

**TABLE 1**  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

**Summary of Inorganic Soil-Quality Results from 1989 NUS Corporation Site Investigation**  
**Completed on Behalf of United States Environmental Protection Agency**

Sample Location	Sample Interval (feet below grade)		Date Analyzed	Antimony (mg/kg)	Arsenic (mg/kg)	Cobalt (mg/kg)	Zinc (mg/kg)	Vanadium (mg/kg)	Nickel (mg/kg)	Mercury (mg/kg)	Manganese (mg/kg)	Lead (mg/kg)	Copper (mg/kg)	Chromium (mg/kg)	Iron (mg/kg)	Barium (mg/kg)
NU03	0	0.5	11/18/89	4.4	8.9	13.9	53	45	21	NR	312	18	37	22	NT	81
NU03 R/D	0	0.5	11/18/89	7.4	<b>11.7</b>	13.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
NU04	0	0.5	11/18/89	16.2	<b>11.3</b>	9	2,850	34	72.8	3.2	2,660	<b>1,610</b>	1,720	133	33,100	458
NU05	0	0.5	11/18/89	4.4	2	9	97	39	14	0.14	377	315	72.5	16	NT	56
NU06	0	0.5	11/18/89	5.1	6.5	5	110	37	15	0.25	228	<b>573</b>	108	10	NT	75
NU07	0	0.5	11/18/89	NR	<b>18.5</b>	6	84	40	14	0.69	355	113	98.7	19	NT	87
NU08	0	0.5	11/18/89	5.1	4.1	8	82	31	14	0.12	5920	138	63.6	10	NT	74
NU09	0	0.5	11/18/89	NT	2	5	132	34	10	0.11	307	366	71.3	11	NT	41
NU10	0	0.5	11/18/89	NT	1	6	22	28	8	NR	306	13	11	8	NT	41
NU11	0	0.5	11/18/89	5.2	3	5	102	28	11	0.1	439	396	51.7	16	NT	59
NU12	0	0.5	11/18/89	<b>66.4</b>	3	6	1,170	30	28.5	2.2	1,470	<b>56,000</b>	810	47.8	NT	164
CTDEP RSRs Residential Direct Exposure Criteria				27	10	NE	20,000	470	1,400	20	NE	400 <sup>L</sup>	2,500	NE	NE	4,700
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				8,200	10	NE	610,000	14,000	7,500	610	NE	1,000	76,000	NE	NE	140,000

NT Not tested  
NE Standard not established  
CTDEP Connecticut Department of Environmental Protection  
RSRS Remediation Standard Regulations  
<sup>L</sup> Site-specific criteria, actual RDEC is 400 mg/kg.

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TABLE 2

**HISTORICAL SAMPLE RESULTS  
HAMDEN MIDDLE SCHOOL  
HAMDEN, CONNECTICUT**

**Summary of Volatile Organic Compound Soil-Quality Results from  
1989 NUS Corporation Site Investigation Completed  
on Behalf of United States Environmental Protection Agency**

Sample Location	Sample Interval (feet below grade)		Date Analyzed	1,1,1-Trichloroethane (mg/kg)	1,1,2,2-Tetrachloroethane (mg/kg)	Chloroform (mg/kg)	Tetrachloroethene (mg/kg)
NU03	0	0.5	11/18/89	ND	ND	ND	ND
NU04	0	0.5	11/18/89	N	ND	ND	ND
NU05	0	0.5	11/18/89	ND	ND	ND	ND
NU06	0	0.5	11/18/89	ND	ND	0.002	ND
NU07	0	0.5	11/18/89	ND	ND	0.002	ND
NU08	0	0.5	11/18/89	0.012	0.006	ND	ND
NU09	0	0.5	11/18/89	ND	ND	ND	ND
NU10	0	0.5	11/18/89	0.019	ND	ND	0.009
NU11	0	0.5	11/18/89	0.024	ND	ND	0.013
NU12	0	0.5	11/18/89	ND	ND	0.002	0.003
CTDEP RSRs GA/GAA PMC				4	0.02	0.12	0.1
CTDEP RSRs GB PMC or 10 Times GA PMC				40	0.2	1.2	1
CTDEP RSRs Residential Direct Exposure Criteria				500	24	100	12
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				1,000	220	940	110

PMC Pollutant Mobility Criteria  
 DEC Direct Exposure Criteria  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations  
 ND Not Detected  
 NE Criteria not established

TABLE 3

HISTORICAL SAMPLE RESULTS  
 HAMDEN MIDDLE SCHOOL  
 HAMDEN, CONNECTICUT

Summary of Soil Quality Results from 1991 Roy F. Weston  
 Environmental Site Investigation Completed  
 on Behalf of United States Environmental Protection Agency

Sample Location	Sample Interval (feet below grade)		Date Analyzed	VOCs	SVOCs (BNAs)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Iron (mg/kg)
S001	0	0.25	8/13/91	ND	ND	ND	220	ND	ND	NA
S002	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S003	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S004	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S005	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S006	0	0.25	8/13/91	ND	ND	300	400	NA	200	NA
S007	0	0.25	8/13/91	ND	ND	ND	<b>1,600</b>	15.5	ND	NA
S008	0	0.25	8/13/91	ND	ND	ND	NA	7.7	ND	1450
S009	0	0.25	8/13/91	ND	ND	ND	ND<50	16.9	ND	NA
S010	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S011	0	0.25	8/13/91	ND	ND	ND	100	ND	ND	NA
S012	0	0.25	8/13/91	ND	ND	ND	250	ND	ND	NA
S013	0	0.25	8/13/91	ND	ND	ND	220	ND	ND	NA
S014	0	0.25	8/13/91	ND	ND	ND	125	ND	ND	NA
S015	0	0.25	8/13/91	ND	ND	ND	ND<50	ND	ND	NA
S016	0	0.25	8/13/91	ND	ND	ND	<b>800</b>	ND	ND	NA
S017	0	0.25	8/13/91	ND	ND	ND	ND	ND	ND	NA
S018	0	0.25	8/13/91	ND	ND	ND	<b>800</b>	ND	ND	NA
S019	0	0.25	8/13/91	ND	ND	ND	<b>830</b>	ND	ND	NA
S020	0	0.25	8/13/91	ND	ND	ND	<b>650</b>	ND	ND	NA
CTDEP RSRs GA/GAA Pollutant Mobility Criteria				NA	NA	NE	NE	NE	NE	NE
CTDEP RSRs Residential Direct Exposure Criteria				NA	NA	NE	400 <sup>1/2</sup>	20	1,400	NE
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				NA	NA	NE	1,000	610	7,500	NE

SVOCs      Semi-Volatile Organic Compounds  
 BNAs      Base Neutral Acids  
 VOCs      Volatile Organic Compounds  
 CTDEP     Connecticut Department of Environmental Protection  
 RSRS      Remediation Standard Regulations  
 NA         Not Applicable or Not Analyzed  
 NE         Criteria not established  
 1/         Site-specific criteria, actual RDEC is 400 mg/kg.

