

Quarterly Groundwater Monitoring Report

Prepared for
Black & Decker (U.S.) Inc.

Hampstead, Maryland

April 2007

Prepared by

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1. INTRODUCTION

This Groundwater Monitoring Report has been prepared to meet the requirements of Condition IV.G 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). Specifically, Condition IV.G calls for preparation of a Groundwater Monitoring Report containing the following information for each reporting period:

- The quantities of groundwater pumped, treated, and discharged.
- The calculation of quantities of contaminants removed from groundwater.
- A summary of all sampling analyses.
- An explanation of all operational or other problems encountered, and the manner in which each problem was resolved.
- Copies of all reports submitted to the Department of Natural Resources in conjunction with the Groundwater Appropriations Permit.
- Recommendations for changes to the Interim Groundwater Treatment System.

This document is one of several which 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 and Decker (U.S.) Inc. Hampstead, Maryland, facility, the following pumping and water level information is included for the period of January through March 2007.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1. The complete groundwater treatment system pumping records are included in Appendix A.

Monthly water levels for wells included in the water level monitoring plan are presented in Table 2-2. For the reporting period of January through March 2007, the extraction wells were pumping at an average combined rate of approximately 163 gallons per minute (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 January through March 2007 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of January through March 2007, approximately 20 pounds of total volatile organic compounds (VOCs) were removed from the groundwater by the extraction and treatment system. In general, the total VOCs removed from the groundwater were comprised primarily of trichloroethene (TCE) (63 %) and tetrachloroethene (PCE) (37 %). Analytical results of the groundwater collected from the air stripper for the period of January through March 2007 are included in Appendix C.

A summary of the analytical results from the first quarter (February 2007) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

Table 2-1
Treatment System Pumping Records - 1st Quarter 2007
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
January 2007	6,483,875
February 2007	6,216,560
March 2007	6,855,271

Table 2-2
Groundwater Elevation Data - 4th Quarter 2006
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	1/18/2007		2/20/2007		3/10/2007	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NA	DRY	NA	DRY	NA
EW-2	849.21	110	76.12	773.09	67.92	781.29	69.01	780.20
EW-3	846.64	118	84.47	762.17	81.29	765.35	87.43	759.21
EW-4	858.01	97.5	NA	NA	NA	NA	NA	NA
EW-5	864.17	98	68.18	795.99	69.48	794.69	69.38	794.79
EW-6	831.98	115	103.16	728.82	95.29	736.69	92.41	739.57
EW-7	818.38	78	45.11	773.27	49.49	768.89	56.31	762.07
EW-8	811.13	98	64.36	746.77	71.69	739.44	77.80	733.33
EW-9	811.35	141	99.41	711.94	91.28	720.07	103.50	707.85
EW-10	807.74	NA	59.73	748.01	54.21	753.53	53.58	754.16
RFW-1A	864.37	78	50.47	813.90	48.60	815.77	51.11	813.26
RFW-1B	864.23	200	50.49	813.74	48.64	815.59	51.15	813.08
RFW-2A	857.41	35	15.17	842.24	14.57	842.84	15.71	841.70
RFW-2B	857.73	75	15.59	842.14	15.32	842.41	16.15	841.58
RFW-3B	839.21	153	35.83	803.38	33.90	805.31	34.61	804.60
RFW-4A	830.37	62	37.98	792.39	37.94	792.43	37.14	793.23
RFW-4B	830.37	120	38.74	791.63	37.80	792.57	37.02	793.35
RFW-5A	817.50	30	DRY	NA	DRY	NA	DRY	NA
RFW-6	785.04	120	3.96	781.08	4.55	780.49	2.94	782.10
RFW-7	805.14	29	8.09	797.05	6.08	799.06	7.12	798.02
RFW-8	860.07	56	DRY	NA	DRY	NA	DRY	NA
RFW-9	862.02	49	25.61	836.41	26.11	835.91	25.57	836.45
RFW-10	852.06	58	DRY	NA	DRY	NA	DRY	NA
RFW-11A	849.32	72	NA	NA	NA	NA	NA	NA
RFW-11B	849.62	116	72.81	776.81	6.84	842.78	68.37	781.25
RFW-12B	844.87	264	61.92	782.95	50.88	793.99	51.34	793.53
RFW-13	849.11	150	61.57	787.54	64.23	784.88	64.81	784.30
RFW-14B	812.39	281	50.60	761.79	51.79	760.60	53.21	759.18
RFW-16	856.14	41	DRY	NA	DRY	NA	DRY	NA
RFW-17	834.66	60.5	30.08	804.58	27.31	807.35	27.88	806.78
RFW-20	842.49	142	37.55	804.94	35.02	807.47	35.41	807.08
RFW-21	832.65	102	23.49	809.16	22.74	809.91	23.21	809.44
PH-7	805.94	89	32.66	773.28	31.62	774.32	31.62	774.32
PH-9	814.94	98	40.30	774.64	38.89	776.05	38.77	776.17
PH-11	820.68	78	44.73	775.95	45.11	775.57	45.26	775.42
PH-12	828.35	87	46.36	781.99	48.71	779.64	48.17	780.18
B-3	803.02	83	NA	NA	NA	NA	NA	NA
Amoco	842.29	NA	NA	NA	NA	NA	NA	NA
Hamp. Town #22	804.96	NA	31.12	773.84	26.53	778.43	28.79	776.17
Pembroke #1	NA	NA	NA	NA	NA	NA	NA	NA
Pembroke #2	NA	NA	NA	NA	NA	NA	NA	NA
N. Houcks. Rd.	NA	NA	9.08	NA	8.98	NA	9.13	NA
E. Century St.	NA	NA	14.95	NA	19.56	NA	20.25	NA
Lwr. Beckleys. Rd.	NA	NA	55.89	NA	53.86	NA	56.17	NA

