APPENDIX F

REMEDIATION SYSTEM DATA TABLES

OU I SOUTH BOUNDARY SYSTEM

Table F-1

Extraction Wells 1,2 Tritium and VOC Data

OU I South Boundary

2001 BNL Groundwater Status Report

Site ID: 115-27							
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Error**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	1/18/01	0.46	0.5	--	UG/L	170	J
1,1-Dichloroethane	1/18/01	**1.2**	0.5	--	UG/L	170	
524.2 TVOC	1/18/01	**3.67**	--	--			
Chloroethane	1/18/01	**0.91**	0.5	--	UG/L	170	
Chloroform	1/18/01	**1.1**	0.5	--	UG/L	170	
Tritium	1/18/01	390	449	275	PCI/L	170	U
1,1,1-Trichloroethane	3/15/01	**0.64**	0.5	--	UG/L	170	
1,1-Dichloroethane	3/15/01	**2.9**	0.5	--	UG/L	170	
524.2 TVOC	3/15/01	**8.32**	--	--	UG/L	170	
Chloroethane	3/15/01	**2.4**	0.5	--	UG/L	170	
Chloroform	3/15/01	**0.99**	0.5	--	UG/L	170	
cis-1,2-Dichloroethylene	3/15/01	0.29	0.5	--	UG/L	170	J
Methylene chloride	3/15/01	**1.1**	0.5	--	UG/L	170	B
Tritium	3/15/01	286	504	301	PCI/L	170	U
1,1,1-Trichloroethane	5/10/01	**0.5**	0.5	--	UG/L	170	
1,1-Dichloroethane	5/10/01	**2**	0.5	--	UG/L	170	
524.2 TVOC	5/10/01	**5.61**	--	--	UG/L	170	
Chloroethane	5/10/01	**1.7**	0.5	--	UG/L	170	
Chloroform	5/10/01	**0.91**	0.5	--	UG/L	170	
Methylene chloride	5/10/01	**0.5**	0.5	--	UG/L	170	
Tritium	5/10/01	559	509	317	PCI/L	170	J
1,1,1-Trichloroethane	7/12/01	0.49	0.5	--	UG/L	170	J
1,1-Dichloroethane	7/12/01	**2.1**	0.5	--	UG/L	170	
524.2 TVOC	7/12/01	**5.83**	--	--	UG/L	170	
Chloroethane	7/12/01	**1.8**	0.5	--	UG/L	170	
Chloroform	7/12/01	**0.97**	0.5	--	UG/L	170	
Methylene chloride	7/12/01	0.47	0.5	--	UG/L	170	JB
Tritium	7/12/01	945	407	277	PCI/L	170	J
1,1,1-Trichloroethane	11/1/01	0.46	0.5	--	UG/L	170	J
1,1-Dichloroethane	11/1/01	**1.8**	0.5	--	UG/L	170	
524.2 TVOC	11/1/01	**5.24**	--	--	UG/L	170	
Chloroethane	11/1/01	**1.6**	0.5	--	UG/L	170	
Chloroform	11/1/01	**1**	0.5	--	UG/L	170	
Methyl chloride	11/1/01	0.38	0.5	--	UG/L	170	J
Tritium	11/1/01	202	558	329	PCI/L	170	U

Table F-1
Extraction Wells 1,2 Tritium and VOC Data
OU I South Boundary
2001 BNL Groundwater Status Report

Site ID: 115-43							
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Error**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	1/18/01	**1.4**	0.5	--	UG/L	130	
1,1-Dichloroethane	1/18/01	**5.8**	0.5	--	UG/L	130	
1,1-Dichloroethylene	1/18/01	0.47	0.5	--	UG/L	130	J
524.2 TVOC	1/18/01	**12.38**	--	--	UG/L	130	
Chloroethane	1/18/01	**2.9**	0.5	--	UG/L	130	
Chloroform	1/18/01	**0.96**	0.5	--	UG/L	130	
cis-1,2-Dichloroethylene	1/18/01	**0.51**	0.5	--	UG/L	130	
Trichloroethylene	1/18/01	0.34	0.5	--	UG/L	130	J
Tritium	1/18/01	537	444	278	PCI/L	130	J
1,1,1-Trichloroethane	3/15/01	**1.4**	0.5	--	UG/L	130	
1,1-Dichloroethane	3/15/01	**7.1**	0.5	--	UG/L	130	
1,1-Dichloroethylene	3/15/01	**0.51**	0.5	--	UG/L	130	
524.2 TVOC	3/15/01	**15.61**	--	--	UG/L	130	
Chloroethane	3/15/01	**3.5**	0.5	--	UG/L	130	
Chloroform	3/15/01	**0.88**	0.5	--	UG/L	130	
cis-1,2-Dichloroethylene	3/15/01	**0.6**	0.5	--	UG/L	130	
Methylene chloride	3/15/01	**0.99**	0.5	--	UG/L	130	B
Tetrachloroethylene	3/15/01	0.27	0.5	--	UG/L	130	J
Trichloroethylene	3/15/01	0.36	0.5	--	UG/L	130	J
Tritium	3/15/01	875	493	321	PCI/L	130	J
1,1,1-Trichloroethane	5/10/01	**1.5**	0.5	--	UG/L	130	
1,1,2,2-Tetrachloroethane	5/10/01	**0.62**	0.5	--	UG/L	130	
1,1,2-Trichloroethane	5/10/01	0.26	0.5	--	UG/L	130	J
1,1-Dichloroethane	5/10/01	**5.8**	0.5	--	UG/L	130	
1,1-Dichloroethylene	5/10/01	**1.2**	0.5	--	UG/L	130	
524.2 TVOC	5/10/01	**22.8**	--	--	UG/L	130	
Benzene	5/10/01	**0.51**	0.5	--	UG/L	130	
Carbon tetrachloride	5/10/01	0.46	0.5	--	UG/L	130	J
Chlorobenzene	5/10/01	0.26	0.5	--	UG/L	130	J
Chloroethane	5/10/01	**2.8**	0.5	--	UG/L	130	
Chloroform	5/10/01	**1**	0.5	--	UG/L	130	
cis-1,2-Dichloroethylene	5/10/01	**0.54**	0.5	--	UG/L	130	
Dibromochloromethane	5/10/01	0.31	0.5	--	UG/L	130	J
m/p xylene	5/10/01	**0.56**	0.5	--	UG/L	130	
m-Dichlorobenzene	5/10/01	0.28	0.5	--	UG/L	130	J
Methylene chloride	5/10/01	**0.56**	0.5	--	UG/L	130	
o-Xylene	5/10/01	0.3	0.5	--	UG/L	130	J
Tetrachloroethylene	5/10/01	**0.54**	0.5	--	UG/L	130	
Trichloroethylene	5/10/01	**0.68**	0.5	--	UG/L	130	
Trichlorofluoromethane	5/10/01	0.4	0.5	--	UG/L	130	J
Tritium	5/10/01	**1790**	495	359	PCI/L	130	
1,1,1-Trichloroethane	7/12/01	**1.3**	0.5	--	UG/L	120	

Table F-1

Extraction Wells 1,2 Tritium and VOC Data

OU I South Boundary

2001 BNL Groundwater Status Report

Site ID: 115-43							
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Error**	**Units**	**Depth**	**Qual.**
1,1-Dichloroethane	7/12/01	**5.8**	0.5	--	UG/L	120	
1,1-Dichloroethylene	7/12/01	**0.5**	0.5	--	UG/L	120	
524.2 TVOC	7/12/01	**12.49**	--	--	UG/L	120	
Chloroethane	7/12/01	**2.7**	0.5	--	UG/L	120	
Chloroform	7/12/01	**0.83**	0.5	--	UG/L	120	
cis-1,2-Dichloroethylene	7/12/01	**0.57**	0.5	--	UG/L	120	
Methylene chloride	7/12/01	0.49	0.5	--	UG/L	120	JB
Trichloroethylene	7/12/01	0.3	0.5	--	UG/L	120	J
Tritium	7/12/01	**548**	408	260	PCI/L	120	J
1,1,1-Trichloroethane	9/18/01	**1.2**	0.5	--	UG/L	130	
1,1-Dichloroethane	9/18/01	**5.5**	0.5	--	UG/L	130	
1,1-Dichloroethylene	9/18/01	0.44	0.5	--	UG/L	130	J
524.2 TVOC	9/18/01	**12.04**	--	--	UG/L	130	
Chloroethane	9/18/01	**2.8**	0.5	--	UG/L	130	
Chloroform	9/18/01	**0.95**	0.5	--	UG/L	130	
cis-1,2-Dichloroethylene	9/18/01	0.49	0.5	--	UG/L	130	J
Methyl chloride	9/18/01	0.4	0.5	--	UG/L	130	J
Trichloroethylene	9/18/01	0.26	0.5	--	UG/L	130	J
Tritium	9/18/01	**1050**	433	294	PCI/L	130	
1,1,1-Trichloroethane	11/1/01	**1.3**	0.5	--	UG/L	130	
1,1-Dichloroethane	11/1/01	**5.4**	0.5	--	UG/L	130	
1,1-Dichloroethylene	11/1/01	0.46	0.5	--	UG/L	130	J
524.2 TVOC	11/1/01	**12.3**	--	--	UG/L	130	
Chloroethane	11/1/01	**2.9**	0.5	--	UG/L	130	
Chloroform	11/1/01	**1.2**	0.5	--	UG/L	130	
cis-1,2-Dichloroethylene	11/1/01	0.46	0.5	--	UG/L	130	J
Tetrachloroethylene	11/1/01	0.32	0.5	--	UG/L	130	J
Trichloroethylene	11/1/01	0.26	0.5	--	UG/L	130	J
Tritium	11/1/01	163	586	344	PCI/L	130	U

Table F-2

Air Stripper Influent Tritium and VOC Data

OU I South Boundary

2001 BNL Groundwater Status Report

Site ID: 076-259													
Chemical Name	**Units**	**1/18/01**	**2/15/01**	**3/15/01**	**4/19/01**	**5/10/01**	**6/14/01**	**7/12/01**	**8/9/01**	**9/18/01**	**10/15/01**	**11/1/01**	**12/18/01**
Tritium	pCi/L	565J	852J	921J	672J	859J	864J	**1070**	**1100**	737J	878J	457U	908J
1,1,1-Trichloroethane	ug/L	**0.86**	**1.2**	**0.94**	**0.98**	**0.98**	**1.1**	**1**	**1**	**0.85**	**0.96**	**0.99**	**1**
1,1-Dichloroethane	ug/L	**3.7**	**5.3**	**5.1**	**4.2**	**4.3**	**4.4**	**4.8**	**4.9**	**4**	**4**	**4.1**	**4.4**
1,1-Dichloroethylene	ug/L	0.26J	0.42J	0.33J	0.33J	0.36J	0.41J	0.39J	0.38J	0.28J	0.38J	0.35J	0.35J
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	**1.4**	**2.3**	**2.4**	**1.6**	**1.7**	**1.8**	**1.9**	**2.5**	**1.7**	**1.7**	**1.8**	**2**
Chloroform	ug/L	**0.85**	**0.78**	**0.83**	**0.79**	**0.8**	**0.87**	**0.92**	**0.96**	**0.9**	**1.1**	**1.1**	**1.4**
cis-1,2-Dichloroethylene	ug/L	0.36J	**0.55**	0.46J	0.4J	0.39J	0.42J	0.43J	0.46J	0.34J	0.36J	0.38J	0.42J
Methyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.62**	<0.5	<0.5	<0.5	<0.5
Methylene chloride	ug/L	<0.5	<0.5	**1B**	0.29J	0.44J	0.5	0.39JB	0.5	0.5	0.44J	0.5	0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	ug/L	0.5	0.3J	0.28J	0.26J	0.5	0.26J	0.26J	0.28J	<0.5	<0.5	<0.5	0.28J
Vinyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
524.2 TVOC	ug/L	**7.43**	**10.85**	**11.34**	**8.85**	**8.97**	**9.26**	**10.09**	**11.1**	**8.07**	**8.94**	**8.72**	**9.85**

Table F-3
Air Stripper Effluent Tritium and VOC Data
OU I South Boundary
2001 BNL Groundwater Status Report

Site ID: 076-261													
Chemical Name	**Units**	**1/18/01**	**2/15/01**	**3/15/01**	**4/19/01**	**5/10/01**	**6/14/01**	**7/12/01**	**8/9/01**	**9/18/01**	**10/15/01**	**11/1/01**	**12/18/01**
Tritium	pCi/L	608J	780J	692J	424J	856J	889J	739J	**1040**	991J	NS	312U	781J
1,1,1-Trichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.31J	<0.5	<0.5	<0.5	<0.5
Methylene chloride	ug/L	<0.5	<0.5	**0.98B**	<0.5	0.44J	<0.5	<0.5	<0.5	<0.5	0.33J	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Dichlorobenzene	ug/L	<0.5	0.27J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
524.2 TVOC	ug/L	0	0.27	**0.98**	0	0.44	0	0	0.31	0	0.33	0	0

Table F-4
Air Stripper Effluent Rad, Pesticide, and Metals Data
OU I South Boundary
2001 BNL Groundwater Status Report

Site ID: 076-261							
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Error**	**Units**	**Depth**	**Qual.**
Rad							
Americium-241	1/18/01	0.0722	14.5	9.82	PCI/L	0	U
Beryllium-7	1/18/01	-5.21	16.2	10	PCI/L	0	U
Cesium-134	1/18/01	0.404	2.17	1.19	PCI/L	0	U
Cesium-137	1/18/01	0.3	2.41	1.32	PCI/L	0	U
Co-60	1/18/01	0.24	2.38	1.3	PCI/L	0	U
Cobalt-57	1/18/01	1.02	2.02	1.57	PCI/L	0	U
Europium-152	1/18/01	0.497	6.48	3.78	PCI/L	0	U
Europium-154	1/18/01	2.73	7.3	3.78	PCI/L	0	U
Europium-155	1/18/01	-1.95	9.03	5.23	PCI/L	0	U
Gross Alpha	1/18/01	0.245	0.423	0.259	PCI/L	0	U
Gross Beta	1/18/01	1.32	0.954	0.594	PCI/L	0	J
Manganese-54	1/18/01	-0.216	1.91	1.08	PCI/L	0	U
Sodium-22	1/18/01	0.989	2.61	1.35	PCI/L	0	U
Strontium-90	1/18/01	-0.347	0.755	0.431	PCI/L	0	U
Tritium	1/18/01	608	440	279	PCI/L	0	J
Vanadium-48	1/18/01	1.62	2.91	1.47	PCI/L	0	U
Zinc-65	1/18/01	0.17	4.33	2.39	PCI/L	0	U

Pesticides & PCB's							
4,4''-DDD	1/18/01	0.04	0.04	0	UG/L	0	U
4,4''-DDE	1/18/01	0.04	0.04	0	UG/L	0	U
4,4''-DDT	1/18/01	0.22	0.04	0	UG/L	0	
Aldrin	1/18/01	0.02	0.02	0	UG/L	0	U
alpha-BHC	1/18/01	0.02	0.02	0	UG/L	0	U
Aroclor 1016	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor 1221	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor 1232	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor 1248	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor 1254	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor 1260	1/18/01	0.5	0.5	0	UG/L	0	U
Aroclor-1242	1/18/01	0.5	0.5	0	UG/L	0	U
beta-BHC	1/18/01	0.02	0.02	0	UG/L	0	U
Chlordane	1/18/01	0.25	0.25	0	UG/L	0	U
delta-BHC	1/18/01	0.02	0.02	0	UG/L	0	U
Dieldrin	1/18/01	0.04	0.04	0	UG/L	0	U
Endosulfan I	1/18/01	0.02	0.02	0	UG/L	0	U
Endosulfan II	1/18/01	0.04	0.04	0	UG/L	0	U
Endosulfan sulfate	1/18/01	0.04	0.04	0	UG/L	0	U
Endrin	1/18/01	0.04	0.04	0	UG/L	0	U
Endrin aldehyde	1/18/01	0.04	0.04	0	UG/L	0	U
Endrin ketone	1/18/01	0.04	0.04	0	UG/L	0	U
Heptachlor	1/18/01	0.02	0.02	0	UG/L	0	U
Heptachlor epoxide	1/18/01	0.02	0.02	0	UG/L	0	U