**TABLE 4**

**HISTORICAL SAMPLE RESULTS  
HAMDEN MIDDLE SCHOOL  
HAMDEN, CONNECTICUT**

**Summary of Soil Quality Results from 1993 HRP Environmental Site Investigation  
Completed on Behalf of Town of Hamden**

<b>Sample Location</b>	<b>Sample Interval (feet below grade)</b>		<b>Date Analyzed</b>	<b>Lead (mg/kg)</b>
HRP1	0	0.5	4/12/93	387
HRP2	0	0.5	4/12/93	216
HRP3	0	0.5	4/12/93	<b>4,855</b>
HRP4	0	0.5	4/12/93	138
HRP5	0	0.5	4/12/93	31
HRP6	0	0.5	4/12/93	78
HRP7	0	0.5	4/12/93	16
HRP8	0	0.5	4/12/93	149
HRP9	0	0.5	4/12/93	58
HRP10	0	0.5	4/12/93	499
HRP11	0	0.5	4/12/93	29
HRP12	0	0.5	4/12/93	92
HRP13	0	0.5	4/12/93	44
HRP14	0	0.5	4/12/93	163
HRP15	0	0.5	4/12/93	<b>532</b>
HRP16	0	0.5	4/12/93	<b>1,096</b>
HRP17	0	0.5	4/12/93	<b>477</b>
HRP18	0	0.5	4/12/93	<b>770</b>
HRP19	0	0.5	4/12/93	117
HRP20	0	0.5	4/12/93	4
HRP21	0	0.5	4/12/93	3
HRP22	0	0.5	4/12/93	3
HRP23	0	0.5	4/12/93	<b>606</b>
HRP24	0	0.5	4/12/93	158
HRP25	0	0.5	4/12/93	13
HRP26	0	0.5	4/12/93	47
HRP27	0	0.5	4/12/93	14
HRP28	0	0.5	4/12/93	90
HRP29	0	0.5	4/12/93	<b>617</b>
HRP30	0	0.5	4/12/93	13
HRP31	0	0.5	4/12/93	<b>880</b>
HRP32	0	0.5	4/12/93	<b>881</b>
HRP33	0	0.5	4/12/93	13
HRP34	0	0.5	4/12/93	45
HRP35	0	0.5	4/12/93	14

**TABLE 4**  
**(continued)**

**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

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**Summary of Soil Quality Results from 1993 HRP Environmental Site Investigation**  
**Completed on Behalf of Town of Hamden**

<b>Sample Location</b>	<b>Sample Interval (feet below grade)</b>		<b>Date Analyzed</b>	<b>Lead (mg/kg)</b>
HRP36	0	0.5	4/12/93	37
HRP37	0	0.5	4/12/93	17
HRP38	0	0.5	4/12/93	<b>672</b>
HRP39	0	0.5	4/12/93	15
HRP40	0	0.5	4/12/93	<b>1,274</b>
CTDEP RSRs Residential Direct Exposure Criteria				400
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				1,000

CTDEP Connecticut Department of Environmental Protection  
RSRS Remediation Standard Regulations

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TABLE 5

HISTORICAL SAMPLE RESULTS  
 HAMDEN MIDDLE SCHOOL  
 HAMDEN, CONNECTICUT

Summary of Volatile Organic Compound Soil-Quality Results from  
 2000 Facility Support Services Site Investigation Completed for Town of Hamden Board of Education

Sample Identification	Sample Interval (feet below grade)		Date Collected	1,2,4-Trimethylbenzene (ug/kg)	1,3,5-Trimethylbenzene (ug/kg)	4-Isopropyltoluene (ug/kg)	Ethylbenzene (ug/kg)	Isopropylbenzene (ug/kg)	Xylenes (ug/kg)	Naphthalene (ug/kg)	n-Propylbenzene (ug/kg)	sec-Butylbenzene (ug/kg)	tert-Butylbenzene (ug/kg)	Toluene (ug/kg)
B12	15	17	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B13	15	17	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B15	10	12	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B15	13	15	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B2	6	8	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B3	11	13	11/1/00	59	170	30	ND<5	ND<5	ND<5	34	ND<5	15	17	ND<5
B3	15	17	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B4	10	12	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B4	14	17	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B5	15.5	16	11/1/00	13	5.9	ND<5	ND<5	ND<5	ND<5	23	10	ND<5	ND<5	ND<5
B6	15	17	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B6	4	6	11/1/00	35	28	30	12	ND<5	45	37	ND<5	ND<5	ND<5	78
B7	15	17	11/1/00	1,300	1,200	580	11	45	134	420	90	230	ND<5	ND<5
B7	2	4	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
B8	5	10	11/1/00	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
CTDEP RSRs GA/GAA Pollutant Mobility Criteria				7,000	7,000	600	10,100	600	19,500	5,600	1,400	1,400	1,400	20,000
CTDEP RSRs Residential Direct Exposure Criteria				500,000	500,000	500,000	500,000	500,000	500,000	1,000,000	500,000	500,000	500,000	500,000

ND<5 Not detected above noted laboratory detection limit  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations

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**TABLE 6**  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Volatile Organic Compound Soil-Quality Results from 2000 Facility Support Services Site Investigation  
 Completed for Town of Hamden Board of Education

