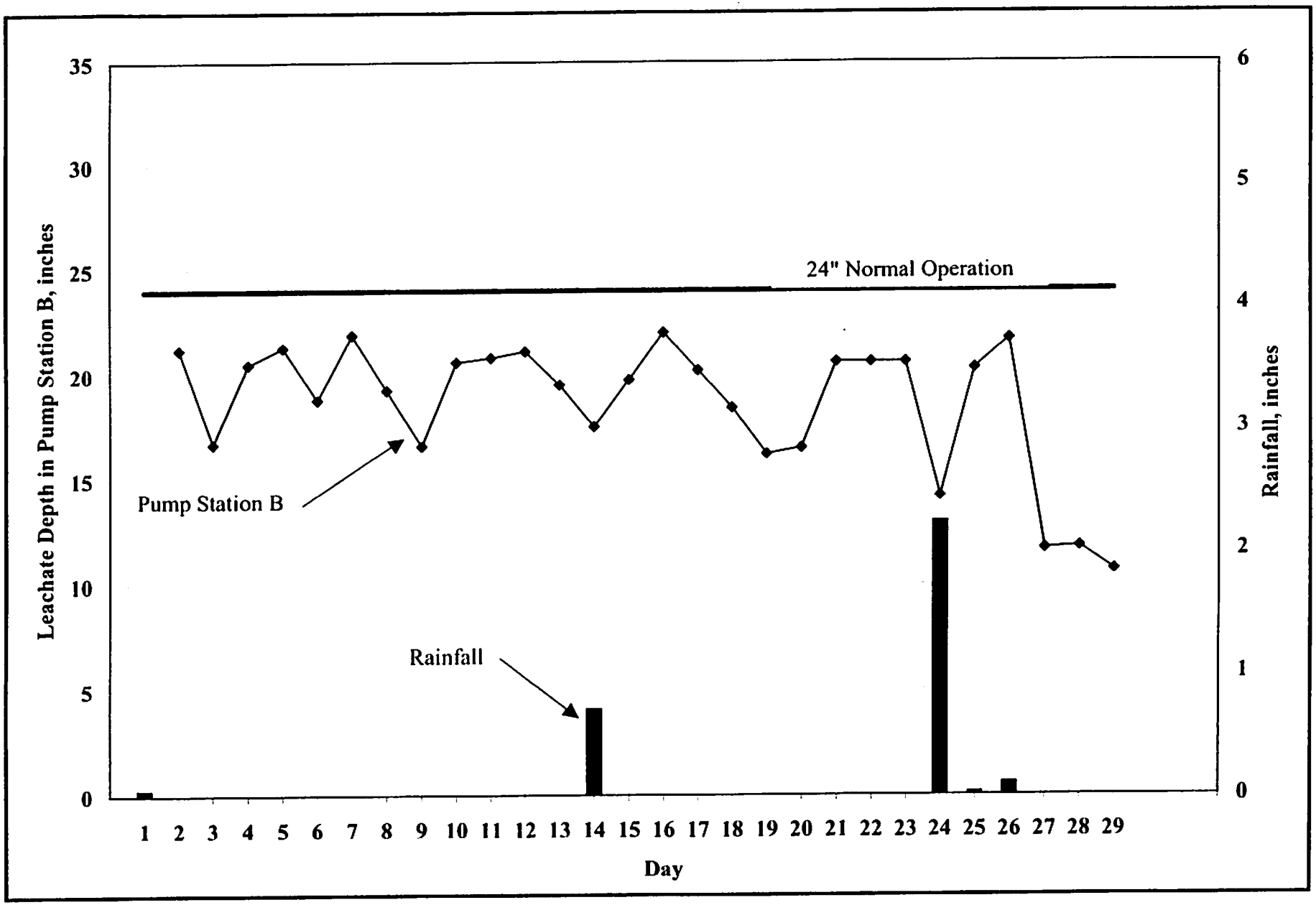

Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1		0	0.0	0.0	0	0	0	0	0	0	0	0.10
2		74749640	0.0	12.2	2,521,308	249,180	58,785	18'5"	42,154	30,167	0	0
3		74771430	0.0	7.7	2,553,043	271,834	59,430	17'7"	42,080	30,113	0	0
4		74797580	0.0	11.5	2,587,025	284,188	59,848	16'11"	30,082	30,113	0	0
5		74821700	0.0	12.3	2,617,389	295,050	60,151	16'5"	24,034	60,251	2,018	0
6		74849340	0.0	9.8	2,654,016	301,553	60,424	14'4"	72,140	60,177	0	0
7		74878100	0.0	12.9	2,693,316	307,100	60,618	12'8"	0	54,119	0	0
8		0	0.0	0.0	0	0	0	0	0	0	0	0
9		74898560	0.0	7.6	2,749,935	312,463	61,002	12'8"	0	48,324	2,044	0
10		74925060	0.0	11.6	2,786,411	315,318	61,189	12'1"	36,074	60,165	2,004	0
11		74953030	0.0	11.8	2,826,350	318,205	61,320	10'3"	30,039	54,142	0	0
12		74980420	0.0	12.1	2,867,270	328,989	61,411	9'1"	24,046	48,091	2,012	0
13		75005660	0.0	10.5	2,906,011	323,867	61,481	8'0"	12,007	54,184	3,023	0
14		75032958	1.2	8.5	2,944,065	326,361	61,540	5'11"	24,046	36,073	2,008	0.70
15		0	0.0	0.0	0	0	0	0	0	0	0	0
16		75071040	2.4	13.0	3,020,253	345,759	61,813	3'11"	6,010	48,164	2,012	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Tyree for Matt

Revised Jan. 16, 2004

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LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17		75075485	2.3	11.2	3,048,597	348,502	61,993	2'9"	16,237	48,190	4,027	0
18		75093200	2.4	9.4	3,080,177	351,323	62,128	*0	0	35,861	2,000	0
19		75119530	2.4	7.2	3,111,891	354,188	62,243	0	6,013	60,537	0	0
20		75151100	2.1	7.6	3,151,077	357,114	62,388	0	0	54,810	2,021	0
21		75182600	2.0	11.6	3,192,156	359,777	62,554	0	0	60,187	2,169	0
22		0	0.0	0.0	0	0	0	0	0	0	0	0
23		75234825	2.2	11.6	3,269,805	362,343	62,936	0	0	36,107	0	0
24		75264690	2.3	5.2	3,309,040	364,888	63,180	0	0	54,316	2,012	2.23
25		75298490	2.6	11.3	3,355,892	371,625	63,342	0	0	48,578	0	0.02
26		75324830	2.8	12.7	3,398,135	399,100	63,935	0	78,227	18,153	0	0.10
27		75350170	2.3	2.7	3,432,971	401,439	64,421	0	42,071	30,376	0	0
28		75372990	1.5	2.8	3,462,821	406,476	64,751	0	12,024	38,256	0	0
29		0	0.0	0.0	0	0	0	0	0	0	0	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *575k G.S.T. Empty for maintance,2/18/04.

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0	0	0	0	0	0		
2	0.0	0.0	0	0	0	0	0	0	0	0		
3	0.0	0.0	0	0	0	0	0	0	0	0		
4	0.0	0.0	0	0	0	0	0	0	0	0		
5	0.0	0.0	0	0	0	0	0	0	0	0		
6	0.0	0.0	0	0	0	0	0	0	0	0		
7	0.0	0.0	0	0	0	0	0	0	0	0		
8	0.0	0.0	0	0	0	0	0	0	0	0		
9	0.0	0.0	0	0	0	0	0	0	0	0		
10	0.0	0.0	0	0	0	0	0	0	0	0		
11	0.0	0.0	0	0	0	0	0	0	0	0		
12	0.0	0.0	0	0	0	0	0	0	0	0		
13	0.0	0.0	0	0	0	0	0	0	0	0		
14	0.0	0.0	0	0	0	0	0	0	0	0		
15	0.0	0.0	0	0	0	0	0	0	0	0		
16	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graver for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.0	0.0	0	0	0	0	0	0	0	0		
18	0.0	0.0	0	0	0	0	0	0	0	0		
19	0.0	0.0	0	0	0	0	0	0	0	0		
20	0.0	0.0	0	0	0	0	0	0	0	0		
21	0.0	0.0	0	0	0	0	0	0	0	0		
22	0.0	0.0	0	0	0	0	0	0	0	0		
23	0.0	0.0	0	0	0	0	0	0	0	0		
24	0.0	0.0	0	0	0	0	0	0	0	0		
25	0.0	0.0	0	0	0	0	0	0	0	0		
26	0.0	0.0	0	0	0	0	0	0	0	0		
27	0.0	0.0	0	0	0	0	0	0	0	0		
28	0.0	0.0	0	0	0	0	0	0	0	0		
29	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

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BY SOUTHWEST DISTRICT

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Kathy Castor
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Ken Hagan
Jim Norman
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Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

Assistant County Administrators
Bernardo Garcia
Carl S. Harness

March 15, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –February 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of February 2004. In addition, the SWMD is providing the February 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for February 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches. The average depth of leachate in PS-B for the recorded days in February 2004 was 18.8 inches, which is below of the 24-inch normal operation level.

Environmental Consultants

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SCS ENGINEERS

March 9, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for February 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for February 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for February (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of February.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.09 inches of rainfall at the SCLF in February.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In February, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. Beginning on February 14, Pond B was used for temporary storage of leachate prior to transport while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, the average depth of temporary leachate storage in Pond B was 1.0 foot.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In February, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in February was 18.8 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in February was 23,856 gallons. A total of 691,838 gallons was pumped from TPS-6 to PS-B in February.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Beginning February 16, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was empty for inspection and maintenance. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in February was 36,308 gallons. A total of 1,052,923 gallons of leachate was pumped to the storage tank or through Pond B in February.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. In February, a total of 7,014 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In February, 244,951 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In February, a total of 1,297,874 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in February, based on recorded days, was estimated at 178,300 gallons. Beginning February 14, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000 gallon tank was emptied for inspection and maintenance.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is being prepared for its three-year inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In February, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of February, a total of 1,596,738 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In February, 27,350 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in February is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In February, no effluent was stored in Pond B for evaporation. However, beginning on February 14, Pond B was used for temporary storage of leachate while the 575,000 gallon tank was emptied for inspection and maintenance. Between February 14 –29, a total of 1,285,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in February.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In February, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In February, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In February, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for February was 21,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in February was 1,297,874 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,624,088 gallons. The balance for the month of February decreased by 326,214 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.04	0.0	0.0	NR	19,950	39,648	393	27,382	67,030	NR	0	0	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	21.2	19,950	39,647	392	27,382	67,029	530,000	0	72,321	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	16.7	21,790	31,735	645	22,654	54,389	506,000	0	72,193	0	800	0	0	0	0	0	0
4	0.00	0.0	0.0	20.5	26,150	33,982	418	12,354	46,336	487,000	0	60,195	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	21.3	24,120	30,364	303	10,862	41,226	473,000	0	84,285	2,018	800	0	0	0	0	0	1,600
6	0.00	0.0	0.0	18.8	27,640	36,627	273	6,503	43,130	413,000	0	132,317	0	800	0	0	0	0	0	0
7	0.00	0.0	0.0	21.9	28,760	39,300	194	5,547	44,847	365,000	0	54,119	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	NR	10,230	28,310	192	2,682	30,991	NR	0	0	0	800	0	0	0	0	0	0
9	0.00	0.0	0.0	16.6	10,230	28,310	192	2,682	30,991	365,000	0	48,324	2,044	800	0	0	0	0	0	1,600
10	0.00	0.0	0.0	20.6	26,500	36,476	187	2,855	39,331	348,000	0	96,239	2,004	800	0	0	0	0	0	1,600
11	0.00	0.0	0.0	20.8	27,970	39,939	131	2,887	42,826	295,000	0	84,181	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	21.1	27,390	40,920	91	2,784	43,704	261,000	0	72,137	2,012	800	0	0	0	0	0	1,600
13	0.00	0.0	0.0	19.5	25,240	38,741	70	2,878	41,619	230,000	0	66,191	3,023	800	0	0	0	0	0	2,400
14	0.70	0.0	1.2	17.5	27,298	38,054	59	7,297	45,351	170,000	0	60,119	2,008	800	28,000	0	0	0	0	1,600
15	0.00	0.0	0.0	NR	19,041	38,094	137	7,298	45,392	NR	0	0	0	800	0	0	0	0	0	0
16	0.00	0.0	2.4	22.0	19,041	38,094	137	7,298	45,392	113,000	0	54,174	2,012	800	115,000	0	0	0	0	1,600
17	0.00	0.0	2.3	20.2	4,445	28,344	180	2,743	31,087	79,000	0	64,427	4,027	800	106,000	0	0	0	0	3,200
18	0.00	0.0	2.4	18.4	17,715	31,580	135	2,821	34,401	0	0	35,861	2,000	800	115,000	0	0	0	0	1,600
19	0.00	0.0	2.4	16.2	26,330	31,714	115	31,726	63,440	0	0	66,550	0	800	115,000	0	0	0	0	0
20	0.00	0.0	2.1	16.5	31,570	39,186	145	2,926	42,112	0	0	54,810	2,021	800	88,000	0	0	0	0	1,600
21	0.00	0.0	2.0	20.6	31,500	41,079	166	2,663	43,742	0	0	60,187	2,169	800	80,000	0	0	0	0	1,700
22	0.00	0.0	0.0	NR	26,113	38,825	191	1,283	40,108	0	0	0	0	800	0	0	0	0	0	0
23	0.00	0.0	2.2	20.6	26,113	38,825	191	1,283	40,108	0	0	36,107	0	800	97,000	0	0	0	0	0
24	2.23	0.0	2.3	14.2	29,865	39,235	244	2,545	41,780	0	0	54,316	2,012	800	106,000	0	0	0	0	1,600
25	0.02	0.0	2.6	20.3	33,800	46,852	162	6,737	53,589	0	0	48,578	0	800	133,000	0	0	0	0	0
26	0.10	0.0	2.8	21.7	26,340	42,243	593	27,475	69,718	0	0	96,380	0	800	152,000	0	0	0	0	0
27	0.00	0.0	2.3	11.7	25,340	25,836	486	2,339	28,175	0	0	72,447	0	800	106,000	0	0	0	0	0
28	0.00	0.0	1.5	11.8	22,820	38,850	330	5,037	43,887	0	0	50,280	0	800	44,000	0	0	0	0	0
29	0.00	0.0	0.0	NR	28,588	32,115	263	4,030	36,145	0	0	0	0	800	0	0	0	0	0	0
Total	3.09				691,838	1,052,923	7,014	244,951	1,297,874		0	1,596,738	27,350		1,285,000		0	0	0	21,700
Daily Average		0.0	1.0	18.8	23,856	36,308	242	8,447	44,754	178,300				800	0	0				
Mo. Average													900				0	0	0	750

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Notes

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
FEBRUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent Sprayed	Leachate Treated	Effluent Irrigation	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	(Pond B) (gal)	at LTRF (gal.)	(gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	NR	***58,393***	***221,798***	***74,729,690***	***2,481,661***	NR	**0**	**0**	**0**	0.04	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
2	12.2	58,785	249,180	74,749,640	2,521,308	18.42	42,154	30,167	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
3	7.7	59,430	271,834	74,771,430	2,553,043	17.58	42,080	30,113	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
4	11.5	59,848	284,188	74,797,580	2,587,025	16.92	30,082	30,113	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
5	12.3	60,151	295,050	74,821,700	2,617,389	16.42	24,034	60,251	2,018	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
6	9.8	60,424	301,553	74,849,340	2,654,016	14.33	72,140	60,177	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
7	12.9	60,618	307,100	74,878,100	2,693,316	12.67	**0**	54,119	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
8	NR	***60,810***	***309,782***	***74,888,330***	***2,721,626***	NR	**0**	**0**	**0**		0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
9	7.6	61,002	312,463	74,898,560	2,749,935	12.67	**0**	48,324	2,044	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
10	11.6	61,189	315,318	74,925,060	2,786,411	12.08	36,074	60,165	2,004	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
11	11.8	61,320	318,205	74,953,030	2,826,350	10.25	30,039	54,142	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
12	12.1	61,411	320,989	74,980,420	2,867,270	9.08	24,046	48,091	2,012	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
13	10.5	61,481	323,867	75,005,660	2,906,011	8.00	12,007	54,184	3,023	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
14	8.5	61,540	***331,164***	75,032,958	2,944,065	5.92	24,046	36,073	2,008	0.70	0.0	1.2	**0**	**0**	**0**	**0**	**0**	**0**
15	NR	***61,677***	***338,462***	***75,051,999***	***2,982,159***	NR	**0**	**0**	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
16	13.0	61,813	345,759	75,071,040	3,020,253	3.92	6,010	48,164	2,012	0.00	0.0	2.4	**0**	**0**	**0**	**0**	**0**	**0**
17	11.2	61,993	348,502	75,075,485	3,048,597	2.75	16,237	48,190	4,027	0.00	0.0	2.3	**0**	**0**	**0**	**0**	**0**	**0**
18	9.4	62,128	351,323	75,093,200	3,080,177	0.00	**0**	35,861	2,000	0.00	0.0	2.4	**0**	**0**	**0**	**0**	**0**	**0**
19	7.2	62,243	354,188	75,119,530	3,111,891	0.00	6,013	60,537	**0**	0.00	0.0	2.4	**0**	**0**	**0**	**0**	**0**	**0**
20	7.5	62,388	357,114	75,151,100	3,151,077	0.00	**0**	54,810	2,021	0.00	0.0	2.1	**0**	**0**	**0**	**0**	**0**	**0**
21	11.6	62,554	359,777	75,182,600	3,192,156	0.00	**0**	60,187	2,169	0.00	0.0	2.0	**0**	**0**	**0**	**0**	**0**	**0**
22	NR	***62,745***	***361,060***	***75,208,713***	***3,230,981***	0.00	**0**	**0**	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**
23	11.6	62,936	362,343	75,234,825	3,269,805	0.00	**0**	36,107	**0**	0.00	0.0	2.2	**0**	**0**	**0**	**0**	**0**	**0**
24	5.2	63,180	364,888	75,264,690	3,309,040	0.00	**0**	54,316	2,012	2.23	0.0	2.3	**0**	**0**	**0**	**0**	**0**	**0**
25	11.3	63,342	371,625	75,298,490	3,355,892	0.00	**0**	48,578	**0**	0.02	0.0	2.6	**0**	**0**	**0**	**0**	**0**	**0**
26	12.7	63,935	399,100	75,324,830	3,398,135	0.00	78,227	18,153	**0**	0.10	0.0	2.8	**0**	**0**	**0**	**0**	**0**	**0**
27	2.7	64,421	401,439	75,350,170	3,423,971	0.00	42,071	30,376	**0**	0.00	0.0	2.3	**0**	**0**	**0**	**0**	**0**	**0**
28	2.8	64,751	406,476	75,372,990	3,462,821	0.00	12,024	38,256	**0**	0.00	0.0	1.5	**0**	**0**	**0**	**0**	**0**	**0**
29	NR	***65,014***	***410,506***	***75,401,578***	***3,494,936***	0.00	**0**	**0**	**0**	0.00	0.0	0.0	**0**	**0**	**0**	**0**	**0**	**0**

f:\project\hillsbor\09200020.24\LeachateBalance\2004\02-04.xls (Revised by scv 3/8/04)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	1	7
Intermediate	138.4	0
Final	23	0
Not Opened	0	5.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	7.19	0	500,210	2,241,760	3,010,080	151,276	0	0	0	0	2,741,970	3,161,356	-419,386

f:\project\Hillsborough\09200020.24\Leachate Balance\2004\2004summary.xls (Revised by scv 3/08/04)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

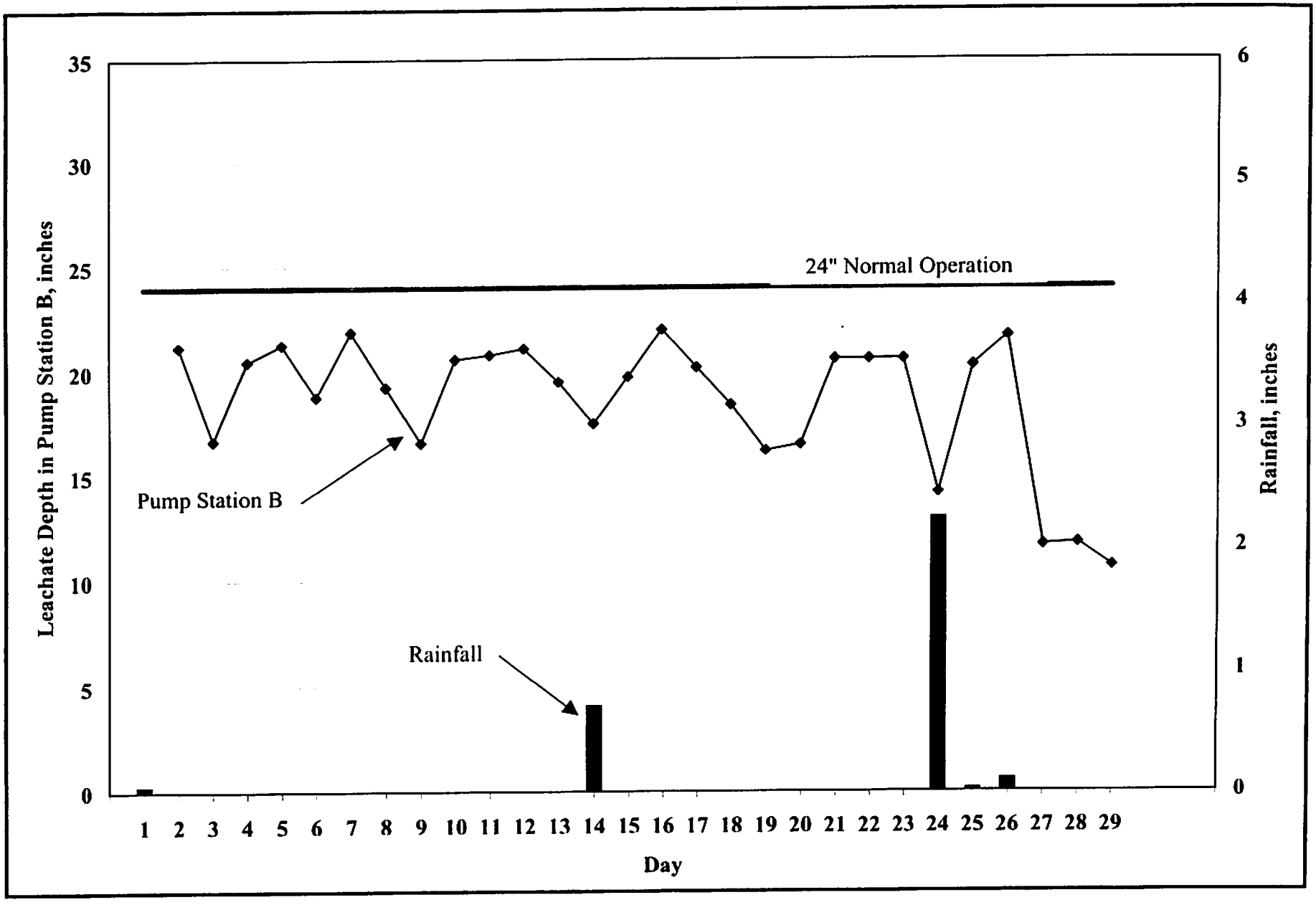

Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1		0	0.0	0.0	0	0	0	0	0	0	0	0.10
2		74749640	0.0	12.2	2,521,308	249,180	58,785	18'5"	42,154	30,167	0	0
3		74771430	0.0	7.7	2,553,043	271,834	59,430	17'7"	42,080	30,113	0	0
4		74797580	0.0	11.5	2,587,025	284,188	59,848	16'11"	30,082	30,113	0	0
5		74821700	0.0	12.3	2,617,389	295,050	60,151	16'5"	24,034	60,251	2,018	0
6		74849340	0.0	9.8	2,654,016	301,553	60,424	14'4"	72,140	60,177	0	0
7		74878100	0.0	12.9	2,693,316	307,100	60,618	12'8"	0	54,119	0	0
8		0	0.0	0.0	0	0	0	0	0	0	0	0
9		74898560	0.0	7.6	2,749,935	312,463	61,002	12'8"	0	48,324	2,044	0
10		74925060	0.0	11.6	2,786,411	315,318	61,189	12'1"	36,074	60,165	2,004	0
11		74953030	0.0	11.8	2,826,350	318,205	61,320	10'3"	30,039	54,142	0	0
12		74980420	0.0	12.1	2,867,270	328,989	61,411	9'1"	24,046	48,091	2,012	0
13		75005660	0.0	10.5	2,906,011	323,867	61,481	8'0"	12,007	54,184	3,023	0
14		75032958	1.2	8.5	2,944,065	326,361	61,540	5'11"	24,046	36,073	2,008	0.70
15		0	0.0	0.0	0	0	0	0	0	0	0	0
16		75071040	2.4	13.0	3,020,253	345,759	61,813	3'11"	6,010	48,164	2,012	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Tyree for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17		75075485	2.3	11.2	3,048,597	348,502	61,993	2'9"	16,237	48,190	4,027	0
18		75093200	2.4	9.4	3,080,177	351,323	62,128	*0	0	35,861	2,000	0
19		75119530	2.4	7.2	3,111,891	354,188	62,243	0	6,013	60,537	0	0
20		75151100	2.1	7.6	3,151,077	357,114	62,388	0	0	54,810	2,021	0
21		75182600	2.0	11.6	3,192,156	359,777	62,554	0	0	60,187	2,169	0
22		0	0.0	0.0	0	0	0	0	0	0	0	0
23		75234825	2.2	11.6	3,269,805	362,343	62,936	0	0	36,107	0	0
24		75264690	2.3	5.2	3,309,040	364,888	63,180	0	0	54,316	2,012	2.23
25		75298490	2.6	11.3	3,355,892	371,625	63,342	0	0	48,578	0	0.02
26		75324830	2.8	12.7	3,398,135	399,100	63,935	0	78,227	18,153	0	0.10
27		75350170	2.3	2.7	3,432,971	401,439	64,421	0	42,071	30,376	0	0
28		75372990	1.5	2.8	3,462,821	406,476	64,751	0	12,024	38,256	0	0
29		0	0.0	0.0	0	0	0	0	0	0	0	0

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *575k G.S.T. Empty for maintance,2/18/04.