Table F-4

Air Stripper Effluent Rad, Pesticide, and Metals Data

OU I South Boundary

2001 BNL Groundwater Status Report

Site ID: 076-261							
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Error**	**Units**	**Depth**	**Qual.**
Lindane	1/18/01	0.02	0.02	0	UG/L	0	U
Methoxychlor	1/18/01	0.2	0.2	0	UG/L	0	U
Toxaphene	1/18/01	0.99	0.99	0	UG/L	0	U
Metals							
Aluminum	1/18/01	13.3	7.6	0	UG/L	0	B
Antimony	1/18/01	2.24	2.24	0	UG/L	0	U
Arsenic	1/18/01	2.46	2.46	0	UG/L	0	U
Barium	1/18/01	34.8	0.49	0	UG/L	0	B
Beryllium	1/18/01	0.21	0.21	0	UG/L	0	U
Cadmium	1/18/01	0.36	0.36	0	UG/L	0	U
Calcium	1/18/01	6710	8.19	0	UG/L	0	
Chromium	1/18/01	0.7	0.7	0	UG/L	0	U
Cobalt	1/18/01	1.94	0.67	0	UG/L	0	B
Copper	1/18/01	1.54	1.54	0	UG/L	0	U
Iron	1/18/01	6.56	2.37	0	UG/L	0	B
Lead	1/18/01	2.25	2.25	0	UG/L	0	U
Magnesium	1/18/01	3620	7.69	0	UG/L	0	B
Manganese	1/18/01	10.8	0.48	0	UG/L	0	B
Mercury	1/18/01	0.048	0.048	0	UG/L	0	U
Nickel	1/18/01	1.03	1.03	0	UG/L	0	U
Potassium	1/18/01	1190	0.5	0	UG/L	0	BE
Selenium	1/18/01	2.37	2.37	0	UG/L	0	U
Silver	1/18/01	0.62	0.62	0	UG/L	0	U
Sodium	1/18/01	9620	16.8	0	UG/L	0	N
Thallium	1/18/01	3.26	3.26	0	UG/L	0	U
Vanadium	1/18/01	0.46	0.46	0	UG/L	0	U
Zinc	1/18/01	3.76	0.5	0	UG/L	0	B

Table F-5
RAV Recharge Basin Tritium Air Monitoring Data
OU I South Boundary
2001 BNL Groundwater Status Report

Basin, NE (ID: 076-300)				
Collect Date	**pCi/m^3 Ttitium**	**2s Error (pCi/m^3)**	**MDL (pCi/m^3)**	**Comments**
1/19/01	1.1	2.0	3.4	<MDL
2/16/01	0.0	0.5	0.9	<MDL
3/22/01	-0.3	1.0	1.8	<MDL
4/20/01	NA	NA	NA	Sampler failed twice when placed in field
5/18/01	0.6	1.3	2.2	<MDL
6/15/01	1.1	3.4	4.6	<MDL
7/19/01	5.1	3.4	4.6	
8/16/01	2.4	3.5	5.5	<MDL
9/25/01	4.0	3.5	5.3	<MDL
10/12/01	4.1	2.8	4.1	

Basin, SE (ID: 076-301)				
Collect Date	**pCi/m^3 Ttitium**	**2s Error (pCi/m^3)**	**MDL (pCi/m^3)**	**Comments**
1/19/01	0.9	0.7	1.0	<MDL
2/16/01	0.9	0.8	1.2	<MDL
3/22/01	13.6	58.5	98.4	<MDL, Excessive moisture in sample; invalidated
6/15/01	0.0	2.9	4.3	<MDL
4/20/01	-0.5	1.0	1.7	<MDL
5/18/01	0.0	0.0	0.0	No sample recovered by Analytical Laboratory
7/19/01	2.7	2.7	3.9	<MDL
8/16/01	1.2	3.8	6.1	<MDL
9/25/01	-0.2	3.8	5.7	<MDL
10/12/01	2.2	2.5	3.8	<MDL

Basin, NE (ID: 077-300)				
Collect Date	**pCi/m^3 Ttitium**	**2s Error (pCi/m^3)**	**MDL (pCi/m^3)**	**Comments**
1/19/01	-0.8	2.5	4.2	<MDL
2/16/01	-0.5	0.9	1.5	<MDL
3/22/01	0.0	1.1	1.9	<MDL
4/20/01	-0.3	1.0	1.7	<MDL
5/18/01	-0.1	1.5	2.7	<MDL
6/15/01	1.0	4.1	5.4	<MDL
7/19/01	3.3	4.5	6.6	<MDL, Flow problem *
8/16/01	2.0	3.7	5.8	<MDL
9/25/01	2.7	4.6	6.9	<MDL
10/12/01	2.8	2.8	4.3	<MDL

* Flow Problem - When flow at time of collection is <50% of the "on flow", the sample is invalid.
Note: Tritium Air Monitoring was stopped after October 2001.

Table F-6
Cumulative Mass Removal
OU I South Boundary
2001 BNL Groundwater Status Report

Date Sampled	Total VOCs (ug/L)	Flow Rates (gpm)	Cumulative VOCs (lbs)
1/18/01	8.9	579	233.6
2/15/01	10.3	558	235.6
3/15/01	9.88	555	237.4
4/19/01	8.33	651	239.7
5/10/01	8.64	667	241.1
6/14/01	8.84	663	243.6
7/12/01	9.27	672.1	245.7
8/9/01	10.02	668.1	248.0
9/18/01	8.23	656	250.5
10/15/01	8.64	640.28	252.3
11/1/01	8.84	636.1	253.5
12/18/01	9.43	630.85	256.9

OU III CARBON TETRACHLORIDE

Table F-7
Influent Analytical Data
OU III Carbon Tetrachloride
2001 BNL Groundwater Status Report

Site ID: 085-201

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1,1-Trichloroethane	1/17/01	1.6	0.5	UG/L	0	
1,1-Dichloroethylene	1/17/01	0.55	0.5	UG/L	0	
524.2 TVOC	1/17/01	93.75	0	UG/L	0	
Carbon tetrachloride	1/17/01	**87.6**	0.5	UG/L	0	
Chloroform	1/17/01	4	0.5	UG/L	0	
1,1,1-Trichloroethane	2/1/01	2.1	0.5	UG/L	0	
1,1-Dichloroethylene	2/1/01	0.8	0.5	UG/L	0	
524.2 TVOC	2/1/01	83.4	0	UG/L	0	
Carbon tetrachloride	2/1/01	**76.8**	0.5	UG/L	0	
Chloroform	2/1/01	3.7	0.5	UG/L	0	
1,1,1-Trichloroethane	2/15/01	1.9	0.5	UG/L	0	
1,1-Dichloroethylene	2/15/01	0.74	0.5	UG/L	0	
524.2 TVOC	2/15/01	78.8	0	UG/L	0	
Carbon tetrachloride	2/15/01	**72.4**	0.5	UG/L	0	
Chloroform	2/15/01	3.5	0.5	UG/L	0	
Tetrachloroethylene	2/15/01	0.26	0.5	UG/L	0	J
1,1,1-Trichloroethane	3/1/01	1.9	0.5	UG/L	0	
1,1-Dichloroethylene	3/1/01	0.77	0.5	UG/L	0	
524.2 TVOC	3/1/01	75.23	0	UG/L	0	
Carbon tetrachloride	3/1/01	**68.9**	0.5	UG/L	0	
Chloroform	3/1/01	3.3	0.5	UG/L	0	
Methylene chloride	3/1/01	0.36	0.5	UG/L	0	JB
1,1,1-Trichloroethane	3/15/01	2.3	0.5	UG/L	0	
1,1-Dichloroethylene	3/15/01	0.87	0.5	UG/L	0	
524.2 TVOC	3/15/01	79.6	0	UG/L	0	
Carbon tetrachloride	3/15/01	**71.3**	0.5	UG/L	0	
Chloroform	3/15/01	3.9	0.5	UG/L	0	
Methylene chloride	3/15/01	0.97	0.5	UG/L	0	B
Tetrachloroethylene	3/15/01	0.26	0.5	UG/L	0	J
524.2 TVOC	4/2/01	0	0	UG/L	0	
524.2 TVOC	4/16/01	0.31	0	UG/L	0	
Methylene chloride	4/16/01	0.31	0.5	UG/L	0	JB
524.2 TVOC	5/1/01	0.32	0	UG/L	0	
Methylene chloride	5/1/01	0.32	0.5	UG/L	0	JB
1,1,1-Trichloroethane	5/16/01	0.28	0.5	UG/L	0	J
524.2 TVOC	5/16/01	2.57	0	UG/L	0	
Carbon tetrachloride	5/16/01	1.8	0.5	UG/L	0	
Chloroform	5/16/01	0.49	0.5	UG/L	0	J
1,1,1-Trichloroethane	6/4/01	1.2	0.5	UG/L	0	
524.2 TVOC	6/4/01	15.99	0	UG/L	0	
Carbon tetrachloride	6/4/01	**12.9**	0.5	UG/L	0	
Chloroform	6/4/01	1.5	0.5	UG/L	0	
Methylene chloride	6/4/01	0.39	0.5	UG/L	0	JB
1,1,1-Trichloroethane	6/14/01	2	0.5	UG/L	0	

Table F-7
Influent Analytical Data
OU III Carbon Tetrachloride System
2001 BNL Groundwater Status Report

Site ID: 085-201

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1-Dichloroethylene	6/14/01	0.86	0.5	UG/L	0	
524.2 TVOC	6/14/01	68.26	0	UG/L	0	
Carbon tetrachloride	6/14/01	**61.1**	0.5	UG/L	0	
Chloroform	6/14/01	4.3	0.5	UG/L	0	
1,1,1-Trichloroethane	7/2/01	1.8	0.5	UG/L	0	
1,1-Dichloroethylene	7/2/01	0.73	0.5	UG/L	0	
524.2 TVOC	7/2/01	60.02	0	UG/L	0	
Carbon tetrachloride	7/2/01	**52.3**	0.5	UG/L	0	
Chloroform	7/2/01	3.8	0.5	UG/L	0	
Methyl chloride	7/2/01	0.29	0.5	UG/L	0	J
Naphthalene	7/2/01	1.1	0.5	UG/L	0	B
1,1,1-Trichloroethane	7/16/01	1.8	0.5	UG/L	0	
1,1-Dichloroethylene	7/16/01	0.73	0.5	UG/L	0	
524.2 TVOC	7/16/01	51.25	0	UG/L	0	
Carbon tetrachloride	7/16/01	**45**	0.5	UG/L	0	
Chloroform	7/16/01	3.4	0.5	UG/L	0	
Methyl chloride	7/16/01	0.32	0.5	UG/L	0	J
1,1,1-Trichloroethane	8/7/01	1.9	0.5	UG/L	0	
1,1-Dichloroethane	8/7/01	0.26	0.5	UG/L	0	J
1,1-Dichloroethylene	8/7/01	0.87	0.5	UG/L	0	
524.2 TVOC	8/7/01	52.14	0	UG/L	0	
Carbon tetrachloride	8/7/01	**45**	0.5	UG/L	0	
Chloroform	8/7/01	3.8	0.5	UG/L	0	
m/p xylene	8/7/01	0.31	0.5	UG/L	0	J
1,1,1-Trichloroethane	8/16/01	2.1	0.5	UG/L	0	
1,1-Dichloroethane	8/16/01	0.26	0.5	UG/L	0	J
1,1-Dichloroethylene	8/16/01	0.9	0.5	UG/L	0	
524.2 TVOC	8/16/01	57.47	0	UG/L	0	
Carbon tetrachloride	8/16/01	**47.3**	0.5	UG/L	0	
Chloroform	8/16/01	3.7	0.5	UG/L	0	
m/p xylene	8/16/01	0.32	0.5	UG/L	0	J
Methyl chloride	8/16/01	0.39	0.5	UG/L	0	J
Methylene chloride	8/16/01	1.7	0.5	UG/L	0	
o-Xylene	8/16/01	0.27	0.5	UG/L	0	J
Tetrachloroethylene	8/16/01	0.26	0.5	UG/L	0	J
524.2 TVOC	9/5/01	0.26	0	UG/L	0	
Methyl chloride	9/5/01	0.26	0.5	UG/L	0	J
524.2 TVOC	9/18/01	0.38	0	UG/L	0	
Methyl chloride	9/18/01	0.38	0.5	UG/L	0	J
524.2 TVOC	10/1/01	0.86	0	UG/L	0	
Methylene chloride	10/1/01	0.86	0.5	UG/L	0	B
524.2 TVOC	10/15/01	0	0	UG/L	0	
1,1,1-Trichloroethane	11/1/01	1.8	0.5	UG/L	0	
1,1-Dichloroethane	11/1/01	0.28	0.5	UG/L	0	J

Table F-7
Influent Analytical Data
OU III Carbon Tetrachloride System
2001 BNL Groundwater Status Report

Site ID: 085-201

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1-Dichloroethylene	11/1/01	0.81	0.5	UG/L	0	
524.2 TVOC	11/1/01	38.83	0	UG/L	0	
Carbon tetrachloride	11/1/01	**32.3**	0.5	UG/L	0	
Chloroform	11/1/01	3.3	0.5	UG/L	0	
o-Xylene	11/1/01	0.34	0.5	UG/L	0	J
1,1,1-Trichloroethane	11/15/01	2	0.5	UG/L	0	
1,1-Dichloroethane	11/15/01	0.31	0.5	UG/L	0	J
1,1-Dichloroethylene	11/15/01	0.9	0.5	UG/L	0	
524.2 TVOC	11/15/01	43.92	0	UG/L	0	
Benzene, 1,2,4-trimethyl	11/15/01	0.28	0.5	UG/L	0	J
Carbon tetrachloride	11/15/01	**31.9**	0.5	UG/L	0	
Chloroform	11/15/01	3.7	0.5	UG/L	0	
m/p xylene	11/15/01	0.64	0.5	UG/L	0	
Methylene chloride	11/15/01	2.7	0.5	UG/L	0	B
o-Xylene	11/15/01	0.52	0.5	UG/L	0	
Tetrachloroethylene	11/15/01	0.45	0.5	UG/L	0	J
1,1,1-Trichloroethane	12/4/01	1.8	0.5	UG/L	0	
1,1-Dichloroethane	12/4/01	0.26	0.5	UG/L	0	J
1,1-Dichloroethylene	12/4/01	0.78	0.5	UG/L	0	
524.2 TVOC	12/4/01	37.87	0	UG/L	0	
Carbon tetrachloride	12/4/01	**28.8**	0.5	UG/L	0	
Chloroform	12/4/01	3.8	0.5	UG/L	0	
m/p xylene	12/4/01	0.65	0.5	UG/L	0	
Methylene chloride	12/4/01	0.82	0.5	UG/L	0	
o-Xylene	12/4/01	0.48	0.5	UG/L	0	J

Site ID: 085-203

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1,1-Trichloroethane	1/2/01	1.8	0.5	UG/L	0	
1,1-Dichloroethylene	1/2/01	0.61	0.5	UG/L	0	
524.2 TVOC	1/2/01	86.71	0	UG/L	0	
Carbon tetrachloride	1/2/01	**81**	0.5	UG/L	0	
Chloroform	1/2/01	3.3	0.5	UG/L	0	
524.2 TVOC	1/17/01	0	0	UG/L	0	
524.2 TVOC	2/1/01	0.25	0	UG/L	0	
Carbon tetrachloride	2/1/01	0.25	0.5	UG/L	0	J
524.2 TVOC	2/15/01	0	0	UG/L	0	
524.2 TVOC	3/1/01	0.85	0	UG/L	0	
Methylene chloride	3/1/01	0.85	0.5	UG/L	0	B
524.2 TVOC	3/15/01	1.2	0	UG/L	0	
Methylene chloride	3/15/01	1.2	0.5	UG/L	0	B

Table F-7
Influent Analytical Data
OU III Carbon Tetrachloride System
2001 BNL Groundwater Status Report

