

TABLES



Table 1-1. Summary of Previous Groundwater Sampling Analytical Results, June 1984 Through September 1992, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Well Identification: Date Sampled:	MW-1			MW-2			MW-3			
	6/19/84	6/18/85	12/18/86	4/18/91	9/3/92	6/19/84	6/18/85	12/18/86	4/18/91	9/3/92
NCAC 2L Groundwater Standard										
Constituents										
Volatile Organic										
<u>Constituents (ug/L)</u>										
Benzene	4891	26000	49000	42000	44000	200	NA	910	4900	3900
Chloroform	1000J	89000	96000	65000	65000	15	NA	8400	28000	28000
Methylene chloride	500	320000	91000	68000	54000	ND	NA	2800	20000	18000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	NA	ND	ND	1300
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	NA	ND	500JN	1100
Diethyl ether	NA	NA	350000	NA	NA	ND	NA	11000	NA	NA
Trimethyl hydrazine	NA	NA	NA	84000JN	NA	NA	NA	NA	NA	NA
Semivolatile Organic										
<u>Constituents (ug/L)</u>										
Phenol	300	NA	NA	ND	NA	NA	NA	NA	33	NA
1,4-dichlorobenzene	75	NA	NA	1.0J	NA	NA	NA	NA	ND	NA
1,2-dichlorobenzene	620	NA	NA	10J	NA	NA	NA	NA	10J	NA
Isophorone	NS	NA	NA	10	NA	NA	NA	NA	ND	NA
Naphthalene	21	NA	NA	5.0J	NA	NA	NA	NA	5.0J	NA
2-methylnaphthalene	NS	NA	NA	2.0J	NA	NA	NA	NA	2.0J	NA
Dimethylphthalate	5000	NA	NA	27	NA	NA	NA	NA	ND	NA
Diethylphthalate	NS	NA	NA	3.0J	NA	NA	NA	NA	2.0J	NA
Inorganics (mg/L)										
Arsenic	0.05	NA	NA	ND	NA	NA	NA	NA	0.0035	NA
Barium	2.0	NA	NA	0.213	NA	NA	NA	NA	0.013	NA
Beryllium	NS	NA	NA	ND	NA	NA	NA	NA	ND	NA
Cadmium	0.005	NA	NA	0.003	NA	NA	NA	NA	0.003	NA
Chromium	0.05	NA	NA	0.14	NA	NA	NA	NA	ND	NA
Copper	1.0	NA	NA	ND	NA	NA	NA	NA	ND	NA
Lead	0.015	NA	NA	.002J	NA	NA	NA	NA	ND	NA
Manganese	0.05	NA	NA	14.4	NA	NA	NA	NA	8.91	NA

Footnotes appear on page 2.
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Table I-1. Summary of Previous Groundwater Sampling Analytical Results, June 1984 Through September 1992, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

mg/L (ppm)	Milligrams per liter (parts per million).
ug/L (ppb)	Micrograms per liter (parts per billion).
NA	Not analyzed.
ND	Constituent was not detected.
N	Spike recovery outside QC limits.
J	Estimated concentration, not quantitative.
NS	Numerical 15A NCAC 2L Standard has not been established; therefore, detectable concentrations of these substances in ground water are considered to be in excess of North Carolina Water Quality Standards.

6/19/84 sampling event conducted by NC DHR during the Site Inspection.

6/18/85, 12/18/86, and 9/3/92 sampling events conducted by the University of North Carolina at Chapel Hill.

4/18/91 sampling event conducted by Greenhome & O'Mara during the Phase II Screening Site Investigation.

Table 1-2. Summary of Detectable Soil, Surface-Water, and Sediment Sample Analytical Results from the Phase II Screening Site Investigation, Airport Road Waste Disposal Area, University of North Carolina, Chapel Hill, North Carolina.

Media Sampled/Units: Sample ID: Sample Description:	Surface Soil (mg/kg dw)		Surface Water (mg/L)		Sediment (mg/kg dw) ³		
	East - Central North Carolina Background ¹	SS-01 Background Composite	North Carolina Surface Water Standards ²	SW-01 Upstream	SW-02 Downstream	SED-01 Upstream	SED-02 Downstream
Constituents							
<u>Volatile Organic Constituents</u>							
Chloroform	INA	ND	NS	ND	ND	ND	ND
<u>Semivolatile Organic Constituents</u>							
INA	INA	ND	NS	ND	ND	ND	ND
<u>Inorganics</u>							
Arsenic	6.5	0.2J	0.05	ND	ND	ND	ND
Barium	700	49.8	NS	0.05	0.18	43	33
Beryllium	<1.0	0.61	0.065	NA	NA	NA	NA
Cadmium	INA	0.002	0.0004	ND	ND	ND	ND
Chromium	70	2.6	0.05	ND	ND	ND	ND
Copper	30	3.4	0.007	NA	NA	NA	NA
Lead	365	5.2	0.025	ND	ND	20	35
Manganese	250	203	NS	NA	NA	NA	NA

mg/kg dw (ppm) Milligrams per kilogram, dry weight basis (parts per million).

mg/L (ppm) Milligrams per liter (parts per million).

NA Not sampled/not analyzed.

ND Constituent was not detected.

J Estimated concentration, not quantitative.

NS No standards.

INA Information not available.

REFERENCE: Phase II Screening Site Investigation Report, prepared by Greenhorne & O'mara, Inc., June 1991.

NOTES:

¹ Values obtained from USGS, 1984. These values represent elemental concentrations of a single soil sample obtained from east-central North Carolina.

² Crows Branch Creek is classified as Class B Nutrient Sensitive Water. No water quality standards exist. However, Division of Water Quality adopts water quality standards from Class C water.

³ No standards available.

Table 2-1. Summary of Monitor Well Construction Details, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well	Date of Installation	Measuring Point Elevation		Depth of Surface Casing (ft bls)	Total Drilled Depth (ft bls)	Screened Interval (ft bls)
		(Top of Casing) (ft msl)	(ft bls)			
MW-1	INA	483.11	NA	NA	28.3	INA
MW-2	INA	484.30	NA	NA	29	INA
MW-3	INA	483.34	NA	NA	20	INA
MW-4	INA	472.18	NA	NA	24.6	INA
MW-5	INA	454.62	NA	NA	15	INA
MW-6	4/11/95	472.55	NA	NA	22	12.0-22.0
* MW-7	4/21/95	475.01	22	22	48	38.0-48.0
* MW-9	4/21/95	476.25	NA	NA	43.5	20.0-35.0
* MW-11	4/18/95	472.78	NA	NA	36	26.0-36.0
MW-12	4/13/95	464.21	NA	NA	22	12.0-22.0
* MW-13	4/19/95	467.60	NA	NA	23	13.0-23.0
* MW-14	8/11/95	481.67	29	29	175	165.0-175.0
* MW-15	7/20/95	465.04	40	40	60.5	50.0-60.0
* MW-16	7/21/95	467.14	16	16	82	22.0-42.0
* MW-17	7/24/95	478.99	26	26	71	60.0-70.0
MW-18	7/19/95	467.96	NA	NA	16	5.0-15.0
MW-19	7/19/95	473.90	NA	NA	10	5.0-10.0
MW-20	7/27/95	475.03	NA	NA	25	14.0-24.0
* MW-21	7/21/95	463.28	NA	NA	22	11.0-21.0
MW-22	7/26/95	460.78	NA	NA	10	5.0-10.0
* MW-23	8/17/95	458.92	17	17	89	78.0-88.0
* MW-24	1/19/96	465.32	105	105	200	175.0-195.0
MW-25	1/23/96	458.74	NA	NA	15	5.0-15.0
* MW-26	2/5/96	458.79	20	20	180	75.0-95.0
* MW-28	1/15/96	480.40	NA	NA	46	36.0-46.0

Footnotes appear on page 2.

Table 2-1. Summary of Monitor Well Construction Details, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

*	Bedrock wells - This designation indicates that the entire screened interval is set in bedrock.
ft msl	Feet above mean sea level.
NA	Not Applicable.
ft b/s	Feet below land surface.
INA	Information not available.
Note:	Monitor Wells MW-8 and MW-10 were not installed.

Table 3-1. Topographic Lineament Analysis Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Orientation	Frequency	Cumulative Length (feet)
N 81 - 90 W	5	13,200
N 71 - 80 W	1	3,000
N 61 - 70 W	4	11,600
N 51 - 60 W	4	5,500
N 41 - 50 W	3	7,300
N 31 - 40- W	6	11,700
N 21 - 30 W	7	13,300
N 11 - 20 W	5	15,000
N 01 - 10 W	3	5,300
N 00 - 9 E	1	2,700
N 10 - 19 E	3	8,000
N 20 - 29 E	2	7,900
N 30 - 39 E	4	8,900
N 40 - 49 E	3	8,300
N 50 - 59 E	5	16,300
N 60 - 69 E	2	6,400
N 70 - 79 E	2	3,600
N 80 - 89 E	2	4,400



Table 3-2. Water-Level Elevations, August 3, 1995, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well ID	Measuring Point Elevation (ft, msl)	Depth to Water (ft, toc)	Groundwater Elevation (ft, msl)
MW-1	483.11	11.92	471.19
MW-2	484.30	13.21	471.09
MW-3	483.34	6.41	476.93
MW-4	472.18	14.04	458.14
MW-5	454.62	6.82	447.80
MW-6	472.55	9.55	463.00
MW-7	475.01	26.84	448.17
MW-9	476.25	7.87	468.38
MW-11	472.78	19.20	453.58
MW-12	464.21	6.04	458.17
MW-13	467.60	11.41	456.19
MW-15	465.04	1.80	463.24
MW-16	467.14	7.27	459.87
MW-17	478.99	11.46	467.53
MW-18	467.96	5.39	462.57
MW-19	473.90	5.16	468.74
MW-20	475.03	16.98	458.05
MW-21	463.28	4.81	458.47
MW-22	460.78	6.33	454.45

ft toc Feet below top of casing.
ft msl Feet above mean sea level.



