

Quarterly Groundwater Monitoring Report

Prepared for
Black & Decker (U.S.) Inc.

Hampstead, Maryland

April 2015

Prepared by

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TABLE OF CONTENTS

Section	Page
1. INTRODUCTION.....	1-1
2. SITE CHARACTERISTICS.....	2-1
2.1 HYDRAULIC PROPERTIES	2-1
2.2 EFFLUENT CHARACTERISTICS	2-1
2.3 GROUNDWATER QUALITY DATA	2-1
3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM.....	3-1
4. RECOMMENDATIONS.....	4-1

LIST OF APPENDICES

APPENDIX A - GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS

APPENDIX B - DISCHARGE MONITORING REPORTS

APPENDIX C - GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS

APPENDIX D - GROUNDWATER ANALYTICAL DATA PACKAGE

LIST OF TABLES

Table	Page
Table 2-1 Treatment System Pumping Records – 1st Quarter 2015	2-2
Table 2-2 Groundwater Elevation Data – 1st Quarter 2015	2-3
Table 2-3 Effluent Characteristics Summary – 1st Quarter 2015	2-4
Table 2-4 Summary of Groundwater Analytical Results - February 2015.....	2-5
Table 3-1 Treatment System Maintenance Activities – 1st Quarter 2015.....	3-2

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 January through March 2015.

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 2015, the extraction wells were pumping at an average combined rate of approximately 186 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 2015 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of January through March 2015, approximately 12.41 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) (69.7%) and tetrachloroethene (PCE) (30.3%) Analytical results of the groundwater collected from the air stripper for the period of January through March 2015 are included in Appendix C.

A summary of the analytical results from the first quarter (February 2015) 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 2015
Stanley Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
January 2015	6,944,545
February 2015	4,056,998
March 2015	6,169,819

Table 2-2
Groundwater Elevation Data - 1st Quarter 2015
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	1/20/2015		2/25/2015		3/18/2015	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	82.47	766.74	81.10	768.11	83.47	765.74
EW-3	846.64	118	90.52	756.12	90.76	755.88	91.56	755.08
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	86.43	777.74	84.35	779.82	86.23	777.94
EW-6	831.98	115	84.25	747.73	89.69	742.29	93.00	738.98
EW-7	818.38	78	57.43	760.95	56.17	762.21	58.23	760.15
EW-8	811.13	98	92.95	718.18	91.83	719.30	92.56	718.57
EW-9	811.35	141	100.49	710.86	92.37	718.98	92.91	718.44
EW-10	807.74	INA	56.27	751.47	54.49	753.25	55.98	751.76
RFW-1A	864.37	78	50.43	813.94	49.47	814.90	50.43	813.94
RFW-1B	864.23	200	50.46	813.77	49.50	814.73	50.47	813.76
RFW-2A	857.41	35	16.59	840.82	16.38	841.03	17.02	840.39
RFW-2B	857.73	75	16.99	840.74	17.03	840.70	17.56	840.17
RFW-3B	839.21	153	32.94	806.27	33.80	805.41	34.26	804.95
RFW-4A	830.37	62	38.24	792.13	38.01	792.36	38.06	792.31
RFW-4B	830.37	120	38.22	792.15	37.98	792.39	37.56	792.81
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	4.21	780.83	4.13	780.91	5.02	780.02
RFW-7	805.14	29	7.46	797.68	7.88	797.26	7.14	798.00
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	27.24	834.78	26.53	835.49	27.56	834.46
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	60.83	788.79	61.94	787.68	61.53	788.09
RFW-12B	844.87	264	53.31	791.56	52.88	791.99	53.12	791.75
RFW-13	849.11	150	59.26	789.85	64.15	784.96	63.85	785.26
RFW-14B	812.39	281	53.19	759.20	52.69	759.70	52.56	759.83
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	25.76	808.90	25.77	808.89	26.13	808.53
RFW-20	842.49	142	33.81	808.68	33.93	808.56	32.95	809.54
RFW-21	832.65	102	20.97	811.68	21.98	810.67	20.56	812.09
PH-7	805.94	89	28.76	777.18	29.24	776.70	30.05	775.89
PH-9	814.94	98	51.03	763.91	50.94	764.00	50.86	764.08
PH-11	820.68	78	50.94	769.74	50.53	770.15	50.26	770.42
PH-12	828.35	87	51.85	776.50	51.26	777.09	51.93	776.42
B-3	803.02	83	9.56	793.46	10.08	792.94	10.29	792.73
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	1.89	803.07	2.73	802.23	2.08	802.88
Pembroke #1	INA	INA	9.65	NC	11.03	NC	11.21	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	9.89	NC	9.96	NC	10.23	NC
E. Century St.	INA	INA	19.21	NC	19.20	NC	19.18	NC
Lwr. Beckleys. Rd.	INA	INA	52.56	NC	52.43	NC	52.74	NC