Site ID: 085-203

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1,1-Trichloroethane	4/2/01	2.3	0.5	UG/L	0	
1,1-Dichloroethylene	4/2/01	0.95	0.5	UG/L	0	
524.2 TVOC	4/2/01	74.45	0	UG/L	0	
Carbon tetrachloride	4/2/01	**66.9**	0.5	UG/L	0	
Chloroform	4/2/01	4.3	0.5	UG/L	0	
1,1,1-Trichloroethane	4/16/01	2.2	0.5	UG/L	0	
1,1-Dichloroethylene	4/16/01	0.91	0.5	UG/L	0	
524.2 TVOC	4/16/01	75.31	0	UG/L	0	
Carbon tetrachloride	4/16/01	**67.4**	0.5	UG/L	0	
Chloroform	4/16/01	4.2	0.5	UG/L	0	
Methylene chloride	4/16/01	0.32	0.5	UG/L	0	JB
Tetrachloroethylene	4/16/01	0.28	0.5	UG/L	0	J
1,1,1-Trichloroethane	5/1/01	2	0.5	UG/L	0	
1,1-Dichloroethylene	5/1/01	0.86	0.5	UG/L	0	
524.2 TVOC	5/1/01	74.52	0	UG/L	0	
Carbon tetrachloride	5/1/01	**67**	0.5	UG/L	0	
Chloroform	5/1/01	4.3	0.5	UG/L	0	
Methylene chloride	5/1/01	0.36	0.5	UG/L	0	JB
1,1,1-Trichloroethane	5/16/01	2.2	0.5	UG/L	0	
1,1-Dichloroethylene	5/16/01	0.85	0.5	UG/L	0	
524.2 TVOC	5/16/01	69.95	0	UG/L	0	
Carbon tetrachloride	5/16/01	**62.9**	0.5	UG/L	0	
Chloroform	5/16/01	4	0.5	UG/L	0	
1,1,1-Trichloroethane	6/4/01	2.1	0.5	UG/L	0	
1,1-Dichloroethylene	6/4/01	0.86	0.5	UG/L	0	
524.2 TVOC	6/4/01	74.12	0	UG/L	0	
Carbon tetrachloride	6/4/01	**66.6**	0.5	UG/L	0	
Chloroform	6/4/01	4.2	0.5	UG/L	0	
Methylene chloride	6/4/01	0.36	0.5	UG/L	0	JB
524.2 TVOC	6/14/01	0	0	UG/L	0	
524.2 TVOC	7/2/01	1.37	0	UG/L	0	
Methyl chloride	7/2/01	0.27	0.5	UG/L	0	J
Naphthalene	7/2/01	1.1	0.5	UG/L	0	B
524.2 TVOC	7/16/01	0.87	0	UG/L	0	
Carbon tetrachloride	7/16/01	0.57	0.5	UG/L	0	
Chloroform	7/16/01	0.3	0.5	UG/L	0	J
1,1,1-Trichloroethane	8/7/01	0.67	0.5	UG/L	0	
524.2 TVOC	8/7/01	7.57	0	UG/L	0	
Carbon tetrachloride	8/7/01	**5.8**	0.5	UG/L	0	
Chloroform	8/7/01	1.1	0.5	UG/L	0	
1,1,1-Trichloroethane	8/16/01	1.1	0.5	UG/L	0	
524.2 TVOC	8/16/01	13.4	0	UG/L	0	
Carbon tetrachloride	8/16/01	**10.4**	0.5	UG/L	0	
Chloroform	8/16/01	1.5	0.5	UG/L	0	

Table F-7
Influent Analytical Data
OU III Carbon Tetrachloride System
2001 BNL Groundwater Status Report

Site ID: 085-203

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
Methyl chloride	8/16/01	0.4	0.5	UG/L	0	J
1,1,1-Trichloroethane	9/5/01	1.9	0.5	UG/L	0	
1,1-Dichloroethylene	9/5/01	0.81	0.5	UG/L	0	
524.2 TVOC	9/5/01	47.51	0	UG/L	0	
Carbon tetrachloride	9/5/01	**41.6**	0.5	UG/L	0	
Chloroform	9/5/01	3.2	0.5	UG/L	0	
1,1,1-Trichloroethane	9/18/01	1.6	0.5	UG/L	0	
1,1-Dichloroethylene	9/18/01	0.68	0.5	UG/L	0	
524.2 TVOC	9/18/01	40.86	0	UG/L	0	
Carbon tetrachloride	9/18/01	**35.2**	0.5	UG/L	0	
Chloroform	9/18/01	3.1	0.5	UG/L	0	
Methyl chloride	9/18/01	0.28	0.5	UG/L	0	J
1,1,1-Trichloroethane	10/1/01	1.7	0.5	UG/L	0	
1,1-Dichloroethane	10/1/01	0.26	0.5	UG/L	0	J
1,1-Dichloroethylene	10/1/01	0.85	0.5	UG/L	0	
524.2 TVOC	10/1/01	39.88	0	UG/L	0	
Carbon tetrachloride	10/1/01	**32.4**	0.5	UG/L	0	
Chloroform	10/1/01	3.2	0.5	UG/L	0	
m/p xylene	10/1/01	0.27	0.5	UG/L	0	J
Methyl chloride	10/1/01	0.26	0.5	UG/L	0	J
Methylene chloride	10/1/01	0.94	0.5	UG/L	0	B
1,1,1-Trichloroethane	10/15/01	1.8	0.5	UG/L	0	
1,1-Dichloroethane	10/15/01	0.25	0.5	UG/L	0	J
1,1-Dichloroethylene	10/15/01	0.83	0.5	UG/L	0	
524.2 TVOC	10/15/01	40.53	0	UG/L	0	
Carbon tetrachloride	10/15/01	**33.6**	0.5	UG/L	0	
Chloroform	10/15/01	3.1	0.5	UG/L	0	
Methylene chloride	10/15/01	0.69	0.5	UG/L	0	
Tetrachloroethylene	10/15/01	0.26	0.5	UG/L	0	J
524.2 TVOC	11/1/01	0	0	UG/L	0	
524.2 TVOC	11/15/01	1.7	0	UG/L	0	
Methylene chloride	11/15/01	1.7	0.5	UG/L	0	B
524.2 TVOC	12/4/01	0.81	0	UG/L	0	
Methylene chloride	12/4/01	0.81	0.5	UG/L	0	

TABLE F-8
MIDPOINT 1 ANALYTICAL DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

085-202

Parameters	1/2/01	1/17/01	2/1/01	2/15/01	3/1/01	3/15/01	4/2/01	4/16/01	5/1/01	5/16/01	6/4/01	6/14/01	7/2/01
1,1-Dichloroethylene				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-trichloroethane	<0.5	<0.5	<0.5	<0.5	0.41J	1.4	<0.5	0.35J	1.0	1.7	2.3	0.53	1.3
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	<0.5	<0.5	<0.5	1.4	5.1	21.5	<0.5	4.49	15.1	32.6	50.1	5.2	24.5
Chloroform	<0.5	<0.5	<0.5	<0.5	0.56	1.8	<0.5	<0.5	1.6	2.6	3.6	0.85	2.2
Methylene Chloride	0.46	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	0.31JB	0.40JB	<0.5	0.63B	<0.5	<0.5
Tetrachloroethylene	<0.5	<0.5	<0.5	<0.5	0.26JB	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of 1,3-and 1,4-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

J - Estimated Value
B - Detected in Blank
E - Estimated Value
ND - Non-detect
NA - Not Available

TABLE F-8
MIDPOINT 1 ANALYTICAL DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

085-202

Parameters	7/16/01	8/7/01	8/16/01	9/5/01	9/18/01	10/1/01	10/15/01	11/1/01	11/15/01	12/4/01
1,1-Dichloroethylene	NA	<0.50	0.29J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-trichloroethane	1.4	1.8	2	<0.50	<0.50	0.95	1.3	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	28.0	38.2	42.2	0.60	3.3	7.8	12.8	<0.50	0.26J	3.3
Chloroform	2.4	3.4	3.4	<0.50	0.90	1.6	2.0	<0.50	<0.50	1.1
Methylene Chloride	<0.50	<0.50	0.85	<0.50	<0.50	2.1	<0.50	<0.50	1.3B	0.97B
Tetrachloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Sum of 1,3-and 1,4-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

J - Estimated Value
B - Detected in Blank
E - Estimated Value
ND - Non-detect
NA - Not Available

TABLE F-9
MIDPOINT 2 ANALYTICAL DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

Carbon Tetrachloride (Midpoint 2)										
Parameters	1/2/01	1/17/01	2/1/01	2/15/01	3/1/01	3/15/01	4/2/01	4/16/01	5/1/01	5/16/01
1,1,1-Trichloroethane									NA	NA
1,1-Dichloroethylene									NA	NA
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.31JB	<0.50	0.49J
Methylene Chloride	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	<0.50	0.32JB	<0.50
Tetrachloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene (o-isomers)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene (sum of M & P isomers)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

GEL - General Engineering Laboratories, Inc.
J - Estimated Value
B - Detected in Blank
E - Estimated Value
ND - Non-detect
N - Not Available

TABLE F-9
MIDPOINT 2 ANALYTICAL DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

Carbon Tetrachloride (Midpoint 2)										
Parameters	6/4/01	6/14/01	7/2/01	7/16/01	8/7/01	8/16/01	9/5/01	9/18/01	10/1/01	10/15/01
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	1.1	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	12.9	<0.50	<0.50	<0.57	5.8	10.4	0.60	3.3	<0.50	<0.50
Chloroform	1.5	<0.50	<0.50	<0.30J	1.1	1.5	<0.50	<0.90	<0.50	<0.50
Methylene Chloride	0.39JB	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.86	<0.50
Tetrachloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene (o-isomers)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylene (sum of M & P isomers)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

GEL - General Engineering Laboratories
J - Estimated Value
B - Detected in Blank
E - Estimated Value
ND - Non-detect
N - Not Available

TABLE F-9
MIDPOINT 2 ANALYTICAL DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

Carbon Tetrachloride (Midpoint 2)			
Parameters	11/1/01	11/15/01	12/4/01
1,1,1-Trichloroethane	<0.50	<0.50	<0.50
1,1-Dichloroethylene	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50
Chloroform	<0.50	<0.50	<0.50
Methylene Chloride	<0.50	1.7B	0.81B
Tetrachloroethylene	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50
Xylene (o-isomers)	<0.50	<0.50	<0.50
Xylene (sum of M & P isomers)	<0.50	<0.50	<0.50

GEL - General Engineering Laboratories
J - Estimated Value
B - Detected in Blank
E - Estimated Value
ND - Non-detect
N - Not Available

TABLE F-10
SYSTEM EFFLUENT DATA
OU III CARBON TETRACHLORIDE
2001 BNL Groundwater Status Report

Outfall 001 - Treated Groundwater Remediation Discharge																							
085-204	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL	GEL
Carbon Tetrachloride (Effluent)	**TUE**	**WED**	**THUR**	**THUR**	**THUR**	**THUR**	**MON**	**MON**	**MON**	**MON**	**MON**	**THUR**	**MON**	**MON**	**TUE**	**THUR**	**WED**	**TUE**	**MON**	**MON**	**THUR**	**THUR**	**TUE**
Parameters	1/2/01	1/17/01	2/1/01	2/15/01	3/1/01	3/15/01	4/2/01	4/16/01	5/1/01	5/16/01	6/4/01	6/14/01	7/2/01	7/16/01	8/7/01	8/16/01	9/5/01	9/18/01	10/1/01	10/15/01	11/1/01	11/15/01	12/4/01
1,1-Dichloroethylene									NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane									NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<0.50	<0.50	<0.50	<0.50	<0.50	1B	<0.50	0.59B	0.47JB	<0.50	0.69B	<0.50	<0.50	<0.50	<0.50	<0.50	0.82B	<0.50	1.2B	<0.50	<0.50	2.8B	.94B
Tetrachloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Sum of 1,3- and 1,4-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

GEL - General Engineering Laboratories, Inc.
NS - Not Sampled
E - Estimated Value
J - Estimated Value
B - Detected in Blank
ND - Non-detect
NA - Not Available

Table F-11
Cumulative Mass Removed
OU III Carbon Tetrachloride
2001 BNL Groundwater Status Report

DATE	FLOW (GPM)	CCL4 (PPB)	LBS/DAY	CUM. LBS
1/2/01	72	81	0.07	223.42
1/17/01	72	87.6	0.08	224.47
2/1/01	78	76.8	0.07	225.61
2/15/01	78	72.4	0.07	226.61
3/1/01	68	68.9	0.06	227.56
3/15/01	68	71.3	0.06	228.35
3/31/01	68	71.3	0.06	229.28
4/2/01	72	66.9	0.06	229.40
4/16/01	72	67.4	0.06	230.21
5/1/01	76	67	0.06	231.08
5/16/01	76	62.9	0.06	232.00
6/4/01	83	66.6	0.07	233.09
6/14/01	83	61.1	0.06	233.76
6/30/01	83	61.1	0.06	234.73
7/2/01	80	52.3	0.05	234.85
7/15/01	80	45	0.04	235.50
8/2/01	82	45	0.04	236.28
8/15/01	82	47.3	0.05	236.86
9/2/01	80	41.6	0.04	237.70
9/15/01	80	35.2	0.03	238.22
10/1/01	75	32.4	0.03	238.76
10/15/01	75	33.6	0.03	239.17
11/1/01	81	32.3	0.03	239.68
11/15/01	81	31.9	0.03	240.12
12/4/01	83	28.8	0.03	240.71
12/31/01	78	583	0.55	241.49

OU III BUIDING 96 SYSTEM

Table F-12
SUMMARY OF 2001 GEOPROBE
CHARACTERIZATION DATA
OU III BUILDING 96 SYSTEM
2001 BNL Groundwater Status Report

Depth (ft)	**GP-1**	**GP-2**	**GP-3**	**GP-4**	**GP-5**	**GP-6**	**GP-7**
20-24	851.0	4.0	2.1	NS	ND	NS	1.9
24-28	**4,870.0**	5.4	2.1	0.26 J	ND	2.9	2.0
28-32	2,270.0	14.9	1.0	**1.6**	ND	8.0	3.4
36-40	133.8	154.3	1.1	0.36 J	ND	11.9	6.2
44-48	19.9	**355.6**	2.9	ND	ND	**529.7**	56.1
52-56	8.6	87.3	2.3	ND	**0.8**	29.0	**236.1**
60-64	6.6	54.3	4.6	ND	0.8	198.0	1.5
68-72	8.5	300.5	**5.6**	ND	ND	33.2	ND
76-80	14.3	36.7	1.4	ND	ND	0.3	ND

Total VOC concentrations are reported in ppb (ug/l).

TABLE F-13
AIR SAMPLING RESULTS
OUIII Building 96 System
2001 BNL Groundwater Status Report

SITE ID	095-246	095-247	095-246	095-247	095-246	095-247	095-247	095-246	095-247	095-246	095-247	095-246	095-247	095-246	095-247	095-253
Date Collected	1/11/01	1/11/01	2/16/01	2/16/01	3/28/01	3/28/01	4/5/01	5/7/01	5/7/01	5/23/01		6/6/01		6/12/01		
COMPOUND	Inf	Mid	Inf	Mid	Inf	Mid	Mid	Inf	Mid	Inf	Mid	Mid	Eff	Inf	Mid	Eff
	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)	(ug/m^3)
dichlorodifluoromethane	NA*	20	9	9	11	NA*	11	23	NA*	32	31	23	9	ND	ND	ND
chloromethane	NA*	ND	ND	ND	ND	NA*	ND	3	NA*	3	ND	ND	ND	ND	ND	ND
trichlorofluoromethane	NA*	ND	8	7	ND	NA*	ND	ND	NA*	78	240 E	3	ND	NA	NA	NA
acetone	NA*	91	400E	120	92	NA*	200E	27	NA*	75	180	160	160	NA	NA	NA
1,1 - dichloroethylene	NA*	ND	46	ND	ND	NA*	ND	5	NA*	18	ND	ND	ND	ND	ND	ND
methylene chloride	NA*	ND	4	4	3	NA*	ND	ND	NA*	8	14	4	2	210	180	200
1,1 - dichloroethane	NA*	ND	4	ND	ND	NA*	ND	ND	NA*	3	ND	ND	ND	ND	ND	ND
2 - butanone	NA*	ND	52	16	21	NA*	23	12	NA*	10	ND	49	65	NA	NA	NA
1,1,1 - trichloroethane	NA*	ND	220E	25	ND	NA*	8	340E	NA*	240 E	ND	ND	ND	130	ND	ND
carbon tetrachloride	NA*	NA	NA	NA	NA	NA*	NA	NA	NA*	ND	ND	ND	ND	ND	ND	ND
benzene	NA*	ND	ND	ND	ND	NA*	ND	3	NA*	ND	3	ND	32	26.5 JB	46 B	ND
Chlorobenzene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	ND	ND
trichloroethylene	NA*	ND	5	ND	ND	NA*	ND	5	NA*	4	ND	ND	ND	ND	ND	ND
toluene	NA*	ND	6	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	18 J	23	16
tetrachloroethylene	NA*	ND	300E	200E	4	NA*	ND	690E	NA*	470 E	2	8	44	1600	ND	ND
m, p - xylene	NA*	ND	ND	2	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	3.45 J	3.13 J
o - xylene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	ND	ND
isopropylbenzene	NA*	ND	ND	ND	ND	NA*	ND	4	NA*	4	6	8	65	NA	NA	NA
n - propylbenzene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	16	NA	NA	NA
1,3,5 - trimethylbenzene	NA*	ND	2	ND	ND	NA*	ND	3	NA*	ND	3	ND	100	NA	NA	NA
1,2,4 - trimethylbenzene	NA*	ND	4	ND	4	NA*	5	5	NA*	4	4	9	60	NA	NA	NA
4 - isopropyltoluene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	2	NA	NA	NA
napthalene	NA*	ND	ND	ND	ND	NA*	ND	2	NA*	2	ND	2	6	NA	NA	NA
4-Methyl-2-pentanone	NA*	ND	2	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	NA	NA	NA
ethylbenzene	NA*	ND	3	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	13	13
styrene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	1.6 J	1.7 J
trans-1,3-dichloropropene	NA*	ND	ND	ND	ND	NA*	ND	ND	NA*	ND	ND	ND	ND	ND	ND	4.2 JB

