

# **ANNUAL REPORT**

Prepared for

**BLACK & DECKER (U.S.), INC.**

**Hampstead, Maryland**

July 2003

Prepared by

**WESTON SOLUTIONS, INC.**

West Chester, Pennsylvania 19380-1499

W.O. No. 02501.004.004.0200

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## 1. INTRODUCTION

This Annual Report has been prepared to meet the requirements of Condition IV.L of the Administrative Consent Order between the State of Maryland Department of the Environment (MDE) and Black & Decker (U.S.) Inc. (April 1995) (Consent Order) and the Addendum to Administrative Consent Order dated 29 June 1995. Specifically, Condition IV.L calls for preparation of an Annual Report containing a summary of the information contained in the Discharge Monitoring Reports (Table 2-3), a summary of all analyses of water samples (Tables 2-4 to 2-7), an explanation of all problems encountered and the manner in which they were resolved (Table 3-1), a performance evaluation of the treatment system (Section 4), and recommendations for continuation of, or changes to, the treatment system (Section 5). This document is one of several that are being prepared in response to the Consent Order; each of these documents are to be submitted to the MDE in accordance with the schedule outlined in the Consent Order. This document will become part of the Administrative Record for the site, which is maintained at the Hampstead Public Library.

## **2. SITE CHARACTERISTICS**

### **2.1 HYDRAULIC PROPERTIES**

In accordance with the Consent Order and the Water Appropriation Permit issued to the Black & Decker (U.S.) Inc. Hampstead, Maryland, facility, the following pumping and water level information is included for the period of July 2002 through June 2003.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1. Copies of the Withdrawal Reports, for the periods of July through December 2002 and January through June 2003, are included in Appendix A.

Water levels (Water Level Monitoring Report) for wells included in the water level monitoring plan are presented in Table 2-2. Based on the June 2003 water levels, a representative groundwater elevation contour map under pumping conditions is presented in Figure 2-1. At the time the data were collected, the extraction wells were pumping at a combined rate of approximately 155 gpm.

### **2.2 EFFLUENT CHARACTERISTICS**

Effluent characteristics of the NPDES discharge points are recorded monthly on Discharge Monitoring Reports (DMRs) and are submitted to MDE, Water Management Administration on a quarterly basis. A summary of the sample results from the DMRs is presented in Table 2-3. DMRs for the period of July 2002 through June 2003 are included in Appendix B.

### **2.3 GROUNDWATER QUALITY DATA**

For the reporting period of July 2002 through June 2003, approximately 178 pounds (lb) of total volatile organic compounds (VOCs) were removed from the groundwater by the extraction and treatment system. In general, the total VOCs were comprised of trichloroethene (TCE) (78 %), tetrachloroethene (PCE) (22 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of July 2002 through June 2003 are included in Appendix C.

A summary of the analytical results of the groundwater samples collected from the monitor and extraction wells during the third and fourth quarters of 2002 and the first and second quarters of

**Table 2-1**  
**Treatment System Pumping Records**  
**(July 2002 through June 2003)**

**Black & Decker**  
**Hampstead, Maryland**

<b>Date</b>	<b>Water Pumped (gallons)</b>
July 2002	5,843,452
August 2002	5,873,450
September 2002	5,577,285
October 2002	5,882,263
November 2002	5,386,313
December 2002	5,399,590
January 2003	5,864,310
February 2003	5,713,285
March 2003	6,429,103
April 2003	6,371,564
May 2003	6,730,309
June 2003	6,694,683

