

Quarterly Groundwater Monitoring Report

Prepared for
Stanley Black & Decker Inc.

Hampstead, Maryland

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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 October through December 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 October through December 2013, the extraction wells were pumping at an average combined rate of approximately 181 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 October through December 2013 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of October through December 2013, approximately 12.93 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) (75 %) and tetrachloroethene (PCE) (25 %). Analytical results of the groundwater collected from the air stripper for the period of October through December 2013 are included in Appendix C.

A summary of the analytical results from the fourth quarter (November 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 - 4th Quarter 2013
Stanley Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
October 2012	7,024,572
November 2012	6,600,644
December 2012	6,314,258

Table 2-2
Groundwater Elevation Data - 4th Quarter 2013
Stanley Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	10/10/2013		11/18/2013		12/26/2013	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	92.94	756.27	93.02	756.19	92.65	756.56
EW-3	846.64	118	84.79	761.85	84.98	761.66	85.25	761.39
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	90.10	774.07	90.22	773.95	89.40	774.77
EW-6	831.98	115	103.00	728.98	103.00	728.98	103.00	728.98
EW-7	818.38	78	74.50	743.88	74.50	743.88	73.50	744.88
EW-8	811.13	98	95.00	716.13	95.50	715.63	96.00	715.13
EW-9	811.35	141	103.00	708.35	102.80	708.55	103.00	708.35
EW-10	807.74	INA	51.26	756.48	52.13	755.61	53.10	754.64
RFW-1A	864.37	78	50.61	813.76	52.63	811.74	52.48	811.89
RFW-1B	864.23	200	50.64	813.59	52.67	811.56	52.51	811.72
RFW-2A	857.41	35	14.86	842.55	16.40	841.01	16.36	841.05
RFW-2B	857.73	75	15.06	842.67	17.05	840.68	16.94	840.79
RFW-3B	839.21	153	29.75	809.46	36.39	802.82	36.30	802.91
RFW-4A	830.37	62	36.84	793.53	38.18	792.19	38.09	792.28
RFW-4B	830.37	120	36.49	793.88	38.08	792.29	38.01	792.36
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	3.99	781.05	4.48	780.56	5.12	779.92
RFW-7	805.14	29	7.51	797.63	6.71	798.43	6.94	798.20
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	20.21	841.81	27.07	834.95	26.87	835.15
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	62.14	787.48	64.12	785.50	64.42	785.20
RFW-12B	844.87	264	50.83	794.04	51.59	793.28	51.61	793.26
RFW-13	849.11	150	60.72	788.39	63.57	785.54	63.64	785.47
RFW-14B	812.39	281	52.13	760.26	52.59	759.80	760.61	51.78
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	25.98	808.68	27.62	807.04	27.56	807.10
RFW-20	842.49	142	32.88	809.61	35.32	807.17	35.30	807.19
RFW-21	832.65	102	20.02	812.63	22.70	809.95	22.46	810.19
PH-7	805.94	89	25.94	780.00	25.67	780.27	26.39	779.55
PH-9	814.94	98	50.86	764.08	50.80	764.14	51.97	762.97
PH-11	820.68	78	51.09	769.59	50.96	769.72	51.97	768.71
PH-12	828.35	87	51.36	776.99	51.52	776.83	51.41	776.94
B-3	803.02	83	10.59	792.43	10.69	792.33	9.98	793.04
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	0.97	803.99	1.12	803.84	1.43	803.53
Pembroke #1	INA	INA	11.52	NC	11.59	NC	11.63	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	10.14	NC	10.09	NC	10.11	NC
E. Century St.	INA	INA	19.89	NC	19.27	NC	19.28	NC
Lwr. Beckleys. Rd.	INA	INA	56.87	NC	56.73	NC	56.67	NC