Inf = influent to Granular Activated Carbon (GAC) units
Mid = mid-point between GAC units
Eff = final effluent from GAC units
E = estimated due to high concentration exceeding calibration
* = Bottle broken in transit to laboratory
ND = not detected above laboratory method detection limit
J = indicates an estimated value
B = analyte was found in the associated blank
NA = Not Analyzed

TABLE F-13
AIR SAMPLING RESULTS
OUIII Building 96 System
2001 BNL Groundwater Status Report

SITE ID	095-246	095-247	095-253	095-246	095-247	095-253	095-246	095-247	095-253	095-246	095-247	095-253	095-246	095-247	095-253	095-246	095-247	095-253
Date Collected	7/16/01			8/13/01			9/5/01			10/2/01			11/1/01			12/7/01		
COMPOUND	**Inf**	**Mid**	**Eff**	**Inf**	**Mid**	**Eff**	**Inf**	**Mid**	**Eff**	**Inf**	**Mid**	**Eff**	**Inf**	**Mid**	**Eff**	**Inf**	**Mid**	**Eff**
	(ug/m^3)	*(ug/m^3)*	*(ug/m^3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*	*(ug/m3)*
dichlorodifluoromethane	*ND*	**4.16**	**2.64**	*ND*	*ND*	**2.6**	*ND*	*ND*	**2.59**	*ND*	**2.69**	**2.74**	*ND*	**3.7**	**4.1**	*ND*	**2.7**	**2.7**
chloromethane	*ND*	**1.45**	**1.33**	*ND*	*ND*	*ND*	*ND*	**1.12**	**1.22**	*ND*	**2.18**	**2.54**	*ND*	**1.7**	**1.6**	*ND*	*ND*	**1.1**
trichlorofluoromethane	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**4.68**	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**3**
acetone	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
1,1 - dichloroethylene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**4.9**	*ND*	*ND*	**5.1**	*ND*
methylene chloride	*ND*	**4.95**	**4.77**	*ND*	**2.7**	**3.3**	*ND*	**2.18**	*ND*	*ND*	*ND*	**3.41**	*ND*	**2.5 B**	**1.8 B**	*ND*	**2.2**	**2**
1,1 - dichloroethane	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
2 - butanone	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
1,1,1 - trichloroethane	**110**	*ND*	*ND*	**62**	*ND*	*ND*	**78**	*ND*	**3.17**	**85.55**	*ND*	*ND*	**52**	**19**	*ND*	**59**	**11**	*ND*
carbon tetrachloride	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**5.53**	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
benzene	*ND*	**23.65**	**10.61**	**21**	**13**	*ND*	**13.3**	**15.1**	**14.07**	**16.15**	**13.33**	**19.39**	*ND*	**9.4**	**12**	*ND*	**6.7**	**8**
Chlorobenzene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**4.3**	**4.2**
trichloroethylene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
toluene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	**2.4**	*ND*	**2.8**	*ND*	*ND*	**1.9**	*ND*
tetrachloroethylene	**1694.77**	*ND*	*ND*	**1500**	*ND*	*ND*	**1087.38**	*ND*	*ND*	**1184.3**	*ND*	*ND*	**770**	*ND*	*ND*	**900**	*ND*	*ND*
m, p - xylene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
o - xylene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
isopropylbenzene	*ND*	*NA*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
n - propylbenzene	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
1,3,5 - trimethylbenzene	*ND*	**20.53**	*ND*	*ND*	*ND*	**2.6**	*ND*	*ND*	**11.05**	*ND*	*ND*	**11.5**	*ND*	*ND*	**4.5**	*ND*	*ND*	**4.9**
1,2,4 - trimethylbenzene	*ND*	**51.59**	**2.47**	*ND*	*ND*	*ND*	*ND*	**3.48**	**32.16**	*ND*	**3.13**	**32.63**	*ND*	*ND*	**2.6**	*ND*	*ND*	**14**
4 - isopropyltoluene	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
napthalene	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4-Methyl-2-pentanone	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
ethylbenzene	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
carbon disulfide	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
styrene	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
trans-1,3-dichloropropene	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

Inf = influent to Granular Activated Carbon (GAC) units
Mid = mid-point between GAC units
Eff = final effluent from GAC units
E = estimated due to high concentration exceeding calibration
* = Bottle broken in transit to laboratory
ND = not detected above laboratory method detection limit
J = indicates an estimated value
B = analyte was found in the associated blank
ANA = Analyte Not Analyzed

TABLE F-14
INFLUENT AND EFFLUENT TVOC ANALYTICAL DATA
OU III BUILDING 96 SYSTEM
2001 BNL Groundwater Status Report

Date	RTW-1		RTW-2		RTW-3		RTW-4	
	Inf	**Eff**	**Inf**	**Eff**	**Inf**	**Eff**	**Inf**	**Eff**
Units	*(ug/l)*	*(ug/l)*	*(ug/l)*	*(ug/l)*	*(ug/l)*	*(ug/l)*	*(ug/l)*	*(ug/l)*
1/18/01	137.38	ND	16.10	ND	985.68	0.48 J	14.80	ND
2/6/01	202.63	0.28 J	16.42	0.31 J	1037.70	2.60	13.00	0.54
2/7/01	609.71	0.75	15.72	0.69	776.00	0.56	27.60	ND
2/8/01	710.67	0.90	12.26	0.49 J	817.00	0.68	34.70	ND
2/9/01	751.50	1.00	10.60	ND	656.70	0.49 J	41.40	0.38 JB
2/10/01	722.40	2.58	8.30	0.81	625.50	0.98	44.13	0.35 JB
2/12/01	768.70	0.3 JB	9.85	1.37	592.70	0.31 J	48.30	ND
3/9/01	760.40	0.99	8.49	0.45 JB	610.50	1.10	18.99	0.74 J
3/28/01	403.50	1.37	96.55	0.61	204.22	0.29 J	98.30	ND
4/4/01	383.10	1.10	75.89	ND	182.74	0.42 J	75.80	ND
5/7/01	447.50	0.98	193.85	ND	393.00	0.26 JB	89.02	0.27
6/12/01	208.26	0.81	43.50	ND	176.28	0.27 J	89.40	ND
7/16/01	168.99	ND	57.30	1.76	97.05	0.88	175.81	0.44 J
8/13/01	182.30	1.60	88.30	0.26 J	85.40	ND	137.72	ND
9/5/01	177.18	0.68	91.36	0.73	90.33	0.80	118.18	1.10
10/2/01	154.88	1.00	103.19	0.68	64.79	0.36	69.63	0.69
11/1/01	198.93	1.25	111.33	1.00	59.29	0.59	35.70	ND
12/7/01	186.89	0.68	94.16	1.1	45.46	0.9	21.5	0.9

NOTES:

Inf = Influent total VOC results

Eff = Effluent total VOC results

ND = Non Detectable constituents above the method detection limit (MDL) of 0.50 ppb.

J = Estimated value below the method detection limit.

B = Analyte detected in sample & associated laboratory blank.

TABLE F-15
PUMPAGE AND MASS REMOVAL
OU III BUILDING 96 SYSTEM
2001 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped***	**Mass Recovered**	**Total Pumped***	**Mass Recovered**	**Total Pumped***	**Mass Recovered**	**Total Pumped***	**Mass Recovered**
	(Gallons)	*(lbs)*	*(Gallons)*	*(lbs)*	*(Gallons)*	*(lbs)*	*(Gallons)*	*(lbs)*
1/18/01	0	0.00	0	0.00	0	0.00	1,320	0.00
2/6/01	39,960	0.05	22,680	0.00	25,920	0.21	25,080	0.00
2/7/01	91,020	0.09	50,400	0.00	59,040	0.29	54,120	0.00
2/8/01	142,080	0.26	80,640	0.00	92,160	0.22	85,800	0.01
2/9/01	199,800	0.34	113,400	0.00	129,600	0.26	120,120	0.01
2/10/01	304,140	0.66	172,620	0.01	197,280	0.37	180,840	0.02
2/12/01	357,420	0.32	176,400	0.00	231,840	0.18	213,840	0.01
3/9/01	768,120	2.65	322,560	0.01	498,240	1.33	458,040	0.10
3/28/01	1,582,860	5.20	728,280	0.03	1,026,720	2.71	941,160	0.07
4/4/01	1,762,680	0.61	830,340	0.08	1,143,360	0.20	1,048,080	0.09
5/7/01	1,973,580	0.68	956,340	0.08	1,280,160	0.21	1,176,120	0.08
6/12/01	3,053,580	1.86	1,676,340	0.26	2,000,160	1.07	1,896,120	0.54
7/16/01	3,698,700	0.91	2,482,740	0.39	2,806,560	0.79	2,702,520	1.18
8/13/01	4,343,820	0.98	3,208,500	0.53	3,612,960	0.57	3,468,600	0.88
9/5/01	4,873,740	0.52	3,804,660	0.45	4,275,360	0.50	4,097,880	0.62
10/2/01	5,397,345	0.67	4,405,393	0.51	4,945,772	0.36	4,749,934	0.38
11/1/01	6,033,079	1.05	5,133,686	0.68	5,759,659	0.40	5,547,867	0.24
12/7/01	6,281,676	0.39	5,605,726	0.37	6,283,103	0.20	6,067,911	0.09

Mass Removed* to date:	17.24	3.40	9.87	4.32
			SUM =	34.83

* Mass Removed: Total VOC concentration in ug/liter (ppb) x 3.785 liter/gallon x gallons pumped x 1 lb./454,000,000 ug = lbs.

OU III MIDDLE ROAD SYSTEM

TABLE F-16
AIR STRIPPER INFLUENT VOC DATA
OU III MIDDLE ROAD SYSTEM
2001 BNL Groundwater Status Report

OU III: Middle Road	**THUR**	**THUR**	**MON**	**TUE**
System Influent (Site ID#113-28)	**11/1/01**	**11/15/01**	**12/3/01**	**12/18/01**
Parameters				
Tritium (p Ci/L)	-450U	-86.4U	119U	-55.1U
Tritium Uncertain	317.0	256.0	239.0	198.0
Carbon Tetrachloride	15.8	15.0	14.0	13.2
Chloroform	1.5	1.6	1.3	1.4
Methylene chloride	<0.50	2.5 B	<0.50	<0.50
1,1-Dichloroethane	0.38J	0.41J	0.31J	0.32J
1,2-Dichloroethane	0.42J	0.51	0.43J	0.40J
1,1-Dichloroethylene	2.0	2.4	1.6	1.5
cis-1,2-Dichloroethylene	0.66	1.00	1.10	1.30
Tetrachloroethylene	114.0	78.4	80.8	82.4
1,1,1-Trichloroethylene	8.1	8.0	6.0	5.6
Trichloroethylene	2.2	2.5	2.2	2.5
Total VOCs	**145.06**	**112.32**	**107.74**	**108.62**

NOTE: All concentrations are in parts per billion (ppb) unless otherwise noted.
All other compounds analyzed for VOC's by EPA 524.2 were non-detectable except as noted above.
J = Estimated Value

TABLE F-17
AIR STRIPPER EFFLUENT VOC DATA
OU III MIDDLE ROAD SYSTEM
2001 BNL Groundwater Status Report

OU III: Middle Road	**THUR**	**THUR**	**MON**	**TUE**
System Effluent (Site ID#095-270	**11/1/01**	**11/15/01**	**12/3/01**	**12/18/01**
Parameters				
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
Chloroform	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	<0.50	**0.25J**	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50
1,2-Xylene	<0.50	<0.50	<0.50	<0.50
Sum of 1,3-and 1,4-Xylenes	<0.50	<0.50	<0.50	<0.50
Total VOCs	**ND**	**0.25J**	**ND**	**ND**

NOTE: All concentrations are in parts per billion (ppb) unless otherwise noted.
All other compounds analyzed for VOC's by EPA 524.2 were non-detectable except as noted above.
<0.50 = Below the method detection limit.
J = Estimated Value

TABLE F-18
EXTRACTION WELL VOC DATA
OU III MIDDLE ROAD SYSTEM
2001 BNL Groundwater Status Report

Site ID: 113-23 (**MRW-1**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	6.2	0.5	UG/L	110	
1,1-Dichloroethylene	10/10/01	1.6	0.5	UG/L	110	
1,2,3-Trichlorobenzene	10/10/01	0.31	0.5	UG/L	110	J
Chloroform	10/10/01	0.83	0.5	UG/L	110	
cis-1,2-Dichloroethylene	10/10/01	1.4	0.5	UG/L	110	
o-Xylene	10/10/01	0.55	0.5	UG/L	110	
Tetrachloroethylene	10/10/01	97.4	0.5	UG/L	110	
Trichloroethylene	10/10/01	0.39	0.5	UG/L	110	J
524.2 TVOC	10/10/01	**108.68**	--	UG/L	110	
1,1,1-Trichloroethane	10/25/01	7.1	1	UG/L	110	
1,1-Dichloroethylene	10/25/01	1.6	1	UG/L	110	
Chloroform	10/25/01	0.78	1	UG/L	110	J
cis-1,2-Dichloroethylene	10/25/01	1.4	1	UG/L	110	
o-Xylene	10/25/01	0.54	1	UG/L	110	J
Tetrachloroethylene	10/25/01	128	1	UG/L	110	
Toluene	10/25/01	0.53	1	UG/L	110	J
524.2 TVOC	10/25/01	**139.95**	--	UG/L	110	
1,1,1-Trichloroethane	11/15/01	7.1	0.5	UG/L	110	
1,1-Dichloroethylene	11/15/01	1.8	0.5	UG/L	110	
Chloroform	11/15/01	0.75	0.5	UG/L	110	
cis-1,2-Dichloroethylene	11/15/01	0.98	0.5	UG/L	110	
Methylene chloride	11/15/01	2.9	0.5	UG/L	110	B
o-Xylene	11/15/01	0.38	0.5	UG/L	110	J
Tetrachloroethylene	11/15/01	136	1	UG/L	110	D
Trichloroethylene	11/15/01	0.39	0.5	UG/L	110	J
524.2 TVOC	11/15/01	**150.3**	--	UG/L	110	
1,1,1-Trichloroethane	12/27/01	5.2	0.5	UG/L	110	
1,1-Dichloroethylene	12/27/01	1.2	0.5	UG/L	110	
Chloroform	12/27/01	0.51	0.5	UG/L	110	
cis-1,2-Dichloroethylene	12/27/01	0.43	0.5	UG/L	110	J
Tetrachloroethylene	12/27/01	87.1	0.5	UG/L	110	
Trichloroethylene	12/27/01	0.29	0.5	UG/L	110	J
524.2 TVOC	12/27/01	**94.73**	--	UG/L	110	

Site ID: 113-24 (**MRW-2**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	1.5	0.5	UG/L	185	
1,1-Dichloroethylene	10/10/01	0.55	0.5	UG/L	185	
Carbon tetrachloride	10/10/01	78.3	0.5	UG/L	185	
Chloroform	10/10/01	2.3	0.5	UG/L	185	
o-Xylene	10/10/01	0.32	0.5	UG/L	185	J
Tetrachloroethylene	10/10/01	608	10	UG/L	185	D
Trichloroethylene	10/10/01	2.6	0.5	UG/L	185	
524.2 TVOC	10/10/01	**693.57**	--	UG/L	185	
1,1,1-Trichloroethane	10/25/01	1.8	0.5	UG/L	185	
1,1-Dichloroethylene	10/25/01	0.58	0.5	UG/L	185	
Carbon tetrachloride	10/25/01	86	0.5	UG/L	185	
Chloroform	10/25/01	2.5	0.5	UG/L	185	
o-Xylene	10/25/01	0.41	0.5	UG/L	185	J
Tetrachloroethylene	10/25/01	510	5	UG/L	185	D
Trichloroethylene	10/25/01	2.9	0.5	UG/L	185	
524.2 TVOC	10/25/01	**604.19**	--	UG/L	185	
1,1,1-Trichloroethane	11/15/01	2.2	0.5	UG/L	185	
1,1-Dichloroethylene	11/15/01	0.69	0.5	UG/L	185	
Carbon tetrachloride	11/15/01	88.1	0.5	UG/L	185	
Chloroform	11/15/01	2.7	0.5	UG/L	185	
Methylene chloride	11/15/01	1.2	0.5	UG/L	185	B
o-Xylene	11/15/01	0.31	0.5	UG/L	185	J
Tetrachloroethylene	11/15/01	382	2.5	UG/L	185	D
Trichloroethylene	11/15/01	3.6	0.5	UG/L	185	
524.2 TVOC	11/15/01	**480.8**	--	UG/L	185	
1,1,1-Trichloroethane	12/27/01	1.9	0.5	UG/L	185	
1,1-Dichloroethylene	12/27/01	0.64	0.5	UG/L	185	
Carbon tetrachloride	12/27/01	65.8	0.5	UG/L	185	
Chloroform	12/27/01	2	0.5	UG/L	185	
Tetrachloroethylene	12/27/01	335	2.5	UG/L	185	D
Trichloroethylene	12/27/01	3.6	0.5	UG/L	185	
524.2 TVOC	12/27/01	**408.94**	--	UG/L	185	