Table 3-3. Water-Level Elevations, April 16, 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well ID	Measuring Point Elevation (ft, msl)	Depth to Water (ft, toc)	Groundwater Elevation (ft, msl)
MW-1	483.11	8.51	474.60
MW-2	484.30	10.05	474.25
MW-3	483.34	3.15	480.19
MW-4	472.18	8.08	464.10
MW-5	454.62	2.25	452.37
MW-6	472.55	5.44	467.11
MW-7	475.01	5.99	469.02
MW-9	476.25	5.08	471.17
MW-11	472.78	15.83	456.95
MW-12	464.21	3.82	460.39
MW-13	467.60	6.62	460.98
MW-14	481.67	14.20	467.47
MW-15	465.04	0 ¹	465.04
MW-16	467.14	5.94	461.20
MW-17	478.99	9.57	469.42
MW-18	467.96	4.52	463.44
MW-19	473.90	3.03	470.87
MW-20	475.03	11.58	463.45
MW-21	463.28	4.06	459.22
MW-22	460.78	3.16	457.62
MW-23	458.92	0 ¹	458.92
MW-24	465.32	17.71 ²	447.61
MW-25	458.74	4.73	454.01
MW-26	458.79	13.67	445.12
MW-28	480.40	3.50	476.90

- ¹ Water overflow in the well.
- ² Water level collected on April 15, 1996.
- ft toc Feet below top of casing.
- ft msl Feet above mean sea level.



Table 3-4. Water Level Elevations, September 3, 1996, UNC Airport Road Waste Disposal Site, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well ID	Measuring Point Elevation (ft, msl)	Depth to Water (ft, toc)	Groundwater Elevation (ft, msl)
MW-1	483.11	13.57	469.54
MW-2	484.30	14.81	469.49
MW-3	483.34	6.31	477.03
MW-4	472.18	15.53	456.65
MW-5	454.62	5.71	448.91
MW-6	472.55	9.75	462.80
MW-7	475.01	9.64	465.37
MW-9	476.25	8.44	467.81
MW-11	472.78	19.52	453.26
MW-12	464.21	5.23	458.98
MW-13	467.60	6.21	461.39
MW-14	481.67	17.11	464.56
MW-15	465.04	2.62	465.04
MW-16	467.14	7.12	460.02
MW-17	478.99	12.03	466.96
MW-18	467.96	4.64	463.32
MW-19	473.90	5.65	468.25
MW-20	475.03	20.26	454.77
MW-21	463.28	5.47	457.81
MW-22	460.78	3.40	457.38
MW-23	458.92	2.32	456.60
MW-24	465.32	2.48	462.84
MW-25	458.74	6.92	451.82
MW-26	458.79	5.29	453.50
MW-28	480.40	8.39	472.01

ft, toc Feet below top of casing.
ft, msl Feet above mean sea level.



Table 4-1. Summary of Detectable Soil Sample Analytical Results, January 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	East-Central North Carolina Background ¹	Soil Sample ID: Depth: Date Sample:	GP-2 (6-8') 1/27/96	GP-3 (6-8') 1/28/96	GP-5 (4-5') 1/28/96	SB-1 (3-5') 1/27/96	SB-2 (7-8.5') 1/27/96
<u>Volatile Organics by USEPA</u>							
<u>Method 8260 (µg/kg dw)</u>							
Methylene Chloride	INA		ND	ND	ND	ND	10
Chloroform	INA		ND	ND	ND	8	20
<u>Semivolatile Organics by USEPA</u>							
<u>Method 8270 (µg/kg dw)</u>							
	INA		ND	ND	ND	ND	ND
<u>Metals by USEPA</u>							
<u>Method 6010 (mg/kg dw)</u>							
Aluminum	100000		11800	6660	3960	11500	7380
Arsenic	6.5		2.11	1.24	1.58	2.84	1.57
Barium	700		46	26.3	30	45	28.3
Beryllium	<1.00		0.953	ND	ND	ND	0.729
Calcium	7900		ND	ND	ND	2160	ND
Chromium	70		1.34	1.33	5.76	11	1.52
Cobalt	45		ND	ND	ND	10.7	ND
Copper	30		15.1	3.8	15.2	25.6	8.88
Iron	30000		27900	13400	12700	18400	17200
Lead	365		3.88	2.41	6.74	16	2.69
Magnesium	6000		4460	726	1330	3440	2700
Manganese	250		181	28.1	92.1	295	135
Nickel	20		ND	ND	135	7.03	ND
Potassium	45000		2490	ND	591	ND	ND
Selenium	0.30		1.41	ND	ND	ND	ND
Sodium	57500		ND	ND	ND	ND	683
Thallium	INA		1.36	ND	ND	ND	ND
Vanadium	325		36.6	17.3	11.5	43.3	25.3
Zinc	28		52.7	8.57	30.9	51.3	47.9
<u>Cyanide by</u>							
<u>Method 9010A (mg/kg dw)</u>							
Total Cyanide	INA		ND	ND	ND	ND	ND
Amenable Cyanide	INA		ND	ND	ND	ND	ND

mg/kg (ppm) Milligrams per kilogram on a dry weight basis (parts per million).

µg/kg (ppb) Micrograms per kilogram on a dry weight basis (parts per billion).

J Estimated; matrix spike recovery exceeds upper control limit.

ND Constituent was not detected.

NA Constituent was not analyzed.

INA Information not available.

¹ Values obtained from USGS, 1984. Values represent elemental concentrations of a single soil sample obtained from east-central North Carolina.

Note: All bold numbers represent data above background concentrations.



Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard		Sample ID: MW-01		MW-02		MW-03		MW-04	
	Groundwater	Date Sampled:	MW-01	MW-02	MW-02	MW-03	MW-03	MW-03	MW-04	MW-04
			05/03/95	05/03/95	07/28/95	07/28/95	05/01/95	07/27/95	07/25/95	
<u>Volatiles Organics (µg/L)</u>										
1,1,2,2-Tetrachloroethane	NS		<5000	1200	<500	<500	<5	<5	<5	<5
1,1-Dichloroethane	700		<5000	<500	<500	<500	<5	<5	<5	<5
1,2-Dichloroethane	0.38		<5000	2400	1600	1700	<5	<5	<5	<5
1,2-Dichloroethene (Total)	70		<5000	<500	<500	<500	<5	<5	<5	<5
2-Butanone	170		<10000	250J	<1000	<1000	<10	<10	<10	<10
4-Methyl-2-pentanone	NS		<10000	380J	<1000	<1000	<10	<10	<10	<10
Acetone	700		<10000	31000	<1000	<1000	18	<11	<10	<10
Benzene	1		100000	79000	6800	7600	<5	<5	<5	<5
Bromodichloromethane	0.6		<5000	<500	<500	<500	<5	<5	<5	<5
Carbon disulfide	700		<5000	<500	<500	<500	<5	<5	<5	<5
Chlorobenzene	50		<5000	130J	<500	<500	<5	<5	<5	<5
Chloroform	0.19		140000	130000	41000	40000	<5	<5	<5	<5
Diethyl ether	NS		NA	240000	NA	38000	NA	2J	<10	<10
Ethylbenzene	29		<5000	140J	<500	<500	<5	<5	<5	<5
Methylene chloride	5		110000	100000	25000	27000	<5	<5	<5	<5
Tetrachloroethene	0.7		<5000	<500	<500	<500	<5	<5	<5	<5
Toluene	1000		<5000	600	<500	<500	<5	<5	<5	<5
Trichloroethene	2.8		<5000	1700	<500	<500	<5	<5	<5	<5
Vinyl chloride	0.015		<10000	<1000	<1000	<1000	<10	<10	<10	<10
<u>Semi-Volatile Organics (µg/L)</u>										
1,2-Dichlorobenzene	620		<50	NA	11	NA	<10	NA	NA	NA
1,4-Dichlorobenzene	75		<50	NA	<10	NA	<10	NA	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: Date Sampled:	MW-01 07/28/95	MW-02 05/03/95	MW-02 07/28/95	MW-03 05/01/95	MW-03 07/27/95	MW-04 07/25/95
<u>Semi-Volatile Organics (µg/L) (cont')</u>								
4-Chloro-3-methylphenol	NS		NA	<20	NA	<20	NA	NA
Benzoic acid	NS	<100	NA	<50	NA	<50	NA	NA
Diethylphthalate	5000	<250	NA	<10	NA	<10	NA	NA
Dimethylphthalate	NS	<50	NA	<10	NA	<10	NA	NA
Phenol	300	160	NA	36	NA	<10	NA	NA
290								
<u>Inorganics (mg/L)</u>								
Alkalinity	NS	410	NA	840	NA	190	NA	NA
Aluminum	NS	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05	<0.010	NA	0.014	NA	<0.010	NA	NA
Barium	2.0	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	390	NA	180	NA	43	NA	NA
Chromium	0.05	<0.010	NA	<0.010	NA	0.12	NA	NA
Copper	1.0	<0.025	NA	<0.025	NA	<0.025	NA	NA
Iron	0.3	5.0	NA	18	NA	5.6	NA	NA
Lead	0.015	<0.0030	NA	<0.0030	NA	0.0050	NA	NA
Magnesium	NS	160	NA	140	NA	11	NA	NA
Manganese	0.05	29	NA	11	NA	0.66	NA	NA
Mercury	0.0011	<0.0002	NA	<0.00020	NA	<0.0002	NA	NA
Nickel	0.1	0.070	NA	<0.040	NA	0.060	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	<0.010	NA	<0.010	NA	<0.010	NA	NA
TDS	1000**	3800	NA	1400	NA	380	NA	NA
Zinc	2.1	0.030	NA	<0.020	NA	0.030	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard		MW-04		MW-05		MW-06		
	Sample ID:	Date Sampled:	01/31/96	04/23/96	07/26/95	01/30/96	04/23/96	05/03/95	MW-06 07/27/95
<u>Volatile Organics (µg/L)</u>									
1,1,2,2-Tetrachloroethane	NS		<2	<1	<5	<1	<1	<50	5J
1,1-Dichloroethane	700		<2	<1	<5	<1	<1	<50	<12
1,2-Dichloroethane	0.38		<2	<1	<5	<1	<1	<50	24
1,2-Dichloroethene (Total)	70		NA	NA	<5	NA	NA	<50	<12
2-Butanone	170		<10	<5	<10	<5	<5	<100	<25
4-Methyl-2-pentanone	NS		<10	<5	<10	<5	<5	<100	<25
Acetone	700		<10	<5	<16	<6	<10	<100	<28
Benzene	1		<2	<1	<5	<1	<1	460	610
Bromodichloromethane	0.6		<2	<1	<5	<1	<1	<50	<12
Carbon disulfide	700		<2	<1	1J	<1	<1	<50	<12
Chlorobenzene	50		<2	<1	<5	<1	<1	<50	7J
Chloroform	0.19		<2	<1	<5	<1	<1	1100	1600
Diethyl ether	NS		NA	<10	<10	NA	<10	NA	3900
Ethylbenzene	29		<2	<1	<5	<1	<1	<50	<12
Methylene chloride	5		<2	<1	<5	<1	<1	820	1100
Tetrachloroethene	0.7		<2	<1	<5	<1	<1	<50	<12
Toluene	1000		<2	<1	<5	<1	<1	<50	<12
Trichloroethene	2.8		<2	<1	<5	<1	<1	<50	6J
Vinyl chloride	0.015		<2	<1	<10	<1	<1	<100	25
<u>Semi-Volatile Organics (µg/L)</u>									
1,2-Dichlorobenzene	620		NA	NA	NA	NA	NA	<10	NA
1,4-Dichlorobenzene	75		NA	NA	NA	NA	NA	<10	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard		MW-04	MW-05	MW-06	MW-06		
	Sample ID:	Date Sampled:	01/31/96	07/26/95	01/30/96	04/23/96	05/03/95	07/27/95
<u>Semi-Volatile Organics (µg/L) (con't)</u>								
4-Chloro-3-methylphenol	NS		NA	NA	NA	NA	<20	NA
Benzoic acid	NS		NA	NA	NA	NA	<50	NA
Diethylphthalate	5000		NA	NA	NA	NA	<10	NA
Dimethylphthalate	NS		NA	NA	NA	NA	<10	NA
Phenol	300		NA	NA	NA	NA	<10	NA
<u>Inorganics (mg/L)</u>								
Alkalinity	NS		NA	NA	NA	NA	34	NA
Aluminum	NS		NA	NA	NA	NA	NA	NA
Arsenic	0.05		NA	NA	NA	NA	<0.010	NA
Barium	2.0		NA	NA	NA	NA	NA	NA
Calcium	NS		NA	NA	NA	NA	24	NA
Chromium	0.05		NA	NA	NA	NA	<0.010	NA
Copper	1.0		NA	NA	NA	NA	<0.025	NA
Iron	0.3		NA	NA	NA	NA	0.70	NA
Lead	0.015		NA	NA	NA	NA	<0.0030	NA
Magnesium	NS		NA	NA	NA	NA	5.7	NA
Manganese	0.05		NA	NA	NA	NA	1.5	NA
Mercury	0.0011		NA	NA	NA	NA	<0.00020	NA
Nickel	0.1		NA	NA	NA	NA	<0.040	NA
Potassium	NS		NA	NA	NA	NA	NA	NA
Sodium	NS		NA	NA	NA	NA	NA	NA
Thallium	NS		NA	NA	NA	NA	<0.010	NA
TDS	1000**		NA	NA	NA	NA	310	NA
Zinc	2.1		NA	NA	NA	NA	<0.020	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: MW-07		MW-09		MW-11		MW-11 (Dup-01) 07/26/95
		Date Sampled: 05/02/95	07/27/95	05/03/95	07/26/95	05/03/95	07/26/95	
<u>Volatile Organics (µg/L)</u>								
1,1,2,2-Tetrachloroethane	NS	<5	<10	<5	<5	<10	1J	1J
1,1-Dichloroethane	700	<5	<10	<5	<5	<10	2J	2J
1,2-Dichloroethane	0.38	23	26	<5	2J	50	64	65
1,2-Dichloroethene (Total)	70	<5	2J	<5	<5	<10	4J	4J
2-Butanone	170	<10	<20	<10	<10	<20	<10	<10
4-Methyl-2-pentanone	NS	<10	<20	<10	<10	<20	<10	<10
Acetone	700	21	<20	79	<10	<20	<36	<32
Benzene	1	120	58	<5	<5	200	310	310
Bromodichloromethane	0.6	<5	<10	<5	<5	<10	<5	<5
Carbon disulfide	700	<5	<10	<5	<5	<10	<5	<5
Chlorobenzene	50	6	3J	<5	<5	<10	8	8
Chloroform	0.19	71	46	9	8	140	160	160
Diethyl ether	NS	NA	650	NA	<10	NA	1200	1200
Ethylbenzene	29	<5	<10	<5	<5	<10	<5	<5
Methylene chloride	5	29	<12	<5	<5	<10	<22	<22
Tetrachloroethene	0.7	<5	<10	<5	<5	<10	<5	<5
Toluene	1000	<5	<10	<5	<5	<10	<5	<5
Trichloroethene	2.8	<5	3J	<5	<5	11	9	9
Vinyl chloride	0.015	12	10J	<10	<10	<20	15	15
<u>Semi-Volatile Organics (µg/L)</u>								
1,2-Dichlorobenzene	620	<10	NA	<10	NA	<10	NA	NA
1,4-Dichlorobenzene	75	<10	NA	<10	NA	<10	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Sample ID:		MW-07 07/27/95	MW-09 05/03/95	MW-09 07/26/95	MW-11 05/03/95	MW-11 07/26/95	MW-11 (Dup-01) 07/26/95
	Groundwater	Date Sampled:						
<u>Semi-Volatile Organics (µg/L) (con't)</u>								
4-Chloro-3-methylphenol	NS	<20	NA	<20	NA	<20	NA	NA
Benzoic acid	NS	<50	NA	<50	NA	<50	NA	NA
Diethylphthalate	5000	<10	NA	<10	NA	<10	NA	NA
Dimethylphthalate	NS	<10	NA	<10	NA	<10	NA	NA
Phenol	300	<11	NA	<10	NA	<10	NA	NA
<u>Inorganics (mg/L)</u>								
Alkalinity	NS	530	NA	230	NA	490	NA	NA
Aluminum	NS	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05	0.013	NA	<0.010	NA	<0.010	NA	NA
Barium	2.0	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	150	NA	190	NA	180	NA	NA
Chromium	0.05	0.010	NA	0.040	NA	<0.010	NA	NA
Copper	1.0	<0.025	NA	0.038	NA	<0.025	NA	NA
Iron	0.3	3.7	NA	5.5	NA	1.0	NA	NA
Lead	0.015	0.0040	NA	0.0050	NA	<0.0030	NA	NA
Magnesium	NS	40	NA	9.1	NA	31	NA	NA
Manganese	0.05	3.0	NA	0.39	NA	0.21	NA	NA
Mercury	0.0011	<0.0002	NA	<0.00020	NA	<0.0002	NA	NA
Nickel	0.1	<0.040	NA	0.040	NA	<0.040	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	<0.010	NA	<0.010	NA	<0.010	NA	NA
TDS	1000**	760	NA	200	NA	690	NA	NA
Zinc	2.1	0.31	NA	0.060	NA	<0.020	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard		MW-12	MW-13	MW-14	MW-14	MW-15
	Sample ID:	Date Sampled:	05/03/95	05/02/95	07/26/95	08/17/95	04/17/96
<u>Volatile Organics (µg/L)</u>							
1,1,2,2-Tetrachloroethane	NS	<250	<250	<5	<5	<25	NA
1,1-Dichloroethane	700	<250	<250	<5	2J	<25	NA
1,2-Dichloroethane	0.38	320	380	44	70	81	NA
1,2-Dichloroethene (Total)	70	<250	<250	<5	4J	<25	NA
2-Butanone	170	<500	<500	<10	<10	<50	<10
4-Methyl-2-pentanone	NS	<500	<500	<10	<10	<50	<10
Acetone	700	<500	<500	<10	<10	<50	<10
Benzene	1	1100	1700	130	330	400	2200
Bromodichloromethane	0.6	<250	<250	<5	<5	<25	<5
Carbon disulfide	700	<250	<250	<5	<5	<25	<5
Chlorobenzene	50	<250	<250	<5	6	<25	<5
Chloroform	0.19	9400	10000	120	130	3600	13000
Diethyl ether	NS	NA	6100	NA	1600	1200	7800
Ethylbenzene	29	<250	<250	<5	<5	<25	<5
Methylene chloride	5	4600	5600	13	<7	<1300J	6900
Tetrachloroethene	0.7	<250	<250	<5	<5	<25	<5
Toluene	1000	<250	<250	<5	<5	<25	<5
Trichloroethene	2.8	<250	<250	<12	13	13J	<5
Vinyl chloride	0.015	<500	<500	<10	7J	<50	<10
<u>Semi-Volatile Organics (µg/L)</u>							
1,2-Dichlorobenzene	620	<10	NA	<10	NA	NA	NA
1,4-Dichlorobenzene	75	<10	NA	<10	NA	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: Date Sampled:	MW-12	MW-13	MW-14	MW-14	MW-15
			05/03/95	07/25/95	05/02/95	07/26/95	08/17/95
<u>Semi-Volatile Organics (µg/L) (cont'd)</u>							
4-Chloro-3-methylphenol	NS		NA	NA	NA	NA	NA
Benzoic acid	NS		NA	NA	NA	NA	NA
Diethylphthalate	5000		NA	NA	NA	NA	NA
Dimethylphthalate	NS		NA	NA	NA	NA	NA
Phenol	300		NA	NA	NA	NA	NA
<u>Inorganics (mg/L)</u>							
Alkalinity	NS		NA	180	NA	NA	NA
Aluminum	NS	520	NA	NA	NA	NA	NA
Arsenic	0.05	NA	NA	<0.010	NA	NA	NA
Barium	2.0	NA	NA	NA	NA	NA	NA
Calcium	NS	200	NA	56	NA	NA	NA
Chromium	0.05	<0.010	NA	<0.010	NA	NA	NA
Copper	1.0	<0.025	NA	<0.025	NA	NA	NA
Iron	0.3	0.61	NA	3.0	NA	NA	NA
Lead	0.015	<0.0030	NA	0.0040	NA	NA	NA
Magnesium	NS	55	NA	15	NA	NA	NA
Manganese	0.05	0.76	NA	0.82	NA	NA	NA
Mercury	0.0011	<0.0002	NA	<0.00020	NA	NA	NA
Nickel	0.1	<0.040	NA	<0.040	NA	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA
Sodium	NS	NA	NA	NA	NA	NA	NA
Thallium	NS	<0.010	NA	<0.010	NA	NA	NA
TDS	1000**	910	NA	370	NA	NA	NA
Zinc	2.1	<0.020	NA	<0.020	NA	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L	Sample ID	MW-15	MW-16B	MW-16	MW-17	MW-17(Dup-02)	MW-18	MW-19
	Groundwater Standard	Date Sampled:	07/31/95	07/24/95	07/27/95	07/26/95	07/26/95	07/25/95	07/25/95
<u>Volatile Organics (µg/L)</u>									
1,1,2,2-Tetrachloroethane	NS		<250	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	700		<250	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	0.38		410	<5	<5	<5	<5	<5	<5
1,2-Dichloroethene (Total)	70		<250	<5	17	17	<5	<5	<5
2-Butanone	170		<500	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NS		<500	<10	<10	<10	<10	<10	<10
Acetone	700		330	<10	<10	<10	<10	<10	<16
Benzene	1		2100	<5	<5	3J	3J	<5	<5
Bromodichloromethane	0.6		<250	<5	<5	<5	<5	<5	2J
Carbon disulfide	700		<250	<5	<5	<5	<5	<5	<5
Chlorobenzene	50		<250	<5	<5	<5	<5	2J	<5
Chloroform	0.19		10000	<5	1J	<5	<5	<5	12
Diethyl ether	NS		6900	<10	6J	78	46	<5	<10
Ethylbenzene	29		<250	<5	<5	<5	<5	<5	<5
Methylene chloride	5		6000	<5	<5	<5	<5	<5	<5
Tetrachloroethene	0.7		<250	<5	<5	<5	<5	<5	<5
Toluene	1000		<250	<5	<5	<5	<5	<5	<5
Trichloroethene	2.8		<250	<5	<5	<5	<5	<5	<5
Vinyl chloride	0.015		<500	<10	<10	8J	<10	<10	<10
<u>Semi-Volatile Organics (µg/L)</u>									
1,2-Dichlorobenzene	620		NA	NA	NA	<10	<10	<10	<10
1,4-Dichlorobenzene	75		NA	NA	NA	3J	3J	<10	<10

