

**QUARTERLY GROUNDWATER
MONITORING REPORT**

Prepared for
BLACK & DECKER (U.S.) INC.
Hampstead, Maryland

April 2004

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TABLE OF CONTENTS

Section	Page
1. INTRODUCTION.....	1-1
2. SITE CHARACTERISTICS.....	2-1
2.1 HYDRAULIC PROPERTIES	2-1
2.2 EFFLUENT CHARACTERISTICS	2-1
2.3 GROUNDWATER QUALITY DATA	2-1
3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM.....	3-1
4. RECOMMENDATIONS.....	4-1

LIST OF APPENDICES

APPENDIX A - GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS

APPENDIX B - DISCHARGE MONITORING REPORTS

APPENDIX C - GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS

APPENDIX D - GROUNDWATER ANALYTICAL DATA PACKAGE

LIST OF TABLES

Table	Page
Table 2-1 Treatment System Pumping Records – 1 st Quarter 2004.....	2-2
Table 2-2 Groundwater Elevation Data – 1 st Quarter 2004	2-3
Table 2-3 Effluent Characteristics Summary – 1 st Quarter 2004	2-4
Table 2-4 Summary of Groundwater Analytical Results - February 2004.....	2-6
Table 3-1 Treatment System Maintenance Activities - 1 st Quarter 2004	3-2

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 is 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 CHARACTERIZATION

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 2004.

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. At the time the water level measurements were collected, the extraction wells were pumping at an average combined rate of approximately 167 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 2004 are included in Appendix B

2.3 GROUNDWATER QUALITY DATA

For the reporting period of January through March 2004, approximately 65 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) (85 %) and tetrachlorethene (PCE) (15 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of January through March 2004 are included in Appendix C.

Table 2-1
Treatment System Pumping Records - 1st Quarter 2004
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
January 2004	6,566,259
February 2004	6,081,242
March 2004	6,863,229

**Table 2-2
Groundwater Elevation Data - 1st Quarter 2004
Black & Decker
Hampstead, Maryland**

WELL NO.	TOC ELEV.	TOTAL DEPTH	1/21/04		2/18/04		3/22/04	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NA	DRY	NA	DRY	NA
EW-2	849.21	110	61.57	787.64	61.62	787.59	62.30	786.91
EW-3	846.64	118	71.68	774.96	72.33	774.31	74.08	772.56
EW-4	858.01	97.5	NA	NA	NA	NA	NA	NA
EW-5	864.17	98	72.04	792.13	70.73	793.44	71.43	792.74
EW-6	831.98	115	63.46	768.52	61.73	770.25	62.43	769.55
EW-7	818.38	78	36.16	782.22	37.62	780.76	35.26	783.12
EW-8	811.13	98	44.62	766.51	42.25	768.88	42.12	769.01
EW-9	811.35	141	56.24	755.11	42.50	768.85	42.03	769.32
EW-10	807.74	NA	NA	NA	19.32	788.42	15.39	792.35
RFW-1A	864.37	78	44.30	820.07	44.86	819.51	44.57	819.80
RFW-1B	864.23	200	44.12	820.11	45.03	819.20	44.86	819.37
RFW-2A	857.41	35	11.51	845.90	12.56	844.85	12.38	845.03
RFW-2B	857.73	75	11.94	845.79	12.96	844.77	12.74	844.99
RFW-3B	839.21	153	24.12	815.09	24.41	814.80	23.86	815.35
RFW-4A	830.37	62	33.74	796.63	34.83	795.54	35.31	795.06
RFW-4B	830.37	120	33.98	796.39	34.74	795.63	35.26	795.11
RFW-5A	817.50	30	DRY	NA	DRY	NA	DRY	NA
RFW-6	785.04	120	2.12	782.92	2.43	782.61	4.14	780.90
RFW-7	805.14	29	NA	NA	4.86	800.28	5.91	799.23
RFW-8	860.07	56	DRY	NA	DRY	NA	52.82	807.25
RFW-9	862.02	49	23.32	838.70	23.29	838.73	23.97	838.05
RFW-10	852.06	58	DRY	NA	DRY	NA	51.87	800.19
RFW-11A	849.32	72	NA	NA	NA	NA	NA	NA
RFW-11B	849.62	116	62.26	787.36	63.41	786.21	63.74	785.88
RFW-12B	844.87	264	NA	NA	46.62	798.25	45.89	798.98
RFW-13	849.11	150	53.92	795.19	54.82	794.29	52.74	796.37
RFW-14B	812.39	281	28.82	783.57	27.23	785.16	25.98	786.41
RFW-16	856.14	41	DRY	NA	DRY	NA	DRY	NA
RFW-17	834.66	60.5	22.88	811.78	23.92	810.74	23.81	810.85
RFW-20	842.49	142	30.86	811.63	31.81	810.68	32.02	810.47
RFW-21	832.65	102	19.89	812.76	20.07	812.58	20.21	812.44
PH-7	805.94	89	9.82	796.12	7.52	798.42	6.50	799.44
PH-9	814.94	98	NA	NA	28.23	786.71	27.04	787.90
PH-11	820.68	78	36.40	784.28	38.77	781.91	38.97	781.71
PH-12	828.35	87	38.87	789.48	40.09	788.26	39.64	788.71
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	6.43	798.53	19.62	785.34	43.53	761.43
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	NA	NA	NA	NA	NA	NA
E. Century St.	NA	NA	NA	NA	NA	NA	NA	NA
Lwr. Beckleys. Rd.	NA	NA	NA	NA	NA	NA	NA	NA

