QUARTERLY GROUNDWATER MONITORING REPORT

Prepared for

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

JANUARY 1996

Prepared by

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W.O. No. 02501-004-001-0200

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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. Final versions of the documents are to become part of the Administrative Record for the site which is to be maintained at a public repository in the town of Hampstead.

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 1995.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1.

Water levels for wells included in the water level monitoring plan are presented in Table 2-2. At the time the data was collected, the extraction wells were pumping at a combined rate of approximately 151 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 1995 are included in Appendix A.

2.3 GROUNDWATER QUALITY DATA

A summary of groundwater analytical results for the fourth quarter (November 1995) is included in Table 2-4. Analytical data packages for the fourth quarter of 1995 are included in Appendix B.

For the reporting period of October through December 1995, approximately 313 lbs of total

Table 2-1
Treatment System Pumping Records - 4th Quarter 1995
Black & Decker
Hampstead, Maryland

Date	Water pumped (gallons)
October 1995	6,699,531
November 1995	6,075,298
December 1995	6,725,716

B&D-2\TBLE2-1.XLS

Table 2-2
Groundwater Elevation Data - 4th Quarter 1995
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	10/23/95		11/13/95		12/22/95	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	NA	--	NA	--	NA	--
EW-2	849.21	110	89.12	760.09	86.28	762.93	87.21	762.00
EW-3	846.64	118	64.56	782.08	64.65	781.99	69.17	777.47
EW-4	858.01	97.5	63.97	794.04	63.89	794.12	63.72	794.29
EW-5	864.17	98	82.45	781.72	68.78	795.39	71.32	792.85
EW-6	831.98	115	69.32	762.66	70.04	761.94	70.44	761.54
EW-7	818.38	78	44.56	773.82	44.72	773.66	44.81	773.57
EW-8	811.13	98	54.27	756.86	55.61	755.52	55.86	755.27
EW-9	811.35	141	88.15	723.20	89.37	721.98	89.64	721.71
EW-10	807.74	NA	53.07	754.67	53.81	753.93	52.78	754.96
RFW-1A	864.37	78	52.79	811.58	52.12	812.25	51.86	812.51
RFW-1B	864.23	200	52.82	811.41	52.09	812.14	51.85	812.38
RFW-2A	857.41	35	19.49	837.92	18.36	839.05	16.19	841.22
RFW-2B	857.73	75	20.11	837.62	18.98	838.75	16.83	840.90
RFW-3B	839.21	153	35.60	803.61	36.77	802.44	34.73	804.48
RFW-4A	830.37	62	38.67	791.70	38.62	791.75	38.34	792.03
RFW-4B	830.37	120	38.61	791.76	38.43	791.94	38.22	792.15
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	3.97	781.07	3.55	781.49	4.46	780.58
RFW-7	805.14	29	7.63	797.51	7.12	798.02	7.63	797.51
RFW-8	860.07	53	DRY	--	DRY	--	DRY	--
RFW-9	858.21	49	28.01	830.20	26.82	831.39	NA	--
RFW-10	852.06	58	58.18	793.88	54.71	797.35	54.79	797.27
RFW-11A	849.32	72	61.02	788.30	60.91	788.41	62.95	786.37
RFW-11B	849.62	116	63.90	785.72	63.83	785.79	67.00	782.62
RFW-12B	844.87	264	51.39	793.48	51.44	793.43	51.51	793.36
RFW-13	849.11	150	62.12	786.99	61.60	787.51	61.71	787.40
RFW-14B	812.39	281	41.64	770.75	42.68	769.71	43.63	768.76
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	27.47	807.19	27.36	807.30	27.42	807.24
RFW-18	843.67	50	4.66	839.01	4.00	839.67	4.68	838.99
RFW-19	858.28	60	7.36	850.92	6.33	851.95	7.04	851.24
PH-7	805.94	89	34.05	771.89	34.06	771.88	33.87	772.07
PH-9	814.94	98	38.74	776.20	38.86	776.08	38.93	776.01
PH-11	820.68	78	42.30	778.38	41.41	779.27	42.93	777.75
PH-12	828.35	87	46.75	781.60	45.93	782.42	46.84	781.51
B-2	807.68	100	6.45	801.23	4.56	803.12	5.39	802.29
B-3	803.02	83	8.94	794.08	7.99	795.03	8.24	794.78
Amoco	842.29	NA	25.50	816.79	25.42	816.87	25.61	816.68
Hamp. Town #22	NA	NA	0.72	--	NA	--	0.69	--
Pembroke #1	NA	NA	17.02	--	15.85	--	16.11	--
Pembroke #2	NA	NA	36.15	--	35.92	--	35.38	--
N. Houcks. Rd.	NA	NA	11.90	--	9.08	--	8.37	--
E. Century St.	NA	NA	11.20	--	10.91	--	10.74	--
Lwr. Beckleys. Rd.	NA	NA	54.75	--	54.88	--	54.23	--

