August 19, 2003

Fazi Sherkat, Branch Manager
Superfund Branch
Division of Waste Management
14 Reilly Road
Frankfort, KY 40601

Subject: Maxey Flats Disposal Site –
2003 Semi-Annual Report

Dear Mr. Sherkat;

The Maxey Flats Section is submitting the initial Semi-Annual Report to fulfill the requirements of Section 4.0 of the Performance Verification Standard Plan (PSVP). The report includes data for the period of January 2003 through June 2003.

If you have any questions, please contact me at (606) 784-6612.

Sincerely,

Omar Heath, Radiological Site Supervisor
Maxey Flats Disposal Site
Superfund Branch
Division of Waste Management

OH/mk

attachment

cc: Wesley Turner, NREPC
Susan Mallette, NREPC
file

Semi-Annual Report

Maxey Flats Disposal Site

Reporting Period: **January 2003 – June 2003**

Monitoring Results

This section covers tasks performed during this reporting period to comply with the Interim Maintenance Period Work Plan (IMP) that includes the Performance Standard Verification Plan (PSVP) and the Operation and Maintenance Summary Requirements (O&M).

Surface Water (PSVP 3.1.2)

Surface water sampling for locations 107C, 143, 106B, 122A, 122C, 103E, and 102D is performed using an automatic sequential sampler that collects and composites a daily sample. The East Detention Basin (EDB) collects a sample based on a storm event of 2.8-inches during a twenty-four hour period. Sampling location 144 is being collected monthly.

A total of 1,196 surface water samples have been collected and analyzed for tritium during this period with no anomalous data reported. Table 1 contains a summary of the data obtained during this reporting period. All samplers operated with limited interruptions during the reporting period.

Alluvial Wells (PSVP 3.1.2.2)

During this reporting period, a total of 18 samples were collected and analyzed for tritium. The tritium levels detected in the alluvial wells varied from 0.00 to 16.35 pCi/ml. Table 2 is a summary of the data obtained during this reporting period.

Monitoring Wells

Sixteen monitoring wells are monitored quarterly with selected wells sampled on a semi-annual basis. Table 3 contains a brief summary of the data obtained during this reporting period.

Trench Leachate Management (PSVP 2.3)

Trench sump liquid levels are obtained in accordance with the Performance Standard Verification Plan (PSVP), Section 2.3 Sump Measurement. The data loggers installed on the trench sumps during the Initial Remedial Phase (IRP) have been operating properly with the exception of six of the Global units. The trench sump liquid level measurements were performed quarterly prior to February 2003. There is no data for the trench sump's liquid level for the month of January 2003. Table 4 contains the leachate level measurements obtained from February through June 2003.

Subsidence Monitoring (PSVP 2.2)

There has been no noticeable subsidence of the trench area during this period. Inspections are performed monthly in accordance with the O&M plan.

Erosion Monitoring (PSVP 2.1)

Erosion monitoring of the East Drainage Channel was performed in accordance with the PSVP Section 2.1.1. Table 5 contains data obtained from two surveys performed by the United State Geological Survey, Kentucky District (USGS).

Inspections, Maintenance and Repair Activities Relative to the IRP

The inspections, maintenance and repair activities relative to the Initial Remedial Phase (IRP) were not initiated until February 2003, therefore this section will only reflect inspections, maintenance and repairs that were conducted from February through June 2003.

Inspections

Inspections were conducted in accordance with the Operation and Maintenance Requirements Summary (O&M), Appendix B. 22 – Weekly/Daily Inspections; 10 - Twice-a-Month Inspections; 5 – Monthly Inspections; 2-Quarterly Inspections; 1 - Semi-annual Inspection; and 0 - Annual Inspection.

Maintenance

This section covers the maintenance of the geo-membrane liner, headwalls, drainage channels, diversion berms, interior anchor trenches, perimeter, anchor trench, articulating block system, emergency spillway at the Northeast corner, east detention basin, southeast cap and general site components.

All areas listed above were found in satisfactory condition and performing as expected.

Repairs

Two defects were noted in the polypropylene liner covering the trench area. The defects were repaired and quality assurance checks were made in accordance with IMP work plan.

- An 18-inch long cut on the outer bank of the East Perimeter Channel.
- Water balloon at trench sump 19-6.

Reporting

All validated sampling data acquired on site has been forwarded to United State Environmental Protection Agency (USEPA), Project Coordinator for the Steering Committee, and the Commonwealth.

