



QUARTERLY GROUNDWATER MONITORING REPORT

Prepared for

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

OCTOBER 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 July through September 1997.

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 160 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 July through September 1997 are included in Appendix A.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of July through September 1997, approximately 174 lbs 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 of trichloroethene

Table 2-1
Treatment System Pumping Records - 3rd Quarter 1997
Black & Decker
Hampstead, Maryland

Date	Water pumped (gallons)
July 1997	7,367,211
August 1997	7,157,007
September 1997	6,728,300

Table 2-2
Groundwater Elevation Data - 3rd Quarter 1997
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	7/9/97		8/13/97		9/17/97	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	NA	--	NA	--	NA	--
EW-2	849.21	110	101.34	747.87	101.43	747.78	100.94	748.27
EW-3	846.64	118	84.71	761.93	85.67	760.97	85.31	761.33
EW-4	858.01	97.5	93.75	764.26	80.84	777.17	84.73	773.28
EW-5	864.17	98	87.96	776.21	86.83	777.34	86.94	777.23
EW-6	831.98	115	58.76	773.22	59.39	772.59	60.25	771.73
EW-7	818.38	78	36.08	782.30	34.71	783.67	42.40	775.98
EW-8	811.13	98	50.45	760.68	55.89	755.24	57.76	753.37
EW-9	811.35	141	82.31	729.04	87.75	723.60	88.22	723.13
EW-10	807.74	NA	48.28	759.46	51.63	756.11	52.69	755.05
RFW-1A	864.37	78	50.11	814.26	51.64	812.73	52.93	811.44
RFW-1B	864.23	200	50.41	813.82	51.66	812.57	52.83	811.40
RFW-2A	857.41	35	15.72	841.69	17.48	839.93	18.73	838.68
RFW-2B	857.73	75	16.33	841.40	18.08	839.65	19.35	838.38
RFW-3B	839.21	153	29.80	809.41	31.90	807.31	32.05	807.16
RFW-4A	830.37	62	36.69	793.68	37.33	793.04	37.73	792.64
RFW-4B	830.37	120	36.99	793.38	37.19	793.18	37.66	792.71
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	3.04	782.00	3.13	781.91	2.97	782.07
RFW-7	805.14	29	7.66	797.48	8.07	797.07	7.36	797.78
RFW-8	860.07	56	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	26.28	835.74	27.55	834.47	28.47	833.55
RFW-10	852.06	58	58.18	793.88	58.67	793.39	59.13	792.93
RFW-11A	849.32	72	68.80	780.52	69.11	780.21	69.64	779.68
RFW-11B	849.62	116	76.64	772.98	76.75	772.87	77.15	772.47
RFW-12B	844.87	264	52.82	792.05	53.46	791.41	54.03	790.84
RFW-13	849.11	150	56.73	792.38	58.27	790.84	59.81	789.30
RFW-14B	812.39	281	37.13	775.26	39.69	772.70	42.37	770.02
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	26.98	807.68	27.85	806.81	28.55	806.11
RFW-18	843.67	50	4.42	839.25	5.23	838.44	5.67	838.00
RFW-19	858.28	60	7.41	850.87	8.19	850.09	9.22	849.06
RFW-20	842.49	142	34.56	807.93	35.87	806.62	36.58	805.91
RFW-21	832.65	102	20.72	811.93	21.73	810.92	22.97	809.68
PH-7	805.94	89	29.05	776.89	31.62	774.32	33.17	772.77
PH-9	814.94	98	30.86	784.08	33.98	780.96	36.98	777.96
PH-11	820.68	78	39.50	781.18	40.09	780.59	40.33	780.35
PH-12	828.35	87	41.61	786.74	43.56	784.79	45.21	783.14
B-2	807.68	100	7.44	800.24	9.34	798.34	9.76	797.92
B-3	803.02	83	8.05	794.97	10.42	792.60	10.91	792.11
Amoco	842.29	NA	22.39	819.90	23.82	818.47	25.17	817.12
Hamp. Town #22	804.96	NA	1.98	802.98	3.16	--	2.67	--
Pembroke #1	NA	NA	13.11	--	NA	--	15.63	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	9.64	--	NA	--	NA	--
E. Century St.	NA	NA	10.87	--	11.14	--	17.17	--
Lwr. Beckleys. Rd.	NA	NA	50.92	--	52.36	--	53.58	--