NA = Not Available / Not Accessible

Table 2-3
Effluent Characteristics Summary - 4th Quarter 1995
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter		Units	Permit Limits	DMR DATE		
					October 1995	November 1995	December 1995
001	FLOW	average	MGD	NA	0.3146	0.3652	0.0770
		maximum	MGD	NA	1.3077	0.9280	0.2012
	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	ND	<.01
	Oil & Grease		mg/l	15	ND	ND	ND
	pH	minimum	STD	6.0	6.47	7.18	6.85
		maximum	STD	8.5	7.36	7.62	7.93
	BOD		mg/l	15	4	4	8
	TSS	average	mg/l	20			9
		maximum	mg/l	30	15	7	5
101 (Monitoring Point)	FLOW	average	MGD	NA	0.438	0.435	0.499
		maximum	MGD	NA	0.459	0.447	0.534
	Fecal Coliform		MPN/100ml	200	ND	ND	ND
201 (Monitoring Point)	FLOW	average	MGD	NA	0.2161	0.2025	0.2170
		maximum	MGD	NA	0.2331	0.2310	0.2323
	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

Table 2-4

Summary of Groundwater Analytical Results - November 1995
Black & Decker
Hampstead, Maryland

PARAMETER	Units	EW-1	EW-2 (50)	EW-3 (10)	EW-4 (25)	EW-5 (50)	EW-5 (DUP.) (50)	EW-6	EW-7	EW-8	EW-9 (10)	EW-10 (2)	RFW-1A	RFW-1B	RFW-2A
Chloromethane	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Chloroethanane	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	380 B	100 B	180 B	390 B	470 B	3 JB	5 U	7 B	87 B	20 B	2 JB	8 B	3 JB
Acetone	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	4 JB	10 U	10 U
Carbon Disulfide	ug/L	NS	250 U	50 U	120 U	250 U	250 U	4 J	5 U	5 U	50 U	10 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	2 J	5 U	50 U	10 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	2 J	5 U	50 U	10 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	250 U	50 U	120 U	250 U	250 U	3	18	34	50 U	10 U	5 U	5 U	5 U
Chloroform	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	250 U	50 U	120 U	150 J	130 J	5 U	3 J	5 U	50 U	10 U	5 U	3 J	5 U
Carbon Tetrachloride	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	5300	1800	3700	5100	5000	19	29	22	17 J	3 J	5 U	5 U	3 J
Dibromochloromethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Benzene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Bromoform	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	500 U	100 U	250 U	500 U	500 U	10 U	10 U	10 U	100 U	20 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	130 J	32 J	90 J	140 J	120 J	100	74	200	1100	250	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Toluene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Styrene	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	250 U	50 U	120 U	250 U	250 U	5 U	5 U	5 U	50 U	10 U	5 U	5 U	5 U