Conclusion

There were no anomalous data reported during this period from approximately 1,217 analyzed samples. With the exception of the two minor defects in the polypropylene liner (the 18-inch long cut and the “water balloon”) the liner meets performance standards. The data indicates the remedy is performing as expected and is protective of human health and the environment.

Table 1
Surface Water
2003

Location	Minimum Activity (pCi/ml)	Date	Maximum Activity (pCi/ml)	Date	Average (pCi/ml)	Sampling Period
122A	0.00	01/15/03	0.44	01/11/03	0.05	1/1/03 – 06/30/03
106B	2.00	06/0703	14.48	04/25/03	5.50	1/1/03 – 06/30/03
122C	0.23	02/16/03	3.41	01/18/03	1.21	1/1/03 – 06/30/03
102D	0.11	02/16/03	1.77	04/05/03	0.83	1/1/03 – 06/30/03
103E	0.02	05/22/03	1.25	03/16/03	0.61	1/1/03 – 06/30/03
EDB	0.00	01/08/03	0.62	01/29/03	0.18	1/1/03 – 06/30/03
143	0.00	06/20/03	0.56	05/04/03	0.20	1/1/03 – 06/30/03
144	10.78	02/04/03	135.22	04/14/03	92.11	1/1/03 – 06/30/03
C107	0.90	02/15/03	20.71	05/30/03	11.49	1/1/03 – 06/30/03

Table 2
Alluvial Wells
2003

Well ID	Date	Activity (pCi/ml)	Specific Conductivity (µ mho)	pH	Temperature ©	Dissolved Oxygen (mg/L)	Turbidity (NTU Units)
AW-1	04/24/03	13.65 +/- 0.28	257	6.49	11.7	0.39	10.5
AW-3	04/23/03	0.51 +/- 0.14	200	5.74	10.3	2.70	17.9
AW-4	04/23/03	0.49 +/- 0.14	186	4.58	11.4	1.33	112
AW-5	04/23/03	0.31 +/- 0.14	742	6.71	10.3	0.98	15.1
AW-6	01/23/03	0.18 +/- 0.14	344	5.88	12.6	0.39	0.0
AW-6	04/23/03	0.34 +/- 0.14	344	5.74	11.5	0.30	0.0
AW-7	01/23/03	16.35 +/- 0.29	146	5.91	14.0	0.76	0.0
AW-7	04/24/03	13.72 +/- 0.28	170	5.90	12.1	0.45	0.0
AW-8	04/24/03	0.22 +/- 0.14	320	3.74	11.5	1.15	0.0
AW-9	04/24/03	0.95 +/- 0.15	551	6.57	11.3	0.60	288
AW-10	01/23/03	0.16 +/- 0.14	115	5.58	12.8	0.58	0.0
AW-10	04/24/03	0.33 +/- 0.14	118	5.84	11.9	0.37	0.0
AW-12	01/23/03	0.31 +/- 0.14	413	6.22	11.8	0.52	0.0
AW-12	04/23/03	0.18 +/- 0.14	426	6.08	10.6	0.26	0.0
AW-13	04/23/03	0.61 +/- 0.14	247	4.73	12.4	1.45	41.3
AW-14	04/24/03	0.00 +/- 0.13	627	6.86	11.4	0.33	0.0
AW-15	04/24/03	0.43 +/- 0.14	909	6.56	11.3	0.42	0.0
ALT-1	04/24/03	0.58 +/- 0.14	122	5.82	11.4	0.49	0.0

Note: Measurements (specific conductivity, pH, temperature, dissolved oxygen, and turbidity) taken at time sample was collected.