Prepared by: Raymond C. Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0	0	0	0	0	0		
2	0.0	0.0	0	0	0	0	0	0	0	0		
3	0.0	0.0	0	0	0	0	0	0	0	0		
4	0.0	0.0	0	0	0	0	0	0	0	0		
5	0.0	0.0	0	0	0	0	0	0	0	0		
6	0.0	0.0	0	0	0	0	0	0	0	0		
7	0.0	0.0	0	0	0	0	0	0	0	0		
8	0.0	0.0	0	0	0	0	0	0	0	0		
9	0.0	0.0	0	0	0	0	0	0	0	0		
10	0.0	0.0	0	0	0	0	0	0	0	0		
11	0.0	0.0	0	0	0	0	0	0	0	0		
12	0.0	0.0	0	0	0	0	0	0	0	0		
13	0.0	0.0	0	0	0	0	0	0	0	0		
14	0.0	0.0	0	0	0	0	0	0	0	0		
15	0.0	0.0	0	0	0	0	0	0	0	0		
16	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graver for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) February,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	0.0	0.0	0	0	0	0	0	0	0	0		
18	0.0	0.0	0	0	0	0	0	0	0	0		
19	0.0	0.0	0	0	0	0	0	0	0	0		
20	0.0	0.0	0	0	0	0	0	0	0	0		
21	0.0	0.0	0	0	0	0	0	0	0	0		
22	0.0	0.0	0	0	0	0	0	0	0	0		
23	0.0	0.0	0	0	0	0	0	0	0	0		
24	0.0	0.0	0	0	0	0	0	0	0	0		
25	0.0	0.0	0	0	0	0	0	0	0	0		
26	0.0	0.0	0	0	0	0	0	0	0	0		
27	0.0	0.0	0	0	0	0	0	0	0	0		
28	0.0	0.0	0	0	0	0	0	0	0	0		
29	0.0	0.0	0	0	0	0	0	0	0	0		

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

BOARD OF COUNTY COMMISSIONERS
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Hillsborough County
Florida

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Bernardo Garcia
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February 12, 2004

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
APR 16 2004
SOUTHWEST DISTRICT
TAMPA

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –January 2004 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of January 2004. In addition, the SWMD is providing the January 2004 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for January 2004 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches except for one day due to power outage. The average depth of leachate in PS-B for the recorded days in January 2004 was 19.0 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

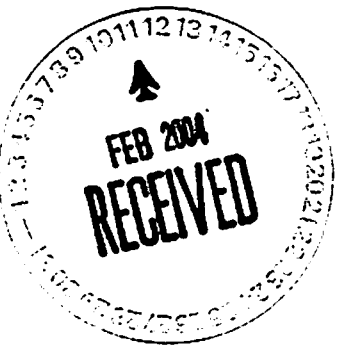
Attachments

glfs/lea0104.dep

Environmental Consultants
3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242
813 621-0080
FAX 813 623-6757

SCS ENGINEERS

February 9, 2004
File No. 09200020.24



Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for January 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for January 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for January (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of January.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 4.10 inches of rainfall at the SCLF in January.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In January, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In January no effluent or leachate was stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In January , PS-B was below the normal operation level of 24 inches except for one day due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in January was 19.0 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in January was 24,655 gallons. A total of 764,310 gallons was pumped from TPS-6 to PS-B in January.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in January was 38,350 gallons. A total of 1,188,837 gallons of leachate was pumped to the storage tank in January.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Section 7 at the Capacity Expansion became active to receive waste on January 5 and Column VIII presents the quantity of leachate removed from the leak detection system of Section 7.

The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. In January, a total of 6,186 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In January, 255,259 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In January, 1,444,096 gallons of leachate was pumped to the LTRF from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in January, based on recorded days, was estimated at 400,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is now being readied for its three-year inspection and tank testing. After the inspections are completed, the LTRF will resume full operation. In January, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of January, a total of 1,413,342 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In January, 123,926 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in January is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In January, no effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in January.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the

flow meter at the irrigation pump station. In January, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In January, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In January, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for January was 98,900 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in January was 1,444,096 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,537,268 gallons. The balance for the month of January decreased by 93,172 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JANUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	NR	28,150	34,193	0	0	34,193	NR	0	24,050	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	20.5	28,150	34,193	0	0	34,193	365,000	0	30,080	7,103	800	0	0	0	0	0	5,700
3	0.00	0.0	0.0	19.6	31,020	36,888	0	0	36,888	386,000	0	30,086	8,347	800	0	0	0	0	0	6,700
4	0.00	NR	NR	NR	31,728	38,269	0	0	38,269	NR	0	0	0	NR	NR	0	0	0	0	0
5	0.00	0.0	0.0	18.9	31,728	38,269	0	0	38,269	509,000	0	66,176	8,033	800	0	0	0	0	0	6,400
6	0.00	0.0	0.0	19.1	30,720	37,820	126	0	37,820	394,000	0	66,166	8,009	800	0	0	0	0	0	6,400
7	0.00	0.0	0.0	18.4	26,135	34,542	0	2,620	37,162	372,000	0	60,168	8,002	800	0	0	0	0	0	6,400
8	0.00	0.0	0.0	20.3	26,940	33,898	0	0	33,898	341,000	0	60,199	8,001	800	0	0	0	0	0	6,400
9	0.10	0.0	0.0	23.2	14,285	34,538	0	0	34,538	312,000	0	48,114	8,021	800	0	0	0	0	0	6,400
10	0.00	0.0	0.0	21.1	4,535	39,937	0	0	39,937	302,000	0	48,103	0	800	0	0	0	0	0	0
11	0.00	NR	NR	NR	3,050	32,883	0	1,253	34,136	NR	0	0	0	NR	NR	0	0	0	0	0
12	0.00	0.0	0.0	16.7	3,050	32,883	0	1,253	34,136	322,000	0	30,142	8,004	800	0	0	0	0	0	6,400
13	0.00	0.0	0.0	17.6	22,250	34,647	0	0	34,647	324,000	0	54,126	8,011	800	0	0	0	0	0	6,400
14	0.00	0.0	0.0	16.3	27,560	37,979	334	2,482	40,461	312,000	0	54,139	4,012	800	0	0	0	0	0	3,200
15	0.00	0.0	0.0	17.1	33,045	42,432	0	0	42,432	290,000	0	46,029	4,011	800	0	0	0	0	0	3,200
16	0.00	0.0	0.0	21.0	33,105	36,617	204	0	36,617	293,000	0	24,073	8,014	800	0	0	0	0	0	6,400
17	0.00	0.0	0.0	18.2	30,960	42,536	0	2,750	45,286	317,000	0	0	4,035	800	0	0	0	0	0	3,200
18	1.23	NR	NR	NR	33,335	44,527	256	31,726	76,253	NR	0	0	0	NR	NR	0	0	0	0	0
19	0.01	0.0	0.0	18.2	33,335	44,527	256	31,726	76,253	470,000	0	60,384	4,016	800	0	0	0	0	0	3,200
20	0.00	0.0	0.0	18.1	27,190	38,175	610	26,848	65,023	468,000	0	60,155	0	800	0	0	0	0	0	0
21	0.00	0.0	0.0	15.0	24,210	32,852	765	11,064	43,916	461,000	0	78,190	0	800	0	0	0	0	0	0
22	0.00	0.0	0.0	15.5	26,165	33,091	600	7,868	40,959	439,000	0	54,140	8,028	800	0	0	0	0	0	6,400
23	0.00	0.0	0.0	18.0	26,225	33,931	199	2,699	36,630	410,000	0	48,390	0	800	0	0	0	0	0	0
24	0.00	0.0	0.0	16.3	26,067	33,619	271	2,752	36,371	408,000	0	30,052	4,010	800	0	0	0	0	0	3,200
25	0.00	NR	NR	NR	29,517	38,688	285	2,944	41,632	NR	0	0	0	NR	NR	0	0	0	0	0
26	0.00	0.0	0.0	18.3	29,517	38,688	285	2,944	41,632	451,000	0	48,162	4,053	800	0	0	0	0	0	3,200
27	1.60	0.0	0.0	16.2	31,070	41,700	340	11,074	52,774	456,000	0	30,165	0	800	0	0	0	0	0	0
28	0.00	0.0	0.0	19.5	20,430	70,420	508	58,238	128,658	530,000	0	78,542	4,288	800	0	0	0	0	0	3,400
29	0.00	0.0	0.0	33.0	4,220	12,001	195	10,857	22,858	518,000	0	84,451	7,928	800	0	0	0	0	0	6,300
30	0.18	0.0	0.0	18.7	26,610	58,918	294	27,074	85,992	506,000	0	96,609	0	800	0	0	0	0	0	0
31	0.98	0.0	0.0	19.5	20,010	45,179	259	17,087	62,266	463,000	0	102,451	0	800	0	0	0	0	0	0
Total	4.10				764,310	1,188,837	6,186	255,259	1,444,096		0	1,413,342	123,926				0	0	0	98,900
Daily Average		0.0	0.0	19.0	24,655	38,350	200	8,234	46,584	400,700				800	0	0				
Mo. Average													4,000				0	0	0	3,190

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
JANUARY 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	NR	0	0	*73,973,580*	*1,287,369*	NR	0	24,050	0	0.00	0.0	0.0	0	0	0	0	0	0
2	11.5	0	0	74,001,730	1,321,562	12.67	0	30,080	7,103	0.00	0.0	0.0	0	0	0	0	0	0
3	10.6	0	0	74,032,750	1,358,450	13.42	0	30,086	8,347	0.00	0.0	0.0	0	0	0	0	0	0
4	NR	0	0	*74,064,478*	*1,396,719*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
5	9.9	51,814	9,939,158	74,096,205	1,434,988	17.67	36,064	30,112	8,033	0.00	0.0	0.0	0	0	0	0	0	0
6	10.1	51,940	9,939,158	74,126,925	1,472,808	13.67	36,051	30,115	8,009	0.00	0.0	0.0	0	0	0	0	0	0
7	9.4	51,940	9,941,778	74,153,060	1,507,350	12.92	30,057	30,111	8,002	0.00	0.0	0.0	0	0	0	0	0	0
8	11.3	51,940	9,941,778	74,180,000	1,541,248	11.83	30,046	30,153	8,001	0.00	0.0	0.0	0	0	0	0	0	0
9	14.2	51,940	9,941,778	74,194,285	1,575,786	10.83	24,044	24,070	8,021	0.10	0.0	0.0	0	0	0	0	0	0
10	12.1	51,940	9,941,778	74,198,820	1,615,723	10.50	18,019	30,084	0	0.00	0.0	0.0	0	0	0	0	0	0
11	NR	*51,940*	*9,943,031*	*74,201,870*	*1,648,606*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
12	7.7	51,940	9,944,284	74,204,920	1,681,488	11.17	0	30,142	8,004	0.00	0.0	0.0	0	0	0	0	0	0
13	8.6	51,940	9,944,284	74,227,170	1,716,135	11.25	30,046	24,080	8,011	0.00	0.0	0.0	0	0	0	0	0	0
14	7.3	52,274	9,946,766	74,254,730	1,754,114	10.83	24,038	30,101	4,012	0.00	0.0	0.0	0	0	0	0	0	0
15	8.1	52,274	9,946,766	74,287,775	1,796,546	10.08	27,976	18,053	4,011	0.00	0.0	0.0	0	0	0	0	0	0
16	12.0	52,478	9,946,766	74,320,880	1,833,163	10.17	0	24,073	8,014	0.00	0.0	0.0	0	0	0	0	0	0
17	9.2	52,478	9,949,516	74,351,840	1,875,699	11.00	0	0	4,035	0.00	0.0	0.0	0	0	0	0	0	0
18	NR	*52,734*	*9,981,242*	*74,385,175*	*1,920,226*	NR	0	0	0	1.23	NR	NR	0	0	0	0	0	0
19	9.2	52,990	12,967	74,418,510	1,964,752	16.33	30,088	30,296	4,016	0.01	0.0	0.0	0	0	0	0	0	0
20	9.1	53,600	39,815	74,445,700	2,002,927	16.25	30,066	30,089	0	0.00	0.0	0.0	0	0	0	0	0	0
21	6.0	54,365	50,879	74,469,910	2,035,779	16.00	48,089	30,101	0	0.00	0.0	0.0	0	0	0	0	0	0
22	6.5	54,965	58,747	74,496,075	2,068,870	15.25	30,057	24,083	8,028	0.00	0.0	0.0	0	0	0	0	0	0
23	9.0	55,364	61,446	74,522,300	2,102,801	14.25	18,031	30,359	0	0.00	0.0	0.0	0	0	0	0	0	0
24	7.3	55,635	64,198	74,548,367	2,136,420	14.17	0	30,052	4,010	0.00	0.0	0.0	0	0	0	0	0	0
25	NR	*55,920*	*67,142*	*74,577,884*	*2,175,108*	NR	0	0	0	0.00	NR	NR	0	0	0	0	0	0
26	9.3	56,204	70,086	74,607,400	2,213,795	15.67	18,040	30,122	4,053	0.00	0.0	0.0	0	0	0	0	0	0
27	7.2	56,544	81,160	74,638,470	2,255,495	15.83	0	30,165	0	1.60	0.0	0.0	0	0	0	0	0	0
28	10.5	57,052	139,398	74,658,900	2,325,915	18.42	48,185	30,357	4,288	0.00	0.0	0.0	0	0	0	0	0	0
29	24.0	57,447	150,255	74,663,120	2,337,916	18.00	48,190	36,261	7,928	0.00	0.0	0.0	0	0	0	0	0	0
30	9.7	57,741	177,329	74,689,730	2,396,834	17.58	66,249	30,360	0	0.18	0.0	0.0	0	0	0	0	0	0
31	10.5	58,000	194,416	74,709,740	2,442,013	16.1	72,381	30,070	0	0.98	0.0	0.0	0	0	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond

Type of Cover	Phases I-VI acres	Section 7 acres
Open	1	7
Intermediate	138.4	0
Final	23	0
Not Opened	0	5.5

TABLE 3. 2004 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

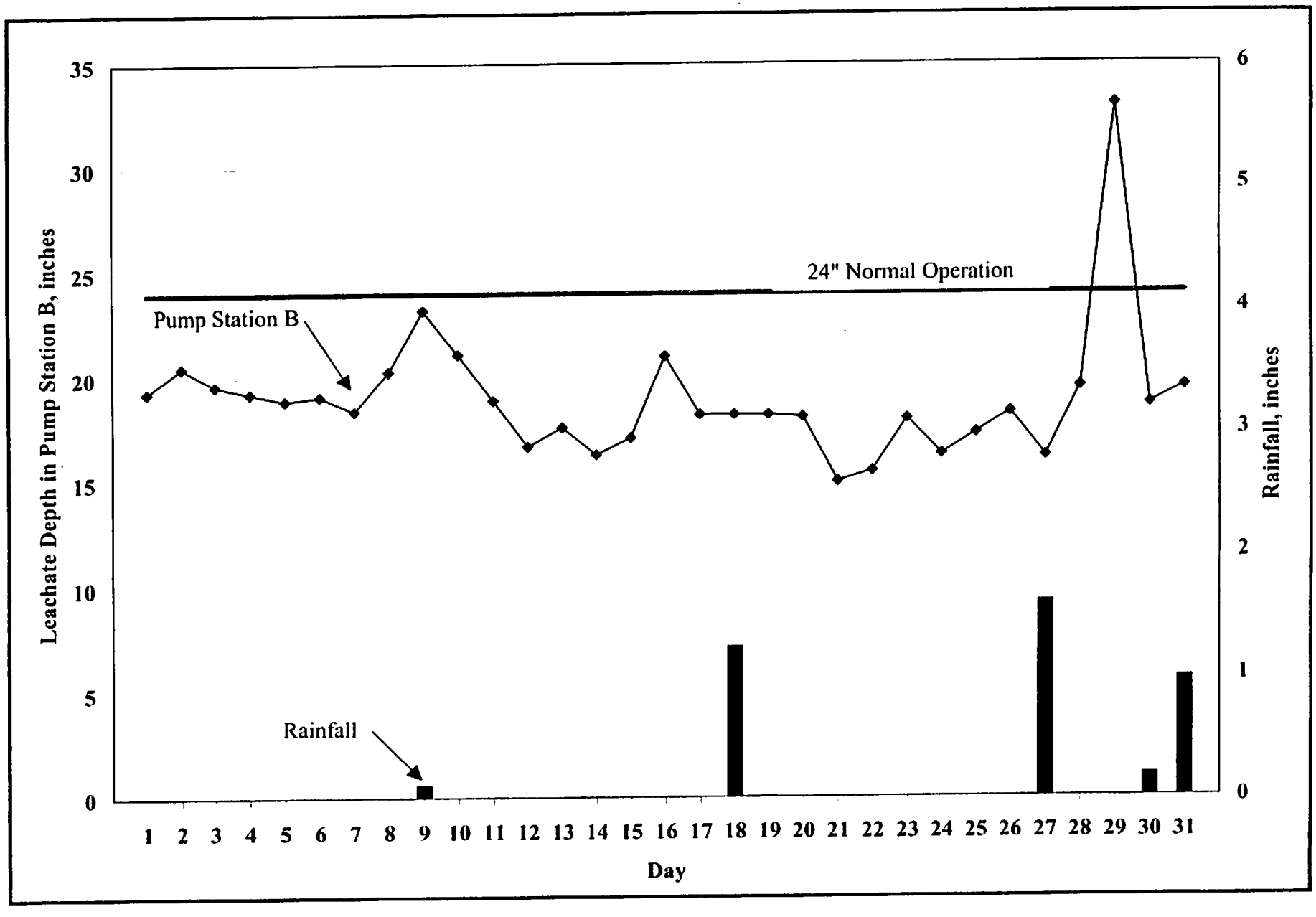

Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2004.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	0.0	0.00	0.0	0	0	0	0.00	0	24,050	0	0
2	0.0	74001730	0.00	11.5	1,321,562	0	0	12'8"	0	30,080	7,103	0
3	0.0	74032750	0.00	10.6	1,358,450	0	0	13'5"	0	30,086	8,347	0
4	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
5	0.0	74096205	0.00	9.9	1,434,988	9,939,158	51,814	14'8"	36,064	30,112	8,033	0
6	0.0	74126925	0.00	10.1	1,472,808	9,939,158	51,940	13'8"	36,051	30,115	8,009	0
7	0.0	74153060	0.00	9.4	1,507,350	9,941,778	51,940	12'11"	30,057	30,111	8,002	0
8	0.0	74180000	0.00	11.3	1,541,248	9,941,778	51,940	11'10"	30,046	30,153	8,001	0
9	0.0	74194285	0.00	14.2	1,575,786	9,941,778	51,940	10'10"	24,044	24,070	8,021	0.10
10	0.0	74198820	0.00	12.1	1,615,723	9,941,778	51,940	10'6"	18,019	30,084	0	0
11	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
12	0.0	74204920	0.00	7.7	1,681,488	9,944,284	51,940	11'2"	0	30,142	8,004	0
13	0.0	74227170	0.00	8.6	1,716,135	9,946,766	51,940	11'3"	30,046	24,080	8,011	0
14	0.0	74254730	0.00	7.3	1,754,114	9,946,766	52,274	10'10"	24,038	30,101	4,012	0
15	0.0	74287775	0.00	8.1	1,796,546	9,946,766	52,274	10'1"	27,976	18,053	4,011	0
16	0.0	74320880	0.00	12.0	1,833,163	9,949,516	52,478	10'2"	0	24,073	8,014	0

Note:

Comments: _____

Prepared by: Raymond C. Grover for Matt

Revised Jan. 16, 2004

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January, 2004

Date	TPS-6		Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	74351840	0.00	9.2	1,875,699	9,949,516	52,478	11'0"	0	0	4,035	0
18	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	1.23
19	0.0	74418510	0.00	9.2	1,964,752	12,967	52,990	16'4"	30,088	30,296	4,016	0.01
20	0.0	74445700	0.00	9.1	2,002,927	39,815	53,600	16'3"	30,066	30,089	0	0
21	0.0	74469910	0.00	6.0	2,035,779	50,879	54,365	16'0"	48,089	30,101	0	0
22	0.0	74496075	0.00	6.5	2,068,870	58,747	54,965	15'3"	30,057	24,083	8,028	0
23	0.0	74522300	0.00	9.0	2,102,801	61,466	55,364	14'3"	18,031	30,359	0	0
24	0.0	74548367	0.00	7.3	2,136,420	64,198	55,635	14'2"	0	30,052	4,010	0
25	0.0	0	0.00	0.0	0	0	0	0.00	0	0	0	0
26	0.0	74607400	0.00	9.3	2,213,795	70,086	56,204	15'8"	18,040	30,122	4,053	0
27	0.0	74638470	0.00	7.2	2,255,495	81,160	56,544	15'10"	0	30,165	0	1.60
28	0.0	74658900	0.00	10.5	2,325,915	139,398	57,052	18'5"	48,185	30,357	4,288	0
29	0.0	74663120	0.00	*33.4	2,337,916	150,255	57,447	18'0"	48,190	36,261	7,928	0
30	0.0	74689730	0.00	9.7	2,396,834	177,329	57,741	17'7"	66,249	30,360	0	0.18
31	0.0	74709740	0.00	10.5	2,442,013	194,416	58,000	16'1"	72,381	30,070	0	0.98

Note:

Comments: *Teco power problem.

Prepared by: Raymond C Graves for Matt

Revised Jan. 16, 2004

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
1	0.0	0.0	0	0	0	0	0	0			0
2	0.0	0.0	0	0	0	0	0	0			0
3	0.0	0.0	0	0	0	0	0	0			0
4	0.0	0.0	0	0	0	0	0	0			0
5	0.0	0.0	0	0	0	0	0	0			0
6	0.0	0.0	0	0	0	0	0	0			0
7	0.0	0.0	0	0	0	0	0	0			0
8	0.0	0.0	0	0	0	0	0	0			0
9	0.0	0.0	0	0	0	0	0	0			0
10	0.0	0.0	0	0	0	0	0	0			0
11	0.0	0.0	0	0	0	0	0	0			0
12	0.0	0.0	0	0	0	0	0	0			0
13	0.0	0.0	0	0	0	0	0	0			0
14	0.0	0.0	0	0	0	0	0	0			0
15	0.0	0.0	0	0	0	0	0	0			0
16	0.0	0.0	0	0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Treatment plant off line for repairs.