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: 07/31/95	MW-16B	MW-16	MW-17	MW-17(Dup-02)	MW-18	MW-19
			07/24/95	07/27/95	07/26/95	07/26/95	07/25/95	07/25/95
<u>Semi-Volatile Organics (µg/L) (cont)</u>								
4-Chloro-3-methylphenol	NS	NA	NA	NA	1J	1J	<20	<20
Benzoic acid	NS	NA	NA	2J	<50	<50	<50	<50
Diethylphthalate	5000	NA	NA	5J	5J	<10	<10	<10
Dimethylphthalate	NS	NA	NA	<10	<10	<10	<10	<10
Phenol	300	NA	NA	<10	<10	<10	<10	<10
<u>Inorganics (mg/L)</u>								
Alkalinity	NS	510	370	520	520	760	390	390
Aluminum	NS	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05	NA	NA	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	2.0	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	170	100	350	340	190	29	29
Chromium	0.05	NA	NA	<0.010	<0.010	<0.010	0.055	0.055
Copper	1.0	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025
Iron	0.3	<0.10	14	0.49J	1.3J	43	8.4	8.4
Lead	0.015	NA	NA	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Magnesium	NS	56	NA	28	28	39	22	22
Manganese	0.05	1.8	1.1	4.4	4.3	4.0	0.47	0.47
Mercury	0.0011	NA	NA	0.00040	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	0.1	NA	NA	<0.040	<0.040	<0.040	0.046	0.046
Potassium	NS	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	NA	NA	0.012	<0.010	<0.010	<0.010	<0.010
TDS	1000**	750	440	1600J	2100J	870	660	660
Zinc	2.1	NA	NA	0.20	0.20	<0.020	0.076	0.076

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	MW-19A		MW-20		MW-21		
	NCAC 2L Groundwater Standard	Sample ID: 07/28/95	Sample ID: 07/28/95	Sample ID: 01/30/96	Sample ID: 07/28/95	Sample ID: 01/30/96	Sample ID: 04/23/96
<u>Volatile Organics (µg/L)</u>							
1,1,2,2-Tetrachloroethane	NS	<5	<5	<1	<5	<1	<1
1,1-Dichloroethane	700	<5	<5	<1	<5	<1	<1
1,2-Dichloroethane	0.38	<5	<5	<1	<5	<1	<1
1,2-Dichloroethene (Total)	70	<5	<5	NA	<5	NA	NA
2-Butanone	170	<10	<10	<5	<5	<5	<5
4-Methyl-2-pentanone	NS	<10	<10	<5	<5	<5	<5
Acetone	700	<11	<10	<10	<10	<5	<6
Benzene	1	<5	<5	<1	<5	<1	<1
Bromochloromethane	0.6	<5	<5	<1	<5	<1	<1
Carbon disulfide	700	<5	<5	<1	<5	<1	<1
Chlorobenzene	50	<5	<5	<1	<5	<1	<1
Chloroform	0.19	7	<5	<1	<5	<1	<1
Diethyl ether	NS	<10	<10	NA	<10	NA	<10
Ethylbenzene	29	<5	<5	<1	<5	<1	<1
Methylene chloride	5	<5	<5	<1	<5	<1	<1
Tetrachloroethene	0.7	<5	<5	<1	<5	<1	<1
Toluene	1000	<5	2J	<1	<5	<1	<1
Trichloroethene	2.8	<5	<5	<1	<5	<1	<1
Vinyl chloride	0.015	<10	<10	<1	<10	<1	<1
<u>Semi-Volatile Organics (µg/L)</u>							
1,2-Dichlorobenzene	620	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	NA	NA	NA	NA	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L		Sample ID: MW-19A		MW-20		MW-21			
	Groundwater	Standard	Date Sampled: 07/28/95	07/28/95	01/30/96	04/23/96	07/28/95	01/30/96	MW-21	04/23/96
<u>Semi-Volatile Organics (µg/L) (con't)</u>										
4-Chloro-3-methylphenol	NS		NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NS		NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	5000		NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NS		NA	NA	NA	NA	NA	NA	NA	NA
Phenol	300		NA	NA	NA	NA	NA	NA	NA	NA
<u>Inorganics (mg/L)</u>										
Alkalinity	NS		140	NA	NA	NA	14	NA	NA	NA
Aluminum	NS		NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.05		NA	NA	NA	NA	NA	NA	NA	NA
Barium	2.0		NA	NA	NA	NA	<5.0	NA	NA	NA
Calcium	NS		37	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05		NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.0		NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3		3.6	NA	NA	NA	8.9	NA	NA	NA
Lead	0.015		NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NS		7.1	NA	NA	NA	<5.0	NA	NA	NA
Manganese	0.05		0.54	NA	NA	NA	0.17	NA	NA	NA
Mercury	0.0011		NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1		NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NS		NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NS		NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NS		NA	NA	NA	NA	NA	NA	NA	NA
TDS	1000**		74	NA	NA	NA	190	NA	NA	NA
Zinc	2.1		NA	NA	NA	NA	NA	NA	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: MW-22 Date Sampled: 07/27/95	MW-23[MWCH3] 08/18/95	MW-23 01/30/96	MW-23 04/23/96	MW-24 02/06/96	MW-24 04/17/96	MW-25 01/24/96
<u>Volatile Organics (µg/L)</u>								
1,1,2,2-Tetrachloroethane	NS	<10	<5	<1	<1	<1	NA	<1
1,1-Dichloroethane	700	<10	<5	<1	<1	<1	NA	<1
1,2-Dichloroethane	0.38	14	<5	<1	<1	<1	NA	<1
1,2-Dichloroethene (Total)	70	<10	<5	NA	NA	NA	NA	NA
2-Butanone	170	<20	<10	<5	<5	<5	NA	<5
4-Methyl-2-pentanone	0.6	<20	<10	<5	<5	<5	NA	<5
Acetone	700	<20	4J	<5	<8	60	NA	23
Benzene	1	46	<5	<1	<1	2	NA	<1
Bromodichloromethane	0.6	<10	<5	<1	<1	<1	NA	<1
Carbon disulfide	700	<10	<5	<1	<1	<1	NA	<1
Chlorobenzene	50*	10	<5	<1	<1	<1	NA	<1
Chloroform	0.19	<10	<5	<1	<1	12	NA	<1
Diethyl ether	NS	500	<10	NA	<10	<10	NA	NA
Ethylbenzene	29	<10	<5	<1	<1	<1	NA	<1
Methylene chloride	5	<10	<5	<1	<1	8	NA	<1
Tetrachloroethene	0.7	<10	<5	<1	<1	<1	NA	<1
Toluene	1000	<10	<5	<1	<1	<1	NA	<1
Trichloroethene	2.8	3J	<5	<1	<1	<1	NA	<1
Vinyl chloride	0.015	<20	<10	<1	<1	<1	NA	<1
<u>Semi-Volatile Organics (µg/L)</u>								
1,2-Dichlorobenzene	620	NA	NA	NA	NA	<500	<100	<1
1,4-Dichlorobenzene	75	NA	NA	NA	NA	<500	<100	<1