Table 3
USGS Monitoring Wells
2003

Well ID	Date	Top of Casing to bottom (ft)	Top of Casing to liquid (ft)	Activity (pCi/ml)
ESI-1	01/22/03	24.10	17.44	
ESI-1	04/22/03	24.10	12.71	
ESI-2	01/22/03	17.50	15.35	
ESI-2	04/22/03	17.50	15.12	
ESI-4	01/22/03	26.30	14.96	
ESI-4	04/22/03	26.30	14.67	
ESI-5	01/22/03	24.50	15.41	
ESI-5	04/22/03	24.50	15.29	
ESI-12	01/22/03	41.30	22.07	
ESI-12	04/22/03	41.30	22.36	
ESI-19	01/22/03	21.65	16.88	
ESI-19	04/22/03	21.65	16.75	
ESI-23	04/22/03	113.10	105.17	
N2B	01/22/03	12.40	11.94	
*N2B	04/22/03	12.40	11.99	No Sample
UE-2	01/22/03	18.50	17.48	
*UE-2	04/22/03	18.50	17.30	592,893 +/- 50.13
UE-11	01/22/03	20.15	17.98	
UE-11	04/22/03	20.15	17.79	
UF-1	01/22/03	21.50	18.14	
UF-1	04/22/03	21.50	17.77	
UF-2	01/22/03	17.30	13.73	
*UF-2	04/22/03	17.30	13.54	248,884 +/- 32.48
UF-5	01/22/03	21.30	18.63	
UF-5	04/22/03	21.30	15.82	
UF-37	01/22/03	22.80	15.61	
UF-37	04/22/03	22.80	16.13	
UF-45	01/22/03	21.90	19.03	
UF-45	04/22/03	21.90	19.46	
UK-1	01/22/03	15.70	14.11	
*UK-1	04/22/03	15.70	13.79	262,085 +/- 33.33

Note: Top of Casing to Bottom measurements taken from O&M Plan, Table 7-1.
* Denotes wells that are sampled semi-annually

Table 4
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
1-2	2/2/2003	19.55	2.15	
1-2	3/17/2003	19.55	2.15	
1-2	4/14/2003	19.63	2.07	
1-2	5/14/2003	19.56	2.14	
1-2	6/16/2003	20.26	1.44	
2-6	2/2/2003	17.30	9.00	
2-6	3/18/2003	17.69	8.61	
2-6	4/14/2003	18.32	7.98	
2-6	5/14/2003	19.50	6.80	
2-6	6/16/2003	16.65	9.65	
3-2	2/2/2003	22.99	1.31	
3-2	2/28/2003	23.00	1.30	
3-2	3/17/2003	22.99	1.31	
3-2	4/1/2003	23.05	1.25	
3-2	5/1/2003	23.05	1.25	
3-2	6/1/2003	23.05	1.25	
3-4	2/2/2003	15.77	2.23	
3-4	3/17/2003	15.77	2.23	
3-4	4/15/2003	15.78	2.22	
3-4	5/14/2003	16.10	1.90	
3-4	6/16/2003	16.10	1.90	
7-4	2/28/2003	15.30	0.50	
7-4	3/17/2003	15.49	0.31	
7-4	4/1/2003	15.45	0.35	
7-4	5/1/2003	15.49	0.31	
7-4	6/1/2003	15.45	0.35	
7-5	2/28/2003	18.40	4.00	
7-5	3/17/2003	18.40	4.00	
7-5	4/1/2003	18.50	3.90	
7-5	5/1/2003	18.47	3.93	
7-5	6/1/2003	18.50	3.90	
7-7	2/2/2003	19.53	3.87	
7-7	3/17/2003	19.53	3.87	
7-7	4/14/2003	19.88	3.52	
7-7	5/14/2003	19.50	3.90	
7-7	6/16/2003	19.93	3.47	
10-7	2/28/2003	27.90	1.30	
10-7	3/17/2003	27.89	1.31	
10-7	4/1/2003	27.89	1.31	
10-7	5/1/2003	27.89	1.31	
10-7	6/1/2003	27.89	1.31	
10-8	2/28/2003	27.60	1.60	
10-8	3/17/2003	27.59	1.61	
10-8	4/1/2003	27.67	1.53	
10-8	5/1/2003	27.67	1.53	
10-8	6/1/2003	27.67	1.53	
10-9	2/2/2003	25.90	1.90	
10-9	3/17/2003	25.90	1.90	
10-9	5/14/2003	26.19	1.61	
10-9	6/16/2003	26.17	1.63	
11S-5	2/2/2003	20.92	2.18	
11S-5	3/17/2003	20.92	2.18	
11S-5	4/14/2003	21.12	1.98	
11S-5	5/14/2003	21.14	1.96	
11S-5	6/16/2003	21.14	1.96	
11S-6	2/28/2003	24.10	3.00	
11S-6	3/17/2003	24.11	2.99	
11S-6	4/1/2003	24.15	2.95	
11S-6	5/1/2003	24.17	2.93	
11S-6	6/1/2003	24.20	2.90	
15-4	2/28/2003	26.70	0.90	
15-4	3/17/2003	26.68	0.92	

