

Quarterly Groundwater Monitoring Report

Prepared for

Black & Decker (U.S.) Inc.

Hampstead, Maryland

October 2010

Prepared by

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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 2010.

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. For the reporting period of July through September 2010, the extraction wells were pumping at an average combined rate of approximately 169 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 2010 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of July through September 2010, approximately 15.8 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) (86.7 %) and tetrachloroethene (PCE) (13.3 %). Analytical results of the groundwater collected from the air stripper for the period of July through September 2010 are included in Appendix C.

A summary of the analytical results from the third quarter (August 2010) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

Table 2-1
Treatment System Pumping Records - 3rd Quarter 2010
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
July 2010	7,505,570
August 2010	7,175,989
September 2010	6,655,915

Table 2-2
Groundwater Elevation Data - 3rd Quarter 2010
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	7/15/2010		8/18/2010		9/7/2010	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	86.11	763.10	93.61	755.60	94.10	755.11
EW-3	846.64	118	83.87	762.77	86.71	759.93	88.40	758.24
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	90.14	774.03	91.17	773.00	91.25	772.92
EW-6	831.98	115	92.60	739.38	98.67	733.31	99.26	732.72
EW-7	818.38	78	46.03	772.35	45.28	773.10	52.60	765.78
EW-8	811.13	98	93.31	717.82	92.84	718.29	92.51	718.62
EW-9	811.35	141	102.00	709.35	102.00	709.35	103.00	708.35
EW-10	807.74	INA	49.73	758.01	52.69	755.05	54.60	753.14
RFW-1A	864.37	78	49.01	815.36	51.37	813.00	51.63	812.74
RFW-1B	864.23	200	49.06	815.17	51.39	812.84	51.67	812.56
RFW-2A	857.41	35	15.11	842.30	17.02	840.39	16.83	840.58
RFW-2B	857.73	75	15.52	842.21	17.61	840.12	17.17	840.56
RFW-3B	839.21	153	29.71	809.50	34.93	804.28	34.86	804.35
RFW-4A	830.37	62	35.54	794.83	36.51	793.86	36.43	793.94
RFW-4B	830.37	120	35.43	794.94	36.48	793.89	36.39	793.98
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	5.01	780.03	3.11	781.93	2.61	782.43
RFW-7	805.14	29	7.92	797.22	6.32	798.82	7.42	797.72
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	26.13	835.89	26.47	835.55	26.47	835.55
RFW-10	852.06	58	DRY	NC	DRY	NC	DRY	NC
RFW-11A	849.32	72	Damaged	NC	Damaged	NC	Damaged	NC
RFW-11B	849.62	116	62.12	787.50	63.41	786.21	63.89	785.73
RFW-12B	844.87	264	50.93	793.94	49.95	794.92	50.11	794.76
RFW-13	849.11	150	58.61	790.50	58.11	791.00	59.61	789.50
RFW-14B	812.39	281	53.21	759.18	54.02	758.37	54.26	758.13
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	23.89	810.77	25.81	808.85	26.41	808.25
RFW-20	842.49	142	31.41	811.08	33.48	809.01	34.10	808.39
RFW-21	832.65	102	19.29	813.36	21.05	811.60	21.34	811.31
PH-7	805.94	89	25.41	780.53	29.90	776.04	29.01	776.93
PH-9	814.94	98	39.80	775.14	41.62	773.32	38.67	776.27
PH-11	820.68	78	51.47	769.21	51.88	768.80	51.28	769.40
PH-12	828.35	87	51.81	776.54	53.97	774.38	53.79	774.56
B-3	803.02	83	10.02	793.00	10.55	792.47	9.91	793.11
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	3.89	801.07	3.43	801.53	4.76	800.20
Pembroke #1	INA	INA	11.83	NC	12.33	NC	12.21	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	10.53	NC	10.89	NC	9.83	NC
E. Century St.	INA	INA	19.08	NC	19.58	NC	19.74	NC
Lwr. Beckleys. Rd.	INA	INA	55.87	NC	55.69	NC	54.73	NC