(2.5) = Dilution factor.
NS = NOT SAMPLED

Table 2-4

Summary of Groundwater Analytical Results - November 1995
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-2B	RFW-4A (2.5)	RFW-4B (2)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10 (50)	RFW-10 (DUP.) (50)	RFW-11A	RFW-11B	RFW-12B	RFW-13
Chloromethane	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Bromomethane	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Vinyl Chloride	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Chloroethanane	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Methylene Chloride	ug/L	2 JB	23 B	19 B	NS	6 B	5 U	NS	4 JB	440 B	390 B	4 JB	1 JB	190 B	3 JB
Acetone	ug/L	10 U	25 U	20 U	NS	8 JB	10 U	NS	10 U	500 U	500 U	10 U	10 U	210 JB	10 U
Carbon Disulfide	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
1,1-Dichloroethene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
1,1-Dichloroethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	3 J	250 U	250 U	5 U	5 U	120 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	7 J	9 J	NS	8	2 J	NS	8	250 U	250 U	5 U	5 U	120 U	5 U
Chloroform	ug/L	5 U	12 U	2 J	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
1,2-Dichloroethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
2-Butanone	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
1,1,1-Trichloroethane	ug/L	1 J	12 U	10 U	NS	5 U	5 U	NS	2 J	67 J	88 J	5 U	5 U	120 U	5 U
Carbon Tetrachloride	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Vinyl Acetate	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Bromodichloromethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
1,2-Dichloropropane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Trichloroethene	ug/L	5	220	190	NS	56	13	NS	43	5300	7100	77	57	4200	8
Dibromochloromethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Benzene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	190 J	5 U	5 U	120 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Bromoform	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
2-Hexanone	ug/L	10 U	25 U	20 U	NS	10 U	10 U	NS	10 U	500 U	500 U	10 U	10 U	250 U	10 U
Tetrachloroethene	ug/L	5 U	340	360	NS	50	5 U	NS	11	150 J	190 J	1 J	5 U	87 J	64
1,1,2,2-Tetrachloroethane	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Toluene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Chlorobenzene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Ethylbenzene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Styrene	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U
Xylene (total)	ug/L	5 U	12 U	10 U	NS	5 U	5 U	NS	5 U	250 U	250 U	5 U	5 U	120 U	5 U

(2.5) = Dilution factor.
NS = NOT SAMPLED

e 2-4

Summary of Groundwater Analytical Results - November 1995
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-16	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	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Bromomethane	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Vinyl Chloride	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Chloroethanane	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Methylene Chloride	ug/L	NS	2 JB	3 JB	5 B	7 B	7 B	6 B	6 B	NS	7 B	4 JB
Acetone	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethane	ug/L	NS	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	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Chloroform	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,2-Dichloroethane	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
2-Butanone	ug/L	NS	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	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Carbon Tetrachloride	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Vinyl Acetate	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Bromodichloromethane	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
1,2-Dichloropropane	ug/L	NS	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	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Trichloroethene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Dibromochloromethane	ug/L	NS	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	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Benzene	ug/L	NS	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	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Bromoform	ug/L	NS	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	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
2-Hexanone	ug/L	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U
Tetrachloroethene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5	5 U	NS	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Toluene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Chlorobenzene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Ethylbenzene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Styrene	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U
Xylene (total)	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U

(2.5) = Dilution factor.
NS = NOT SAMPLED

volatile organic compounds (VOCs) were removed from the groundwater. In general, the total VOCs were comprised of trichloroethene (TCE) (82%), tetrachlorethene (PCE) (17%), and a small percentage of 1,2-dichloroethene and 1,1,1-trichloroethane.

In general, the VOCs detected in the highest concentrations were TCE and PCE. Those compounds detected at lower concentrations are 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).

As found in earlier sampling events at the Black & Decker facility, the highest concentrations of TCE were found on the eastern half of the Black & Decker facility in monitor well RFW-16. The highest concentrations of PCE were found in the vicinity of former production well 7 (now EW-10) and recovery well EW-9.

SECTION 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 (October 1995 through December 1995) 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 - 4th Quarter 1995
Black & Decker
Hampstead, Maryland

Date	Event	Corrective Action
Oct-95	Well # 6 shutdown.	Replaced ground in well # 6.
Oct-95	Well # 6 shutdown.	Replaced ground and rewired well # 6 to prevent future occurrence.
Nov-95	Well # 4 shutdown due to decreased flow.	Planning to install low level switch during 1st quarter 1996, as soon as weather permits.
Nov-95	Blower # 2 shutdown.	Replaced sail switch on blower # 2.
Nov-95	Well # 5 shutdown.	Rewired well # 5.

SECTION 4
RECOMMENDATIONS

For the reporting period of October through December 1995, 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

OCTOBER - DECEMBER 1995
DISCHARGE MONITORING REPORTS

PERMI[redacted]ME/ADDRESS (Include Facility [redacted]Location if different)

NAME BLACK & DECKER (U.S.) INC.