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
15-4	4/1/2003	26.70	0.90	
15-4	5/1/2003	26.71	0.89	
15-4	6/1/2003	26.72	0.88	
15-5	2/28/2003	25.20	1.30	
15-5	3/17/2003	25.21	1.29	
15-5	4/1/2003	25.20	1.30	
15-5	5/1/2003	25.21	1.29	
15-5	6/1/2003	25.19	1.31	
15-6	2/2/2003	28.79	3.31	
15-6	3/17/2003	28.79	3.31	
15-6	4/14/2003	29.26	2.84	
15-6	5/14/2003	29.25	2.85	
15-6	6/16/2003	29.20	2.90	
15-8	2/28/2003	22.40	1.40	
15-8	3/17/2003	22.44	1.36	
15-8	4/1/2003	22.51	1.29	
15-8	5/1/2003	22.62	1.18	
15-8	6/1/2003	22.70	1.10	
18-6	2/2/2003	30.50	0.70	
18-6	3/17/2003	30.50	0.70	
18-6	4/14/2003	30.67	0.53	
18-6	5/14/2003	30.67	0.53	
18-6	6/16/2003	30.65	0.55	
18-9	2/28/2003	22.00	0.00	
18-9	3/17/2003	22.00	0.00	
18-9	4/1/2003	22.04	-0.04	
18-9	5/1/2003	22.04	-0.04	
18-9	6/1/2003	22.04	-0.04	
19-5	2/28/2003	28.94	1.56	
19-5	3/17/2003	28.94	1.56	
19-5	4/1/2003	29.00	1.50	
19-5	5/1/2003	29.01	1.49	
19-5	6/1/2003	29.02	1.48	
19-6	2/28/2003	23.60	2.30	
19-6	3/17/2003	23.59	2.31	
19-6	4/1/2003	23.59	2.31	
19-6	5/1/2003	23.59	2.31	
19-6	6/1/2003	23.59	2.31	
19-7	2/2/2003	30.51	1.69	
19-7	3/17/2003	30.51	1.69	
19-7	4/14/2003	30.78	1.42	
19-7	5/14/2003	30.75	1.45	
19-7	6/16/2003	30.65	1.55	
20W	2/28/2003	28.10	1.20	
20W	3/20/2003	28.10	1.20	
20W	4/1/2003	28.09	1.21	
20W	5/1/2003	28.09	1.21	
20W	6/1/2003	28.08	1.22	
20-7	2/28/2003	29.90	3.10	
20-7	3/20/2003	29.92	3.08	
20-7	4/1/2003	29.91	3.09	
20-7	5/1/2003	29.94	3.06	
20-7	6/1/2003	29.94	3.06	
20-9	2/2/2003	30.58	0.32	
20-9	3/17/2003	30.20	0.70	
20-9	4/15/2003	30.60	0.30	
20-9	5/14/2003	30.60	0.30	
20-9	6/16/2003	30.03	0.87	Manual measure
20-11	2/28/2003	24.30	0.80	
20-11	3/17/2003	24.23	0.87	
20-11	4/1/2003	24.28	0.82	
20-11	5/1/2003	24.29	0.81	

