



QUARTERLY GROUNDWATER MONITORING REPORT

Prepared for

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

JANUARY 1997

Prepared by

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SECTION 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; and 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.

SECTION 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 October through December 1996.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1. 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 178 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 October through December 1996 are included in Appendix A.

2.3 GROUNDWATER QUALITY DATA

A summary of groundwater analytical results for November 1996 (fourth quarter) is included in Table 2-4. November 1996 analytical data packages are included in Appendix B. For the reporting period of October through December 1996, approximately 248 lbs of total volatile organic compounds (VOCs) were removed from the groundwater by the extraction and treatment system. In general, the total

Table 2-1
Treatment System Pumping Records - 4th Quarter 1996
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
October 1996	7,872,587
November 1996	7,738,809
December 1996	7,904,413

Table 2-2
Groundwater Elevation Data - 4th Quarter 1996
Black and Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	10/31/96		11/13/96		12/6/96	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	NA	-	NA	-	NA	-
EW-2	849.21	110	91.63	757.58	92.17	757.04	92.07	757.14
EW-3	846.64	118	89.73	756.91	82.88	763.76	83.93	762.71
EW-4	858.01	97.5	81.67	776.34	84.76	773.25	82.99	775.02
EW-5	864.17	98	74.48	789.69	82.59	781.58	87.52	776.65
EW-6	831.98	115	60.36	771.62	59.94	772.04	59.08	772.90
EW-7	818.38	78	37.52	780.86	37.73	780.65	37.57	780.81
EW-8	811.13	98	49.76	761.37	50.22	760.91	49.63	761.50
EW-9	811.35	141	79.21	732.14	81.47	729.88	80.90	730.45
EW-10	807.74	NA	48.78	758.96	48.78	758.96	46.93	760.81
RFW-1A	864.37	78	44.02	820.35	44.89	819.48	44.36	820.01
RFW-1B	864.23	200	44.07	820.16	44.85	819.38	44.34	819.89
RFW-2A	857.41	35	11.08	846.33	11.11	846.30	10.87	846.54
RFW-2B	857.73	75	11.71	846.02	11.76	845.97	11.30	846.43
RFW-3B	839.21	153	27.22	811.99	27.22	811.99	27.15	812.06
RFW-4A	830.37	62	34.75	795.62	34.59	795.78	34.51	795.86
RFW-4B	830.37	120	34.66	795.71	34.42	795.95	34.34	796.03
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	2.29	782.75	2.25	782.79	1.69	783.35
RFW-7	805.14	29	5.69	799.45	5.04	800.10	4.84	800.30
RFW-8	860.07	53	53.37	806.70	54.66	805.41	55.64	804.43
RFW-9	862.02	49	23.14	838.88	23.34	838.68	22.90	839.12
RFW-10	852.06	58	53.64	798.42	55.65	796.41	56.82	795.24
RFW-11A	849.32	72	67.74	781.58	67.79	781.53	67.78	781.54
RFW-11B	849.62	116	75.67	773.95	75.75	773.87	75.71	773.91
RFW-12B	844.87	264	51.41	793.46	51.61	793.26	51.36	793.51
RFW-13	849.11	150	56.86	792.25	57.31	791.80	56.47	792.64
RFW-14B	812.39	281	37.69	774.70	37.67	774.72	37.59	774.80
RFW-16	856.14	41	34.36	821.78	35.20	820.94	35.69	820.45
RFW-17	834.66	60.5	24.89	809.77	25.47	809.19	24.43	810.23
RFW-18	843.67	50	2.21	841.46	1.98	841.69	1.77	841.90
RFW-19	858.28	60	4.67	853.61	4.59	853.69	4.31	853.97
PH-7	805.94	89	28.90	777.04	29.00	776.94	28.24	777.70
PH-9	814.94	98	32.00	782.94	32.18	782.76	31.85	783.09
PH-11	820.68	78	38.89	781.79	38.81	781.87	38.61	782.07
PH-12	828.35	87	42.27	786.08	42.39	785.96	42.12	786.23
B-2	807.68	100	4.74	802.94	4.63	803.05	3.81	803.87
B-3	803.02	83	6.08	796.94	5.93	797.09	4.96	798.06
Amoco	842.29	NA	19.94	822.35	20.03	822.26	19.94	822.35
Hamp. Town #22	NA	NA	0.67	--	0.70	--	0.63	--
Pembroke #1	NA	NA	9.49	--	9.13	--	9.00	--
Pembroke #2	NA	NA	30.63	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	6.90	--	6.50	--	6.06	--
E. Century St.	NA	NA	NA	--	NA	--	NA	--
wr. Beckleys. Rd	NA	NA	48.09	--	47.14	--	46.83	--