TABLE F-18
EXTRACTION WELL VOC DATA
OU III MIDDLE ROAD SYSTEM
2001 BNL Groundwater Status Report

Site ID: 113-25 (**MRW-3**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	30	0.5	UG/L	248	
1,1-Dichloroethane	10/10/01	1.6	0.5	UG/L	248	
1,1-Dichloroethylene	10/10/01	8.5	0.5	UG/L	248	
1,2-Dichloroethane	10/10/01	0.93	0.5	UG/L	248	
Carbon tetrachloride	10/10/01	2.8	0.5	UG/L	248	
Chloroform	10/10/01	1.8	0.5	UG/L	248	
cis-1,2-Dichloroethylene	10/10/01	0.5	0.5	UG/L	248	
Tetrachloroethylene	10/10/01	0.63	0.5	UG/L	248	
Trichloroethylene	10/10/01	4.7	0.5	UG/L	248	
524.2 TVOC	10/10/01	**51.46**	--	UG/L	248	
1,1,1-Trichloroethane	10/25/01	32.4	0.5	UG/L	248	
1,1-Dichloroethane	10/25/01	1.7	0.5	UG/L	248	
1,1-Dichloroethylene	10/25/01	9.2	0.5	UG/L	248	
1,2-Dichloroethane	10/25/01	1	0.5	UG/L	248	
Carbon tetrachloride	10/25/01	2.8	0.5	UG/L	248	
Chloroform	10/25/01	1.8	0.5	UG/L	248	
cis-1,2-Dichloroethylene	10/25/01	0.57	0.5	UG/L	248	
Tetrachloroethylene	10/25/01	0.6	0.5	UG/L	248	
Toluene	10/25/01	0.33	0.5	UG/L	248	J
Trichloroethylene	10/25/01	5.4	0.5	UG/L	248	
524.2 TVOC	10/25/01	**55.8**	--	UG/L	248	
1,1,1-Trichloroethane	11/15/01	28.5	0.5	UG/L	248	
1,1-Dichloroethane	11/15/01	1.4	0.5	UG/L	248	
1,1-Dichloroethylene	11/15/01	8.1	0.5	UG/L	248	
1,2-Dichloroethane	11/15/01	0.93	0.5	UG/L	248	
Carbon tetrachloride	11/15/01	1.9	0.5	UG/L	248	
Chloroform	11/15/01	1.5	0.5	UG/L	248	
cis-1,2-Dichloroethylene	11/15/01	0.52	0.5	UG/L	248	
Methylene chloride	11/15/01	4.3	0.5	UG/L	248	B
Tetrachloroethylene	11/15/01	0.71	0.5	UG/L	248	
Trichloroethylene	11/15/01	4.9	0.5	UG/L	248	
524.2 TVOC	11/15/01	**52.76**	--	UG/L	248	
1,1,1-Trichloroethane	12/27/01	15.1	0.5	UG/L	248	
1,1-Dichloroethane	12/27/01	0.78	0.5	UG/L	248	
1,1-Dichloroethylene	12/27/01	3.9	0.5	UG/L	248	
1,2-Dichloroethane	12/27/01	0.5	0.5	UG/L	248	
Carbon tetrachloride	12/27/01	0.97	0.5	UG/L	248	
Chloroform	12/27/01	0.94	0.5	UG/L	248	
cis-1,2-Dichloroethylene	12/27/01	0.33	0.5	UG/L	248	J
Trichloroethylene	12/27/01	3.2	0.5	UG/L	248	
524.2 TVOC	12/27/01	**25.72**	--	UG/L	248	

TABLE F-18
EXTRACTION WELL VOC DATA
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Site ID: 113-26 (**MRW-4**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	5	0.5	UG/L	165	
1,1-Dichloroethylene	10/10/01	2	0.5	UG/L	165	
Carbon tetrachloride	10/10/01	6.7	0.5	UG/L	165	
Chloroform	10/10/01	2.2	0.5	UG/L	165	
cis-1,2-Dichloroethylene	10/10/01	1.1	0.5	UG/L	165	
Tetrachloroethylene	10/10/01	2.7	0.5	UG/L	165	
Trichloroethylene	10/10/01	1.9	0.5	UG/L	165	
524.2 TVOC	10/10/01	**21.6**	--	UG/L	165	
1,1,1-Trichloroethane	10/25/01	4.3	0.5	UG/L	165	
1,1-Dichloroethylene	10/25/01	1.8	0.5	UG/L	165	
Carbon tetrachloride	10/25/01	6.6	0.5	UG/L	165	
Chloroform	10/25/01	2.1	0.5	UG/L	165	
cis-1,2-Dichloroethylene	10/25/01	1.2	0.5	UG/L	165	
Tetrachloroethylene	10/25/01	3.3	0.5	UG/L	165	
Trichloroethylene	10/25/01	2.1	0.5	UG/L	165	
524.2 TVOC	10/25/01	**21.4**	--	UG/L	165	
1,1,1-Trichloroethane	11/15/01	3.6	0.5	UG/L	165	
1,1-Dichloroethylene	11/15/01	1.4	0.5	UG/L	165	
Carbon tetrachloride	11/15/01	5.6	0.5	UG/L	165	
Chloroform	11/15/01	2	0.5	UG/L	165	
cis-1,2-Dichloroethylene	11/15/01	1.1	0.5	UG/L	165	
Methylene chloride	11/15/01	1.6	0.5	UG/L	165	B
Tetrachloroethylene	11/15/01	2.4	0.5	UG/L	165	
Trichloroethylene	11/15/01	2.1	0.5	UG/L	165	
524.2 TVOC	11/15/01	**19.8**	--	UG/L	165	
1,1,1-Trichloroethane	12/27/01	1.9	0.5	UG/L	165	
1,1-Dichloroethylene	12/27/01	0.65	0.5	UG/L	165	
Carbon tetrachloride	12/27/01	2.6	0.5	UG/L	165	
Chloroform	12/27/01	1	0.5	UG/L	165	
cis-1,2-Dichloroethylene	12/27/01	0.74	0.5	UG/L	165	
Tetrachloroethylene	12/27/01	1.5	0.5	UG/L	165	
Trichloroethylene	12/27/01	1.2	0.5	UG/L	165	
524.2 TVOC	12/27/01	**9.59**	--	UG/L	165	

Site ID: 113-27 (**MRW-5**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	0.29	0.5	UG/L	165	J
Carbon tetrachloride	10/10/01	3.2	0.5	UG/L	165	
Chloroform	10/10/01	0.87	0.5	UG/L	165	
cis-1,2-Dichloroethylene	10/10/01	0.52	0.5	UG/L	165	
Tetrachloroethylene	10/10/01	0.67	0.5	UG/L	165	
Trichloroethylene	10/10/01	2	0.5	UG/L	165	
524.2 TVOC	10/10/01	**7.55**	--	UG/L	165	
1,1,1-Trichloroethane	10/25/01	0.41	0.5	UG/L	165	J
Carbon tetrachloride	10/25/01	3.7	0.5	UG/L	165	
Chloroform	10/25/01	0.88	0.5	UG/L	165	
cis-1,2-Dichloroethylene	10/25/01	0.55	0.5	UG/L	165	
Tetrachloroethylene	10/25/01	0.6	0.5	UG/L	165	
Toluene	10/25/01	0.31	0.5	UG/L	165	J
Trichloroethylene	10/25/01	2	0.5	UG/L	165	
524.2 TVOC	10/25/01	**8.45**	--	UG/L	165	
1,1,1-Trichloroethane	11/15/01	2.1	0.5	UG/L	165	
1,1-Dichloroethylene	11/15/01	0.4	0.5	UG/L	165	J
Carbon tetrachloride	11/15/01	3.5	0.5	UG/L	165	
Chloroform	11/15/01	0.86	0.5	UG/L	165	
cis-1,2-Dichloroethylene	11/15/01	0.51	0.5	UG/L	165	
Methylene chloride	11/15/01	4.4	0.5	UG/L	165	B
Tetrachloroethylene	11/15/01	0.57	0.5	UG/L	165	
Trichloroethylene	11/15/01	1.6	0.5	UG/L	165	
524.2 TVOC	11/15/01	**13.94**	--	UG/L	165	
1,1,1-Trichloroethane	12/27/01	0.64	0.5	UG/L	165	
Carbon tetrachloride	12/27/01	1.9	0.5	UG/L	165	
Chloroform	12/27/01	0.54	0.5	UG/L	165	
Trichloroethylene	12/27/01	1.1	0.5	UG/L	165	
524.2 TVOC	12/27/01	**4.18**	--	UG/L	165	

TABLE F-18
EXTRACTION WELL VOC DATA
OU III MIDDLE ROAD SYSTEM
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Site ID: 106-66 (**MRW-6**)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	10/10/01	0.62	0.5	UG/L	203	
1,2-Dichloroethane	10/10/01	1.4	0.5	UG/L	203	
Chloroform	10/10/01	1.5	0.5	UG/L	203	
Tetrachloroethylene	10/10/01	0.37	0.5	UG/L	203	J
Trichloroethylene	10/10/01	1.1	0.5	UG/L	203	
524.2 TVOC	10/10/01	**4.99**	--	UG/L	203	
1,1,1-Trichloroethane	10/25/01	0.67	0.5	UG/L	203	
1,1-Dichloroethylene	10/25/01	0.26	0.5	UG/L	203	J
1,2-Dichloroethane	10/25/01	2	0.5	UG/L	203	
Chloroform	10/25/01	1.8	0.5	UG/L	203	
Tetrachloroethylene	10/25/01	0.77	0.5	UG/L	203	
Trichloroethylene	10/25/01	1.2	0.5	UG/L	203	
524.2 TVOC	10/25/01	**6.7**	--	UG/L	203	
1,1,1-Trichloroethane	11/15/01	0.88	0.5	UG/L	203	
1,1-Dichloroethane	11/15/01	0.26	0.5	UG/L	203	J
1,1-Dichloroethylene	11/15/01	0.29	0.5	UG/L	203	J
1,2-Dichloroethane	11/15/01	2	0.5	UG/L	203	
Chloroform	11/15/01	2	0.5	UG/L	203	
cis-1,2-Dichloroethylene	11/15/01	3.4	0.5	UG/L	203	
Methylene chloride	11/15/01	2.3	0.5	UG/L	203	B
Tetrachloroethylene	11/15/01	4.1	0.5	UG/L	203	
Trichloroethylene	11/15/01	1.8	0.5	UG/L	203	
524.2 TVOC	11/15/01	**17.03**	--	UG/L	203	
1,1,1-Trichloroethane	12/27/01	0.86	0.5	UG/L	203	
1,2-Dichloroethane	12/27/01	1	0.5	UG/L	203	
Chloroform	12/27/01	1.1	0.5	UG/L	203	
cis-1,2-Dichloroethylene	12/27/01	3.6	0.5	UG/L	203	
Tetrachloroethylene	12/27/01	5.2	0.5	UG/L	203	
Trichloroethylene	12/27/01	1.8	0.5	UG/L	203	
524.2 TVOC	12/27/01	**13.56**	--	UG/L	203	

J = Estimated value.
B = Analyte was found in the associated blank as well as in the sample.
D = Compound was identified in an analysis at a secondary dilution factor.

TABLE F-19
CUMULATIVE MASS REMOVAL
OU III MIDDLE ROAD SYSTEM
2001 BNL Groundwater Status Report

DATE	CUM. LBS	LBS/DAY	TVOC (ug/L)	FLOW (GPM)
10/23/01	0	*	*	*
10/24/01	0.94	0.94	127.61	616
10/25/01	1.88	0.91	123.14	616
10/26/01	2.79	0.94	127.55	616
10/27/01	3.73	0.97	131.28	616
10/29/01	5.67	0.95	128.6	616
11/01/01	8.52	0.56	145.06	426
11/15/01	16.36	0.56	112.32	426
12/03/01	26.44	0.81	107.74	629
12/18/01	38.59	0.81	108.62	629
		Average	123.55	577

*** Began 7 day Pump Test**

OU III SOUTH BOUNDARY SYSTEM

TABLE F-20
AIR EMISSIONS 1/1/01 - 12/31/01
OU III SOUTH BOUNDARY SYSTEM
2001 BNL Groundwater Status Report

Emission rates from the Operable Unit III air stripping tower

-assume 100% mass transfer from liquid to gas in air stripping tower

Flow Rate:

Water = 651 gpm average for operational period

Dimensional Conversion:

[gpm] * 3.785 l/gal * [ug/l] * 10e-9 kg/ug * 2.205 lb/kg * 60 Min/hr = [ ] pounds per hour
[gpm] * [ug/l] * 0.0000005

Contaminants:	influent (ppb)	units	ER	units	allowable
1,1,1-Trichloroethane	18.5	(ug/l)	0.0060	lb/hour	10.0000
Trichloroethylene	2.4	(ug/l)	0.0008	lb/hour	0.1430
Tetrachloroethylene	63.0	(ug/l)	0.0205	lb/hour	0.3870
trans-1,2-Dichloroethylene	<0.50	(ug/l)	0.0000	lb/hour	10.0000
1,1-Dichloroethylene	6.7	(ug/l)	0.0022	lb/hour	0.0340
Carbon Tetrachloride	6.7	(ug/l)	0.0022	lb/hour	0.0220
1,1-Dichloroethane	0.33	(ug/l)	0.0001	lb/hour	10.0000
cis-1,2-Dichloroethylene	0.46	(ug/l)	0.0001	lb/hour	10.0000
1,2-Dichloroethane	1.4	(ug/l)	0.0005	lb/hour	0.0080
Chloroform	1.6	(ug/l)	0.0005	lb/hour	0.0031
TVOCs	100.50	(ug/l)	0.0330	lb/hour	

Note: All concentrations and flow rates are the average for the operational period
Allowable levels based uon NYSDEC Airguide 1 regulations.
1,1 DCE value determined from more detailed ISCL2 air modeling.
ER = Actual emmission rates

TABLE F-21
AIR STRIPPER INFLUENT ANALYTICAL DATA
OU III SOUTH BOUNDARY SYSTEM
2001 BNL Groundwater Status Report