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
20-11	6/1/2003	24.28	0.82	
23-5	2/2/2003	31.28	1.32	
23-5	3/17/2003	31.28	1.32	
23-5	4/14/2003	31.60	1.00	
23-5	5/14/2003	31.60	1.00	
23-5	6/16/2003	31.60	1.00	Manual measure
23-6	2/28/2003	31.10	1.00	
23-6	3/17/2003	31.04	1.06	
23-6	4/1/2003	31.07	1.03	
23-6	5/1/2003	31.08	1.02	
23-6	6/1/2003	31.08	1.02	
23-9	2/28/2003	24.30	0.00	
23-9	3/17/2003	24.30	0.00	
23-9	4/1/2003	24.40	-0.10	
23-9	5/1/2003	24.40	-0.10	
23-9	6/1/2003	24.40	-0.10	
24-5	2/2/2003	23.41	1.39	
24-5	3/17/2003	23.41	1.39	
24-5	4/14/2003	23.71	1.09	
24-5	5/14/2003	23.70	1.10	
24-5	6/16/2003	23.70	1.10	Manual measure
24-6	2/28/2003	26.50	0.40	
24-6	3/17/2003	26.69	0.21	
24-6	4/1/2003	26.69	0.21	
24-6	5/1/2003	26.69	0.21	
24-6	6/1/2003	26.69	0.21	
25-5	2/28/2003	23.00	1.10	
25-5	3/17/2003	23.01	1.09	
25-5	4/1/2003	23.02	1.08	
25-5	5/1/2003	23.05	1.05	
25-5	6/1/2003	23.07	1.03	
25-7	2/2/2003	21.89	3.81	
25-7	3/17/2003	21.89	3.81	
25-7	4/14/2003	21.00	4.70	
25-7	5/14/2003	21.00	4.70	
25-7	6/16/2003	21.00	4.70	Manual measure
25-9	2/28/2003	22.50	0.80	
25-9	3/17/2003	22.47	0.83	
25-9	4/1/2003	22.59	0.71	
25-9	5/1/2003	22.65	0.65	
25-9	6/1/2003	22.68	0.62	
26-2	2/28/2003	28.20	1.90	
26-2	3/17/2003	28.17	1.93	
26-2	4/1/2003	28.18	1.92	
26-2	5/1/2003	28.18	1.92	
26-2	6/1/2003	28.16	1.94	
26-3	2/2/2003	26.91	1.39	
26-3	3/17/2003	26.91	1.39	
26-3	4/14/2003	27.15	1.15	
26-3	5/14/2003	27.15	1.15	
26-3	6/16/2003	27.14	1.16	
26-4	2/28/2003	21.80	1.80	
26-4	3/17/2003	21.81	1.79	
26-4	4/1/2003	21.82	1.78	
26-4	5/1/2003	21.84	1.76	
26-4	6/1/2003	21.85	1.75	
27-9	2/2/2003	28.08	7.72	
27-9	3/8/2003	28.08	7.72	
27-9	4/14/2003	28.04	7.76	
27-9	5/14/2003	28.04	7.76	
27-9	6/16/2003	27.77	8.03	
*27-11	2/28/2003	25.80	0.00	Manual measure

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
*27-11	3/17/2003	25.80	0.00	Manual measure
*27-11	6/18/2003	25.80	0.00	Manual measure
28W	2/2/2003	26.10	1.50	
28W	3/17/2003	26.10	1.50	
28W	4/14/2003	26.78	0.82	
28W	5/14/2003	26.70	0.90	
28W	6/16/2003	26.70	0.90	
*28-6	2/28/2003	27.60	0.00	Manual measure
*28-6	3/17/2003	27.60	0.00	Manual measure
*28-6	6/18/2003	27.60	0.00	Manual measure
*28-11	2/28/2003	27.00	0.20	Manual measure
*28-11	3/17/2003	27.00	0.20	Manual measure
*28-11	6/18/2003	27.00	0.20	Manual measure
*28-12	2/28/2003	26.40	0.00	Manual measure
*28-12	3/17/2003	26.40	0.00	Manual measure
*28-12	6/18/2003	26.40	0.00	Manual measure
29W	2/2/2003	25.04	2.06	
29W	2/28/2003	25.00	2.10	
29W	3/17/2003	25.04	2.06	
29W	4/1/2003	25.14	1.96	
29W	5/1/2003	25.13	1.97	
29W	6/1/2003	25.11	1.99	
29-5	2/2/2003	27.79	0.31	
29-5	3/17/2003	27.79	0.31	
29-5	4/14/2003	28.10	0.00	
29-5	5/14/2003	28.10	0.00	
29-5	6/16/2003	28.09	0.01	
29-6	2/28/2003	25.50	0.30	
29-6	3/17/2003	25.61	0.19	
29-6	4/1/2003	25.61	0.19	
29-6	5/1/2003	25.61	0.19	
29-6	6/1/2003	25.61	0.19	
30-4	2/2/2003	23.11	0.29	
30-4	3/17/2003	23.11	0.29	
30-4	4/14/2003	23.40	0.00	
30-4	5/14/2003	23.40	0.00	
30-4	6/16/2003	23.40	0.00	
30-8	2/28/2003	29.10	0.90	
30-8	3/17/2003	29.06	0.94	
30-8	4/1/2003	29.10	0.90	
30-8	5/1/2003	29.15	0.85	
30-8	6/1/2003	29.21	0.79	
*30-10	2/28/2003	29.20	0.00	Manual measure
*30-10	3/17/2003	29.20	0.00	Manual measure
*30-10	6/18/2003	29.20	0.00	Manual measure
31-2	2/2/2003	24.98	1.32	
31-2	3/17/2003	24.98	1.32	
31-2	4/14/2003	25.28	1.02	
31-2	5/14/2003	25.29	1.01	
31-2	6/16/2003	25.28	1.02	
31-5	2/28/2003	23.00	0.30	
31-5	3/17/2003	23.00	0.30	
31-5	4/1/2003	23.13	0.17	
31-5	5/1/2003	23.13	0.17	
31-5	6/1/2003	23.13	0.17	
31-7	2/28/2003	24.80	0.80	
31-7	3/17/2003	24.76	0.84	
31-7	4/1/2003	24.83	0.77	
31-7	5/1/2003	24.87	0.73	
31-7	6/1/2003	24.90	0.70	
31-9	2/28/2003	24.90	2.50	
31-9	3/17/2003	25.04	2.36	