**Table 2-2**  
**Groundwater Elevation Data (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

WELL NO.	TOC ELEV	TOTAL DEPTH	7/31/02		8/26/02		9/30/02		10/31/02	
			DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	--	DRY	--	DRY	--	DRY	--
EW-2	849.21	110	94.63	754.58	102.85	746.36	102.88	746.33	97.58	751.63
EW-3	846.64	118	89.43	757.21	93.10	753.54	93.62	753.02	84.36	762.28
EW-4	858.01	97.5	--	--	--	--	--	--	--	--
EW-5	864.17	98	88.00	776.17	87.88	776.29	86.94	777.23	89.13	775.04
EW-6	831.98	115	86.96	745.02	89.51	742.47	88.93	743.05	86.90	745.08
EW-7	818.38	78	67.94	750.44	71.65	746.73	72.43	745.95	73.26	745.12
EW-8	811.13	98	93.62	717.51	93.15	717.98	94.15	716.98	93.67	717.46
EW-9	811.35	141	99.79	711.56	102.55	708.80	102.00	709.35	97.95	713.40
EW-10	807.74	NA	44.68	763.06	53.12	754.62	54.89	752.85	54.65	753.09
RFW-1A	864.37	78	56.88	807.49	56.66	807.71	56.73	807.64	57.03	807.34
RFW-1B	864.23	200	56.92	807.31	56.63	807.60	56.70	807.53	57.07	807.16
RFW-2A	857.41	35	19.32	838.09	21.72	835.69	20.86	836.55	19.47	837.94
RFW-2B	857.73	75	19.91	837.82	22.35	835.38	22.42	835.31	19.79	837.94
RFW-3B	839.21	153	39.22	799.99	40.65	798.56	41.51	797.70	41.57	797.64
RFW-4A	830.37	62	40.71	789.66	40.43	789.94	40.46	789.91	40.48	789.89
RFW-4B	830.37	120	40.63	789.74	40.28	790.09	40.69	789.68	40.32	790.05
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	3.85	781.19	5.97	779.07	5.60	779.44	5.30	779.74
RFW-7	805.14	29	8.09	797.05	9.66	795.48	8.39	796.75	7.76	797.38
RFW-8	860.07	53	DRY	--	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	30.43	831.59	31.25	830.77	31.43	830.59	30.04	831.98
RFW-10	852.06	58	DRY	--	DRY	--	DRY	--	DRY	--
RFW-11A	849.32	72	NA	--	NA	--	NA	--	NA	--
RFW-11B	849.62	116	75.32	774.30	75.42	774.20	76.03	773.59	74.58	775.04
RFW-12B	844.87	264	59.41	785.46	56.40	788.47	57.49	787.38	59.71	785.16
RFW-13	849.11	150	67.26	781.85	67.52	781.59	68.26	780.85	66.94	782.17
RFW-14B	812.39	281	50.17	762.22	50.98	761.41	50.79	761.60	52.51	759.88
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	30.57	804.09	30.95	803.71	31.46	803.20	31.01	803.65
RFW-20	842.29	142	38.62	803.67	39.51	802.78	40.43	801.86	39.67	802.62
RFW-21	832.65	102	25.17	807.48	25.56	807.09	25.99	806.66	25.41	807.24
PH-7	805.94	89	34.06	771.88	33.02	772.92	33.85	772.09	35.61	770.33
PH-9	814.94	98	54.82	760.12	57.54	757.40	57.49	757.45	58.39	756.55
PH-11	820.68	78	46.31	774.37	46.55	774.13	45.98	774.70	48.71	771.97
PH-12	828.35	87	52.41	775.94	55.13	773.22	54.67	773.68	55.69	772.66
B-3	803.02	83	9.13	793.89	8.96	794.06	8.87	794.15	8.44	794.58
Amoco	842.29	NA	26.89	815.40	27.13	815.16	27.34	814.95	NA	842.29
Hamp. Town #22	804.96	NA	25.11	779.85	17.83	787.13	29.43	775.53	29.63	804.96
Pembroke #1	NA	NA	14.68	--	14.43	--	13.94	--	11.19	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	11.09	--	11.17	--	11.15	--	9.94	--
E. Century St.	NA	NA	35.41	--	21.12	--	23.43	--	11.21	--
Lwr. Beckleys. Rd.	NA	NA	--	--	58.62	--	58.55	--	57.42	--

Notes: DTW - Depth to water (ft below top of well casing)  
ELEV - Groundwater elevation (ft above mean sea level)  
NA - Not Available/Not Accessible