Sample ID	Sample Interval (feet below grade)		Date Collected	Acenaphthene (ug/kg)	Acenaphthylene (ug/kg)	Anthracene (ug/kg)	Benzo[a]anthracene (ug/kg)	Benzo[a]pyrene (ug/kg)	Benzo[b]fluoranthene (ug/kg)	Benzo[g,h,i]perylene (ug/kg)	Benzo[k]fluoranthene (ug/kg)	Chrysene (ug/kg)	Dibenz[a,h]anthracene (ug/kg)	Fluoranthene (ug/kg)	Fluorene (ug/kg)	Indeno[1,2,3-cd]pyrene (ug/kg)	Phenanthrene (ug/kg)	Pyrene (ug/kg)
B1	4	6	11/1/00	ND<200	<b>1,100</b>	<b>1,200</b>	<b>4,700</b>	<b>3,000</b>	<b>6,000</b>	4,100	<b>2,800</b>	<b>4,400</b>	990	<b>10,000</b>	460	<b>3,200</b>	<b>7,700</b>	<b>21,000</b>
B12	15	17	11/1/00	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200
B15	10	12	11/1/00	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	<b>1,300</b>	ND<1000	ND<1000	<b>1,300</b>	ND<1000	3,000	ND<1000	ND<1000	2,200	2,100
B15	13	15	11/1/00	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200
B3	11	13	11/1/00	400	ND<200	<b>1,300</b>	<b>3,700</b>	<b>2,500</b>	<b>4,700</b>	1,200	<b>2,700</b>	<b>3,900</b>	300	<b>11,000</b>	780	<b>1,300</b>	<b>6,900</b>	<b>13,000</b>
B4	10	12	11/1/00	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200
B5	15.5	16	11/1/00	ND<200	ND<200	510	820	250	250	ND<200	210	<b>1,800</b>	ND<200	1,600	400	ND<200	3,600	600
B7	10	12	11/1/00	ND<200	ND<200	ND<200	300	370	580	ND<200	280	440	ND<200	520	ND<200	ND<200	590	820
B7	2	4	11/1/00	280	ND<200	450	<b>1,500</b>	<b>1,200</b>	2,000	1,100	990	<b>1,500</b>	ND<200	2,700	ND<200	930	2,100	5,000
CTDEP RSRs GA/GAA Pollutant Mobility Criteria				8,400	8,400	40,000	1,000	1,000	1,000	4,200	1,000	1,000	1,000	5,600	5,600	1,000	4,000	4,000
10 times GA Pollutant Mobility Criteria				84,000	84,000	400,000	10,000	10,000	10,000	42,000	10,000	10,000	10,000	56,000	56,000	10,000	40,000	40,000
CTDEP RSRs Residential Direct Exposure Criteria				1,000,000	1,000,000	1,000,000	1,000	1,000	1,000	1,000,000	8,400	84,000	1,000	1,000,000	1,000,000	1,000	1,000,000	1,000,000
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				2,500,000	2,500,000	2,500,000	7,800	1,000	7,800	2,500,000	78,000	780,000	1,000	2,500,000	2,500,000	7,800	2,500,000	2,500,000

ND<200 Not detected above note laboratory detection limit  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations

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TABLE 7  
HISTORICAL SAMPLE RESULTS  
HAMDEN MIDDLE SCHOOL  
HAMDEN, CONNECTICUT

Summary of Inorganic Soil-Quality Results from 2000 Facility Support Services Site Investigation  
Completed for Town of Hamden Board of Education

Sample ID	Sample Interval (feet below grade)		Date Collected	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Magnesium (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
B1	0	2	11/1/00	5,800	ND	2.2	57	1.5	860	10	4.1	180	140	110	1,500	0.25	6.9	290	ND<1	ND<2	ND<2	22	510
B2	0	2	11/1/00	NT	NT	2.5	43	ND<1	NT	17	NT	NT	NT	34	NT	ND<0.2	NT	NT	ND<1	ND	NT	NT	NT
B3	0	2	11/1/00	NT	NT	ND<2	32	ND<1	NT	6.8	NT	NT	NT	17	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B3	11	13	11/1/00	NT	NT	8.6	41	ND<1	NT	17	NT	NT	NT	380	NT	0.69	NT	NT	ND<1	ND<2	NT	NT	NT
B3	15	17	11/1/00	NT	NT	13	58	2.5	NT	39	NT	NT	NT	840	NT	0.48	NT	NT	ND<1	ND<2	NT	NT	NT
B3	2	4	11/1/00	NT	NT	28	49	1.6	NT	24	NT	NT	NT	360	NT	0.4	NT	NT	15	2	NT	NT	NT
B4	0	2	11/1/00	NT	NT	ND<2	28	ND<1	NT	10	NT	NT	NT	27	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B4	15	17	11/1/00	NT	NT	19	54	1.1	NT	61	NT	NT	NT	270	NT	1.6	NT	NT	ND<1	ND<2	NT	NT	NT
B4	2	4	11/1/00	NT	NT	ND<2	28	ND<1	NT	10	NT	NT	NT	27	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B5	15.5	16	11/1/00	NT	NT	57	81	1	NT	7.7	NT	NT	NT	140,000	NT	1.3	NT	NT	ND<1	2.1	NT	NT	NT
B5	2	4	11/1/00	NT	NT	5.3	120	2.4	NT	63	NT	NT	NT	320	NT	0.78	NT	NT	ND<1	ND<2	NT	NT	NT
B6	2	4	11/1/00	NT	NT	58	69	3.6	NT	140	NT	NT	NT	12,000	NT	1	NT	NT	1.9	ND<2	NT	NT	NT
B6	6	8	11/1/00	NT	NT	8.7	65	ND<1	NT	5	NT	NT	NT	29	NT	0.27	NT	NT	1.3	ND<2	NT	NT	NT
B7	0	2	11/1/00	6,100	15	6	480	2.9	4,200	30	3.7	640	18,000	2,300	1,100	2.1	23	3,100	ND<1	ND<2	3.6	17	1,500
B7	2	5	11/1/00	NT	NT	9.2	690	3.9	NT	64	NT	NT	NT	730	NT	0.93	NT	NT	ND<1	ND<2	NT	NT	NT
B8	0	2	11/1/00	NT	NT	ND<2	40	ND<1	NT	12	NT	NT	NT	27	NT	0.48	NT	NT	ND<1	ND<2	NT	NT	NT
B8	4	6	11/1/00	NT	NT	13	52	2.7	NT	34	NT	NT	NT	620	NT	0.46	NT	NT	ND<1	ND<2	NT	NT	NT
B8	5	10	11/1/00	3,700	87	35	110	2.1	3,200	43	6.4	2,100	27,000	700	870	1.9	45	310	ND<1	ND<2	8.5	6.9	800
B9	0	2	11/1/00	NT	NT	9.2	690	3.9	NT	64	NT	NT	NT	8	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B10	0	2	11/1/00	NT	NT	2.2	110	ND<1	NT	13	NT	NT	NT	180	NT	0.21	NT	NT	ND<1	ND<2	NT	NT	NT
B11	4	6	11/1/00	NT	NT	7.8	78	2.3	NT	33	NT	NT	NT	500	NT	1.4	NT	NT	ND<1	ND<2	NT	NT	NT
B11	6	8	11/1/00	NT	NT	8.4	86	2.2	NT	100	NT	NT	NT	1,000	NT	3	NT	NT	ND<1	ND<2	NT	NT	NT
B12	2	4	11/1/00	31	29	6.6	59	3.2	3,100	150	6	2,600	47,000	820	210	8.9	110	91	1.1	ND<2	14	8.6	3,500
B12	6	8	11/1/00	NT	NT	29	75	11	NT	18	NT	NT	NT	470	NT	70	NT	NT	10	ND<2	NT	NT	NT
B13	10	12	11/1/00	NT	NT	6.8	130	3.3	NT	82	NT	NT	NT	1,200	NT	5.1	NT	NT	ND<1	ND<2	NT	NT	NT

