

- downgradient of the area with elevated PCB concentrations (MW44A, MW113A, MW114A, MW103A, and MW103B)
- shipping samples under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) chain of custody protocols
- laboratory analysis of PCB homologs using Method 680, with a five-day turnaround
- conducting data validation (to evaluate completeness, holding times, calibrations, precision, accuracy, laboratory and field-blank contamination, and detection limits), completed concurrent with the data evaluation, and conducted using the *USEPA Region III Modifications to the National Functional Guidelines for Data Review* (USEPA, 1993 and 1994)¹
- handling and disposal of investigation-derived waste (IDW):
 - personal protective equ()Tj (p)Tj 0.2alv-11(I)9(x(Tw (-)Tj -0.0-04 Tc 0.012.Tw 8.78 PPEw (-)Tj

e verabveabs(a)-110 g(v)e a(d)-4(als)-5(s)h(p)h(4)-32e-2k-740(e)4(T)(U)052(B)6e-8-5(6-2)(15)(g

A second sampling round was scheduled for April 2014, with the primary objective of obtaining higher quality data. The March sampling round was repeated, and in addition a set of April samples were filtered through a 0.45-micron filter before analysis. Filtered sample results are expected to more accurately represent mobile contamination concentrations. Block E PCB groundwater sampling results acquired through these efforts are provided in Table 1 and illustrated in Figure 1. Data results are summarized below:

- upgradient well MW62A—trichlorobiphenyls (0.042 µg/L) were detected in March; no detections in April in either the unfiltered or filtered samples.
- upgradient well MW62C—no detections in March or April
- well near elevated PCB soil concentrations at MW43A—five of seven homologs were detected in March, and all seven were detected in April; only two of the more soluble homologs were detected in filtered samples: monochlorobiphenyls (0.026 µg/L) and dichlorobiphenyls (0.0055 µg/L)
- downgradient wells generally had no detections in March or April; the only exception is a consistent detection of monochlorobiphenyls in MW114A (the nearest of the

Table 1
PCB Groundwater Delineation

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PCB Groundwater Delineation
March - April 2014
Block E, Middle River Complex, Middle River, Maryland
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LOCATION
SAMPLE ID
SAMPLE DATE
SAMPLE CODE
MATRIX
PCB homologs (µg/L)
MONOCHLOROBIPHENYLS
DICHLOROBIPHENYLS
TRICHLOROBIPHENYLS
TETRACHLOROBIPHENYLS
PENTACHLOROBIPHENYLS
HEXACHLOROBIPHENYL
HEPTACHLOROBIPHENYLS
Filtered PCB homologs (µg/L)
MONOCHLOROBIPHENYLS
DICHLOROBIPHENYLS

Table 1
 PCB Groundwater Delineation
 March - April 2014
 Block E, Middle River Complex, Middle River, Maryland
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LOCATION	MRC-MW114A		MRC-MW103A		MRC-MW103B	
SAMPLE ID	MRC-MW114A-032014-D	MRC-MW-114A-041814	MRC-MW103A-031814	MRC-MW-103A-041814	MRC-MW103B-031814	MRC-MW-103B-041814
SAMPLE DATE	3/20/2014	4/18/2014	3/18/2014	4/18/2014	3/18/2014	4/18/2014
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW
PCB homologs (µg/L)						
MONOCHLOROBIPHENYLS	0.012	0.0066	0.0017 U	0.0017 U	0.0017 U	0.0017 U
DICHLOROBIPHENYLS	0.0044 U	0.0044 U	0.0044 U	0.0044 U	0.0044 U	0.0044 U
TRICHLOROBIPHENYLS	0.0034 U	0.0034 U	0.0045 U	0.0034 U	0.005 U	0.0034 U
TETRACHLOROBIPHENYLS	0.0054 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U
PENTACHLOROBIPHENYLS	0.0088 U	0.0088 U	0.0088 U	0.0088 U	0.0088 U	0.0088 U
HEXACHLOROBIPHENYL	0.01 U	0.01 U	0.01 UJ	0.01 U	0.01 UJ	0.01 U
HEPTACHLOROBIPHENYLS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Filtered PCB homologs (µg/L)						
MONOCHLOROBIPHENYLS	NA	0.0017 U	NA	0.0017 U	NA	0.0017 U
DICHLOROBIPHENYLS	NA	0.0044 U	NA	0.0044 U	NA	0.0044 U

1 Standard is for total PCBs.

Bold font indicates a positive detection

J - estimated concentration

µg/L - micrograms per liter

MDE - Maryland Department of the Environment

NA - not analyzed

PCB - polychlorinated biphenyl

U - not detected