ADDRESS 626 HANOVER PIKE

HAMPSTEAD, MARYLAND 21074

FACILITY

LOCATION CARROLL COUNTY

NATIONAL POLLUTANT DIS[redacted]E ELIMINATION SYSTEM (NPDES)
DISCHARGE M[redacted]TORING REPORT (DMR)

[redacted]Approved.
[redacted]No. 2040-004
Approval expires 9-30-85

(2-10) 93-DP-0022 PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	95	10	01	TO	95	10	31

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANITITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.3146	1.3077	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	3/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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
LaVere N. Grimes Facilities Manager	I CERTIFY UNDER PENALITY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDITIALLY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATIONIS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALITIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319 (Penalities under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years)	LaVere N. Grimes	410-239-5555		95	11	28
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMIT[redacted]ME/ADDRESS (Include Facility Name/Location if different)

NAME BLACK & DECKER (U.S.) INC.

ADDRESS 626 HANOVER PIKE

HAMPSTEAD, MARYLAND 21074

FACILITY

LOCATION CARROLL COUNTY

NATIONAL POLLUTANT DISCH[redacted]ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

F[redacted]roved.
O[redacted]2040-004
Approval expires 9-30-85

(2-16) PERMIT NUMBER: 93-DP-0022

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	95 (20-21)	10 (22-23)	01 (24-25)	TO	95 (26-27)	10 (28-29)	31 (30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANITITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH	SAMPLE MEASUREMENT				6.47		7.36	STD	0	2/week	grab
	PERMIT REQUIREMENT				6.0		8.5			2/WEEK	GRAB
BOD	SAMPLE MEASUREMENT						4	mg/l	0	1/month	grab
	PERMIT REQUIREMENT						15			1/MONTH	GRAB
TOTAL SUSPENDED SOLIDS	SAMPLE MEASUREMENT						15	mg/l	0	1/month	grab
	PERMIT REQUIREMENT					20	30			1/MONTH	GRAB
	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 PENALITY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDITIALLY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATIONIS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALITIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319 (Penalities under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 410 NUMBER 239-5555

DATE: YEAR 95 MO 11 DAY 28

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMIT [redacted]ME/ADDRESS (*Include Facility [redacted]ocation if different*)

NAME BLACK & DECKER (U.S.) INC.

ADDRESS 626 HANOVER PIKE
HAMPSTEAD, MARYLAND 21074

FACILITY

LOCATION CARROLL COUNTY

NATIONAL POLLUTANT DISC[redacted] ELIMINATION SYSTEM (*NPDES*)
DISCHARGE M[redacted]ORING REPORT (*DMR*)

[redacted]pproved.
[redacted]o. 2040-004
Approval expires 9-30-85

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
93-DP-0022	101

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	95	10	01	TO	95	10	31

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANITITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.438	0.459	MGD					0	Continuous Measured	
	PERMIT REQUIREMENT	NO LIMIT	NO LIMIT							CONTINUOUS/MEASURED	
FECAL COLIFORM	SAMPLE MEASUREMENT						ND	MPN/ 100ml	0	1/week	grab
	PERMIT REQUIREMENT						200			1/WEEK	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE		
LaVere N. Grimes Facilities Manager	I CERTIFY UNDER PENALITY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDITIALLY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATIONIS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALITIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319 (*Penalities under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years*)	LaVere N. Grimes	410-239-5555	95	11	28
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

Facility Na[redacted]on if different)

NAME [redacted]LACK & DECKER (U.S.) INC.

ADDRESS 626 HANOVER PIKE

HAMPSTEAD, MARYLAND 21074

FACILITY

LOCATION CARROLL COUNTY

DISCHARGE MO[redacted]ING REPORT (DMR)

(1-15) (17-19)

93-DP-0022	201
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	95 (20-21)	10 (22-23)	01 (24-25)	TO	95 (26-27)	10 (28-29)	31 (30-31)

O[redacted]030-004

Ap[redacted]xpires 9-30-85

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANITITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-69)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.2161	0.2331	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						N/A			1/MONTH	GRAB
TETRACHLOROETHYLENE	SAMPLE MEASUREMENT						ND	ppb	0	1/month	grab
	PERMIT REQUIREMENT						N/A			1/MONTH	GRAB
TRICHLOROETHYLENE	SAMPLE MEASUREMENT						ND	ppb	0	1/month	grab
	PERMIT REQUIREMENT						N/A			1/MONTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LaVere N. Grimes
Facilities Manager

TYPED OR PRINTED

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LaVere N. Grimes

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

AREA CODE	NUMBER
410	239-5555

DATE

YEAR	MO	DAY
95	11	28

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*