**Table 2-2**  
**Groundwater Elevation Data (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

WELL NO.	TOC ELEV	TOTAL DEPTH	11/25/02		12/19/02		1/8/2003		2/24/03	
			DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	--	DRY	--	DRY	--	DRY	--
EW-2	849.21	110	102.00	747.21	99.76	749.45	100.11	749.10	98.74	750.47
EW-3	846.64	118	87.49	759.15	91.42	755.22	97.57	749.07	91.90	754.74
EW-4	858.01	97.5	--	--	--	--	--	--	--	--
EW-5	864.17	98	91.47	772.70	90.42	773.75	92.60	771.57	93.21	770.96
EW-6	831.98	115	86.58	745.40	87.41	744.57	88.21	743.77	88.22	743.76
EW-7	818.38	78	77.71	740.67	76.23	742.15	77.11	741.27	75.84	742.54
EW-8	811.13	98	94.19	716.94	94.31	716.82	94.12	717.01	92.86	718.27
EW-9	811.35	141	96.87	714.48	96.56	714.79	98.41	712.94	97.11	714.24
EW-10	807.74	NA	56.83	750.91	52.38	755.36	53.61	754.13	53.63	754.11
RFW-1A	864.37	78	56.55	807.82	56.84	807.53	63.58	800.79	56.67	807.70
RFW-1B	864.23	200	56.58	807.65	56.86	807.37	63.57	800.66	56.69	807.54
RFW-2A	857.41	35	18.46	838.95	18.63	838.78	19.10	838.31	17.84	839.57
RFW-2B	857.73	75	19.14	838.59	18.84	838.89	19.37	838.36	17.90	839.83
RFW-3B	839.21	153	40.78	798.43	39.69	799.52	39.74	799.47	NA	--
RFW-4A	830.37	62	39.61	790.76	38.94	791.43	41.61	788.76	37.86	792.51
RFW-4B	830.37	120	39.33	791.04	38.86	791.51	41.57	788.80	37.74	792.63
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	4.74	780.30	4.25	780.79	3.84	781.20	3.21	781.83
RFW-7	805.14	29	7.57	797.57	7.86	797.28	7.19	797.95	NA	--
RFW-8	860.07	53	DRY	--	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	28.76	833.26	27.92	834.10	31.15	830.87	27.67	834.35
RFW-10	852.06	58	DRY	--	DRY	--	DRY	--	DRY	--
RFW-11A	849.32	72	NA	--	NA	--	NA	--	NA	--
RFW-11B	849.62	116	74.13	775.49	73.97	775.65	72.86	776.76	73.41	776.21
RFW-12B	844.87	264	55.21	789.66	54.96	789.91	54.36	790.51	55.08	789.79
RFW-13	849.11	150	68.27	780.84	66.77	782.34	66.83	782.28	NA	--
RFW-14B	812.39	281	53.73	758.66	53.34	759.05	53.46	758.93	53.30	759.09
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	29.82	804.84	28.86	805.80	28.98	805.68	28.61	806.05
RFW-20	842.29	142	38.73	803.56	37.96	804.33	38.46	803.83	37.90	804.39
RFW-21	832.65	102	26.86	805.79	24.88	807.77	25.38	807.27	25.11	807.54
PH-7	805.94	89	35.87	770.07	35.63	770.31	35.87	770.07	35.47	770.47
PH-9	814.94	98	57.93	757.01	57.31	757.63	57.61	757.33	57.01	757.93
PH-11	820.68	78	49.61	771.07	44.03	776.65	44.90	775.78	43.80	776.88
PH-12	828.35	87	55.87	772.48	54.93	773.42	55.43	772.92	54.79	773.56
B-3	803.02	83	NA	--	8.61	794.41	7.59	795.43	7.67	795.35
Amoco	842.29	NA	NA	--	NA	--	NA	--	--	--
Hamp. Town #22	804.96	NA	19.68	785.28	32.18	772.78	19.56	785.40	27.43	777.53
Pembroke #1	NA	NA	10.89	--	11.63	--	11.10	--	10.83	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	10.26	--	9.51	--	8.96	--	10.04	--
E. Century St.	NA	NA	11.19	--	11.24	--	11.19	--	10.81	--
Lwr. Beckleys. Rd.	NA	NA	58.69	--	58.95	--	56.19	--	55.83	--

Notes: DTW - Depth to water (ft below top of well casing)  
ELEV - Groundwater elevation (ft above mean sea level)  
NA - Not Available/Not Accessible