TABLE 7

LEGGETTE BRASHEARS & GRAHAM, INC

**TABLE 7**  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Inorganic Soil-Quality Results from 2000 Facility Support Services Site Investigation  
 Completed for Town of Hamden Board of Education

Sample ID	Sample Interval (feet below grade)		Date Collected	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Calcium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Magnesium (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Potassium (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
B13	2	5	11/1/00	4,200	22	7.3	130	3.1	11,000	44	5.1	4,000	23,000	1,400	2,000	1.3	41	470	ND<1	2.2	7.6	14	1,500
B14	0	2	11/1/00	NT	NT	ND<2	25	ND<1	NT	8	NT	NT	NT	8	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B14	5	10	11/1/00	NT	NT	8.2	120	7.4	NT	82	NT	NT	NT	600	NT	1.7	NT	NT	1.2	ND<2	NT	NT	NT
B15	10	12	11/1/00	NT	NT	8.7	70	3.5	NT	37	NT	NT	NT	310	NT	8.6	NT	NT	1.5	ND<2	NT	NT	NT
B15	13	15	11/1/00	NT	NT	ND<2	8.9	ND<1	NT	20	NT	NT	NT	13	NT	ND<0.2	NT	NT	ND<1	ND<2	NT	NT	NT
B15	4	6	11/1/00	NT	NT	2.9	260	1.6	NT	62	NT	NT	NT	270	NT	3.3	NT	NT	1	ND<2	NT	NT	NT
CTDEP RSRs GA/GAA Pollutant Mobility Criteria				NE	27	10	4,700	34	NE	NE	NE	2,500	NE	400	NE	20	1,400	NE	340	340	5.4	470	20,000
CTDEP RSRs Residential Direct Exposure Criteria				NE	8,200	10	140,000	1,000	NE	NE	NE	76,000	NE	1,000	NE	610	7,500	NE	10,000	10,000	160	14,000	610,000

NT Not tested  
 NE Criteria not established  
 ND<200 Not detected above note laboratory detection limit  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations

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**TABLE 8**  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

**Summary of TCLP Inorganic Soil-Quality Results from 2000 Facility Support Services Site Investigation**  
**Completed for Town of Hamden Board of Education**

Sample ID	Sample Interval (feet below grade)		Date Collected	Aluminum (mg/l)	Barium (mg/l)	Cadmium (mg/l)	Calcium (mg/l)	Copper (mg/l)	Iron (mg/l)	Lead (mg/l)	Magnesium (mg/l)	Manganese (mg/l)	Nickel (mg/l)	Potassium (mg/l)	Selenium (mg/l)	Thallium (mg/l)	Zinc (mg/l)
B1	0	2	11/1/00	0.33	<b>1.8</b>	<b>0.012</b>	22	0.55	ND<0.05	<b>0.033</b>	2	0.23	ND<0.05	5.7	0.02	ND<0.05	<b>6.5</b>
B2	0	2	11/1/00	0.37	<b>1.3</b>	ND<0.05	17	<b>16</b>	ND<0.05	<b>0.016</b>	2.6	0.36	ND<0.05	3.2	0.012	ND<0.05	1.7
B3	2	4	11/1/00	0.14	<b>1.8</b>	<b>0.035</b>	710	<b>28</b>	ND<0.05	<b>0.58</b>	0.63	45	<b>0.18</b>	3.5	0.025	<b>0.054</b>	<b>24</b>
B5	2	4	11/1/00	0.3	<b>1.3</b>	<b>0.018</b>	53	<b>3.1</b>	ND<0.05	<b>1.1</b>	3.2	4.4	<b>0.12</b>	4.6	0.016	ND<0.05	<b>35</b>
B6	2	4	11/1/00	0.29	<b>1.3</b>	<b>0.018</b>	53	<b>14</b>	0.12	<b>10</b>	6.2	12	<b>0.28</b>	7.2	0.012	ND<0.05	<b>9.8</b>
B7	0	2	11/1/00	0.46	<b>2.3</b>	<b>0.056</b>	120	<b>3.1</b>	ND<0.05	<b>1.1</b>	3.2	4.4	<b>0.12</b>	4.6	0.016	ND<0.05	<b>35</b>
CTDEP RSRs GA/GAA PMC				NE	1	0.005	NE	1.3	NE	0.015	NE	NE	0.1	NE	0.05	0.005	5
CTDEP RSRs GB PMC or 10 Times GWPC				NE	10	0.05	NE	13	NE	0.15	NE	NE	1	NE	0.5	0.05	50

Note: Antimony, arsenic, beryllium, chromium, cobalt, mercury, silver and vanadium were not detected in any samples analyzed.

ND<0.05 Not detected above identified laboratory detection limit  
 PMC Pollutant Mobility Criteria  
 GWPC Groundwater Protection Criteria  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations  
 ND Not Detected

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**TABLE 9**

**HISTORICAL SAMPLE RESULTS  
HAMDEN MIDDLE SCHOOL  
HAMDEN, CONNECTICUT**

**Summary of Extractable Petroleum Hydrocarbon Soil-Quality Results  
from 2000 Facility Support Services Site Investigation  
Completed for Town of Hamden Board of Education**

<b>Sample ID</b>	<b>Sample Interval (feet below grade)</b>		<b>Date Collected</b>	<b>ETPH (mg/kg)</b>
B1	4	6	11/1/00	120
B2	6	8	11/1/00	<b>720</b>
B3	11	13	11/1/00	<b>1,800</b>
B3	2	4	11/1/00	<b>890</b>
B4	10	12	11/1/00	ND<50
B5	15.5	16	11/1/00	<b>250,000</b>
B7	10	12	11/1/00	<b>810</b>
B7	15	17	11/1/00	<b>2,200</b>
B7	2	5	11/1/00	<b>1,300</b>
B8	5	10	11/1/00	<b>1,800</b>
B11	15	17	11/1/00	ND<50
B12	15	17	11/1/00	ND<50
B14	10	12	11/1/00	<b>51,000</b>
B15	10	12	11/1/00	<b>33,000</b>
B15	13	15	11/1/00	<b>1,600</b>
CTDEP RSRs GA/GAA PMC				<b>500</b>
CTDEP RSRs GB PMC				<b>2,500</b>
CTDEP RSRs Residential Direct Exposure Criteria				<b>500</b>
CTDEP RSRs Industrial/Commercial Direct Exposure Criteria				<b>2,500</b>