Prepared by: Raymond C Graves for Mott

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) January,2004

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
17	0.0	0.0		0	0	0	0	0			0
18	0.0	0.0		0	0	0	0	0			0
19	0.0	0.0		0	0	0	0	0			0
20	0.0	0.0		0	0	0	0	0			0
21	0.0	0.0		0	0	0	0	0			0
22	0.0	0.0		0	0	0	0	0			0
23	0.0	0.0		0	0	0	0	0			0
24	0.0	0.0		0	0	0	0	0			0
25	0.0	0.0		0	0	0	0	0			0
26	0.0	0.0		0	0	0	0	0			0
27	0.0	0.0		0	0	0	0	0			0
28	0.0	0.0		0	0	0	0	0			0
29	0.0	0.0		0	0	0	0	0			0
30	0.0	0.0		0	0	0	0	0			0
31	0.0	0.0		0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

100494

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JAN 15 2004
Southwest District Tampa
Assistant County Administrators
Carl S. Harness

January 14, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report (January 15)

Dear Mr. Ford:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending December 31, 2003.

The data is being submitted as separate monthly reports for October, November and December 2002. The information includes the leachate level in Pump Station B (PSB), which was below the 24-inch normal operation level during this quarter.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC
Susan J. Pelz, P.E.

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January 14, 2004

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –December 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of December 2003. In addition, the SWMD is providing the December 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for December 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches all days in December. The average depth of leachate in PS-B for the recorded days in December 2003 was 18.5 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea123.dep

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

January 13, 2004
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for December 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for December 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for December (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of December.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.11 inches of rainfall at the SCLF in December.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In December, the average depth in Pond A was 3.0 feet.

D.E.P.
JAN 1 5 2004
Southwest District Tampa

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In December no effluent was stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. On average, PS-B was below the normal operation level of 24 inches in December. The average depth of leachate in the PS-B sump for the recorded days in December was 18.5 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in December was 30,734 gallons. A total of 952,740 gallons was pumped from TPS-6 to PS-B in December.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in December was 39,879 gallons. A total of 1,236,248 gallons of leachate was pumped to the storage tank in December.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section

7 for removal with Section 7 leachate. In December, no leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In December, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In December, 1,236,248 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in December, based on recorded days, was estimated at 291,000 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is now being readied for its three-year inspection and tank testing. After the inspections are completed, the LTRF will resume full operation. In December, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of December, a total of 1,169,620 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In December, 188,255 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In December, an average of 115,400 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In December, no effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in December.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In December, a total of 145,843 gallons of effluent was used as spray irrigation, and Pond A was emptied of effluent.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In December, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In December, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for December was 267,000 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in December was 1,236,248 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,357,875 gallons. The balance for the month of December decreased by 121,627 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE I. LEACHATE WATER BALANCE REPORT FORM
DECEMBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	3.6	0.0	21.3	29,330	35,497	0	0	35,497	194,000	0	44,118	4,021	145,000	0	0	63,986	0	0	54,400
2	0.00	3.5	0.0	16.6	30,410	37,253	0	0	37,253	202,000	0	54,120	4,014	140,000	0	0	0	0	0	3,200
3	0.00	2.4	0.0	17.5	30,190	38,043	0	0	38,043	192,000	0	48,082	8,007	79,000	0	0	44,472	0	0	42,000
4	0.00	2.4	0.0	19.3	31,620	39,749	0	0	39,749	192,000	0	30,061	8,034	79,000	0	0	37,385	0	0	36,300
5	0.00	0.0	0.0	17.5	34,820	44,701	0	0	44,701	218,000	0	42,094	8,040	800	0	0	0	0	0	6,400
6	0.00	0.0	0.0	18.6	34,250	42,831	0	0	42,831	214,000	0	30,071	12,041	800	0	0	0	0	0	9,600
7	0.00	NR	0.0	NR	29,705	37,997	0	0	37,997	NR	0	0	0	NR	0	0	0	0	0	0
8	0.00	0.0	0.0	19.8	29,705	37,997	0	0	37,997	211,000	0	36,077	12,052	800	0	0	0	0	0	9,600
9	0.00	0.0	0.0	18.8	28,330	38,850	0	0	38,850	252,000	0	60,206	12,048	800	0	0	0	0	0	9,600
10	0.00	0.0	0.0	17.5	34,520	42,119	0	0	42,119	245,000	0	54,056	8,019	800	0	0	0	0	0	6,400
11	0.00	0.0	0.0	19.5	32,690	46,422	0	0	46,422	247,000	0	60,153	8,006	800	0	0	0	0	0	6,400
12	0.00	0.0	0.0	15.5	28,210	38,473	0	0	38,473	218,000	0	48,123	8,021	800	0	0	0	0	0	6,400
13	0.00	0.0	0.0	20.0	25,770	37,409	0	0	37,409	216,000	0	12,031	8,016	800	0	0	0	0	0	6,400
14	2.07	NR	0.0	NR	42,495	39,153	0	0	39,153	NR	0	0	0	NR	0	0	0	0	0	0
15	0.00	0.0	0.0	21.5	42,495	39,153	0	0	39,153	286,000	0	12,034	0	800	0	0	0	0	0	0
16	0.04	0.0	0.0	16.0	33,040	57,708	0	0	57,708	348,000	0	48,104	7,102	800	0	0	0	0	0	5,700
17	0.00	0.0	0.0	11.4	32,020	52,831	0	0	52,831	358,000	0	60,491	4,017	800	0	0	0	0	0	3,200
18	0.00	0.0	0.0	22.9	25,495	37,568	0	0	37,568	353,000	0	54,173	8,055	800	0	0	0	0	0	6,400
19	0.00	0.0	0.0	18.8	30,400	38,310	0	0	38,310	333,000	0	66,165	4003	800	0	0	0	0	0	3,200
20	0.00	0.0	0.0	15.5	29,735	38,000	0	0	38,000	302,000	0	18,056	3,993	800	0	0	0	0	0	3,200
21	0.00	NR	0.0	NR	27,460	33,722	0	0	33,722	NR	0	0	0	NR	0	0	0	0	0	0
22	0.00	0.0	0.0	18.7	27,460	33,722	0	0	33,722	359,000	0	48,140	8,205	800	0	0	0	0	0	6,600
23	0.00	0.0	0.0	17.9	33,180	42,007	0	0	42,007	350,000	0	72,162	7,994	800	0	0	0	0	0	6,400
24	0.00	0.0	0.0	23.5	26,945	44,468	0	0	44,468	NR	0	24,076	8,007	800	0	0	0	0	0	6,400
25	0.00	0.0	0.0	NR	26,610	40,187	0	0	40,187	NR	0	0	0	800	0	0	0	0	0	0
26	0.00	0.0	0.0	20.6	26,610	40,187	0	0	40,187	377,000	0	30,116	4,155	800	0	0	0	b	0	3,300
27	0.00	0.0	0.0	18.8	30,485	36,661	0	0	36,661	386,000	0	30,273	8,043	800	0	0	0	0	0	6,400
28	0.00	NR	0.0	NR	29,735	36,398	0	0	36,398	NR	0	0	0	NR	0	0	0	0	0	0
29	0.00	0.0	0.0	18.1	29,735	36,398	0	0	36,398	444,000	0	54,304	8,346	800	0	0	0	0	0	6,700
30	0.00	0.0	0.0	17.0	30,660	37,565	0	0	37,565	403,000	0	72,141	8,000	800	0	0	0	0	0	6,400
31	0.00	0.0	0.0	18.1	28,630	34,872	0	0	34,872	374,000	0	60,193	8,016	800	0	0	0	0	0	6,400
Total	2.11				952,740	1,236,248	0	0	1,236,248		0	1,169,620	188,255				145,843	0	0	267,000
Daily Average		3.0	0.0	18.5	30,734	39,879	0	0	39,879	291,000				115,400	0	0				
Mo. Average													6,100				4,700	0	0	8,610

f:\project\hillsbor\09200020.23\LeachateBalance\2003\12-03.xls (Revised by scv 1/12/04)

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
DECEMBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII
							Leachate Hauled									Effluent Hauled	
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor (gal.)	County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)
1	12.3	0	0	73,022,020	52,425	6.75	20,060	24,058	4,021	0.00	3.6	0.0	0	0	63,986	0	0
2	7.6	0	0	73,052,430	89,678	7.00	24,068	30,052	4,014	0.00	3.5	0.0	0	0	0	0	0
3	8.5	0	0	73,082,620	127,721	6.7	18,034	30,048	8,007	0.00	2.4	0.0	0	0	44,472	0	0
4	10.3	0	0	73,114,240	167,470	6.67	6,012	24,049	8,034	0.00	2.4	0.0	0	0	37,385	0	0
5	8.5	0	0	73,149,060	212,171	7.58	18,037	24,057	8,040	0.00	0.0	0.0	0	0	0	0	0
6	9.6	0	0	73,183,310	255,002	7.42	0	30,071	12,041	0.00	0.0	0.0	0	0	0	0	0
7	NR	0	0	*73,213,015*	*292,999*	NR	0	0	0	0.00	NR	0.0	0	0	0	0	0
8	10.8	0	0	73,242,720	330,995	7.33	12,033	24,044	12,052	0.00	0.0	0.0	0	0	0	0	0
9	9.8	0	0	73,271,050	369,845	8.75	30,122	30,084	12,048	0.00	0.0	0.0	0	0	0	0	0
10	8.5	0	0	73,305,570	411,964	8.50	24,049	30,007	8,019	0.00	0.0	0.0	0	0	0	0	0
11	10.5	0	0	73,338,260	458,386	8.58	30,072	30,081	8,006	0.00	0.0	0.0	0	0	0	0	0
12	6.5	0	0	73,366,470	496,859	7.58	18,038	30,085	8,021	0.00	0.0	0.0	0	0	0	0	0
13	11.0	0	0	73,392,240	534,268	7.50	0	12,031	8,016	0.00	0.0	0.0	0	0	0	0	0
14	NR	0	0	*73,434,735*	*573,421*	NR	0	0	0	2.07	NR	0.0	0	0	0	0	0
15	12.5	0	0	73,477,230	612,573	9.92	0	12,034	0	0.00	0.0	0.0	0	0	0	0	0
16	7.0	0	0	73,510,270	*670,281*	12.08	30,061	18,043	7,102	0.04	0.0	0.0	0	0	0	0	0
17	2.4	0	0	73,542,290	723,112	12.42	30,051	30,440	4,017	0.00	0.0	0.0	0	0	0	0	0
18	13.9	0	0	73,567,785	760,680	12.25	30,048	24,125	8,055	0.00	0.0	0.0	0	0	0	0	0
19	9.8	0	0	73,598,185	798,990	11.58	36,068	30,097	4,003	0.00	0.0	0.0	0	0	0	0	0
20	6.5	0	0	73,627,920	836,990	10.50	0	18,056	3,993	0.00	0.0	0.0	0	0	0	0	0
21	NR	0	0	*73,655,380*	*870,712*	NR	0	0	0	0.00	NR	0.0	0	0	0	0	0
22	9.7	0	0	73,682,840	904,434	12.48	18,037	30,103	8,205	0.00	0.0	0.0	0	0	0	0	0
23	8.9	0	0	73,716,020	946,441	12.17	42,058	30,104	7,994	0.00	0.0	0.0	0	0	0	0	0
24	14.5	0	0	73,742,965	990,909	11.08	0	24,076	8,007	0.00	0.0	0.0	0	0	0	0	0
25	NR	0	0	*73,769,575*	*1,031,096*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0
26	11.6	0	0	73,796,185	1,071,283	13.08	0	30,116	4,155	0.00	0.0	0.0	0	0	0	0	0
27	9.8	0	0	73,826,670	1,107,944	13.42	0	30,273	8,043	0.00	0.0	0.0	0	0	0	0	0
28	NR	0	0	*73,856,405*	*1,144,342*	NR	0	0	0	0.00	NR	0.0	0	0	0	0	0
29	9.1	0	0	73,886,140	1,180,739	15.42	24,210	30,094	8,346	0.00	0.0	0.0	0	0	0	0	0
30	8.0	0	0	73,916,800	1,218,304	14.00	42,070	30,071	8,000	0.00	0.0	0.0	0	0	0	0	0
31	9.1	0	0	73,945,430	1,253,176	13.0	30,038	30,155	8,016	0.00	0.0	0.0	0	0	0	0	0

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3 Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May	3.13	0	0	1,280,930	1,233,501	120,688	0	0	0	0	1,280,930	1,354,189	-73,259
June	17.01	0	0	1,602,291	1,769,463	21,082	0	0	0	0	1,602,291	1,790,545	-188,254
July	6.40	0	0	1,355,825	1,396,635	3,008	0	0	0	0	1,355,825	1,399,643	-43,818
August	11.25	0	0	1,555,444	1,521,955	0	110,065	0	0	110,065	1,555,444	1,632,020	-76,576
September	5.18	0	0	1,434,792	1,504,669	13,320	0	0	0	0	1,434,792	1,517,989	-83,197
October	0.7	0	0	1,341,231	680,154	72,484	844,900	0	0	794,428	1,341,231	1,597,538	-256,307
November	1.7	0	0	1,179,825	300,807	143,776	1,283,800	0	0	945,262	1,179,825	1,728,383	-548,558
December	2.11	0	0	1,236,248	1,169,620	188,255	0	0	0	145,843	1,236,248	1,357,875	-121,627
YTD Total	56.27	0	0	17,266,240	16,230,817	917,392	2,238,765	0	0	1,995,598	17,266,240	19,386,974	-2,120,734

f:\project\Hillsborough\09200020.23\leachate Balance\2003\2003summary xls (Revised by scv 12/05/03)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

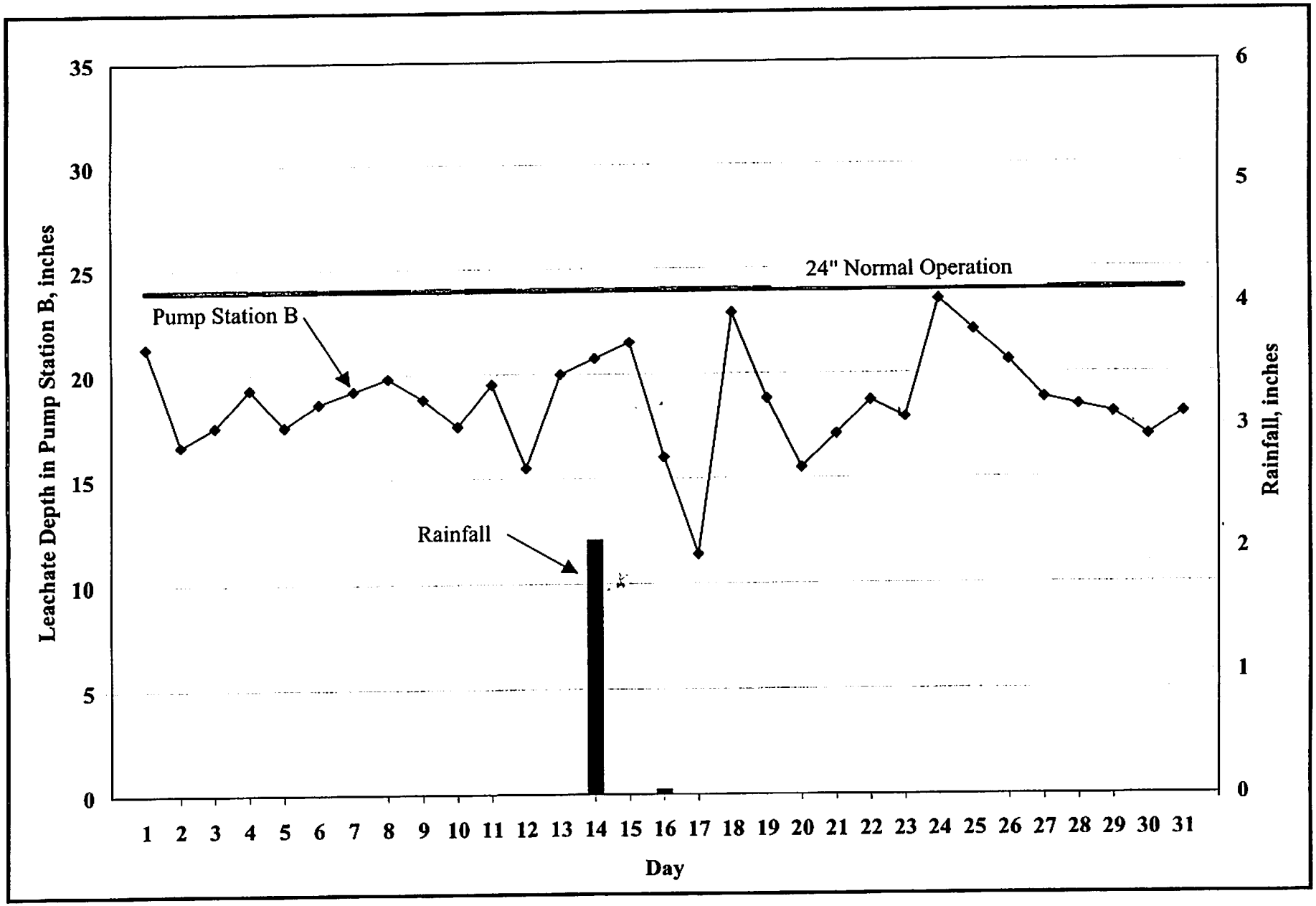

Figure 1. Leachate Levels in Pump Station B and Rainfall for December 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Dec,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0.00	12.3	52,425	6'9"	20,060	24,058	4,021	0
2		0.00	7.6	89,678	7'0"	24,068	30,052	4,014	0
3		0.00	8.5	127,721	6'8"	18,034	30,048	8,007	0
4		0.00	10.3	167,470	6'8"	6,012	24,049	8,034	0
5		0.00	8.5	212,171	7'7"	18,037	24,057	8,040	0
6		0.00	9.6	255,002	7'5"	0	30,071	12,041	0
7		0.00	0	0	0	0	0	0	0
8		0.00	10.8	330,995	7'4"	12,033	24,044	12,052	0
9		0.00	9.8	369,845	8'9"	30,122	30,084	12,048	0
10		0.00	8.5	411,964	8'6"	24,049	30,007	8,019	0
11		0.00	10.5	458,386	8'7"	30,072	30,081	8,006	0
12		0.00	6.5	496,859	7'7"	18,038	30,085	8,021	0
13		0.00	11.0	534,268	7'6"	0	12,031	8,016	0
14		0.00	0	0	0	0	0	0	2.07
15		0.00	12.5	612,573	9'11"	0	12,034	0	0
16		0.00	7.0	670,281	12'1"	30,061	18,043	7,102	0.04

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Grumo for Matt

Revised

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Dec.2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0.00	2.4	723,112	12'5"	30,051	30,440	4,017	0
18		0.00	13.9	760,680	12'3"	30,048	24,125	8,055	0
19		0.00	9.8	798,990	11'7"	36,068	30,097	4,003	0
20		0.00	6.5	836,990	10'6"	0	18,056	3,993	0
21		0.00	0	0	0	0	0	0	0
22		0.00	9.7	904,434	12'5"	18,037	30,103	8,205	0
23		0.00	8.9	946,441	12'2"	42,058	30,104	7,994	0
24		0.00	14.5	990,909	11'1"	0	24,076	8,007	0
25		0.00	0	0	0	0	0	0	0
26		0.00	11.6	1,071,283	13'1"	0	30,116	4,155	0
27		0.00	9.8	1,107,944	13'5"	0	30,273	8,043	0
28		0.00	0	0	0	0	0	0	0
29		0.00	9.1	1,180,739	15'5"	24,210	30,094	8,346	0
30		0.00	8.0	1,218,304	14'0"	42,070	30,071	8,000	0
31		0.00	9.1	1,253,176	13'0"	30,038	30,155	8,016	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graver for Matt

FROM :
FAX NO. :
Nov. 08 1999 12:42PM P3

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Dec,2003

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
1	3.6	0.0	0	0	63,896	0	0	0			N
2	3.5	0.0	0	0	0	0	0	0			0
3	2.4	0.0	0	0	44,472	0	0	0			N
4	2.4	0.0	0	0	27,385	0	0	0			N
5	0.0	0.0	0	0	0	0	0	0			0
6	0.0	0.0	0	0	0	0	0	0			0
7	0.0	0.0	0	0	0	0	0	0			0
8	0.0	0.0	0	0	0	0	0	0			0
9	0.0	0.0	0	0	0	0	0	0			0
10	0.0	0.0	0	0	0	0	0	0			0
11	0.0	0.0	0	0	0	0	0	0			0
12	0.0	0.0	0	0	0	0	0	0			0
13	0.0	0.0	0	0	0	0	0	0			0
14	0.0	0.0	0	0	0	0	0	0			0
15	0.0	0.0	0	0	0	0	0	0			0
16	0.0	0.0	0	0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Mott

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Dec,2003

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
17	0.0	0.0		0	0	0	0	0			0
18	0.0	0.0		0	0	0	0	0			0
19	0.0	0.0		0	0	0	0	0			0
20	0.0	0.0		0	0	0	0	0			0
21	0.0	0.0		0	0	0	0	0			0
22	0.0	0.0		0	0	0	0	0			0
23	0.0	0.0		0	0	0	0	0			0
24	0.0	0.0		0	0	0	0	0			0
25	0.0	0.0		0	0	0	0	0			0
26	0.0	0.0		0	0	0	0	0			0
27	0.0	0.0		0	0	0	0	0			0
28	0.0	0.0		0	0	0	0	0			0
29	0.0	0.0		0	0	0	0	0			0
30	0.0	0.0		0	0	0	0	0			0
31	0.0	0.0		0	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Flowers for Matt

BOARD OF COUNTY COMMISSIONERS
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Florida

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December 15, 2003

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JAN 15 2004
SOUTHWEST DISTRICT
TAMPA

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill –November 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of November 2003. In addition, the SWMD is providing the November 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for November 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches all days in November. The average depth of leachate in PS-B for the recorded days in November 2003 was 20.2 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea113.dep

Environmental Consultants
11260 Roger Bacon
Reston, VA 22090
703 471-6150
FAX 703 471-6c7b

SCS ENGINEERS

December 8, 2003
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for November 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for November 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for November (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of November.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 1.70 inches of rainfall at the SCLF in November.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In November, the average depth in Pond A was 2.7 feet.

