Quarterly Groundwater Monitoring Report

Prepared for

Black & Decker (U.S.) Inc.

Hampstead, Maryland

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1. INTRODUCTION

This Groundwater Monitoring Report has been prepared to meet the requirements of Condition IV.G of the Administrative Consent Order between the State of Maryland Department of the Environment (MDE) and Black & Decker (U.S.) Inc. (April 1995) (Consent Order). Specifically, Condition IV.G calls for preparation of a Groundwater Monitoring Report containing the following information for each reporting period: the quantities of groundwater pumped, treated, and discharged; the calculation of quantities of contaminants removed from groundwater; a summary of all sampling analyses; an explanation of all operational or other problems encountered, and the manner in which each problem was resolved; copies of all reports submitted to the Department of Natural Resources in conjunction with the Groundwater Appropriations Permit; 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.

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 2000.

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 149 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 2000 are included in Appendix B

2.3 GROUNDWATER QUALITY DATA

For the reporting period of July through September 2000, approximately 118 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) (74 %) and tetrachlorethene (PCE) (26 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of July through September 2000 are included in Appendix C.

Table 2-1
Treatment System Pumping Records - 3rd Quarter 2000
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
July 2000	6,224,610
August 2000	6,093,586
September 2000	6,405,398

Table 2-2
Groundwater Elevation Data - 3rd Quarter 2000
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	07/28/00 DTW	07/28/00 ELEV	8/8/00 DTW	8/8/00 ELEV	9/29/00 DTW	9/29/00 ELEV
EW-1	847.21	55	DRY	--	DRY	--	DRY	--
EW-2	849.21	110	106.00	743.21	106.00	743.21	106.00	743.21
EW-3	846.64	118	91.36	755.28	90.26	756.38	90.81	755.83
EW-4	858.01	97.5	--	--	--	--	--	--
EW-5	864.17	98	86.43	777.74	87.26	776.91	87.95	776.22
EW-6	831.98	115	57.78	774.20	57.87	774.11	58.43	773.55
EW-7	818.38	78	51.70	766.68	50.98	767.40	50.65	767.73
EW-8	811.13	98	74.51	736.62	75.02	736.11	74.89	736.24
EW-9	811.35	141	101.84	709.51	102.00	709.35	101.50	709.85
EW-10	807.74	NA	56.83	750.91	56.43	751.31	56.39	751.35
RFW-1A	864.37	78	50.43	813.94	50.85	813.52	52.61	811.76
RFW-1B	864.23	200	50.46	813.77	50.87	813.36	52.64	811.59
RFW-2A	857.41	35	13.97	843.44	15.21	842.20	15.84	841.57
RFW-2B	857.73	75	14.34	843.39	15.89	841.84	16.36	841.37
RFW-3B	839.21	153	30.84	808.37	32.58	806.63	35.03	804.18
RFW-4A	830.37	62	36.76	793.61	36.45	793.92	37.27	793.10
RFW-4B	830.37	120	36.71	793.66	36.33	794.04	37.14	793.23
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	1.63	783.41	2.71	782.33	2.13	782.91
RFW-7	805.14	29	7.11	798.03	6.84	798.30	6.89	798.25
RFW-8	860.07	56	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	26.32	835.70	26.67	835.35	27.38	834.64
RFW-10	852.06	58	DRY	--	DRY	--	DRY	--
RFW-11A	849.32	72	70.22	779.10	70.12	779.20	71.56	777.76
RFW-11B	849.62	116	77.12	772.50	77.62	772.00	78.58	771.04
RFW-12B	844.87	264	54.73	790.14	54.12	790.75	56.00	788.87
RFW-13	849.11	150	60.89	788.22	59.24	789.87	63.31	785.80
RFW-14B	812.39	281	47.13	765.26	46.97	765.42	49.78	762.61
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	27.17	807.49	28.90	805.76	29.02	805.64
RFW-20	842.49	142	33.88	808.61	36.08	806.41	37.21	805.28
RFW-21	832.65	102	21.23	811.42	22.04	810.61	22.85	809.80
PH-7	805.94	89	26.51	779.43	29.43	776.51	36.27	769.67
PH-9	814.94	98	36.43	778.51	38.65	776.29	43.22	771.72
PH-11	820.68	78	39.28	781.40	40.08	780.60	37.83	782.85
PH-12	828.35	87	46.11	782.24	47.24	781.11	47.07	781.28
B-3	803.02	83	6.67	796.35	6.98	796.04	6.94	796.08
Amoco	842.29	NA	28.41	813.88	28.64	813.65	28.73	813.56
Hamp. Town #22	804.96	NA	1.24	803.72	0.73	804.23	1.26	803.70
Pembroke #1	NA	NA	11.71	--	11.43	--	11.28	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	10.12	--	10.87	--	10.74	--
E. Century St.	NA	NA	11.26	--	11.24	--	11.19	--
Lwr. Beckleys. Rd.	NA	NA	55.71	--	55.83	--	563.14	--