ETPH Extractable Petroleum Hydrocarbon  
 PMC Pollutant Mobility Criteria  
 DEC Direct Exposure Criteria  
 CTDEP Connecticut Department of Environmental Protection  
 RSRs Remediation Standard Regulations  
 ND Not Detected

TABLE 10

**HISTORICAL SAMPLE RESULTS  
HAMDEN MIDDLE SCHOOL  
HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-01	HMS-02	HMS-03	HMS-04	HMS-05	HMS-06	HMS-07	HMS-08	HMS-09	HMS-10	HMS-10D	HMS-11	HMS-12	HMS-13	HMS-14	CTDEP CRITERIA	
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter																	
Total Metals EPA 6010/7000 (mg/kg)																	
Lead	165	75	45	55	200	90	70	400	430	115	120	210	165	150	85	<b>500</b>	---
Arsenic	0.59	0.20	0.74	0.30	0.92	1.0	0.66	2.3	1.6	1.5	1.5	1.6	1.5	1.1	0.85	<b>10</b>	---
SVOCs EPA 8270 (mg/kg dry wt)		N/A	N/A	N/A	N/A	N/A		N/A		N/A	N/A		N/A		N/A		
2-Methylphenol												<0.034				<b>1,000</b>	<b>7</b>
4-Methylphenol												<0.034				<b>340</b>	<b>1</b>
2,4-Dimethylphenol												<0.034				<b>1,000</b>	<b>2.8</b>
Benzoic Acid	0.15						0.22		0.091			0.28		0.049		<b>1,000</b>	<b>1,000</b>
Naphthalene	<0.036								<0.035			0.82		0.24		<b>1,000</b>	<b>5.6</b>
Benzyl Alcohol																<b>NE</b>	<b>NE</b>
2-Methylnaphthalene	<0.036								<0.035			0.44		0.15		<b>474</b>	<b>0.98</b>
Acenaphthylene	0.16						0.037		0.1			0.092		0.15		<b>1,000</b>	<b>8.4</b>
Acenaphthene	0.24						<0.037		<0.035			0.95		2.3		<b>1,000</b>	<b>8.4</b>
Dibenzofuran	0.15						<0.037		<0.035			0.88		<b>1.9</b>		<b>270</b>	<b>1</b>
Fluorene	0.18						<0.037		0.046			1.1		1.3		<b>1,000</b>	<b>5.6</b>
N-Nitrosodiphenylamine																<b>130</b>	<b>1</b>
Phenanthrene	2.2						0.37		0.7			<b>7.5</b>		<b>5.3</b>		<b>1,000</b>	<b>4</b>
Anthracene	0.4						0.048		0.25			1.9		0.84		<b>1,000</b>	<b>40</b>
Di-n-butyl phthalate *	0.061						0.052		0.077					0.049		<b>1,000</b>	<b>14</b>
Fluoranthene	<b>7.6</b>						0.93		1.5			<b>7.1</b>		<b>8.4</b>		<b>1,000</b>	<b>5.6</b>
Pyrene	<b>6.8</b>						0.78		1.4			<b>6.8</b>		<b>7.4</b>		<b>1,000</b>	<b>4</b>
Benzo(a)anthracene	<b>2.7</b>						0.29		0.77			<b>3.4</b>		<b>3.4</b>		<b>1</b>	<b>1</b>
Chrysene	<b>4.7</b>						0.56		0.91			<b>3.4</b>		<b>3.5</b>		<b>84</b>	<b>1</b>

TABLE 10

LEGGETTEBRASHEARS &amp; GRAHAM, INC

**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-01	HMS-02	HMS-03	HMS-04	HMS-05	HMS-06	HMS-07	HMS-08	HMS-09	HMS-10	HMS-10D	HMS-11	HMS-12	HMS-13	HMS-14	CTDEP CRITERIA	
	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	RDEC	GA/GAA PMC
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter																	
Bis(2-ethylhexyl). phthalate *	0.76						0.11		0.67			0.68		0.13		44	1
Benzo(b)fluoranthene	9						0.89		1.3			4.4		4.2		1	1
Benzo(k)fluoranthene	2.2						0.31		0.39			1.5		1.5		8.4	1
Benzo(a)pyrene	4.7						0.48		0.88			3.3		2.7		1	1
Indeno[1,2,3-cd]pyrene	3.1						0.37		0.49			1.6		1.4		1	1
Dibenz[a,h]anthracene	0.76						0.085		0.12			0.51		0.42		1	1
Benzo[g,h,i]perylene	3						0.37		0.49			1.6		1.2		1,000	4.2
Di-n-octyl phthalate																1,000	2

Notes:

RDEC = Residential Direct Exposure Criteria

GA/GAA PMC = GA/GAA Pollutant Mobility Criteria

NE = No criteria established for this parameter

NA = Sample not analyzed for this parameter

SVOCs = Semi-Volatile Organic Compounds, includes the group of compounds known as polynuclear aromatic hydrocarbons, or PAHs

mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)

- = Phthalate esters are frequent field and laboratory contaminants.

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**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-15	HMS-16	HMS-17	HMS-18	HMS-19	HMS-20	HMS-20D	HMS-21	HMS-22	HMS-23	HMS-24	HMS-25	HMS-26	HMS-27	HMS-28	CT DEP CRITERIA	
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter																	
<b>Total Metals EPA 6010/7000 (mg/kg)</b>																	
Lead	135	1485	20	55	15	20	10	240	75	185	85	150	20	70	25	500	---
Arsenic	1.1	8.7	1	1.1	0.83	0.4	0.69	1.4	0.88	1.4	0.87	1.2	1.0	0.74	1.2	10	---
<b>SVOCs EPA 8270 (mg/kg dry wt)</b>	N/A			N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A		
2-Methylphenol																1,000	7
4-Methylphenol																340	1
2,4-Dimethylphenol																1,000	2.8
Benzoic Acid			<0.035										<0.035	<0.034		1,000	1,000
Naphthalene		<0.035	<0.035										<0.035			1,000	5.6
Benzyl Alcohol					<0.034											NE	NE
2-Methylnaphthalene		<0.035	<0.035		<0.034								<0.035			474	0.98
Acenaphthylene		<0.035	0.11		0.15								0.12			1,000	8.4
Acenaphthene		<0.035	<0.035		<0.034								0.049			1,000	8.4
Dibenzofuran		<0.035	<0.035		<0.034								<0.035			270	1
Fluorene		<0.035	0.042		0.037								0.042			1,000	5.6
N-Nitrosodiphenylamine		0.056														130	1
Phenanthrene		0.35	0.56		0.544								0.39	<0.034		1,000	4
Anthracene		0.081	0.11		0.17								0.12			1,000	40
Di-n-butyl phthalate *		0.067	0.046		0.061								0.035	0.041		1,000	14
Fluoranthene		0.74	0.98		1.2								0.95	<0.034		1,000	5.6
Pyrene		0.63	0.84		0.95								0.74	<0.034		1,000	4
Benzo(a)anthracene		0.39	0.42		0.51								0.42	<0.034		1	1
Chrysene		0.42	0.49		0.61								0.49	<0.034		84	1