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L	Sample ID:	MW-22	MW-23[MWCH3]	MW-23	MW-23	MW-24	MW-24	MW-25
	Groundwater Standard	Date Sampled:	07/27/95	08/18/95	01/30/96	04/23/96	02/06/96	04/17/96	01/24/96
<u>Semi-Volatile Organics (µg/L) (cont')</u>									
4-Chloro-3-methylphenol	NS		NA	NA	NA	NA	<1000	<200	NA
Benzoic acid	NS		NA	NA	NA	NA	NA	<500	NA
Diethylphthalate	5000		NA	NA	NA	NA	<500	<100	NA
Dimethylphthalate	NS		NA	NA	NA	NA	<500	<100	NA
Phenol	300		NA	NA	NA	NA	3400	470	NA
<u>Inorganics (mg/L)</u>									
Alkalinity	NS		630	NA	NA	NA	NA	NA	NA
Aluminum	NS		NA	NA	NA	NA	1.2	NA	NA
Arsenic	0.05*		NA	NA	NA	NA	<0.010	NA	NA
Barium	2.0		NA	NA	NA	NA	0.33	NA	NA
Calcium	NS		160	NA	NA	NA	197	NA	NA
Chromium	0.05		NA	NA	NA	NA	0.028	NA	NA
Copper	1.0		NA	NA	NA	NA	<0.025	NA	NA
Iron	0.3		4.7	NA	NA	NA	1.5	NA	NA
Lead	0.015		NA	NA	NA	NA	0.020	NA	NA
Magnesium	NS		54	NA	NA	NA	<5	NA	NA
Manganese	0.05		3.6	NA	NA	NA	0.088	NA	NA
Mercury	0.0011		NA	NA	NA	NA	<0.0002	NA	NA
Nickel	0.1		NA	NA	NA	NA	<0.04	NA	NA
Potassium	NS		NA	NA	NA	NA	337	NA	NA
Sodium	NS		NA	NA	NA	NA	135	NA	NA
Thallium	NS		NA	NA	NA	NA	<0.010	NA	NA
TDS	1000**		890	NA	NA	NA	NA	NA	NA
Zinc	2.1		NA	NA	NA	NA	1.7	NA	NA

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	MW-25		MW-26		MW-28		
		Sample ID: Date Sampled:	01/30/96	04/23/96	01/30/96	02/12/96	01/24/96	01/30/96
<u>Volatile Organics (µg/L)</u>								
1,1,2,2-Tetrachloroethane	NS	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	700	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	0.38	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane (Total)	70	NA	NA	NA	NA	NA	NA	NA
2-Butanone	170	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	NS	<5	<5	<5	<5	<5	<5	<5
Acetone	700	<1	<5	<41	<1	9.9	<1	<1
Benzene	1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	0.6	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	700	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	50	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.19	<1	<1	<1	<1	<1	<1	<1
Diethyl ether	NS	NA	<10	<10	NA	NA	NA	NA
Ethylbenzene	29	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	5	<5	<1	<1	<1	<1	<1	<1
Tetrachloroethene	0.7	<1	<1	2	2	<1	<1	<1
Toluene	1000	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	2.8	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	0.015	<1	<1	<1	<1	<1	<1	<1
<u>Semi-Volatile Organics (µg/L)</u>								
1,2-Dichlorobenzene	620	<10	NA	<10	NA	<1	<10	<10
1,4-Dichlorobenzene	75	<10	NA	<10	NA	<1	<10	<10

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Sample ID:		MW-25	MW-26	MW-28	MW-28
	Groundwater	Date Sampled:	01/30/96	01/30/96	02/12/96	01/24/96
Standard			04/23/96	01/30/96	02/12/96	01/30/96
<u>Semi-Volatile Organics (µg/L) (cont)</u>						
4-Chloro-3-methylphenol	NS	<20	NA	-NA	<20	<20
Benzoic acid	NS	NA	NA	NA	NA	NA
Diethylphthalate	5000	<10	NA	NA	<10	<10
Dimethylphthalate	NS	<10	NA	NA	<10	<10
Phenol	300	<10	NA	NA	<10	<10
<u>Inorganics (mg/L)</u>						
Alkalinity	NS	NA	NA	NA	NA	NA
Aluminum	NS	0.58	NA	NA	1.9	0.23
Arsenic	0.05	<0.010	NA	NA	<0.010	<0.010
Barium	2.0	<0.20	NA	NA	<0.20	<0.20
Calcium	NS	5.3	NA	NA	37.7	49.7
Chromium	0.05	<0.010	NA	NA	<0.010	<0.010
Copper	1.0	<0.025	NA	NA	<0.025	<0.025
Iron	0.3	0.32	NA	NA	2.4	0.23
Lead	0.015	<0.00	NA	NA	<0.0030	<0.0030
Magnesium	NS	<5.0	NA	NA	12.0	12.5
Manganese	0.05	0.20	NA	NA	0.16	0.022
Mercury	0.0011	<0.0002	NA	NA	<0.0002	<0.0002
Nickel	0.1	<0.040	NA	NA	<0.040	<0.040
Potassium	NS	<5.0	NA	NA	12.3	<5.0
Sodium	NS	10.8	NA	NA	24.7	15.6
Thallium	NS	0.010	NA	NA	<0.010	<0.010
TDS	1000**	NA	NA	NA	NA	NA
Zinc	2.1	<0.20	NA	NA	0.16	<0.20

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: MW-28	Date Sampled: 04/23/96	MW-30/MW-26 Duplicate	Date Sampled: 02/12/96
<u>Volatile Organics (µg/L)</u>					
1,1,2,2-Tetrachloroethane	NS	<1	<1	<1	<1
1,1-Dichloroethane	700	<1	<1	<1	<1
1,2-Dichloroethane	0.38	<1	<1	<1	<1
1,2-Dichloroethene (Total)	70	NA	NA	NA	NA
2-Butanone	170	<5	<5	<5	<5
4-Methyl-2-pentanone	NS	<5	<5	<5	<5
Acetone	700	<10	<10	<10	<48
Benzene	1	<1	<1	<1	<1
Bromodichloromethane	0.6	<1	<1	<1	<1
Carbon disulfide	700	<1	<1	<1	<1
Chlorobenzene	50	<1	<1	<1	<1
Chloroform	0.19	<1	<1	<1	<1
Diethyl ether	NS	<10	<10	<10	<10
Ethylbenzene	29	<1	<1	<1	<1
Methylene chloride	5	<1	<1	<1	<1
Tetrachloroethene	0.7	<1	<1	<1	<1
Toluene	1000	<1	<1	<1	2
Trichloroethene	2.8	<1	<1	<1	<1
Vinyl chloride	0.015	<1	<1	<1	<1
<u>Semi-Volatile Organics (µg/L)</u>					
1,2-Dichlorobenzene	620	NA	NA	<10	<10
1,4-Dichlorobenzene	75	NA	NA	<10	<10

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	NCAC 2L Groundwater Standard	Sample ID: MW-28	Date Sampled: 04/23/96	MW-30/MW-26 Duplicate 02/12/96
<u>Semi-Volatile Organics (µg/L) (cont)</u>				
4-Chloro-3-methylphenol	NS	NA	NA	<20
Benzóic acid	NS	NA	NA	NA
Diethylphthalate	5000	NA	NA	<10
Dimethylphthalate	NS	NA	NA	<10
Phenol	300	NA	NA	<10
<u>Inorganics (mg/L)</u>				
Alkalinity	NS	NA	NA	NA
Aluminum	NS	NA	NA	2.1
Arsenic	0.05*	NA	NA	<0.01
Barium	2.0	NA	NA	<0.2
Calcium	NS	NA	NA	35
Chromium	0.05	NA	NA	<0.01
Copper	1.0	NA	NA	<0.025
Iron	0.3	NA	NA	2.7
Lead	0.015	NA	NA	<0.003
Magnesium	NS	NA	NA	11
Manganese	0.05	NA	NA	0.16
Mercury	0.0011	NA	NA	<0.0002
Nickel	0.1	NA	NA	<0.04
Potassium	NS	NA	NA	11.6
Sodium	NS	NA	NA	22.9
Thallium	NS	NA	NA	<0.01
TDS	1000**	NA	NA	NA
Zinc	2.1	NA	NA	0.14

Footnotes appear on last page.

Table 4-2. Summary of Groundwater Sample Analytical Results, May 1995 through April 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Footnotes:

- µg/L (ppb) Micrograms per liter.
- mg/L (ppm) Milligrams per liter.
- NCAC 2L North Carolina Administrative Code, Title 15A, Chapter 2L, Groundwater Quality Standards, February 8, 1994.
- NS Numerical 15A NCAC 2L Standard has not been established, therefore, detectable concentrations of these substances in groundwater are considered to be in excess of North Carolina Water Quality Standards.
- * - * Proposed NCAC 2L Groundwater Standard, January 16, 1996.
- ** Groundwater Standard for TDS is 1000 mg/L for Class GSA groundwater.
- J Estimated value.
- < Constituent was not detected.
- NA Not analyzed.
- TDS Total Dissolved Solids.
- Notes: All bold numbers in the table represent data above groundwater standards.
 Sample MW-30/MW-26 Duplicate is a duplicate groundwater sample collected from monitor well MW-26.