**Table 2-2**  
**Groundwater Elevation Data (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

WELL NO.	TOC ELEV	TOTAL DEPTH	3/31/03		4/29/03		05/28/03		6/30/03	
			DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	--	DRY	--	DRY	--	DRY	--
EW-2	849.21	110	97.67	751.54	96.43	752.78	95.11	754.10	95.87	753.34
EW-3	846.64	118	93.42	753.22	91.87	754.77	90.69	755.95	91.80	754.84
EW-4	858.01	97.5	--	--	--	--	--	--	--	--
EW-5	864.17	98	92.87	771.30	88.16	776.01	87.90	776.27	88.03	776.14
EW-6	831.98	115	85.32	746.66	73.07	758.91	76.19	755.79	74.00	757.98
EW-7	818.38	78	73.14	745.24	59.19	759.19	66.88	751.50	61.03	757.35
EW-8	811.13	98	91.91	719.22	69.81	741.32	74.58	736.55	72.09	739.04
EW-9	811.35	141	98.03	713.32	93.53	717.82	92.88	718.47	54.86	756.49
EW-10	807.74	NA	54.12	753.62	34.16	773.58	36.91	770.83	36.43	771.31
RFW-1A	864.37	78	56.21	808.16	53.07	811.30	48.92	815.45	49.41	814.96
RFW-1B	864.23	200	56.24	807.99	53.09	811.14	49.02	815.21	49.43	814.80
RFW-2A	857.41	35	17.76	839.65	16.82	840.59	11.66	845.75	12.37	845.04
RFW-2B	857.73	75	17.81	839.92	16.89	840.84	11.83	845.90	12.46	845.27
RFW-3B	839.21	153	38.49	800.72	36.58	802.63	27.82	811.39	28.59	810.62
RFW-4A	830.37	62	39.62	790.75	35.97	794.40	35.21	795.16	35.58	794.79
RFW-4B	830.37	120	39.46	790.91	35.82	794.55	35.43	794.94	35.73	794.64
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	2.96	782.08	3.56	781.48	3.03	782.01	2.86	782.18
RFW-7	805.14	29	7.56	797.58	8.02	797.12	4.96	800.18	6.11	799.03
RFW-8	860.07	53	DRY	--	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	26.27	835.75	24.53	837.49	23.93	838.09	24.17	837.85
RFW-10	852.06	58	DRY	--	DRY	--	DRY	--	DRY	--
RFW-11A	849.32	72	NA	--	NA	--	NA	--	NA	--
RFW-11B	849.62	116	74.03	775.59	73.64	775.98	71.14	778.48	70.86	778.76
RFW-12B	844.87	264	55.46	789.41	55.40	789.47	51.77	793.10	51.68	792.74
RFW-13	849.11	150	65.88	783.23	64.38	784.73	63.82	785.29	63.73	785.38
RFW-14B	812.39	281	52.61	759.78	49.43	762.96	49.67	762.72	50.03	762.36
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	29.17	805.49	28.67	805.99	24.80	809.86	24.67	809.99
RFW-20	842.29	142	36.89	805.40	36.41	805.88	33.84	808.45	33.73	810.08
RFW-21	832.65	102	25.08	807.57	24.84	807.81	21.25	811.40	21.08	813.57
PH-7	805.94	89	35.36	770.58	29.46	776.48	30.24	775.70	28.03	777.91
PH-9	814.94	98	56.94	758.00	52.37	762.57	52.68	762.26	51.46	763.48
PH-11	820.68	78	41.63	779.05	39.21	781.47	39.37	781.31	38.63	782.05
PH-12	828.35	87	53.81	774.54	51.72	776.63	52.62	775.73	50.93	777.42
B-3	803.02	83	7.19	795.83	7.41	795.61	7.59	795.43	7.63	795.39
Amoco	842.29	NA	NA	--	NA	--	NA	--	NA	--
Hamp. Town #22	804.96	NA	18.63	786.33	30.12	774.84	25.17	779.79	25.98	778.98
Pembroke #1	NA	NA	10.99	--	10.24	--	10.43	--	10.57	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	9.87	--	9.98	--	9.94	--	9.87	--
E. Century St.	NA	NA	11.43	--	11.19	--	11.26	--	11.39	--
Lwr. Beckleys. Rd.	NA	NA	55.48	--	53.23	--	52.86	--	NA	--

Notes: DTW - Depth to water (ft below top of well casing)  
ELEV - Groundwater elevation (ft above mean sea level)  
NA - Not Available/Not Accessible

**Table 2-3**  
**Effluent Characteristics Summary (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

Discharge Number	Parameter	Units	Permit Limits	DMR DATE											
				July 2002	August 2002	September 2002	October 2002	November 2002	December 2002						
001	FLOW	average	MGD	NA	0.104	0.055	0.155	0.238	0.157	0.158					
		maximum	MGD	NA	0.155	0.101	1.079	1.511	0.203	0.238					
	1,1,1-Trichloroethane	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
	Tetrachloroethylene	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
	Trichloroethylene	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
	Total Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	Oil & Grease	maximum	mg/l	15	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
		quarterly average	mg/l	10	NR	NR	< 5	NR	NR	NR	< 5	< 5	< 5		
	pH	minimum	STD	6.0	6.76	6.21	6.06	6.19	6.07	6.07	6.45	6.45	6.45		
		maximum	STD	8.5	8.21	7.09	7.01	6.73	6.82	6.82	7.08	7.08	7.08		
	BOD	maximum	mg/l	15	4.4	6.5	1.6	2	2	2	4	4	4		
		quarterly average	mg/l	20	NR	NR	10.7	NR	NR	NR	<2.5	<2.5	<2.5		
101 (Monitoring Point)	FLOW	average	MGD	NA	0.428	0.353	0.394	0.468	0.397	0.310					
		maximum	MGD	NA	0.452	0.390	0.448	0.473	0.435	0.399					
	Fecal Coliform	MPPN/100ml	200	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2			
201 (Monitoring Point)	FLOW	average	MGD	NA	0.188	0.189	0.186	0.190	0.180	0.174					
		maximum	MGD	NA	0.228	0.249	0.206	0.352	0.207	0.225					
	1,1,1-Trichloroethane	ug/l	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5				
	Trichloroethylene	ug/l	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5				

