Quarterly Groundwater Monitoring Report

Prepared for

Black & Decker (U.S.) Inc.

Hampstead, Maryland

October 2004

Prepared by

WESTON SOLUTIONS, INC.

West Chester, Pennsylvania 19380-1499

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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.
- 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 2004.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1. The complete groundwater treatment system pumping records are included in Appendix A.

Monthly water levels for wells included in the water level monitoring plan are presented in Table 2-2. At the time the water level measurements were collected, the extraction wells were pumping at an average combined rate of 176 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 2004 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of July through September 2004, approximately 46 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) (77 %) and tetrachlorethene (PCE) (23 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of July through September 2004 are included in Appendix C.

Table 2-1
Treatment System Pumping Records - 3rd Quarter 2004
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
July 2004	7,606,174
August 2004	7,910,357
September 2004	7,298,624

Table 2-2
Groundwater Elevation Data - 3rd Quarter 2003
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	07/29/04 DTW	07/29/04 ELEV	8/25/04 DTW	8/25/04 ELEV	9/30/04 DTW	9/30/04 ELEV
EW-1	847.21	55	DRY	NA	DRY	NA	DRY	NA
EW-2	849.21	110	55.55	793.66	93.26	755.95	84.89	764.32
EW-3	846.64	118	68.60	778.04	79.60	767.04	84.36	762.28
EW-4	858.01	97.5	NA	NA	NA	NA	76.09	781.92
EW-5	864.17	98	87.63	776.54	87.98	776.19	88.21	775.96
EW-6	831.98	115	71.11	760.87	71.55	760.43	74.88	757.10
EW-7	818.38	78	32.64	785.74	34.51	783.87	36.22	782.16
EW-8	811.13	98	43.21	767.92	41.35	769.78	38.68	772.45
EW-9	811.35	141	89.73	721.62	93.70	717.65	99.51	711.84
EW-10	807.74	NA	28.99	778.75	43.15	764.59	46.06	761.68
RFW-1A	864.37	78	48.44	815.93	48.77	815.60	50.43	813.94
RFW-1B	864.23	200	48.46	815.77	48.83	815.40	50.49	813.74
RFW-2A	857.41	35	13.73	843.68	13.26	844.15	12.86	844.55
RFW-2B	857.73	75	14.22	843.51	13.89	843.84	13.32	844.41
RFW-3B	839.21	153	25.21	814.00	27.74	811.47	28.46	810.75
RFW-4A	830.37	62	36.02	794.35	35.75	794.62	37.20	793.17
RFW-4B	830.37	120	35.84	794.53	35.66	794.71	37.06	793.31
RFW-5A	817.50	30	30.82	786.68	DRY	NA	DRY	NA
RFW-6	785.04	120	2.67	782.37	3.32	781.72	1.98	783.06
RFW-7	805.14	29	7.19	797.95	7.27	797.87	7.31	797.83
RFW-8	860.07	56	DRY	NA	DRY	NA	DRY	NA
RFW-9	862.02	49	24.82	837.20	24.71	837.31	25.38	836.64
RFW-10	852.06	58	57.33	794.73	57.66	794.40	58.58	793.48
RFW-11A	849.32	72	NA	NA	NA	NA	NA	NA
RFW-11B	849.62	116	61.72	787.90	69.10	780.52	70.14	779.48
RFW-12B	844.87	264	50.86	794.01	49.96	794.91	51.63	793.24
RFW-13	849.11	150	55.56	793.55	56.44	792.67	57.01	792.10
RFW-14B	812.39	281	30.74	781.65	30.65	781.74	35.16	777.23
RFW-16	856.14	41	39.02	817.12	38.95	817.19	39.22	816.92
RFW-17	834.66	60.5	24.86	809.80	24.26	810.40	24.98	809.68
RFW-20	842.49	142	31.83	810.66	32.57	809.92	32.87	809.62
RFW-21	832.65	102	20.02	812.63	20.22	812.43	20.42	812.23
PH-7	805.94	89	19.08	786.86	20.94	785.00	21.17	784.77
PH-9	814.94	98	27.28	787.66	28.37	786.57	26.91	788.03
PH-11	820.68	78	40.15	780.53	40.31	780.37	40.82	779.86
PH-12	828.35	87	40.32	788.03	41.20	787.15	41.54	786.81
B-3	803.02	83	NA	NA	NA	NA	NA	NA
Amoco	842.29	NA	NA	NA	NA	NA	NA	NA
Hamp. Town #22	804.96	NA	33.20	771.76	17.56	787.40	28.43	776.53
Pembroke #1	NA	NA	12.95	NA	13.06	NA	13.26	NA
Pembroke #2	NA	NA	NA	NA	NA	NA	NA	NA
N. Houcks. Rd.	NA	NA	9.87	NA	10.86	NA	11.09	NA
E. Century St.	NA	NA	19.21	NA	19.55	NA	19.61	NA
Lwr. Beckleys. Rd.	NA	NA	NA	NA	NA	NA	NA	NA