Fees for professional services are due and payable upon receipt of invoice. Service charges computed at a rate of 1.5% per month on the unpaid balance (18% per year) will be added to all accounts for which full payment is not received within 30 days of invoice date.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In November no effluent was stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. On average, PS-B was below the normal operation level of 24 inches in November. The average depth of leachate in the PS-B sump for the recorded days in November was 20.2 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in November was 29,792 gallons. A total of 893,760 gallons was pumped from TPS-6 to PS-B in November.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in November was 39,327 gallons. A total of 1,179,825 gallons of leachate was pumped to the storage tank in November.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate. In November, no leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In November, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In November, 1,179,825 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in November, based on recorded days, was estimated at 212,200 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. After start up earlier this year, the LTRF is progressing toward steady state operation for leachate treatment. In November, a total of 1,283,800 gallons of leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of November, a total of 300,807 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In November, 143,776 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In November, an average of 43,000 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In November, no effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in November.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In November, a total of 945,262 gallons of effluent

was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In November, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In November, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for November was 871,200 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in November was 1,179,825 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,728,383 gallons. The balance for the month of November decreased by 548,558 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
NOVEMBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS 6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	20.3	32,140	37,726	0	0	37,726	209,000	42,600	0	0	800	0	0	0	0	0	0
2	0.00	0.0	0.0	NR	34,725	42,789	0	0	42,789	NR	44,100	0	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	18.6	34,725	42,789	0	0	42,789	240,000	43,200	12,033	6,018	800	0	0	51,924	0	0	46,400
4	0.00	0.0	0.0	24.0	35,660	43,142	0	0	43,142	240,000	43,000	12,031	12,035	800	0	0	41,366	0	0	42,700
5	0.17	0.0	0.0	19.4	33,210	39,970	0	0	39,970	238,000	39,900	12,030	9,355	800	0	0	79,737	0	0	71,300
6	0.10	0.0	0.0	19.6	32,080	38,244	0	0	38,244	230,000	45,200	6,014	11,580	800	0	0	0	0	0	9,300
7	0.00	0.0	0.0	21.6	32,740	39,734	0	0	39,734	221,000	46,600	12,027	12,032	800	0	0	71,328	0	0	66,700
8	0.00	0.0	0.0	17.3	29,230	38,772	0	0	38,772	214,000	46,600	0	12,033	800	0	0	0	0	0	9,600
9	0.00	0.0	0.0	NR	25,700	36,791	0	0	36,791	NR	50,100	0	0	800	0	0	0	0	0	0
10	0.00	0.0	0.0	19.5	25,700	36,791	0	0	36,791	223,000	48,500	12,031	9,182	800	0	0	70,796	0	0	64,000
11	0.00	0.0	0.0	23.6	26,070	37,560	0	0	37,560	206,000	50,700	0	5,991	800	0	0	47,644	0	0	42,900
12	0.00	0.0	0.0	21.1	30,540	39,062	0	0	39,062	216,000	45,100	12,030	6,007	800	0	0	29,960	0	0	28,800
13	0.00	0.0	0.0	22.9	34,130	41,902	0	0	41,902	209,000	51,600	6,016	6,017	800	0	0	83,102	0	0	71,300
14	0.00	0.0	0.0	19.6	24,670	37,468	0	0	37,468	206,000	47,700	6,014	6,016	800	0	0	0	0	0	4,800
15	0.00	2.8	0.0	19.9	19,410	36,910	0	0	36,910	206,000	47,000	0	6,016	98,000	0	0	74,889	0	0	64,700
16	0.00	NR	0.0	NR	30,855	39,139	0	0	39,139	NR	45,600	0	0	NR	0	0	0	0	0	0
17	0.00	2.8	0.0	19.8	30,855	39,139	0	0	39,139	214,000	45,800	12,017	6,035	98,000	0	0	86,705	0	0	74,200
18	0.00	1.8	0.0	19.5	33,570	42,520	0	0	42,520	211,000	50,700	0	6,019	52,000	0	0	0	0	0	4,800
19	0.57	2.7	0.0	16.8	36,700	46,740	0	0	46,740	218,000	54,700	0	0	93,000	0	0	0	0	0	0
20	0.00	2.9	0.0	17.7	35,470	44,268	0	0	44,268	233,000	42,000	12,040	0	103,000	0	0	78,778	0	0	63,000
21	0.00	2.9	0.0	17.3	26,070	37,500	0	0	37,500	223,000	39,800	18,046	12,032	103,000	0	0	72,798	0	0	67,900
22	0.00	2.1	0.0	21.1	24,305	36,546	0	0	36,546	192,000	40,000	30,069	0	65,000	0	0	0	0	0	0
23	0.00	NR	0.0	NR	24,690	39,280	0	0	39,280	NR	38,600	0	0	NR	0	0	0	0	0	0
24	0.00	3.3	0.0	21.3	24,690	39,280	0	0	39,280	194,000	41,900	24,060	0	123,000	0	0	45,029	0	0	36,000
25	0.00	3.1	0.0	22.8	26,000	44,434	0	0	44,434	194,000	36,000	24,059	6,028	113,000	0	0	51,502	0	0	46,000
26	0.00	2.6	0.0	19.7	29,065	40,310	0	0	40,310	187,000	30,000	24,069	3,368	88,000	0	0	59,644	0	0	50,100
27	0.00	NR	0.0	NR	29,995	37,924	0	0	37,924	NR	31,700	18,092	0	NR	0	0	0	0	0	0
28	0.86	2.3	0.0	21.4	29,995	37,924	0	0	37,924	187,000	31,400	24,079	4,005	74,000	0	0	0	0	0	3,200
29	0.00	2.8	0.0	20.2	31,440	38,958	0	0	38,958	182,000	32,700	24,050	4,007	98,000	0	0	0	0	0	3,200
30	0.00	NR	0.0	NR	29,330	26,213	0	0	26,213	NR	31,000	0	0	NR	0	0	0	0	0	0
Total	1.70				893,760	1,179,825	0	0	1,179,825		1,283,800	300,807	143,776				945,262	0	0	871,200
Daily Average		2.7	0.0	20.2	29,792	39,327	0	0	39,327	212,200				43,000	0	0				
Mo. Average													4,800				31,500	0	0	29,040

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
NOVEMBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	11.3	0	0	72,131,070	8,865,544	7.25	0	0	0	0.00	0.0	0.0	0	42,566	0	0	0	0
2	NR	0	0	***72,165,795***	***8,908,333***	NR	0	0	0	0.00	0.0	0.0	0	44,136	0	0	0	0
3	9.6	0	0	72,200,520	8,951,122	8.3	0	12,033	6,018	0.00	0.0	0.0	0	43,156	51,924	0	0	0
4	15.0	0	0	72,236,180	8,994,264	8.33	0	12,031	12,035	0.00	0.0	0.0	0	42,961	41,366	0	0	0
5	10.4	0	0	72,269,390	9,034,234	8.25	0	12,030	9,355	0.17	0.0	0.0	0	39,877	79,737	0	0	0
6	10.6	0	0	72,301,470	9,072,478	8.00	0	6,014	11,580	0.10	0.0	0.0	0	45,243	0	0	0	0
7	12.6	0	0	72,334,210	9,112,212	7.67	0	12,027	12,032	0.00	0.0	0.0	0	46,590	71,328	0	0	0
8	8.3	0	0	72,363,440	9,150,984	7.42	0	0	12,033	0.00	0.0	0.0	0	46,591	0	0	0	0
9	NR	0	0	***72,389,140***	***9,187,775***	NR	0	0	0	0.00	0.0	0.0	0	50,141	0	0	0	0
10	10.5	0	0	72,414,840	9,224,566	7.75	0	12,031	9,182	0.00	0.0	0.0	0	48,522	70,796	0	0	0
11	14.6	0	0	72,440,910	9,262,126	7.17	0	0	5,991	0.00	0.0	0.0	0	50,654	47,644	0	0	0
12	12.1	0	0	72,471,450	9,301,188	7.50	0	12,030	6,007	0.00	***0.0***	0.0	0	45,131	29,960	0	0	0
13	13.9	0	0	72,505,580	9,343,090	7.25	0	6,016	6,017	0.00	0.0	0.0	0	51,590	83,162	0	0	0
14	10.6	0	0	72,530,250	9,380,558	7.17	0	6,014	6,016	0.00	0.0	0.0	0	47,726	0	0	0	0
15	10.9	0	0	72,549,660	9,417,468	7.17	0	0	6,016	0.00	2.8	0.0	0	47,009	74,889	0	0	0
16	NR	0	0	***72,580,515***	***9,456,607***	NR	0	0	0	0.00	NR	0.0	0	45,639	0	0	0	0
17	10.8	0	0	72,611,370	9,495,746	7.42	0	12,017	6,035	0.00	2.8	0.0	0	45,834	86,705	0	0	0
18	10.5	0	0	72,644,940	9,538,266	7.33	0	0	6,019	0.00	1.8	0.0	0	50,661	0	0	0	0
19	7.8	0	0	72,681,640	9,585,006	7.58	0	0	0	0.57	2.7	0.0	0	54,710	0	0	0	0
20	8.7	0	0	72,717,110	9,629,274	8.08	0	12,040	0	0.00	2.9	0.0	0	42,027	78,778	0	0	0
21	8.3	0	0	72,743,180	9,666,774	7.75	0	18,046	12,032	0.00	2.9	0.0	0	39,834	72,798	0	0	0
22	12.1	0	0	72,767,485	9,703,320	6.67	0	30,069	0	0.00	2.1	0.0	0	40,002	0	0	0	0
23	NR	0	0	***72,792,175***	***9,742,600***	NR	0	0	0	0.00	NR	0.0	0	38,637	0	0	0	0
24	12.3	0	0	72,816,865	9,781,880	7.08	0	24,060	0	0.00	3.3	0.0	0	41,893	45,029	0	0	0
25	13.8	0	0	72,842,865	9,826,314	6.75	0	24,059	6,028	0.00	3.1	0.0	0	36,016	51,502	0	0	0
26	10.7	0	0	72,871,930	9,866,624	6.50	0	24,069	3,368	0.00	2.6	0.0	0	30,026	59,644	0	0	0
27	NR	0	0	***72,901,925***	***9,904,548***	NR	0	18,092	0	0.00	NR	0.0	0	31,662	0	0	0	0
28	12.4	0	0	72,931,920	9,942,472	6.50	0	24,079	4,005	0.86	2.3	0.0	0	31,425	0	0	0	0
29	11.2	0	0	72,963,360	9,981,430	6.33	0	24,050	4,007	0.00	2.8	0.0	0	32,749	0	0	0	0
30	NR	0	0	***72,992,690***	***10,007,643***	NR	0	0	0	0.00	NR	0.0	0	30,990	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May	3.13	0	0	1,280,930	1,233,501	120,688	0	0	0	0	1,280,930	1,354,189	-73,259
June	17.01	0	0	1,602,291	1,769,463	21,082	0	0	0	0	1,602,291	1,790,545	-188,254
July	6.40	0	0	1,355,825	1,396,635	3,008	0	0	0	0	1,355,825	1,399,643	-43,818
August	11.25	0	0	1,555,444	1,521,955	0	110,065	0	0	110,065	1,555,444	1,632,020	-76,576
September	5.18	0	0	1,434,792	1,504,669	13,320	0	0	0	0	1,434,792	1,517,989	-83,197
October	0.7	0	0	1,341,231	680,154	72,484	844,900	0	0	794,428	1,341,231	1,597,538	-256,307
November	1.7			1,179,825	300,807	143,776	1,283,800	0	0	945,262	1,179,825	1,728,383	-548,558
December													
YTD Total	54.16	0	0	16,029,992	15,061,197	729,137	2,238,765	0	0	1,849,755	16,029,992	18,029,099	-1,999,107

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

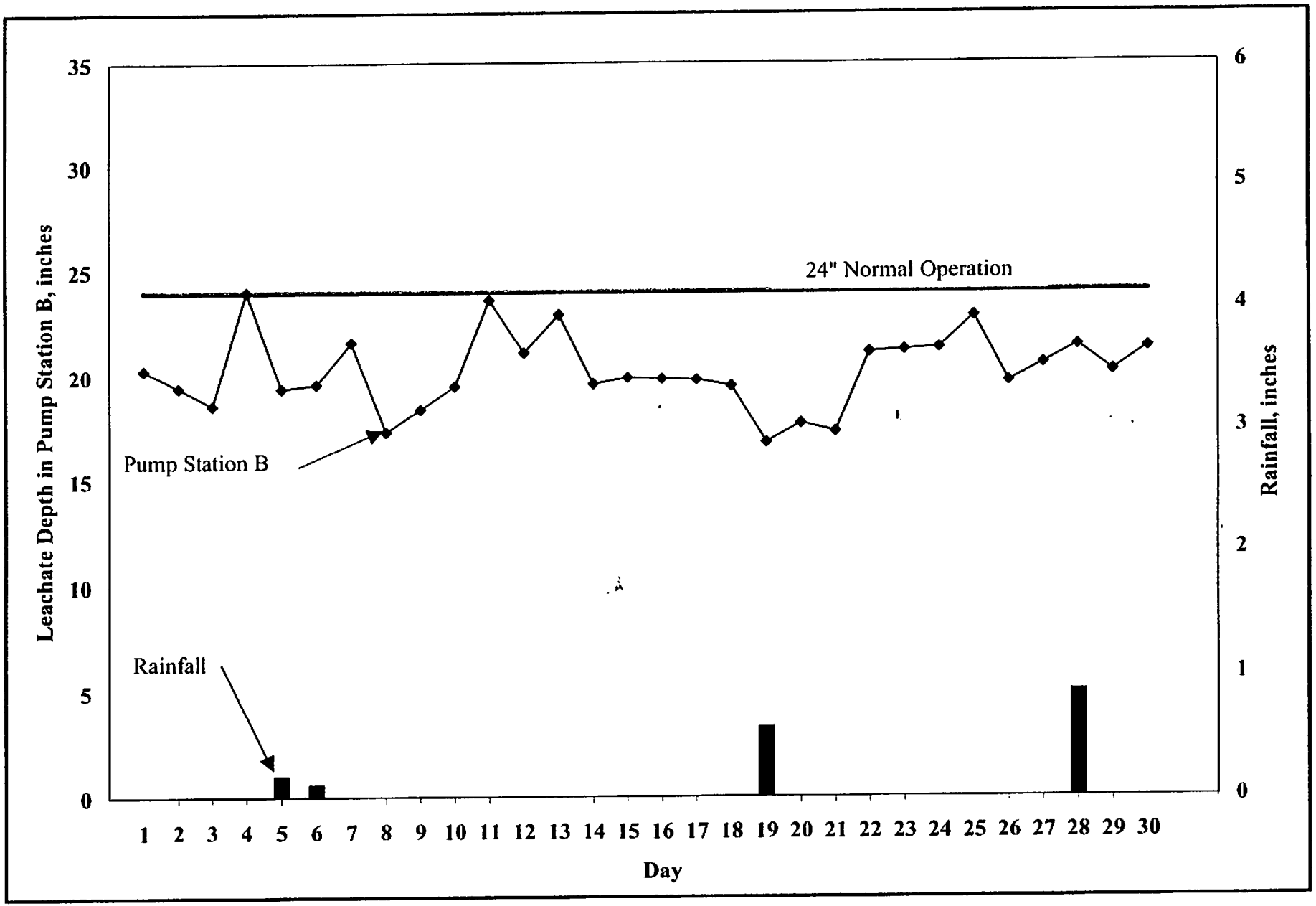

Figure 1. Leachate Levels in Pump Station B and Rainfall for November 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Nov,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0.00	11.3	8,865,544	7'3"	0	0	0	0
2		0.00	0	0	0	0	0	0	0
3		0.00	9.6	8,951,122	8'4"	0	12,033	6,018	0
4		0.00	15.0	8,994,264	8'4"	0	12,031	12,035	0
5		0.00	10.4	9,034,234	8'3"	0	12,030	9,355	0.17
6		0.00	10.6	9,072,478	8'0"	0	6,014	11,580	0.10
7		0.00	12.6	9,112,212	7'8"	0	12,027	12,032	0
8		0.00	8.3	9,150,984	7'5"	0	0	12,033	0
9		0.00	0	0	0	0	0	0	0
10		0.00	10.5	9,224,566	7'9"	0	12,031	9,182	0
11		0.00	14.6	9,262,126	7'2"	0	0	5,991	0
12		0.00	12.1	9,301,188	7'6"	0	12,030	6,007	0
13		0.00	13.9	9,343,090	7'3"	0	6,016	6,017	0
14		0.00	10.6	9,380,558	7'2"	0	6,014	6,016	0
15		0.00	10.9	9,417,468	7'2"	0	0	6,016	0
16		0.00	0	0	0	0	0	0	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Nov,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0.00	10.8	9,495,746	7'5"	0	12,017	6,035	0
18		0.00	10.5	9,538,266	7'4"	0	0	6,019	0
19		0.00	7.8	9,585,006	7'7"	0	0	0	0.57
20		0.00	8.7	9,629,274	8'1"	0	12,040	0	0
21		0.00	8.3	9,666,774	7'9"	0	18,046	12,032	0
22		0.00	12.1	9,703,320	6'8"	0	30,069	0	0
23		0.00	0	0	0	0	0	0	0
24		0.00	12.3	9,781,880	7'1"	0	24,060	0	0
25		0.00	13.8	9,826,314	6'9"	0	24,059	6,028	0
26		0.00	10.7	9,866,624	6'6"	0	24,069	3,368	0
27		0.00	0	0	0	0	18,092	0	0
28		0.00	12.4	9,942,472	6'6"	0	24,079	4,005	0.86
29		0.00	11.2	9,981,430	6'4"	0	24,050	4,007	0
30		0.00	0	0	0	0	0	0	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Lewis for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Nov,2003

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
1	1.6	0.0	0	42,566	0	0	0	0			0
2	0.0	0.0	0	44,136	0	0	0	0			0
3	3.0	0.0	0	43,156	51,294	0	0	0			0
4	2.8	0.0	0	42,961	41,366	0	0	0			0
5	2.7	0.0	0	39,877	79,737	0	0	0			0
6	1.8	0.0	0	45,243	0	0	0	0			0
7	2.6	0.0	0	46,590	71,328	0	0	0			0
8	1.7	0.0	0	46,591	0	0	0	0			0
9	0.0	0.0	0	50,141	0	0	0	0			0
10	3.3	0.0	0	48,522	70,796	0	0	0			0
11	3.8	0.0	0	50,654	47,644	0	0	0			0
12	2.7	0.0	0	45,131	29,960	0	0	0			0
13	2.9	0.0	0	51,590	83,162	0	0	0			0
14	2.0	0.0	0	47,726	0	0	0	0			0
15	2.8	0.0	0	47,099	74,889	0	0	0			0
16	0.0	0.0	0	45,639	0	0	0	0			0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Chavez for Matt

EFFLUENT DEPTH/QUANTITIES DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Nov,2003

Date	Depth in Pond A[1] (feet)	Depth in Pond B[2] (feet)	Pond B Leak Detection[3] (gallons)	Leachate Treated (gallons)	Treated Effluent Sprayed (gallons)	Treated Effluent Hauled		Treated Effluent Dust Control/ Evap. (gallons)	Treated Effluent Stored (gallons)	Time at End of Rainfall	Effluent[4] Runoff to Retention Area (Y/N)
						Contractor (gallons)	County (gallons)				
17	2.8	0.0		45,834	86,705	0	0	0			0
18	1.8	0.0		50,661	0	0	0	0			0
19	2.7	0.0		54,710	0	0	0	0			0
20	3.6	0.0		42,027	78,778	0	0	0			0
21	2.9	0.0		39,834	72,798	0	0	0			0
22	2.1	0.0		40,002	0	0	0	0			0
23	0.0	0.0		38,637	0	0	0	0			0
24	3.3	0.0		41,893	45,029	0	0	0			0
25	3.1	0.0		36,016	51,502	0	0	0			0
26	2.6	0.0		30,026	59,644	0	0	0			0
27	0.0	0.0		31,662	0	0	0	0			0
28	2.3	0.0		31,425	0	0	0	0			0
29	2.8	0.0		32,749	0	0	0	0			0
30	0.0	0.0		30,990	0	0	0	0			0
											0

Note (1) If depth is 4.5 feet or greater,contact Supervisor immediately.

(2) If depth is 7.0 feet or greater,contact Supervisor immediately.

(3) If rate is higher than 8,000 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Bruce for Matt

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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JAN 15 2004
SOUTHWEST DISTRICT
TAMPA

November 19, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – October 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of October 2003. In addition, the SWMD is providing the October 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill=s leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for October 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches all days in October. The average depth of leachate in PS-B for the recorded days in October 2003 was 20.1 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea1003.dep

Environmental Consultants

3012 U.S. Highway 301 No.
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

November 13, 2003
File No. 09200020.24

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for October 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for October 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for October (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of October.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 0.70 inches of rainfall at the SCLF in October.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In October, the average depth in Pond A was 2.3 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. In October no effluent was stored in Pond B.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. On average, PS-B was below the normal operation level of 24 inches in October. The average depth of leachate in the PS-B sump for the recorded days in October was 20.1 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in October was 34,278 gallons. A total of 1,062,620 gallons was pumped from TPS-6 to PS-B in October.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. PS-A was offline on October 2, due to power outage. The average daily amount of leachate pumped from PS-A in October was 43,266 gallons. A total of 1,341,231 gallons of leachate was pumped to the storage tank in October.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate. In October, no leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In October, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In October, 1,341,231 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in October, based on recorded days, was estimated at 254,800 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. After start up earlier this year, the LTRF is progressing toward steady state operation for leachate treatment. In October, a total of 844,900 gallons was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of October, a total of 680,154 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In October, 72,484 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. In October, an average of 76,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In October, no effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in October.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In October, a total of 794,428 gallons was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In October, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In October, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for October was 693,500 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in October was 1,341,231 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,597,538 gallons. The balance for the month of October decreased by 256,307 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER:scv

Attachments

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
OCTOBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	1.1	0.0	11.8	30,100	43,618	0	0	43,618	307,000	0	60,074	0	28,000	0	0	0	0	0	0
2	0.00	1.5	0.0	33.7	17,800	23,683	0	0	23,683	240,000	0	72,102	0	40,000	0	0	41,471	0	0	33,200
3	0.00	1.3	0.0	22.2	42,000	59,646	0	0	59,646	214,000	0	36,053	0	36,000	0	0	0	0	0	0
4	0.00	1.9	0.0	17.8	37,925	46,622	0	0	46,622	216,000	0	0	0	57,000	0	0	0	0	0	0
5	0.00	2.2	0.0	*17.5*	*36,163*	*61,067*	0	0	*61,067*	NR	0	0	0	70,000	0	0	0	0	0	0
6	0.00	2.5	0.0	17.1	36,163	61,067	0	0	61,067	274,000	0	18,026	0	83,000	0	0	43,231	0	0	33,600
7	0.00	2.1	0.0	22.6	36,580	10,798	0	0	10,798	271,000	0	60,114	0	65,000	0	0	40,157	0	0	32,100
8	0.00	1.5	0.0	17.2	36,230	43,796	0	0	43,796	252,000	0	30,046	0	40,000	0	0	0	0	0	0
9	0.00	1.8	0.0	22.3	36,700	45,199	0	0	45,199	257,000	0	6,014	0	52,000	0	0	0	0	0	0
10	0.00	2.8	0.0	23.5	37,170	46,374	0	0	46,374	305,000	23,500	18,064	0	98,000	0	0	0	0	0	0
11	0.00	2.8	0.0	19.0	37,330	46,205	0	0	46,205	295,000	27,100	0	0	98,000	0	0	0	0	0	0
12	0.00	3.1	0.0	*21.0*	*30,568*	*43,819*	0	0	*43,819*	NR	35,200	0	0	113,000	0	0	0	0	0	0
13	0.00	3.3	0.0	22.9	30,568	43,819	0	0	43,819	374,000	40,800	96,939	0	123,000	0	0	0	0	0	0
14	0.12	3.7	0.0	19.5	39,175	47,006	0	0	47,006	288,000	40,000	114,264	0	151,000	0	0	73,618	0	0	58,900
15	0.00	2.9	0.0	18.0	37,910	46,413	0	0	46,413	211,000	33,700	0	0	103,000	0	0	65,722	0	0	52,600
16	0.00	2.2	0.0	21.4	33,995	39,378	0	0	39,378	250,000	37,100	0	6,015	70,000	0	0	60,736	0	0	53,400
17	0.00	1.4	0.0	17.2	32,355	38,940	0	0	38,940	230,000	39,800	42,120	0	36,000	0	0	0	0	0	0
18	0.00	2.1	0.0	23.3	36,560	44,336	0	0	44,336	214,000	41,500	0	0	65,000	0	0	60,685	0	0	48,500
19	0.00	2.1	0.0	*21.1*	*35,245*	*42,245*	0	0	*42,245*	NR	40,700	0	0	65,000	0	0	0	0	0	0
20	0.00	2.1	0.0	19.3	35,245	42,245	0	0	42,245	238,000	39,600	48,123	5,945	65,000	0	0	0	0	0	4,800
21	0.00	2.7	0.0	23.6	33,160	40,152	0	0	40,152	204,000	38,600	0	0	93,000	0	0	0	0	0	0
22	0.00	3.2	0.0	22.3	33,290	43,594	0	0	43,594	223,000	37,300	0	0	118,000	0	0	71,812	0	0	57,400
23	0.00	2.4	0.0	19.2	35,690	48,768	0	0	48,768	235,000	35,500	0	0	79,000	0	0	0	0	0	0
24	0.00	2.9	0.0	17.3	30,525	41,978	0	0	41,978	254,000	38,000	0	0	103,000	0	0	51,658	0	0	41,300
25	0.00	1.4	0.0	18.0	29,265	36,396	0	0	36,396	254,000	42,000	0	12,062	36,000	0	0	51,259	0	0	50,700
26	0.00	2.1	0.0	*17.7*	*34,460*	*41,855*	0	0	*41,855*	NR	42,000	0	0	65,000	0	0	0	0	0	0
27	0.00	2.8	0.0	17.4	34,460	41,855	0	0	41,855	274,000	41,000	18,035	12,323	98,000	0	0	46,230	0	0	46,800
28	0.58	2.6	0.0	20.6	39,710	49,267	0	0	49,267	261,000	41,600	12,030	12,059	88,000	0	0	61,866	0	0	59,100
29	0.00	2.0	0.0	19.9	36,900	46,518	0	0	46,518	259,000	42,400	12,037	0	61,000	0	0	0	0	0	0
30	0.00	2.7	0.0	17.5	27,740	37,004	0	0	37,004	261,000	44,500	24,066	12,036	93,000	0	0	57,035	0	0	55,300
31	0.00	2.3	0.0	20.7	31,640	37,570	0	0	37,570	218,000	43,600	12,027	12,044	74,000	0	0	68,948	0	0	64,800
Total	0.70				1,062,620	1,341,231	0	0	1,341,231		844,900	680,154	72,484				794,428	0	0	693,500
Daily Average		2.3	0.0	20.1	34,278	43,266	0	0	43,266	254,800		40,009		76,300	0	0				
Mo. Average												21,940	2,300				25,600	0	0	22,370