NA = Not Available/Not Accessible

Table 2-3
 Effluent Characteristics Summary - 4th Quarter 1996
 Black & Decker
 Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				October 1996	November 1996	December 1996	
001	FLOW	average	MGD	NA	0.250	0.290	0.589
		maximum	MGD	NA	0.272	0.962	1.492
	1,1,1-Trichloroethane		ug/l	5	ND	ND	ND
	Tetrachloroethylene		ug/l	5	ND	ND	ND
	Trichloroethylene		ug/l	5	ND	ND	ND
	Total Residual Chlorine		mg/l	<0.1	<0.1	<0.1	<0.1
	Oil & Grease	average	mg/l	10	ND	ND	ND
		maximum	mg/l	15	ND	ND	ND
	pH	minimum	STD	6.0	6.27	6.69	6.54
		maximum	STD	8.5	7.01	7.41	7.33
	BOD		mg/l	15	ND	2	8
TSS	quarterly average	mg/l	20	NR	NR	8	
	maximum	mg/l	30	9	2	12	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.553	0.544	0.543
		maximum	MGD	NA	0.560	0.557	0.547
	Fecal Coliform		MPN/100ml	200	ND	ND	ND
201 (Monitoring Point)	FLOW	average	MGD	NA	0.254	0.258	0.255
		maximum	MGD	NA	0.272	0.279	0.266
	1,1,1-Trichloroethane		ug/l	NA	ND	ND	ND
	Tetrachloroethylene		ug/l	NA	ND	ND	ND
	Trichloroethylene		ug/l	NA	ND	ND	ND

NA = Not Applicable
 ND = Not Detected
 NR = Not Reported

Table 2-4
 Summary of Groundwater Analytical Results - November 1996
 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-10	EW-10 (DUP)	RFW-1A	RFW-1B	RFW-2A
			(20)	(10)	(25)	(20)			(2)	(5)					
Chloromethane	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	130 B	99 B	260 B	120 B	5 U	3 JB	17 B	32 B	5 JB	8 B	3 JB	4 JB	4 JB
Acetone	ug/L	NS	200 U	100 U	250 B	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	2 J	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	100 U	50 U	120 U	100 U	1 J	11	28	11 J	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	2 J	10 U	25 U	5 U	5 U	5 U	1 J	5 U
Carbon Tetrachloride	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	3400	1000	3500	2100	16	15	18	16 J	1 J	1 J	5 U	5 U	1 J
Dibromochloromethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	200 U	100 U	250 U	200 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	110	24 J	89 J	43 J	82	49	200	910	140	110	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	100 U	50 U	120 U	100 U	5 U	5 U	10 U	25 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.
 B = Indicates that the analyte was found in the associated blank as well as in the sample.

DUP = Duplicate sample
 NS = Not sampled
 (2.5) = Dilution factor.