NA - Not Available/Not Accessible
NC - Not Calculable
PC - Pump Cycles

Table 2-3
Effluent Characteristics Summary - 1st Quarter 2015
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				January 2015	February 2015	March 2015	
001	FLOW	average	MGD	NA	0.235	0.106	0.312
		maximum	MGD	NA	0.962	0.219	0.991
	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
		monthly average	mg/l	10	< 5	< 5	< 5
	pH	minimum	STD	6.0	7.2	7.5	7.4
		maximum	STD	8.5	7.8	7.9	8.3
	BOD		mg/l	15	2.0	< 1	4.0
	TSS	maximum	mg/l	30	< 1	< 1	< 1
monthly average		mg/l	20	< 1	< 1	< 1	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.150	0.144	0.147
		maximum	MGD	NA	0.196	0.185	0.289
	Fecal Coliform	MPN/100ml	200	1.0	1.0	1.0	
201 (Monitoring Point)	FLOW	average	MGD	NA	NR	NR	0.191
		maximum	MGD	NA	NR	NR	0.385
	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 2015
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	1 U	1 U	1 U	0.6 J	0.8 J	1 U	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	3.8	1.9	1 U	1 U	1 U	6.7	25	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	180	37	340	110	6.2	4.7	7.3	0.6	0.5 J	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	51	1.6	8.3	4.5	11	11	70	140	100	5 U
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	0.4 J
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.

NS = Not Sampled

Table 2-4
Summary of Groundwater Analytical Results - February 2015
Stanley 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	0.6 J	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 U	NS
1,2-Dichloroethene (total)	ug/L	1 U	1 U	1 U	1 U	1 U	0.6 J	0.7 J	1 U	NS	1 U	1 U	NS	8.3	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	0.5 J	0.5 J	2.8	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	0.7	1 U	27	25	18	NS	1 U	1 U	NS	8.2	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	17	15	36	NS	1 U	1 U	NS	2.7	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	0.3 J	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 - February 2015
Stanley 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	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	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	2 U	2 U	2 U	NS	2 U	ABD	ABD	ABD	1.1 J	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	1 U	ABD	ABD	ABD	7.9	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	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-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 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
Chloroform	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	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	2.6	190	3.4	NS	1 U	ABD	ABD	ABD	1 U	0.5	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	1 U	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	7.3	17	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.33 J	0.5 U	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	0.5 U	0.5 U	0.5 U
Toluene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	0.7	0.5 U	0.5 U	0.5 U	0.5 U	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	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	0.3 J	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-4 and RFW-12B 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 2015) 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 - 1st Quarter 2015
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jan-15	Alarm at the stripper due to faulty heating elements on EW-3 , the heating elements were replaced the well is back online.
Jan-15	Replaced the temperature probe in EW-10.
Jan-15	Multiple alarms at the stripper due to a frozen float in the stripper, each time the float was warmed with a manual heater and the system was back online.
Jan-15	The air stripper went down due to a bad level transmitter. The wells were run in manual mode until the level transmitter was replaced and the stripper was switched back to auto mode.
Mar-15	Getting a 10W Hydro Tank alarm, due to a short in the wiring. The wire was repaired and the system is back online.
Mar-15	Alarm at the air stripper due to a broken pipe in EW-1. Wells 2-5 were turned off until the pipe in EW-1 was repaired. The wells were down for 3 days before the pipe was repaired. The system is back up and running.
Mar-15	Wells 2-5 were turned off due to a flooded electric manhole due to rain and snow melt. Manhole was pumped out and system back online.

4. RECOMMENDATIONS

For the reporting period of January through March 2015, 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
(JANUARY – MARCH 2015)**



ENT ADMINISTRATION, 1800 WASHINGTON BLVD, BALTIMORE, MD 21230

Operated By:
Maryland Environmental Service
259 Najoles Road, Millersville MD

Facility: BTR Capital Group (MD0001881)
Address: 627 Hanover Pike, Hampstead Maryland
Additional Op's & cert # - James Elliott 3738, Ryan Thomas 0781, Keith White 4609, Chris Dallas 6202