OU III South Boundary	**TUE**	**THURS**	**THURS**	**THURS**	**THURS**	**THURS**	**MON**	**MON**	**MON**	**MON**	**FRI**	**MON**	**TUE**	**TUE**	**WED**	**TUE**	**WED**	**MON**	**MON**	**MON**	**THUR**	**THUR**	**MON**	**TUE**
System Influent	**1/2/01**	**1/18/01**	**2/1/01**	**2/15/01**	**3/1/01**	**3/15/01**	**4/2/01**	**4/16/01**	**5/2/01**	**5/15/01**	**6/1/01**	**6/25/01**	**7/3/01**	**7/17/01**	**8/1/01**	**8/14/01**	**9/5/01**	**9/17/01**	**10/1/01**	**10/15/01**	**11/1/01**	**11/15/01**	**12/3/01**	**12/18/01**
Parameters																								
Tritium	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	-139U	377U	-16.9U	89.5U
Tritium Uncertain	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	323	255	232	205
Carbon Tetrachloride	5.8	5.3	5.6	5.4	5.7	6.4	6.2	6.57	6.2	6.6	8.0	7.1	6.8	7.3	7.7	8.4	4.7	6.8	7.3	6.7	8.4	6.6	8.2	8.1
Chloroform	1.6	1.5	1.7	1.4	1.4	1.5	1.6	1.66	1.6	1.5	1.7	1.6	1.5	1.6	1.6	1.7	1.3	1.4	1.5	1.5	1.5	1.7	1.6	1.8
Methyl chloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.31 J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	<0.50	0.71	<0.50	0.36J	<0.50	0.98 B	0.29J	0.48JB	0.38JB	0.65 B	0.53 B	<0.50	<0.50	<0.50	<0.50	0.34J	0.87	<0.50	1.0B	0.47J	<0.50	0.56 B	0.95	<0.50
p-Dichlorobenzene	<0.50	<0.50	<0.50	0.25J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.38JB	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	0.40J	0.35J	0.42J	0.36J	0.35J	0.37J	0.37J	0.37J	0.36J	0.39J	0.40J	0.36J	0.36J	0.36J	0.36J	0.35J	0.26J	0.31J	0.33J	0.30J	0.32J	0.33J	0.32J	0.34J
1,2-Dichloroethane	1.6	1.4	1.4	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.7	1.4	1.3	1.4	1.4	1.3	1.2	1.4	1.2	1.3	1.4	1.4	1.4	1.5
1,1-Dichloroethylene	7.7	7.1	7.8	7.8	6.9	7.6	8.0	8.2	7.5	7.5	8.0	7.4	6.8	7.1	7.0	5.3	4.0	5.6	5.6	6.4	6.1	5.2	5.5	4.9
cis-1,2-Dichloroethylene	0.31J	0.31J	0.34J	0.35J	0.36J	0.35J	0.40J	0.42J	0.38J	0.38J	0.40J	0.5	0.5	0.54	0.54	0.28J	0.44J	0.56	0.28J	0.55	0.56	0.73	0.71	0.81
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	77.0	61.4	71.8	72.9	63.8	67.7	71.2	79.9	67.3	58.5	56.1	56.9	61.0	58.0	53.6	70.6	47.2	55.0	64.9	54.2	66.0	54.2	59.9	62.6
1,1,1-Trichloroethane	21.8	19.4	20.8	19.6	18.5	21.2	21.2	21.1	20.3	18.8	22.1	19.6	19.0	19.0	18.3	15.0	12.5	16.6	13.3	16.6	17.6	15.7	17.4	17.5
Trichloroethylene	2.8	2.6	2.8	2.6	2.3	2.8	2.7	2.81	2.6	2.50	2.5	2.50	2.4	2.60	2.5	2.2	1.7	2.0	1.9	2.0	2.0	2.2	2.2	2.5
1,2-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Sum of 1,3-and 1,4-Xylenes	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total VOCs	**119.01**	**100.06**	**112.66**	**112.22**	**100.51**	**110.20**	**113.36**	**122.96**	**108.02**	**98.22**	**101.43**	**97.36**	**99.66**	**98.28**	**93.00**	**105.47**	**74.48**	**89.67**	**97.31**	**90.02**	**103.88**	**88.62**	**98.18**	**100.05**

NOTE: All concentrations are in parts per billion (ppb) unless otherwise noted.
All other compounds analyzed for VOC's by EPA 524.2 were non-detectable except as noted above.
<0.50 = Below the method detection limit.
E = Estimated Value
J = Estimated Value
B = Analyte was present in the sample as well as in the associated blank.

TABLE F-22
AIR STRIPPER EFFLUENT ANALYTICAL DATA
OU III SOUTH BOUNDARY SYSTEM
2001 BNL Groundwater Status Report

OU III S. Boundary	**TUES**	**THURS**	**THURS**	**THURS**	**THURS**	**THURS**	**MON**	**MON**	**MON**	**MON**	**FRI**	**MON**	**TUE**	**TUE**	**WED**	**TUE**	**WED**	**MON**	**MON**	**MON**	**THUR**	**THUR**	**MON**	**TUE**
System Effluent (095-126)	**1/2/01**	**1/18/01**	**2/1/01**	**2/15/01**	**3/1/01**	**3/15/01**	**4/2/01**	**4/16/01**	**5/2/01**	**5/15/01**	**6/1/01**	**6/25/01**	**7/3/01**	**7/17/01**	**8/1/01**	**8/14/01**	**9/5/01**	**9/17/01**	**10/1/01**	**10/15/01**	**11/1/01**	**11/15/01**	**12/3/01**	**12/18/01**
Parameters																								
Tritium (pCi/L)	-159U	-72U	-5.6U	57U	37.3U	-261U	-78U	-118U	-117U	-39.5U	114U	143U	-26.9U	264U	53.2U	84.1U	72.84U	22.8U	220U	377U	NS	NS	NS	NS
Tritium uncertain	391	257	236	245	245	272	317	260	309	263	268	202	306	219	264	246	239	232	249	251	NS	NS	NS	NS
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	<0.50	**0.5**	<0.50	**0.21J**	<0.50	<0.50	<0.50	**0.48J**	**0.35J**	**0.47J**	**0.35J**	<0.50	<0.50	<0.50	<0.50	<0.50	**0.68**	<0.50	**1.0**	<0.50	<0.50	**2.2**	**0.95**	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	**0.67**	**0.62**	**0.66**	**0.58**	**0.52**	**0.59**	**0.59**	**0.6**	**0.68**	**0.63**	**0.82**	**0.69**	**0.67**	**0.79**	**0.66**	**0.46J**	**0.57**	**0.58**	**0.40J**	**0.63**	**0.36J**	**0.37J**	**0.28J**	**0.33J**
1,1-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	<0.50	**0.25J**	**0.26J**	<0.50	<0.50	**0.27J**	<0.50	**0.25J**	<0.50	<0.50	<0.50	**0.26J**	<0.50	**0.3J**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.33**	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Xylene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Sum of 1,3-and 1,4-Xylenes	<0.50	<0.50	<0.50	<0.50	**0.28 J**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.25J**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total VOC's	**0.67**	**1.37**	**0.92**	**0.79**	**0.8**	**0.86**	**0.59**	**1.33**	**1.03**	**1.1**	**1.45**	**0.95**	**0.67**	**1.09**	**0.66**	**0.46**	**1.5**	**0.58**	**1.4**	**1.33**	**0.36J**	**2.9**	**1.23**	**0.33**

NOTE: All concentrations are in parts per billion (ppb) unless otherwise noted.
All other compounds analyzed for VOC's by EPA 524.2 were non-detectable except as noted above.
<0.50 = Below the method detection limit.
J = Estimated Value
U=Undetected; sample result <MDA
B = Analyte was present in the sample as well as in the associated blank.

Table F-23
CUMULATIVE MASS REMOVAL
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DATE	CUM. LBS	LBS/DAY	TVOC (ug/L)	FLOW (GPM)
06/17/97	2.5	2.5	370.0	615
06/18/97	5.03	2.58	381.7	615
06/19/97	7.44	2.41	355.7	615
06/20/97	9.99	2.55	376.5	615
06/24/97	17.64	2.5	369.7	615
06/25/97	19.99	2.35	347.8	615
06/30/97	29.39	2.1	309.9	615
07/07/97	46.19	2.35	347.7	602
07/14/97	62.64	2.34	345.4	602
07/21/97	79.02	1.72	254.4	602
07/28/97	91.06	1.54	228.0	602
08/04/97	103.38	1.57	232.1	600
08/11/97	114.37	1.65	243.0	600
08/19/97	127.57	1.99	294.7	600
08/26/97	141.5	1.86	275.4	600
09/02/97	154.5	1.88	277.7	587
09/08/97	165.78	1.59	234.6	587
09/15/97	176.91	1.41	208.3	587
09/23/97	188.19	1.74	256.6	587
09/30/97	200.37	1.72	253.7	587
10/06/97	212.41	1.8	258.3	579
10/14/97	226.81	1.58	227.8	579
10/21/97	237.87	1.58	226.3	579
10/27/97	247.35	1.44	206.7	579
11/04/97	258.87	1.68	218.0	642
11/10/97	268.95	1.63	210.9	642
11/18/97	281.99	1.46	189.5	642
11/25/97	292.21	1.66	214.2	642
12/02/97	303.83	1.47	204.8	598
12/08/97	312.65	1.38	192.1	598
12/16/97	323.69	1.54	214.5	598
12/22/97	332.93	1.41	196.4	598
12/30/97	344.21	1.45	202	598
01/06/98	354.36	1.37	190.5	598
01/21/98	374.91	1.17	162.5	598
02/03/98	390.12	1.26	166.5	630
02/18/98	409.02	1.45	192.1	630
03/03/98	427.87	1.49	183.1	678
03/17/98	448.73	1.42	174.3	678
04/02/98	471.45	1.49	188.5	657
04/20/98	498.27	1.54	194.6	657
05/05/98	521.2	0.51	69.8	612
05/20/98	528.85	1.33	181.0	612
06/04/98	548.8	0.93	118.0	658
06/18/98	561.82	0.95	120.0	658
07/01/98	574.2	1.13	142.5	660

Table F-23
CUMULATIVE MASS REMOVAL
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DATE	CUM. LBS	LBS/DAY	TVOC (ug/L)	FLOW (GPM)
07/16/98	591.15	1.02	128.5	660
08/07/98	613.59	0.53	68.3	651
08/18/98	619.42	0.91	116	651
09/04/98	634.89	1.02	127.3	669
09/22/98	653.25	0.95	118.2	669
10/07/98	667.5	1.14	150.3	634
10/22/98	684.6	0.93	122.2	634
11/04/98	696.69	0.86	133.0	541
11/16/98	707.01	0.63	97.5	541
12/04/98	718.35	1.16	143.6	670
12/17/98	733.43	1.81	224.9	670
01/07/99	771.44	1.27	155.3	681
01/21/99	789.22	1.15	140.1	681
02/08/99	809.92	0.99	131.1	629
02/23/99	824.07	0.86	113.4	629
03/09/99	835.25	0.98	128.0	636
03/18/99	844.07	0.84	109.7	636
04/14/99	866.75	0.7	88.6	662
04/28/99	876.55	0.98	123.0	662
05/13/99	891.25	0.95	117.0	679
05/26/99	903.6	0.77	94.1	679
06/18/99	921.31	1.01	132.4	633
07/12/99	945.55	0.82	124.0	554
07/28/99	958.67	0.83	124.2	554
08/11/99	970.29	0.81	99.2	682
08/26/99	982.44	1.04	127.3	682
09/08/99	995.96	0.70	92.9	626
09/20/99	1004.36	0.80	106.8	626
10/11/99	1021.16	0.81	108.2	631
10/26/99	1033.31	0.8	111.9	631
11/01/99	1038.11	0.99	129.5	634
11/16/99	1052.89	0.93	122.8	634
12/02/99	1067.83	0.82	106.7	640
12/17/99	1080.11	0.55	71.2	640
01/03/00	1089.41	0.86	95.7	746
01/18/00	1102.31	0.78	87.1	746
02/01/00	1113.23	0.82	91.7	749
02/15/00	1124.71	0.69	76.8	749
03/01/00	1135.06	0.66	78.7	698
03/15/00	1144.30	0.67	80.5	698
04/03/00	1157.03	0.95	112.2	704
04/17/00	1170.33	0.86	101.8	704
05/01/00	1182.37	0.98	115.3	711
05/15/00	1196.09	1.18	138.6	711
06/01/00	1216.15	1.22	132.8	763
06/15/00	1233.23	1.04	113.4	763

Table F-23
CUMULATIVE MASS REMOVAL
OU III SOUTH BOUNDARY SYSTEM
2001 BNL Groundwater Status Report

DATE	CUM. LBS	LBS/DAY	TVOC (ug/L)	FLOW (GPM)
07/05/00	1254.03	1.05	113.2	774
07/17/00	1266.63	1.13	121.5	774
08/01/00	1283.58	0.98	109.8	745
08/15/00	1297.30	0.96	107.7	745
09/18/00	1329.94	0.87	112.7	640
10/02/00	1342.12	1.02	112.6	757
10/16/00	1356.40	1.07	118.3	757
11/01/00	1373.52	0.7	82.4	707
11/15/00	1383.32	1.23	144.5	707
12/01/00	1403.00	0.87	107.3	675
12/15/00	1415.18	0.91	112.5	675
01/02/01	1431.56	1.08	119.01	764
01/18/01	1448.84	0.9	100.06	764
02/01/01	1461.44	0.96	112.66	717
02/15/01	1474.88	0.95	112.22	717
03/01/01	1488.18	0.78	100.51	653
03/15/01	1499.10	0.85	110.2	653
04/02/01	1514.40	0.97	113.36	723
04/16/01	1527.98	1.06	122.96	723
05/02/01	1544.94	0.88	108.02	689
05/15/01	1556.38	0.8	98.22	689
06/01/01	1569.98	0.82	101.43	681
06/25/01	1589.66	0.79	97.36	681
07/03/01	1595.98	0.85	99.66	712
07/17/01	1607.88	0.83	98.28	712
08/01/01	1620.33	0.63	93	566
08/14/01	1628.52	0.71	105.47	566
09/05/01	1644.14	0.6	74.48	683
09/17/01	1651.34	0.73	89.67	683
10/01/01	1661.56	0.65	97.31	570
10/15/01	1670.66	0.61	90.02	570
11/01/01	1681.03	0.49	103.88	394
11/15/01	1687.89	0.41	88.62	394
12/03/01	1695.27	0.77	98.18	659
12/18/01	1706.82	0.79	100.05	659
12/31/01	1717.09	0.79	100.05	659

TABLE F-24
Extraction Well Analytical Data
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Site ID: EW-3 (121-17)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	7/10/01	24	0.5	UG/L	170	
1,1-Dichloroethane	7/10/01	0.36	0.5	UG/L	170	J
1,1-Dichloroethylene	7/10/01	9.2	0.5	UG/L	170	
1,2-Dichloroethane	7/10/01	1.2	0.5	UG/L	170	
Chloroform	7/10/01	1	0.5	UG/L	170	
cis-1,2-Dichloroethylene	7/10/01	0.28	0.5	UG/L	170	J
Naphthalene	7/10/01	1.1	0.5	UG/L	170	B
Tetrachloroethylene	7/10/01	2.7	0.5	UG/L	170	
Trichloroethylene	7/10/01	1.8	0.5	UG/L	170	
524.2 TVOC	7/10/01	**41.64**	--	UG/L	170	
1,1,1-Trichloroethane	8/6/01	0.84	0.5	UG/L	170	
1,1-Dichloroethane	8/6/01	0.3	0.5	UG/L	170	J
Carbon tetrachloride	8/6/01	4.2	0.5	UG/L	170	
Chloroform	8/6/01	2	0.5	UG/L	170	
Methylene chloride	8/6/01	0.6	0.5	UG/L	170	
Tetrachloroethylene	8/6/01	33.1	0.5	UG/L	170	
Trichloroethylene	8/6/01	0.5	0.5	UG/L	170	
524.2 TVOC	8/6/01	**41.54**	--	UG/L	170	
1,1,1-Trichloroethane	10/1/01	0.42	0.5	UG/L	170	J
1,1-Dichloroethane	10/1/01	0.33	0.5	UG/L	170	J
1,1-Dichloroethylene	10/1/01	0.27	0.5	UG/L	170	J
Carbon tetrachloride	10/1/01	1.6	0.5	UG/L	170	
Chloroform	10/1/01	2	0.5	UG/L	170	
Methylene chloride	10/1/01	2.3	0.5	UG/L	170	B
Tetrachloroethylene	10/1/01	26.5	0.5	UG/L	170	
Trichloroethylene	10/1/01	0.84	0.5	UG/L	170	
524.2 TVOC	10/1/01	**34.26**	--	UG/L	170	

Site ID: EW-4 (121-16)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	7/10/01	20.2	0.5	UG/L	180	
1,1-Dichloroethane	7/10/01	0.35	0.5	UG/L	180	J
1,1-Dichloroethylene	7/10/01	6.5	0.5	UG/L	180	
1,2-Dichloroethane	7/10/01	0.4	0.5	UG/L	180	J
Carbon tetrachloride	7/10/01	42.3	0.5	UG/L	180	
Chloroform	7/10/01	1.3	0.5	UG/L	180	
Methylene chloride	7/10/01	0.64	0.5	UG/L	180	
Tetrachloroethylene	7/10/01	404	2.5	UG/L	180	D
Trichloroethylene	7/10/01	1.8	0.5	UG/L	180	
524.2 TVOC	7/10/01	**477.49**	--	UG/L	180	
1,1,1-Trichloroethane	8/6/01	21.6	0.5	UG/L	180	
1,1-Dichloroethane	8/6/01	0.44	0.5	UG/L	180	J
1,1-Dichloroethylene	8/6/01	7.1	0.5	UG/L	180	
1,2-Dichloroethane	8/6/01	0.43	0.5	UG/L	180	J
Carbon tetrachloride	8/6/01	44.7	0.5	UG/L	180	
Chloroform	8/6/01	1.7	0.5	UG/L	180	
Methylene chloride	8/6/01	1.4	0.5	UG/L	180	
Tetrachloroethylene	8/6/01	319	2.5	UG/L	180	
Toluene	8/6/01	0.26	0.5	UG/L	180	J
Trichloroethylene	8/6/01	3.2	0.5	UG/L	180	
524.2 TVOC	8/6/01	**399.83**	--	UG/L	180	
1,1,1-Trichloroethane	10/1/01	20.6	0.5	UG/L	180	
1,1-Dichloroethane	10/1/01	0.48	0.5	UG/L	180	J
1,1-Dichloroethylene	10/1/01	8.1	0.5	UG/L	180	
1,2-Dichloroethane	10/1/01	0.41	0.5	UG/L	180	J
Carbon tetrachloride	10/1/01	41	0.5	UG/L	180	
Chloroform	10/1/01	2	0.5	UG/L	180	
Methylene chloride	10/1/01	1.9	0.5	UG/L	180	B
Tetrachloroethylene	10/1/01	352	2.5	UG/L	180	D
Trichloroethylene	10/1/01	2.6	0.5	UG/L	180	
524.2 TVOC	10/1/01	**429.09**	--	UG/L	180	