NA - Not Available/Not Accessible

Table 2-3
Effluent Characteristics Summary - 3rd Quarter 2004
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter		Units	Permit Limits	DMR DATE		
					July 2004	August 2004	September 2004
001	FLOW	average	MGD	NA	0.224	0.314	0.267
		maximum	MGD	NA	1.156	0.977	1.234
	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	6.18	6.17	6.06
		maximum	STD	8.5	7.27	7.29	7.27
	BOD		mg/l	15	4.8	4.0	2.9
	TSS	maximum	mg/l	30	7.6	6.8	7.3
		quarterly average	mg/l	20	NR	NR	7.6
101 (Monitoring Point)	FLOW	average	MGD	NA	0.254	0.208	0.267
		maximum	MGD	NA	0.321	0.250	0.291
	Fecal Coliform		MPN/100ml	200	< 2	< 2	< 2
201 (Monitoring Point)	FLOW	average	MGD	NA	0.245	0.255	0.244
		maximum	MGD	NA	0.286	0.299	0.278
	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 2004) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete analytical data package is included in Appendix D. As found in earlier sampling events at the Black & Decker facility, TCE and PCE were the VOCs detected at the highest concentrations in the groundwater samples. The highest concentration of TCE was detected in the groundwater samples collected from wells RFW-10 and EW-4 and the highest concentration of PCE was detected in the groundwater samples 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 2004
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-1A	RFW-1B	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10
Chloromethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
Chloroethanane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
Methylene Chloride	ug/L	8 B	8 B	8 B	9 B	8 B	10 B	9 B	10 B	NS	2 J	2 J	NS	2 J	3 J
Acetone	ug/L	2 J	9 J	10 U	4 J	4 J	2 J	10 U	3 J	NS	6 J	10 U	NS	10 U	10 U
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	2 J	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	5 U	5 U	11	1 J	4 J	4 J	NS	1 J	5 U	NS	9	5 U
Chloroform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
2-Butanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	2 J	2 J
Carbon Tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Trichloroethene	ug/L	5 U	5 U	1 J	10 U	9	66	1 J	1 J	NS	10	5 J	NS	18	680
Dibromochloromethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Benzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
4-Methyl-2-pentanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U	10 U	NS	10 U	10 U
Tetrachloroethene	ug/L	5 U	5 U	5 U	5 U	10	67	26	25	NS	8	5 U	NS	6	12
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Styrene	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U
Xylene (total)	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	5 U

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

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

PARAMETER	Units	RFW-11A	RFW-11B	RFW-12B (5)	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank
Chloromethane	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethanane	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	NS	3 J	10 J	2 J	2 J	2 J	2 J	2 J	5 JB	6 B	6 B	6 B	7 B	8 B
Acetone	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	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	NS	5 U	10 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/L	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	5 U	1 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	ug/L	NS	10 U	50 U	10 U	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	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/L	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	NS	45	380	3 J	75	5 U	2 J	2 J	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	NS	5 U	25 U	5 U	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	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	NS	5 U	25 U	5 U	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	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	5 U	27	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	ug/L	NS	5 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes: DUP = Duplicate sample
NS = Not sampled
(2.5) = Dilution factor.
U = Compound was analyzed for but not detected. Value shown is the method detection limit for qu
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 2004
Black & Decker
Hampstead, Maryland

PARAMETER	Units	EW-1	EW-2 (10)	EW-3 (2)	EW-4 (25)	EW-5 (2)	EW-6	EW-7	EW-8	EW-9 (2)	EW-9 (DUP) (2)	EW-10
Chloromethane	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Bromomethane	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Vinyl Chloride	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Chloroethanane	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Methylene Chloride	ug/L	NS	130	11 B	370	10 B	4 J	4 J	4 JB	10 B	13 B	5 B
Acetone	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Carbon Disulfide	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	10 U	120 U	10 U	5 U	4 J	15	10 U	10 U	5 U
Chloroform	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
2-Butanone	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Carbon Tetrachloride	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Bromodichloromethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Trichloroethene	ug/L	NS	820	250	2800	420	9	4 J	10	10 U	10 U	5 U
Dibromochloromethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Benzene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Bromoform	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
2-Hexanone	ug/L	NS	100 U	20 U	250 U	20 U	10 U	10 U	10 U	20 U	20 U	10 U
Tetrachloroethene	ug/L	NS	54	5 J	43 J	12	24	7	70	190	220	21
1,1,2,2-Tetrachloroethane	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Toluene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Chlorobenzene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Ethylbenzene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Styrene	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 U	5 U
Xylene (total)	ug/L	NS	50 U	10 U	120 U	10 U	5 U	5 U	5 U	10 U	10 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.

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 2004) is provided in Table 3-1. This table is comprehensive in summarizing significant maintenance events or activities, while not including those activities considered unworthy of note (such as replacement of light bulbs, lubrication of moving parts as appropriate or other routine activities).

Table 3-1
Treatment System Maintenance Activities - 3rd Quarter 2004
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jul-04	A new pump, motor and contactor were installed in EW-3. The well is back on line.
Jul-04	EW-2 not pumping, the pump was replaced, the well was bleached and put back on line. The well was down for 7 days.