Table 4-3. CH-1 and CH-3 Packer Test Groundwater Screening Data, UNC Airport Road Water Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

NCAC 2L		CH-1[29'-64']	CH-1[64'-79']	CH-1[64'-79']	CH-1[64'-79']	CH-1[102'-141']	2-CH-1[102'-141']	CH-1[143'-174']	CH-3[0'-52']	CH-3[52'-88']
Groundwater	Standard	7/21/95	7/26/95	7/26/95	7/26/95	8/3/95	8/4/95	8/10/95	8/11/95	8/16/95
Volatile Organics (µg/L)										
1,1,1-Trichloroethane	200	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,1,2,2-Tetrachloroethane	NS	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,1,2-Trichloroethane	NS	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,1-Dichloroethane	700	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,1-Dichloroethene	7	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,2-Dichloroethane	0.38	<5	21	19JD	180	210	<80	110J	<5	<5
1,2-Dichloroethene (Total)	7	<5	<5	<20	<80	<80	<80	<120	<5	<5
1,2-Dichloropropane	5.6	<5	<5	<20	<80	<160	<160	<250	<10	<10
2-Butanone	170	<10	<10	<40	<160	<160	<160	<250	<10	<10
2-Hexanone	NS	<10	<10	<40	<160	<160	<160	<250	<10	<10
4-Methyl-2-Pentanone	NS	<10	<10	<40	<160	<160	<160	<250	15	<5
Acetone	700	22	23	<40	<160	<160	<160	<250	<5	<5
Benzene	1	<5	59	54D	420	590	<80	460	<5	<5
Bromodichloromethane	0.6	<5	<5	<20	<80	<80	<80	<120	2J	<5
Bromoform	0.19	<5	<5	<20	<80	<80	<80	<120	<5	<5
Bromomethane	NS	<10	<10	<40	<160	<160	<160	<250	<10	<10
Carbon Disulfide	700	<5	<5	<20	<80	<80	<80	<120	<5	<5
Carbon Tetrachloride	0.3	<5	<5	<20	<80	<80	<80	<120	<5	<5
Chlorobenzene	50	<5	1	<20	<80	<80	<80	<120	<5	<5
Chloroethane	2800	<10	<10	<40	<160	<160	<160	<250	<10	<10
Chloroform	0.19	12	600	550D	2000	3100	<160	3200	15	2J
Chloromethane	NS	<10	<10	<40	<160	<160	<160	<250	<10	<10
Cis-1,3-Dichloropropene	0.19	<5	<5	<20	<80	<80	<80	<120	<5	<5
Dibromochloromethane	NS	<5	<5	<20	<80	<80	<80	<120	<5	<5
Diethyl ether	NS	57	430	400D	2900	3300	<80	1400	<5	<5
Ethylbenzene	29	<5	<5	<20	<80	80	<80	<120	<5	<5
Methylene Chloride	5	6	230	210	810	1200	<80	1100	1J	<5
Styrene	100	<5	<5	<20	<80	<80	<80	<120	<5	<5
Tetrachloroethene	0.7	<5	<5	<20	<80	<80	<80	<120	<5	<5
Toluene	1000	<5	<5	<20	<80	<80	<80	<120	<5	<5
Trans-1,3-Dichloropropene	0.19	<5	<5	<20	<80	<80	<80	<120	<5	<5
Trichloroethene	2.8	<5	<5	<20	<80	<80	<80	<120	<5	<5
Vinyl Chloride	0.015	<10	<10	<40	<160	<160	<160	<250	<10	<10
Xylene (Total)	530	<5	<5	<20	<80	<80	<80	<120	<5	<5

Footnotes on page 2.



Table 4-3. [unclear] and CH-3 Packer Test Groundwater Screening Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Footnotes:

- ug/L (ppb) Micrograms per liter (parts per billion).
- J Concentration is below the practical quantitation limit but above the method detection limit.
- D Concentration based on dilution.
- < Constituent was not detected.
- NS Numerical 15A NCAC 2L Standard has not been established, therefore, any detectable concentrations of these substances in groundwater are considered to be in excess of North Carolina Water Quality Standards.
- Note: All bold numbers in the table represent data above groundwater standards.
- 1 Compound concentration is qualified as undetected (<) due to contamination in the associated rinsate blank sample.



Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards	Sample ID: Date Sampled:	SW-01 06/15/95	SW-01 10/25/95	SW-01 1/26/96	SW-01 5/9/96	SW-01 8/7/96	SW-02 06/15/95
<u>Volatile Organic Constituents</u>								
<u>USEPA Method 8260 (ug/L)</u>								
Acetone	NS		<10 ¹	<50	<50	<50	NA	<10
Diethyl ether	NS		<100	NA	<10	<10	NA	47J
Trichloroethene	NS		<5.0	<5.0	6	<5.0	NA	<5.0
Tetrachloroethene	NS		<5.0	<5.0	24	<5.0	NA	<5.0
<u>Metals USEPA</u>								
<u>Methods 200.7 and 6010 (ug/L)</u>								
Aluminum	NS		NA	NA	NA	NA	NA	NA
Barium	NS		NA	NA	NA	NA	NA	NA
Calcium	NS		9,900	6,770	<5,000	8,140	NA	53,000
Copper	7		NA	NA	NA	NA	NA	NA
Iron	1000		6,200	3,270	1,700	5,040	NA	14,000
Magnesium	NS		<5,000	<5,000	<5,000	<5,000	NA	13,000
Manganese	NS		1,300	233	91.8	2,480	NA	1,900
Potassium	NS		<5,000	<5,000	<5,000	<5,000	NA	<5,000
Sodium	NS		5,400	<5,000	<5,000	<5,000	NA	14,000
Zinc	50		NA	NA	NA	NA	NA	NA
<u>Inorganics USEPA Methods (mg/L)</u>								
<u>Alkalinity (Method 310.1 and SM 2320 B)</u>								
Ammonia-N (Method 350.3)	NS		42	22	8.2	28.6J	NA	200
Chloride (Method 325.2)	B		<0.10	<0.10	<0.10	0.18	NA	0.40
Nitrate (Method 353.2)	230		5.3	3.4	3.07	4.17	NA	20
Sulfate (Method 375.4)	B		<0.02	<0.02	<0.02	<0.02	NA	4.4
TDS (Method 160.1)	NS		<2.0	6.6	6.7	2.52	NA	9.7
	NS		71	93	63	60	NA	260

Footnotes on page 6.

Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards		Sample ID:		Date Sampled:	
	SW-02	SW-02	SW-02	SW-02	SW-03	SW-03
<u>Volatile Organic Constituents</u>						
<u>USEPA Method 8260 (ug/L)</u>						
Acetone	<50	<50	<50	<50	<10	<50
Diethyl ether	NS	<10	<10	<10	6J	NA
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<u>Metals USEPA</u>						
<u>Methods 200.7 and 6010 (ug/L)</u>						
Aluminum	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA
Calcium	32,500	11,500	41,200	86,100	98,000	74,800
Copper	7	NA	NA	NA	NA	NA
Iron	1000	1,700	6,440	20,600	8,000	12,200
Magnesium	NS	<5,000	9,860	20,900	17,000	11,500
Manganese	NS	122	1,770	3,220	1,400	772
Potassium	NS	<5,000	<5,000	6,580	8,900	6,690
Sodium	NS	10,700	12,000	25,300	24,000	14,500
Zinc	50	NA	NA	NA	NA	NA
<u>Inorganics USEPA Methods (mg/L)</u>						
Alkalinity (Method 310.1 and SM 2320 B)	110	46.6	136J	305	370	290
Ammonia-N (Method 350.3)	B	0.5	2.4	2.8	5.3	4.7
Chloride (Method 325.2)	230	9.7	13.2	27.1	34	18
Nitrate (Method 353.2)	B	0.27	0.292	0.503	<0.02	0.24
Sulfate (Method 375.4)	NS	14	6.99	11.9	2.5	5.8
TDS (Method 160.1)	NS	190	220	434	420	350

Footnotes on page 6.

Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards	Sample ID: Date Sampled:	SW-03 1/26/96	SW-03 5/9/96	SW-03 8/7/96	SW-04 06/15/95	SW-04 10/25/95	SW-04 1/26/96
Volatile Organic Constituents								
<u>USEPA Method 8260 (ug/L)</u>								
Acetone	NS		<50	<50	<50	<10 ¹	<50	<50
Diethyl ether	NS		<10	<10	10	5J	NA	<10
Trichloroethene	NS		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	NS		5	<5.0	<5.0	<5.0	<5.0	<5.0
Metals USEPA								
<u>Methods 200.7 and 6010 (ug/L)</u>								
Aluminum	NS		397	<200	NA	NA	NA	NA
Barium	NS		<500	283	NA	NA	NA	NA
Calcium	NS		61,200	89,200	141,000	101,000	77,000	34,800
Copper	7		3.88	<25.0	NA	NA	NA	NA
Iron	1000		5,840	17,900	75,100	7,100	9,940	3,360
Magnesium	NS		7,910	15,000	23,200	15,000	11,900	5,660
Manganese	NS		496	1,590	1,630	1,300	805	317
Potassium	NS		5,010	10,700	14,600	9,400	6,960	<5,000
Sodium	NS		9,620	19,500	41,800	22,000	15,100	7,510
Zinc	50		30.6	<20.0	NA	NA	NA	NA
Inorganics USEPA Methods (mg/L)								
Alkalinity (Method 310.1 and SM 2320 B)	NS		189	277J	487	380	290	105
Ammonia-N (Method 350.3)	B		2.53	6.83	12.6	6.0	4.7	1.22
Chloride (Method 325.2)	230		12.3	26.2	55.2	31	18	8.14
Nitrate (Method 353.2)	B		0.181	0.091	<0.02	<0.02	0.14	0.236
Sulfate (Method 375.4)	NS		45.1	6.24	5.76	3.6	2.6	25.8
TDS (Method 160.1)	NS		284	349	608	390	350	177

Footnotes on page 6.

Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards		Sample ID:		SW-04	SW-04	SW-05	SW-05	SW-05	SW-05
			Date Sampled:		5/9/96	8/7/96	06/15/95	10/25/95	1/26/96	5/9/96
<u>Volatile Organic Constituents</u>										
<u>USEPA Method 8260 (ug/L)</u>										
Acetone	NS	<50	<50	<10'	<50	<50	<50	<50	<50	<50
Diethyl ether	NS	<10	<10	2J	<10	<10	NA	NA	<10	<10
Trichloroethene	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<u>Metals USEPA</u>										
<u>Methods 200.7 and 6010 (ug/L)</u>										
Aluminum	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	84,200	147,000	99,000	74,800	37,400	74,800	74,800	37,400	85,500
Copper	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	1000	10,700	17,000	3,300	7,360	3,350	7,360	7,360	3,350	9,490
Magnesium	NS	14,200	24,500	15,000	12,000	6,090	12,000	12,000	6,090	15,100
Manganese	NS	1,550	1,610	1,100	817	338	817	817	338	1,610
Potassium	NS	10,000	15,600	9,400	7,080	<5,000	7,080	7,080	<5,000	10,200
Sodium	NS	18,500	44,400	22,000	15,200	7,870	15,200	15,200	7,870	19,500
Zinc	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Inorganics USEPA Methods (mg/L)</u>										
Alkalinity (Method 310.1 and SM 2320 B)	NS	270J	470	360	280	144	360	280	144	274J
Ammonia-N (Method 350.3)	B	6.2	12.7	5.6	4.4	1.09	5.6	4.4	1.09	5.97
Chloride (Method 325.2)	230	26.2	54.1	31	18	8.95	31	18	8.95	26.7
Nitrate (Method 353.2)	B	0.035	3.48	0.10	0.14	0.24	0.10	0.14	0.24	0.029
Sulfate (Method 375.4)	NS	5.04	6.11	2.5	3.6	24.4	2.5	3.6	24.4	6.17
TDS (Method 160.1)	NS	353	610	400	350	205	400	350	205	363

Footnotes on page 6.

Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards		Sample ID:		SW-06	SW-06	SW-06	SW-06	SW-06	
			Date Sampled:		8/7/96	06/15/95	10/25/95	1/26/96	5/9/96	8/7/96
<u>Volatile Organic Constituents</u>										
<u>USEPA Method 8260 (ug/L)</u>										
Acetone	NS		<50		<50	<50	<50	<50	<50	<50
Diethyl ether	NS		<10		<100	<10	NA	<10	<10	<10
Trichloroethene	NS		<5.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	NS		<5.0		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<u>Metals USEPA</u>										
<u>Methods 200.7 and 6010 (ug/L)</u>										
Aluminum	NS		NA		NA	NA	NA	NA	NA	NA
Barium	NS		NA		NA	NA	NA	NA	NA	NA
Calcium	NS		126,000		87,000	73,000	31,400	31,400	57,200	39,600
Copper	7		NA		NA	NA	NA	NA	NA	NA
Iron	1000		5,440		560	2,130	2,500	2,770	2,770	1,620
Magnesium	NS		21,600		14,000	11,900	5,330	10,600	10,600	7,300
Manganese	NS		1,260		400	718	300	1,200	1,200	204
Potassium	NS		13,300		7,900	6,690	<5,000	7,040	7,040	<5,000
Sodium	NS		39,100		20,000	15,600	7,880	15,800	15,800	16,200
Zinc	50		NA		NA	NA	NA	NA	NA	NA
<u>Inorganics USEPA Methods (mg/L)</u>										
<u>Alkalinity (Method 310.1 and SM 2320 B)</u>										
	NS		418		310	260	107	211J	211J	129
Ammonia-N (Method 350.3)	B		12.2		3.0	2.9	0.96	3.72	3.72	0.422
Chloride (Method 325.2)	230		52.2		29	18	11.6	26.1	26.1	19
Nitrate (Method 353.2)	B		0.215		1.6	0.82	0.253	0.311	0.311	0.215
Sulfate (Method 375.4)	NS		4.96		<2.0	3.7	20.8	7.03	7.03	0.276
TDS (Method 160.1)	NS		552		360	300	168	288	288	192

Footnotes on page 6.

Table 4-4. Summary of Detectable Surface Water Sample Results, Crow Branch Creek, June 1995 through August 1996, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituents	North Carolina Surface Water Standards	Sample ID: Date Sampled:
<u>Volatile Organic Constituents</u>		
<u>USEPA Method 8260 (ug/L)</u>		
Acetone	NS	
Diethyl ether	NS	
Trichloroethene	NS	
Tetrachloroethene	NS	
<u>Metals USEPA</u>		
<u>Methods 200.7 and 6010 (ug/L)</u>		
Aluminum	NS	
Barium	NS	
Calcium	NS	
Copper	7	
Iron	1000	
Magnesium	NS	
Manganese	NS	
Potassium	NS	
Sodium	NS	
Zinc	50	
<u>Inorganics USEPA Methods (mg/L)</u>		
<u>Alkalinity (Method 310.1 and SM 2320 B)</u>	NS	
<u>Ammonia-N (Method 350.3)</u>	B	
<u>Chloride (Method 325.2)</u>	230	
<u>Nitrate (Method 353.2)</u>	B	
<u>Sulfate (Method 375.4)</u>	NS	
<u>TDS (Method 160.1)</u>	NS	

Footnotes on page 6.

Table 4-5.

Summary of Emflux™ Passive Soil-Gas Survey Results, UNC
 Airport Road Waste Disposal Area, University of North Carolina
 at Chapel Hill, Chapel Hill, North Carolina.

Sample Location	Volatile Organics by USEPA Method 8240 (Modified) (ng/m ² /min)			
	Benzene	Carbon Tetrachloride	Chloroform	Tetrachloroethene
1	1.7	7.8	19.3	2.1
2	<1.3	<2.3	<1.7	<0.8
3	<1.3	<2.3	<1.7	<0.8
4	<1.3	<2.3	<1.7	<0.8
5	<1.3	<2.3	<1.7	<0.8
6	<1.3	<2.3	<1.7	<0.8
7	<1.3	<2.3	<1.7	<0.8
8	<1.3	<2.3	<1.7	<0.8
9	<1.3	<2.3	<1.7	<0.8
10	<1.3	<2.3	<1.7	<0.8
11	<1.3	<2.3	<1.7	<0.8
12	<1.3	<2.3	<1.7	<0.8
13	<1.3	<2.3	<1.7	<0.8
14	<1.3	<2.3	<1.7	<0.8
15	<1.3	<2.3	<1.7	<0.8
16	<1.3	<2.3	<1.7	1.0
17	<1.3	<2.3	<1.7	52.8
18	<1.3	<2.3	<1.7	<0.8
19	<1.3	<2.3	<1.7	<0.8
20	<1.3	<2.3	<1.7	<0.8
21	<1.3	<2.3	<1.7	<0.8
22	<1.3	<2.3	<1.7	<0.8
23	<1.3	<2.3	<1.7	0.9
24	<1.3	<2.3	<1.7	<0.8
25	<1.3	<2.3	<1.7	0.8
26	<1.3	<2.3	<1.7	<0.8
27	<1.3	<2.3	<1.7	<0.8
28	<1.3	<2.3	<1.7	<0.8
29	<1.3	<2.3	<1.7	<0.8
30	1.6	<2.3	<1.7	<0.8
31	<1.3	<2.3	<1.7	<0.8
32	<1.3	<2.3	<1.7	<0.8
33	<1.3	<2.3	<1.7	<0.8
34	<1.3	<2.3	<1.7	<0.8
35	<1.3	<2.3	<1.7	<0.8
36	<1.3	<2.3	<1.7	<0.8
37	<1.3	<2.3	<1.7	<0.8
38	5.7	<2.3	<1.7	<0.8
39	<1.3	<2.3	<1.7	<0.8
40	<1.3	<2.3	<1.7	<0.8
41	3.9	<2.3	<1.7	7.5
42	<1.3	<2.3	<1.7	<0.8

ng/m²/min

Nanograms per square meter per minute.

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Constituent was not detected.

Note:

Bold number indicates contaminants detected above method detection limits.



Table 4-6. In-Situ Geochemical Parameters Measured in Monitor Wells on July 27 through 31, 1995, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well/Sample Depth (Feet Below Water Level)	Conductivity												DO (mg/L)	
	pH		Conductivity (µmhos/cm)		Temperature (C)		Redox (mv)		Before Purging		After Purging		Before Purging	After Purging
	Before Purging	After Purging	Before Purging	After Purging	Before Purging	After Purging	Before Purging	After Purging	Before Purging	After Purging	Before Purging	After Purging	Before Purging	After Purging
<u>MW-1 (Contaminated) 7/28/95</u>														
0	5.68	NM	3.86	NM	16.25	NM	35	NM	0.68	NM	0.68	NM	NM	NM
2	5.6	NM	3.86	NM	15.77	NM	26	NM	0.64	NM	0.64	NM	NM	NM
4	5.55	NM	4.3	NM	15.28	NM	17	NM	0.54	NM	0.54	NM	NM	NM
6	5.52	NM	4.55	NM	15.12	NM	10	NM	0.5	NM	0.5	NM	NM	NM
8	5.49	NM	4.97	NM	15	NM	-14	NM	0.47	NM	0.47	NM	NM	NM
10	5.45	NM	5.43	NM	15.05	NM	-40	NM	0.44	NM	0.44	NM	NM	NM
12	5.4	NM	5.9	NM	14.97	NM	-51	NM	0.41	NM	0.41	NM	NM	NM
14	5.37	NM	6.03	NM	15	NM	-52	NM	0.38	NM	0.38	NM	NM	NM
<u>MW-3 (Upgradient Well) 7/27/95</u>														
0	5.92	6.23	0.503	0.498	19.86	18.3	192	129	1.31	1.7	1.31	NM	NM	NM
2	5.82	NM	0.481	NM	18.38	NM	196	NM	1.16	NM	1.16	NM	NM	NM
4	5.81	NM	0.484	NM	17.61	NM	194	NM	0.9	NM	0.9	NM	NM	NM
6	5.8	NM	0.482	NM	17.13	NM	194	NM	0.7	NM	0.7	NM	NM	NM
8	5.78	NM	0.48	NM	16.68	NM	194	NM	0.57	NM	0.57	NM	NM	NM
10	5.78	NM	0.48	NM	16.44	NM	194	NM	0.43	NM	0.43	NM	NM	NM
12	5.76	NM	0.48	NM	16.17	NM	151	NM	0.39	NM	0.39	NM	NM	NM
<u>MW-7 (Downgradient Well) 7/27/95</u>														
0	6.71	NM	0.958	NM	21.5	NM	103	NM	0.75	NM	0.75	NM	NM	NM
2	6.46	NM	1.177	NM	17.96	NM	80	NM	0.82	NM	0.82	NM	NM	NM
4	6.36	NM	1.265	NM	16.87	NM	85	NM	0.63	NM	0.63	NM	NM	NM
6	6.32	NM	1.259	NM	16.07	NM	85	NM	0.52	NM	0.52	NM	NM	NM
8	6.29	NM	1.25	NM	15.5	NM	84	NM	0.46	NM	0.46	NM	NM	NM
10	6.27	NM	1.272	NM	15.18	NM	83	NM	0.39	NM	0.39	NM	NM	NM
12	6.26	NM	1.264	NM	15	NM	79	NM	0.37	NM	0.37	NM	NM	NM
14	6.25	NM	1.268	NM	14.8	NM	75	NM	0.36	NM	0.36	NM	NM	NM
16	6.24	NM	1.24	NM	14.63	NM	73	NM	0.35	NM	0.35	NM	NM	NM
18	6.23	NM	1.261	NM	14.55	NM	71	NM	0.33	NM	0.33	NM	NM	NM
20	6.22	NM	1.255	NM	14.53	NM	70	NM	0.32	NM	0.32	NM	NM	NM