NA - Not Available/Not Accessible

Table 2-3
Effluent Characteristics Summary - 1st Quarter 2007
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE		
				January 2007	February 2007	March 2007
001	FLOW average	MGD	NA	0.113	0.132	0.317
	maximum	MGD	NA	0.132	0.302	0.693
	1,1,1-Trichloroethane	ug/l	5	< 1	< 1	< 1
	Tetrachloroethylene	ug/l	5	< 1	< 1	< 1
	Trichloroethylene	ug/l	5	< 1	< 1	< 1
	Total Residual Chlorine	mg/l	< 0.1	< 0.1	< 0.1	< 0.1
	Oil & Grease maximum	mg/l	15	< 5	< 5	< 5
	quarterly average	mg/l	10	NR	NR	< 5
	pH minimum	STD	6.0	6.00	6.00	6.40
	maximum	STD	8.5	6.90	6.90	7.10
	BOD	mg/l	15	< 2	3.0	4.0
TSS maximum	mg/l	30	< 4	< 4	17.0	
	quarterly average	mg/l	20	NR	NR	17.0
101 (Monitoring Point)	FLOW average	MGD	NA	ND	ND	0.037
	maximum	MGD	NA	ND	ND	0.333
	Fecal Coliform	MPN/100ml	200	ND	ND	1.0
201 (Monitoring Point)	FLOW average	MGD	NA	0.209	NR	0.250
	maximum	MGD	NA	0.368	NR	0.693
	1,1,1-Trichloroethane	ug/l	NA	< 1	NR	< 1
	Tetrachloroethylene	ug/l	NA	< 1	NR	< 1
	Trichloroethylene	ug/l	NA	< 1	NR	< 1

DMR - Discharge Monitoring Report

NA - Not Applicable

NR - Not Reported

Summary of Groundwater Analytical Results - February 2007

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
Chloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Acetone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	2.7	2	1 U	1 U	1 U	7.2	23	1	1 U	1 U
Chloroform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1.6	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	NS	400	140	1100	190	9	5.6	12	1.5	1.3	1 U
Dibromochloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	ug/L	NS	59	4	20	9	17	11	83	180	150	3.7
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

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

Summary of Groundwater Analytical Results - February 2007
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-1A	RFW-1B	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
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromomethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Methylene Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Acetone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1.4	NS
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloroethene (total)	ug/L	1 U	1 U	1 U	1 U	6.5	1 U	4	3.8	NS	1 U	1 U	NS	13	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1	1.8	1.7	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
2-Butanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1.7	NS
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trichloroethene	ug/L	1 U	1 U	1.3	1.4	1.2	32	48	48	NS	2.8	6.4	NS	19	NS
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
4-Methyl-2-pentanone	ug/L	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	2.4	30	80	84	NS	2.7	1 U	NS	6.7	NS
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Xylene (total)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS

Notes: DUP = Duplicate sample
 NS = Not sampled

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

Summary of Groundwater Analytical Results - February 2007

Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-11	RFW-11B	RFW-12B	RFW-13	RFW-16	RFW-17	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank	RFW-20	RFW-21	Town #22	Town #23	Trip Blank
				(5)								USEPA drinking water method 524.2				
Chloromethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L	NS	5 U	25 U	5 U	NS	5 U	5 U	5 U	NS	5 U	20	19	19	21	10 U
Carbon Disulfide	ug/L	NS	5 U	25 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L	NS	5 U	25 U	5 U	NS	5 U	5 U	5 U	NS	5 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	NS	19	520	4.6	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-pentanone	ug/L	NS	5 U	25 U	5 U	NS	5 U	5 U	5 U	NS	5 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	5 U	25 U	5 U	NS	5 U	5 U	5 U	NS	5 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	1.5	44	22	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	ug/L	NS	1 U	5 U	1 U	NS	1 U	1 U	1 U	NS	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes: Samples from wells RFW-20 & 21, Town-22&23 are analyzed with the USEPA drinking water method 524.2 at the request of the MDE Source Protection and Appropriation Division. Samples from all of the other wells are analyzed with USEPA Method 8260.

analytical data package is included in Appendix D.

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 concentration of TCE was detected in the groundwater samples collected from wells RFW-12B and EW-4 and the highest concentration of PCE was detected in the groundwater sample collected from well EW-9. The remainder of VOCs present were detected at levels below the Federal Maximum Contaminant Levels (MCL).

3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM

A summary of the maintenance activities which were undertaken with the extraction and treatment system during the reporting period (January through March 2007) 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 - 1st Quarter 2007
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jan-07	Alarm at stripper, due to power outage. Power was restored, the system is back online.
Mar-07	Electricity turned off to wells EW-1 through EW-5 to repair electrical connections. Wells were off for a few hours. The wells are back online.

4. RECOMMENDATIONS

For the reporting period of January through March 2007, the treatment system continued to create a hydraulic boundary preventing 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.

APPENDIX A
GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS
(JANUARY – MARCH 2007)