I:\project\hillsbor\092000\20 23\LeachateBalance\2003\10 03.xls (Revised by ler 11-12-03)

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
OCTOBER 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	2.8	0	0	71,066,410	7,530,205	10.67	60,074	0	0	0.00	1.1	0.0	0	0	0	0	0	0
2	24.7	0	0	71,084,210	7,553,888	8.33	72,102	0	0	0.00	1.5	0.0	0	0	41,471	0	0	0
3	13.2	0	0	71,126,210	7,613,534	7.4	36,053	0	0	0.00	1.3	0.0	0	0	0	0	0	0
4	8.8	0	0	71,164,135	7,660,156	7.50	0	0	0	0.00	1.9	0.0	0	0	0	0	0	0
5	8.5	0	0	*71,200,298*	*7,721,223*	NR	0	0	0	0.00	*2.2*	0.0	0	0	0	0	0	0
6	8.1	0	0	71,236,460	7,782,290	9.50	18,026	0	0	0.00	2.5	0.0	0	0	43,231	0	0	0
7	13.6	0	0	71,273,040	7,793,088	9.42	60,114	0	0	0.00	2.1	0.0	0	0	40,157	0	0	0
8	8.2	0	0	71,309,270	7,836,884	8.75	30,046	0	0	0.00	1.5	0.0	0	0	0	0	0	0
9	13.3	0	0	71,345,970	7,882,083	8.92	6,014	0	0	0.00	1.8	0.0	0	0	0	0	0	0
10	14.5	0	0	71,383,140	7,928,457	10.6	18,084	0	0	0.00	2.8	0.0	0	23,465	0	0	0	0
11	10.0	0	0	71,420,470	7,974,662	10.25	0	0	0	0.00	2.8	0.0	0	27,055	0	0	0	0
12	12.0	0	0	*71,451,038*	*8,018,481*	NR	0	0	0	0.00	*3.1*	0.0	0	35,151	0	0	0	0
13	13.9	0	0	71,481,605	8,062,299	13.00	96,939	0	0	0.00	3.3	0.0	0	40,837	0	0	0	0
14	10.5	0	0	71,520,780	8,109,305	10.00	114,264	0	0	0.12	3.7	0.0	0	39,986	73,618	0	0	0
15	9.0	0	0	71,558,690	8,155,718	7.33	0	0	0	0.00	2.9	0.0	0	33,660	65,722	0	0	0
16	12.4	0	0	71,592,685	8,195,096	8.67	0	0	6,015	0.00	2.2	0.0	0	37,103	60,736	0	0	0
17	8.2	0	0	71,625,040	8,234,036	8.0	42,120	0	0	0.00	1.4	0.0	0	39,826	0	0	0	0
18	14.3	0	0	71,661,600	8,278,372	7.42	0	0	0	0.00	2.1	0.0	0	41,498	60,685	0	0	0
19	12.3	0	0	*71,696,845*	*8,320,617*	NR	0	0	0	0.00	*2.1*	0.0	0	40,682	0	0	0	0
20	10.3	0	0	71,732,090	8,362,862	8.25	48,123	0	5,945	0.00	2.1	0.0	0	39,646	0	0	0	0
21	14.6	0	0	71,765,250	8,403,014	7.08	0	0	0	0.00	2.7	0.0	0	38,561	0	0	0	0
22	13.3	0	0	71,798,540	8,446,608	7.75	0	0	0	0.00	3.2	0.0	0	37,338	71,812	0	0	0
23	10.2	0	0	71,834,230	8,495,376	8.17	0	0	0	0.00	2.4	0.0	0	35,482	0	0	0	0
24	8.3	0	0	71,864,755	8,537,354	8.6	0	0	0	0.00	2.9	0.0	0	38,011	51,658	0	0	0
25	9.0	0	0	71,894,020	8,573,750	8.83	0	0	12,062	0.00	1.4	0.0	0	41,999	51,259	0	0	0
26	8.7	0	0	*71,928,480*	*8,615,605*	NR	0	0	0	0.00	*2.1*	0.0	0	41,978	0	0	0	0
27	8.4	0	0	71,962,940	8,657,459	9.50	6,018	12,017	12,323	0.00	2.8	0.0	0	41,021	46,230	0	0	0
28	11.6	0	0	72,002,650	8,706,726	9.08	0	12,030	12,059	0.58	2.6	0.0	0	41,020	61,866	0	0	0
29	10.9	0	0	72,039,550	8,753,244	9.00	6,020	6,017	0	0.00	2.0	0.0	0	42,437	0	0	0	0
30	8.5	0	0	72,067,290	8,790,248	9.08	12,034	12,032	12,036	0.00	2.7	0.0	0	44,520	57,035	0	0	0
31	11.7	0	0	72,098,930	8,827,818	7.6	0	12,027	12,044	0.00	2.3	0.0	0	43,568	68,948	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May	3.13	0	0	1,280,930	1,233,501	120,688	0	0	0	0	1,280,930	1,354,189	-73,259
June	17.01	0	0	1,602,291	1,769,463	21,082	0	0	0	0	1,602,291	1,790,545	-188,254
July	6.40	0	0	1,355,825	1,396,635	3,008	0	0	0	0	1,355,825	1,399,643	-43,818
August	11.25	0	0	1,555,444	1,521,955	0	110,065	0	0	110,065	1,555,444	1,632,020	-76,576
September	5.18	0	0	1,434,792	1,504,669	13,320	0	0	0	0	1,434,792	1,517,989	-83,197
October	0.7	0	0	1,341,231	680,154	72,484	844,900	0	0	794,428	1,341,231	1,597,538	-256,307
November													
December													
YTD Total	52.46	0	0	14,850,167	14,760,390	585,361	954,965	0	0	904,493	14,850,167	16,300,716	-1,450,549

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

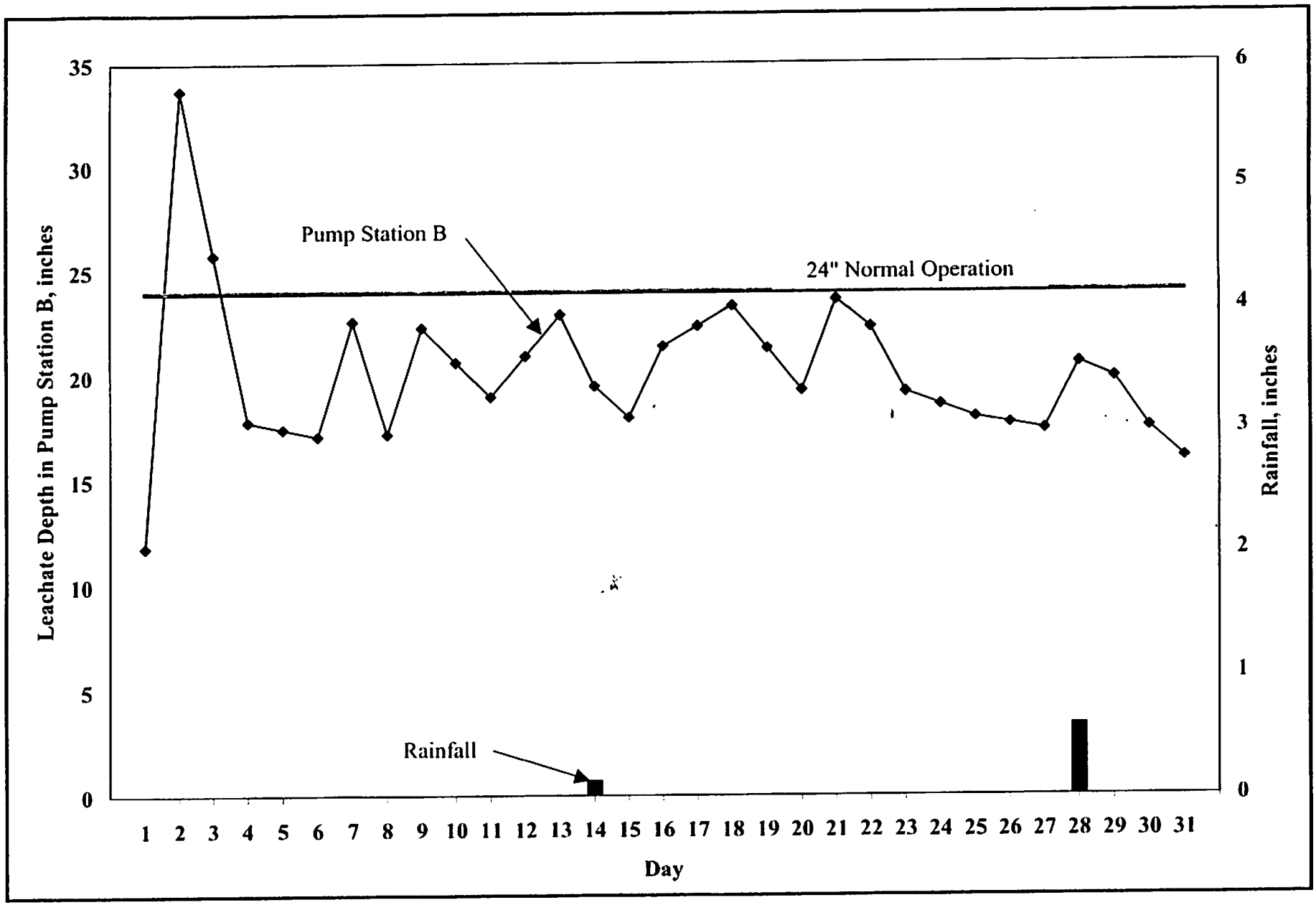

Figure 1. Leachate Levels in Pump Station B and Rainfall for October 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Oct,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0.00	2.8	7,530,205	10'8"	60,074	0	0	0
2		0.00	*27.4	7,553,888	8'4"	72,102	0	0	
3		0.00	13.2	7,613,534	7'5"	36,053	0	0	0
4		0.00	8.8	7,660,156	7'6"	0	0	0	0
5		0.00	0.0	0	0.00	0	0	0	0
6		0.00	8.1	7,782,290	9'6"	18,026	0	0	0
7		0.00	13.6	7,793,088	9'5"	60,114	0	0	0
8		0.00	8.2	7,836,884	8'9"	30,046	0	0	0
9		0.00	13.3	7,882,083	8'11"	6,014	0	0	0
10		0.00	14.5	7,928,457	10'7"	18,084	0	0	0
11		0.00	10.0	7,974,662	11'3"	0	0	0	0
12		0.00	0.0	0	0.00	0	0	0	0
13		0.00	13.9	8,062,299	13'0"	96,939	0	0	0
14		0.00	10.5	8,109,305	10'0"	114,264	0	0	0
15		0.00	9.0	8,155,718	7'4"	0	0	0	0
16		0.00	12.4	8,195,096	8'8"	0	0	6,015	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *See Daily Field Data Entry Form.

Prepared by: _____

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Oct,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0.00	8.2	8,234,036	8'0"	42,120	0	5,945	0
18		0.00	14.3	8,278,322	7'5'	0	0	6,028	0
19		0.00	0.0	0	0.00	0	0	6,034	0
20		0.00	10.3	8,362,862	8'3"	48,123	0	1,543	0
21		0.00	14.6	8,403,014	7'1"	0	0	1,542	0
22		0.00	13.3	8,446,608	7'9"	0	0	6,020	0
23		0.00	10.2	8,495,376	8"2"	0	0	3,218	0
24		0.00	8.3	8,537,354	8'7"	0	0	6,033	0
25		0.00	9.0	8,573,750	8'10"	0	0	6,026	0
26		0.00	0.0	0	0.00	0	0	6,019	0
27		0.00	8.4	8,657,459	9.60	6,018	0	6,017	0
28		0.00	11.6	8,706,726	9.10	0	0	6,015	0
29		0.00	10.9	8,753,244	10.90	6,020	0	6,029	0
30		0.00	8.5	8,790,248	9.10	12,034	12,032	0	0
31		0.00	11.7	8,827,818	7.70	0	12,027	0	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

_____

_____

_____

Prepared by: _____

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Oct.2003

Action	Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X		X	X	0	X	X	X	X	X	X	0	X	X	X	X
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.		X														
575,000 Gallon Tank at LTRF																
Normal Operation.	X	X	X	X	0	X	X	X	X	X		0		X	X	X
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.											X		X			
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	X	X	X	X	0	X	X	X	X	X	X	0	X	X	X	X
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	X	0	0	0	X	X	0	0	0	0	0	0	X	X	X
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken.																
Runoff Type 1=Severe, 2= Moderate, 3= Minor	To Basin A, B, C, D															

Comments/Remedial Action:

Prepared by:

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Oct,2003

Action	Day 17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	0	X	X	X	X	X	X	0	X	X	X	X	X	
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	X	X	0	X	X	X	X	X	X	0	X	X	X	X	X	
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.																
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	X	X	0	X	X	X	X	X	X	0	X	X	X	X	X	
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	X	0	0	0	X	0	X	X	0	X	X	X	X	X	
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by:

leachfrm xls
Revised 04/23/01

D.E.P.
JUL 1 4 2003
Southwest District Tampa

BOARD OF COUNTY COMMISSIONERS
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June 19, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – May 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of May 2003. In addition, the SWMD is providing the May 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for May 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches all month. The average depth of leachate in PS-B for the recorded days in May 2003 was 20.0 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0503.dep

Environmental Consultants

3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

June 13, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for May 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for May 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for May (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of May.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.13 inches of rainfall at the SCLF in May.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In May, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in May.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches all month. The average depth of leachate in the PS-B sump for the recorded days in May was 20.0 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in May was 31,146 gallons. A total of 965,520 gallons was pumped from TPS-6 to PS-B in May.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in May was 41,320 gallons. A total of 1,280,930 gallons of leachate was pumped to the storage tank in May.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In May, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In May, 1,280,930 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in May, based on recorded days, was estimated at 310,500 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in May.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of May, a total of 1,233,501 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In May, 120,688 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In May, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in May.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in May.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In May, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In May, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In May, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for May was 96,100 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in May was 1,280,930 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 1,354,189 gallons. The balance for the month of May decreased by 73,259 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

Attachments
cc: Matt Matthews

TABLE I. LEACHATE WATER BALANCE REPORT FORM
MAY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.20	0.0	0.0	16.4	32,910	42,479	0	0	42,479	233,000	0	54,109	0	800	0	0	0	0	0	0
2	0.01	0.0	0.0	21.8	33,340	43,959	0	0	43,959	252,000	0	60,177	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	20.7	31,150	40,706	0	0	40,706	235,000	0	0	3,016	800	0	0	0	0	0	2,400
4	0.00	0.0	0.0	NR	30,885	41,051	0	0	41,051	NR	0	0	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	23.7	30,885	41,051	0	0	41,051	326,000	0	24,082	6,059	800	0	0	0	0	0	4,800
6	0.00	0.0	0.0	23.3	30,950	38,763	0	0	38,763	326,000	0	36,138	6,056	800	0	0	0	0	0	4,800
7	0.00	0.0	0.0	22.0	30,740	39,141	0	0	39,141	322,000	0	36,106	6,043	800	0	0	0	0	0	4,800
8	0.07	0.0	0.0	18.6	31,585	40,320	0	0	40,320	341,000	0	36,103	6,054	800	0	0	0	0	0	4,800
9	0.00	0.0	0.0	17.6	31,150	39,566	0	0	39,566	338,000	0	66,166	6,050	800	0	0	0	0	0	0
10	0.00	0.0	0.0	21.9	31,455	41,074	0	0	41,074	305,000	0	30,077	0	800	0	0	0	0	0	0
11	0.00	0.0	0.0	NR	31,980	40,820	0	0	40,820	NR	0	0	0	800	0	0	0	0	0	4,800
12	0.00	0.0	0.0	19.4	31,980	40,820	0	0	40,820	345,000	0	18,089	6,011	800	0	0	0	0	0	4,800
13	0.00	0.0	0.0	19.3	31,645	40,624	0	0	40,624	314,000	0	42,133	6,010	800	0	0	0	0	0	4,900
14	0.15	0.0	0.0	20.5	32,365	41,044	0	0	41,044	317,000	0	42,090	6,080	800	0	0	0	0	0	7,200
15	0.00	0.0	0.0	23.1	33,020	41,762	0	0	41,762	317,000	0	54,129	9,037	800	0	0	0	0	0	7,200
16	0.00	0.0	0.0	17.2	32,400	42,085	0	0	42,085	317,000	0	66,167	9,043	800	0	0	0	0	0	4,800
17	0.00	0.0	0.0	17.9	31,710	40,144	0	0	40,144	309,000	0	24,053	6,032	800	0	0	0	0	0	0
18	0.55	0.0	0.0	NR	31,700	41,089	0	0	41,089	NR	0	0	0	800	0	0	0	0	0	2,400
19	1.03	0.0	0.0	16.4	31,700	41,089	0	0	41,089	358,000	0	78,319	3,032	800	0	0	0	0	0	0
20	0.00	0.0	0.0	19.4	28,030	36,234	0	0	36,234	331,000	0	18,048	0	800	0	0	0	0	0	2,400
21	0.00	0.0	0.0	17.4	32,265	47,821	0	0	47,821	348,000	0	90,253	3,020	800	0	0	0	0	0	2,400
22	0.45	0.0	0.0	20.1	32,555	49,440	0	0	49,440	300,000	0	72,163	3,005	800	0	0	0	0	0	0
23	0.63	0.0	0.0	17.5	30,165	42,099	0	0	42,099	283,000	0	78,185	0	800	0	0	0	0	0	0
24	0.04	0.0	0.0	18.2	29,475	43,184	0	0	43,184	NR	0	18,045	0	800	0	0	0	0	0	0
25	0.00	0.0	0.0	NR	29,610	40,956	0	0	40,956	NR	0	0	0	800	0	0	0	0	0	4,800
26	0.00	0.0	0.0	18.5	29,610	40,956	0	0	40,956	367,000	0	48,331	6,052	800	0	0	0	0	0	4,800
27	0.00	0.0	0.0	20.8	28,870	38,698	0	0	38,698	326,000	0	30,094	6,043	800	0	0	0	0	0	4,800
28	0.00	0.0	0.0	22.0	19,830	39,037	0	0	39,037	329,000	0	36,060	6,032	800	0	0	0	0	0	4,800
29	0.00	0.0	0.0	21.1	39,060	39,934	0	0	39,934	312,000	0	120,281	6,005	800	0	0	0	0	0	4,800
30	0.00	0.0	0.0	21.1	31,800	43,322	0	0	43,322	257,000	0	30,046	5,997	800	0	0	0	0	0	4,800
31		0.0	0.0	22.9	30,700	41,663	0	0	41,663	266,000	0	24,057	6,011	800	0	0	0	0	0	4,800
Total	3.13				965,520	1,280,930	0	0	1,280,930		0	1,233,501	120,688				0	0	0	96,100
Daily Average		0.0	0.0	20.0	31,146	41,320	0	0	41,320	310,500	0	47,442		800	0	0				
Mo. Average											0	39,790	3,900				0	0	0	3,100

f:\project\hillsbor\09200020.23\LeachateBalance\2003\04-03.xls (Revised by scv 06/11/03)

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth to 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May	3.13	0	0	1,280,930	1,233,501	120,688	0	0	0	0	1,280,930	1,354,189	-73,259
June													
July													
August													
September													
October													
November													
December													
YTD Total	11.92	0	0	7,560,584	7,887,514	475,467	0	0	0	0	7,560,584	8,362,981	-802,397

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

TABLE 2. FIELD DATA ENTRY FORM
MAY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled									Effluent Hauled		
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal)
1	7.4	0	0	66,587,530	345,923	8.08	54,109	0	0	0.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	12.8	0	0	66,620,870	389,882	8.75	60,177	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	11.7	0	0	66,652,020	430,588	8.17	0	0	3,016	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	NR	0	0	*66,682,905*	*471,639*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	14.7	0	0	66,713,790	512,690	11.33	24,082	0	6,059	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.3	0	0	*66,744,740*	551,453	11.33	36,138	0	6,056	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	13.0	0	0	66,775,480	590,594	11.17	36,106	0	6,043	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	9.6	0	0	66,807,065	630,914	11.83	36,103	0	6,054	0.07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	8.6	0	0	66,838,215	670,480	11.75	66,166	0	6,050	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	12.9	0	0	66,869,670	711,554	10.58	30,077	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	NR	0	0	*66,901,650*	*752,374*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	10.4	0	0	66,933,630	793,194	12.00	18,089	0	6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	10.3	0	0	66,965,275	833,818	10.92	42,133	0	6,010	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	11.5	0	0	66,997,640	874,862	11.00	42,090	0	6,080	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	14.1	0	0	67,030,660	916,624	11.00	54,129	0	9,037	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	8.2	0	0	67,063,060	958,709	11.00	66,167	0	9,043	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	8.9	0	0	67,094,770	998,853	10.75	24,053	0	6,032	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	NR	0	0	*67,126,470*	*1,039,942*	NR	0	0	0	0.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	7.4	0	0	67,158,170	1,081,030	12.42	78,319	0	3,032	1.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	10.4	0	0	67,186,200	1,117,264	11.50	18,048	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	8.4	0	0	67,218,465	1,165,085	12.08	84,228	6,025	3,020	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	11.1	0	0	67,251,020	1,214,525	10.42	72,163	0	3,005	0.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	8.5	0	0	67,281,185	1,256,624	9.83	78,185	0	0	0.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	9.2	0	0	67,310,660	1,299,808	9.17	18,045	0	0	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	NR	0	0	*67,340,270*	*1,340,764*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	9.5	0	0	67,369,880	1,381,720	12.75	48,331	0	6,052	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	11.8	0	0	67,398,750	1,420,418	11.33	30,094	0	6,043	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	13.0	0	0	67,418,580	1,459,455	11.42	36,060	0	6,032	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	12.1	0	0	67,457,640	1,499,389	10.83	120,281	0	6,005	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	12.1	0	0	67,489,440	1,542,711	8.92	30,046	0	5,997	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	13.9	0	0	67,520,140	1,584,374	9.25	24,057	0	6,011	0.00	0.0	0.0	0.0	0.0	0.0			