NA - Not Available/Not Accessible

Table 2-3
Effluent Characteristics Summary - 3rd Quarter 2000
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter		Units	Permit Limits	DMR DATE		
					July 2000	August 2000	September 2000
001	FLOW	average	MGD	NA	0.202	0.212	0.212
		maximum	MGD	NA	0.940	0.822	0.822
	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	6.31	6.83	6.83
		maximum	STD	8.5	8.40	7.80	7.80
	BOD		mg/l	15	3	2	2
	TSS	maximum	mg/l	30	11	12	12
		quarterly average	mg/l	20	NR	NR	12
101 (Monitoring Point)	FLOW	average	MGD	NA	0.225	0.241	0.241
		maximum	MGD	NA	0.247	0.263	0.263
	Fecal Coliform		MPN/100ml	200	< 2	< 2	<2
201 (Monitoring Point)	FLOW	average	MGD	NA	0.200	0.197	0.197
		maximum	MGD	NA	0.208	0.234	0.234
	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 third quarter (August 2000) 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 and EW-2 and 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 VOC's present were detected at levels well below the Federal Maximum Contaminant Levels (MCL).

Table 2-4
Summary of Groundwater Analytical Results - August 2000
Black & Decker
Hampstead, Maryland

PARAMETER	Units	EW-1	EW-2 (20)	EW-3 (5)	EW-4 (10)	EW-5 (10)	EW-6	EW-7	EW-8 (1)	EW-9 (5)	EW-9 (DUP) (5)	EW-10	RFW-1A	RFW-1B	RFW-2A
Chloromethane	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
Chloroethanane	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	290 B	42 B	140 B	79 B	5 B	NS	5 B	34 B	39 B	6 B	10 B	11 B	6 B
Acetone	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 B	10 U
Carbon Disulfide	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	2 J	25 U	25 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	100 U	25 U	50 U	50 U	1 J	NS	34	7 J	6 J	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	100 U	25 U	50 U	11 J	5 U	NS	1 J	25 U	25 U	5 U	5 U	5 U	1 J
Carbon Tetrachloride	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	1800	530	950	780	23	NS	23	11 J	10 J	5 U	5 U	5 U	6
Dibromochloromethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	1 J	25 U	25 U	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	2 J	10 U	10 U
2-Hexanone	ug/L	NS	200 U	50 U	100 U	100 U	10 U	NS	10 U	50 U	50 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	130	18 J	47 J	39 J	65	NS	170	590	560	20	5 U	1 J	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	100 U	25 U	50 U	50 U	5 U	NS	5 U	25 U	25 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 - August 2000
Black & Decker
Hampstead, Maryland

PARAMETER	Units	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	RFW-12B (10)
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Chloroethanane	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Methylene Chloride	ug/L	11 B	6 B	6 B	11 B	10 B	NS	6 B	9 B	NS	9 B	NS	11 B	10 B	70 B
Acetone	ug/L	13 B	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
1,1-Dichloroethene	ug/L	5 U	2 J	5 U	5 U	5 U	NS	5 U	5 U	NS	1 J	NS	5 U	5 U	50 U
1,1-Dichloroethane	ug/L	5 U	1 J	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
1,2-Dichloroethene (total)	ug/L	5 U	30	3 J	3 J	8	NS	2 J	1 J	NS	6	NS	5 U	5 U	50 U
Chloroform	ug/L	5 U	5 U	2 J	2 J	1 J	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
1,2-Dichloroethane	ug/L	1 J	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
2-Butanone	ug/L	7 J	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 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	NS	5 U	5 U	50 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 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	NS	5 U	5 U	50 U
Trichloroethene	ug/L	2 J	23	78	82	21	NS	13	22	NS	30	NS	47	140	2200
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 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	NS	5 U	5 U	50 U
Benzene	ug/L	5 U	5 U	2 J	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 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	NS	5 U	5 U	50 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 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	NS	10 U	10 U	100 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	100 U
Tetrachloroethene	ug/L	5 U	24	91	94	90	NS	13	1 J	NS	6	NS	2 J	4 J	100
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	NS	5 U	5 U	50 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS	5 U	5 U	50 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 2000
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Field Blank	Trip Blank
Chloromethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethanane	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	5 B	NS	6 B	6 B	10 B	1 JB	11 B	6 B	11 B	11 B	12 B	3 JB
Acetone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 JB	10 U
Carbon Disulfide	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 J
1,1-Dichloroethene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	5 U	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	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	NS	1 J	5 U	5 U	5 U	5 U	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	10 U	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	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	5 U	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	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	20	NS	5 U	6	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	10 U	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	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	83	NS	5 U	5 U	5 U	5 U	5 U	2 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	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	5 U	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	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 qua 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.