Justin Myers, ESS
Maryland Environmental Service

BTR CAPITAL GROUP
HAMPSTEAD, MARYLAND 21074
PROCESS LAKE OPERATING RECORD

January 2007

Date	Day	Weather	Rainfall	Lake (inches down)	Lake sample Water Color	pH	Cl ₂ (mg/l)	D.O. (mg/l)	TSS (mg/l)	H ₂ SO ₄ (lbs./day)	Cl ₂ (lbs./day) HTH	Cl ₂ (lbs./day) Sod. Hypo	Floating Scum	Shallow Spots	% Ice Coverage	Erosion	Rodent Holes	Discharge (MGD)	Appearance	pH	Cl ₂ (mg/l) total	Oil & Grease (mg/l)	VOC's (ppb)	BOD ₅ (mg/l)	TSS (mg/l)	Fecal Coli. (MPN/100mi)	VOC's (ppb)	Discharge (MGD)	
XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	OUTFALL #001	#001	#001	#001	#001	#001	#001	#001	#001	#101	#201	OUTFALL #201
1	mon	cloudy	0 00		clear					0			none	none	0%	none	none		clear									0 204048	
2	tue	clear	0 00		clear					0			none	none	0%	none	none	0 1150	clear	6 7	0 00							0 194667	
3	wed	clear	0 00	16.0	clear	5 7	0 00	10 7		0			none	none	0%	none	none	0 0960	clear	6 9	0 00							0 172624	
4	thur	clear	0 20	15.0	clear	5 8	0 00	11.0		0			none	none	0%	none	none	0 0950	clear	6 7	0 00							0 166792	
5	fri	rain	0 00	15 0	clear	6 1	0 00	10 6		0			none	none	0%	none	none	0 1080	clear	6 9	0 00							0.166793	
6	sat	clear	0 00	15 0	clear		0 00			0			none	none	0%	none	none	0 1290	clear		0 00					Δ2		0 216870	
7	sun	clear	1 00		clear		0 00			0			none	none	0%	none	none	0 1120			0 00							0 189858	
8	mon	rain	0 10	11 0	clear	6 0	0 00	10 3		0			none	none	0%	none	none	0 1040	clear	6 9	0 00							0 178896	
9	tue	clear	0 00	10 0	clear	5 8	0 00	10 7		0			none	none	0%	none	none	0 1210	clear	6 7	0 00							0 198633	
10	wed	clear	0 00	10 0	clear	6.0	0 00	10 4		0			none	none	0%	none	none	0 1130	clear	6 7	0 00					Δ2		0 175301	
11	thur	clear	0 00	10 0	clear	5 9	0 00	11 0		0			none	none	1%	none	none	0 1100	clear	6 8	0 00							0 368185	
12	fri	cloudy	0 00	10 0	clear	5 8	0 00	8 6		0			none	none	0%	none	none	0 1180	clear	6 7	0 00							0.195158	
13	sat	cloudy	0 20		clear		0 00			0			none	none	0%	none	none	0 1080			0 00							0 180212	
14	sun	rain	0 00		clear		0 00			0			none	none	0%	none	none	0 1200			0 00							0 189875	
15	mon	cloudy	0 00		clear		0 00			0			none	none	0%	none	none	0 1120			0 00							0 188303	
16	tue	cloudy	0 00	11 0	clear	5 6	0 00	6 6		0			none	none	0%	none	none	0 1120	clear	6 7	0 00	<5	<1	<2	<4	<2	<1	0 190863	
17	wed	clear	0 00	12 0	clear	6 0	0 00	7 7		0			none	none	0%	none	none	0 1060	clear	6 1	0 00							0 184104	
18	thur	cloudy	0 00	13 0	clear	5 8	0 00	11 0		0			none	none	1%	none	none	0 1110	clear	6 7	0 00							0 220807	
19	fri	clear	0 00	13 0	clear	5 8	0 00	10 9		0			none	none	0%	none	none	0 1250	clear	6 7	0 00							0 233674	
20	sat	clear	0 00	13 0	clear		0 00			0			none	none	0%	none	none	0 1080	clear		0 00							0 221235	
21	sun	cloudy	0 10	14 0	clear		0 00			0			none	none	95%	none	none	0 1060	clear		0 00							0 234323	
22	mon	fog	0 00	14 0	clear	6 3	0 00	9 5		0			none	none	80%	none	none	0 1170	clear	6 8	0 00					<2		0 191466	
23	tue	clear	0 00	14 0	clear	5 9	0 00	11 8		0			none	none	10%	none	none	0 1180	clear	6 8	0 00							0 240116	
24	wed	cloudy	0 00	14 0	clear	6 7	0 00	10 7		0			none	none	1%	none	none	0 1080	clear	6 9	0 00							0 219536	
25	thur	cloudy	0 00	14 0	clear	6.2	0 00	10 4		0			none	none	0%	none	none	0 1090	clear	6 6	0 00							0 216536	
26	fri	clear	0 00	14 0	clear	5 9	0 00	11 5		0			none	none	100%	none	none	0 1140	clear	6 9	0 00							0 219000	
27	sat	cloudy	0 00	14 0	clear		0 00			0			none	none	100%	none	none	0 1110	clear		0 00							0 216000	
28	sun	cloudy	0 00	14 0	clear		0 00			0			none	none	50%	none	none	0 1320	clear		0 00							0 263000	
29	mon	clear	0 00	14 0	clear	5 8	0 00	12 1		0			none	none	20%	none	none	0.1050	clear	6 0	0 00					<2		0 200000	
30	tue	clear	0 00	14 0	clear	5 7	0 00	9 9		0			none	none	100%	none	none	0 1160	clear	6 9	0 00							0 242000	
31	wed	clear	0 00	14 0	clear	5 8	0 00	12 0		0			none	none	80%	none	none	0 1160	clear	6 7	0 00							0 205000	
TOTAL			1 60	328 0		118 6	0 00	207	0	0	0	0	none	none	6 38	none	none	3 3770	clear	140 8	0 00							6 483675	
AVG			0 05	13 1	clear	5 9	0 00	10 4	#####	0	0	0.0	none	none	0 2	none	none	0 1126	clear	6 7	<0 1	<5	<1	<2	<5	<2	<1	0 209157	