Table 4-6. In-Situ Geochemical Parameters Measured in Monitor Wells on July 27 through 31, 1995, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well/Sample Depth (Feet Below Water Level)	pH		Conductivity (μ mhos/cm)				Temperature (C)		Redox (mv)		DO (mg/L)	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	Purging	Purging	Purging	Purging	Purging	Purging	Purging	Purging	Purging	Purging	Purging	Purging
<u>MW-7 (Continued)</u>												
22	6.22	NM	1.263	NM	14.5	NM	68	NM	0.33	NM	0.33	NM
24	6.21	NM	1.268	NM	14.52	NM	67	NM	0.3	NM	0.3	NM
26	6.2	NM	1.27	NM	14.53	NM	66	NM	0.3	NM	0.3	NM
28	6.2	NM	1.261	NM	14.51	NM	64	NM	0.3	NM	0.3	NM
30	6.19	NM	1.261	NM	14.51	NM	64	NM	0.3	NM	0.3	NM
32	6.19	NM	1.267	NM	14.54	NM	63	NM	0.28	NM	0.28	NM
34	6.2	NM	1.27	NM	14.56	NM	60	NM	0.28	NM	0.28	NM
36	6.17	NM	1.312	NM	14.57	NM	48	NM	0.28	NM	0.28	NM
38	6.15	NM	1.335	NM	14.59	NM	39	NM	0.28	NM	0.28	NM
40	6.14	NM	1.36	NM	14.61	NM	32	NM	0.28	NM	0.28	NM
42	6.13	NM	1.376	NM	14.62	NM	24	NM	0.27	NM	0.27	NM
44	6.14	NM	1.408	NM	14.64	NM	16	NM	0.27	NM	0.27	NM
<u>MW-6 (Downgradient Well) 7/27/95</u>												
0	6.04	5.36	0.318	0.404	32.18	20.21	122	-118	1.34	2.08	1.34	2.08
2	5.82	5.27	0.379	0.406	21.28	18.4	-158	-122	1.39	1.93	1.39	1.93
4	5.41	5.23	0.383	0.404	18.58	17.64	-164	-120	0.98	1.73	0.98	1.73
6	5.15	5.1	0.391	0.408	17.4	15.53	-151	-106	0.75	1.43	0.75	1.43
8	5.19	5.05	0.445	0.414	16.12	15.38	-148	-99	0.59	1.31	0.59	1.31
10	5.24	5.04	0.548	0.415	15.19	15.39	-136	-93	0.47	0.93	0.47	0.93
12	5.27	5.03	0.569	0.42	14.92	15.45	-136	-89	0.42	0.79	0.42	0.79
14	5.3	5.14	0.588	0.42	14.71	16.02	-145	-88	0.36	0.68	0.36	0.68
16	5.36	NM	0.619	NM	14.58	NM	-151	NM	0.35	NM	0.35	NM

Footnotes on page 4.

Table 4-6. In-Situ Geochemical Parameters Measured in Monitor Wells on July 27 through 31, 1995, UNC Airport Road Waste Disposal Area University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well/Sample Depth (Feet Below Water Level)	pH						Conductivity ($\mu\text{mhos/cm}$)						Temperature (C)						Redox (mv)						DO (mg/L)				
	Before		After		Purging		Before		After		Purging		Before		After		Purging		Before		After		Before		After				
<u>MW-12 (Downgradient Well) 7/31/95</u>																													
0	6.63	NM	1.2	NM	22.39	NM	26	NM	3.17	NM	26	NM	3.17	NM	26	NM	3.17	NM	3.17	NM	26	NM	3.17	NM	26	NM	3.17	NM	
2	6.59	NM	1.3	NM	20.73	NM	38	NM	3.18	NM	38	NM	3.18	NM	38	NM	3.18	NM	3.18	NM	38	NM	3.18	NM	38	NM	3.18	NM	
4	6.53	NM	1.3	NM	19.69	NM	48	NM	2.38	NM	48	NM	2.38	NM	48	NM	2.38	NM	2.38	NM	48	NM	2.38	NM	48	NM	2.38	NM	
6	6.49	NM	1.31	NM	18.25	NM	52	NM	2.11	NM	52	NM	2.11	NM	52	NM	2.11	NM	2.11	NM	52	NM	2.11	NM	52	NM	2.11	NM	
8	6.45	NM	1.31	NM	17.18	NM	37	NM	1.75	NM	37	NM	1.75	NM	37	NM	1.75	NM	1.75	NM	37	NM	1.75	NM	37	NM	1.75	NM	
10	6.4	NM	1.34	NM	16.4	NM	23	NM	1.39	NM	23	NM	1.39	NM	23	NM	1.39	NM	1.39	NM	23	NM	1.39	NM	23	NM	1.39	NM	
12	6.34	NM	1.34	NM	15.9	NM	7	NM	0.82	NM	7	NM	0.82	NM	7	NM	0.82	NM	0.82	NM	7	NM	0.82	NM	7	NM	0.82	NM	
14	6.33	NM	1.34	NM	15.28	NM	4	NM	0.72	NM	4	NM	0.72	NM	4	NM	0.72	NM	0.72	NM	4	NM	0.72	NM	4	NM	0.72	NM	
16	6.33	NM	1.34	NM	14.98	NM	0	NM	0.71	NM	0	NM	0.71	NM	0	NM	0.71	NM	0.71	NM	0	NM	0.71	NM	0	NM	0.71	NM	
18	6.31	NM	1.36	NM	14.81	NM	-6	NM	0.61	NM	-6	NM	0.61	NM	-6	NM	0.61	NM	0.61	NM	-6	NM	0.61	NM	-6	NM	0.61	NM	
20	6.31	NM	1.36	NM	14.79	NM	-10	NM	0.62	NM	-10	NM	0.62	NM	-10	NM	0.62	NM	0.62	NM	-10	NM	0.62	NM	-10	NM	0.62	NM	
<u>MW-15 (Downgradient Well) 7/27/95</u>																													
0	6.43	6.54	1.2	1.15	29.33	1.15	-18	25.04	0.36	2	-18	25.04	0.36	2	-18	25.04	0.36	0.36	2	-18	25.04	0.36	2	-18	25.04	0.36	2	-18	25.04
5	6.4	6.44	1.16	1.15	21.24	1.15	-8	19.65	0.51	2.3	-8	19.65	0.51	2.3	-8	19.65	0.51	0.51	2.3	-8	19.65	0.51	2.3	-8	19.65	0.51	2.3	-8	19.65
10	6.38	6.33	1.16	1.14	17.22	1.14	-2	17.45	1.07	1.93	-2	17.45	1.07	1.93	-2	17.45	1.07	1.07	1.93	-2	17.45	1.07	1.93	-2	17.45	1.07	1.93	-2	17.45
15	6.35	6.34	1.12	1.11	15.91	1.11	2	16.15	1.6	1.82	2	16.15	1.6	1.82	2	16.15	1.6	1.6	1.82	2	16.15	1.6	1.82	2	16.15	1.6	1.82	2	16.15
20	6.33	6.31	1.12	1.1	15.52	1.1	6	15.82	1.86	1.89	6	15.82	1.86	1.89	6	15.82	1.86	1.86	1.89	6	15.82	1.86	1.89	6	15.82	1.86	1.89	6	15.82
25	6.31	6.29	1.12	1.14	15.37	1.14	10	15.58	2.06	2.04	10	15.58	2.06	2.04	10	15.58	2.06	2.06	2.04	10	15.58	2.06	2.04	10	15.58	2.06	2.04	10	15.58
30	6.31	6.28	1.1	1.09	14.8	1.09	15	15.45	2.16	2.13	15	15.45	2.16	2.13	15	15.45	2.16	2.16	2.13	15	15.45	2.16	2.13	15	15.45	2.16	2.13	15	15.45
35	6.24	6.28	1.31	1.11	14.64	1.11	28	15.37	2.07	2.19	28	15.37	2.07	2.19	28	15.37	2.07	2.07	2.19	28	15.37	2.07	2.19	28	15.37	2.07	2.19	28	15.37
40	6.38	6.27	1.32	1.1	14.84	1.1	26	14.94	0.82	2.29	26	14.94	0.82	2.29	26	14.94	0.82	0.82	2.29	26	14.94	0.82	2.29	26	14.94	0.82	2.29	26	14.94
45	NM	6.23	NM	1.17	NM	15.01	NM	NM	NM	1.97	NM	15.01	NM	NM	1.97	15.01	NM	NM	1.97	NM	15.01	NM	NM	1.97	15.01	NM	NM	1.97	15.01
50	NM	6.21	NM	1.25	NM	14.71	NM	NM	NM	1.6	NM	14.71	NM	NM	1.6	14.71	NM	NM	1.6	NM	14.71	NM	NM	1.6	14.71	NM	NM	1.6	14.71

Footnotes on page 4.

Table 4-6. In-Situ Geochemical Parameters Measured in Monitor Wells on July 27 through 31, 1995, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Footnotes:

- µmhos/cm Micromhos per centimeter.
- (C) Degrees Celsius.
- mv Millivolts.
- mg/L (ppm) Milligrams per liter (parts per million).
- NM Not measured.
- DO Dissolved oxygen.
- Redox , Reduction-oxidation potential.