Superintendent: Earle Villarreal Certification # 1017

Month: January
Year: 2015

Date	Appearance	Discharge MGD	Final Effluent outfall 001													Outfall 101					Outfall 201			Operator	
			pH	Cl2 mg/l	Tetrachloroethylene ug/l	1,1-Trichloroethane ug/l	Trichloroethene ug/l	BOD ₅ mg/l	TSS mg/l	TKN mg/l	N+N ug/l	TP mg/l	TN mg/l	O&G mg/l	eColi mpn	Flow MGD	eColi mpn	Basin Inches	Alum Gpd	Hypochlorite Gpd	Post Cl2 mg/l	Tetrachloroethylene ug/l	1,1-Trichloroethane ug/l		Trichloroethene ug/l
1	Clear	0.15000													0.151000		0"	5.0	1.0	5.0				0.232049	JE
2	Clear	0.13500													0.150000		0"	5.0	1.0	5.0				0.212931	JE
3	Clear	0.13200													0.161000		0"	5.0	1.0	5.0				0.241576	RT
4	Clear	0.60600													0.137000		0"	5.0	1.0	5.0				0.226713	RT
5	Clear	0.39200	7.18	0.00											0.162000		0"	5.0	1.0	5.0				0.239346	JE
6	Clear	0.16300													0.177000		0"	5.0	1.0	5.0				0.230144	JE
7	Clear	0.18600	7.40	0.00											0.157000	<1	0"	5.0	1.0	5.0				0.225860	JE
8	Clear	0.12700													0.144000		0"	5.0	1.0	5.0				0.219093	JE
9	Clear	0.10900													0.193000		0"	5.0	1.0	5.0				0.202782	JE
10	Clear	0.96200													0.160000		0"	5.0	1.0	5.0				0.192644	KW
11	Clear	0.11000													0.115000		0"	5.0	1.0	5.0				0.223314	KW
12	Clear	0.32300	7.76	0.00											0.142000		0"	5.0	1.0	5.0				0.236518	JE
13	Clear	0.48100													0.136000		0"	5.0	1.0	5.0				0.237181	CD
14	Clear	0.12000	7.44	0.00	<1	<1	<1	2.00	<5	0.262	2.60	<0.05	2.9	<5	0.129000	<1	0"	5.0	1.0	5.0	<1	<1	<1	0.188061	CD
15	Clear	0.16800													0.164000		0"	5.0	1.0	5.0				0.254368	JE
16	Clear	0.13400													0.125000		0"	5.0	1.0	5.0				0.229117	RT
17	Clear	0.14400													0.171000		0"	5.0	1.0	5.0				0.250242	KW
18	Clear	0.13000													0.130000		0"	5.0	1.0	5.0				0.213598	KW
19	Clear	0.14800	7.66	0.00											0.152000		0"	5.0	1.0	5.0				0.256407	JE
20	Clear	0.14800													0.147000		0"	5.0	1.0	5.0				0.223509	JE
21	Clear	0.13200													0.145000	<1	0"	5.0	1.0	5.0				0.218689	CD
22	Clear	0.18400	7.66	0.00											0.162000		0"	5.0	1.0	5.0				0.240890	JE
23	Clear	0.17200													0.160000		0"	5.0	1.0	5.0				0.228967	CD
24	Clear	0.57700													0.111000		0"	5.0	1.0	5.0				0.226719	RT
25	Clear	0.45400													0.133000		0"	5.0	1.0	5.0				0.225017	RT
26	Clear	0.22400													0.159000		0"	5.0	1.0	5.0				0.243582	JE
27	Clear	0.18200	7.73	0.00											0.140000		0"	5.0	1.0	5.0				0.216176	JE
28	Clear	0.14000	7.58	0.00											0.154000	<1	0"	5.0	1.0	5.0				0.199298	JE
29	Clear	0.12900													0.196000		0"	5.0	1.0	5.0				0.252522	JE
30	Clear	0.14100													0.131000		0"	5.0	1.0	5.0				0.246897	JE
31	Clear	0.08600													0.164000		0"	5.0	1.0	5.0				0.110335	JE
Total		7.28900													4.658000									6.944545	
Average		0.23513	<0.10	0	0	0	2	0	0	3	0	3	0	#NUM!	0.150258	1.0	#DIV/0!	5.0	1.0	5.0	0.0	0.0	0.0	0.224018	
Minimum		0.08600	7.2	0.00	0	0	0	2	0	0	3	0	3	0	0.111000	0.0	0.0	5.0	1.0	5.0	0.0	0.0	0.0	0.110335	MOR
Maximum		0.96200	7.8	<0.10	0	0	2	0	0	3	0	3	0		0.196000	0.0	0.0	5.0	1.0	5.0	0.0	0.0	0.0	0.256407	2/23/2015

78