TABLE F-24
Extraction Well Analytical Data
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Site ID: EW-5 (121-15)

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1,1-Trichloroethane	7/10/01	26.5	0.5	UG/L	180	
1,1-Dichloroethane	7/10/01	0.57	0.5	UG/L	180	
1,1-Dichloroethylene	7/10/01	8.3	0.5	UG/L	180	
1,2-Dichloroethane	7/10/01	3.4	0.5	UG/L	180	
Carbon tetrachloride	7/10/01	0.73	0.5	UG/L	180	
Chloroform	7/10/01	1.9	0.5	UG/L	180	
cis-1,2-Dichloroethylene	7/10/01	0.88	0.5	UG/L	180	
Methylene chloride	7/10/01	0.46	0.5	UG/L	180	J
Tetrachloroethylene	7/10/01	13.7	0.5	UG/L	180	
Trichloroethylene	7/10/01	3.6	0.5	UG/L	180	
524.2 TVOC	7/10/01	**60.04**	--	UG/L	180	
1,1,1-Trichloroethane	8/6/01	40.7	0.5	UG/L	180	
1,1-Dichloroethane	8/6/01	0.61	0.5	UG/L	180	
1,1-Dichloroethylene	8/6/01	14.5	0.5	UG/L	180	
1,2-Dichloroethane	8/6/01	2.6	0.5	UG/L	180	
Carbon tetrachloride	8/6/01	1.5	0.5	UG/L	180	
Chloroform	8/6/01	1.9	0.5	UG/L	180	
cis-1,2-Dichloroethylene	8/6/01	2.4	0.5	UG/L	180	
Methylene chloride	8/6/01	0.93	0.5	UG/L	180	
o-Xylene	8/6/01	1.1	0.5	UG/L	180	
Tetrachloroethylene	8/6/01	13.1	0.5	UG/L	180	
Toluene	8/6/01	0.26	0.5	UG/L	180	J
Trichloroethylene	8/6/01	5	0.5	UG/L	180	
524.2 TVOC	8/6/01	**84.6**	--	UG/L	180	
1,1,1-Trichloroethane	10/15/01	38.7	0.5	UG/L	180	
1,1-Dichloroethane	10/15/01	0.5	0.5	UG/L	180	
1,1-Dichloroethylene	10/15/01	14.1	0.5	UG/L	180	
1,2-Dichloroethane	10/15/01	2.2	0.5	UG/L	180	
Carbon tetrachloride	10/15/01	1.3	0.5	UG/L	180	
Chloroform	10/15/01	1.8	0.5	UG/L	180	
cis-1,2-Dichloroethylene	10/15/01	2.5	0.5	UG/L	180	
Methylene chloride	10/15/01	0.65	0.5	UG/L	180	
o-Xylene	10/15/01	0.61	0.5	UG/L	180	
Tetrachloroethylene	10/15/01	11.7	0.5	UG/L	180	
Trichloroethylene	10/15/01	4	0.5	UG/L	180	
524.2 TVOC	10/15/01	**78.06**	--	UG/L	180	

Site ID: EW-6 (122-14)

Chemical Name	Sample Date	Value	Det. Limit	Units	Depth	Qual.
1,1,1-Trichloroethane	7/10/01	39.5	0.5	UG/L	180	
1,1-Dichloroethane	7/10/01	0.5	0.5	UG/L	180	
1,1-Dichloroethylene	7/10/01	13.6	0.5	UG/L	180	
1,2-Dichloroethane	7/10/01	2.3	0.5	UG/L	180	
Carbon tetrachloride	7/10/01	1.4	0.5	UG/L	180	
Chloroform	7/10/01	1.8	0.5	UG/L	180	
cis-1,2-Dichloroethylene	7/10/01	2	0.5	UG/L	180	
Methylene chloride	7/10/01	0.5	0.5	UG/L	180	
Naphthalene	7/10/01	1.1	0.5	UG/L	180	B
o-Xylene	7/10/01	0.69	0.5	UG/L	180	
Tetrachloroethylene	7/10/01	12.7	0.5	UG/L	180	
Trichloroethylene	7/10/01	4.6	0.5	UG/L	180	
524.2 TVOC	7/10/01	**80.69**	--	UG/L	180	
1,1,1-Trichloroethane	8/6/01	26.6	0.5	UG/L	180	
1,1-Dichloroethane	8/6/01	0.61	0.5	UG/L	180	
1,1-Dichloroethylene	8/6/01	8	0.5	UG/L	180	
1,2-Dichloroethane	8/6/01	3.8	0.5	UG/L	180	
Carbon tetrachloride	8/6/01	0.71	0.5	UG/L	180	
Chloroform	8/6/01	2.1	0.5	UG/L	180	
cis-1,2-Dichloroethylene	8/6/01	1	0.5	UG/L	180	
Tetrachloroethylene	8/6/01	13.8	0.5	UG/L	180	
Trichloroethylene	8/6/01	3.9	0.5	UG/L	180	
524.2 TVOC	8/6/01	**60.52**	--	UG/L	180	
1,1,1-Trichloroethane	10/1/01	27.5	0.5	UG/L	180	
1,1-Dichloroethane	10/1/01	0.63	0.5	UG/L	180	
1,1-Dichloroethylene	10/1/01	8.7	0.5	UG/L	180	
1,2-Dichloroethane	10/1/01	3.4	0.5	UG/L	180	
Carbon tetrachloride	10/1/01	0.7	0.5	UG/L	180	
Chloroform	10/1/01	1.9	0.5	UG/L	180	
cis-1,2-Dichloroethylene	10/1/01	1.2	0.5	UG/L	180	
Methylene chloride	10/1/01	1	0.5	UG/L	180	B
Tetrachloroethylene	10/1/01	13	0.5	UG/L	180	
Trichloroethylene	10/1/01	3.4	0.5	UG/L	180	
524.2 TVOC	10/1/01	**61.43**	--	UG/L	180	

TABLE F-24
Extraction Well Analytical Data
OU III South Boundary System
2001 BNL Groundwater Status Report

Site ID: EW-7 (122-13)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	7/10/01	11.4	0.5	UG/L	190	
1,1-Dichloroethane	7/10/01	0.28	0.5	UG/L	190	J
1,1-Dichloroethylene	7/10/01	5.4	0.5	UG/L	190	
1,2-Dichloroethane	7/10/01	1.4	0.5	UG/L	190	
Carbon tetrachloride	7/10/01	2.3	0.5	UG/L	190	
Chloroform	7/10/01	1.6	0.5	UG/L	190	
Methylene chloride	7/10/01	0.47	0.5	UG/L	190	J
Naphthalene	7/10/01	1.1	0.5	UG/L	190	B
Tetrachloroethylene	7/10/01	2.9	0.5	UG/L	190	
Trichloroethylene	7/10/01	4.1	0.5	UG/L	190	
524.2 TVOC	7/10/01	**30.95**	--	UG/L	190	
1,1,1-Trichloroethane	8/6/01	11.2	0.5	UG/L	190	
1,1-Dichloroethane	8/6/01	0.29	0.5	UG/L	190	J
1,1-Dichloroethylene	8/6/01	5.2	0.5	UG/L	190	
1,2-Dichloroethane	8/6/01	1.6	0.5	UG/L	190	
Carbon tetrachloride	8/6/01	2.4	0.5	UG/L	190	
Chloroform	8/6/01	1.6	0.5	UG/L	190	
Methylene chloride	8/6/01	0.55	0.5	UG/L	190	
Tetrachloroethylene	8/6/01	3.2	0.5	UG/L	190	
Toluene	8/6/01	0.26	0.5	UG/L	190	J
Trichloroethylene	8/6/01	4.5	0.5	UG/L	190	
524.2 TVOC	8/6/01	**30.8**	--	UG/L	190	
1,1,1-Trichloroethane	10/1/01	10.3	0.5	UG/L	190	
1,1-Dichloroethane	10/1/01	0.3	0.5	UG/L	190	J
1,1-Dichloroethylene	10/1/01	5.4	0.5	UG/L	190	
1,2-Dichloroethane	10/1/01	1.4	0.5	UG/L	190	
Carbon tetrachloride	10/1/01	2.2	0.5	UG/L	190	
Chloroform	10/1/01	1.6	0.5	UG/L	190	
Methylene chloride	10/1/01	1	0.5	UG/L	190	B
Tetrachloroethylene	10/1/01	3	0.5	UG/L	190	
Trichloroethylene	10/1/01	3.8	0.5	UG/L	190	
524.2 TVOC	10/1/01	**29**	--	UG/L	190	

Site ID: EW-8 (122-12)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	7/10/01	0.79	0.5	UG/L	220	
1,1-Dichloroethane	7/10/01	0.28	0.5	UG/L	220	J
Carbon tetrachloride	7/10/01	4	0.5	UG/L	220	
Chloroform	7/10/01	1.8	0.5	UG/L	220	
Methylene chloride	7/10/01	0.54	0.5	UG/L	220	
Tetrachloroethylene	7/10/01	33.3	0.5	UG/L	220	
Trichloroethylene	7/10/01	0.38	0.5	UG/L	220	J
524.2 TVOC	7/10/01	**41.09**	--	UG/L	220	
1,1,1-Trichloroethane	8/6/01	23.9	0.5	UG/L	220	
1,1-Dichloroethane	8/6/01	0.39	0.5	UG/L	220	J
1,1-Dichloroethylene	8/6/01	9.3	0.5	UG/L	220	
1,2-Dichloroethane	8/6/01	1.5	0.5	UG/L	220	
Chloroform	8/6/01	1.2	0.5	UG/L	220	
cis-1,2-Dichloroethylene	8/6/01	0.29	0.5	UG/L	220	J
Tetrachloroethylene	8/6/01	3.4	0.5	UG/L	220	
Toluene	8/6/01	0.28	0.5	UG/L	220	J
Trichloroethylene	8/6/01	2	0.5	UG/L	220	
524.2 TVOC	8/6/01	**42.26**	--	UG/L	220	
1,1,1-Trichloroethane	10/1/01	16.5	0.5	UG/L	220	
1,1-Dichloroethane	10/1/01	0.42	0.5	UG/L	220	J
1,1-Dichloroethylene	10/1/01	7.6	0.5	UG/L	220	
1,2-Dichloroethane	10/1/01	1.5	0.5	UG/L	220	
Chloroform	10/1/01	1.1	0.5	UG/L	220	
Methylene chloride	10/1/01	1.1	0.5	UG/L	220	B
Tetrachloroethylene	10/1/01	2.9	0.5	UG/L	220	
Trichloroethylene	10/1/01	1.5	0.5	UG/L	220	
524.2 TVOC	10/1/01	**32.62**	--	UG/L	220	

TABLE F-24
Extraction Well Analytical Data
OU III South Boundary System
2001 BNL Groundwater Status Report

Site ID: EW-12 (122-30)						
Chemical Name	**Sample Date**	**Value**	**Det. Limit**	**Units**	**Depth**	**Qual.**
1,1,1-Trichloroethane	7/10/01	5	0.5	UG/L	200	
1,1-Dichloroethylene	7/10/01	1.6	0.5	UG/L	200	
1,2-Dichloroethane	7/10/01	0.43	0.5	UG/L	200	J
Chloroform	7/10/01	0.85	0.5	UG/L	200	
Methylene chloride	7/10/01	0.73	0.5	UG/L	200	
Trichloroethylene	7/10/01	0.45	0.5	UG/L	200	J
524.2 TVOC	7/10/01	**9.06**	--	UG/L	200	
1,1,1-Trichloroethane	8/6/01	3.9	0.5	UG/L	200	
1,1-Dichloroethylene	8/6/01	1.3	0.5	UG/L	200	
1,2-Dichloroethane	8/6/01	0.47	0.5	UG/L	200	J
Chloroform	8/6/01	0.83	0.5	UG/L	200	
Methylene chloride	8/6/01	2	0.5	UG/L	200	
Toluene	8/6/01	0.3	0.5	UG/L	200	J
Trichloroethylene	8/6/01	0.43	0.5	UG/L	200	J
524.2 TVOC	8/6/01	**9.23**	--	UG/L	200	
1,1,1-Trichloroethane	10/1/01	4.2	0.5	UG/L	200	
1,1-Dichloroethylene	10/1/01	1.3	0.5	UG/L	200	
1,2-Dichloroethane	10/1/01	0.52	0.5	UG/L	200	
Chloroform	10/1/01	0.8	0.5	UG/L	200	
Methylene chloride	10/1/01	1	0.5	UG/L	200	B
Tetrachloroethylene	10/1/01	0.32	0.5	UG/L	200	J
Trichloroethylene	10/1/01	0.43	0.5	UG/L	200	J
524.2 TVOC	10/1/01	**8.57**	--	UG/L	200	

J = Estimated value.
B = Analyte was found in the associated blank as well as in the sample.
D = Compound was identified in an analysis at a secondary dilution factor.