DMR - Discharge Monitoring Report  
 NA - Not Applicable  
 NR - Not Reported

**Table 2-3**  
**Effluent Characteristics Summary (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

Discharge Number	Parameter	Units	Permit Limits	DMR DATE						
				January 2003	February 2003	March 2003	April 2003	May 2003	June 2003	
001	FLOW	average	MGD	NA	0.209	0.127	0.386	0.121	0.209	0.209
		maximum	MGD	NA	0.542	0.355	1.419	0.197	0.570	0.570
	1,1,1-Trichloroethane	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	Tetrachloroethylene	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	Trichloroethylene	ug/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	Total Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Oil & Grease	mg/l	15	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	quarterly average	mg/l	10	NR	NR	< 5	< 5	NR	< 5	< 5
	pH	STD	6.0	6.26	6.79	7.30	7.09	6.48	6.61	6.61
	minimum	STD	8.5	6.69	7.46	7.94	7.71	7.38	7.44	7.44
	BOD	mg/l	15	<2	5.5	3.5	2.7	<2	<2	3.1
	maximum	mg/l	30	7.0	2.8	13.0	3.6	15.0	9.0	9.0
	TSS	mg/l	20	NR	NR	7.6	NR	NR	NR	8.5
quarterly average	mg/l	20	NR	NR	7.6	NR	NR	NR	8.5	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.419	0.421	0.400	0.229	0.436	0.521
		maximum	MGD	NA	0.556	0.464	0.443	0.246	0.451	0.582
201 (Monitoring Point)	Fecal Coliform		MPN/100ml	200	< 2	< 2	< 2	< 2	< 2	< 2
		average	MGD	NA	0.174	0.204	0.207	0.212	0.217	0.223
	maximum	MGD	NA	0.225	0.251	0.254	0.244	0.273	0.256	
	1,1,1-Trichloroethane	ug/l	NA	< 5	< 5	< 5	< 5	< 5	< 5	
	Tetrachloroethylene	ug/l	NA	< 5	< 5	< 5	< 5	< 5	< 5	
Trichloroethylene	ug/l	NA	< 5	< 5	< 5	< 5	< 5	< 5		

DMR - Discharge Monitoring Report  
 NA - Not Applicable  
 NR - Not Reported

2002 are included in Tables 2-4, 2-5, 2-6, and 2-7, respectively. As found in earlier sampling events at the Black & Decker facility, TCE and PCE were the VOCs detected at the highest concentrations in the groundwater samples. The highest concentrations of TCE were detected in the groundwater samples collected from wells EW-2, EW-4 and RFW-12B and the highest concentrations of PCE were detected in the groundwater samples collected from well EW-9. VOCs detected at lower concentrations included 1,2-dichloroethene. The remainder of VOCs present were detected at levels well below the Federal Maximum Concentration Levels (MCLs). The second quarter 2003 (May 2003) analytical data package is included in Appendix D. Analytical data packages for the remaining quarters are included in the respective Quarterly Groundwater Monitoring Reports.

**Table 2-4**  
**Summary of Groundwater Analytical Results - August 2002**  
**Black & Decker**  
**Hampstead, Maryland**

PARAMETER	Units	EW-1	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-9	EW-9 (DUP)	EW-10	RFW-1A	RFW-1B	RFW-2A
		(10)	(10)	(5)	(10)	(10)			(1)	(5)	(2)				
Chloromethane	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	110 B	53 B	110 B	110 B	8 B	9 B	9 B	62 B	14 B	5 JB	5 JB	5 B	5 JB
Acetone	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	2 J	25 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	25 U	50 U	50 U	5 U	7	39	25 U	3 J	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	1 J	25 U	10 U	5 U	5 U	5 U	1 J
Carbon Tetrachloride	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	1300	370	1900	620	14	8	23	6 J	4 J	5 U	5 U	5 U	5
Dibromochloromethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	1 J	25 U	10 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	100 U	50 U	100 U	100 U	10 U	10 U	10 U	50 U	20 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	110	12 J	56	33 J	32	20	150	280	230	11	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	50 U	25 U	50 U	50 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.  
J = Indicates an estimated value.