**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-15	HMS-16	HMS-17	HMS-18	HMS-19	HMS-20	HMS-20D	HMS-21	HMS-22	HMS-23	HMS-24	HMS-25	HMS-26	HMS-27	HMS-28	CT DEP CRITERIA	
																RDEC	GA/GAA PMC
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter																	
Bis(2-ethylhexyl)phthalate *		0.063	0.16		48								0.042	0.11		44	1
Benzo(b)fluoranthene		0.67	0.74		0.88								0.77	<0.034		1	1
Benzo(k)fluoranthene		0.22	0.26		0.32								0.26	<0.034		8.4	1
Benzo(a)pyrene		0.42	0.49		0.61								0.49	<0.034		1	1
Indeno[1,2,3-cd]pyrene		0.22	0.24		0.33								0.23	<0.034		1	1
Dibenz[a,h]anthracene		0.077	0.077		0.099								0.077			1	1
Benzo[g,h,i]perylene		0.26	0.23		0.32								0.22	<0.034		1,000	4.2
Di-n-octyl phthalate														0.046		1,000	2

Notes:  
RDEC = Residential Direct Exposure Criteria  
GA/GAA PMC = GA/GAA Pollutant Mobility Criteria  
NE = No criteria established for this parameter  
NA = Sample not analyzed for this parameter  
SVOCs = Semivolatile Organic Compounds, includes the group of compounds known as polynuclear aromatic hydrocarbons, or PAHs  
mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)  
\* = Phthalate esters are frequent field and laboratory contaminants.

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**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-29	HMS-30	HMS-30D	HMS-31	HMS-32	HMS-33	HMS-34	HMS-35	HMS-36	HMS-37	HMS-38	HMS-39	HMS-39D	CT DEP CRITERIA	
														RDEC	GA/GAA PMC
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter															
Total Metals EPA 6010/7000 (mg/kg)															
Lead	20	20	25	25	15	420	130	290	145	130	470	45	60	500	---
Arsenic	1.2	0.79	0.84	0.36	0.29	2.1	36	2.4	44	1.3	2.9	1.3	1.5	10	---
SVOCs EPA 8270 (mg/kg dry wt)		N/A	N/A		N/A				N/A				N/A		
2-Methylphenol														1,000	7
4-Methylphenol														340	1
2,4-Dimethylphenol														1,000	2.8
Benzoic Acid	<0.034					0.043	<0.035	<0.034		0.076	0.32	0.085		1,000	1,000
Naphthalene						0.043		0.061		0.18	0.11	0.16		1,000	5.6
Benzyl Alcohol														NE	NE
2-Methylnaphthalene						<0.036		0.044		0.095	0.053	0.078		474	0.98
Acenaphthylene	0.068			<0.034		0.061	<0.035	0.19		0.091	0.067	0.071		1,000	8.4
Acenaphthene						0.2	0.035	0.21		0.26	0.22	0.28		1,000	8.4
Dibenzofuran						0.12	<0.035	0.12		0.16	0.098	0.15		270	1
Fluorene						0.24	<0.035	0.23		0.25	0.18	0.23		1,000	5.6
N-Nitrosodiphenylamine											0.26			130	1
Phenanthrene	0.17			<0.034		2.2	0.49	2.6		2.2	2	2.3		1,000	4
Anthracene	0.054			<0.034		0.72	0.12	0.75		0.46	0.42	0.44		1,000	40
Di-n-butyl phthalate	<0.034			0.034		0.068	0.049	0.078		0.076		0.071		1,000	14
Fluoranthene	0.41			0.075		2.8	0.95	3.7		2.5	2.7	2.8		1,000	5.6
Pyrene	0.37			0.061		2.6	0.81	3.7		2.2	2.4	2.3		1,000	4
Benzo(a)anthracene	0.18			0.037		1.7	0.39	2.2		1.2	0.98	1.2		1	1
Chrysene	0.23			0.048		1.6	0.46	2.3		1.3	1.1	1.3		84	1
Bis(2-ethylhexyl)phthalate *	0.037			0.068		0.12	0.15			0.23		3.7		44	1

**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	HMS-29	HMS-30	HMS-30D	HMS-31	HMS-32	HMS-33	HMS-34	HMS-35	HMS-36	HMS-37	HMS-38	HMS-39	HMS-39D	CT DEP CRITERIA	
														RDEC	GA/GAA PMC
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Depth	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"	0-3"		
Collection Date	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001	5/10/2001		
Parameter															
Benzo(b)fluoranthene	0.37			0.075		2.3	0.7	3.7		2	2.8	2		1	1
Benzo(k)fluoranthene	0.13			<0.034		0.79	0.23	1.2		0.72	0.88	0.75		8.4	1
Benzo(a)pyrene	0.23			0.044		1.6	0.46	2.2		1.4	1.6	1.4		1	1
Indeno[1,2,3-cd]pyrene	0.12			<0.034		0.72	0.22	0.99		0.65	0.88	0.65		1	1
Dibenz[a,h]anthracene	0.041					0.23	0.06	0.31		0.2	0.25	0.21		1	1
Benzo[g,h,i]perylene	0.12			<0.034		0.65	0.2	0.95		0.65	1	0.68		1,000	4.2
Di-n-octyl phthalate														1,000	2

Notes:

RDEC = Residential Direct Exposure Criteria

GA/GAA PMC = GA/GAA Pollutant Mobility Criteria

NE = No criteria established for this parameter

NA = Sample not analyzed for this parameter

SVOCs = Semivolatile Organic Compounds, includes the group of compounds known as polynuclear aromatic hydrocarbons, or PAHs

mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)

\* = Phthalate esters are frequent field and laboratory contaminants.