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

Revised February 12, 2003

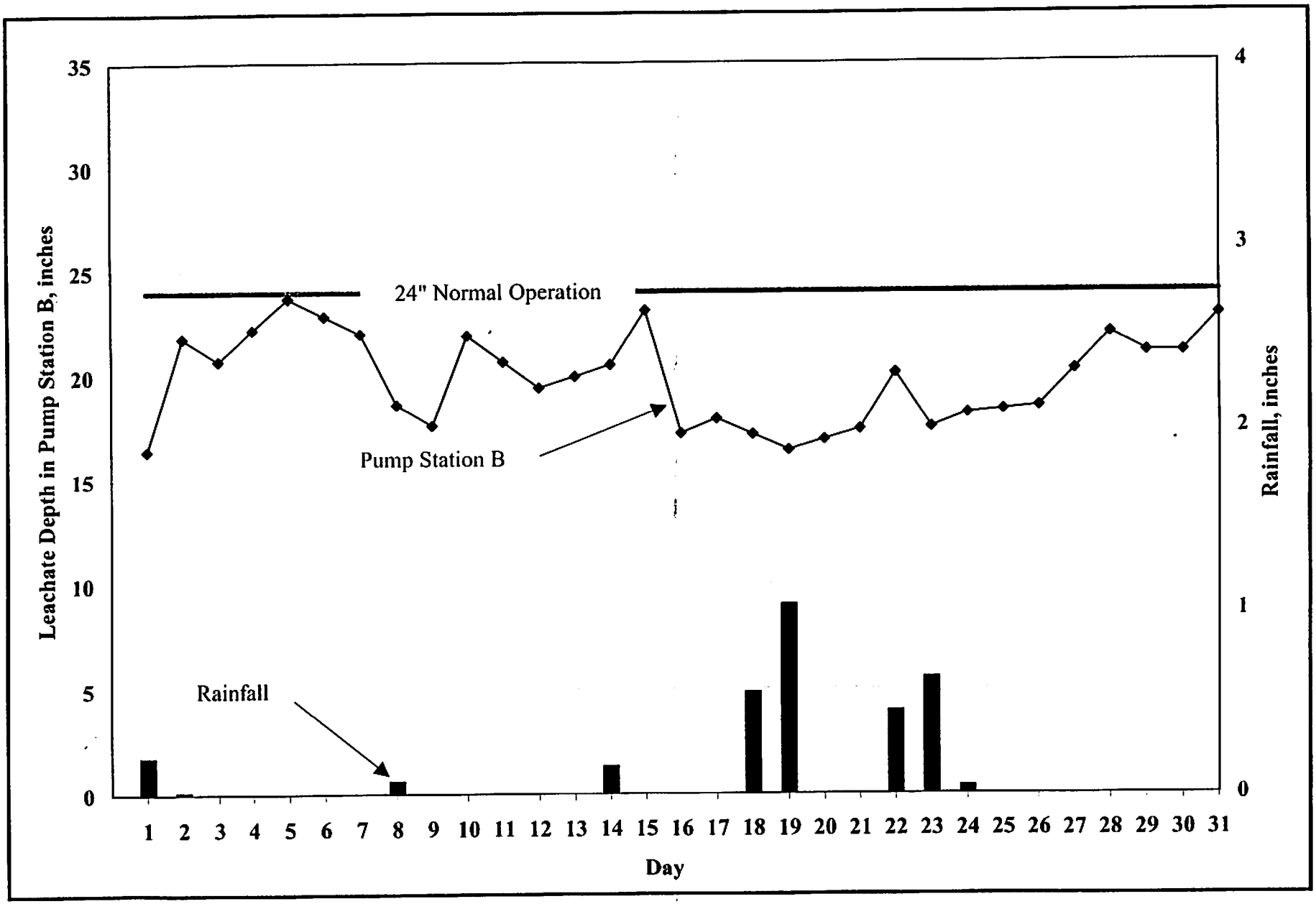

Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0	7.4	303,444	8'1"	54,109	0	0	0.20
2		0	12.8	389,882	8'9"	60,177	0	0	0.01
3		0	11.7	430,588	8'2"	0	0	3,016	0
4		0	0	0	0	0	0	0	0
5		0	14.7	512,690	11'4"	24,082	0	6,059	0
6		0	14.3	551,453	11'4"	36,138	0	6,056	0
7		0	13.0	590,594	11'2"	36,106	0	6,043	0
8		0	9.6	630,914	11'8"	36,103	0	6,054	0.07
9		0	8.6	670,480	11'9"	66,166	0	6,050	0
10		0	12.9	711,554	10'7"	30,077	0	0	0
11		0	0	0	0	0	0	0	0
12		0	10.4	793,194	12'0"	18,089	0	6,011	0
13		0	10.3	833,818	10'11"	42,133	0	6,010	0
14		0	11.5	874,862	11'0"	42,090	0	6,080	0.15
15		0	14.1	916,624	11'0"	54,129	0	9,037	0
16		0	8.2	958,709	11'0"	66,167	0	9,043	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Graves for Matt

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) May,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0	8.9	998,853	10'9"	24,053	0	6,032	0
18		0	0	0	0	0	0	0	0.55
19		0	7.4	1,081,030	12'5"	78,319	0	3,032	1.03
20		0	10.4	1,117,264	11'6"	18,048	0	0	0
21		0	8.4	1,165,085	12'1"	84,228	6,025	3,020	0
22		0	11.1	1,214,525	10'5'	72,163	0	3,005	0.45
23		0	8.5	1,256,624	9'10"	78,185	0	0	0.63
24		0	8.0	1,299,808	9'2"	18,045	0	0	0.04
25		0	0	0	0	0	0	0	0
26		0	9.5	1,381,720	12'9"	48,331	0	6,052	0
27		0	11.8	1,420,418	11'4"	30,094	0	6,043	0
28		0	13.0	1,459,455	11'5'	36,060	0	6,032	0
29		0	12.1	1,499,389	10'10"	120,281	0	6,005	0
30		0	12.1	1,542,711	8'11"	30,046	0	5,997	0
31		0	13.9	1,584,374	9'3"	24,057	0	6,011	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Howard for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) May,2003

Action	Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	X	0	X	X	X	X	X	X	0	X	X	X	X	X
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	X	X	X	0						X	0		X	X	X	X
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.					X	X	X	X	X			X				
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken.																
Runoff Type 1=Severe, 2= Moderate, 3= Minor / To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond C. Frawn for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) May,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	O	X	X	X	X	X	X	O	X	X	X	X	X	X	
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	X	O				X	X	X	O				X	X	X	
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.			X	X	X					X	X	X				
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond C Travers for Matt

leachfrm.xls
Revised 04/23/01

D.E.P.
JUL 1 4 2003
Southwest District Tampa

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May 16, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – April 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of April 2003. In addition, the SWMD is providing the April 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for April 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches all month. The average depth of leachate in PS-B for the recorded days in April 2003 was 20.3 inches, which is below of the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0403.dep

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

May 13, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for April 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for April 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for April (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of April.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.48 inches of rainfall at the SCLF in April.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In April, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in April.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches all month. The average depth of leachate in the PS-B sump for the recorded days in April was 20.3 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in April was 31,550 gallons. A total of 946,500 gallons was pumped from TPS-6 to PS-B in April.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in April was 44,771 gallons. A total of 1,343,136 gallons of leachate was pumped to the storage tank in April.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In April, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In April, 1,343,136 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in April, based on recorded days, was estimated at 208,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in April.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of April, a total of 1,329,693 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In April, 72,307 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In April, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in April.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in April.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In April, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In April, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In April, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for April was 57,600 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in April was 1,343,136 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 1,402,000 gallons. The balance for the month of April decreased by 58,864 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

Attachments
cc: Matt Matthews

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
APRIL 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	18.8	27,630	35,344	0	0	35,344	221,000	0	48,115	9,011	800	0	0	0	0	0	7,200
2	0.00	0.0	0.0	19.8	31,730	39,110	0	0	39,110	209,000	0	72,178	6,011	800	0	0	0	0	0	4,800
3	0.00	0.0	0.0	20.5	30,120	44,346	0	0	44,346	166,000	0	18,081	2,996	800	0	0	0	0	0	2,400
4	0.00	0.0	0.0	19.8	36,500	49,100	0	0	49,100	202,000	0	42,104	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	19.3	38,120	49,688	0	0	49,688	173,000	0	18,042	0	800	0	0	0	0	0	0
6	0.42	0.0	0.0	NR	*35,250*	*45,324*	0	0	45,324	NR	0	0	0	800	0	0	0	0	0	0
7	0.00	0.0	0.0	18.8	35,250	45,324	0	0	45,324	250,000	0	48,128	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	20.9	35,260	46,206	0	0	46,206	264,000	0	30,081	0	800	0	0	0	0	0	0
9	0.17	0.0	0.0	21.8	37,250	50,601	0	0	50,601	278,000	0	90,288	0	800	0	0	0	0	0	0
10	0.03	0.0	0.0	19.7	38,230	50,669	0	0	50,669	216,000	0	96,257	0	800	0	0	0	0	0	0
11	0.00	0.0	0.0	20.9	36,720	47,974	0	0	47,974	199,000	0	54,166	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	22.9	34,845	43,958	0	0	43,958	175,000	0	48,182	0	800	0	0	0	0	0	0
13	0.00	0.0	0.0	NR	*31,873*	*39,930*	0	0	39,930	NR	0	0	0	800	0	0	0	0	0	0
14	0.00	0.0	0.0	20.7	31,873	39,930	0	0	39,930	209,000	0	66,177	6,010	800	0	0	0	0	0	4,800
15	0.00	0.0	0.0	21.0	27,440	38,392	0	0	38,392	180,000	0	90,245	6,027	800	0	0	0	0	0	4,800
16	0.25	0.0	0.0	16.8	32,265	42,320	0	0	42,320	146,000	0	30,129	3,018	800	0	0	0	0	0	2,400
17	0.00	0.0	0.0	23.8	36,345	50,234	0	0	50,234	163,000	0	6,011	0	800	0	0	0	0	0	0
18	0.07	0.0	0.0	23.6	34,565	45,622	0	0	45,622	199,000	0	60,195	3,046	800	0	0	0	0	0	2,400
19	0.00	0.0	0.0	19.0	33,330	43,225	0	0	43,225	178,000	0	24,071	0	800	0	0	0	0	0	0
20	0.00	0.0	0.0	NR	*5,058*	*33,502*	0	0	33,502	NR	0	0	0	800	0	0	0	0	0	0
21	0.00	0.0	0.0	19.0	5,058	33,502	0	0	33,502	230,000	0	66,185	6,033	800	0	0	0	0	0	4,800
22	0.00	0.0	0.0	20.5	39,290	50,312	0	0	50,312	204,000	0	78,216	6,024	800	0	0	0	0	0	4,800
23	0.00	0.0	0.0	22.1	35,280	45,524	0	0	45,524	180,000	0	78,191	6,029	800	0	0	0	0	0	4,800
24	0.00	0.0	0.0	20.6	15,130	36,034	0	0	36,034	149,000	0	54,180	3,019	800	0	0	0	0	0	2,400
25	1.97	0.0	0.0	20.5	39,680	51,296	0	0	51,296	149,000	0	0	6,014	800	0	0	0	0	0	4,800
26	0.53	0.0	0.0	19.3	37,765	50,806	0	0	50,806	204,000	0	0	0	800	0	0	0	0	0	0
27	0.00	0.0	0.0	NR	*32,728*	*55,046*	0	0	55,046	NR	0	0	0	800	0	0	0	0	0	0
28	0.04	0.0	0.0	17.9	32,728	55,046	0	0	55,046	319,000	0	72,188	3,033	800	0	0	0	0	0	2,400
29	0.00	0.0	0.0	18.5	31,245	41,331	0	0	41,331	302,000	0	72,178	3,020	800	0	0	0	0	0	2,400
30	0.00	0.0	0.0	21.9	27,945	43,442	0	0	43,442	261,000	0	66,105	3,016	800	0	0	0	0	0	2,400
Total	3.48				946,500	1,343,136	0	0	1,343,136		0	1,329,693	72,307				0	0	0	57,600
Daily Average		0.0	0.0	20.3	31,550	44,771	0	0	44,771	208,700	0	55,404		800	0	0				
Mo. Average											0	44,323	2,400				0	0	0	1,920

f:\project\hillsbor 09200020 23\Leachate Balance\2003 04-03.xls (Revised by scv 05/12/03)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM

APRIL 2003

SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII		IX	X	XI	XII	XIII	XIV	XV	XVI	XVI		XVIII	XIX
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled Contractor *(gal.)*	Leachate Hauled County *(gal.)*		Leachate Dust Control (Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled Contractor (gal.)	Effluent Hauled County (gal.)		Effluent Dust Control (Sprayed) (gal)
1	9.8	0	0	65,635,650	8,995,652	7.67	48,115	0		9,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
2	10.8	0	0	65,667,380	9,034,762	7.25	72,178	0		6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
3	11.5	0	0	65,697,500	9,079,108	5.75	18,081	0		2,996	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
4	10.8	0	0	65,734,000	9,128,208	7.00	42,104	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
5	10.3	0	0	65,772,120	9,177,896	6.00	18,042	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
6	NR	0	0	*65,807,370*	*9,223,220*	NR	0	0		0	0.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
7	9.8	0	0	65,842,620	9,268,544	8.67	48,128	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
8	11.9	0	0	65,877,880	9,314,750	9.17	30,081	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
9	12.8	0	0	65,915,130	9,365,351	9.67	90,288	0		0	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
10	10.7	0	0	65,953,360	9,416,020	7.50	96,257	0		0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
11	11.9	0	0	65,990,080	9,463,994	6.92	54,166	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
12	13.9	0	0	66,024,925	9,507,952	6.08	48,182	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
13	NR	0	0	*66,056,798*	*9,547,882*	NR	0	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
14	11.7	0	0	66,088,670	9,587,812	7.25	66,177	0		6,010	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
15	12.0	0	0	66,116,110	9,626,204	6.25	90,245	0		6,027	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
16	7.8	0	0	66,148,375	9,668,524	5.08	30,129	0		3,018	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
17	14.8	0	0	66,184,720	9,718,758	5.67	6,011	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
18	14.6	0	0	66,219,285	9,764,380	6.92	60,195	0		3,046	0.07	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
19	10.0	0	0	66,252,615	9,807,605	6.17	24,071	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
20	NR	0	0	*66,257,673*	*9,841,107*	NR	0	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
21	10.0	0	0	66,262,730	9,874,608	8.00	66,185	0		6,033	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
22	11.5	0	0	66,302,020	9,924,920	7.08	78,216	0		6,024	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
23	13.1	0	0	66,337,300	9,970,444	6.25	72,178,	6,013		6,029	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
24	11.6	0	0	66,352,430	6,478	4.58	54,180	0		3,019	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
25	11.5	0	0	66,392,110	57,774	5.17	0	0		6,014	1.97	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
26	10.3	0	0	66,429,875	108,580	7.08	0	0		0	0.53	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
27	NR	0	0	*66,462,603*	*163,626*	NR	0	0		0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
28	8.9	0	0	66,495,330	218,671	11.08	72,188	0		3,033	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
29	9.5	0	0	66,526,575	260,002	10.50	72,178	0		3,020	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
30	12.9	0	0	66,554,520	303,444	9.08	66,105	0		3,016	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0

f:\project\hillsbor\09200020.23\LeachateBalance\2003\04-03.xls (Revised by scv 05/12/03)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April	3.48	0	0	1,343,136	1,329,693	72,307	0	0	0	0	1,343,136	1,402,000	-58,864
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	8.79	0	0	6,279,654	6,654,013	354,779	0	0	0	0	6,279,654	7,008,792	-729,138

f:\project\Hillsborough\09200020.23\leachate Balance\2003\2003summary.xls (Revised to include Section 7 SCLD 2-10-03)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

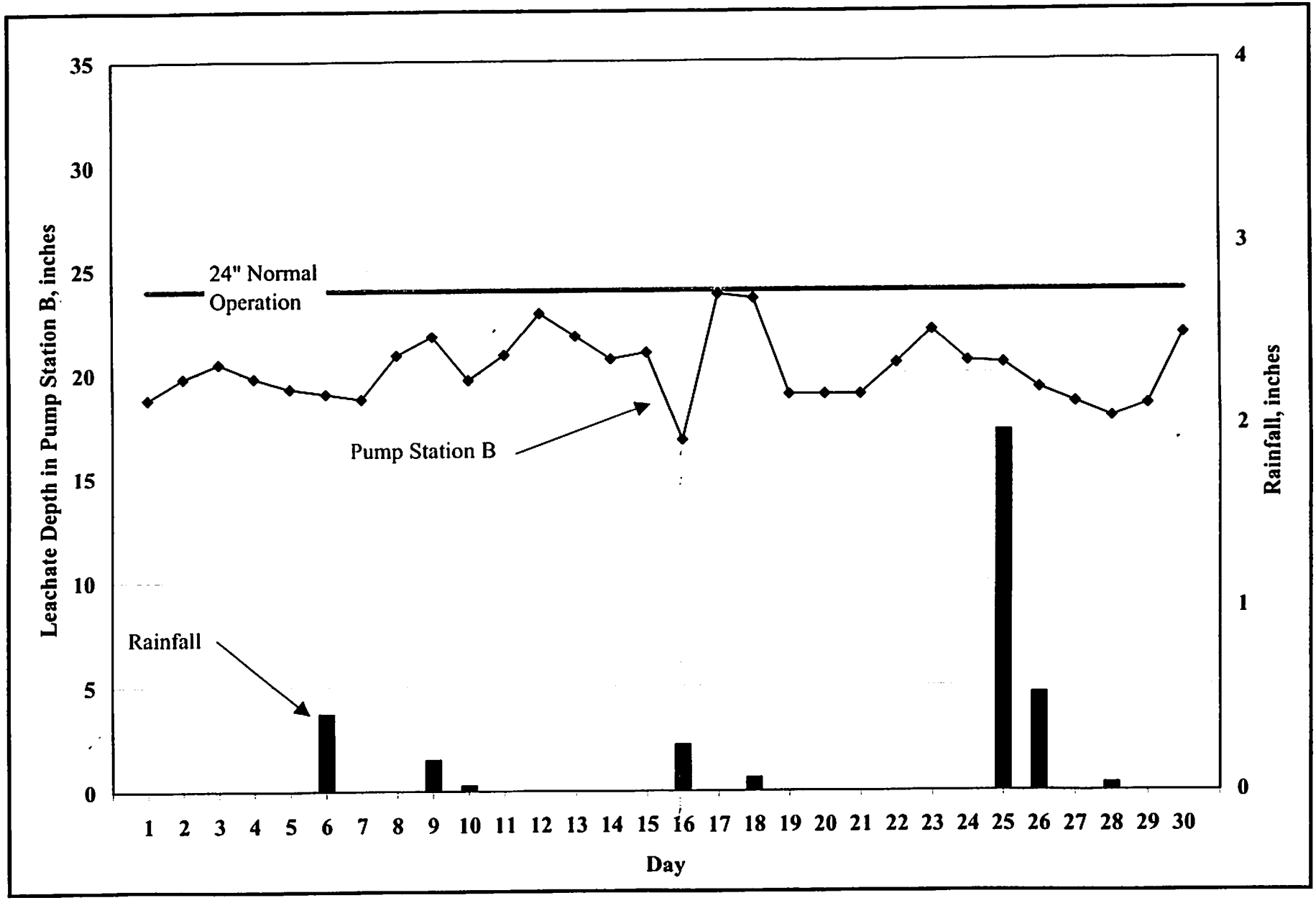

Figure 1. Leachate Levels in Pump Station B and Rainfall for April 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0	13.8	8,995,652	7'8"	48,115	0	9,011	0
2		0	10.8	9,034,762	7'3"	72,178	0	6,011	0
3		0	11.5	9,079,108	5'9"	18,081	0	2,996	0
4		0	10.8	9,128,208	7'0"	42,104	0	0	0
5		0	10.3	9,177,896	6'0"	18,042	0	0	0
6		0	0	0	0	0	0	0	0.42
7		0	9.8	9,268,544	8'8"	48,128	0	0	0
8		0	11.9	9,314,750	9'2"	30,081	0	0	0
9		0	12.8	9,365,351	9'8"	90,288	0	0	0.17
10		0	10.3	9,416,080	7'6"	96,257	0	0	0.03
11		0	11.9	9,463,994	6'11"	54,166	0	0	0
12		0	13.9	9,507,952	6'1"	48,182	0	0	0
13		0	0	0	0	0	0	0	0
14		0	11.7	9,587,812	7'3"	66,177	0	6,010	0
15		0	12.0	9,626,204	6'3"	90,245	0	6,027	0
16		0	7.8	9,668,524	5'1"	30,129	0	3,018	0.25

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves for Matt

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) April,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0	14.8	9,718,758	5'8"	6,011	0	0	0
18		0	14.6	9,764,380	6'11"	60,195	0	3,046	0.07
19		0	10.0	9,807,605	6'2"	24,071	0	0	0
20		0	0	0	0	0	0	0	0
21		0	10.0	9,874,608	8'0"	66,185	0	6,033	0
22		0	11.5	9,924,920	7'1"	78,216	0	6,024	0
23		0	13.1	9,970,444	6'3'	72,178	6,013	6,029	0
24		0	11.6	6,478	4'6"	54,180	0	3,019	0
25		0	11.5	57,774	5'2"	0	0	6,014	1.97
26		0	10.3	108,580	7'1"	0	0	0	0.53
27		0	0	0	0	0	0	0	0
28		0	8.9	218,671	11'1"	72,188	0	3,033	0.04
29		0	9.5	260,002	10'6"	72,178	0	3,020	0
30		0	12.9	303,444	9'1"	66,105	0	3,016	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C. Graves for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) April,2003

Action	Day															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	X	X	X	0	X	X	X	X	X	X	0	X	X	X
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	X	X		X	X	0	X	X	X	X	X	X	0	X	X	
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.																
If level is less than 6 feet, decrease or stop hauling, recirculation.			X													X
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken.																
Runoff Type 1=Severe, 2= Moderate, 3= Minor / To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond C Shaw for Matt

leachfrm.xls
Revised 04/23/01

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) April,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	X	0	X	X	X	X	X	X	0	X	X	X		
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.		X	X	0	X	X	X			X	0		X	X		
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.												X				
If level is less than 6 feet, decrease or stop hauling, recirculation.	X							X	X							
Pond A (Effluent only)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor / To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond C Graves for Matt

leachfrm.xls
Revised 04/23/01

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April 14, 2003

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT TAMPA

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Ford:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending April 15, 2003.

The data is being submitted as separate monthly reports for January, February and March 2003. The information includes the leachate level in Pump Station B (PSB), which was below the 24-inch normal operation level during the months of January and February. In March, the PSB was slightly above the 24-inch normal operation level at 24.3.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment

xc: Matt Matthews, SWMD
Walter Gray, SWMD
Larry Ruiz, SCS
Paul Schipfer, EPC
Susan J. Pelz, P.E.