NA - Not Available/Not Accessible

NC - Not Calculable

INA - Information not available

PC - Pump Cycles

Table 2-3
Effluent Characteristics Summary - 4th Quarter 2013
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				October 2013	November 2013	December 2013	
001	FLOW	average	MGD	NA	0.325	0.159	0.276
		maximum	MGD	NA	1.560	1.030	1.011
	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	6.6	6.7	6.6
		maximum	STD	8.5	7.6	7.5	7.5
	BOD		mg/l	15	< 2	3.0	3.0
TSS	maximum	mg/l	30	7.2	< 1	< 1	
	monthly average	mg/l	20	7.2	< 1	< 1	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.180	0.166	0.157
		maximum	MGD	NA	0.230	0.210	0.245
	Fecal Coliform		MPN/100ml	200	2.0	1.0	1.0
201 (Monitoring Point)	FLOW	average	MGD	NA	NR	NR	0.217
		maximum	MGD	NA	NR	NR	0.257
	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 - November 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	7.6	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	3.6	1.8	1 U	1 U	1 U	5.7	28	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	160	38	500	92	5.8	3.7	8.6	0.7	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	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	49	1.3	11	3	11	8.8	74	110	110	1.5
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.
NS = Not Sampled

Table 2-4
Summary of Groundwater Analytical Results - November 2013
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	7.5	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	0.7 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	1.6	0.8 J	0.9 J	3.5	NS	1 U	1 U	NS	5.4	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	0.5 J	0.6 J	1.1	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	0.5 J	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	0.6	1 U	1 U	25	25	37	NS	0.4 J	1	NS	6.9	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	0.9 J	16	17	66	NS	0.8 J	1 U	NS	1.7	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	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 - November 2013
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	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	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	1.9	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	0.51	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	2.5	67	2.5	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	3.5	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	5	14	NS	0.8 J	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.58	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	1 U	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	0.5 J	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 Stanley 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 wells RFW-4B and 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 (October through December 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).

Table 3-1
Treatment System Maintenance Activities - 4th Quarter 2013
Stanley Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Dec-13	Alarm at the air stripper, High Column Blower failure. Reset the system, the system is back online.
Dec-13	Alarm at the air stripper, High Column Blower failure. Found that there was a broken airline that was causing the High Column Blower failure. The airline was repaired and the system is back online.
Dec-13	EW-7 tripped off. Replaced the relay switch and the well is back online.
Dec-13	Alarm at the stripper, EW-10 was down. There was a bad contactor in the EW-10 pump motor. The contactor was replaced and the well is back online.

4. RECOMMENDATIONS

For the reporting period of October through December 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.

APPENDIX A
GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS
(OCTOBER – DECEMBER 2013)

ENT ADMINISTRATION, 1800 WASHINGTON BLVD, BALTIMORE, MD 21230

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

Facility: BTR Capital Group
Address: 627 Hanover Pike, Hampstead Maryland
Additional Op's & cert # - Dorrance Jones 0763, Gary Dickerson 0782, James Elliott 3738