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**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	SF-01	SF-02	SF-03	SF-04	SF-05	SF-06	SF-07	SF-08	SF-09	SF-10	SF-10D	SF-11	SF-12	SF-13	CT DEP RESIDENTIAL DIRECT EXPOSURE CRITERIA
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	
Collection Date	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	
Parameter															
<b>Total Metals EPA 6010/7000 (mg/kg) *</b>															
Cadmium	0.2	0.3	0.4	0.35	0.35	0.30	0.35	0.45	0.45	0.40	0.35	0.35	0.30	0.30	<b>34</b>
Chromium, total	3.6	5.2	6.8	5.4	6.5	5.3	6.0	9.0	7.4	8.4	5.5	7.0	5.6	5.7	<b>3900 / 100 #</b>
Copper	15	12	47	14	14	13	12	16	14	14	12	11	14	14	<b>2,500</b>
Nickel	2.7	4.2	5.5	4.9	4.7	4.6	4.4	6.9	5.9	5.9	5.2	5.5	4.7	4.7	<b>1,400</b>
Lead	7.0	15	83	20	17	29	23	24	30	32	24	22	17	19	<b>500</b>
Zinc	14	20	45	21	21	21	20	34	28	25	24	37	17	33	<b>20,000</b>
Arsenic	0.70	0.80	5.9	1.1	0.85	1.1	0.90	1.6	1.3	2.0	1.3	1.1	0.80	1.2	<b>10</b>
Barium	55	40	42	45	42	45	47	51	57	69	41	56	41	54	<b>4,700</b>
Selenium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>340</b>
Silver	0.25	0.20	0.20	0.25	0.25	0.20	0.20	0.35	0.35	0.25	0.20	0.20	0.30	0.15	<b>340</b>
Mercury	<0.01	0.01	0.08	0.03	0.02	0.02	0.02	0.04	0.03	0.03	0.03	0.02	0.02	0.03	<b>20</b>
Antimony	0.00	0.00	0.19	0.08	0.00	0.00	0.02	0.00	0.00	0.02	0.04	0.00	0.00	0.11	<b>27</b>
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2</b>
Thallium	0.14	0.13	0.06	0.09	0.06	0.06	0.06	0.09	0.15	0.14	0.12	0.17	0.00	0.12	<b>5.4</b>
<b>SVOCs EPA 8270 (mg/kg dry wt)</b>															
Benzyl alcohol	<0.047	<0.059													<b>NE</b>
Naphthalene		<0.059													<b>1,000</b>
2-Methylnaphthalene		<0.059													<b>474</b>
Acenaphthylene	<0.047	0.15	0.059	0.057	0.062	0.17	0.18	0.094	0.088	0.11	0.066	0.14	0.042	<0.042	<b>1,000</b>
Acenaphthene		<0.059	<0.042	<0.041	<0.041	<0.041	<0.039	<0.041	<0.040	<0.043	<0.041	<0.041	<0.038		<b>1,000</b>
Dibenzofuran		<0.059	<0.042	<0.041		<0.041	<0.039		<0.040	<0.043		<0.041			<b>270</b>
Fluorene		0.065		<0.041	<0.041	<0.041	<0.039	<0.041	<0.040	<0.043	<0.041	0.053	<0.038		<b>1,000</b>

**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	SF-01	SF-02	SF-03	SF-04	SF-05	SF-06	SF-07	SF-08	SF-09	SF-10	SF-10D	SF-11	SF-12	SF-13	CT DEP RESIDENTIAL DIRECT EXPOSURE CRITERIA
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	
Collection Date	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	
Parameter															
N-Nitrosodiphenylamine															130
Diethyl phthalate *	0.110	0.071	0.046	0.049	0.041	<0.041	<0.039	<0.041	0.048	<0.043		0.041	<0.038		1,000
Phenanthrene	0.094	0.77	0.29	0.28	0.29	0.49	0.39	0.26	0.37	0.37	0.26	0.57	0.14	0.076	1,000
Anthracene	<0.047	0.14	0.067	0.066	0.053	0.13	0.11	0.082	0.088	0.1	0.074	0.17	0.042	<0.042	1,000
Di-n-butyl phthalate *	3.0	0.77	0.8	0.78	0.82	0.62	0.55	0.62	1.2	0.73	0.1	1	0.61	0.17	1,000
Fluoranthene	0.250	1.4	0.67	0.66	0.78	1.4	1.1	0.82	0.84	0.86	0.78	1.3	0.53	0.27	1,000
Pyrene	0.2	1.1	0.5	0.49	0.53	1.1	0.82	0.66	0.6	0.65	0.41	1	0.27	0.14	1,000
Butylbenzyl phthalate *	0.24		0.067	0.066	0.045	<0.041	<0.039	<0.041	0.056	0.043	0.15	0.057	<0.038	0.22	1,000
Benzo(a)anthracene	0.094	0.65	0.29	0.28	0.27	0.57	0.47	0.35	0.35	0.36	0.27	0.62	0.19	0.092	1
Chrysene	0.12	0.77	0.35	0.35	0.36	0.74	0.55	0.45	0.4	0.43	0.32	0.62	0.22	0.12	84
Bis(2-ethylhexyl)phthalate *	0.13	5.8	0.067	0.066	0.045	0.053	0.047	0.041	<0.040	<0.043	0.2	0.066	<0.038	<0.042	44
Di-n-octyl phthalate *		3.8													1,000
Benzo(b)fluoranthene	0.099	0.71	0.32	0.36	0.32	0.7	0.59	0.41	0.4	0.37	0.31	0.49	0.2	0.11	1
Benzo(k)fluoranthene	0.11	0.65	0.29	0.27	0.28	0.57	0.47	0.38	3.6	0.39	0.29	0.53	0.22	0.11	8.4
Benzo(a)pyrene	0.11	0.71	0.33	0.33	0.32	0.66	0.55	0.41	0.38	0.4	0.31	0.57	0.21	0.11	1
Indeno[1,2,3-cd]pyrene	0.08	0.45	0.22	0.22	0.2	0.45	0.39	0.25	0.26	0.26	0.21	0.32	0.14	0.084	1
Dibenz[a,h]anthracene	<0.047		0.055	0.053	0.07	0.1	0.086	0.082	0.064	0.069	0.07	0.082	0.046	<0.042	1
Benzo[g,h,i]perylene	0.066	0.37	0.2	0.19	0.17	0.39	0.32	0.22	0.2	0.22	0.18	0.24	0.11	0.063	1,000

Notes:

NE = No criteria established for this parameter

SVOCs = Semivolatile Organic Compounds, includes the group of compounds known as polynuclear aromatic hydrocarbons, or PAHs

mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)

\* = Phthalate esters are frequent field and laboratory contaminants.