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April 14, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT
TAMPA

RE: Southeast County Landfill – March 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of March 2003. In addition, the SWMD is providing the March 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for March 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was above the normal operation level on March 8 and March 25 due to power outages. The average depth of leachate in PS-B for the recorded days in March 2003 was 24.3 inches, which is above the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0303.dep

Environmental Consultants

3012 U.S. Highway 301 North
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

April 11, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for March 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for March 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for March (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of March.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 3.40 inches of rainfall at the SCLF in March.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In March, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in March.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was above the normal operation level on March 8 and March 25 due to power outages. The average depth of leachate in the PS-B sump for the recorded days in February was 24.3 inches, which is above the 24-inch normal operation level.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). TPS-6 was offline on March 1 for a brief period during the evening. The average daily amount of leachate pumped from TPS-6 in March was 38,721 gallons. A total of 1,084,175 gallons was pumped from TPS-6 to PS-B in March.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in March was 54,152 gallons. A total of 1,516,264 gallons of leachate was pumped to the storage tank in March.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In March, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In March, 1,516,264 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in March, based on recorded days, was estimated at 299,000 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in March.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of March, a total of 1,535,029 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In March, 60,090 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In March, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in March.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in March.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In March, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In March, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In March, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for March was 48,000 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in March was 1,516,264 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 1,595,119 gallons. The balance for the month of March decreased by 78,855 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

for/ Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

Attachments
cc: Matt Matthews

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MARCH 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MI PS from Phases I-A1 (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MI PS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.01	0.0	0.0	18.1	7,185	50,994	0	0	50,994	189,000	0	42,090	0	800	0	0	0	0	0	0
2	0.01	0.0	0.0	NR	*42,165*	*51,143*	0	0	51,143	NR	0	0	0	800	0	0	0	0	0	0
3	0.01	0.0	0.0	23.7	42,165	51,143	0	0	51,143	278,000	0	90,242	6,010	800	0	0	0	0	0	4,800
4	0.00	0.0	0.0	20.5	39,160	51,636	0	0	51,636	240,000	0	48,093	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	17.8	38,950	50,501	0	0	50,501	230,000	0	54,118	6,006	800	0	0	0	0	0	4,800
6	0.00	0.0	0.0	21.1	38,380	51,051	0	0	51,051	218,000	0	42,122	6,006	800	0	0	0	0	0	4,800
7	0.03	0.0	0.0	23.8	38,045	49,087	0	0	49,087	214,000	0	48,162	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	33.6	36,745	39,942	0	0	39,942	230,000	0	24,080	0	800	0	0	0	0	0	0
9	0.03	0.0	0.0	NR	*38,745*	*39,622*	0	0	39,622	NR	0	0	0	800	0	0	0	0	0	0
10	0.00	0.0	0.0	19.0	38,745	39,622	0	0	39,622	297,000	0	54,162	0	800	0	0	0	0	0	4,800
11	0.00	0.0	0.0	19.1	37,140	70,491	0	0	70,491	300,000	0	48,163	6,008	800	0	0	0	0	0	0
12	0.00	0.0	0.0	23.6	35,365	47,582	0	0	47,582	307,000	0	42,152	0	800	0	0	0	0	0	4,800
13	0.00	0.0	0.0	20.3	35,765	47,546	0	0	47,546	324,000	0	48,180	6,008	800	0	0	0	0	0	4,800
14	0.00	0.0	0.0	21.6	36,730	48,750	0	0	48,750	309,000	0	48,186	6,012	800	0	0	0	0	0	0
15	0.00	0.0	0.0	19.3	38,110	50,496	0	0	50,496	307,000	0	36,110	0	800	0	0	0	0	0	0
16	0.40	0.0	0.0	NR	*39,805*	*53,456*	0	0	53,456	NR	0	0	0	800	0	0	0	0	0	0
17	0.09	0.0	0.0	23.5	39,805	53,456	0	0	53,456	415,000	0	6,018	0	800	0	0	0	0	0	0
18	0.00	0.0	0.0	17.2	41,100	55,189	0	0	55,189	417,000	0	102,600	0	800	0	0	0	0	0	4,800
19	0.00	0.0	0.0	NR	12,625	14,504	0	0	14,504	338,000	0	96,428	6,008	800	0	0	0	0	0	4,800
20	0.01	0.0	0.0	19.0	35,095	90,332	0	0	90,332	300,000	0	96,322	6,008	800	0	0	0	0	0	0
21	1.65	0.0	0.0	18.8	36,040	27,676	0	0	27,676	266,000	0	96,270	0	800	0	0	0	0	0	0
22	0.01	0.0	0.0	20.5	18,355	40,594	0	0	40,594	238,000	0	42,124	0	800	0	0	0	0	0	0
23	0.93	0.0	0.0	NR	*34,423*	*47,166*	0	0	47,166	NR	0	0	0	800	0	0	0	0	0	0
24	0.01	0.0	0.0	17.9	34,423	47,166	0	0	47,166	240,000	0	90,364	0	800	0	0	0	0	0	0
25	0.00	0.0	0.0	33.2	35,600	34,402	0	0	34,402	240,000	0	96,280	0	800	0	0	0	0	0	0
26	0.00	0.0	0.0	19.0	35,490	75,002	0	0	75,002	223,000	0	114,337	0	800	0	0	0	0	0	4,800
27	0.18	0.0	0.0	19.0	38,320	54,366	0	0	54,366	163,000	0	60,147	6,013	800	0	0	0	0	0	0
28	0.02	0.0	0.0	24.1	37,770	51,304	0	0	51,304	151,000	0	42,091	0	800	0	0	0	0	0	0
29	0.00	0.0	0.0	21.0	35,165	46,128	0	0	46,128	180,000	0	0	0	800	0	0	0	0	0	0
30	0.01	0.0	0.0	NR	33,283	42,960	0	0	42,960	NR	0	0	0	800	0	0	0	0	0	4,800
31	0.00	0.0	0.0	18.8	33,283	42,960	0	0	42,960	264,000	0	66,188	6,011	800	0	0	0	0	0	0
Total	3.40				1,084,175	1,516,264	0	0	1,516,264		0	1,535,029	60,090				0	0	0	48,000
Daily Average		0.0	0.0	24.3	38,721	54,152	0	0	54,152	299,000	0	69,774		900	0	0				
Mo. Average									54,152		0	54,822	2,100				0	0	0	1,710

I:\project hillsbor\09200020.23\LeachateBalance\2003\03-03.xls (Revised by scv 04.11.03)

Notes:

1. NR = No Records, N/A = Not Available
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Daily average is calculated by dividing the total by the actual days measured in the month
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II. Trace is less than 0.01 inches and is not included in total
6. Columns III and IV, field measured at staff gauges
7. Column V, PPS B sensor reading plus 9 inches
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII

Revised February 12, 2003

TABLE 2. FIELD DATA ENTRY FORM
MARCH 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	9.1	0	0	64,531,030	7,495,038	6.58	42,090	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	NR	0	0	64,573,195	7,546,181	NR	0	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	14.7	0	0	64,615,360	7,597,323	9.67	84,228	6,014	6,010	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.5	0	0	64,654,520	7,648,959	8.33	42,083	6,010	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	8.8	0	0	64,693,470	7,699,460	8.00	48,106	6,012	6,006	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	12.1	0	0	64,731,850	7,750,511	7.58	42,122	0	6,006	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	14.8	0	0	64,769,895	7,799,598	7.42	42,152	6,010	0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	24.6	0	0	64,806,640	7,839,540	8.00	24,080	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	NR	0	0	64,845,385	7,879,162	NR	0	0	0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	10.0	0	0	64,884,130	7,918,783	10.33	48,146	6,016	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	10.1	0	0	64,921,270	7,989,274	10.42	48,163	0	6,008	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	14.6	0	0	64,956,835	8,036,856	10.67	42,152	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	11.3	0	0	64,992,600	8,084,402	11.25	48,180	0	6,008	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	12.6	0	0	65,029,330	8,133,152	10.75	48,186	0	6,012	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	10.3	0	0	65,067,440	8,183,648	10.67	36,110	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	NR	0	0	65,107,245	8,237,104	NR	0	0	0	0.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	14.5	0	0	65,147,050	8,290,559	14.42	6,018	0	0	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	8.2	0	0	65,188,150	8,345,748	14.50	102,600	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	NR	0	0	65,200,775	8,360,252	11.75	96,428	0	6,008	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	10.0	0	0	65,235,870	8,450,584	10.42	96,322	0	6,008	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	9.8	0	0	65,271,910	8,478,260	9.25	96,270	0	0	1.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	11.5	0	0	65,290,265	8,518,854	8.25	42,124	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	NR	0	0	65,324,688	8,566,020	NR	0	0	0	0.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	8.9	0	0	65,359,110	8,613,186	10.25	90,364	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	24.2	0	0	65,394,710	8,647,588	8.33	96,280	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	10.0	0	0	65,430,200	8,722,590	7.75	108,321	6,016	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	10.0	0	0	65,468,520	8,776,956	5.67	60,147	0	6,013	0.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	15.1	0	0	65,506,290	8,828,260	5.25	42,091	0	0	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	12.0	0	0	65,541,455	8,874,388	6.25	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	NR	0	0	65,574,738	8,917,348	NR	0	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	9.8	0	0	65,608,020	8,960,308	9.17	66,188	0	6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March	3.40	0	0	1,516,264	1,535,029	60,090	0	0	0	0	1,516,264	1,595,119	-78,855
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	5.31	0	0	4,936,518	5,324,320	282,472	0	0	0	0	4,936,518	5,606,792	-670,274

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT
TAMPA

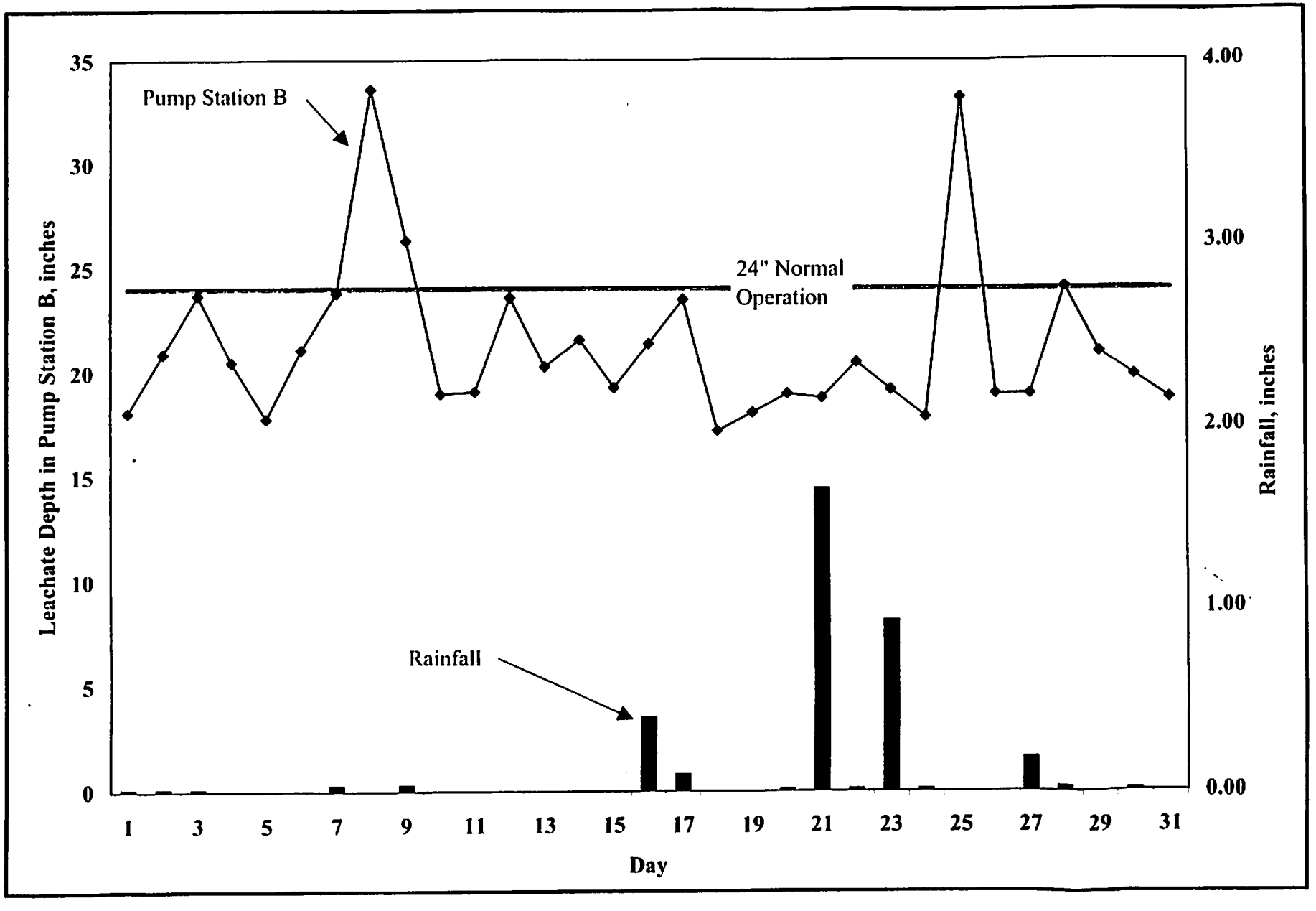

Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) March,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		0	9.1	7,485,038	6'7"	42,090	0	0	0.01
2		0	0	0	0	0	0	0	0.01
3		0	14.1	7,597,323	9'8"	84,228	6,014	6,010	0.01
4		0	11.5	7,648,959	8'4"	42,083	6,010	0	0
5		0	8.8	7,699,460	8'0"	48,106	6,012	6,006	0
6		0	12.1	7,750,511	7'7"	42,122	0	6,006	0
7		0	14.8	7,799,598	7'5"	42,152	6,010	0	0.03
8		0	*24.6	7,839,540	8'0"	24,080	0	0	0
9		0	0	0	0	0	0	0	0.03
10		0	10.0	7,938,783	10'4"	48,146	6,016	0	0
11		0	10.1	7,989,274	10'5"	48,163	0	6,008	0
12		0	14.6	8,036,856	10'8"	42,152	0	0	0
13		0	11.3	8,084,402	11'3"	48,180	0	6,008	0
14		0	12.6	8,133,152	10'9"	48,186	0	6,012	0
15		0	10.3	8,183,648	10'8"	36,110	0	0	0
16		0	0	0	0	0	0	0	0.40

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: * See Daily Field Data Entry Form.

Prepared by: Raymond C Graves B. Matt

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) _____

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		0	14.5	8,290,559	14'5"	6,018	0	0	0.09
18		0	8.2	8,345,748	14'6'	102,600	0	0	0
19		0	*	8,360,252	11'9"	96,428	0	6,008	0
20		0	10.0	8,430,584	10'5"	96,322	0	6,008	0.01
21		0	9.8	8,478,260	9'3"	96,270	0	0	1.65
22		0	11.5	8,518,854	8'3"	42,124	0	0	0.01
23		0	0	0	0	0	0	0	0.93
24		0	8.9	8,613,186	10'3"	90,364	0	0	0.01
25		0	*24.2	8,647,588	8'4"	96,280	0	0	0
26		0	10.0	8,722,590	7'9"	108,321	6,016	0	0
27		0	7.1	8,776,956	5'8"	60,147	0	6,013	0.18
28		0	15.1	8,828,260	5'3"	42,091	0	0	0.02
29		0	12.0	8,874,338	6'3"	0	0	0	0
30		0	0	0	0	0	0	0	0.01
31		0	9.8	8,960,308	9'2"	66,188	0	6,011	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: * SeeDaily Field Data Entry Forms.

Prepared by: Raymond C Graves for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) March 2003

Action	Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	NR	X	X	X	X	X		NR	X	X	X	X	X	X	NR
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.								X								
575,000 Gallon Tank at LTRF																
Normal Operation.	X	NR	X	X	X	X	X	X	NR	X	X	X		X	X	NR
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.													X			
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No. .	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond Graver for Matt

leachfrm.xls
Revised 04/23/01

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) March,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	NR	X	X	X	NR	X		X	X	X	X	NR	X	
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.									X							
575,000 Gallon Tank at LTRF																
Normal Operation.				X	X	X	NR	X	X	X			X	NR	X	
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.	X	X	X													
If level is less than 6 feet, decrease or stop hauling, recirculation.											X	X				
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No. .	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond Graves for Matt

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT
TAMPA

March 20, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – February 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of February 2003. In addition, the SWMD is providing the February 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for February 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. The average depth of leachate in PS-B for the recorded days in February 2003 was 20.8 inches, which is below the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0203.dep

Environmental Consultants

3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

APR 15 2003
Southwest District Tampa
MAR 2003
RECEIVED

March 17, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for February 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for February 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for February (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of February.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 1.89 inches of rainfall at the SCLF in February.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In February, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in February.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was above the normal operation level on February 10 due to a high level in the 575,000-gallon leachate storage tank (Column XI) which shuts down the pump. PS-B was also above the normal operation level on February 14 due to a power outage. The average depth of leachate in the PS-B sump for the recorded days in February was 20.8 inches, which is below the 24-inch normal operation level.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). TPS-6 was offline briefly on February 26 and February 28. The average daily amount of leachate pumped from TPS-6 in February was 38,594 gallons. A total of 1,080,620 gallons was pumped from TPS-6 to PS-B in February.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in February was 54,601 gallons. A total of 1,528,819 gallons of leachate was pumped to the storage tank in February.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In February, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In February, 1,528,819 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in February, based on recorded days, was estimated at 372,000 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in February.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of February, a total of 1,715,696 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In February, 120,223 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In February, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume is calculated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in February.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in February.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In February, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In February, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In February, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XII, XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for February was 96,000 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in February was 1,528,819 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 1,836,919 gallons. The balance for the month of February decreased by 307,100 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S-van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

Larry E. Ruiz

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

Attachments
cc: Matt Matthews

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
FEBRUARY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	22.0	46,335	69,088	0	0	69,088	290,000	0	48,135	6,010	800	0	0	0	0	0	4,800
2	0.00	0.0	0.0	NR	*45,120*	*55,857*	0	0	55,857	NR	0	0	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	15.3	45,120	55,857	0	0	55,857	338,000	0	60,196	6,011	800	0	0	0	0	0	4,800
4	0.00	0.0	0.0	20.2	39,155	61,771	0	0	61,771	331,000	0	60,240	12,016	800	0	0	0	0	0	9,600
5	0.00	0.0	0.0	17.1	43,575	62,611	0	0	62,611	314,000	0	54,250	6,012	800	0	0	0	0	0	4,800
6	0.00	0.0	0.0	18.4	38,190	54,704	0	0	54,704	379,000	0	48,748	12,023	800	0	0	0	0	0	9,600
7	0.00	0.0	0.0	14.2	44,430	31,413	0	0	31,413	377,000	0	72,448	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	19.5	40,620	73,730	0	0	73,730	394,000	0	18,272	0	800	0	0	0	0	0	0
9	0.17	0.0	0.0	NR	*41,410*	*51,001*	0	0	51,001	NR	0	0	0	800	0	0	0	0	0	0
10	0.15	0.0	0.0	33.6	41,410	51,001	0	0	51,001	497,000	0	58,601	0	800	0	0	0	0	0	4,800
11	0.00	0.0	0.0	23.5	41,440	65,311	0	0	65,311	435,000	0	104,503	6,012	800	0	0	0	0	0	0
12	0.00	0.0	0.0	22.0	38,480	51,105	0	0	51,105	371,000	0	48,289	0	800	0	0	0	0	0	9,600
13	0.00	0.0	0.0	21.1	37,402	49,665	0	0	49,665	367,000	0	36,143	12,026	800	0	0	0	0	0	0
14	0.00	0.0	0.0	32.9	35,730	36,486	0	0	36,486	358,000	0	36,158	0	800	0	0	0	0	0	4,800
15	0.00	0.0	0.0	21.0	44,197	67,319	0	0	67,319	405,000	0	36,089	6,009	800	0	0	0	0	0	0
16	0.55	0.0	0.0	NR	*42,769*	*58,152*	0	0	58,152	NR	0	0	0	800	0	0	0	0	0	0
17	0.01	0.0	0.0	18.2	42,769	58,152	0	0	58,152	494,000	0	54,226	0	800	0	0	0	0	0	9,600
18	0.00	0.0	0.0	17.3	37,685	49,232	0	0	49,232	480,000	0	111,083	12,024	800	0	0	0	0	0	4,800
19	0.00	0.0	0.0	16.8	35,990	46,955	0	0	46,955	412,000	0	108,649	6,014	800	0	0	0	0	0	4,800
20	0.00	0.0	0.0	22.4	37,790	50,713	0	0	50,713	379,000	0	96,463	6,011	800	0	0	0	0	0	9,600
21	0.00	0.0	0.0	14.3	40,615	58,804	0	0	58,804	386,000	0	97,077	12,020	800	0	0	0	0	0	0
22	0.62	0.0	0.0	24.0	39,860	61,355	0	0	61,355	355,000	0	66,202	0	800	0	0	0	0	0	0
23	0.00	0.0	0.0	NR	*38,168*	*52,907*	0	0	52,907	NR	0	0	0	800	0	0	0	0	0	0
24	0.00	0.0	0.0	23.4	38,168	52,907	0	0	52,907	362,000	0	108,689	12,025	800	0	0	0	0	0	9,600
25	0.00	0.0	0.0	22.6	9,365	39,353	0	0	39,353	362,000	0	90,277	0	800	0	0	0	0	0	0
26	0.00	0.0	0.0	18.6	12,075	47,990	0	0	47,990	322,000	0	108,388	6,010	800	0	0	0	0	0	4,800
27	0.12	0.0	0.0	22.5	45,170	63,073	0	0	63,073	278,000	0	102,329	0	800	0	0	0	0	0	0
28	0.27	0.0	0.0	16.2	37,575	52,308	0	0	52,308	242,000	0	90,238	0	800	0	0	0	0	0	0
Total	1.89				1,000,620	1,528,819	0	0	1,528,819		0	1,715,696	120,223					0	0	96,000
Daily Average		0.0	0.0	20.8	38,504	54,601	0	0	54,601	372,000	0	71,487		800	0	0		0	0	3,430
Mo. Average									54,601		0	61,275	4,300							

I:\project hillsbor\69200020.23\LeachateBalance 2003\02-03.xls (Revised by scv 3/14/03)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated, values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
FEBRUARY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	13.0	0	0	63,489,560	5,984,313	10.08	48,135	0	6,010	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	NR	0	0	63,534,680	6,040,170	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	6.3	0	0	63,579,800	6,096,026	11.75	54,173	6,023	6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.2	0	0	63,618,955	6,157,797	11.50	54,218	6,022	12,016	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	8.1	0	0	63,662,530	6,220,408	10.92	48,224	6,026	6,012	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	9.4	0	0	63,700,720	6,275,112	13.17	48,748	0	12,023	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	5.2	0	0	63,745,150	6,306,525	13.08	60,389	12,059	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	10.5	0	0	63,785,770	6,380,255	13.67	18,272	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	NR	0	0	63,827,180	6,431,256	NR	0	0	0	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	24.6	0	0	63,868,590	6,482,257	17.25	46,564	12,040	0	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	14.5	0	0	63,910,030	6,547,568	15.11	104,503	0	6,012	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	13.9	0	0	63,948,510	6,598,673	12.90	42,260	6,029	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	12.1	0	0	63,985,912	6,648,338	12.75	36,143	0	12,026	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	23.9	0	0	64,021,651	6,684,824	12.42	36,158	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	12.0	0	0	64,065,848	6,752,143	14.08	36,089	0	6,009	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	NR	0	0	64,108,617	6,810,295	NR	0	0	0	0.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	9.2	0	0	64,151,385	6,868,447	17.17	54,226	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	8.3	0	0	64,189,070	6,917,679	16.67	105,068	6,015	12,024	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	7.8	0	0	64,225,060	6,964,634	14.30	102,626	6,023	6,014	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	13.4	0	0	64,262,850	7,015,347	13.17	96,463	0	6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	5.3	0	0	64,303,465	7,074,151	13.42	97,077	0	12,020	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.0	0	0	64,343,325	7,135,506	12.33	66,202	0	0	0.62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	NR	0	0	64,381,493	7,188,413	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	14.4	0	0	64,419,660	7,241,320	13.75	102,667	6,022	12,025	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	13.6	0	0	64,429,025	7,280,673	12.58	84,259	6,018	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	9.6	0	0	64,441,100	7,328,663	11.17	102,370	6,018	6,010	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	13.5	0	0	64,486,270	7,391,736	9.67	96,315	6,014	0	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	7.2	0	0	64,523,845	7,444,044	8.42	84,226	6,012	0	0.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

f:\project\hillsbor\09200020.23\LeachateBalance\2003\02-03.xls (Revised by scv 3/14/03)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

Month	Rainfall (in.)	Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February	1.89	0	0	1,528,819	1,715,696	120,223	0	0	0	0	1,528,819	1,835,919	-307,100
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	1.91	0	0	3,420,254	3,789,291	222,382	0	0	0	0	3,420,254	4,011,673	-591,419

f:\project\Hillsborough\09200020.23\leachate Balance\2003\2003summary.xls (Revised to include Section 7 SCVD 2-10-03)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT
TAMPA

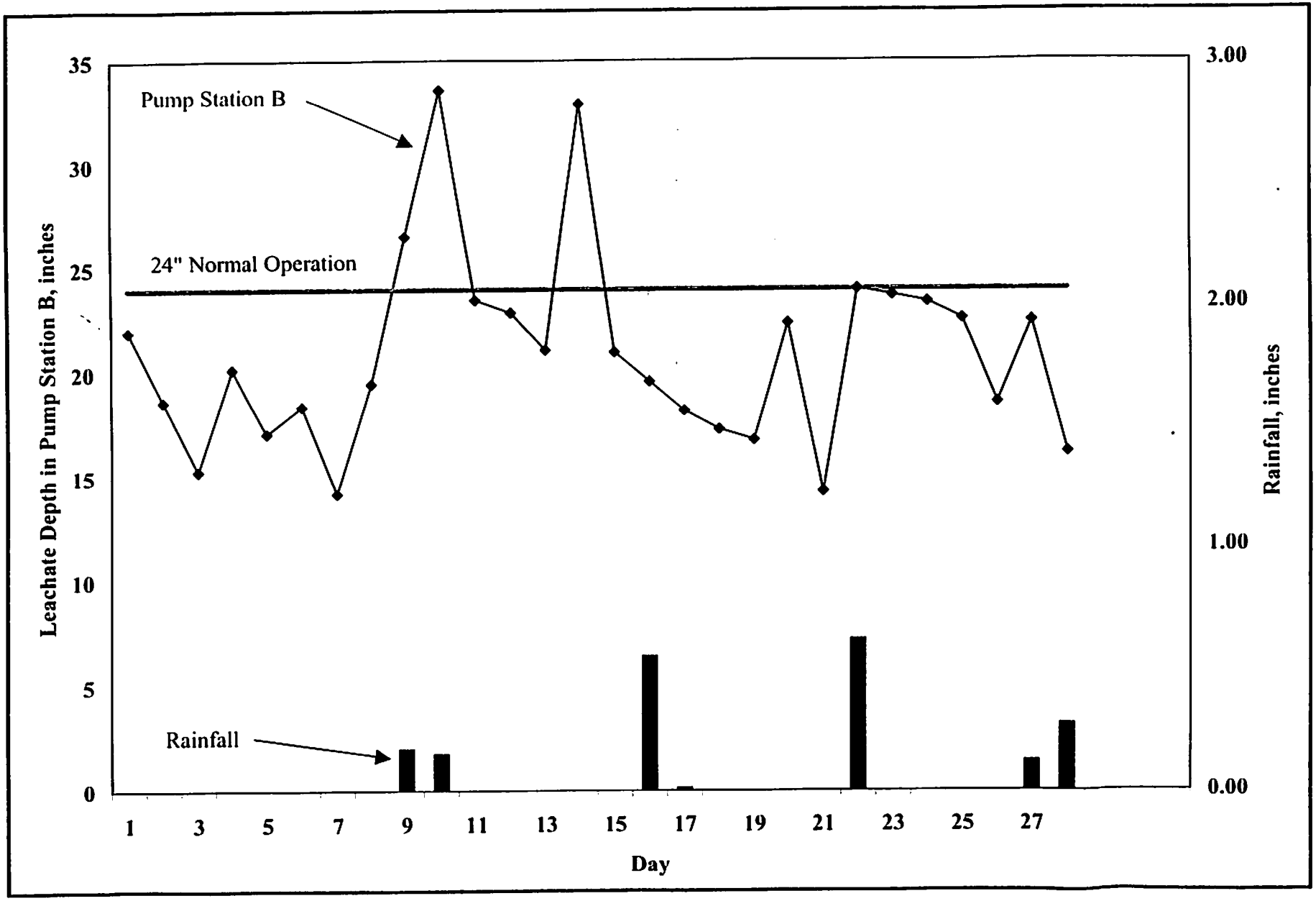

Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Feb,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		NR	13.0	5,982,313	10'1"	48,135	0	6,010	0
2		NR	NR	NR	NR	0	0	0	0
3		NR	6.3	6,096,026	11'9"	54,173	6,023	6,011	0
4		NR	11.2	6,157,797	11'6"	54,218	6,022	12,016	0
5		NR	8.1	6,220,408	10'11"	48,224	6,026	6,012	0
6		NR	9.4	6,275,112	13'2"	48,748	0	12,023	0
7		NR	5.2	6,306,525	13'1"	60,389	12,059	0	0
8		NR	10.5	6,380,255	13'8"	18,272	0	0	0
9		NR	NR	NR	NR	0	0	0	0.17
10		NR	*24.6	6,482,257	17'3"	48,564	12,040	0	0.15
11		NR	14.5	6,547,568	15'11"	104,503	0	6,012	0
12		NR	13.9	6,598,673	12'9"	42,260	6,029	0	0
13		NR	12.1	6,648,338	12'9"	36,143	0	12,026	0
14		NR	*23.9	6,684,824	12'5"	36,158	0	0	0
15		NR	12.0	6,752,143	14'1"	36,089	0	6,009	0
16		NR	NR	NR	NR	0	0	0	0.55

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *See Daily Field Data Entry Form.