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
31-9	4/1/2003	25.04	2.36	
31-9	5/1/2003	25.04	2.36	
31-9	6/1/2003	25.04	2.36	
32E	2/28/2003	29.20	0.20	
32E	3/17/2003	29.37	0.03	
32E	4/1/2003	29.34	0.06	
32E	5/1/2003	29.35	0.05	
32E	6/1/2003	29.35	0.05	
32-9	2/2/2003	28.69	0.81	
32-9	3/17/2003	28.69	0.81	
32-9	4/14/2003	28.89	0.61	
32-9	5/14/2003	28.90	0.60	
32-9	6/16/2003	28.90	0.60	
35-2	2/28/2003	27.10	2.50	
35-2	3/17/2003	27.15	2.45	
35-2	4/1/2003	27.18	2.42	
35-2	5/1/2003	27.21	2.39	
35-2	6/1/2003	27.24	2.36	
35-6	2/2/2003	27.46	1.14	
35-6	3/17/2003	27.46	1.14	
35-6	4/14/2003	27.76	0.84	
35-6	5/14/2003	27.76	0.84	
35-6	6/16/2003	27.76	0.84	
36-3	2/2/2003	20.51	1.79	
36-3	3/17/2003	20.51	1.79	
36-3	4/14/2003	20.92	1.38	
36-3	5/14/2003	20.95	1.35	
36-3	6/16/2003	20.92	1.38	
36-6	2/2/2003	23.78	3.52	
36-6	3/17/2003	23.78	3.52	
36-6	4/14/2003	25.15	2.15	
36-6	5/14/2003	25.15	2.15	
36-6	6/16/2003	25.14	2.16	
*36-7	2/28/2003	22.70	0.10	Manual measure
*36-7	3/17/2003	22.80	0.00	Manual measure
*36-7	6/18/2003	22.80	0.00	Manual measure
37-3	2/2/2003	23.03	1.37	
37-3	3/18/2003	23.03	1.37	
37-3	4/14/2003	23.38	1.02	
37-3	5/14/2003	23.40	1.00	
37-3	6/16/2003	23.40	1.00	
37-4	2/28/2003	23.50	0.00	
37-4	3/18/2003	23.50	0.00	
37-4	4/1/2003	23.57	-0.07	
37-4	5/1/2003	23.57	-0.07	
37-4	6/1/2003	23.57	-0.07	
38-4	2/28/2003	21.90	1.00	
38-4	3/18/2003	21.86	1.04	
38-4	4/1/2003	21.97	0.93	
38-4	5/1/2003	21.95	0.95	
38-4	6/1/2003	21.99	0.91	
38-5	2/2/2003	21.51	1.79	
38-5	3/18/2003	21.51	1.79	
38-5	4/14/2003	21.51	1.79	
38-5	5/14/2003	21.81	1.49	
38-5	6/16/2003	21.81	1.49	
39-1	2/2/2003	20.39	3.11	
39-1	3/18/2003	20.39	3.11	
39-1	4/14/2003	21.89	1.61	
39-1	5/14/2003	21.89	1.61	
39-1	6/16/2003	21.89	1.61	
39-4	2/28/2003	19.20	0.00	