# = Residential direct exposure criteria for trivalent and hexavalent chromium, respectively

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**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	SF-14	SF-15	SF-16	SF-17	SF-18	SF-19	SF-20	SF-21	SF-22	SF-23	SF-24	SF-25	SF-26	CT DEP RESIDENTIAL DIRECT EXPOSURE CRITERIA
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	
Collection Date	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	
Parameter														
<b>Total Metals EPA 6010/7000 (mg/kg) *</b>														
Cadmium	0.30	0.40	0.30	0.20	0.25	0.15	0.35	0.25	0.25	0.55	0.35	0.35	0.30	<b>34</b>
Chromium, total	4.6	7.2	8.6	6.4	4.3	3.2	6.3	5.0	4.5	7.7	5.2	6.0	6.4	<b>3900 / 100 #</b>
Copper	12	12	19	10	11	9	12	6.6	13	130	15	12	15	<b>2,500</b>
Nickel	4.0	5.1	5.1	4.2	3.9	2.3	5.6	3.3	4.2	7.4	4.3	4.7	5.2	<b>1,400</b>
Lead	19	20	18	15	14	5.5	18	13	18	320	24	18	16	<b>500</b>
Zinc	22	24	27	21	19	10	26	16	59	180	25	22	25	<b>20,000</b>
Arsenic	0.90	1.1	0.85	1.0	0.85	0.50	1.0	1.1	1.2	2.1	1.1	0.90	0.90	<b>10</b>
Barium	46	37	45	45	44	52	53	41	44	55	44	48	40	<b>4,700</b>
Selenium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>340</b>
Silver	0.25	0.35	0.35	0.25	0.20	0.15	0.30	0.20	0.20	0.35	0.30	0.25	0.20	<b>340</b>
Mercury	0.02	0.02	0.02	0.05	0.01	<0.01	0.02	0.03	0.03	0.25	0.03	0.02	0.03	<b>20</b>
Antimony	0.00	0.07	0.00	0.08	0.11	0.03	0.03	0.00	0.03	1.1	0.00	0.00	0.00	<b>27</b>
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2</b>
Thallium	0.07	0.06	0.15	0.09	0.10	0.03	0.08	0.07	0.10	0.08	0.05	0.07	0.08	<b>5.4</b>
<b>SVOCs EPA 8270 (mg/kg dry wt)</b>														
Benzyl alcohol														<b>NE</b>
Naphthalene										<0.040				<b>1,000</b>
2-Methylnaphthalene														<b>474</b>
Acenaphthylene	<0.042	0.18	<0.041	0.043	<0.039		<0.040	<0.040		0.056	0.074	0.1	0.043	<b>1,000</b>
Acenaphthene		0.05		<0.039						<0.040	<0.062	<0.041		<b>1,000</b>
Dibenzofuran		<0.042								<0.040				<b>270</b>
Fluorene	<0.042	0.13		<0.039		<0.040				<0.040		<0.041		<b>1,000</b>
N-Nitrosodiphenylamine										0.072				<b>130</b>

**TABLE 10**  
(continued)  
**HISTORICAL SAMPLE RESULTS**  
**HAMDEN MIDDLE SCHOOL**  
**HAMDEN, CONNECTICUT**

Summary of Soil Sample Results Collected  
During May 2001 CTDEP Environmental Site Investigation

Sample ID	SF-14	SF-15	SF-16	SF-17	SF-18	SF-19	SF-20	SF-21	SF-22	SF-23	SF-24	SF-25	SF-26	CT DEP RESIDENTIAL DIRECT EXPOSURE CRITERIA
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	0-6"	
Collection Date	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	2/15/2001	
Parameter														
Diethyl phthalate *		0.05	0.045	<0.039	<0.039	<0.040								<b>1,000</b>
Phenanthrene	0.11	1.1	0.066	0.18	<0.039	0.12	0.092	0.068	<0.039	0.34	0.22	0.25	0.094	<b>1,000</b>
Anthracene	<0.042	0.37	<0.041	0.055	<0.039	<0.040	<0.040	<0.040	<0.039	0.092	0.081	0.078	0.031	<b>1,000</b>
Di-n-butyl phthalate *	0.13	0.5	0.82	0.29	1.4	0.72	0.08	0.064	0.055	0.044	0.068	<0.041	0.031	<b>1,000</b>
Fluoranthene	0.4	2.6	0.24	0.59	0.074	0.22	0.35	0.3	0.11	1.2	0.99	0.98	0.38	<b>1,000</b>
Pyrene	0.22	1.3	0.12	0.32	0.059	0.1	0.18	0.16	0.051	0.52	0.54	0.53	0.22	<b>1,000</b>
Butylbenzyl phthalate *	0.19	0.046	0.074	0.039	0.21	0.084								<b>1,000</b>
Benzo(a)anthracene	0.14	0.88	0.074	0.21	<0.039	0.064	0.12	0.12	<0.039	0.44	0.38	0.39	0.14	<b>1</b>
Chrysene	0.18	0.97	0.1	0.25	0.043	0.068	0.16	0.15	0.047	0.52	0.47	0.45	0.19	<b>84</b>
Bis(2-ethylhexyl)phthalate *	0.042	0.042	<0.041	<0.039	0.37	0.36	0.052	0.052	<0.039	0.26	0.074	0.049	0.078	<b>44</b>
Di-n-octyl phthalate *					<0.039	<0.040			<0.039					<b>1,000</b>
Benzo(b)fluoranthene	0.16	0.88	0.09	0.22	0.039	0.048	0.14	0.12	0.039	0.56	0.45	0.49	0.19	<b>1</b>
Benzo(k)fluoranthene	0.18	0.8	0.094	0.25	0.043	0.06	0.15	0.13	0.043	0.4	0.41	0.39	0.18	<b>8.4</b>
Benzo(a)pyrene	0.17	0.88	0.094	0.24	0.039	0.052	0.15	0.14	0.043	0.52	0.46	0.45	0.19	<b>1</b>
Indeno[1,2,3-cd]pyrene	0.13	0.5	0.066	0.17	<0.039	<0.040	0.13	0.11	<0.039	0.44	0.35	0.28	0.16	<b>1</b>
Dibenz[a,h]anthracene	0.042	0.17	<0.041	0.055		<0.040	<0.04	<0.04		0.14	0.081	0.1	0.047	<b>1</b>
Benzo[g,h,i]perylene	0.11	0.41	0.053	0.14	<0.039	<0.040	0.12	0.092	<0.039	0.4	0.3	0.25	0.13	<b>1,000</b>

Notes:

NE = No criteria established for this parameter

SVOCs = Semivolatile Organic Compounds, includes the group of compounds known as polynuclear aromatic hydrocarbons, or PAHs

mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)

\* = Phthalate esters are frequent field and laboratory contaminants.

# = Residential direct exposure criteria for trivalent and hexavalent chromium, respectively

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