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 2000) 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 2000
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
August 2000	EW-7 went down. EW-7 was down for one week, pump was pulled and a new pump motor was installed. Well was bleached and put back in service.
August 2000	EW-4 was not pumping, the pump was locked up and splines were worn out. Pump was down for 3 weeks, replace timer delay and clean control valve which was rusted shut and would not operate.
September 2000	Replaced relay to log valve in air stripper and also replaced printed control board.

4. RECOMMENDATIONS

For the reporting period of July through September 2000, 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

GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS (JULY - SEPTEMBER 2000)

BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR

July 2000

PAST MONTH READING

489424767

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	S			↑		
2	S			354796		
3	M	0725	489956961	↑	4077	4091
4	T			406356		
5	W	1050	490363317	176807	4077	4143
6	T	0915	490540124	184757	4077	4165
7	F	0845	490724881	↑	4077	4189
8	S			↑		
9	S			626186		
10	M	0945	491351067	197755	4077	4262
11	T	0850	491548822	211845	4101	4262
12	W	0930	491760667	197132	4125	4262
13	T	0835	491957799	219089	4148	4262
14	F	1010	492176888	↑	4174	4262
15	S			↑		
16	S			605027		
17	M	0920	492781915	204568	4245	4262
18	T	0925	492986483	198568	4245	4286
19	W	0850	493185081	222804	4245	4309
20	T	1110	493407885	189192	4245	4335
21	F	0935	493597077	↑	4246	4358
22	S			↑		
23	S			610281		
24	M	1000	494207358	201120	4245	4430
25	T	0950	494408478	185940	4268	4430
26	W	0800	494594418	214976	4290	4430
27	T	0930	494809394	206656	4315	4430
28	F	1000	495016050	↑	4340	4430
29	S			↑		
30	S			609389		
31	M	1020	495625439	201336	4412	4430
Total				6224610		
Average				200794		

NEXT MONTH READING 495826775

DATE 8-1-00

BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR

Aug. 2000

PAST MONTH READING

4956 25439

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	T	1010	495826775	202384	4412	4454
2	W	1105	496029164	187885	4412	4479
3	T	1065	496217049	194814	4412	4502
4	F	1140	496411863	↑	4412	4527
5						
6				550854		
7	M	1010	496962717	180562	4412	4597
8	T	0915	497143279	234408	4435	4597
9	W	1010	497377687	140905	4480	4597
10	T	0925	49751892	201072	4483	4597
11	F	1110	497719664	↑	4509	4597
12						
13				552925		
14	M	1015	498272589	211577	4580	4597
15	T	1015	498484166	223291	4580	4621
16	W	1105	498707457	201076	4580	4646
17	T	0930	498908533	233433	4580	4669
18	F	1130	499141966	↑	4580	4695
19						
20				618589		
21	M	0850	499760555	214312	4580	4764
22	T	0855	499974867	23349	4604	4764
23	W	1105	500208350	212957	4630	4764
24	T	1105	500421307	214381	4654	4764
25	F	1110	500635688	↑	4679	4764
26						
27				639002		
28	M	1100	501274690	216834	4750	4764
29	T	1115	501491520	194727	4750	4788
30	W	0920	501686247	228045	4750	4810
31	T	1050	501914292	216198	4750	4836
Total				6,093,586		
Average				196567		

NEXT MONTH READING 502132490

DATE Sept. 1, 2000

BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR Sept. 2000

PAST MONTH READING 501914292

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	F	1105	502132490	↑	4750	4860
2				↑		
3				↑		
4	M			855878		
5	T	1045	502988368	208386	4750	4955
6	W	1000	503196754	220295	4774	4955
7	T	1046	503417049	219661	4799	4955
8	F	1100	503636710	↑	4823	4955
9				↑		
10				626444		
11	M	0945	504263154	208005	4893	4955
12	T	0910	504471159	228107	4894	4979
13	W	1040	504699266	215168	4894	5004
14	T	1045	504914434	219857	4894	5028
15	F	1120	505134291	↑	4894	5053
16				↑		
17				628616		
18	M	0940	505762907	222754	4894	5123
19	T	1035	505985661	217030	4919	5123
20	W	1100	506202691	↑	4943	5123
21	T			433251		
22	F	1135	506635942	↑	4992	5123
23				↑		
24				623026		
25	M	0945	507258968	208100	5062	5123
26	T	0915	507467068	228488	5062	5147
27	W	1055	507695554	212278	5062	5173
28	T	1055	507907834	↑	5062	5994
29	F			↑		
30				630054		
~~31~~						
Total				6405398		
Average				213513		

NEXT MONTH READING 508747905

DATE Oct. 2, 2000

APPENDIX B

DISCHARGE MONITORING REPORTS
(JULY - SEPTEMBER 2000)