4. RECOMMENDATIONS

For the reporting period of July through September 2004, the treatment system continued to create a hydraulic boundary preventing off-site migration of groundwater. The extraction system will continue to operate as currently configured to pump and treat contaminated groundwater. Depth-to-water measurements will continue to be collected on a monthly basis in all site monitor wells to construct a groundwater elevation contour map for the site. The groundwater elevation contour map will be used to verify that the required area of groundwater capture is being maintained. If necessary, pumping rates will be adjusted to maintain groundwater capture due to seasonal fluctuations in groundwater elevations. The treatment system will also continue to operate as currently configured, as data collected have proven that the treatment system is fully effective in removing VOCs from the extracted groundwater.

APPENDIX A
GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS
(JULY – SEPTEMBER 2004)

BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR

July 2004

PAST MONTH READING

42630514

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	T	0920	42841482	213894	21483	21604
2	F	0915	43055376	↑	21506	21604
3						
4						
5				904488		
6	T	1320	43959864	228048	21606	21604
7	W	0945	44187912	269987	21606	21625
8	T	1110	44457899	228322	21606	21651
9	F	0920	44686221	↑	21606	21672
10						
11				* 787500		
12	M	1255	26683	231521	21606	21749
13	T	1045	257204	279783	21628	21749
14	W	1315	536987	220146	21654	21749
15	T	1005	757133	242786	21675	21749
16	F	0930	999919	↑	21698	21745
17						
18				773398		
19	M	1035	1773317	252166	21771	21749
20	T	1140	2025483	286258	21771	21773
21	W	1355	2311741	228914	21771	21800
22	T	1145	2540655	254003	21771	21822
23	F	1200	2794658	↑	21771	21846
24						
25				734448		
26	M	1020	3529106	280442	21771	21916
27	T	1315	3809548	219620	21798	21916
28	W	1020	4029168	239012	21819	21916
29	T	1055	4268180	246227	21844	21916
30	F	1145	4514407	251094	21869	21916
31	S	1230	~~4765501~~ 4765501	234117	21894	21916
Total				7606174		
Average				245360		

* 7-17-04 Electrical Storm reset instruments. Lost 175 gpm as measured for weekend.

NEXT MONTH READING 5233735

DATE 8-2-04

BLACK DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR Aug. 2004

PAST MONTH READING 4765501

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1				234117		
2	M	1215	5233735	241629	21941	21916
3	T	1230	5476364	221711	21965	21916
4	W	1020	5697075	259955	21965	21938
5	T	1015	5957030	247603	21965	21962
6	F	0915	6204633	↑	21965	21985
7						
8				796948		
9	M	1215	7001581	262334	21965	22060
10	T	1305	7263915	214726	21990	22060
11	W	0925	7478641	299271	22011	22060
12	T	1350	7777912	238052	22039	22060
13	F	1225	8015964	↑	22062	22060
14						
15				737354		
16	M	1035	8753318	250150	22132	22060
17	T	1025	9003468	266136	22132	22084
18	W	1145	9269604	230759	22132	22109
19	T	0920	9500363	247635	22132	22130
20	F	0725	9747998	↑	22132	22153
21						
22				822865		
23	M	1100	10570863	252954	22132	22229
24	T	1030	10823817	269871	22155	22229
25	W	1140	11093688	234832	22180	22229
26	T	0935	11328520	270507	22202	22229
27	F	1065	11599027	↑	22228	22229
28						
29				783697		
30	M	1230	12382724	241720	22301	22329
31	T	1142	12624444	285531	22301	22252
Total				7910357		
Average				255173		

NEXT MONTH READING 12909975

DATE 9-1-04

BLACK & DECKER
AIR STRIPPER # 2
OPERATING RECORD

MONTH / YEAR Sept. 04

PAST MONTH READING 12624444

Date	Day	Time	Integ. Reading	GPD	Pump # 11	Pump # 12
1	W	1415	12909975	228594	22301	22278
2	T	1155	13138569	263223	22301	22300
3	F	1250	13401792	↑	22301	22325
4						
5				738811		
6	M		14140603	257026		
7	T	1125	14397629	221873	22301	22419
8	W	0911	14619502	252917	22301	22441
9	T	0920	14872419	270887	22301	22465
10	F	1040	15143306	↑	22301	22491
11						
12				766553		
13	M	1212	15909859	216796	22375	22491
14	T	0900	16126655	241057	22396	22491
15	W	0923	16367712	245365	22420	22491
16	T	1010	16613077	243277	22445	22491
17	F	1050	16856354	↑	22445	22515
18						
19				707522		
20	M	1035	17563876	241185	22445	22587
21	T	1110	17805061	254188	22445	22612
22	W	1305	18059249	245342	22445	22638
23	T	1400	18304591	195633	22470	22638
24	F	1000	18500224	↑	22490	22638
25						
26				721149		
27	M	1135	19221373	241838	22563	22638
28	T	1210	19463211	231101	22588	22638
29	W	1020	19694312	278308	22610	22638
30	T	1305	19972620	235979	22637	22638
31						
Total				7298624		
Average				243287		

NEXT MONTH READING 20208599

DATE 10-1-04