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
39-4	3/18/2003	19.20	0.00	
39-4	4/1/2003	19.34	-0.14	
39-4	5/1/2003	19.34	-0.14	
39-4	6/1/2003	19.34	-0.14	
40-15	2/2/2003	21.08	0.42	
40-15	3/18/2003	21.08	0.42	
40-15	4/14/2003	21.50	0.00	
40-15	5/14/2003	21.50	0.00	
40-15	6/16/2003	21.52	-0.02	
40-17	2/28/2003	28.80	1.50	
40-17	3/18/2003	28.79	1.51	
40-17	4/1/2003	28.81	1.49	
40-17	5/1/2003	28.82	1.48	
40-17	6/1/2003	28.83	1.47	
40-19	2/28/2003	30.30	3.10	
40-19	3/18/2003	30.24	3.16	
40-19	4/1/2003	30.28	3.12	
40-19	5/1/2003	30.28	3.12	
40-19	6/1/2003	30.28	3.12	
40-22	2/2/2003	32.47	2.83	
40-22	3/18/2003	32.49	2.81	
40-22	4/14/2003	32.53	2.77	
40-22	5/14/2003	32.63	2.67	
40-22	6/16/2003	32.58	2.72	
42-19	2/2/2003	27.66	3.44	
42-19	3/18/2003	27.66	3.44	
42-19	4/14/2003	27.72	3.38	
42-19	5/14/2003	28.04	3.06	
42-19	6/16/2003	28.06	3.04	
42-20	2/2/2003	35.22	0.28	
42-20	3/18/2003	35.22	0.28	
42-20	4/14/2003	35.50	0.00	
42-20	5/14/2003	35.50	0.00	
42-20	6/16/2003	35.55	-0.05	
42-11	2/28/2003	28.60	3.60	
42-11	3/18/2003	28.57	3.63	
42-11	4/1/2003	28.62	3.58	
42-11	5/1/2003	28.61	3.59	
42-11	6/1/2003	28.59	3.61	
43-7	2/2/2003	35.95	1.35	
43-7	3/18/2003	35.95	1.35	
43-7	4/14/2003	36.21	1.09	
43-7	5/14/2003	36.20	1.10	
43-7	6/16/2003	36.22	1.08	
43-9	2/28/2003	34.20	2.50	
43-9	3/18/2003	34.12	2.58	
43-9	4/1/2003	34.21	2.49	
43-9	5/1/2003	34.23	2.47	
43-9	6/1/2003	34.25	2.45	
43-13	2/2/2003	30.49	2.01	
43-13	3/18/2003	30.49	2.01	
43-13	4/14/2003	30.73	1.77	
43-13	5/14/2003	30.73	1.77	
43-13	6/16/2003	30.75	1.75	
44-5	2/2/2003	43.42	0.08	
44-5	3/18/2003	43.30	0.20	
44-5	4/14/2003	43.29	0.21	
44-5	5/14/2003	43.32	0.18	
44-5	6/16/2003	43.31	0.19	
44-14	2/28/2003	34.20	0.40	
44-14	3/18/2003	34.34	0.26	
44-14	4/1/2003	34.34	0.26	

Table 4 (continued)
Trench Sump Leachate Measurements
2003

TRENCH SUMP ID	DATE	Top of Casing to Liquid (ft)	Feet of Liquid (ft)	COMMENTS
44-14	5/1/2003	34.34	0.26	
44-14	6/1/2003	34.35	0.25	
44-20	2/2/2003	23.84	15.46	
44-20	3/18/2003	23.84	15.46	
44-20	4/14/2003	24.10	15.20	
44-20	5/14/2003	26.85	12.45	
44-20	6/16/2003	29.10	10.20	
44-22	2/28/2003	39.90	1.00	
44-22	3/18/2003	39.85	1.05	
44-22	4/1/2003	39.89	1.01	
44-22	5/1/2003	39.91	0.99	
44-22	6/1/2003	39.86	1.04	
45-1	2/2/2003	32.16	3.04	
45-1	2/28/2003	29.60	5.60	
45-1	3/8/2003	32.16	3.04	
45-1	4/14/2003	31.47	3.73	
45-1	5/14/2003	31.47	3.73	
45-1	6/16/2003	30.89	4.31	
46-1	2/28/2003	25.80	1.70	
46-1	3/18/2003	25.79	1.71	
46-1	4/1/2003	25.77	1.73	
46-1	5/1/2003	25.72	1.78	
46-1	6/1/2003	25.64	1.86	
46-2	2/28/2003	22.20	2.60	
46-2	3/18/2003	22.16	2.64	
46-2	4/1/2003	22.17	2.63	
46-2	5/1/2003	22.13	2.67	
46-2	6/1/2003	22.07	2.73	
46-3	2/2/2003	21.72	15.68	
46-3	2/28/2003	18.60	18.80	
46-3	4/14/2003	21.72	15.68	
46-3	5/14/2003	21.72	15.68	
46-3	6/16/2003	21.72	15.68	

Note:

*Trench sumps, 27-11, 28-6, 28-11,28-12, 30-10, and 36-7 do not have recorders. These trench sumps are dry.