NA - Not Available/Not Accessible

**Table 2-3
Effluent Characteristics Summary - 1st Quarter 2004
Black & Decker
Hampstead, Maryland**

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				January 2004	February 2004	March 2004	
001	FLOW	average	MGD	NA	0.138	0.303	0.227
		maximum	MGD	NA	0.167	0.482	0.352
	1,1,1-Trichloroethane	ug/l	5	< 5	< 5	< 5	
	Tetrachloroethylene	ug/l	5	< 5	< 5	< 5	
	Trichloroethylene	ug/l	5	< 5	< 5	< 5	
	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	6.74	6.17	6.27
		maximum	STD	8.5	7.09	7.41	7.08
	BOD		mg/l	15	5.6	3.9	6.0
TSS	maximum	mg/l	30	3.5	4.5	9.0	
	quarterly average	mg/l	20	NR	NR	5.7	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.280	0.282	0.254
		maximum	MGD	NA	0.392	0.308	0.269
	Fecal Coliform	MPN/100ml	200	< 2	< 2	< 2	
201 (Monitoring Point)	FLOW	average	MGD	NA	0.212	0.210	0.221
		maximum	MGD	NA	0.250	0.230	0.242
	1,1,1-Trichloroethane	ug/l	NA	< 5	< 5	< 5	
	Tetrachloroethylene	ug/l	NA	< 5	< 5	< 5	
	Trichloroethylene	ug/l	NA	< 5	< 5	< 5	

DMR - Discharge Monitoring Report

NA - Not Applicable

NR - Not Reported

A summary of the analytical results from the first quarter (February 2004) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete 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, EW-2 and EW-4. The highest concentration of PCE was detected in the groundwater sample collected from extraction well EW-9. Lower concentrations of 1,2-dichloroethene were also detected. The remainder of VOCs present were detected at levels well below the federal Maximum Contaminant Levels (MCL).

Table 2-4
Summary of Groundwater Analytical Results - February 2004
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	EW-10	RFW-1A	RFW-1B
			(10)	(5)	(25)	(10)					(DUP)			
Chloromethane	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	NS	100 U	50 U	250 U	25 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 J
Carbon Disulfide	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	25 U	120 U	50 U	5 U	3 J	16	1 J	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	1100	350	3800	590	11	4 J	10	2 J	2 J	5 U	5 U	5 U
Dibromochloromethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	100 U	50 U	250 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	65	8 J	89 J	46 J	30	11	75	210	200	9	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	50 U	25 U	120 U	50 U	5 U	5 U	5 U	5 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
(5) = Dilution factor.

Table 2-4
 Summary of Groundwater Analytical Results - February 2004
 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-11A	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
Chloroethanane	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	5 U	5 U	NS	5 U	NS	NS	5 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	3 J	NS	3 J	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	5 U	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	4 J	NS	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	14	2 J	2 J	5 J	NS	5 U	5 U	NS	24	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	2 J	NS	10 U	10 U	NS	10 U	NS	NS	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	3 J	5 U	5 U	5 U	NS	5 U	5 U	NS	3 J	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	5 U	2 J	13	84	78	10	NS	8	5 J	NS	23	NS	NS	62
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	83	81	48	NS	7	5 U	NS	14	NS	NS	1 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
 (5) = Dilution factor.

Table 2-4
 Summary of Groundwater Analytical Results - February 2004
 Black & Decker
 Hampstead, Maryland

PARAMETER	Units	RFW-12B (5)	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	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	50 U	10 U	NS	10 U	5 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	8 J	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	25 U	10 U	NS	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	710	5 J	NS	5 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	50 U	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	39	29	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	25 U	5 U	NS	5 U	5 U	5 U	5 U	5 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
 (5) = Dilution factor.