OU III INDUSTRIAL PARK SYSTEM

TABLE F-25

TVOC Influent, Effluent and Efficiency Performance
2001 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
9/29/99	1900.00	184.42	90.29	70.02	3.03	95.67	49.45	3.08	93.77	158.10	10.70	93.23	284.50	29.19	89.74	90.69	1.97	97.83	NS	NS	0.00
10/07/99	1352.98	97.69	92.78	71.48	3.08	95.69	25.38	3.44	86.45	110.38	8.38	92.41	315.10	33.77	89.28	89.13	9.73	89.08	NS	NS	0.00
10/12/99	1485.00	59.78	95.97	94.75	2.12	97.76	20.11	2.23	88.91	92.28	6.75	92.69	359.44	31.23	91.31	96.88	1.70	98.25	NS	NS	0.00
10/19/99	820.50	52.42	93.61	875.60	39.47	95.49	19.59	1.91	90.25	84.58	5.96	92.95	230.58	29.94	87.02	98.78	1.50	98.48	NS	NS	0.00
10/26/99	730.22	47.73	93.46	571.49	25.18	95.59	18.56	1.15	93.80	77.02	4.10	94.68	192.19	25.99	86.48	90.21	1.39	98.46	NS	NS	0.00
11/2/1999^	608.70	23.48	96.14	461.20	11.25	97.56	16.26	1.63	89.98	72.14	4.73	93.44	181.98	22.39	87.70	95.15	1.78	98.13	43.62	4.79	89.02
11/9/1999#	574.00	26.60	95.37	420.50	8.95	97.87	15.62	1.09	93.02	69.44	3.92	94.35	170.97	21.01	87.71	NS	NS	-	32.12	2.58	91.97
11/16/1999~	602.30	36.06	94.01	383.30	14.05	96.33	23.37	0.92	96.06	77.12	3.49	95.47	181.90	23.91	86.86	NS	NS	-	38.06	6.43	83.11
11/23/1999%	461.18	15.28	96.69	245.86	7.25	97.05	19.58	2.13	89.12	63.16	4.43	92.99	143.04	16.23	88.65	NS	NS	-	32.92	6.92	78.98
12/7/1999$	410.00	27.07	93.40	265.80	11.10	95.82	14.41	0.00	100.00	62.33	4.42	92.91	152.74	16.90	88.94	133.08	12.53	90.58	35.90	4.82	86.57
12/14/99	394.00	23.80	93.96	212.40	6.80	96.80	18.36	0.00	100.00	62.40	3.48	94.42	157.11	20.64	86.86	89.82	5.83	93.51	33.41	3.49	89.55
12/21/99	459.00	27.36	94.04	193.20	6.10	96.84	18.01	0.00	100.00	62.09	3.55	94.28	154.30	16.30	89.44	**	4.85	-	84.61	2.37	97.20
1/27/00	85.26	33.14	61.13	125.69	6.48	94.84	18.23	1.26	93.09	70.91	5.67	92.00	161.47	22.44	86.10	84.33	9.92	88.24	34.94	4.18	88.04
2/24/00	106.56	25.44	76.13	126.18	7.90	93.74	23.82	4.65	80.48	80.78	10.78	86.66	69.66	25.73	63.06	75.02	10.17	86.44	37.31	3.10	91.69
3/20/00	439.47	27.69	93.70	138.15	9.69	92.99	21.41	1.78	91.69	94.02	8.62	90.83	219.34	16.19	92.62	71.94	4.11	94.29	34.30	2.44	92.89
4/18/00	238.38	23.18	90.28	126.68	7.84	93.81	26.01	1.78	93.16	92.87	8.16	91.21	195.77	19.70	89.94	65.93	5.48	91.69	33.06	2.26	93.16
5/16/00	375.40	16.50	95.60	92.10	7.80	91.53	24.90	1.60	93.57	117.60	5.30	95.49	195.10	19.70	89.90	67.60	3.10	95.41	29.90	1.10	96.32
6/14/00	349.00	18.30	94.76	158.90	6.40	95.97	27.30	1.30	95.24	103.10	8.20	92.05	236.50	15.80	93.32	63.60	1.60	97.48	27.30	0.90	96.70
7/24/00	319.10	25.70	91.95	157.30	7.30	95.36	28.10	1.80	93.59	106.10	9.60	90.95	234.00	19.60	91.62	69.30	1.60	97.69	30.00	0.80	97.33
8/15/00	282.00	27.80	90.14	175.60	8.80	94.99	28.80	1.90	93.40	143.80	10.90	92.42	196.10	18.40	90.62	59.80	1.80	96.99	27.10	0.80	97.05
9/19/00	272.60	20.70	92.41	203.70	8.90	95.63	28.20	1.70	93.97	101.60	6.80	93.31	NS	NS		56.50	2.50	95.58	49.10	1.20	97.56
10/24/00	41.10	15.00	63.50	156.90	10.40	93.37	27.70	0.00	100.00	101.10	6.80	93.27	431.10	30.60	92.90	65.20	2.20	96.63	58.80	0.00	100.00
11/13/00	185.20	15.10	91.85	153.70	11.20	92.71	33.30	0.00	100.00	85.50	10.50	87.72	274.80	23.70	91.38	70.50	0.00	100.00	73.90	0.00	100.00
12/19/00	259.50	14.60	94.37	206.60	8.50	95.89	NS	NS		NS	NS		299.40	24.40	91.85	52.50	2.40	95.43	39.10	0.00	100.00
1/24/01	200.00	12.50	93.75	242.90	12.60	94.81	45.60	1.70	96.27	124.80	4.00	96.79	326.60	22.20	93.20	96.40	4.30	95.54	44.40	3.30	92.57
2/26/01	149.20	10.10	93.23	232.10	12.00	94.83	54.60	3.30	93.96	129.80	7.10	94.53	299.20	23.00	92.31	91.20	4.50	95.07	44.20	2.80	93.67
3/20/01	157.10	8.10	94.84	230.80	12.30	94.67	53.00	3.40	93.58	120.80	4.00	96.69	NS	NS		102.90	4.40	95.72	41.00	3.20	92.20
4/19/01	124.90	5.30	95.76	230.50	12.00	94.79	59.80	5.20	91.30	154.70	7.40	95.22	306.40	23.20	92.43	122.20	4.80	96.07	46.40	3.30	92.89
5/29/01	72.81	5.99	91.77	173.20	13.31	92.32	64.49	5.55	91.39	162.34	9.29	94.28	291.82	21.19	92.74	105.34	5.20	95.06	43.86	3.53	91.95
6/26/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
7/31/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
8/31/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
9/30/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
10/2/01	67.76	5.93	91.25	254.28	15.84	93.77	74.34	8.21	88.96	155.95	18.55	88.11	312.77	14.69	95.30	117.30	5.94	94.94	41.93	2.98	92.89
11/2/01	58.61	6.19	89.44	238.11	19.32	91.89	96.97	10.16	89.52	205.18	13.59	93.38	420.87	19.73	95.31	160.04	7.14	95.54	73.21	3.40	95.36
12/19/01	56.33	3.19	94.34	172.19	17.36	89.92	63.98	4.22	93.40	151.04	14.66	90.29	303.89	15.26	94.98	141.04	5.15	96.35	82.96	4.31	94.80
Average Efficiency			**90.91**			**94.63**			**92.82**			**93.26**			**89.89**			**95.01**			**92.69**
1st qtr. 2001 Average Efficiency			**93.94**			**94.77**			**94.60**			**96.00**			**92.76**			**95.44**			**92.81**
2nd qtr. 2001 Average Efficiency			**92.74**			**93.24**			**90.97**			**95.26**			**92.28**			**95.04**			**91.60**
3rd qtr. 2001 Average Efficiency			**90.69**			**92.61**			**90.20**			**96.29**			**91.68**			**93.97**			**89.96**
4th qtr. 2001 Average Efficiency			**91.67**			**91.86**			**90.63**			**90.59**			**95.20**			**95.61**			**94.35**

1st qtr. 2001 AVERAGE SYSTEM EFFICIENCY	**94.33**
2nd qtr. 2001 AVERAGE SYSTEM EFFICIENCY	**93.02**
3rd qtr. 2001 AVERAGE SYSTEM EFFICIENCY	**92.20**
4th qtr. 2001 AVERAGE SYSTEM EFFICIENCY	**92.84**
2001 AVERAGE SYSTEM EFFICIENCY	**93.10**

NOTES:

Efficiency Percent = 100 - (effluent concentration/influent concentration) * 100
NS = Not Sampled
** Laboratory lost sample.
^ Flow rate reduced to 40 gallons per minute for UVB-1 and UVB-2
# Flow rate reduced to 45 gallons per minute for UVB-1 and UVB-2
~ Flow rate reduced to 50 gallons per minute for UVB-1 and UVB-2
% Flow rate reduced to 30 gallons per minute for UVB-1 and UVB-2
$ Flow rate returned to 60 gallons per minute for UVB-1 and UVB-2

TABLE F-26
Cumulative Mass Removal
OU III Industrial Park System
2001 BNL Groundwater Status Report

Date	UVB1		UVB2		UVB3		UVB4		UVB5		UVB6		UVB7		Total	Cumulative
	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Total Pumped	Mass Recovered	Mass Recovered	Mass Recovered
	(Gallons)	(lbs)	(Gallons)	(lbs)	(Gallons)	(lbs)	(Gallons)	(lbs)	(Gallons)	(lbs)	(Gallons)	(lbs)	(Gallons)	(lbs)	(lbs)	(lbs)
09/30/99	96,000	1.38	72,000	0.04	107,000	0.04	103,000	0.13	116,000	0.25	14,400	0.01	NO	0.00	1.85	1.85
10/07/99	384,000	3.04	460,800	0.22	506,000	0.07	488,000	0.33	360,000	0.58	100,800	0.06	NO	0.00	4.30	6.15
10/12/99	824,000	5.27	892,800	0.34	944,000	0.07	926,000	0.31	798,000	1.21	172,800	0.06	NO	0.00	7.25	13.40
10/19/99	1,388,000	3.64	1,497,600	4.25	1,508,000	0.08	1,497,000	0.38	1,363,000	0.95	273,600	0.08	NO	0.00	9.38	22.78
10/26/99	2,071,000	3.92	2,102,400	2.78	2,192,000	0.10	2,186,000	0.42	2,047,000	0.95	388,800	0.09	0	0.00	8.25	31.04
11/02/99	2,562,000	2.41	2,622,400	1.97	2,712,000	0.06	2,710,000	0.30	2,569,000	0.70	540,800	0.12	529,000	0.17	5.73	36.77
11/09/99	2,998,000	2.00	3,019,400	1.37	3,293,000	0.07	3,291,000	0.32	3,148,000	0.73	540,800	NO	1,125,000	0.15	4.65	41.41
11/16/99	3,327,000	1.56	3,358,400	1.05	3,732,000	0.08	3,730,000	0.27	3,587,000	0.58	540,800	NO	1,564,000	0.12	3.67	45.08
11/23/99	3,682,000	1.33	3,758,400	0.80	4,237,000	0.07	4,235,000	0.25	4,092,000	0.54	540,800	NO	2,069,000	0.11	3.10	48.18
12/07/99	4,620,000	3.02	4,697,400	2.01	5,359,000	0.14	5,355,000	0.54	5,135,000	1.19	540,800	0.00	3,109,000	0.27	7.17	55.35
12/14/99	5,237,000	1.92	5,312,400	1.06	5,975,000	0.10	5,972,000	0.31	5,751,000	0.71	1,167,800	0.44	3,725,000	0.15	4.68	60.04
12/21/99	5,579,000	1.24	5,654,400	0.54	6,317,000	0.05	6,313,000	0.17	6,093,000	0.40	1,380,800	NO	3,984,000	0.18	2.57	62.61
01/27/00	7,090,000	0.66	7,164,400	1.51	8,102,000	0.25	8,098,000	0.98	7,878,000	2.08	3,167,800	1.12	5,769,000	0.46	7.07	69.68
02/24/00	9,185,000	1.43	9,491,400	2.31	10,229,000	0.34	10,305,000	1.30	10,092,000	0.82	5,466,800	1.25	8,066,000	0.66	8.11	77.79
03/20/00	10,551,000	4.72	10,935,400	1.56	11,756,000	0.25	11,896,000	1.14	11,664,000	2.68	7,131,800	0.95	9,730,000	0.45	11.75	89.54
04/18/00	12,832,000	4.12	12,980,400	2.04	14,431,000	0.54	14,632,000	1.95	14,292,000	3.89	9,934,800	1.42	12,274,000	0.66	14.62	104.17
05/16/00	15,010,000	6.57	14,963,400	1.40	16,867,000	0.48	17,125,000	2.35	16,887,000	3.82	12,548,800	1.42	14,482,000	0.53	16.57	120.74
06/14/00	17,569,000	7.11	17,470,400	3.21	19,375,000	0.55	19,778,000	2.11	19,435,000	4.72	15,129,800	1.34	16,914,000	0.54	19.59	140.33
07/24/00	20,233,000	6.57	20,148,400	3.37	22,009,000	0.58	22,449,000	2.17	22,106,000	4.81	17,830,800	1.54	19,622,000	0.66	19.70	160.03
08/15/00	22,904,000	5.70	22,871,400	3.82	24,628,000	0.59	25,135,000	3.00	24,777,000	3.99	20,523,800	1.31	22,323,000	0.60	19.00	179.03
09/19/00	25,502,000	5.50	25,469,400	4.25	27,195,000	0.57	27,739,000	2.07	25,887,000	NO	23,109,800	1.17	24,909,000	1.04	14.61	193.64
10/24/00	28,000,000	0.55	28,232,400	3.40	29,614,000	0.56	30,231,000	1.97	28,306,000	8.14	25,068,800	1.04	27,407,000	1.23	16.89	210.53
11/13/00	30,323,000	3.32	30,788,400	3.06	32,156,000	0.70	32,787,000	1.61	30,864,000	5.40	27,727,800	1.57	29,962,000	1.59	17.25	227.78
12/19/00	31,653,000	2.74	32,323,400	2.55	33,312,000		34,462,000		33,117,000	5.20	30,318,800	1.09	32,408,000	0.80	12.39	240.17
01/24/01	34,392,000	4.31	34,540,400	4.29	35,904,000	0.96	37,239,000	2.82	36,254,000	8.02	33,095,800	2.15	34,399,000	0.69	23.23	263.40
02/26/01	36,439,000	2.39	36,406,400	3.45	38,202,000	0.99	39,488,000	2.32	38,266,000	4.67	35,497,800	1.75	36,809,000	0.84	16.41	279.81
03/20/01	38,622,000	2.73	39,046,400	4.85	40,765,000	1.07	41,918,000	2.38	40,079,000		38,067,800	2.13	39,493,000	0.85	14.01	293.82
4/19/01	41,226,000	2.62	42,011,400	5.44	43,196,000	1.11	44,513,000	3.21	42,641,000	6.09	40,643,800	2.54	42,102,000	0.94	21.96	315.78
5/29/01	43,912,000	1.51	44,695,400	3.60	45,716,000	1.25	47,173,000	3.42	45,281,000	6.00	43,339,800	2.27	44,767,000	0.90	18.95	334.73
6/26/01	46,251,000	1.31	47,036,400	4.24	48,031,000	1.02	49,605,000	2.86	47,718,000	4.28	45,752,800	2.13	47,292,000	0.93	16.77	351.50
7/30/01	48,071,160	1.02	48,863,760	3.31	49,714,360	0.74	51,420,840	2.14	49,548,240	3.22	47,572,960	1.61	49,120,800	0.67	12.70	364.19
8/30/01	48,099,960	0.02	48,892,560	0.05	49,741,720	0.01	51,449,640	0.03	49,577,040	0.05	47,602,240	0.03	49,150,080	0.01	0.20	364.40
9/30/01	50,684,840	1.44	51,487,440	4.70	52,149,400	1.06	54,020,040	3.02	52,146,000	4.52	50,189,920	2.28	51,753,600	0.95	17.98	382.38
10/2/01	53,365,840	1.39	49,700,400	(3.58)	50,551,000	1.40	52,278,000	3.09	50,388,000	6.69	48,435,800	2.51	49,993,000	0.88	12.38	394.75
11/5/01	55,961,840	1.14	52,295,280	4.77	52,958,680	3.59	54,848,400	4.14	52,956,960	8.66	51,023,480	6.77	52,596,520	3.11	32.18	426.93
12/31/01	58,651,760	1.20	54,985,200	3.50	55,444,120	2.88	57,516,720	3.06	55,638,240	6.50	53,706,200	3.06	54,750,760	1.42	21.62	448.55

Total Recovered VOCs (by well)	100.79	87.54	22.45	56.86	113.03	45.30	22.58

Total Recovered VOCs since start-up **448.55** **lbs.**

NOTES:

Mass recovered = total gallons pumped * influent concentration (ug/L) * (percent efficiency/100) * 8.4 X 10-9 (conversion factor)

NO = Not operational

* = Unable to calculate mass due to missing influent and effluent well data

No Samples were taken in April 2001 and the pounds removed were estimated using the 2nd quarter's average values for influent concentrations and system efficiency

TABLE F-27
AIR FLOW RATES
OU III INDUSTRIAL PARK SYSTEM
2001 BNL Groundwater Status Report

	1/12/01 (cfm)	1/26/01 (cfm)	2/2/01 (cfm)	2/12/01 (cfm)	2/20/01 (cfm)	2/28/01 (cfm)	3/9/01 (cfm)	3/20/01 (cfm)	3/30/01 (cfm)	4/3/01 (cfm)	4/17/01 (cfm)	5/2/01 (cfm)	5/15/01 (cfm)	6/5/01 (cfm)	6/15/01 (cfm)	6/29/01 (cfm)
UVB-1	638	616	605	616	627	605	605	605	616	638	649	676	693	693	649	654
UVB-2	687	676	665	687	682	671	687	687	676	682	660	654	638	622	605	616
UVB-3	714	796	654	676	671	654	644	627	638	633	627	638	589	589	611	638
UVB-4	464	524	442	425	513	398	387	404	387	365	431	398	327	333	425	382
UVB-5	627	611	600	616	594	605	600	638	584	584	589	562	556	556	551	540
UVB-6	709	693	698	709	704	704	704	698	704	709	709	682	693	693	671	665
UVB-7	644	622	622	627	638	633	638	644	638	654	693	665	644	654	627	622

	7/5/01 (cfm)	7/20/01 (cfm)	8/2/01 (cfm)	8/22/00 (cfm)	9/5/01 (cfm)	9/20/01 (cfm)	10/4/01 (cfm)	10/23/01 (cfm)	11/1/00 (cfm)	11/20/01 (cfm)	12/4/01 (cfm)	12/24/01 (cfm)
UVB-1	627	654	NM	NM	622	671	660	676	698	693	693	709
UVB-2	589	589	NM	NM	616	644	633	611	616	600	616	600
UVB-3	633	616	NM	NM	491	654	660	622	616	594	665	649
UVB-4	404	344	NM	NM	409	371	371	316	311	273	365	295
UVB-5	545	529	NM	NM	524	545	540	524	518	513	534	507
UVB-6	660	665	NM	NM	556	671	671	676	682	676	676	665
UVB-7	622	633	NM	NM	638	627	633	644	654	649	654	736

1st Qtr. 2001 Average Flow (cfm)	**621**
2nd Qtr. 2001 Average Flow (cfm)	**601**
3rd Qtr. 2001 Average Flow (cfm)	**577**
4tht Qtr. 2001 Average Flow (cfm)	**588**
2001 Average Flow (cfm)	**597**

NM - No Measurements Taken