These trench sumps are measured on an annual base.

Trench sump will measured monthly by manual means or have recorders installed if recorders are available and if sufficient liquid is present.

Trench sump bottom is measured annually during the calibration of the data logger.

Table 5
Erosion Monitoring

East Drain Cross Section #3.5

Elevation in Feet

Station	Date April-03	Date June-03
0	747.08	746.66
2	747.08	746.66
4	746.58	746.50
6	746.08	746.03
8	745.96	745.97
10	746.44	745.96
12	746.27	746.19
14	746.22	746.18
16	746.76	746.69
18	747.23	747.18
20	747.26	747.23
22	747.08	747.03
24	747.00	747.06
26	747.21	747.19
28	747.10	747.06
30	747.47	747.51
30.5	747.47	747.51

East Drain Cross Section #5.0

Elevation in Feet

Station	Date April-03	Date June-03
0	767.49	767.51
2	767.49	767.51
4	768.17	767.37
7	764.89	767.93
7.5	764.60	764.61
8	764.10	764.18
10	763.48	764.43
12	763.12	763.11
14	763.01	762.97
16	763.21	762.93
18	765.02	764.93
20	765.63	765.31
22	765.47	765.43
24	765.70	765.71
26	766.75	766.71
28	768.11	768.03
29.5	768.11	768.03

East Drain Cross Section #5.5

Elevation in Feet

Station	Date April-03	Date June-03
0	769.31	769.27
2	769.31	769.27
4	767.45	767.23
6	766.19	766.53
8	765.18	764.86
10	764.99	764.85
12	765.19	765.09
14	765.29	765.25
16	765.17	765.14
18	767.89	757.91
20	769.27	769.09
21	769.46	769.35
22.5	769.46	769.35

East Drain Cross Section #6.0

Elevation in Feet

Station	Date April-03	Date June-03
0	780.54	780.66
1	780.54	780.66
2	780.23	780.26
3	779.55	779.58
4	777.52	777.78
5	774.44	777.11
6	774.09	774.94
8	772.92	773.24
10	773.01	772.99
12	773.38	773.26
14	773.74	773.62
16	777.27	776.98
21	777.27	776.98

East Drain Cross Section #6.5

Elevation in Feet

Station	Date April-03	Date June-03
0	781.14	781.15
2	781.14	781.15
4	780.71	780.60
6	779.50	779.55
8	778.75	779.03
10	778.86	779.00
12	778.12	778.18
14	779.59	779.73
16	779.57	779.68
18	781.52	781.58
18.5	781.52	781.58

East Drain Cross Section #6.75

Elevation in Feet

Station	Date April-03	Date June-03
0	791.42	791.23
1	791.42	791.23
2	790.71	790.38
4	788.83	788.81
6	791.31	791.18
8	789.57	790.23
10	790.02	790.00
12	789.85	790.09
14	790.19	790.29
16	790.42	790.53
17	792.23	791.98
18	792.23	791.98

Table 5
Erosion Monitoring
(continued)

East Drain Cross Section #8.0

Elevation in Feet

Station	Date April-03	Date June-03
0	925.38	925.69
2	925.38	925.69
4	925.73	925.79
6	922.72	922.55
8	922.65	923.31
10	922.18	922.71
12	923.33	923.61
14	922.93	923.49
16	924.28	924.09
18	925.76	925.87
20	926.34	926.57
22	925.62	925.77
24	926.50	926.43
26	926.20	926.13
28	926.22	926.29
28.7	926.22	926.29

East Drain Cross Section #12.0

Elevation in Feet

Station	Date April-03	Date June-03
0	984.97	984.95
6	984.97	984.95
8	985.07	985.08
10	984.93	984.93
12	984.60	984.64
14	984.07	984.20
16	983.73	983.68
18	983.35	983.60
20	981.97	982.08
22	983.98	984.12
24	984.35	984.48
26	983.64	983.78
28	983.97	984.10
30	983.21	983.40
32	985.55	984.66
34	984.84	984.98
36	985.17	985.26
38	984.63	984.76
40	984.84	984.81
42	985.41	985.52
44	985.85	985.88
45.7	985.85	985.88