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 (January through March 2004) 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 2004
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jan-04	EW-1 through 5 were taken out of service for 3 days to replace the power feed and control wire. The wells are back in service.
Jan-04	EW- 4 & 5 had cracked fittings repaired. The wells are back in service.
Feb-04	A new water meter was installed in EW-9 and new thermostats were installed in EW- 3 & 4.
Feb-04	EW-10 was automatically shut off by the moisture probe alarm due to melted ice and snow water moisture on the floor. The well was restarted three days later. A new check valve was also installed at this time.

4. RECOMMENDATIONS

For the reporting period of January through March 2004, 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 2004)

MONTH / YEAR

Jan. 2004

**BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD**

PAST MONTH READING

638808

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	T	1300	88 1148	181 090	19345	19380
2	F	0915	1062239	↑	19345	19399
3						
4				698187		
5	M	1300	1760425	194447	19345	19476
6	T	1010	1954872	250199	19366	19476
7	W	1330	2205071	197361	19393	19476
8	T	1100	2402432	231608	19415	19476
9	F	1200	2633440	↑	19440	19476
10						
11				654891		
12	M	1110	3288331	219612	19511	19476
13	T	1100	3507943	234504	19511	19499
14	W	1225	3742447	220855	19511	19525
15	T	1220	3963302	195207	19511	19549
16	F	0940	4158509	↑	19511	19570
17						
18				674071		
19	M	1050	4832580	230415	19511	19643
20	T	1155	5062995	200608	19536	19643
21	W	0950	5263603	211439	19558	19643
22	T	0945	5475042	232898	19581	19643
23	F	1020	5707940	↑	19606	19643
24						
25				665105		
26	M	1050	6373045	218465	19679	19643
27	T	1035	6691510	215743	19703	19643
28	W	1045	6807253	216371	19703	19668
29	T	1025	7017624	216007	19703	19691
30	F	1030	7233631	↑	19703	19715
31				429783		
Total				6566259		
Average				211815		

NEXT MONTH READING 7663414

DATE 02-01-04

MONTH / YEAR

Feb. 04

**BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD**

PAST MONTH READING

1233631

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	S	1045	7663414	209451	19703	19763
2	M	1005	7872865	218230	19703	19787
3	T	1035	8091095	179846	19727	19787
4	W	0945	8270941	195842	19750	19787
5	T	0920	8476787	230065	19773	19787
6	F	1120	8706848	↑	19800	19787
7						
8				515154		
9	M	0815	9322004	214566	19869	19787
10	T	0810	9436570	220830	19869	19811
11	W	0840	9657400	215196	19869	19835
12	T	0840	9872596	213635	19869	19859
13	F	0825	10086231	↑	19869	19883
14						
15				653899		
16	M	0900	10740130	225419	19869	19956
17	T	1005	10965549	215469	19894	19956
18	W	1005	11181018	204579	19918	19956
19	T	0850	11385597	203957	19940	19956
20	F	0730	11589554	↑	19963	19956
21						
22				662153		
23	M	0910	12251707	221911	20037	19956
24	T	0950	12473618	211687	20037	19980
25	W	0930	12685305	230117	20037	20004
26	T	1110	12915422	196199	20037	20030
27	F	0905	13111621	↑	20037	20052
28	S					
29	S			644035		
30						
31						
Total				6081242		
Average				209698		

NEXT MONTH READING 13755656

DATE 3-1-04

**BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD**

MONTH / YEAR

Mar. 2004

PAST MONTH READING

13111621

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	M	0910	13755656	239552	20037	20124
2	T	1150	13995208	242403	20064	20124
3	W	1500	14237611	186671	20091	20124
4	T	1155	14424282	210140	20112	20124
5	F	1125	14634422	↑	20135	20124
6						
7				634369		
8	M	1025	15268791	202657	20206	20124
9	T	0905	15471448	237326	20206	20146
10	W	1145	15708774	186445	20206	20173
11	T	0840	15895219	225176	20206	20194
12	F	1000	16120395	↑	20206	20219
13						
14				633491		
15	M	0915	16753886	204627	20206	20291
16	T	0825	16958513	220567	20229	20291
17	W	0915	17179080	214013	20254	20291
18	T	0925	17393093	205289	20278	20291
19	F	0845	17595382	↑	20307	20291
20						
21				660050		
22	M	1105	18258432	223500	20376	20291
23	T	0945	18481932	242389	20376	20313
24	W	1030	18724321	238677	20376	20338
25	T	1025	18962398	233937	20376	20362
26	F	0955	19196335	↑	20376	20385
27						
28				716100		
29	M	1015	19912435	230187	20376	20458
30	T	0935	20142622	238098	20399	20458
31	W	0945	20380720	238165	20423	20458
Total				6863229		
Average				221394		

NEXT MONTH READING 20618885

DATE 4-1-04

**APPENDIX B
DISCHARGE MONITORING REPORTS
(JANUARY - MARCH 2004)**