Table 2-4

Summary of Groundwater Analytical Results - November 1996

Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11A	RFW-11B	RFW-12B
				(2)	(2)				(5)		(20)			(25)
Chloromethane	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
Bromomethane	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
Vinyl Chloride	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
Chloroethane	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
Methylene Chloride	ug/L	5 JB	4 JB	4 JB	16 B	NS	4 JB	4 JB	33 B	3 JB	89 JB	4 JB	5 JB	230 B
Acetone	ug/L	10 U	10 U	20 U	20 U	NS	4 JB	10 U	50 U	10 U	200 U	10 U	6 JB	250 U
Carbon Disulfide	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
1,1-Dichloroethene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
1,1-Dichloroethane	ug/L	2 J	2 J	10 U	10 U	NS	5 U	5 U	25 U	5	100 U	5 U	5 U	120 U
1,2-Dichloroethene (total)	ug/L	52	50	5 J	7 J	NS	3 J	5 U	7 J	13	100 U	5 U	5 U	120 U
Chloroform	ug/L	5 U	5 U	2 J	2 J	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
1,2-Dichloroethane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
2-Butanone	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
1,1,1-Trichloroethane	ug/L	2 J	2 J	10 U	10 U	NS	5 U	5 U	25 U	3 J	43 J	5 U	5 U	120 U
Carbon Tetrachloride	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Vinyl Acetate	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	200 U	10 U	10 U	250 U
Bromodichloromethane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
1,2-Dichloropropane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Trichloroethene	ug/L	22	21	170	130	NS	26	8	900	30	2500	67	31	2900
Dibromochloromethane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Benzene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Bromoform	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	100 U	10 U	10 U	250 U
2-Hexanone	ug/L	10 U	10 U	20 U	20 U	NS	10 U	10 U	50 U	10 U	100 U	10 U	10 U	250 U
Tetrachloroethene	ug/L	46	43	280	200	NS	23	5 U	24 J	21	66 J	1 J	5 U	75 J
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Toluene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Chlorobenzene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Ethylbenzene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Styrene	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U
Xylene (total)	ug/L	5 U	5 U	10 U	10 U	NS	5 U	5 U	25 U	5 U	100 U	5 U	5 U	120 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
 J = Indicates an estimated value.
 B = Indicates that the analyte was found in the associated blank as well as in the sample.

DUP = Duplicate sample
 NS = Not sampled
 (2.5) = Dilution factor.

Table 2-4

Summary of Groundwater Analytical Results - November 1996

Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-13	RFW-16 (250)	RFW-16 (DUP) (250)	RFW-17	RFW-18	RFW-19	TOWN #22	TOWN #23	LEISTER DAIRY	LEISTER RES. #1	LEISTER RES. #2	FIELD BLANK	TRIP BLANK
Chloromethane	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Bromomethane	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Vinyl Chloride	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Chloroethane	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Methylene Chloride	ug/L	5 JB	2400 B	2000 B	6 B	4 JB	4 JB	7 B	10 B	6 B	6 B	NS	9 B	5 B
Acetone	ug/L	10 U	2500 U	2500 U	10 U	6 JB	10 U	14 B	54 B	10 U	10 U	NS	10 U	10 U
Carbon Disulfide	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethene	ug/L	1 J	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Chloroform	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
2-Butanone	ug/L	10 U	10000 U	10000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Vinyl Acetate	ug/L	10 U	10000 U	10000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Bromodichloromethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Trichloroethene	ug/L	9	50000 D	51000 D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Dibromochloromethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Benzene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Bromoform	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
2-Hexanone	ug/L	10 U	2500 U	2500 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Tetrachloroethene	ug/L	76	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	4 J	5 U	NS	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Toluene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Chlorobenzene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Ethylbenzene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Styrene	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Xylene (total)	ug/L	5 U	1200 U	1200 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	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.
 B = Indicates that the analyte was found in the associated blank as well as in the sample.

DUP = Duplicate sample
 NS = Not sampled
 (2.5) = Dilution factor.

VOCs removed from the groundwater comprised of trichloroethene (TCE) (87 %), tetrachlorethene (PCE) (12 %), and a small percentage of 1,2-dichloroethene and 1,1,1-trichloroethane.

TCE and PCE were the VOCs detected at the highest concentrations in the groundwater samples collected from the extraction wells and monitor wells. As found in earlier sampling events at the Black & Decker facility, the highest concentration of TCE was found on the eastern half of the Black & Decker facility in monitor well RFW-16 and the highest concentrations of PCE were found in the vicinity of recovery well EW-9. VOCs detected at lower concentrations were 1,2-dichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, and 1,1,2-trichloroethane. The remainder of VOCs present were detected at levels well below the Federal Maximum Contaminant Levels (MCL).

SECTION 3
OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM

No maintenance activities were undertaken at the extraction and treatment system during the reporting period (October through December 1996). Maintenance activities do not include those activities considered unworthy of note (such as replacement of light bulbs, lubrication of moving parts, as appropriate, or other routine activities).