DUP = Duplicate sample  
NS = Not sampled

**Table 2-4  
Summary of Groundwater Analytical Results - August 2002  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11A	RFW-11B	RFW-12B
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Methylene Chloride	ug/L	5 B	3 JB	3 JB	4 JB	3 JB	NS	3 JB	4 JB	NS	3 JB	NS	NS	3 JB	39 B
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,1-Dichloroethene	ug/L	5 U	1 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,2-Dichloroethene (total)	ug/L	5 U	27	3 J	7	8	NS	2 J	1 J	NS	7	NS	NS	7	24 J
Chloroform	ug/L	5 U	5 U	1 J	1 J	1 J	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
1,1,1-Trichloroethane	ug/L	5 U	3 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Trichloroethene	ug/L	5 U	18	70	22	19	NS	7	21	NS	25	NS	NS	87	430
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Benzene	ug/L	5 U	5 U	2 J	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	50 U
Tetrachloroethene	ug/L	5 U	17	74	73	73	NS	8	2 J	NS	5 J	NS	NS	2 J	33
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	25 U

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**Table 2-4  
Summary of Groundwater Analytical Results - August 2002  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank
Chloromethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Bromomethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Vinyl Chloride	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Chloroethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Methylene Chloride	ug/L	3 JB	NS	5 JB	5 JB	5 JB	4 B	8 B	8 B	8 B	NS	5 B
Acetone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Carbon Disulfide	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chloroform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	4 J
2-Butanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	5 U
1,1,1-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	10 U
Carbon Tetrachloride	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromodichloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloropropane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trichloroethene	ug/L	7	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Dibromochloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Benzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromoform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
2-Hexanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Tetrachloroethene	ug/L	38	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	10 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	3 J	5 U	NS	5 U
Toluene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chlorobenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Ethylbenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Styrene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Xylene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for q DUP = Duplicate sample  
J = Indicates an estimated value.  
NS = Not sampled

**Table 2-4  
Summary of Groundwater Analytical Results - November 2002  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	EW-1	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-9	EW-9 (DUP)	EW-10	RFW-1A	RFW-1B	RFW-2A
			(5)	(5)	(5)	(5)				(2)	(2)				
Chloromethane	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	2 J	5 U	5 U	5 U	5 U
Acetone	ug/L	NS	50 U	50 U	50 U	50 J	10 U	10 U	10 U	20 U	8 J	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	1 J	2 J	10 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	25 U	25 U	25 U	25 U	5 U	10	41	2 J	2 J	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	1 J	10 U	10 U	5 U	5 U	1 J	3 J
Carbon Tetrachloride	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	900	330	###	390	18	13	25	4 J	4 J	5 U	5 U	5 U	11
Dibromochloromethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	50 U	50 U	50 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	95	10 J	30	17 J	32	27	130	200	210	7	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	25 U	25 U	25 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U	5 U

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**Table 2-4  
Summary of Groundwater Analytical Results - November 2002  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11A	RFW-11B	RFW-12B
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	20 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	20 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	20 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	20 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	9 JB	NS	NS	10 U	20 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
1,1-Dichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	2 J	NS	NS	5 U	10 U
1,2-Dichloroethene (total)	ug/L	1 J	22	2 J	9	8	NS	2 J	3 J	NS	9	NS	NS	5 U	13
Chloroform	ug/L	5 U	5 U	1 J	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
1,2-Dichloroethane	ug/L	1 J	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	25 U
1,1,1-Trichloroethane	ug/L	5 U	2 J	5 U	5 U	5 U	NS	5 U	5 U	NS	2 J	NS	NS	5 U	10 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Trichloroethene	ug/L	2 J	12	63	7	7	NS	10	14	NS	33	NS	NS	99	280
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	25 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U	25 U
Tetrachloroethene	ug/L	5 U	12	65	70	71	NS	10	5 U	NS	12	NS	NS	3 J	18
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U	10 U

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**Table 2-4  
Summary of Groundwater Analytical Results - November 2002  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank
Chloromethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Bromomethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Vinyl Chloride	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Chloroethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Methylene Chloride	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Acetone	ug/L	9 J	NS	10 U	14	2 JB	10 U	10 U	10 U	10 U	NS	10 U
Carbon Disulfide	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethene	ug/L	1 J	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chloroform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethane	ug/L	5 U	NS	1 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
2-Butanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
1,1,1-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Carbon Tetrachloride	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromodichloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloropropane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trichloroethene	ug/L	34	NS	5 U	2 J	5 U	5 U	5 U	5 U	5 U	NS	5 U
Dibromochloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Benzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromoform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
2-Hexanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Tetrachloroethene	ug/L	100	NS	1 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Toluene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chlorobenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Ethylbenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Styrene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Xylene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U