NA - Not Available/Not Accessible

NC - Not Calculable

INA - Information not available

PC - Pump Cycles

Table 2-3
Effluent Characteristics Summary - 3rd Quarter 2010
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				July 2010	August 2010	September 2010	
001	FLOW	average	MGD	NA	0.129	0.142	0.102
		maximum	MGD	NA	0.236	0.338	0.130
	1,1,1-Trichloroethane		ug/l	5	< 1	< 1	< 1
	Tetrachloroethylene		ug/l	5	< 1	< 1	< 1
	Trichloroethylene		ug/l	5	< 1	< 1	< 1
	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	< 5	< 5	< 5
	pH	minimum	STD	6.0	6.6	6.5	6.5
		maximum	STD	8.5	8.4	7.6	6.9
	BOD		mg/l	15	3.0	3.0	3.0
	TSS	maximum	mg/l	30	0.0	5.0	7.0
quarterly average		mg/l	20	0.0	5.0	7.0	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.217	0.203	0.208
		maximum	MGD	NA	0.327	0.248	0.288
	Fecal Coliform		MPN/100ml	200	1.0	1.0	1.0
201 (Monitoring Point)	FLOW	average	MGD	NA	NR	NR	0.232
		maximum	MGD	NA	NR	NR	0.287
	1,1,1-Trichloroethane		ug/l	NA	NR	NR	< 1
	Tetrachloroethylene		ug/l	NA	NR	NR	< 1
	Trichloroethylene		ug/l	NA	NR	NR	< 1

DMR - Discharge Monitoring Report

NA - Not Applicable

NR - Not Reported

Table 2-4
Summary of Groundwater Analytical Results - August 2010
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-9 (DUP)	EW-10
Chloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	NS	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	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	3.4	2.2	1 U	1 U	1 U	2.2	20	1 U	1 U	1 U
Chloroform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	NS	380	76	920	130	7.4	2	8	1 U	1 U	1 U
Dibromochloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	ug/L	NS	50	2.5	19	4.2	15	4.8	52	84	83	1.6
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
J = Indicates an estimated value.

Table 2-4
Summary of Groundwater Analytical Results - August 2010
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-1A	RFW-1B	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4A (DUP)	RFW-4B	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10
Chloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromomethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Methylene Chloride	ug/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NS	2 U	2 U	NS	2 U	NS
Acetone	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	NS
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	NS
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1.2	NS
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1.3	NS
1,2-Dichloroethene (total)	ug/L	1 U	1 U	1 U	1 U	2.6	0.9 J	0.9 J	2	NS	1 U	1 U	NS	16	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	0.8 J	0.8 J	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
2-Butanone	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	NS
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	37	36	17	NS	1.2	4.4	NS	14	NS
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
4-Methyl-2-pentanone	ug/L	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
2-Hexanone	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	NS
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	29	29	29	NS	1.7	1 U	NS	6.5	NS
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Xylene (total)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS

Notes: DUP = Duplicate sample
NS = Not sampled

U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
J = Indicates an estimated value.

Table 2-4
 Summary of Groundwater Analytical Results - August 2010
 Black & Decker
 Hampstead, Maryland

PARAMETER	Units	RFW-11A	RFW-11B	RFW-12B	RFW-13	RFW-16	RFW-17	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank	RFW-20	RFW-21	Town #22	Town #23	Trip Blank
		USEPA drinking water method 524.2														
Chloromethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromomethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	NS	NS	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	NS	NS	1 U
Methylene Chloride	ug/L	NS	2 U	2 U	2 U	NS	2 U	ABD	ABD	ABD	2 U	0.5 U	0.5 U	NS	NS	0.5 U
Acetone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	NA	NA	NS	NS	NA
1,1-Dichloroethene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloroethene (total)	ug/L	NS	1 U	2.9	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chloroform	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
2-Butanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromodichloromethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Trichloroethene	ug/L	NS	6.2	180	2.8	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Dibromochloromethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Benzene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromoform	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
2-Hexanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
Tetrachloroethene	ug/L	NS	1 U	17	15	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Toluene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Ethylbenzene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Styrene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U