Prepared by: Raymond C Graves for Mott

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Feb,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		NR	9.2	6,868,447	17'2"	54,226	0	0	0.01
18		NR	8.3	6,917,679	16'8"	105,068	6,015	12,024	0
19		NR	7.8	6,964,634	14'3"	102,626	6,023	6,014	0
20		NR	13.4	7,015,347	13'2"	96,463	0	6,011	0
21		NR	5.3	7,074,051	13'5"	97,077	0	12,020	0
22		NR	15.0	7,135,506	12'4"	66,202	0	0	0.62
23		NR	NR	NR	NR	0	0	0	0
24		NR	14.4	7,241,320	13'9"	102,667	6,022	12,025	0
25		NR	13.6	7,280,673	12'7"	84,259	6,018	0	0
26		NR	9.6	7,328,663	11'2"	102,370	6,018	6,010	0
27		NR	13.5	7,391,736	9'8"	96,315	6,014	0	0.12
28		NR	7.2	7,444,044	8'5"	84,226	6,012	0	0.27

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *** MLPS flow meter reading total reflects 123,398 gallons returned to GTS.

Prepared by: Raymond C Graves for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Feb.2003

Action	Day															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	NR	X	X	X	X	X	X	NR		X	X	X		X	NR
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.										X				X		
575,000 Gallon Tank at LTRF																
Normal Operation.	X	NR			X				NR							NR
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.			X	X		X	X	X		X	X	X	X	X	X	
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond Graver for Matt

leachfrm.xls
Revised 04/23/01

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Feb,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28				
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	X	X	X	X	NR	X	X	X	X	X				
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.							NR				X	X				
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.	X	X	X	X	X	X		X	X	X						
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR				
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR				
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR				
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond L. Graves Jr. Matt

leachfrm.xls
Revised 04/23/01

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APR 15 2003
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February 20, 2003

Mr. Kim Ford, P.E.
Solid Waste Permitting
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RE: Southeast County Landfill – January 2003 Leachate Data

Dear Mr. Ford:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report Form for the month of January 2003. In addition, the SWMD is providing the January 2003 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill's leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for January 2003 includes an evaluation by SCS Engineers (SCS) of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. The average depth of leachate in PS-B for the recorded days in January 2003 was 18.7 inches, which is below the 24-inch normal operation level.

Please advise should you have any questions concerning the information provided.

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0103.dep

Environmental Consultants

3012 U.S. Highway 301 No
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

SCS ENGINEERS

D.E.P.
APR 15 2003
Southwest District Tampa
FEB 2003
RECEIVED

February 14, 2003
File No. 09200020.23

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for January 2003
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for January 2003. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2003 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for January (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of January.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 0.02 inches of rainfall at the SCLF in January.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In January, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV will present the daily depth, in feet, of effluent or leachate that will be stored in the effluent/leachate storage pond (Pond B). The depth in Pond B will vary as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. No effluent or leachate was stored in Pond B in January.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. The bubbler system was offline from January 21 through January 27 and no depth readings were recorded. The average depth of leachate in the PS-B sump for the recorded days in January was 18.7 inches, which is below the 24-inch normal operation level.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phases I-IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the amount of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in January was 39,482 gallons. A total of 1,223,940 gallons was pumped from TPS-6 to PS-B in January.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The quantity also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in January was 61,014 gallons. A total of 1,891,435 gallons of leachate was pumped to the storage tank in January.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII will present the quantity of leachate removed from the leak detection system of Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter before being pumped back into the sump of Section 7 for removal with Section 7 leachate.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX will present the quantity of leachate pumped to the MLPS from Section 7 at the Capacity Expansion when Section 7 becomes active to receive waste. The quantity will be measured by a flow meter and will include any leachate removed from the leak detection system of Section 7 (Column VIII). In January, no leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In January, 1,891,435 gallons of leachate was pumped to the LTRF from Phases I-VI and no leachate was pumped to the LTRF from Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. The average daily amount of leachate stored in the tank in January, based on recorded days, was estimated at 299,100 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF start up began on January 6, 2003 and work is progressing toward steady state operation. No leachate was treated in January.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of January, a total of 2,073,595 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm, used for dust control in the active area of the SCLF. When sprayed as dust control leachate is pumped from the leachate storage tank. In January, 102,159 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is calculated using AutoCad software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The average daily amount of storage in the pond, shown as 800 gallons per day, was stormwater. Zero shown on the staff gauge does not include storage in the pond sump. In January, no effluent was stored in the pond.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column V). The volume is calculated using AutoCad software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. No effluent was stored in Pond B in January.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in January.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In January, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In January, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In January, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XII, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B were assumed. The total evaporation for January was 81,600 gallons which includes leachate and effluent.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in January was 1,891,435 gallons. Total outflow quantity from the LTRF (hauled, and evaporated) was 2,175,754 gallons. The balance for the month of January decreased by 284,319 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

Sheila Carpenter-van Dijk, E.I.
Project Engineer
SCS ENGINEERS

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

Attachments
cc: Matt Matthews

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JANUARY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	0.0	NR	60,773	45,719	0	0	45,719	290,000	0	126,290	0	800	0	0	0	0	0	0
2	0.01	0.0	0.0	18.9	60,772	45,719	0	0	45,719	290,000	0	48,138	0	800	0	0	0	0	0	0
3	0.00	0.0	0.0	17.5	52,415	104,177	0	0	104,177	410,000	0	79,864	0	800	0	0	0	0	0	0
4	0.00	0.0	0.0	23.6	45,365	88,271	0	0	88,271	425,000	0	122,774	0	800	0	0	0	0	0	0
5	0.00	0.0	0.0	NR	44,100	62,592	0	0	62,592	NR	0	0	0	800	0	0	0	0	0	0
6	0.00	0.0	0.0	20.7	44,100	62,592	0	0	62,592	463,000	0	72,607	0	800	0	0	0	0	0	0
7	0.00	0.0	0.0	15.0	42,315	81,364	0	0	81,364	461,000	0	107,307	0	800	0	0	0	0	0	0
8	0.00	0.0	0.0	22.2	43,010	79,975	0	0	79,975	417,000	0	108,429	0	800	0	0	0	0	0	0
9	0.00	0.0	0.0	23.1	45,810	74,548	0	0	74,548	389,000	0	108,331	0	800	0	0	0	0	0	0
10	0.00	0.0	0.0	16.0	32,665	62,556	0	0	62,556	353,000	0	96,398	0	800	0	0	0	0	0	0
11	0.00	0.0	0.0	19.8	2,225	51,197	0	0	51,197	333,000	0	78,266	0	800	0	0	0	0	0	0
12	0.00	0.0	0.0	NR	16,888	48,953	0	0	48,953	NR	0	30,102	0	800	0	0	0	0	0	0
13	0.00	0.0	0.0	23.3	16,889	48,953	0	0	48,953	324,000	0	84,261	0	800	0	0	0	0	0	0
14	0.00	0.0	0.0	19.7	16,888	19,523	0	0	19,523	261,000	0	114,282	0	800	0	0	0	0	0	0
15	0.00	0.0	0.0	16.4	45,310	88,477	0	0	88,477	252,000	0	96,241	0	800	0	0	0	0	0	0
16	0.00	0.0	0.0	16.0	42,655	67,226	0	0	67,226	245,000	0	90,236	0	800	0	0	0	0	0	0
17	0.01	0.0	0.0	15.0	44,560	66,700	0	0	66,700	209,000	0	102,271	0	800	0	0	0	0	0	0
18	0.00	0.0	0.0	14.0	41,545	58,747	0	0	58,747	194,000	0	48,136	6,018	800	0	0	0	0	0	4,800
19	0.00	0.0	0.0	NR	41,990	32,759	0	0	32,759	NR	0	0	0	800	0	0	0	0	0	0
20	0.00	0.0	0.0	23.9	41,990	32,759	0	0	32,759	211,000	0	90,262	12,018	800	0	0	0	0	0	9,600
21	0.00	0.0	0.0	NR	46,700	74,761	0	0	74,761	194,000	0	42,108	6,011	800	0	0	0	0	0	4,800
22	0.00	0.0	0.0	NR	48,705	58,152	0	0	58,152	218,000	0	54,130	12,009	800	0	0	0	0	0	9,600
23	0.00	0.0	0.0	NR	49,565	69,961	0	0	69,961	163,000	0	90,227	12,021	800	0	0	0	0	0	9,600
24	0.00	0.0	0.0	NR	43,035	69,214	0	0	69,214	204,000	0	36,095	0	800	0	0	0	0	0	0
25	0.00	0.0	0.0	NR	38,595	35,362	0	0	35,362	204,000	0	0	12,011	800	0	0	0	0	0	9,600
26	0.00	0.0	0.0	NR	45,533	57,060	0	0	57,060	NR	0	0	0	800	0	0	0	0	0	0
27	0.00	0.0	0.0	20.6	45,533	57,060	0	0	57,060	307,000	0	24,080	0	800	0	0	0	0	0	0
28	0.00	0.0	0.0	15.5	37,455	44,215	0	0	44,215	348,000	0	60,246	12,023	800	0	0	0	0	0	9,600
29	0.00	0.0	0.0	19.4	16,260	85,877	0	0	85,877	329,000	0	66,237	12,022	800	0	0	0	0	0	9,600
30	0.00	0.0	0.0	17.3	16,595	35,040	0	0	35,040	288,000	0	42,123	12,014	800	0	0	0	0	0	9,600
31	0.00	0.0	0.0	15.8	53,700	84,039	0	0	84,039	295,000	0	54,154	6,012	800	0	0	0	0	0	4,800
Total	0.02				1,223,940	1,891,435	0	0	1,891,435		0	2,073,595	102,159				0	0	0	81,000
Daily Average		0.0	0.0	18.7	39,482	61,014	0	0	61,014	299,100	0	76,800		800	0	0				
Mo. Average									61,014		0	66,890	3,300				0	0	0	2,630

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
JANUARY 2003
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent Sprayed	Leachate Treated	Effluent Irrigation	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	(Pond B) (gal)	at LTRF (gal.)	(gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	NR	0	0	*62,280,058*	*4,067,428*	10.08	102,217	24,073	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	9.9	0	0	62,340,830	4,113,147	10.08	48,138	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	8.5	0	0	62,393,245	4,217,324	14.25	73,355	6,509	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	14.6	0	0	62,438,610	4,305,595	14.75	98,583	24,191	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	NR	0	0	*62,482,710*	*4,368,187*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	11.7	0	0	62,526,810	4,430,779	16.08	72,607	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	6.0	0	0	62,569,125	4,512,143	16.00	107,307	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	13.2	0	0	62,612,135	4,592,118	14.50	96,390	12,039	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	14.1	0	0	62,657,945	4,666,666	13.50	96,276	12,055	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	7.0	0	0	62,690,610	4,729,222	12.25	96,398	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	10.8	0	0	62,692,835	4,780,419	11.58	78,266	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	NR	0	0	*62,709,723*	*4,829,372*	NR	30,102	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	14.3	0	0	*62,726,612*	4,878,324	11.25	72,229	12,032	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.7	0	0	62,743,500	4,897,847	9.08	102,250	12,032	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	7.4	0	0	62,788,810	4,986,324	8.75	84,214	12,027	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	7.0	0	0	62,831,465	5,053,550	8.50	78,208	12,028	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	6.0	0	0	62,876,025	5,120,250	7.25	102,271	0	0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	5.0	0	0	62,917,570	5,178,997	6.75	48,136	0	6,018	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	NR	0	0	*62,959,560*	*5,211,756*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	14.9	0	0	63,001,550	5,244,514	7.33	90,262	0	12,018	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	NR	0	0	63,048,250	5,319,275	6.75	36,096	6,012	6,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	NR	0	0	63,096,955	5,377,427	7.58	48,116	6,014	12,009	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	NR	0	0	63,146,520	5,447,388	7.00	84,213	6,014	12,021	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	NR	0	0	63,189,555	5,516,602	5.67	36,095	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	NR	0	0	63,228,150	5,551,964	7.08	0	0	12,011	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	NR	0	0	*63,273,683*	*5,609,024*	NR	0	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	11.6	0	0	63,319,215	5,666,084	10.67	18,062	6,018	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	6.5	0	0	63,356,670	5,710,299	12.08	54,221	6,025	12,023	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	10.1	0	0	63,372,930	5,796,176	11.42	54,194	12,043	12,022	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	8.3	0	0	63,389,525	5,831,216	10.00	30,088	12,035	12,014	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	6.8	0	0	63,443,225	5,915,255	10.25	48,133	6,021	6,012	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	133.4	0
Final	23	0
Not Opened	0	12.5

TABLE 3. 2003 MONTHLY LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from SCLF Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319
February		0	0				0	0	0	0	0	0	0
March		0	0				0	0	0	0	0	0	0
April		0	0				0	0	0	0	0	0	0
May		0	0				0	0	0	0	0	0	0
June		0	0				0	0	0	0	0	0	0
July		0	0				0	0	0	0	0	0	0
August		0	0				0	0	0	0	0	0	0
September		0	0				0	0	0	0	0	0	0
October		0	0				0	0	0	0	0	0	0
November		0	0				0	0	0	0	0	0	0
December		0	0				0	0	0	0	0	0	0
YTD Total	0.02	0	0	1,891,435	2,073,595	102,159	0	0	0	0	1,891,435	2,175,754	-284,319

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 15 2003
SOUTHWEST DISTRICT
TAMPA

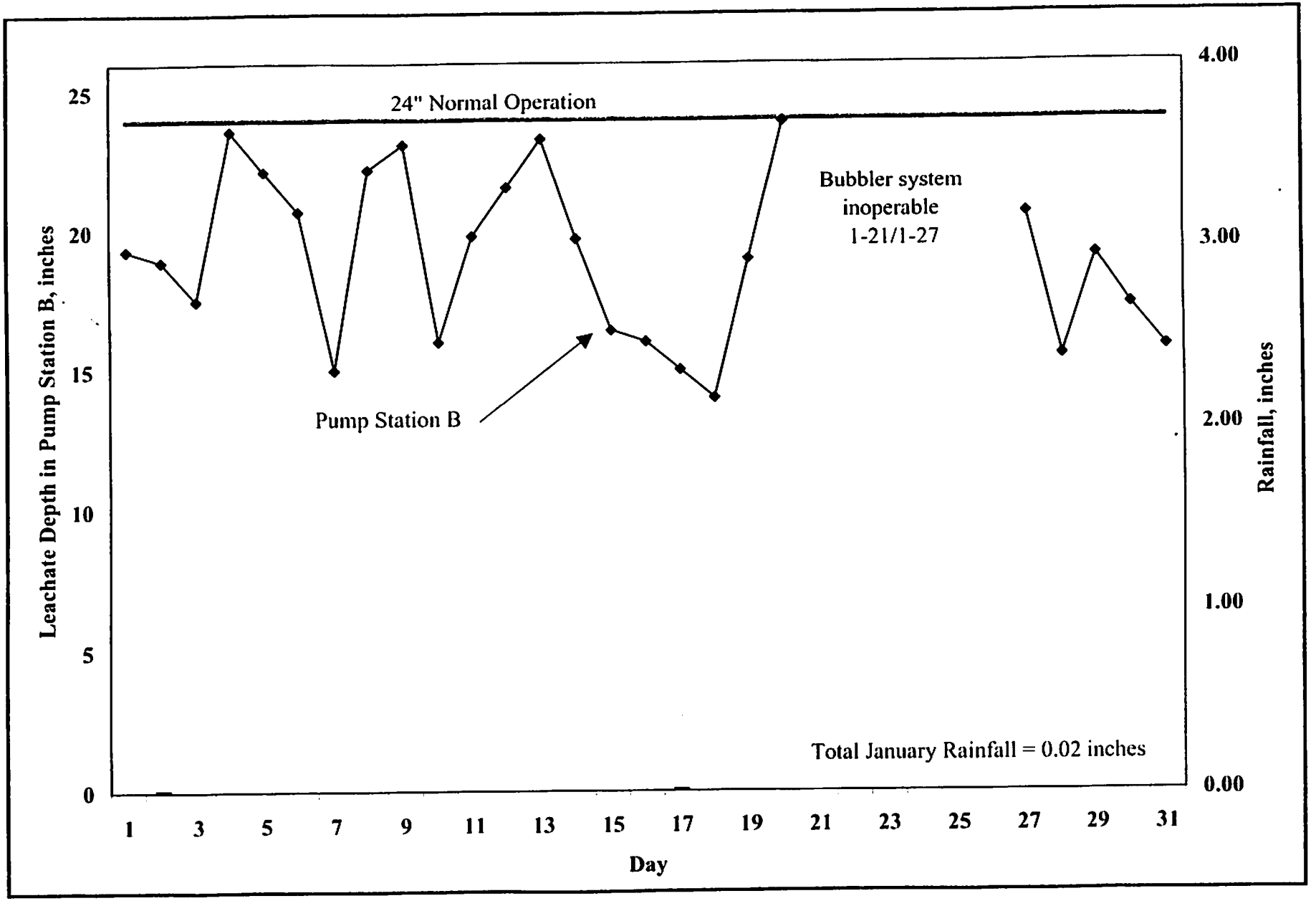

Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2003.

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Jan,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
1		NR	NR	NR	NR	102,217	24,073	0	0
2		NR	9.9	4,113,147	11'2"	48,138	0	0	0.01
3		NR	8.5	4,217,324	14'3"	73,355	6,509	0	0
4		NR	14.6	4,305,595	14'9"	98,583	24,191	0	0
5		NR	NR	NR	NR	0	0	0	0
6		NR	11.7	4,430,779	16'1"	72,607	0	0	0
7		NR	6.0	4,512,143	16'0"	107,307	0	0	0
8		NR	13.2	4,592,118	14'6"	96,390	12,039	0	0
9		NR	14.1	4,666,666	13'6"	96,276	12,055	0	0
10		NR	7.0	4,729,222	12'3"	96,398	0	0	0
11		NR	10.8	4,780,419	11'7"	78,266	0	0	0
12		NR	NR	NR	NR	30,102	0	0	0
13		NR	5.3	4,878,324	11'3"	72,229	12,032	0	0
14		NR	10.7	4,897,847	9'1"	102,250	12,032	0	0
15		NR	7.4	4,986,324	8'9"	84,214	12,027	0	0
16		NR	7.0	5,053,550	8'6"	78,208	12,028	0	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: _____

Prepared by: Raymond C Brewer for Matt

- Revised - Jan 2003

LEACHATE DEPTH/SUMMARY DATA FORM
SOUTHEAST COUNTY LANDFILL

(Month/Year) Jan,2003

Date	Active Area (acres)	Depth[1] in Pond B (feet)	Pump[2] Station B (inches)	PS-A Flow Meter (gallons)	Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
						Contractor (gallons)	County (gallons)		
17		NR	6.0	5,120,250	7'3"	102,271	0	0	0.01
18		NR	5.0	5,178,997	6'9"	48,136	0	6,018	0
19		NR	NR	NR	NR	0	0	0	0
20		NR	14.9	5,244,514	7'4"	90,262	0	12,018	0
21		NR	*	5,319,275	6'9"	36,096	6,012	6,011	0
22		NR	*	5,377,427	7'7"	48,116	6,014	12,009	0
23		NR	*	5,447,388	7'0"	84,213	6,014	12,021	0
24		NR	*	5,516,602	5'8"	36,095	0	0	0
25		NR	*	5,551,964	7'1"	0	0	12,011	0
26		NR	NR	NR	NR	0	0	0	0
27		NR	11.6	5,666,084	10'8"	18,062	6,018	0	0
28		NR	6.5	5,740,299	12'1"	54,221	6,025	12,023	0
29		NR	10.1	5,796,176	11'5"	54,194	12,043	12,022	0
30		NR	8.3	5,831,216	10'0"	30,088	12,035	12,014	0
31		NR	6.8	5,915,255	10'3"	48,133	6,021	6,012	0

Note: (1) If depth is 7.0 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: *Bubbler system down at pump station B.

Prepared by: Raymond C Graves for Matt

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Jan.2003

Action	Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	NR	X	X	X	NR	X	X	X	X	X	X	NR	X	X	X	X
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	NR				NR							NR		X	X	X
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.		X	X	X		X	X	X	X	X	X		X			
If level is less than 6 feet, decrease or stop hauling, recirculation.																
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken.																
Runoff Type 1=Severe, 2= Moderate, 3= Minor / To Basin A, B, C, D																

Comments/Remedial Action:

Prepared by: Raymond C Graves for Matt

leachfrm.xls
Revised 04/23/01

DAILY LEACHATE COLLECTION AND REMOVAL SYSTEM
EVALUATION REPORT
SOUTHEAST COUNTY LANDFILL
(Month/Year) Jan,2003

Action	Day															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pump Station B																
Normal Operation, level is equal or less than 24 inches.	X	X	NR	X	NR	NR	NR	NR	NR	NR	X	X	X	X	X	
High Level Operation, confirm proper operation of the pump and level indicator. Contact supervisor immediately.																
575,000 Gallon Tank at LTRF																
Normal Operation.	X	X	NR	X	X	X	X		X	NR	X			X	X	
If level is greater than 11 feet, increase treatment, hauling, or recirculaiton.												X	X			
If level is less than 6 feet, decrease or stop hauling, recirculation.								X								
Pond A (Effluent only)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If level is 6 inches or less, stop irrigation, dust control/evaporation, hauling.																
If level is greater than 4.5 feet, increase irrigation, dust control/evaporation, hauling.																
Pond B (Effluent or Leachate) (Circle One)																
Normal Operation.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If level is 1 foot or less, stop spray evaporation, decrease dust control/evaporation, hauling.																
If level is 7 feet or greater, close valve P-3, increase dust control/evaporation, hauling.																
Observe runoff of effluent to stormwater basins?																
No.	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
If yes, contact supervisor immediately, Stop spray irrigation. Identify Basin, Runoff Type and Remedial Action taken. Runoff Type 1=Severe, 2= Moderate, 3= Minor To Basin A, B. C, D																

Comments/Remedial Action:

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leachfrm.xls
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