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**Table 2-6  
Summary of Groundwater Analytical Results - February 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	EW-1	EW-2 (10)	EW-3 (2)	EW-4 (10)	EW-5 (5)	EW-6	EW-7	EW-8	EW-9 (2)	EW-9 (DUP) (2)	EW-10	RFW-1A	RFW-1B
Chloromethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	51	11	49 J	10 J	5 U	1 J	5 U	9 J	2 J	5 U	5 U	5 U
Acetone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	1 J	1 J	10 U	10 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	2 J	50 U	25 U	5 U	9	32	10 U	10 U	5 U	5 U	5 U
Chloroform	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	10 U	50 U	7 J	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	1300	390	950	630	16	11	20	2 J	3 J	5 U	5 U	5 U
Dibromochloromethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Benzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Bromoform	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	89	9 J	19 J	24 J	29	25	110	190	210	4 J	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Toluene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Styrene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification DUP = Duplicate sample  
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**Table 2-6  
Summary of Groundwater Analytical Results - February 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	Hampstead, Maryland													
		RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11A	RFW-11B
Chloromethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Bromomethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Vinyl Chloride	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Chloroethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Methylene Chloride	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Acetone	ug/L	10 U	13	NS	10 U	7 J	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Carbon Disulfide	ug/L	5 U	5 U	NS	5 U	2 J	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	NS	2 J	6	7	NS	1 J	NS	NS	20	NS	NS	5 U
Chloroform	ug/L	5 U	5 U	NS	1 J	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,2-Dichloroethane	ug/L	5 U	1 J	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
2-Butanone	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
1,1,1-Trichloroethane	ug/L	1 J	1 J	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Bromodichloromethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Trichloroethene	ug/L	5	8	NS	64	5 U	5 U	NS	9	NS	NS	32	NS	NS	85
Dibromochloromethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Benzene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Bromoform	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
2-Hexanone	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	NS	10 U	NS	NS	10 U
Tetrachloroethene	ug/L	5 U	5 U	NS	58	19	25	NS	8	NS	NS	15	NS	NS	10 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	2 J
Toluene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Chlorobenzene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Ethylbenzene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Styrene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U
Xylene (total)	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS	NS	5 U

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**Table 2-6  
Summary of Groundwater Analytical Results - February 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-12E	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank
Chloromethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Bromomethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Vinyl Chloride	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Chloroethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Methylene Chloride	ug/L	2 J	NS	NS	4 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Acetone	ug/L	6 J	NS	NS	3 J	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Carbon Disulfide	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethene (total)	ug/L	12	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chloroform	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethane	ug/L	5 U	NS	NS	1 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
2-Butanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
1,1,1-Trichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Carbon Tetrachloride	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromodichloromethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloropropane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trichloroethene	ug/L	330	NS	NS	5 U	3 J	5 U	5 U	5 U	5 U	5 U	NS	5 U
Dibromochloromethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Benzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromoform	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
2-Hexanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Tetrachloroethene	ug/L	20	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Toluene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chlorobenzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Ethylbenzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Styrene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Xylene (total)	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantifi  
J = Indicates an estimated value. DUP = Duplicate sample  
NS = Not sampled

**Table 2-7  
Summary of Groundwater Analytical Results - May 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	EW-1	EW-2 (10)	EW-3 (5)	EW-4 (10)	EW-5 (5)	EW-6	EW-7	EW-8	EW-9 (2)	EW-9 (DUP) (2)	EW-10	RFW-1A	RFW-1B
Chloromethane	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Acetone	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	25 U	50 U	25 U	5 U	4 J	20	10 U	10 U	5 U	5 U	5 U
Chloroform	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	960	320	920	530	16	6	12	10 U	10 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Benzene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Bromoform	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	100 U	50 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	72	8 J	18 J	22 J	33	15	79	130	130	4 J	5 U	5 U
1,1,1,2-Tetrachloroethane	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Toluene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Styrene	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	50 U	25 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification DUP = Duplicate sample  
J = Indicates an estimated value. NS = Not sampled

**Table 2-7  
Summary of Groundwater Analytical Results - May 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4A (DUP)	RFW-4B	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11	RFW-11B
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Methylene Chloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	2 J	5 U	NS	5 U	NS	NS	5 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	1 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	17	2 J	2 J	7	NS	1 J	5 U	NS	4 J	NS	NS	5 U
Chloroform	ug/L	5 U	5 U	5 U	1 J	1 J	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	2 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Trichloroethene	ug/L	2 J	5 U	13	66	64	19	NS	6	12	NS	7	NS	NS	76
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	NS	10 U
Tetrachloroethene	ug/L	5 U	5 U	11	61	59	86	NS	7	5 U	NS	3 J	NS	NS	2 J
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.  
J = Indicates an estimated value.