Notes: Samples from wells RFW-20 & 21, Town-22&23 are analyzed with the USEPA drinking water method 524.2 at the request of the MDE Source Protection and Appropriation Division.
 Samples from all of the other wells are analyzed with USEPA Method 8260.
 NS = Not sampled
 U = Compound was analyzed but not detected.
 ABD = Well has been abandoned

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-4 and the highest concentration of PCE was detected in the groundwater sample collected from well EW-9. The remainder of VOCs present were detected at levels below the Federal Maximum Contaminant Levels (MCL).

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 2010) 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 2010
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jul-10	Alarm at the air stripper due to high wet well, reset the system. The system is back online.
Jul-10	Turn EW-3 off for 1 hour to replace a leaking valve. EW-3 back online.
Jul-10	Alarm at air stripper. A 4-inch plastic butterfly valve broke it was replaced it with a spool piece of pipe. The air stripper is back online.
Aug-10	Alarm at the air stripper due to a bad control relay in EW - 6. Replaced the control relay in EW - 6, well is back online.
Aug-10	Alarm at the air stripper due to a power outage, reset the system. The system is back online.
Aug-10	Installed a new 4-inch butterfly valve, the stripper was down for three hours, the system is back online.
Aug-10	Alarm at the air stripper, EW-9 is down due to a bad control relay. The control relay is replaced the well is back online.
Aug-10	Alarm at the air stripper, high column and blower failure. Reset the system, the stripper is back online.

4. RECOMMENDATIONS

For the reporting period of July through September 2010, 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 2010)

MARYLAND DEPARTMENT of the ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION, 1800 WASHINGTON BLVD, BALTIMORE, MD 21230

Superintendent: Earle Villarreal Certification # 1017

Black & Decker WTP

PWSID # 106 0004 County: Carroll

Operated by:
Maryland Environmental Service

Address: BTR CAPITAL GROUP, Hampstead, MD 21073
625 Hanover Pike, Hampstead, Carroll County, Maryland

Month: July

Year: 2010

GENERAL			DOMESTIC WATER				CHEMICAL					MONITORING			DISTRIBUTION		RAW WATER		Comments	
Date	Day	Weather	Flow meter reading	MGD Total FQIR	pH P.O.E	Free Cl2	Na2CO3 Level	Na2CO3 (gpd)	NaOCL Level	NaOCL (gpd)	VOC'S (ppb)	Bacti Pos/Neg	pH su	TRC mg/l	DISTRIBUTION LOCATION	Operator Initials	pH su	TOTAL RAW WATER WELLS (mgd)		
1	Thurs	Clear	0	0.0020	7.5	1.26	40.00	1.00	67.00	0.00						djones		0.216367		
2	Fri	Clear	0	0.0076	7.1	1.31	38.00	2.00	67.00	0.00			7.33	1.02	Admin 2nd Fl	djones		0.271661		
3	Sat	Clear	0	0.0000	7.6	1.18	38.00	0.00	67.00	0.00						djones		0.192132		
4	Sun	Clear	0	0.0025	7.8	1.05	37.00	1.00	67.00	0.00						bm		0.271567		
5	Mon	Clear	0	0.0000	7.8	1.34	37.00	0.00	67.00	0.00						bm		0.247666		
6	Tue	Clear	0	0.0025	7.8	1.20	36.00	1.00	67.00	0.00						bm		0.256844		
7	Wed	Clear	0	0.0054	7.6	1.32	35.00	1.00	67.00	0.00						bm		0.222859		
8	Thurs	Clear	0	0.0029	9.0	1.17	34.00	1.00	67.00	0.00						fs		0.242040		
9	Fri	Clear	0	0.0076	7.1	1.28	32.00	2.00	67.00	0.00			6.7	0.77	Eng Lab	djones	4.60	0.286802		
10	Sat	Rain	0	0.0000	8.2	1.07	32.00	32.00	67.00	0.00						mw		0.237200		
11	Sun	Clear	0	0.0024	8.2	1.23	31.00	31.00	67.00	0.00						mw		0.249631		
12	Mon	Cloudy	0	0.0027	7.0	1.27	30.00	30.00	67.00	0.00						djones		0.216187		
13	Tue	Cloudy	0	0.0055	7.5	1.24	28.00	28.00	67.00	0.00			6.5	0.92	Eng Lab	djones		0.249075	Absent	
14	Wed	Rain	0	0.0053	7.5	1.25	27.00	27.00	67.00	0.00			7.3	1.08	Admin 1st Fl	djones	4.67	0.270425		
15	Thurs	Clear	0	0.0068	7.7	1.30	26.00	26.00	67.00	0.00						djones		0.233102		
16	Fri	Clear	0	0.0051	7.3	1.26	45.00	45.00	67.00	0.00			7.1	1.02	Admin 2nd Fl	djones		0.230416		
17	Sat	Clear	0	0.0025	7.5	1.14	44.00	44.00	67.00	0.00						djones		0.208760		
18	Sun	Clear	0	0.0000	7.3	1.04	44.00	44.00	67.00	0.00						djones		0.243565		
19	Mon	Cloudy	0	0.0050	7.4	1.05	43.00	43.00	67.00	0.00						dsmith		0.270921		
20	Tue	Cloudy	0	0.0050	7.7	1.64	42.00	42.00	67.00	0.00						jdowns		0.236877		
21	Wed	Cloudy	0	0.0050	8.3	1.58	40.00	40.00	67.00	0.00			7.8	1.25	Eng Lab	djones		0.267500		
22	Thurs	Clear	0	0.0039	8.1	1.44	38.00	2.00	67.00	0.00						djones	4.55	0.207500		
23	Fri	Clear	0	0.0064	8.3	1.46	36.00	2.00	67.00	0.00			7.9	1.07	Eng Lab	bm		0.262364		
24	Sat	Clear	0	0.0023	8.2	1.40	35.00	1.00	67.00	0.00						dsmith		0.190588		
25	Sun	Clear	0	0.0000	8.1	1.35	35.00	0.00	67.00	0.00						dsmith		0.240076		
26	Mon	Clear	0	0.0043	8.3	1.40	34.00	1.00	67.00	0.00						dsmith		0.270304		
27	Tue	Clear	0	0.0060	7.5	1.45	32.00	2.00	67.00	0.00			7.1	1.08	Admin 1st Fl	bm		0.251378		
28	Wed	Clear	0	0.0052	6.9	1.33	30.00	2.00	67.00	0.00						gd		0.244726		
29	Thurs	Cloudy	0	0.0052	8.4	1.64	28.00	2.00	67.00	0.00						gd		0.247213		
30	Fri	Clear	0	0.0037	8.4	1.18	27.00	1.00	67.00	0.00			8.3	0.99	Admin 2nd Fl	gd		0.229091		
31	Sat	Clear	0	0.0046	7.0	1.10	25.00	2.00	67.00	0.00						gd		0.240733		
Total				0.1174	239.9	39.93	1079.0	456.00	2077.0	0.00	0.0	0.0	66	9					7.505570	
Average				0.0038	7.74	1.29	34.81	14.71	67.00	0.00	0.0	0.0	7.34	1.02					0.242115	
Minimum				0.0000	6.94	1.04	25.00	0.00	67.00	0.00	0.0	0.0	6.52	0.77					0.190588	MOR
Maximum				0.0076	8.95	1.64	45.00	45.00	67.00	0.00	0.0	0.0	8.29	1.25					0.286802	12/04/08