SECTION 4
RECOMMENDATIONS

For the reporting period of October through December 1996, the treatment system continued to create a hydraulic boundary preventing off-site migration of groundwater. Operation of the extraction system as currently configured will continue, adjusting pumping rates as necessary according to the amount of groundwater recharge. Operation of the treatment system as currently configured will also continue, because the treatment system is fully effective in removing VOCs from the extracted groundwater.

APPENDIX A
DISCHARGE MONITORING REPORTS
(OCTOBER - DECEMBER 1996)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME: BLACK & DECKER (U.S.) INC.
ADDRESS: 626 HANOVER PIKE
HAMPSTEAD, MD. 21074

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

FORM APPROVED
 OMB No. 2040-0004

93-DP-0022
 PERMIT NUMBER

001
 DISCHARGE NUMBER

(2-16)

(17-15)

FACILITY:
 LOCATION: **CARROLL COUNTY**

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
96	10	01	TO	96	10	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (46-53)			QUALITY OR CONCENTRATION (38-45)				NO EX (62-63)	FREQUENCY OF ANALYSIS (64-66)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT	0.25	0.272	MGD					0	CONTINUOUS	MEASURED
	PERMIT REQUIREMENT	NO LIMIT	NO LIMIT								CONTINUOUS MEASURED
1,1,1-TRICHLOROETHANE	SAMPLE MEASUREMENT						ND	ppb	0	1/MONTH	GRAB
	PERMIT REQUIREMENT						5			1/MONTH	GRAB
TETRACHLOROETHYLENE	SAMPLE MEASUREMENT						ND	ppb	0	1/MONTH	GRAB
	PERMIT REQUIREMENT						5			1/MONTH	GRAB
TRICHLOROETHYLENE	SAMPLE MEASUREMENT						ND	ppb	0	1/MONTH	GRAB
	PERMIT REQUIREMENT						5			1/MONTH	GRAB
TOTAL RESIDUAL CHLORINE	SAMPLE MEASUREMENT						<0.1	mg/l	0	4/MONTH	GRAB
	PERMIT REQUIREMENT						<0.1			1/MONTH	GRAB
OIL & GREASE	SAMPLE MEASUREMENT						ND	mg/l	0	1/MONTH	GRAB
	PERMIT REQUIREMENT					10	15			1/MONTH	GRAB
pH	SAMPLE MEASUREMENT				6.27		7.01	STD	0	2/WEEK	GRAB
	PERMIT REQUIREMENT				6.00		8.50			2/WEEK	GRAB
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)							TELEPHONE	DATE	
LaVere N. Grimes Facilities Manager									SIGNATURE OF PRINCIPAL EXECUTIVE	410-239-5555	96 11 02
TYPED OR PRINTED									OFFICER OR AUTHORIZED AGENT	AREA CODE-NUMBER	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS

(Reference all attachments here)

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different)

NAME: **BLACK & DECKER (U.S.) INC.**
 ADDRESS: **626 HANOVER PIKE**
HAMPSTEAD, MD. 21074

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

FORM APPROVED
 OMB No.2040-0004

93-DP-0022
 PERMIT NUMBER

001
 DISCHARGE NUMBER

(2-16)

(17-19)

FACILITY:

LOCATION: **CARROLL COUNTY**

MONITORING PERIOD

FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
96	10	01	96	10	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	X	QUANTITY OR LOADING (3 Card Only) (46-53)			QUALITY OR CONCENTRATION (4 Card Only) (38-45)			UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-66)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
BOD	SAMPLE MEASUREMENT								0	1/MONTH	GRAB
	PERMIT REQUIREMENT							mg/l	15	1/MONTH	GRAB
TOTAL SUSPENDED SOLIDS	SAMPLE MEASUREMENT								0	1/MONTH	GRAB
	PERMIT REQUIREMENT					20	30	mg/l	1/MONTH	GRAB	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LaVere N. Grimes
Facilities Manager

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

LaVere N. Grimes

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

410-239-5555

AREA CODE-NUMBER

DATE

96 | 11 | 02

10 3

COMMENT AND EXPLANATION OF ANY VIOLATIONS

(Reference all attachments here)