NA - Not Available/Not Accessible

Table 2-3
Effluent Characteristics Summary - 3rd Quarter 1997
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				July 1997	August 1997	September 1997	
001	FLOW	average	MGD	NA	0.053	0.088	0.077
		maximum	MGD	NA	0.081	0.131	0.154
	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	6.67	6.50	6.71
		maximum	STD	8.5	7.34	7.29	7.02
	BOD		mg/l	15	5	5	< 5
TSS	maximum	mg/l	30	5	4	5	
	quarterly average	mg/l	20	NR	NR	5	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.257	0.531	0.561
		maximum	MGD	NA	0.264	0.538	0.584
	Fecal Coliform		MPN/100ml	200	< 2	< 2	< 2
201 (Monitoring Point)	FLOW	average	MGD	NA	0.238	0.231	0.224
		maximum	MGD	NA	0.251	0.259	0.238
	1,1,1-Trichloroethane		ug/l	NA	< 5	< 5	< 5
	Tetrachloroethylene		ug/l	NA	< 5	< 5	< 5
	Trichloroethylene		ug/l	NA	< 5	< 5	< 5

NA - Not Applicable

NR - Not Reported

(TCE) (79 %) and tetrachlorethene (PCE) (21 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of July through September 1997 are included in Appendix B.

A summary of the analytical results from the third quarter (August 1997) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete analytical data package is included in Appendix C. 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-2 and the highest concentration of PCE was detected in the groundwater sample collected from extraction 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).

Table 2-4
Summary of Groundwater Analytical Results - August 1997
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
			(25)	(10)	(25)	(10)				(2)	(5)				
Chloromethane	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	190 B	17 J	270 B	100 B	10 B	5 U	8 JB	32 B	5 JB	5 JB	5 U	2 J	5 U
Acetone	ug/L	NS	110 JB	100 U	250 U	100 U	10 U	10 U	8 JB	14 JB	10 U	8 JB	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	120 U	50 U	120 U	50 U	5 U	11	30	9 J	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	250 U	100 U	250 U	100 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	NS	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	2600	840	2300	1300	12	16	16	11 J	2 J	2 J	5 U	5 U	2 J
Dibromochloromethane	ug/L	NS	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	120 U	50 U	120 U	50 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	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	120 U	50 U	120 U	50 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	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	250 U	100 U	250 U	100 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	76 J	20 J	81 J	38 J	58	40	200	970	140	140	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	120 U	50 U	120 U	50 U	5 U	5 U	10 U	25 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	120 U	50 U	120 U	50 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.

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Table 2-4
 Summary of Groundwater Analytical Results - August 1997
 Black & Decker
 Hampstead, Maryland