Permit Number: 07-DP-0022
Superintendent: Earle Villarreal Certification # 1017

Month: October
Year: 2013

Date	Appearance	Discharge MGD	pH	Cl2	Final Effluent outfall 001										Outfall 101					Outfall 202			Operator				
					Temperature	TSS	BOD5	SS	TKN	N-N	TP	TN	O&G	eCol	Flow MGD	eCol	Basin	Alum	Hypochlorite	Res Cl2	Temperature	TSS		Flow	Discharge		
1	Clear	0.12700	6.90	0.00	<0.11	<0.13	<0.08	<2	7.20	0.60	1.50	<0.05	2.1	<5	12.4	0.182000	<1	3.0	1.0	1.0	5.0				0.230854	Djones	
2	Clear	0.13600														0.185000		3.0	1.0	1.0	5.0				0.225285	Djones	
3	Clear	0.13300	7.05	0.00												0.172000		3.0	1.0	1.0	5.0				0.228606	Djones	
4	Clear	0.12900														0.184000		3.0	1.0	1.0	5.0				0.223068	Djones	
5	Clear	0.13300														0.176000		3.0	1.0	1.0	5.0				0.211797	Gdickerson	
6	Clear	0.13000														0.162000		3.0	1.0	1.0	5.0				0.228761	Gdickerson	
7	Clear	0.12600														0.200000		2.0	1.0	1.0	5.0				0.246242	Djones	
8	Clear	0.16900	6.85	0.00												0.186000	4.20	0.0	1.0	1.0	5.0				0.227735	Djones	
9	Clear	0.20900														0.181000		0.0	1.0	1.0	5.0				0.224629	Djones	
10	Clear	0.25300	7.00	0.00												0.191000		0.0	1.0	1.0	5.0				0.225335	Djones	
11	Clear	1.51400														0.203000		0.0	1.0	1.0	5.0				0.224719	Djones	
12	Clear	1.28900														0.180000		0.0	1.0	1.0	5.0				0.219834	Djones	
13	Clear	0.55800														0.194000		0.0	1.0	1.0	5.0				0.221347	Djones	
14	Clear	0.32400														0.180000		0.0	1.0	1.0	5.0				0.233736	Jelliott	
15	Clear	0.28400	7.15	0.00												0.177000	<1	0.0	1.0	1.0	5.0				0.230093	Jelliott	
16	Clear	0.26600														0.163000		0.0	1.0	1.0	5.0				0.225443	Jelliott	
17	Clear	0.26500	7.56	0.00												0.170000		0.0	1.0	1.0	5.0				0.211293	Jelliott	
18	Clear	0.31400														0.193000		0.0	1.0	1.0	5.0				0.234306	Gdickerson	
19	Clear	0.25100														0.189000		0.0	1.0	1.0	5.0				0.244830	A.Phillips	
20	Clear	0.29200														0.170000		0.0	1.0	1.0	5.0				0.234400	A.Phillips	
21	Clear	0.20000														0.156000		0.0	1.0	1.0	5.0				0.235181	Djones	
22	Clear	0.21400	6.70	0.00												0.196000	2.00	0.0	1.0	1.0	5.0				0.231297	Djones	
23	Clear	0.18800														0.160000		0.0	1.0	1.0	5.0				0.223438	Djones	
24	Clear	1.56000	6.74	0.00												0.230000		0.0	1.0	1.0	5.0				0.236820	Djones	
25	Clear	0.20800														0.173000		0.0	1.0	1.0	5.0				0.210745	Jelliott	
26	Clear	0.14800														0.168000		0.0	1.0	1.0	5.0				0.218029	Gdickerson	
27	Clear	0.12900														0.179000		0.0	1.0	1.0	5.0				0.214762	Gdickerson	
28	Clear	0.14300														0.181000		2.0	1.0	1.0	5.0				0.248308	Djones	
29	Clear	0.14200	6.60	0.00												0.165000	<1	2.0	1.0	1.0	5.0				0.226115	Djones	
30	Clear	0.12300														0.165000		1.0	1.0	1.0	5.0				0.220170	Djones	
31	Clear	0.12900	6.75	0.00												0.162000		1.0	1.0	1.0	5.0				0.207394	Djones	
Total		10.08600														5.573000										2.704570	
Average		0.32555	6.9	<0.10	0.000	0.000	0.000	0.0	7	0.6	1.5	0.0	2	0.0	12.4	0.179774	2	0.8	1.0	1.0	5.0	#DIV/0!	#DIV/0!	#DIV/0!	0.226599		
Minimum		0.12300	6.6	0.00	0.000	0.000	0.000	0.0	7	0.6	1.5	0.0	2	0.0	12.4	0.156000	0.0	0.0	1.0	1.0	5.0	0.0	0.0	0.0	0.207394		
Maximum		1.56000	7.6	<0.10	0.000	0.000	0.000	0.0	7	0.6	1.5	0.0	2	0.0	12.4	0.230000	4.20	1.0	1.0	1.0	5.0	0.0	0.0	0.0	0.248308	10/14/2013	

COMMENTS: