### **Quarterly Groundwater Monitoring Report**

Prepared for

Black & Decker (U.S.) Inc.

Hampstead, Maryland April 2013

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.

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#### 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 January through March 2013.

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 January through March 2013, the extraction wells were pumping at an average combined rate of approximately 174 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 January through March 2013 are included in Appendix B.

### 2.3 GROUNDWATER QUALITY DATA

For the reporting period of January through March 2013, approximately 13.26 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) (83.3%) and tetrachloroethene (PCE) (16.7%) Analytical results of the groundwater collected from the air stripper for the period of January through March 2013 are included in Appendix C.

A summary of the analytical results from the first quarter (February 2013) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

# Table 2-1 Treatment System Pumping Records - 1st Quarter 2013 Black & Decker Hampstead, Maryland

Date	Water Pumped (gallons)
January 2013	6,456,215
February 2013	6,709,473
March 2013	7,486,802

## Table 2-2 Groundwater Elevation Data - 1st Quarter 2013 Black & Decker Hampstead, Maryland

WELL	TOC	TOTAL		/2013		/2013		/2013
NO.	ELEV.	DEPTH	DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	92.40	756.81	92.63	756.58	92.27	756.94
EW-3	846.64	118	84.50	762.14	84.91	761.73	84.46	762.18
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	88.71	775.46	89.91	774.26	88.84	775.33
EW-6	831.98	115	103.00	728.98	102.87	729.11	102.46	729.52
EW-7	818.38	78	73.00	745.38	73.00	745.38	73.00	745.38
EW-8	811.13	98	96.00	715.13	95.87	715.26	95.18	· 715.95
EW-9	811.35	141	103.00	708.35	103.00	708.35	103.50	707.85
EW-10	807.74	INA	49.63	758.11	47.50	760.24	50.77	756.97
RFW-1A	864.37	78	49.61	814.76	49.32	815.05	49.43	814.94
RFW-1B	864.23	200	49.69	814.54	49.40	814.83	49.46	814.77
RFW-2A	857.41	35	12.68	844.73	12.72	844.69	12.74	844.67
RFW-2B	857.73	75	13.20	844.53	13.30	844.43	13.10	844.63
RFW-3B	839.21	153	32.13	807.08	31.57	807.64	32.64	806.57
RFW-4A	830.37	62	36.13	794.24	35.88	794.49	36.22	794.15
RFW-4B	830.37	120	36.04	794.33	35.76	794.61	36:18	794.19
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	4.73	780.31	3.39	781.65	4.83	780.21
RFW-7	805.14	29	6.18	798.96	5.29	799.85	7.11	798.03
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	24.71	837.31	24.67	837.35	25.26	836.76
RFW-10	852.06	5.8	DRY	NC	DRY	NC	DRY	NC ·
RFW-11A	849.32	72	Damaged	NC	Damaged	NC	Damaged	· NC
RFW-11B	849.62	116	64.10	785.52	63.36	786.26	64.26	785.36
RFW-12B	844.87	264	50.38	794.49	50.46	794.41	51.04	793.83
RFW-13	849.11	150	62.73	786.38	63.80	785.31	62.88	786.23
RFW-14B	812.39	281	53.12	759.27	54.09	758.30	54.26	758.13
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	27.43	807.23	27.61	807.05	26.99	807.67
RFW-20	842.49	142	33.20	809.29	33.22	809.27	33.41	809.08
RFW-21	832.65	102	20.19	812.46	20.28	812.37	20.26	812.39
PH-7	805.94	89	24.01	781.93	23.66	782.28	24.32	781.62
PH-9	814.94	98	50.07	764.87	49.87	765.07	50.19	764.75
PH-11	820.68	78	48.88	771.80	48.63	772.05	49.13	771.55
PH-12	828.35	87	51.06	777.29	51.11	777.24	52.08	776.27
В-3	803.02	83	9.83	793.19	10.16	792.86	10.22	792.80
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	1.68	803.28	2.15	802.81	2.68	802.28
Pembroke #1	INA	INA	10.59	NC	10.86	NC	11.27	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	9.98	NC	11.01	NC	1071.00	NC
E. Century St.	INA	INA	19.23	NC	19.21	NC	19.27	NC
Lwr. Beckleys. Rd.	INA	INA	53.68	NC	54.83	NC	54.91	NC

NA - Not Available/Not Accessible

NC - Not Calculable

INA - Information not available

PC - Pump Cycles

Table 2-3
Effluent Characteristics Summary - 1st Quarter 2013
Black & Decker
Hampstead, Maryland

Discharge	Paramete		Units	Permit	DMR DATE						
Number				Limits	January 2013	February 2013	March 2013				
001	FLOW	average	MGD	NA	0.188	0.277	0.257				
		maximum	MGD	NA	1.106	0.632	0.800				
	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				
		nonthly average	mg/l	10	< 5	< 5	<5				
	pH	minimum	STD	6.0	6.7	7.20	6.90				
		maximum	STD	8.5	8.1	8.20	7.90				
	BOD		mg/l	15	< 2	7.0	5.0				
	TSS	maximum	mg/l	30	< 4	13.0	4.0				
		nonthly average	mg/l	20	< 4	13.0	4.0				
101	FLOW	average	MGD	NA	0.168	0.202	0.195				
(Monitoring		maximum	MGD	NA	0.271	0.240	0.285				
Point)	Fecal Coliform		MPN/100ml	200	1.0	5.0	1.0				
201	FLOW	average	MGD	NA	NR	NR	0.229				
(Monitoring		maximum	MGD	NA	NR	NR	0.337				
Point)	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 - February 2013 Stanley 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	ΙÜ	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	4.5	1.9	1 U	1 U	1 U	6	25	1 U	1 U	1 U
Chloroform	ug/L	NS	1 U	1 U	1 U	1 U	I U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	ΙU	1 U	1 U	1 U	1 U	ΙÜ	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	i 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	200	44	890	110	6	4.4	8.3	0.6	0.7	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	ΙÜ	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	ΙU	ΙÜ	1 U	1 U	1 U	1 U	1 U	ΙU	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	51	1.5	17	3.3	11	10	71	88	95	0.6 J
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	I U	1 U	1 U	1 U	1 U
Toluene	ug/L	NS	1 U	1 U	ΙU	1 U	1 U	ΙU	1 U	1 U	ΙU	1 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	ΙÜ	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	ΙÜ	1 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	ίŪ	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.

NS = Not Sampled

## Table 2-4 Summary of Groundwater Analytical Results - February 2013 Stanley Black & Decker Hampstead, Maryland

		RFW-1A	RFW-1B	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4A	RFW-4B	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10
PARAMETER	Units							(DUP)							
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	ΙU	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	ΙU	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	ΙU	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	ΙÜ	NS	0.8 J	NS
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	ΙU	1 U .	NS	1 U	l U	NS	0.6 J	NS
1,2-Dichloroethene (total)	ug/L	_ 1 U	1 U	1 U	1 U	1.9	0.8 J	0.8 J	4.1	NS	1 U	1 U	NS	11	NS
Chloroform	ug/L	1 Ü	1 U	ΙU	1 U	1 U	0.6 J	0.6 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	JU	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	<u>1</u> 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	ΙU	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	ΙU	NS	1 U	NS
Trichloroethene	ug/L	1 U	1 U	0.4 J	0.7	1 U	26	26	12	NS	0.7	1.9	NS	8.3	NS
Dibromochloromethane	ug/L	1 U	ΙU	1 U	1 U	.1 U	1 U	ΙÜ	ΙU	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	I U	NS	1 U	1 U	NS	1 U	NS
Trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	ΙU	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Вготобогт	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	ΙU	1 U	1 U	0.3 J	19	18	32	NS	1.1	1 U	NS	4.2	NS
1,1,2,2-Tetrachloroethane	ug/L	1 U	ΙU	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	ΙU	ΙU	1 U	NS	1 U	1 U	NS	1 U	NS
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	ΙU	1 U	1 U	NS	1 U	1 U	NS	10	NS
Styrene	ug/L	ΙU	1 U	1 U	1 U	1 U	I 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 NS

Notes: DUP = Duplicate sample

U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.

NS = Not sampled

J = Indicates an estimated value.

## Table 2-4 Summary of Groundwater Analytical Results - February 2013 Stanley Black & Decker Hampstead, Maryland

PARAMETER	Units	RFW-11 <i>A</i>	RFW-11E	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	
												U	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	0.5 U	0.5 U	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	1 U	1 U	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	0.5 U	0.5 U	0.5 U	
Chloroethane	ug/L	NS	1 U	1 U	1 U	NS	_1 U	ABD	ABD	ABD	1 U	ΙU	1 U	1 U	1 <b>U</b>	1 U	
Methylene Chloride	ug/L	NS	2 U	2 U	2 U	ŅS	2 U	ABD	ABD	ABD	2 U	0.5 U	0.5 U	0.5 U	0.5 U	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	10 U	10 U	10 U	
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	NA	NA	NA	NA	NA	
1,1-Dichloroethene	ug/L	NS	1 U	ΙU	1 U	NS	ΙU	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	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	0.5 U	0.5 U	0.5 U	
1,2-Dichloroethene (total)	ug/L	NS	1 U	1.8	0.8 J	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	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	0.32 J	0.5 U	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	0.5 U	0.5 U	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	10 U	10 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	0.5 U	
Trichloroethene	ug/L	NS	2.4	76	2.6	NS	1 U	ABD	ABD	ABD	1 U	0.4	0.5 U	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	0.5 U	
Bromoform	ug/L	NS	1 U	1 U	1 U	NS	ΙU	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	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	10 U	10 U	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	10 U	10 U	10 U	
Tetrachloroethene	ug/L	NS	1 U	5.3	15	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.43 J	0,5 U	0.5 U	
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	ΙU	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.45 U	0.5 U	0.5 U	
Toluene	ug/L	NS	ΙÜ	1 U	1 U	NS	l U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlorobenzene	ug/L	NS	1 U	I U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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	0.5 U	0.5 U	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 EW-2 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 (January through March 2013) 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).

3-1

# Table 3-1 Treatment System Maintenance Activities - 1st Quarter 2013 Black & Decker Hampstead, Maryland

Date	Event/Corrective Action
Jan-13	Alarm at air stripper, EW-10 was found to have a bad relay in the Warwick control, the relay was replaced. The well is back online.
Jan-13	The pitless adapter in EW-7 is leaking. The pitless adapter was replaced the well is back online.
Jan-13	EW-10 tripped off due to control wires that shorted out. These wires were replaced and the well is back online.
Jan-13	Alarm at stripper, due to a low hydro tank, it was found that the pressure switch on the hydro tank was frozen. The switch was thawed and the hydro tank was back online.
Feb-13	Alarm at stripper, due to a low hydro tank, it was found that the pressure switch on the hydro tank was frozen. The hydro tank was filled by hand using the transfer pumps. The switch was thawed and the hydro tank was back online.

### 4. RECOMMENDATIONS

For the reporting period of January through March 2013, 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.

4\_1

## APPENDIX A GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS (JANUARY – MARCH 2013)

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

Superintendent: Earle Villarreal

Certification # 1017

Black & Decker WTP

Operated by

Maryland Environmental Service

PWSID # 106 0004

County: Carroll

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

Month: Year: 2013

January

GENERAL (DOMESTIC WATER) CHEMICAL MONITORING RAW WATER DISTRIBUTION Date Day Weather Flow meter reading MGD Free Na<sub>2</sub>CO<sub>3</sub> NaOCL NaOCLVOC'S рH Na<sub>2</sub>CO<sub>3</sub> Bacti pH | TRC | DISTRIBUTION Operator ρН TOTAL RAW Comments CI2 Total FQIR P.O.E Level (gpd) Level (apd) (ppb) Pos/Neg su ma/l LOCATION Initials SIL WATER WELL (mad) 1 Tue Cloudy n 0.0031 7.7 1.00 21.00 1.00 53.00 0.00 DJ 0.220999 2 Wed Clear 0 0.0004 8.4 1.14 40.00 1.00 53.00 0.00 7.80 0.98 Loading Dock DJ 0.245947 3 Thur Clear 0 0.0064 8.4 1.77 37.00 3.00 53 00 0.00 DJ 4.83 0.242737 4 Fri Cloudy 0 0.0030 8.6 1.68 36.00 53.00 0.00 1.00 8.2 1.47 Admin 2nd FI DJ 0.216450 5 Sat Clear 0 0.0049 8.2 1.39 35.00 1.00 53.00 0.00 MW 0.249353 6 Sun Clear n 0.0015 8.2 1.09 34.00 1.00 53.00 0.00 MW 0.222047 7 Cloudy Mon 0 0.0039 7.3 1.35 33.00 1.00 53.00 0.00 DJ0.249010 8 Tue Clear 0 0.0047 7.8 1.56 32.00 1.00 53.00 0.00 Nea 7.5 1.28 Admin 1st Fl DJ 0.233776 Nitrate 4.0 9 Wed Rain 0 0.0048 7.9 1.48 30.00 2.00 53.00 0.00 1.43 Loading Dock DJ 7.9 0.227151 10 Thur Clear 0 0.0035 7.5 1.39 29.00 1.00 0.00 53.00 DJ 5.40 0.228795 11 Fri 0 Rain 0.0046 7.7 1.26 28.00 1.00 53.00 0.00 7.7 1.19 Admin 2nd Fl DJ 0.236451 12 Sat Cloudy 0 0.0031 7.7 1.19 27.00 1.00 53.00 0.00 DJ 0.219196 13 Sun Fog 0 7.9 1.25 1.00 0.00 0.0011 26.00 53.00 D.I 0.229371 14 Mon Cloudy 0 0.0041 7.3 1.50 25.00 1.00 53.00 0.00 7.2 1.05 GD Admin1st Fl 0.249700 15 Tue Cloudy 0 0.0022 1.27 0.00 72 24.00 1.00 53.00 GD 0.212118 16 Wed Rain 0 0.0081 8.0 1.16 22.00 2.00 53.00 0.00 7.6 1.09 Loading Dock AP 0.245591 17 Thur Cloudy 0 0.0050 1.15 0.00 7.6 21.00 1.00 53.00 DJ 5.65 0.245012 18 Fri Clear 0 0.0052 7.5 1.12 19.00 2.00 53.00 0.00 DJ 0.227582 19 Sat Clear 0 0.00 0.0014 7.2 1.14 18.00 1.00 53.00 AP 0.143388 20 Sun Clear 0 0.0025 7.1 1.28 17.00 1.00 53.00 0.00 AΡ 0.215084 21 Cloudy Mon 0 0.0014 7.7 1.95 16.00 1.00 53.00 0.00 PP 7.7 1.00 Loading Dock 0.198005 22 Tue Clear 0 0.0057 7.6 1.63 15.00 1.00 53.00 0.00 DJ 0.189375 23 Wed Clear 0 1.70 0.0062 7.7 36.00 3.00 53.00 0.00 7.6 1.56 Admin 2nd FI DJ 0.184840 24 Thur Clear 0 0.0023 7.7 1.49 35.00 1.00 53.00 0.00 JE 0.142997 25 Fri Snow 0 0.0062 7.5 1.41 33.00 2:00 53.00 0.00 7.4 1.27 Admin 1st Fl DJ 5.36 0.157025 26 Sat Clear 0 0.0046 7.8 1.58 32.00 1.00 53.00 0.00 PP 0.171114 27 Sun Clear 0 0.0212 7.7 1.48 30.00 2.00 53.00 0.00 PΡ 0.153353 **Busted Pipe** 28 Mon Rain 0 0.0284 7.4 1.03 15.00 15:00 53.00 0.00 7.4 0.96 Loading Dock DJ 0.146994 **Busted Pipe** 29 Tue Clear O 0.0061 7.3 1.29 33.00 2.00 53.00 0.00 DJ 0.165910 30 Wed Cloudy 0 0.0045 1.30 32.00 7.5 1.00 53.00 0.00 7.5 1.17 Admin 1st Fl DJ 5.30 0.197489 Clear 31 Thur O 0.0029 7.7 1.14 31.00 1.00 53.00 0.00 DJ 0.189355 **Total** 0.1630 238.3 42.17 55.00 1643.0 0.00 862.0 0.0 0.0 91 14 6.456215 Average 0.0053 7.69 1.36 27.81 1.77 53.00 0.00 0.0 0.0 7.61 1.20 0.208265 Minimum 0.0004 7.10 1.00 15.00 1.00 53.00 0.00 Ω.0. 7.17 0.96 0.0 ÷j. 0.142997 Central MOF Maximum 0.0284 8.59 1.95 40.00 15.00 53.00. 0000 0.0 8:22 1.56 0.0 0.249700 02/02/12