PARAMETER	Units	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10 (10)	RFW-11A	RFW-11B	RFW-12B (25)
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	2 JB	10 U	250 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
Methylene Chloride	ug/L	9 B	4 JB	3 JB	8 B	1 JB	NS	2 JB	5 U	NS	5 U	49 JB	3 JB	5 U	69 JB
Acetone	ug/L	10 U	7 JB	10 U	12 B	8 JB	NS	12 B	10 U	NS	10 U	100 U	10 U	10 U	250 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
1,1-Dichloroethene	ug/L	5 U	1 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
1,1-Dichloroethane	ug/L	5 U	2 J	5 U	5 U	5 U	NS	5 U	5 U	NS	4 J	50 U	5 U	5 U	120 U
1,2-Dichloroethene (total)	ug/L	5 U	49	5 J	7	7	NS	4 J	5 U	NS	8	50 U	5 U	5 U	120 U
Chloroform	ug/L	5 U	5 U	2 J	2 J	1 J	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
2-Butanone	ug/L	10 U	10 U	10 U	3 J	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
1,1,1-Trichloroethane	ug/L	5 U	3 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Vinyl Acetate	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Trichloroethene	ug/L	2 J	26	160	47	44	NS	28	16	NS	24	1500	93	22	2600
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	100 U	10 U	10 U	250 U
Tetrachloroethene	ug/L	5 U	49	220	97	92	NS	24	5 U	NS	6	46 J	2 J	5 U	82 J
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 U	5 U	5 U	120 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	50 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 - August 1997
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-13	RFW-16	RFW-17	RFW-18	RFW-19	Town #22	Town #23	Lelster Dairy	Lelster Res. #1	Lelster Res. #2	Field Blank	Trip Blank
Chloromethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	3 JB	NS	5 U	1 JB	7	4 JB	NS	6	2 J	2 JB	4 JB	7 B
Acetone	ug/L	5 JB	NS	10 U	10 U	10 U	6 JB	NS	10 U	10 U	10 U	6 JB	10 JB
Carbon Disulfide	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	1 J	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 J	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	8	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	54	NS	5 U	5 U	5 U	5 U	NS	3 J	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	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. DUP = Duplicate sample
 J = Indicates an estimated value. NS = Not sampled
 B = Indicates that the analyte was found in the associated blank as well as in the sample. (2.5) = Dilution factor.

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 (July through September 1997) 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 - 3rd Quarter 1997
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
July 1997	Extraction well EW-6 not operating due to faulty temperature switch/transducer. Replaced temperature switch/transducer. EW-6 operating properly.
August 1997	Contractor calibrates air stripper instruments, including the column level transducer, the by-pass valve controller, and pressure transducer.
September 1997	Installed a new flow meter instrument at extraction well EW-2.



SECTION 4 RECOMMENDATIONS

For the reporting period of July through September 1997, 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
(JULY - SEPTEMBER 1997)

PERMITTEE 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

MD0001881
 PERMIT NUMBER

001
 DISCHARGE NUMBER

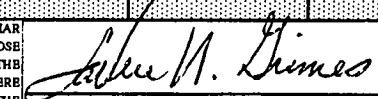
(2-16)

(17-16)

FACILITY:
 LOCATION: **CARROLL COUNTY**

MONITORING PERIOD					
FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
97	07	01	97	07	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 (46-53)	MAXIMUM (54-61)	UNITS (54-61)	MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS (54-61)			
FLOW	SAMPLE MEASUREMENT	0.053	0.081	MGD					0	CONTINUOUS MEASURED	
	PERMIT REQUIREMENT	NO LIMIT	NO LIMIT							CONTINUOUS MEASURED	
1,1,1-TRICHLOROETHANE	SAMPLE MEASUREMENT						<5		0	1/MONTH GRAB	
	PERMIT REQUIREMENT						5	ppb		1/MONTH GRAB	
TETRACHLOROETHYLENE	SAMPLE MEASUREMENT						<5		0	1/MONTH GRAB	
	PERMIT REQUIREMENT						5	ppb		1/MONTH GRAB	
TRICHLOROETHYLENE	SAMPLE MEASUREMENT						<5		0	1/MONTH GRAB	
	PERMIT REQUIREMENT						5	ppb		1/MONTH GRAB	
TOTAL RESIDUAL CHLORINE	SAMPLE MEASUREMENT						<0.1		0	4/MONTH GRAB	
	PERMIT REQUIREMENT						<0.1	mg/l		1/MONTH GRAB	
OIL & GREASE	SAMPLE MEASUREMENT						<5		0	1/MONTH GRAB	
	PERMIT REQUIREMENT						10	15	mg/l	1/MONTH GRAB	
pH	SAMPLE MEASUREMENT				6.67		7.34		0	2/WEEK GRAB	
	PERMIT REQUIREMENT				6.00		8.50		STD	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								410-239-5555	97 08 01		
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)