DUP = Duplicate sample  
NS = Not sampled

**Table 2-7  
Summary of Groundwater Analytical Results - May 2003  
Black & Decker  
Hampstead, Maryland**

PARAMETER	Units		RFW-12B	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank
		(2)												
Chloromethane	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Bromomethane	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Vinyl Chloride	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Chloroethane	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Methylene Chloride	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	4 J
Acetone	ug/L	20 U	10 U	10 U	NS	10 U	7 J	10 U	10 U	10 U	10 U	10 U	NS	10 U
Carbon Disulfide	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethene (total)	ug/L	10	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chloroform	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
2-Butanone	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
1,1,1-Trichloroethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Carbon Tetrachloride	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromodichloromethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloropropane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trichloroethene	ug/L	380	5	5	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Dibromochloromethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Benzene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromoform	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
2-Hexanone	ug/L	20 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Tetrachloroethene	ug/L	23	35	35	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Toluene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chlorobenzene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Ethylbenzene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Styrene	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Xylene (total)	ug/L	10 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quanti; DUP = Duplicate sample  
J = Indicates an estimated value.  
NS = Not sampled



### **3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM**

A summary of the maintenance activities that were undertaken with the extraction and treatment system during the reporting period (July 2002 through June 2003) is provided in Table 3-1. This table is comprehensive in summarizing significant maintenance events or activities, while not including those activities considered unworthy of note (such as replacement of light bulbs, lubrication of moving parts, as appropriate, or other routine activities).

**Table 3-1**  
**Treatment System Maintenance Activities (July 2002 through June 2003)**  
**Black & Decker**  
**Hampstead, Maryland**

Date	Event/Corrective Action
September 2002	Replaced pitless adaptor in EW-3
September 2002	Replaced check valve in EW-2. It had a bad O-ring.
December 2002	Wells EW-2 - EW-5 were down for 7 days due to a broken electrical line. The electrical line has been repaired and the wells are now back on line.
January 2003	EW-1 thru EW-5 taken out of service. Electrician is replacing power feed and control wire from pull box at NW corner to Ews. Water valve closed and system drained on east side.
January 2003	Electrician has replaced the power feed and control wire. The wells are back online after being off for one week.
January 2003	EW-3 down for one day to repair a cracked fitting. Fitting repaired, well back on line.

## 4. TREATMENT SYSTEM PERFORMANCE EVALUATION

During the reporting period of July 2002 to June 2003, depth-to-water measurements were collected in all site monitor wells on a monthly basis. Each month, a groundwater elevation contour map was constructed to verify that the groundwater extraction system was providing a hydraulic barrier to prevent any groundwater contamination from migrating off-site. Pumping rates were adjusted as necessary to ensure that hydraulic control was being maintained across the site. Significant drawdown has been observed in both shallow and deeper monitor wells throughout the long-term pumping of the extraction well system, indicating that considerable interconnection exists between the shallow and deeper groundwater.

As evidenced by the groundwater elevation contour map (Figure 2-1), groundwater flow is still principally to the southwest, with some components to the south and east. However, depressions in the groundwater surface, due to the pumping of the extraction wells, are evident on the map and the flow lines indicate that direction of groundwater flow is toward the extraction wells. The system as presently configured is successful in meeting the objective of capturing on-site groundwater, thereby eliminating the potential off-site migration of contaminated groundwater. The system is also successful in treating the collected groundwater to remove the VOCs from the water. The laboratory analysis results of the treated discharge water do not show the presence of VOCs.

## 5. RECOMMENDATIONS

As discussed in Section 4, the treatment system has created a hydraulic boundary that prevents the off-site migration of groundwater. The extraction system will continue to operate as currently configured to pump and treat contaminated groundwater. Depth-to-water measurements will continue to be collected on a monthly basis in all site monitor wells to construct a groundwater elevation contour map for the site. The groundwater elevation contour map will be used to verify that the required area of groundwater capture is being maintained. If necessary, pumping rates will be adjusted to maintain groundwater capture due to seasonal fluctuations in groundwater elevations. The treatment system will also continue to operate as currently configured, as data collected have proven that the treatment system is fully effective in removing VOCs from the extracted groundwater.

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**APPENDIX A  
WITHDRAWAL REPORTS**

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**APPENDIX B**  
**DISCHARGE MONITORING REPORTS**

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**APPENDIX C**  
**GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS**

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**APPENDIX D**  
**GROUNDWATER ANALYTICAL DATA PACKAGE (MAY 2003)**

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